

STELLAR[®] HOOKLIFT SPECIFICATIONS



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Notes:

STELLAR® HOOKLIFT SPECIFICATIONS

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U.S. Patents	Canadian Patents
5,108,247	2044926
6,749,389	2044913
6,558,104	
5,427,495	
5,082,417	

Reference Chart

■ Stellar® Hooklift Reference Chart*

Model	Hook Height	Lift Capacity (lbs)	Effective Length (in)	Body Lengths (ft)	Cab-To-Axle/Trunnion
Flex36 60-8	35.63 (905 mm)	Up to 9,000 (4,082 kg)	92 (2,337 mm)	8-9 (2,438-2,743 mm)	60 C.A. (1,524 mm)
Flex36 84-10	35.63 (905 mm)	16,000 (7,257 kg)	115 (2,921 mm)	10-12 (3,048-3,658 mm)	84-96 C.A. (2,134-2,438 mm)
Flex36 108-12	35.63 (905 mm)	16,000 (7,257 kg)	142 (3,607 mm)	12-14 (3,658-4,267 mm)	108-120 C.A. (2,743-3,048 mm)
Flex36 120-14	35.63 (905 mm)	16,000 (7,257 kg)	151 (3,835 mm)	13-15 (3,962-4,572 mm)	120-130 C.A. (3,048-3,302 mm)
108-12-20/36	35.63 (905 mm)	20,000 (9,072 kg)	126 (3,200 mm)	12-13.5 (3,658-4,115 mm)	102-108 C.A. (2,591-2,743 mm)
108-11-20	54 (1,372 mm)	20,000 (9,072 kg)	127 (3,226 mm)	11-13.5 (3,353-4,115 mm)	102-108 C.A. (2,591-2,743 mm)
120-16-20	54 (1,372 mm)	20,000 (9,072 kg)	146 (3,708 mm)	12.5-15 (3,810-4,572 mm)	114-130 C.A. (2,896-3,302 mm)
138-18-20	54 (1,372 mm)	20,000 (9,072 kg)	171 (4,343 mm)	14.5-17 (4,420-5,182 mm)	130-144 C.A. (3,302-3,658 mm)
168-20-20	61.75 (1,568 mm)	20,000 (9,072 kg)	195 (4,953 mm)	16.5-19 (5,029-5,791 mm)	168-180 C.A. (4,267-4,572 mm)
190-24-20	61.75 (1,568 mm)	20,000 (9,072 kg)	222 (5,639 mm)	18.5-21.5 (5,639-6,553 mm)	190-200 C.A. (4,826-5,080 mm)
96-10-24	54 (1,372 mm)	24,000 (10,886 kg)	115 (2,921 mm)	10-12.5 (3,048-3,810 mm)	84-102 C.A. (2,134-2,591 mm)
108-14-32	61.75 (1,568 mm)	32,000 (14,515 kg)	144 (3,658 mm)	12-15 (3,658-4,572 mm)	102-108 C.T. (2,590-2,743 mm)
138-18-32	61.75 (1,568 mm)	32,000 (14,515 kg)	176 (4,470 mm)	15-17.5 (4,572-5,334 mm)	130-144 C.T. (3,302-3,658 mm)
174-20-32	61.75 (1,568 mm)	32,000 (14,515 kg)	206 (5,232 mm)	17.5-20 (5,334-6,096 mm)	160-174 C.T. (4,064-4,420 mm)
190-24-32	61.75 (1,568 mm)	32,000 (14,515 kg)	223 (5,664 mm)	19-21.5 (5,791-6,553 mm)	174-190 C.T. (4,420-4,826 mm)
138-18-34	54 (1,372 mm)	34,000 (15,422 kg)	176 (4,470 mm)	15-17.5 (4,572-5,334 mm)	130-144 C.T. (3,302-3,658 mm)
108-14-40	61.75 (1,568 mm)	40,000 (18,144 kg)	144 (3,658 mm)	12-15 (3,658-4,572 mm)	102-108 C.T. (2,591-2,743 mm)
138-18-40	61.75 (1,568 mm)	40,000 (18,144 kg)	176 (4,470 mm)	15-17.5 (4,572-5,334 mm)	130-144 C.T. (3,302-3,658 mm)
174-20-40	61.75 (1,568 mm)	40,000 (18,144 kg)	206 (5,232 mm)	17.5-20 (5,334-6,096 mm)	160-174 C.T. (4,064-4,420 mm)
190-24-40	61.75 (1,568 mm)	40,000 (18,144 kg)	223 (5,664 mm)	19-21.5 (5,791-6,553 mm)	174-190 C.T. (4,420-4,826 mm)
138-18-52	61.75 (1,568 mm)	52,000 (23,587 kg)	176 (4,470 mm)	15-17.5 (4,572-5,334 mm)	138-144 C.T. (3,505-3,658 mm)
174-20-52	61.75 (1,568 mm)	52,000 (23,587 kg)	206 (5,232 mm)	17.5-20 (5,334-6,096 mm)	160-174 C.T. (4,064-4,420 mm)
190-24-52	61.75 (1,568 mm)	52,000 (23,587 kg)	223 (5,664 mm)	19-21.5 (5,791-6,553 mm)	174-190 C.T. (4,420-4,826 mm)
138-18-65	61.75 (1,568 mm)	65,000 (29,484 kg)	174 (4,420 mm)	15-17.5 (4,572-5,334 mm)	138-144 C.T. (3,505-3,658 mm)
174-20-65	61.75 (1,568 mm)	65,000 (29,484 kg)	206 (5,232 mm)	17-20 (5,182-6,096 mm)	160-174 C.T. (4,064-4,420 mm)
190-24-65	61.75 (1,568 mm)	65,000 (29,484 kg)	223 (5,664 mm)	19-21.5 (5,791-6,553 mm)	174-190 C.T. (4,420-4,826 mm)

■ Stellar® Slider (Sliding Jib)

Model	Hook Height	Lift Capacity (lbs)	Effective Length (in)	Body Lengths (ft)	Cab-To-Axle/Trunnion
Slider20 (Fixed)	54 (1,372 mm)	20,000 (9,071 kg)	143/185 (3,632/4,699 mm)	13-18 (3,962-5,486 mm)	138-156 C.A. (3,505-3,962 mm)
Slider20 (Fixed)	61.75 (1,568 mm)	20,000 (9,071 kg)	143/185 (3,632/4,699 mm)	13-18 (3,962-5,486 mm)	138-156 C.A. (3,505-3,962 mm)
Slider20 (Hyd.)	54 or 61.75	20,000 (9,071 kg)	143/185 (3,632/4,699 mm)	13-18 (3,962-5,486 mm)	138-156 C.A. (3,505-3,962 mm)
Slider20-S (Fixed)	35.63 (905 mm)	20,000 (9,071 kg)	112/142 (2,845-3,607 mm)	10-14 (3,048-4,267 mm)	120 C.A. (3,048 mm)
Slider20-S (Fixed)	54 (1,372 mm)	20,000 (9,071 kg)	112/142 (2,845-3,607 mm)	10-14 (3,048-4,267 mm)	120 C.A. (3,048 mm)
Slider20-S (Hyd.)	35.63 or 54	20,000 (9,071 kg)	112/142 (2,845-3,607 mm)	10-14 (3,048-4,267 mm)	120 C.A. (3,048 mm)
Slider26 (Fixed)	35.63 (905 mm)	Up to 26,000 (9,071 kg)	129/171 (3,277/4,343 mm)	12-16 (3,658-4,877 mm)	130-144 C.A. (3,302-3,658 mm)
Slider26 (Fixed)	54 (1,372 mm)	Up to 26,000 (9,071 kg)	129/171 (3,277/4,343 mm)	12-16 (3,658-4,877 mm)	130-138 C.T. (3,302-3,505 mm)
Slider26 (Fixed)	61.75 (1,568 mm)	Up to 26,000 (9,071 kg)	129/171 (3,277/4,343 mm)	12-16 (3,658-4,877 mm)	130-138 C.T. (3,302-3,505 mm)
Slider26 (Hyd.)	35.63 or 54	Up to 26,000 (9,071 kg)	129/171 (3,277/4,343 mm)	12-16 (3,658-4,877 mm)	130-138 C.T. (3,302-3,505 mm)
Slider26 (Hyd.)	54 or 61.75	Up to 26,000 (9,071 kg)	129/171 (3,277/4,343 mm)	12-16 (3,658-4,877 mm)	130-138 C.T. (3,302-3,505 mm)
Slider34 (Fixed)	54 (1,372 mm)	28,000 (12,001 kg)	168/208 (4,267/5,283 mm)	14-20 (4,267-6,096 mm)	160-174 C.T. (4,064-4,420 mm)
Slider34 (Fixed)	61.75 (1,568 mm)	34,000 (15,422 kg)	168/208 (4,267/5,283 mm)	14-20 (4,267-6,096 mm)	160-174 C.T. (4,064-4,420 mm)
Slider34 (Hyd.)	54 or 61.75	34,000 (15,422 kg)	168/208 (4,267/5,283 mm)	14-20 (4,267-6,096 mm)	160-174 C.T. (4,064-4,420 mm)
Slider40 (Fixed)	54 (1,372 mm)	37,000 (16,783 kg)	132/168 (3,353/4,267 mm)	12-16 (3,658-4,877 mm)	130-144 C.T. (3,302-3,658 mm)
Slider40 (Fixed)	61.75 (1,568 mm)	40,000 (18,144 kg)	132/168 (3,353/4,267 mm)	12-16 (3,658-4,877 mm)	130-144 C.T. (3,302-3,658 mm)
Slider40 (Hyd.)	54 or 61.75	40,000 (18,144 kg)	132/168 (3,353/4,267 mm)	12-16 (3,658-4,877 mm)	130-144 C.T. (3,302-3,658 mm)
Slider50 (Fixed)	54 (1,372 mm)	42,000 (19,051 kg)	192/238 (4,877/6,046 mm)	16-22 (4,877-6,706 mm)	202 C.T. (5,131 mm)
Slider50 (Fixed)	61.75 (1,568 mm)	50,000 (22,680 kg)	192/238 (4,877/6,046 mm)	16-22 (4,877-6,706 mm)	202 C.T. (5,131 mm)
Slider50 (Hyd.)	54 or 61.75	50,000 (22,680 kg)	192/238 (4,877/6,046 mm)	16-22 (4,877-6,706 mm)	202 C.T. (5,131 mm)
Slider65 (Fixed)	54 (1,372 mm)	52,000 (23,587 kg)	193/217 (4,902/5,512 mm)	16-21.5 (4,877-6,553 mm)	170-190 C.T. (4,318-4,826 mm)
Slider65 (Fixed)	61.75 (1,568 mm)	65,000 (29,484 kg)	193/217 (4,902/5,512 mm)	16-21.5 (4,877-6,553 mm)	170-190 C.T. (4,318-4,826 mm)
Slider65 (Hyd.)	54 or 61.75	65,000 (29,484 kg)	193/217 (4,902/5,512 mm)	16-21.5 (4,877-6,553 mm)	170-190 C.T. (4,318-4,826 mm)

* This data is for reference purposes only, and is not intended to replace a properly calculated weight distribution.

Government specifications available.

* All specifications are subject to change without notification.

STELLAR HOOKLIFT

Popular Applications for the Stellar Shuttle Hooklift

The actual uses of a hooklift are only limited to one's imagination. If you have questions or additional applications, feel free to contact Stellar Industries knowledgeable engineering staff.

Agriculture

- Firewood collection and transportation
- Generator/irrigation pump
- Tree spade
- Sprayer with extendable booms

Utilities

- Utility maintenance
- Pay phones
- Utility construction
- Temporary power generation

Construction

- Dump truck
- Flatbed for hooklift/excavator
- Mechanic or welder body
- Roofing waste and materials
- Portable enclosed workshop

Landscaping

- Dump truck
- Equipment transportation
- Staging loads to be delivered
- Wood chip box
- Lawn fertilizer tank and Sprayer
- Hydro seeding Platform

Recreation

- Antique automobile transportation
- Camping enclosure
- Golf cart transportation
- Ice fishing shelter transportation
- Motorcycle transportation
- Snowmobile transportation

City/County/State

- Abandoned vehicle removal
- Dump truck
- Water/brine tank
- Flatbed for equipment transportation
- Recycling material/waste collection
- Park maintenance
- Portable office, classroom, polls, etc.
- Weed Sprayer

Rental

- Bleachers
- Dump box
- Enclosed van for tables/chairs/etc
- Equipment delivery
- Scissor lift transportation
- Portable spa rental and delivery
- Refuse box
- Scaffolding
- Signs
- Storage units

Structures

- Banking
- Classrooms
- Kitchen
- Medical clinic/x-ray/pharmacy
- Office
- Refreshment center
- Restaurant
- Storage shed
- Ticket office

Waste

- Curbside recycling body
- Dumpster delivery
- Home remodeling waste collection
- Landfill water tanker
- Open-top container retrieval/delivery
- Portable toilets
- Recycling containers retrieval/delivery
- Rendering services
- Sewage vacuum tank
- Sludge box
- Stationary compactor
- Wood chipper box

Retail Businesses

- ATM for special events
- Automotive mobile service
- Automotive retrieval
- Auxiliary lighting for special events
- Building material delivery
- Food concessions (carnivals/fairs)
- Lawn and garden equipment sales
- Mobile, special event shop/Store
- Portable showers
- Refrigerated storage
- Satellite dish receiver
- Tire service and sales
- Vending machine delivery/service
- ISO/Spider handling system

Matching Your Truck With Your Expectations

It is critical to the safety and longevity of the vehicle that the physical and legal limitations of the truck are attained. These limitations are set by both the truck manufacturer and the federal government.

In determining the correct hooklift to match with your truck chassis a weight distribution must be calculated. Having accurate weights, distances and dimensions of the bare truck chassis and of the equipment you wish to install, a weight distribution can be calculated.

The following truck chassis data will be required to perform a weight distribution calculation:

- A. Truck wheelbase
- B. Cab to axle (CA), or cab to center of trunnion (CT)
- C. Curb weight of front axle (prior to installing equipment)
- D. Curb weight of the rear axle (prior to installing equipment)

In knowing your truck weight limitations, it is also important to know the following:

- A. Front axle gross weight rating (GAWR-front)
- B. Rear axle(s) gross weight rating (GAWR-rear)
- C. Total vehicle gross weight rating (GVWR)

Finally, the weight and center of gravity of each item being added to the truck must be obtained for use in the calculation. This information is available for the Stellar Shuttle Hooklift on the visual specification sheets.

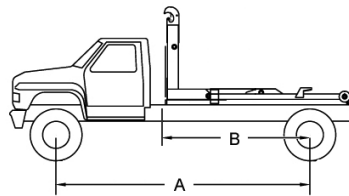
A basic weight distribution uses the following mathematical formulas to calculate the effects of adding equipment to a truck just as weight is added between two saw horses.

Rear Axle Weight=(Component Weight x CG of Component from Front Axle) / Wheelbase

Front Axle Weight= (Component Weight - Rear Axle Weight)

An example of weight distribution using truck chassis information for an F-650 Ford:

- A. Truck wheelbase 194"
- B. Cab to axle (CA) 120"
- C. Curb weight-front axle 5,741-pounds
- D. Curb weight- rear axle 2,806-pounds
- E. GAWR-front 8,500-pounds
- F. GAWR-rear 17,500-pounds
- G. GVWR 26,000-pounds



- 1. Determine the weight which can be added to the truck chassis without exceeding manufacturers recommendations.

This is easily calculated by the following:

(GAWR-front) - (Curb weight-front axle) = Available load, front axle
 8,500 - 5,741 = 2,759-pounds available on the front axle

(GAWR-rear) - (Curb weight-rear axle) = Available load, rear axle
 17,500 - 2,806 = 14,694-pounds available on rear axle

- 2. From this information, it can be concluded that an additional 2,759-pounds is available for loading on the front axle and 14,694-pounds available on the rear axle. Thus rendering a combined gross payload capacity of 17,453-pounds on this particular truck.

Equipment and cargo must be accounted for this truck. For example, a Stellar hooklift model 120-14 Flex36 will be fastened to this chassis. From the specification sheets in this booklet, the weight of the 120-14 Flex36 was found to be 1,650-pounds and the center of gravity was 70-inches back from the front of the hooklift. With the data on the hook hooklift, combined with the specifications of the truck, the next step is to determine the CG of the Stellar Shuttle from the front axle. The following measurements must be combined as shown below:

Centerline of front axle to back of cab (BOC) + mounting space from BOC to front of hooklift + CG of hooklift from front edge of hooklift = CG of Component from Front Axle or 74" + 2" + 70" = 146".

Determine the effect of front and rear axle weights from adding the FLEX36 120-14 HOOKLIFT

(Component Weight x CG of Component from Front Axle) / Truck Wheel Base = Rear Axle Weight Wheelbase
 (1650 lbs. x 146") / 194" = 1242 lbs.

(Component Weight - Rear Axle Weight) = Front Axle Weight
 1650 lbs. - 1242 lbs. = 408 lbs.

When performing weight distribution calculations on a complete truck, it is useful to build a small chart to track the critical data and calculation results for the truck.

All components added to the truck chassis would be treated in the same manner. As the weights for the front and rear axles for each component are determined, they should be added to the chart. Payload for the truck would be added in the same manner. Shown below is a completed weight distribution that may be used for a truck of the type listed above:

Component	Weight (pounds)	Center of Gravity from Front Axle	Front Axle Weight	Rear Axle Weight
Ford F-650	8547	-	5741	2806
Flex36 120-14	1650	146"	408	1242
13' dump body	2200	166"	318	1882
Payload	13521	166"	1951	11570
Total	25918	-	8418	17500

Following are a few tips that are useful when determining body center of gravity. With a Stellar Hooklift, bodies are mounted onto a skid. This skid acts as the interface with the hooklift hooklift. Skid mounted bodies will be set back from the front of the hooklift hooklift due to the A-frame on the body and the tilt section of the hooklift.

When determining the center of gravity of a hooklift prepared body, calculate its position relative to the front of the hooklift hooklift. To determine this measurement, use the following formulas:

- 8,800 & 12,000-pound Hooklifts 11.9" + (inches from front of body to CG)
- 20,000 & 24,000-pound Hooklifts 13.3" + (inches from front of body to CG)
- 32,000 & 40,000-pound Hooklifts 13.2" + (inches from front of body to CG)
- 52,000 & 65,000-pound Hooklifts 15.3" + (inches from front of body to CG)

NOTE: With a flatbed body, it is common to figure the center of gravity as the physical center of the body, unless stated differently by the body manufacturer.

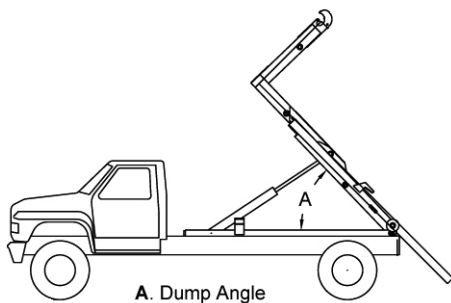
As seen above, the total payload is limited by the rear axle weight.

Material	Pounds per Cubic Yard	Pounds per Cubic Foot	Tons per Cubic Yard
Ashes	1080	40	0.54
Asphalt	2700	100	1.35
Cement, Portland	2430	90	1.22
Cement, Portland, set	4941	183	2.47
Cinders	1080	40	0.54
Clay, dry	1701	63	0.85
Clay, wet	2970	110	1.49
Crushed Stone	2700	100	1.35
Earth, dry , loose	1890	70	0.95
Earth, dry , rammed	2430	90	1.22
Earth, dry , shaken	2214	82	1.11
Earth, damp, loose	2106	78	1.05
Earth, damp, packed	2592	96	1.30
Earth, damp, rammed	2700	100	1.35
Earth & gravel, dry, loose	2700	100	1.35
Earth & gravel, dry, rammed	3240	120	1.62
Earth & gravel, wet	3240	120	1.62
Earth & sand, dry, loose	2700	100	1.35
Earth & sand, dry, rammed	3240	120	1.62
Earth & sand, wet	3240	120	1.62
Garbage, dry	400 to 800	15 to 30	0.20 to 0.40
Garbage, wet	1240	50	0.62
Gravel, dry	2970	110	1.49
Gravel, out of water	1620	60	0.81
Iron, cast	12150	450	6.08
Iron, wrought	13100	485	6.55
Limestone, solid	4536	168	2.27
Limestone, loose	2592	96	1.30
Mud, dry	2430	90	1.22
Mud, packed	3105	115	1.55
Mud, river	2430	90	1.22
Mud, wet	2916	108	1.46
Rip-rap, limestone	2160	80	1.08
Rip-rap, sandstone	2430	90	1.22
Rip-rap, slate	2835	105	1.42
Rip-rap, rubble	1753	65	0.88
Sand, dry, loose	2619	97	1.31
Sand, shaken	2700	100	1.35
Sand, wet	3186	118	1.59
Sandstone	4023	149	2.01
Slag, screenings	2700	100	1.35
Slag, machine	2592	96	1.30
Slag, sand	1485	55	0.74
Snow, fresh	135 to 324	5 to 12	0.07 to 0.16
Snow, wet	403 to 1350	15 to 50	0.20 to 0.68
Steel, cast	13250	490	6.63
Steel, rolled	13365	495	6.68
Stone, crushed, avg.	2700	100	1.35
Street sweepings	850	31	0.43
Water, fresh	1701	63	0.85

Weight & Measure Equivalents

1,728 cubic inches	1 cubic foot
46,656 cubic inches	1 cubic yard
2,150 cubic inches	1 bushel
7,056 cubic inches	1 barrel
231 cubic inches	1 gallon
144 cubic inches	1 board-foot
27 cubic feet	1 cubic yard
128 cubic feet	1 cord
1.24 cubic feet	1 bushel
4.08 cubic feet	1 barrel
25.4 millimeters	1 inch
0.9144 meter	1 yard
0.454 kilogram	1 pound
1.609 kilometer/hr.....	1 mile per hour
0.90718 metric ton	1 US ton
3.7851 liters	1 US gallon

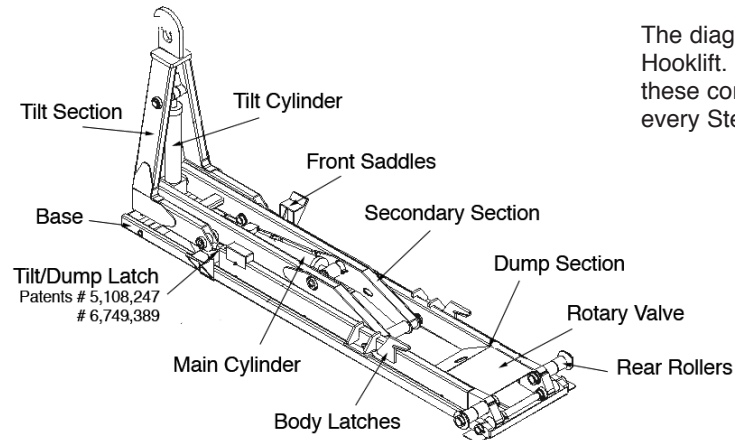
Dumping Angles (Angles at which different materials will slide out of tipped body)



Material	Angle	Material	Angle
Ashes, dry	33 °	Garbage	30 °
Ashes, moist	36 °	Gravel	40 °
Ashes, wet	30 °	Ore, dry	30 °
Asphalt	45 °	Ore, fresh mined	37 °
Brick	40 °	Rubble	45 °
Cinders, dry	33 °	Sand, dry	35 °
Cinders, moist	34 °	Sand, moist	40 °
Cinders, wet	31 °	Sand & crushed stone.....	27 °
Cinders & clay	30 °	Shingles	40 °
Clay	45 °	Stone	30 °
Coal, hard	24 °	Stone, broken	27 °
Coal, soft	30 °	Stone, crushed	30 °
Coke	23 °		
Concrete	30 °		
Earth, loose	28 °		
Earth, compact	50 °		

STELLAR HOOKLIFT

Key Features of the Stellar Shuttle Hooklift

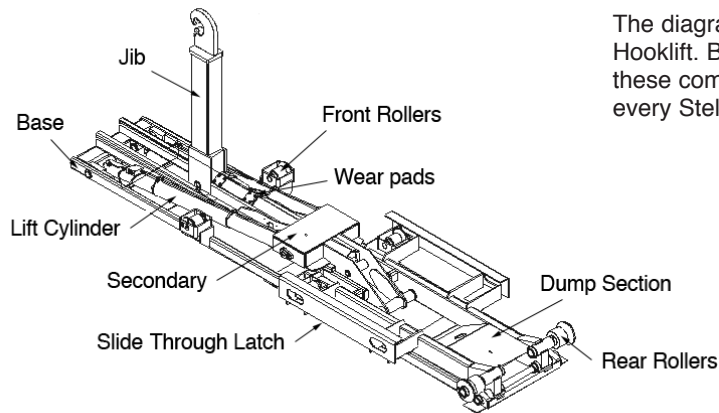


The diagram shows a typical Stellar Shuttle Hooklift. Below is a detailed explanation of these components which are an integral part of every Stellar Shuttle hydraulic Hooklift hooklift.

- Base Section:** The base section of a Stellar Shuttle Hooklift may also be called a sub-frame. All Stellar Shuttle loaders are tied together in one common framework. This base section not only adds strength to the hooklift, but it places less stress concentration on the truck chassis than hooklifts without a common base. The base section also provides for simple installation on most truck chassis.
- Body Latch:** The body latch is also referred to as the rear tie-down. Standard on Stellar Shuttle Hooklifts are the rearward facing hooks that interface with a horizontal steel pocket or tab. As the body is pulled forward into the final storage position prior to transporting, the tabs will pull tight in the hook pockets. Hydraulic activated rear tie-downs are optional on larger Stellar Shuttle Hooklifts.
- Dump Section:** This component of the Stellar Shuttle pivots at the rear of the hooklift when interacting with the patented tabs on the tilt section. The rear body latches are attached to this component on most models. This allows the body to remain in the latches when dumping.
- Front Saddles:** Front saddles provide a place for the body to rest while the truck is in motion.
- Lift Cylinder:** The lift cylinder on a Stellar Shuttle not only lifts the body onto the truck, but it also provides the dumping movement. All Stellar Shuttle lift cylinders feature dual pilot-operated counterbalance valves which provide for optimum meter-ability and protection against sudden movement in the case of hose failure.
- Tilt/Dump Latch:** This unique patented feature is the basis of the Stellar Shuttle Hooklift system. With a simple mechanical interference between the tilt section and the dump section, the pivot point is changed from the secondary section (loading/off-loading) to the rear of the truck (dumping). Resettable tabs protect the system from out of sequence operation.
- Rear Rollers:** With the unique Stellar Shuttle Hooklift design, bodies are loaded and unloaded with a "lift and roll" movement. While unloading a body, the tilt section will lift the front of the body and roll it back. The tilt cylinder will continue rolling the body until the rear of the body contacts the ground.
- Plunger Valve:** The plunger valve will lock out all hydraulic fluid to the tilt cylinder when in the dumping mode. This prevents the accidental release of the body while dumping.
- Secondary Section:** The secondary section acts as the main pivoting member for loading /off-loading bodies. This component ties the tilt, dump and base sections together into one cohesive unit.
- Tilt Cylinder:** The tilt cylinder operates the tilt section of the Stellar Shuttle Hooklift. This cylinder features a pilot-operated counterbalance valve on both extend and retract sides. The tilt section is a key component of the Stellar Hooklift. The tilt section provides the selection of dump or load/off-load. With Stellar's unique twin post design, line-of-sight visibility of the hook is available from the truck cab.
- Pins:** Carbon steel and zinc plated or type 17-4 stainless steel to prevent corrosion.

STELLAR HOOKLIFT

Key Features of the Stellar Slider Hooklift



The diagram shows a typical Stellar Slider Hooklift. Below is a detailed explanation of these components which are an integral part of every Stellar Slider hydraulic Hooklift hooklift.

Base section

The base section of a Stellar Slider Hooklift may also be called a sub-frame. All Stellar Slider Hooklifts are tied together in one common framework. This base section not only adds strength to the hooklift, but it places less stress concentration on the truck chassis than hooklifts without a common base. The base section provides for simple installation on most truck chassis.

Latches

Inside and or outside latches available.

Jib/secondary

The sliding jib allows for a wider range of container lengths and a means to control the truck's weight distribution while remaining in the latches. The jib and secondary booms are hexagonal shaped to reduce flexing, adding to structural integrity.

Wear pads

Easily replaceable wear pads for the jib/secondary boom assemblies that can be changed in minutes. Not necessary to disassemble hooklift to replace wear pads. The wear pads ensure long life for the jib/secondary assemblies.

Dump section

Dumping is accomplished through rear pivot point. Jib and dump sections must lock together to support the full length of container/body when in the dump mode.

Skid rollers

These three sets of rollers allows skid to roll freely forward and backwards while operating the jib. Prevent long sills from wearing prematurely, not dragging steel on steel. Also eliminates the need to replace wear pads on base frame.

Bushings and zerks

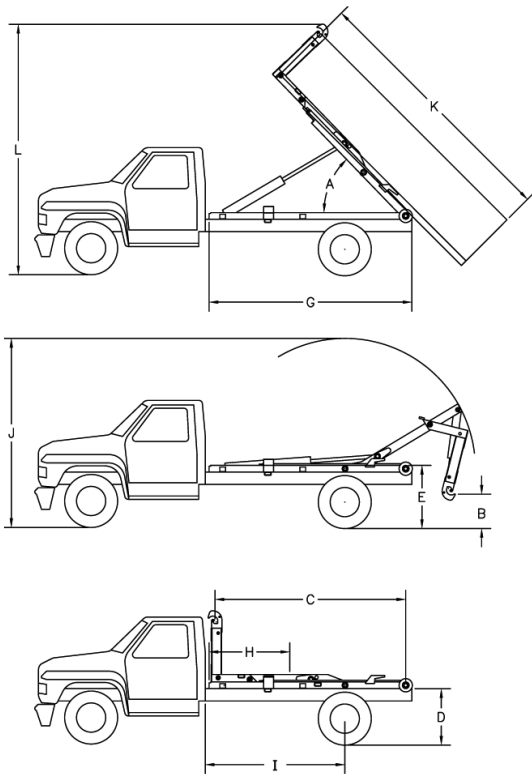
Bushings and grease zerks at all pivot points.

Counterbalance valves

Counterbalance valves are used on all cylinders, protecting both extend and retract functions in case of a hydraulic hose failure.

Pins:

Carbon steel and zinc plated or type 17-4 stainless steel to prevent corrosion.



- Will accommodate bodies from 8-feet up to 10.5-feet (2.44 to 3.2 m) long and still retain the maximum rated dump angle on a 31-inch (787 mm) high frame truck. Longer bodies may be accommodated with reduced dumping capabilities.
- Self-contained 12-volt electric/hydraulic power supply is optional (std. on 56-9-3). Engine-driven clutch pump or transmission-mounted PTO and hydraulic pump may also be used on the 60-10-5.
- In-cab manual controls which allow for precise metering of the manual hydraulic valve standard on the 60-10-5.
- Operating pressure is 2,500 psi. (17.2 Mpa)
- Maximum hydraulic flow is 16-gallons per minute.
- Patented dump/load interface on double pivot models.
- Hydraulic locks to prevent cylinder collapse in case of hose failure.
- Hook latch to prevent body from becoming detached prematurely.
- Mechanical rear body tie-down latches.
- Resettable dump/tilt tabs.
- Hydraulic rotary valve to prevent front tilt movement when the dump frame is raised.
- Permanently lubricated and greaseable bushings used throughout.
- Grease zerks at all pin points to allow purging of contaminants.
- Carbon steel and zinc plated or type 17-4 stainless steel pins used throughout.
- All weldments painted with two-part polyurethane enamel.

60-10-5

5,000 (2,268 Kg)

Lifting/Dumping Capacity (pounds)	
A Dump Angle	58°
B Lowest Hook Height	24" (610 mm)
C Effective Length	92" (2,337 mm)
D Truck Frame Height	31" (787 mm)
E Hooklift Height	35" (889 mm)
G Hooklift Length	102" (2591 mm)
H Center of Gravity	41" (1,041 mm)
I Chassis Cab to Axle	60" (1,524 mm)
J Max. Height When Loading	103" (2,616 mm)
K Longest Body to Dump	126" (3,200 mm)
L Max. Height When Dumping	138" (3,505 mm)
Shipping Weight (pounds)	1,100 (499 Kg)
Hook Height (from bottom of hook bar)	35.63" (905 mm)
Shipping Dimensions (LxHxW)	102" x 49" x 50" (2,591x1,245x1,270 mm)
Min. Frame RBM	172,000
Min. Truck GVWR (pounds)	8,800 (3,992 Kg)
Load Angle w/ Shortest Body Length	42°
Recommended Body Lengths*	8 to 10.5' (2.4 to 3.2 m)
Recommended Body Lengths**	12.5' (3.8 m)

*(Assumes 3ft. overhang from center of rear roller pin)
(Bumper typically 12" from center of roller pin)

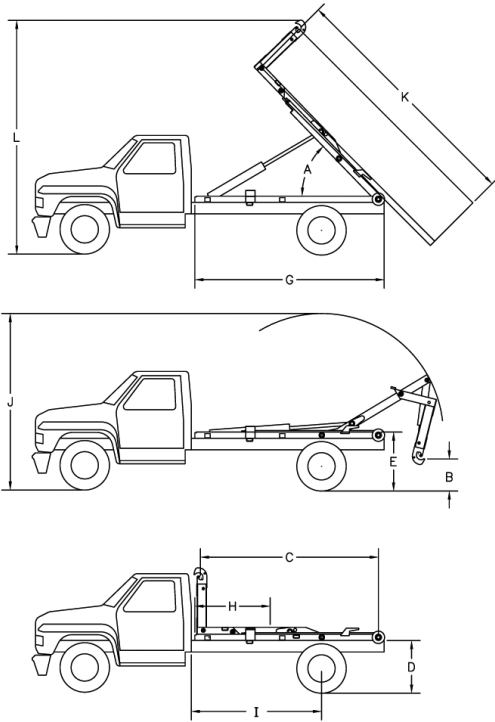
** (Assumes 5ft. overhang from center of rear roller pin)
(May require bumper and latch options)

Stellar Shuttle Model 60-10-5 Hydraulic Hooklift Specifications

Lifting Capacity:	5,000 pounds (2,268 Kg) gross weight evenly distributed in, or on, body.
Container Length:	8-foot through 10.5-foot (2.44 to 3.2 m) from front A-frame to rear of skid rails. Longer bodies up to 12.5-feet (3.81 m) may be accommodated if full dump angle is not required (may require special body-mounted or extendable truck-mounted bumper and additional latches to meet the Federal Motor Carrier Safety Administration (FMCSA) Rear End Protection regulation 393.86 and Securing Hooklift Containers regulation 393.134).
Maximum Dump Angle:	58°
Operating Pressure:	2500 PSI (17.2 Mpa) maximum.
Weight of Hooklift:	Hooklift weight not to exceed 1,100 pounds (499 Kg).
Height of Hooklift:	Hooklift height not to exceed 4.0" (101.6 mm) as measured from top of truck frame to top of hooklift rollers.
Hook Height:	35.63-inches (905 mm) from bottom of skid rails to centerline of hook bar. Hooklift must be able to pick up body 10-inches (254 mm) below grade, when mounted on a 26" (660.4 mm) truck frame height.
Hydraulic Pump:	Direct-coupled gear pump.
Hydraulic Control Valve:	Hydraulic valve mounted directly onto the oil reservoir.
Controls:	Dual manual levers with sealed cable actuators mounted in the truck cab to allow full feathering of all hooklift functions.
Tilting Hook Assembly:	Hooklift must have pivoting type front tilt section (jib) to provide a low degree loading/unloading angle. Hook to include automatic mechanical safety latch which disengages only when the container/body is in proper position to be picked up or dropped off.
Tilt Cylinder:	Single 2-inch (50.8mm) bore with 1.13-inch (330.2 mm) diameter rod cylinder. Cylinder must be double acting. Cylinder must be fully retracted when in the transport mode to prevent exposure of cylinder rod to corrosive road salts.
Tilt Section Operation:	Hooklift must include a hydraulic lock-out device to prevent operation of the tilt section while hooklift is in the dumping mode.
Lift/Dump Cylinder:	Single 3.5-inch (88.9 mm) bore with 1.5-inch (38.1 mm) diameter rod cylinder. Cylinder must be double acting and include dual integral pilot operated counter-balance valves to prevent cylinder collapse in case of hose failure.
Dump/Tilt Interlock:	Dumping must be accomplished through a rear pivot. Tilt and lift sections must lock into a rigid full length 25"-wide (635 mm) frame to provide support for the container while in the dump mode. These sections form this frame without the use of mechanical latches which rely on gravity, springs, or container/body mounted latches. The system must be protected from out of sequence operation.
Rear Body Hold-downs:	Dual fixed-position hold down devices mounted to the dump frame to secure the body to the hooklift through all ranges of the dump mode. This must be accomplished without the use of steel springs and/or hydraulic/air cylinders.
Rear Dump Hinge Pin:	1.25 inch (31.75 mm) diameter carbon steel and zinc plated or type 17-4 stainless steel.
Pins:	All pins to be carbon steel and zinc plated or type 17-4 stainless steel.
Bushings:	All bushings to be of the DX pre-lubricated variety, used with grease fittings. Bronze bushings not allowed due to survivability in heavy containment and corrosive environments.
Hoses & Hyd. Fittings:	All hoses and fittings are to be SAE; metrics are not to be allowed. O-ring face seal fittings to be utilized wherever possible.
Finish Paint Coating:	Hooklift weldments must be finished painted with two-part polyurethane enamel.
Origin of Manufacture:	Hooklift to be designed and manufactured in the United States of America.

STELLAR FLEX36 SERIES

Up to 16,000 lb. Capacity



- Will accommodate bodies from 8-feet up to 15-feet long and still retain the maximum rated dump angle on a 41-inch high frame truck. Longer bodies may be accommodated with reduced dumping capabilities.
- Transmission-mounted PTO and hydraulic pump required to power the hooklift.
- Standard in-cab manual controls which allow for precise metering of the manual hydraulic valve.
- Ten (10) gallon capacity frame-mounted oil reservoir.
- Maximum hydraulic flow is 16-gallons per minute.
- Patented dump/load interface on double pivot models.
- Counter balance valves to prevent cylinder movement in case of pressure loss.
- Mechanical rear body tie-down latches.
- Resettable dump/tilt tabs.
- Hydraulic rotary valve to prevent front tilt movement when the dump frame is raised.
- Permanently lubricated and greaseable bushings used throughout.
- Grease zerks at all pin points to allow purging of contaminants.
- Carbon steel and zinc plated or type 17-4 stainless steel pins used throughout.
- All weldments painted with two-part polyurethane enamel.

	60-8	84-10	108-12	120-14
Lifting/Dumping Capacity (pounds)	Up to 9,000 (4,082 Kg)	Up to 16,000 (7,257 Kg)	Up to 16,000 (7,257 Kg)	Up to 16,000 (7,257 Kg)
A Dump Angle	54°	53°	54°	50°
B Lowest Hook Height	23.5" (597 mm)	25" (635 mm)	27" (686 mm)	28" (711 mm)
C Effective Length	91" (2,311 mm)	115" (2,921 mm)	142" (3,607 mm)	151" (3,835 mm)
D Truck Frame Height	34" (864 mm)	34" (864 mm)	34" (864 mm)	34" (864 mm)
E Hooklift Height	39.5" (1,003 mm)	41.5" (1,054 mm)	41.5" (1,054 mm)	41.5" (1,054 mm)
G Hooklift Length	99.25" (2,521 mm)	126" (3,200 mm)	154" (3,912 mm)	161" (4,089 mm)
H Center of Gravity	43" (1,092 mm)	58" (1,473 mm)	68" (1,727 mm)	70" (1,778 mm)
I Chassis Cab to Axle	60" (1,524 mm)	84" to 96" (2,134 to 2,438 mm)	108" to 120" (2,743 to 3,048 mm)	120" to 130" (3,048 to 3,302 mm)
J Max. Height When Loading	104" (2,642 mm)	118" (2,997 mm)	135" (3,429 mm)	136" (3,454 mm)
K Longest Body to Dump	120" (3,048 mm)	144" (3,658 mm)	180" (4,572 mm)	192" (4,877 mm)
L Max. Height When Dumping	141" (3,581 mm)	162" (4,115 mm)	185" (4,699 mm)	187" (4,750 mm)
Shipping Weight (pounds)	1,275 (578 Kg)	1,360 (617 Kg)	1,615 (733 Kg)	1,650 (733 Kg)
Hook Height (from bottom of hook bar)	35.63" (905 mm)	35.63" (905 mm)	35.63" (905 mm)	35.63" (905 mm)
Shipping Dimensions (LxHxW)	100" x 49" x 47" (2,540x1,245x1,194 mm)	126" x 49" x 47" (3,200x1,245x1,194 mm)	154" x 49" x 47" (3,912x1,245x1,194 mm)	161" x 49" x 47" (4,089x1,245x1,194 mm)
Min. Frame RBM	172,000	316,000	510,000	510,000
Min. Truck GVWR (pounds)	10,500 (4,763 Kg)	10,500 to 26,000 (4,763 to 11,793 Kg)	10,500 to 26,000 (4,763 to 11,793 Kg)	10,500 to 26,000 (4,763 to 11,793 Kg)
Load Angle w/ Shortest Body Length	38.5°	35°	36°	32°
Recommended Body Lengths*	8 to 9' (2.4 to 2.7 m)	10' to 12' (3.0 to 3.7 m)	12' to 14' (3.7 to 4.3 m)	13' to 15' (4.0 to 4.6 m)
Recommended Body Lengths**	10' (3.0 m)	To 13' (4.0 m)	To 15' (4.6 m)	To 16' (4.9 m)

*(Assumes 3ft. overhang from center of rear roller pin)
(Bumper typically 12" from center of roller pin)

** (Assumes 5ft. overhang from center of rear roller pin)
(May require bumper and latch options)

*Recommended container/dump body length
**Longest recommended flatbed length

Stellar Flex36 Model 60-8 Hydraulic Hooklift Specifications

Lifting Capacity:	Check table 1.1 for variable lifting capabilities.
Container Length:	8-foot through 9-foot. Longer bodies up to 10-feet may be accommodated if full dump angle is not required (may require special body-mounted or extendable truck-mounted bumper and additional latches to meet the Federal Motor Carrier Safety Administration (FMCSA) Rear End Protection regulation 393.86 and Securing Hooklift Containers regulation 393.134). Body length does not include A-frame.
Maximum Dump Angle:	54°
Operating Pressure:	See table 1.1 for variable pressure settings.
Weight of Hooklift:	Hooklift weight not to exceed 1,275 pounds.
Height of Hooklift:	Hooklift height not to exceed 5.5" as measured from top of truck frame to top of hooklift rollers.
Hook Height:	35.63-inches from bottom of skid rails to bottom of hook bar. Hooklift must be able to pick up body 10-inches below grade, when mounted on a 34" truck frame height.
Hydraulic Pump:	Direct-coupled high-pressure piston pump.
Hydraulic Control Valve:	Hydraulic valve mounted directly onto the oil reservoir with power beyond capabilities.
Controls:	Dual manual levers with sealed cable actuators mounted in the truck cab to allow full feathering of all hooklift functions.
Tilting Hook Assembly:	Hooklift must have pivoting type front tilt section (jib) to provide a low degree loading/unloading angle and also to provide a wider stance for side to side stability.
Tilt Cylinder:	Single 3" (76mm) bore x 17" (432mm) stroke x 1.5" (38mm) diameter cylinder rod. Cylinder must be double acting with integral counterbalance valves to prevent cylinder collapse in case of hose failure. Cylinder is sized for capacity. Tilt cylinder must be fully retracted when in transport mode to prevent exposure of the cylinder rod to corrosive road salts.
Tilt Section Operation:	Hooklift must include a hydraulic lock-out device to prevent operation of the tilt section while hooklift is in the dumping mode.
Lift/Dump Cylinder:	Must be Single 4" (102mm) bore x 29.63" (753mm) stroke, 2" (51mm) cylinder rod diameter. Cylinder must be double acting, with counterbalance valves to prevent cylinder collapse in case of hose failure. Cylinder is sized for capacity.
Dump/Tilt Interlock:	Dumping must be accomplished through a rear pivot. Tilt and lift sections must lock into a rigid full length 25" wide frame to provide support for the container while in the dump mode. These sections form this frame without the use of mechanical latches which rely on gravity, springs, or container/body mounted latches. The system must be protected from out of sequence operation.
Rear Body Hold-downs:	Dual fixed-position hold down devices mounted to the dump frame to secure the body to the hooklift through all ranges of the dump mode. This must be accomplished without the use of steel springs and/or hydraulic/air cylinders.
Rear Dump Hinge Pin:	2-inch diameter carbon steel and zinc plated or type 17-4 stainless steel.
Pins:	All pins to be carbon steel and zinc plated or type 17-4 stainless steel.
Bushings:	All bushings to be of the DX pre-lubricated variety, used with grease fittings. Bronze bushings not allowed due to survivability in heavy containment and corrosive environments.
Hoses & Hyd. Fittings:	All hoses and fittings are to be SAE; metrics are not to be allowed. O-ring face seal fittings to be utilized wherever possible. Secured steel hydraulic tubing to be used whenever possible.
Electrical:	All electrical wiring to be protected by full length steel conduit fastened into the hooklift framework.
Technical Documentation:	All hooklifts shall come with documentation on operation, maintenance, safety and a parts manual.
Regulations:	Hooklift shall be designed and manufactured to all local, state and federal regulations.
Origin of Manufacture:	Hooklift to be designed and manufactured in the United States of America.

Stellar Flex36 Model 84-10 Hydraulic Hooklift Specifications

Lifting Capacity:	Check table 1.1 for variable lifting capabilities.
Container Length:	10-foot through 12-foot. Longer bodies up to 13-feet may be accommodated if full dump angle is not required (may require special body-mounted or extendable truck-mounted bumper and additional latches to meet the Federal Motor Carrier Safety Administration (FMCSA) Rear End Protection regulation 393.86 and Securing Hooklift Containers regulation 393.134). Body length does not include A-frame.
Maximum Dump Angle:	53°
Operating Pressure:	See table 1.1 for variable pressure settings.
Weight of Hooklift:	Hooklift weight not to exceed 1,360 pounds.
Height of Hooklift:	Hooklift height not to exceed 5.5" as measured from top of truck frame to top of hooklift rollers.
Hook Height:	35.63-inches from bottom of skid rails to bottom of hook bar. Hooklift must be able to pick up body 10-inches below grade, when mounted on a 34" truck frame height.
Hydraulic Pump:	Direct-coupled high-pressure piston pump.
Hydraulic Control Valve:	Hydraulic valve mounted directly onto the oil reservoir with power beyond capabilities.
Controls:	Dual manual levers with sealed cable actuators mounted in the truck cab to allow full feathering of all hooklift functions.
Tilting Hook Assembly:	Hooklift must have pivoting type front tilt section (jib) to provide a low degree loading/unloading angle and also to provide a wider stance for side to side stability.
Tilt Cylinder:	Single 3" (76mm) bore x 17" (432mm) stroke x 1.5" (38mm) diameter cylinder rod. Cylinder must be double acting with integral counterbalance valves to prevent cylinder collapse in case of hose failure. Cylinder is sized for capacity. Tilt cylinder must be fully retracted when in transport mode to prevent exposure of the cylinder rod to corrosive road salts.
Tilt Section Operation:	Hooklift must include a hydraulic lock-out device to prevent operation of the tilt section while hooklift is in the dumping mode.
Lift/Dump Cylinder:	Must be Single 5.5" (140mm) bore x 40" (1016mm) stroke, 1.5" (38mm) cylinder rod diameter. Cylinder must be double acting, with counterbalance valves to prevent cylinder collapse in case of hose failure. Cylinder is sized for capacity.
Dump/Tilt Interlock:	Dumping must be accomplished through a rear pivot. Tilt and lift sections must lock into a rigid full length 25" wide frame to provide support for the container while in the dump mode. These sections form this frame without the use of mechanical latches which rely on gravity, springs, or container/body mounted latches. The system must be protected from out of sequence operation.
Rear Body Hold-downs:	Dual fixed-position hold down devices mounted to the dump frame to secure the body to the hooklift through all ranges of the dump mode. This must be accomplished without the use of steel springs and/or hydraulic/air cylinders.
Rear Dump Hinge Pin:	2-inch diameter carbon steel and zinc plated or type 17-4 stainless steel.
Pins:	All pins to be carbon steel and zinc plated or type 17-4 stainless steel.
Bushings:	All bushings to be of the DX pre-lubricated variety, used with grease fittings. Bronze bushings not allowed due to survivability in heavy containment and corrosive environments.
Hoses & Hyd. Fittings:	All hoses and fittings are to be SAE; metrics are not to be allowed. O-ring face seal fittings to be utilized wherever possible. Secured steel hydraulic tubing to be used whenever possible.
Electrical:	All electrical wiring to be protected by full length steel conduit fastened into the hooklift framework.
Technical Documentation:	All hooklifts shall come with documentation on operation, maintenance, safety and a parts manual.
Regulations:	Hooklift shall be designed and manufactured to all local, state and federal regulations.
Origin of Manufacture:	Hooklift to be designed and manufactured in the United States of America.

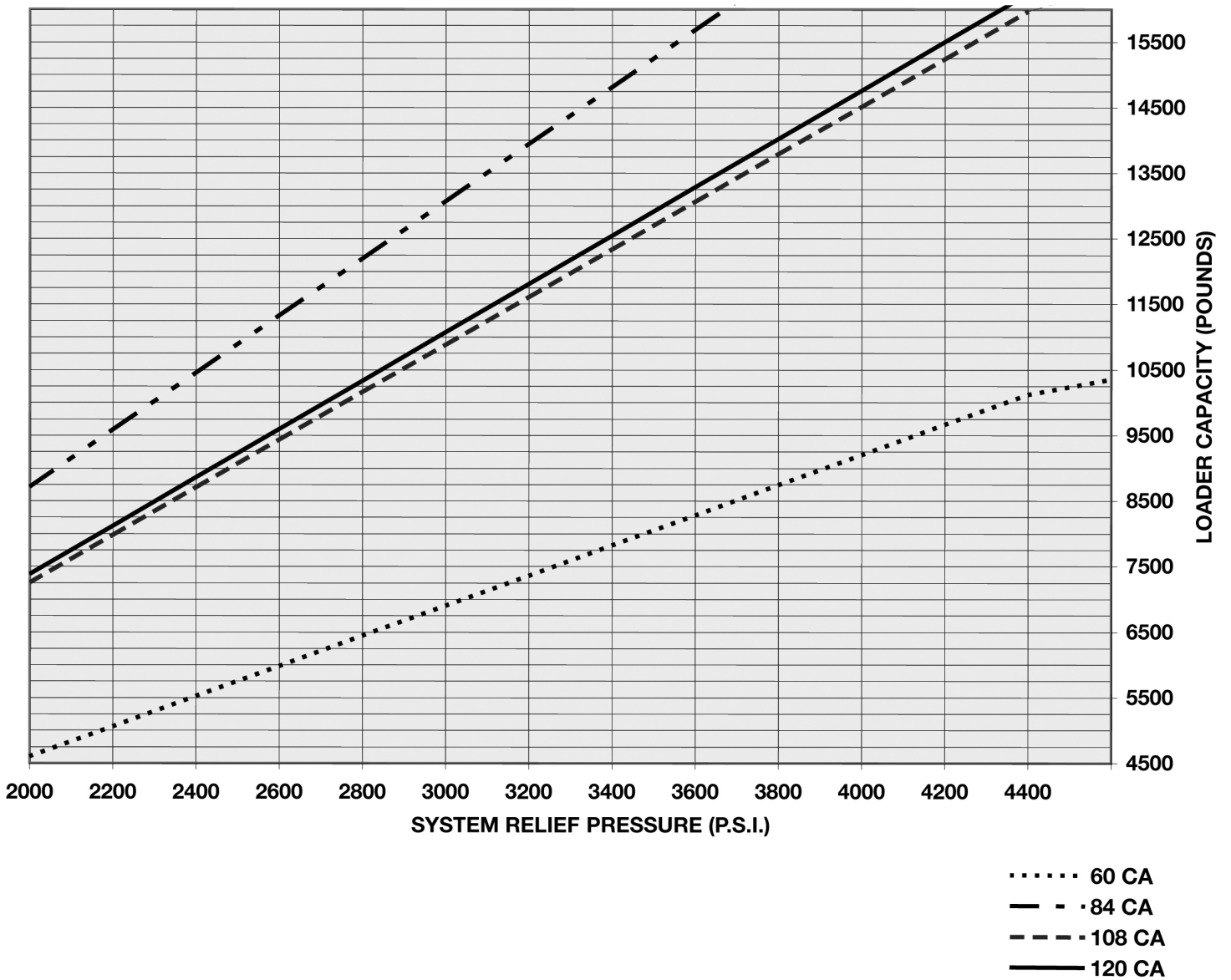
Stellar Flex36 Model 108-12 Hydraulic Hooklift Specifications

Lifting Capacity:	Check table 1.1 for variable lifting capabilities.
Container Length:	12-foot through 14-foot. Longer bodies up to 16-feet may be accommodated if full dump angle is not required (may require special body-mounted or extendable truck-mounted bumper and additional latches to meet the Federal Motor Carrier Safety Administration (FMCSA) Rear End Protection regulation 393.86 and Securing Hooklift Containers regulation 393.134). Body length does not include A-frame.
Maximum Dump Angle:	54°
Operating Pressure:	See table 1.1 for variable pressure settings.
Weight of Hooklift:	Hooklift weight not to exceed 1,615 pounds.
Height of Hooklift:	Hooklift height not to exceed 5.5" as measured from top of truck frame to top of hooklift rollers.
Hook Height:	35.63-inches from bottom of skid rails to bottom of hook bar. Hooklift must be able to pick up body 10-inches below grade, when mounted on a 34" truck frame height.
Hydraulic Pump:	Direct-coupled high-pressure piston pump.
Hydraulic Control Valve:	Hydraulic valve mounted directly onto the oil reservoir with power beyond capabilities.
Controls:	Dual manual levers with sealed cable actuators mounted in the truck cab to allow full feathering of all hooklift functions.
Tilting Hook Assembly:	Hooklift must have pivoting type front tilt section (jib) to provide a low degree loading/unloading angle and also to provide a wider stance for side to side stability.
Tilt Cylinder:	Single 3" (76mm) bore x 17" (432mm) stroke x 1.5" (38mm) diameter cylinder rod. Cylinder must be double acting with integral counterbalance valves to prevent cylinder collapse in case of hose failure. Cylinder is sized for capacity. Tilt cylinder must be fully retracted when in transport mode to prevent exposure of the cylinder rod to corrosive road salts.
Tilt Section Operation:	Hooklift must include a hydraulic lock-out device to prevent operation of the tilt section while hooklift is in the dumping mode.
Lift/Dump Cylinder:	Must be Single 5.5" (140mm) bore x 52.38" (1330mm) stroke, 2.5" (64mm) cylinder rod diameter. Cylinder must be double acting, with counterbalance valves to prevent cylinder collapse in case of hose failure. Cylinder is sized for capacity.
Dump/Tilt Interlock:	Dumping must be accomplished through a rear pivot. Tilt and lift sections must lock into a rigid full length 25" wide frame to provide support for the container while in the dump mode. These sections form this frame without the use of mechanical latches which rely on gravity, springs, or container/body mounted latches. The system must be protected from out of sequence operation.
Rear Body Hold-downs:	Dual fixed-position hold down devices mounted to the dump frame to secure the body to the hooklift through all ranges of the dump mode. This must be accomplished without the use of steel springs and/or hydraulic/air cylinders.
Rear Dump Hinge Pin:	2-inch diameter carbon steel and zinc plated or type 17-4 stainless steel.
Pins:	All pins to be carbon steel and zinc plated or type 17-4 stainless steel.
Bushings:	All bushings to be of the DX pre-lubricated variety, used with grease fittings. Bronze bushings not allowed due to survivability in heavy containment and corrosive environments.
Hoses & Hyd. Fittings:	All hoses and fittings are to be SAE; metrics are not to be allowed. O-ring face seal fittings to be utilized wherever possible. Secured steel hydraulic tubing to be used whenever possible.
Electrical:	All electrical wiring to be protected by full length steel conduit fastened into the hooklift framework.
Technical Documentation:	All hooklifts shall come with documentation on operation, maintenance, safety and a parts manual.
Regulations:	Hooklift shall be designed and manufactured to all local, state and federal regulations.
Origin of Manufacture:	Hooklift to be designed and manufactured in the United States of America.

Stellar Flex36 Model 120-14 Hydraulic Hooklift Specifications

Lifting Capacity:	Check table 1.1 for variable lifting capabilities.
Container Length:	13-foot through 15-foot. Longer bodies up to 16-feet may be accommodated if full dump angle is not required (may require special body-mounted or extendable truck-mounted bumper and additional latches to meet the Federal Motor Carrier Safety Administration (FMCSA) Rear End Protection regulation 393.86 and Securing Hooklift Containers regulation 393.134). Body length does not include A-frame.
Maximum Dump Angle:	50°
Operating Pressure:	See table 1.1 for variable pressure settings.
Weight of Hooklift:	Hooklift weight not to exceed 1,650 pounds.
Height of Hooklift:	Hooklift height not to exceed 5.5" as measured from top of truck frame to top of hooklift rollers.
Hook Height:	35.63-inches from bottom of skid rails to bottom of hook bar. Hooklift must be able to pick up body 10-inches below grade, when mounted on a 34" truck frame height.
Hydraulic Pump:	Direct-coupled high-pressure piston pump.
Hydraulic Control Valve:	Hydraulic valve mounted directly onto the oil reservoir with power beyond capabilities.
Controls:	Dual manual levers with sealed cable actuators mounted in the truck cab to allow full feathering of all hooklift functions.
Tilting Hook Assembly:	Hooklift must have pivoting type front tilt section (jib) to provide a low degree loading/unloading angle and also to provide a wider stance for side to side stability.
Tilt Cylinder:	Single 3" (76mm) bore x 17" (432mm) stroke x 1.5" (38mm) diameter cylinder rod. Cylinder must be double acting with integral counterbalance valves to prevent cylinder collapse in case of hose failure. Cylinder is sized for capacity. Tilt cylinder must be fully retracted when in transport mode to prevent exposure of the cylinder rod to corrosive road salts.
Tilt Section Operation:	Hooklift must include a hydraulic lock-out device to prevent operation of the tilt section while hooklift is in the dumping mode.
Lift/Dump Cylinder:	Must be Single 5.5" (140mm) bore x 52.38" (1330mm) stroke, 2.5" (64mm) cylinder rod diameter. Cylinder must be double acting, with counterbalance valves to prevent cylinder collapse in case of hose failure. Cylinder is sized for capacity.
Dump/Tilt Interlock:	Dumping must be accomplished through a rear pivot. Tilt and lift sections must lock into a rigid full length 25" wide frame to provide support for the container while in the dump mode. These sections form this frame without the use of mechanical latches which rely on gravity, springs, or container/body mounted latches. The system must be protected from out of sequence operation.
Rear Body Hold-downs:	Dual fixed-position hold down devices mounted to the dump frame to secure the body to the hooklift through all ranges of the dump mode. This must be accomplished without the use of steel springs and/or hydraulic/air cylinders.
Rear Dump Hinge Pin:	diameter carbon steel and zinc plated or type 17-4 stainless steel.
Pins:	All pins to be carbon steel and zinc plated or type 17-4 stainless steel.
Bushings:	All bushings to be of the DX pre-lubricated variety, used with grease fittings. Bronze bushings not allowed due to survivability in heavy containment and corrosive environments.
Hoses & Hyd. Fittings:	All hoses and fittings are to be SAE; metrics are not to be allowed. O-ring face seal fittings to be utilized wherever possible. Secured steel hydraulic tubing to be used whenever possible.
Electrical:	All electrical wiring to be protected by full length steel conduit fastened into the hooklift framework.
Technical Documentation:	All hooklifts shall come with documentation on operation, maintenance, safety and a parts manual.
Regulations:	Hooklift shall be designed and manufactured to all local, state and federal regulations.
Origin of Manufacture:	Hooklift to be designed and manufactured in the United States of America.

Table 1.1 Flex36 Pressure vs. Capacity Settings

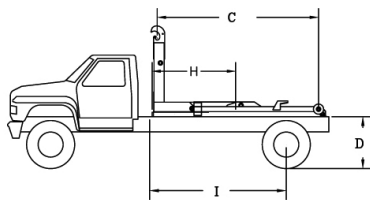
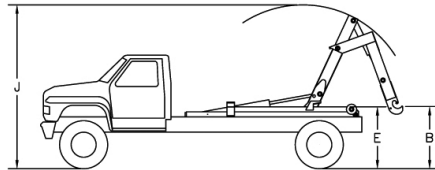
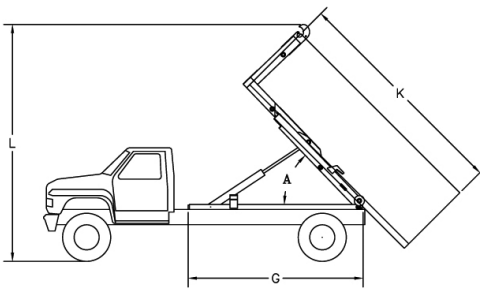


NOTES:

- Never Exceed the Maximum Pressure of 4200 psi
- Never adjust System Relief Pressure to allow Hooklift Capacity to exceed chassis GVW and always perform a weight distribution before installation and after System Relief Pressure adjustments to confirm Hooklift Capacity and chassis compatibility.

STELLAR SHUTTLE

20,000-pound Hooklift Loaders



- Will accommodate bodies from 11-feet up to 21.5-feet long and still retain the maximum rated dump angle on a 41-inch high frame truck. Longer bodies may be accommodated with reduced dumping capabilities.
- Transmission-mounted PTO and hydraulic pump required to power the hooklift.
- Standard in-cab manual controls which allow for precise metering of the manual hydraulic valve.
- Ten (10) gallon frame-mounted oil tank.
- Operating pressure is 4,200 psi.
- Maximum hydraulic flow is 16-gallons per minute.
- Patented dump/load interface on double pivot models.
- Hydraulic locks to prevent cylinder collapse in case of hose failure.
- Hook latch to prevent body from becoming detached prematurely.
- Mechanical rear body tie-down latches.
- Resettable dump/tilt tabs.
- Hydraulic rotary valve to prevent front tilt movement when the dump frame is raised.
- Permanently lubricated and greaseable bushings used throughout.
- Grease zerks at all pin points to allow purging of contaminants.
- Carbon steel and zinc plated or type 17-4 stainless steel pins used throughout.
- All weldments painted with two-part polyurethane enamel.

	<u>108-12-20/36</u>	<u>108-11-20</u>	<u>120-16-20</u>	<u>138-18-20</u>	<u>168-20-20</u>	<u>190-24-20</u>
Lifting/Dumping Capacity	20,000 (9,072 Kg)	20,000 (9,072 Kg)	20,000 (9,072 Kg)	20,000 (9,072 Kg)	20,000 (9,072 Kg)	20,000 (9,072 Kg)
A Dump Angle	53°	45°	48°	52°	50°	45°
B Lowest Hook Height	30" (762 mm)	44" (1,118 mm)	44" (1,118 mm)	44" (1,118 mm)	43" (1,092 mm)	51" (1,295 mm)
C Effective Length	126" (3,200 mm)	127" (3,226 mm)	146" (3,708 mm)	171" (4,343 mm)	195" (4,953 mm)	222" (5,639 mm)
D Truck Frame Height	39" (991 mm)	41" (1,041 mm)	41" (1,041 mm)	41" (1,041 mm)	41" (1,041 mm)	41" (1,041 mm)
E Hooklift Height	47.38" (1,203 mm)	49.38" (1,254 mm)	49.38" (1,254 mm)	50.13" (1,273 mm)	50.13" (1,273 mm)	50.13" (1,273 mm)
G Hooklift Length	138" (3,505 mm)	139" (3,531 mm)	159" (4,039 mm)	183" (4,648 mm)	207" (5,258 mm)	234" (5,944 mm)
H Center of Gravity	62" (1,575 mm)	55" (1,397 mm)	61" (1,549 mm)	71" (1,803 mm)	79" (2,007 mm)	91" (2,311 mm)
I Chassis Cab to Axle	102" to 108" (2,591 to 2,743 mm)	102" to 108" (2,591 to 2,743 mm)	114" to 130" (2,896 to 3,302 mm)	130" to 144" (3,302 to 3,658 mm)	168" to 180" (4,267 to 4,572 mm)	190" to 200" (4,826 to 5,080 mm)
J Max. Height/Loading	133" (3,378 mm)	134" (3,404 mm)	143" (3,632 mm)	162" (4,115 mm)	173" (4,394 mm)	185" (4,699 mm)
K Longest Body to Dump	183" (4,648 mm)	186" (4,724 mm)	204" (5,182 mm)	228" (5,791 mm)	252" (6,401 mm)	288" (7,315 mm)
L Max. Height/Dumping	177" (4,496 mm)	187" (4,750 mm)	204" (5,182 mm)	227" (5,766 mm)	248" (6,299 mm)	259" (6,579 mm)
Shipping Weight	2,400 (1,089 Kg)	2,570 (1,166 Kg)	2,625 (1,191 Kg)	3,175 (1,440 Kg)	3,660 (1,660 Kg)	3,900 (1,769 Kg)
Hook Height	35.63" (905 mm)	54" (1,372 mm)	54" (1,372 mm)	54" (1,372 mm)	61.75" (1,568 mm)	61.75" (1,568 mm)
Shipping Dimensions	138"x52"x47" (3,505x1,321x1,194 mm)	139"x74"x47" (3,531x1,880x1,194 mm)	159"x74"x47" (4,039x1,880x1,194 mm)	183"x74"x47" (4,648x1,880x1,194 mm)	207"x82"x47" (5,258x2,083x1,194 mm)	234"x82"x47" (5,944x2,083x1,194 mm)
Min. Frame RBM	900,000	900,000	900,000	900,000	900,000	900,000
Min. Truck GVWR	25,000 (11,340 Kg)	25,000 (11,340 Kg)	25,000 (11,340 Kg)	25,000 (11,340 Kg)	25,000 (11,340 Kg)	25,000 (11,340 Kg)
Load Angle w/ SBL	46°	37°	35°	38°	30°	29°
Rec. Body Lengths*	12' to 13.5' (3.7 to 4.1 m)	11' to 13.5' (3.4 to 4.1 m)	12.5' to 15' (3.8 to 4.6 m)	14.5' to 17' (4.4 to 5.2 m)	16.5' to 19' (5.0 to 5.8 m)	18.5' to 21.5' (5.6 to 6.6 m)
Rec. Body Lengths**	To 15.5' (4.7 m)	To 15.5' (4.7 m)	To 17' (5.2 m)	To 19' (5.8 m)	To 21' (6.4 m)	To 23.5' (7.2 m)

* (Assumes 3ft. overhang from center of rear roller pin)
(Bumper typically 12" from center of roller pin)

** (Assumes 5ft. overhang from center of rear roller pin)
(May require bumper and latch options)

Stellar Shuttle Model 108-12-20/36 Hydraulic Hooklift Specifications

Lifting Capacity:	20,000 pounds gross weight evenly distributed in, or on, body.
Container Length:	12-foot through 13.5-foot from front A-frame to rear of skid rails. Longer bodies up to 15.5-feet may be accommodated if full dump angle is not required (may require special body-mounted or extendable truck-mounted bumper and additional latches to meet the Federal Motor Carrier Safety Administration (FMCSA) Rear End Protection regulation 393.86 and Securing Hooklift Containers regulation 393.134).
Maximum Dump Angle:	53°
Operating Pressure:	4,200 PSI maximum.
Weight of Hooklift:	Hooklift weight not to exceed 2,400 pounds.
Height of Hooklift:	Hooklift height not to exceed 8.38" as measured from top of truck frame to top of hooklift rollers.
Hook Height:	35.63-inches from bottom of skid rails to bottom of hook bar. Hooklift must be able to pick up body 6-inches below grade, when mounted on a 39" truck frame height.
Hydraulic Pump:	Direct-coupled high-pressure piston pump.
Hydraulic Control Valve:	Hydraulic valve mounted directly onto the oil reservoir.
Controls:	Dual manual levers with sealed cable actuators mounted in the truck cab to allow full feathering of all hooklift functions.
Tilting Hook Assembly:	Hooklift must have pivoting type front tilt section (jib) to provide a low degree loading/unloading angle. Hook to include automatic mechanical safety latch which disengages only when the container/body is in proper position to be picked up or dropped off.
Tilt Cylinder:	Single 3-inch bore with 1.5-inch diameter rod cylinder. Cylinder must be double acting and include dual integral pilot-operated counterbalance valves to prevent cylinder collapse in case of hose failure. Cylinder must be fully retracted when in the transport mode to prevent exposure of cylinder rod to corrosive road salts.
Tilt Section Operation:	Hooklift must include a hydraulic lock-out device to prevent operation of the tilt section while hooklift is in the dumping mode.
Lift/Dump Cylinder:	Single 6-inch bore with 2.5-inch diameter rod cylinder. Cylinder must be double acting and include dual integral pilot-operated counterbalance valves to prevent cylinder collapse in case of hose failure.
Dump/Tilt Interlock:	Dumping must be accomplished through a rear pivot. Tilt and lift sections must lock into a rigid full length 25" wide frame to provide support for the container while in the dump mode. These sections form this frame without the use of mechanical latches which rely on gravity, springs, or container/body mounted latches. The system must be protected from out of sequence operation.
Rear Body Hold-downs:	Dual fixed-position hold down devices mounted to the dump frame to secure the body to the hooklift through all ranges of the dump mode. This must be accomplished without the use of steel springs and/or hydraulic/air cylinders.
Rear Dump Hinge Pin:	2.5-inch diameter carbon steel and zinc plated or type 17-4 stainless steel.
Pins:	All pins to be carbon steel and zinc plated or type 17-4 stainless steel.
Bushings:	All bushings to be of the DX pre-lubricated variety, used with grease fittings. Bronze bushings not allowed due to survivability in heavy containment and corrosive environments.
Hoses & Hyd. Fittings:	All hoses and fittings are to be SAE; metrics are not to be allowed. O-ring face seal fittings to be utilized wherever possible.
Origin of Manufacture:	Hooklift to be designed and manufactured in the United States of America.

Stellar Shuttle Model 108-11-20 Hydraulic Hooklift Specifications

Lifting Capacity:	20,000 pounds gross weight evenly distributed in, or on, body.
Container Length:	11-foot through 13.5-foot from front A-frame to rear of skid rails. Longer bodies up to 15.5-feet may be accommodated if full dump angle is not required (May require special body-mounted or extendable truck-mounted bumper and additional latches to meet the Federal Motor Carrier Safety Administration (FMCSA) Rear End Protection regulation 393.86 and Securing Hooklift Containers regulation 393.134).
Maximum Dump Angle:	45°
Operating Pressure:	4200 PSI maximum.
Weight of Hooklift:	Hooklift weight not to exceed 2,570 pounds.
Height of Hooklift:	Hooklift height not to exceed 8.38" as measured from top of truck frame to top of hooklift rollers.
Hook Height:	54-inches from bottom of skid rails to bottom of hook bar. Hooklift must be able to pick up body 10-inches below grade, when mounted on a 41" truck frame height.
Hydraulic Pump:	Direct-coupled high-pressure piston pump.
Hydraulic Control Valve:	Hydraulic valve mounted directly onto the oil reservoir.
Controls:	Dual manual levers with sealed cable actuators mounted in the truck cab to allow full feathering of all hooklift functions.
Tilting Hook Assembly:	Hooklift must have pivoting type front tilt section (jib) to provide a low degree loading/unloading angle. Hook to include automatic mechanical safety latch which disengages only when the container/body is in proper position to be picked up or dropped off.
Tilt Cylinder:	Single 4-inch bore with 2-inch diameter rod cylinder. Cylinder must be double acting and include dual integral pilot-operated counterbalance valves to prevent cylinder collapse in case of hose failure. Cylinder must be fully retracted when in the transport mode to prevent exposure of cylinder rod to corrosive road salts.
Tilt Section Operation:	Hooklift must include a hydraulic lock-out device to prevent operation of the tilt section while hooklift is in the dumping mode.
Lift/Dump Cylinder:	Single 5-inch bore with 2-inch diameter rod cylinder. Cylinder must be double acting and include dual integral pilot-operated counterbalance valves to prevent cylinder collapse in case of hose failure.
Dump/Tilt Interlock:	Dumping must be accomplished through a rear pivot. Tilt and lift sections must lock into a rigid full length 25" wide frame to provide support for the container while in the dump mode. These sections form this frame without the use of mechanical latches which rely on gravity, springs, or container/body mounted latches. The system must be protected from out of sequence operation.
Rear Body Hold-downs:	Dual fixed-position hold down devices mounted to the dump frame to secure the body to the hooklift through all ranges of the dump mode. This must be accomplished without the use of steel springs and/or hydraulic/air cylinders. Hooklift must be compatible with containers manufactured to ANSI Z245.60 recommended standard for waste containers.
Rear Dump Hinge Pin:	2-inch diameter carbon steel and zinc plated or type 17-4 stainless steel.
Pins:	All pins to be carbon steel and zinc plated or type 17-4 stainless steel.
Bushings:	All bushings to be of the DX pre-lubricated variety, used with grease fittings. Bronze bushings not allowed due to survivability in heavy containment and corrosive environments.
Hoses & Hyd. Fittings:	All hoses and fittings are to be SAE; metrics are not to be allowed. O-ring face seal fittings to be utilized wherever possible.
Origin of Manufacture:	Hooklift to be designed and manufactured in the United States of America.

Stellar Shuttle Model 120-16-20 Hydraulic Hooklift Specifications

Lifting Capacity:	20,000 pounds gross weight evenly distributed in, or on, body.
Container Length:	12.5-foot through 15-foot from front A-frame to rear of skid rails. Longer bodies up to 17-feet may be accommodated if full dump angle is not required (may require special body-mounted or extendable truck-mounted bumper and additional latches to meet the Federal Motor Carrier Safety Administration (FMCSA) Rear End Protection regulation 393.86 and Securing Hooklift Containers regulation 393.134).
Maximum Dump Angle:	48°
Operating Pressure:	4200 PSI maximum.
Weight of Hooklift:	Hooklift weight not to exceed 2,625 pounds.
Height of Hooklift:	Hooklift height not to exceed 8.38" as measured from top of truck frame to top of hooklift rollers.
Hook Height:	54-inches from bottom of skid rails to bottom of hook bar. Hooklift must be able to pick up body 10-inches below grade, when mounted on a 41" truck frame height.
Hydraulic Pump:	Direct-coupled high-pressure piston pump.
Hydraulic Control Valve:	Hydraulic valve mounted directly onto the oil reservoir.
Controls:	Dual manual levers with sealed cable actuators mounted in the truck cab to allow full feathering of all hooklift functions.
Tilting Hook Assembly:	Hooklift must have pivoting type front tilt section (jib) to provide a low degree loading/unloading angle. Hook to include automatic mechanical safety latch which disengages only when the container/body is in proper position to be picked up or dropped off.
Tilt Cylinder:	Single 4-inch bore with 2-inch diameter rod cylinder. Cylinder must be double acting and include dual integral pilot-operated counterbalance valves to prevent cylinder collapse in case of hose failure. Cylinder must be fully retracted when in the transport mode to prevent exposure of cylinder rod to corrosive road salts.
Tilt Section Operation:	Hooklift must include a hydraulic lock-out device to prevent operation of the tilt section while hooklift is in the dumping mode.
Lift/Dump Cylinder:	Single 5-inch bore with 2-inch diameter rod cylinder. Cylinder must be double acting and include dual integral pilot-operated counterbalance valves to prevent cylinder collapse in case of hose failure.
Dump/Tilt Interlock:	Dumping must be accomplished through a rear pivot. Tilt and lift sections must lock into a rigid full length 25" wide frame to provide support for the container while in the dump mode. These sections form this frame without the use of mechanical latches which rely on gravity, springs, or container/body mounted latches. The system must be protected from out of sequence operation.
Rear Body Hold-downs:	Dual fixed-position hold down devices mounted to the dump frame to secure the body to the hooklift through all ranges of the dump mode. This must be accomplished without the use of steel springs and/or hydraulic/air cylinders. Hooklift must be compatible with containers manufactured to ANSI Z245.60 recommended standard for waste containers.
Rear Dump Hinge Pin:	2-inch diameter carbon steel and zinc plated or type 17-4 stainless steel.
Pins:	All pins to be carbon steel and zinc plated or type 17-4 stainless steel.
Bushings:	All bushings to be of the DX pre-lubricated variety, used with grease fittings. Bronze bushings not allowed due to survivability in heavy containment and corrosive environments.
Hoses & Hyd. Fittings:	All hoses and fittings are to be SAE; metrics are not to be allowed. O-ring face seal fittings to be utilized wherever possible.
Origin of Manufacture:	Hooklift to be designed and manufactured in the United States of America.

Stellar Shuttle Model 138-18-20 Hydraulic Hooklift Specifications

Lifting Capacity:	20,000 pounds gross weight evenly distributed in, or on, body.
Container Length:	14.5-foot through 17-foot from front A-frame to rear of skid rails. Longer bodies up to 19-feet may be accommodated if full dump angle is not required (may require special body-mounted or extendable truck-mounted bumper and additional latches to meet the Federal Motor Carrier Safety Administration (FMCSA) Rear End Protection regulation 393.86 and Securing Hooklift Containers regulation 393.134).
Maximum Dump Angle:	52°
Operating Pressure:	4,200 PSI maximum.
Weight of Hooklift:	Hooklift weight not to exceed 3,175 pounds.
Height of Hooklift:	Hooklift height not to exceed 9.13" as measured from top of truck frame to top of hooklift rollers.
Hook Height:	54-inches from bottom of skid rails to bottom of hook bar. Hooklift must be able to pick up body 10-inches below grade, when mounted on a 41" truck frame height.
Hydraulic Pump:	Direct-coupled high-pressure piston pump.
Hydraulic Control Valve:	Hydraulic valve mounted directly onto the oil reservoir.
Controls:	Dual manual levers with sealed cable actuators mounted in the truck cab to allow full feathering of all hooklift functions.
Tilting Hook Assembly:	Hooklift must have pivoting type front tilt section (jib) to provide a low degree loading/unloading angle. Hook to include automatic mechanical safety latch which disengages only when the container/body is in proper position to be picked up or dropped off.
Tilt Cylinder:	Single 4-inch bore with 2-inch diameter rod cylinder. Cylinder must be double acting and include dual integral pilot-operated counterbalance valves to prevent cylinder collapse in case of hose failure. Cylinder must be fully retracted when in the transport mode to prevent exposure of cylinder rod to corrosive road salts.
Tilt Section Operation:	Hooklift must include a hydraulic lock-out device to prevent operation of the tilt section while hooklift is in the dumping mode.
Lift/Dump Cylinder:	Single 5-inch bore with 2-inch diameter rod cylinder. Cylinder must be double acting and include dual integral pilot-operated counterbalance valves to prevent cylinder collapse in case of hose failure.
Dump/Tilt Interlock:	Dumping must be accomplished through a rear pivot. Tilt and lift sections must lock into a rigid full length 25" wide frame to provide support for the container while in the dump mode. These sections form this frame without the use of mechanical latches which rely on gravity, springs, or container/body mounted latches. The system must be protected from out of sequence operation.
Rear Body Hold-downs:	Dual fixed-position hold down devices mounted to the dump frame to secure the body to the hooklift through all ranges of the dump mode. This must be accomplished without the use of steel springs and/or hydraulic/air cylinders. Hooklift must be compatible with containers manufactured to ANSI Z245.60 recommended standard for waste containers.
Rear Dump Hinge Pin:	2-inch diameter carbon steel and zinc plated or type 17-4 stainless steel.
Pins:	All pins to be carbon steel and zinc plated or type 17-4 stainless steel.
Bushings:	All bushings to be of the DX pre-lubricated variety, used with grease fittings. Bronze bushings not allowed due to survivability in heavy containment and corrosive environments.
Hoses & Hyd. Fittings:	All hoses and fittings are to be SAE; metrics are not to be allowed. O-ring face seal fittings to be utilized wherever possible.
Origin of Manufacture:	Hooklift to be designed and manufactured in the United States of America.

Stellar Shuttle Model 138-18-20/61 Hydraulic Hooklift Specifications

Lifting Capacity:	20,000 pounds gross weight evenly distributed in, or on, body.
Container Length:	14.5-foot through 17-foot from front A-frame to rear of skid rails. Longer bodies up to 19-feet may be accommodated if full dump angle is not required (may require special body-mounted or extendable truck-mounted bumper and additional latches to meet the Federal Motor Carrier Safety Administration (FMCSA) Rear End Protection regulation 393.86 and Securing Hooklift Containers regulation 393.134).
Maximum Dump Angle:	52°
Operating Pressure:	4,200 PSI maximum.
Weight of Hooklift:	Hooklift weight not to exceed 3,270 pounds.
Height of Hooklift:	Hooklift height not to exceed 9.13" as measured from top of truck frame to top of hooklift rollers.
Hook Height:	61.75-inches from bottom of skid rails to bottom of hook bar. Hooklift must be able to pick up body 10-inches below grade, when mounted on a 41" truck frame height.
Hydraulic Pump:	Direct-coupled high-pressure piston pump.
Hydraulic Control Valve:	Hydraulic valve mounted directly onto the oil reservoir.
Controls:	Dual manual levers with sealed cable actuators mounted in the truck cab to allow full feathering of all hooklift functions.
Tilting Hook Assembly:	Hooklift must have pivoting type front tilt section (jib) to provide a low degree loading/unloading angle. Hook to include automatic mechanical safety latch which disengages only when the container/body is in proper position to be picked up or dropped off.
Tilt Cylinder:	Single 4-inch bore with 2-inch diameter rod cylinder. Cylinder must be double acting and include dual integral pilot-operated counterbalance valves to prevent cylinder collapse in case of hose failure. Cylinder must be fully retracted when in the transport mode to prevent exposure of cylinder rod to corrosive road salts.
Tilt Section Operation:	Hooklift must include a hydraulic lock-out device to prevent operation of the tilt section while hooklift is in the dumping mode.
Lift/Dump Cylinder:	Single 5-inch bore with 2-inch diameter rod cylinder. Cylinder must be double acting and include dual integral pilot-operated counterbalance valves to prevent cylinder collapse in case of hose failure.
Dump/Tilt Interlock:	Dumping must be accomplished through a rear pivot. Tilt and lift sections must lock into a rigid full length 25" wide frame to provide support for the container while in the dump mode. These sections form this frame without the use of mechanical latches which rely on gravity, springs, or container/body mounted latches. The system must be protected from out of sequence operation.
Rear Body Hold-downs:	Dual fixed-position hold down devices mounted to the dump frame to secure the body to the hooklift through all ranges of the dump mode. This must be accomplished without the use of steel springs and/or hydraulic/air cylinders. Hooklift must be compatible with containers manufactured to ANSI Z245.60 recommended standard for waste containers.
Rear Dump Hinge Pin:	2-inch diameter carbon steel and zinc plated or type 17-4 stainless steel.
Pins:	All pins to be carbon steel and zinc plated or type 17-4 stainless steel.
Bushings:	All bushings to be of the DX pre-lubricated variety, used with grease fittings. Bronze bushings not allowed due to survivability in heavy containment and corrosive environments.
Hoses & Hyd. Fittings:	All hoses and fittings are to be SAE; metrics are not to be allowed. O-ring face seal fittings to be utilized wherever possible.
Origin of Manufacture:	Hooklift to be designed and manufactured in the United States of America.

Stellar Shuttle Model 168-20-20 Hydraulic Hooklift Specifications

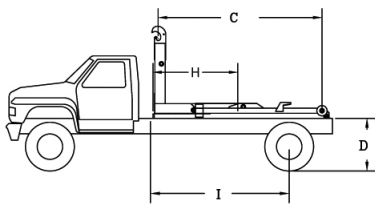
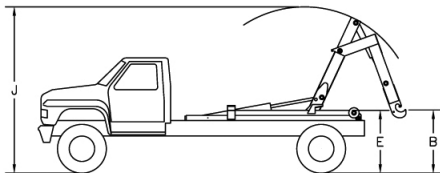
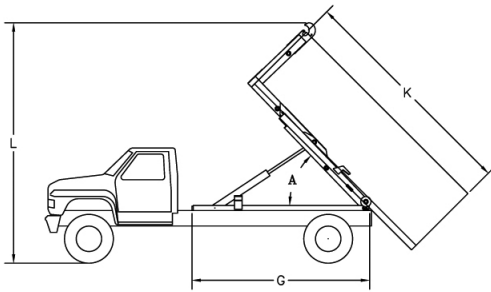
Lifting Capacity:	20,000 pounds gross weight evenly distributed in, or on, body.
Container Length:	16.5-foot through 19-foot from front A-frame to rear of skid rails. Longer bodies up to 21-feet may be accommodated if full dump angle is not required (may require special body-mounted or extendable truck-mounted bumper and additional latches to meet the Federal Motor Carrier Safety Administration (FMCSA) Rear End Protection regulation 393.86 and Securing Hooklift Containers regulation 393.134).
Maximum Dump Angle:	50°
Operating Pressure:	4200 PSI maximum.
Weight of Hooklift:	Hooklift weight not to exceed 3,660 pounds.
Height of Hooklift:	Hooklift height not to exceed 9.13" as measured from top of truck frame to top of hooklift rollers.
Hook Height:	61.75-inches from bottom of skid rails to bottom of hook bar. Hooklift must be able to pick up body 10-inches below grade, when mounted on a 41" truck frame height.
Hydraulic Pump:	Direct-coupled high-pressure piston pump.
Hydraulic Control Valve:	Hydraulic valve mounted directly onto the oil reservoir.
Controls:	Dual manual levers with sealed cable actuators mounted in the truck cab to allow full feathering of all hooklift functions.
Tilting Hook Assembly:	Hooklift must have pivoting type front tilt section (jib) to provide a low degree loading/unloading angle. Hook to include automatic mechanical safety latch which disengages only when the container/body is in proper position to be picked up or dropped off.
Tilt Cylinder:	Single 4-inch bore with 2-inch diameter rod cylinder. Cylinder must be double acting and include dual integral pilot-operated counterbalance valves to prevent cylinder collapse in case of hose failure. Cylinder must be fully retracted when in the transport mode to prevent exposure of cylinder rod to corrosive road salts.
Tilt Section Operation:	Hooklift must include a hydraulic lock-out device to prevent operation of the tilt section while hooklift is in the dumping mode.
Lift/Dump Cylinder:	Single 5-inch bore with 2.5-inch diameter rod cylinder. Cylinder must be double acting and include dual integral pilot-operated counterbalance valves to prevent cylinder collapse in case of hose failure.
Dump/Tilt Interlock:	Dumping must be accomplished through a rear pivot. Tilt and lift sections must lock into a rigid full length 25" wide frame to provide support for the container while in the dump mode. These sections form this frame without the use of mechanical latches which rely on gravity, springs, or container/body mounted latches. The system must be protected from out of sequence operation.
Rear Body Hold-downs:	Dual fixed-position hold down devices mounted to the dump frame to secure the body to the hooklift through all ranges of the dump mode. This must be accomplished without the use of steel springs and/or hydraulic/air cylinders. Hooklift must be compatible with containers manufactured to ANSI Z245.60 recommended standard for waste containers.
Rear Dump Hinge Pin:	2-inch diameter carbon steel and zinc plated or type 17-4 stainless steel.
Pins:	All pins to be carbon steel and zinc plated or type 17-4 stainless steel.
Bushings:	All bushings to be of the DX pre-lubricated variety, used with grease fittings. Bronze bushings not allowed due to survivability in heavy containment and corrosive environments.
Hoses & Hyd. Fittings:	All hoses and fittings are to be SAE; metrics are not to be allowed. O-ring face seal fittings to be utilized wherever possible.
Origin of Manufacture:	Hooklift to be designed and manufactured in the United States of America.

Stellar Shuttle Model 190-24-20 Hydraulic Hooklift Specifications

Lifting Capacity:	20,000 pounds gross weight evenly distributed in, or on, body
Container Length:	18.5-foot through 21.5-foot from front A-frame to rear of skid rails. Longer bodies up to 23.5-feet may be accommodated if full dump angle is not required (may require special body-mounted or extendable truck-mounted bumper and additional latches to meet the Federal Motor Carrier Safety Administration (FMCSA) Rear End Protection regulation 393.86 and Securing Hooklift Containers regulation 393.134).
Maximum Dump Angle:	45°
Operating Pressure:	4200 PSI maximum
Weight of Hooklift:	Hooklift weight not to exceed 3,900 pounds
Height of Hooklift:	Hooklift height not to exceed 9.13" as measured from top of truck frame to top of hooklift rollers.
Hook Height:	61.75-inches from bottom of skid rails to bottom of hook bar. Hooklift must be able to pick up body 10-inches below grade, when mounted on a 41" truck frame height.
Hydraulic Pump:	Direct-coupled high-pressure piston pump.
Hydraulic Control Valve:	Hydraulic valve mounted directly onto the oil reservoir.
Controls:	Dual manual levers with sealed cable actuators mounted in the truck cab to allow full feathering of all hooklift functions.
Tilting Hook Assembly:	Hooklift must have pivoting type front tilt section (jib) to provide a low degree loading/unloading angle. Hook to include automatic mechanical safety latch which disengages only when the container/body is in proper position to be picked up or dropped off.
Tilt Cylinder:	Single 4-inch bore with 2-inch diameter rod cylinder. Cylinder must be double acting and include dual integral pilot-operated counterbalance valves to prevent cylinder collapse in case of hose failure. Cylinder must be fully retracted when in the transport mode to prevent exposure of cylinder rod to corrosive road salts.
Tilt Section Operation:	Hooklift must include a hydraulic lock-out device to prevent operation of the tilt section while hooklift is in the dumping mode.
Lift/Dump Cylinder:	Single 5-inch bore with 2.5-inch diameter rod cylinder. Cylinder must be double acting and include dual integral pilot-operated counterbalance valves to prevent cylinder collapse in case of hose failure.
Dump/Tilt Interlock:	Dumping must be accomplished through a rear pivot. Tilt and lift sections must lock into a rigid full length 25" wide frame to provide support for the container while in the dump mode. These sections form this frame without the use of mechanical latches which rely on gravity, springs, or container/body mounted latches. The system must be protected from out of sequence operation.
Rear Body Hold-downs:	Dual fixed-position hold down devices mounted to the dump frame to secure the body to the hooklift through all ranges of the dump mode. This must be accomplished without the use of steel springs and/or hydraulic/air cylinders. Hooklift must be compatible with containers manufactured to ANSI Z245.60 recommended standard for waste containers.
Rear Dump Hinge Pin:	2-inch diameter carbon steel and zinc plated or type 17-4 stainless steel.
Pins:	All pins to be carbon steel and zinc plated or type 17-4 stainless steel.
Bushings:	All bushings to be of the DX pre-lubricated variety, used with grease fittings. Bronze bushings not allowed due to survivability in heavy containment and corrosive environments.
Hoses & Hyd. Fittings:	All hoses and fittings are to be SAE; metrics are not to be allowed. O-ring face seal fittings to be utilized wherever possible.
Origin of Manufacture:	Hooklift to be designed and manufactured in the United States of America.

STELLAR SHUTTLE

24,000-pound Hooklift Loaders



- Will accommodate bodies from 10-feet up to 12.5-feet long and still retain the maximum rated dump angle on a 41-inch high frame truck. Longer bodies may be accommodated with reduced dumping capabilities.
- Transmission-mounted PTO and hydraulic pump required to power the hooklift.
- Standard in-cab manual controls which allow for precise metering of the manual hydraulic valve.
- Ten (10) gallon frame-mounted oil tank.
- Operating pressure is 4,200 psi.
- Maximum hydraulic flow is 16-gallons per minute.
- Patented dump/load interface on double pivot models.
- Hydraulic locks to prevent cylinder collapse in case of hose failure.
- Hook latch to prevent body from becoming detached prematurely.
- Mechanical rear body tie-down latches.
- Resettable dump/tilt tabs.
- Hydraulic rotary valve to prevent front tilt movement when the dump frame is raised.
- Permanently lubricated and greaseable bushings used throughout.
- Grease zerks at all pin points to allow purging of contaminants.
- Carbon steel and zinc plated or type 17-4 stainless steel pins used throughout.
- All weldments painted with two-part polyurethane enamel.

96-10-24

Lifting/Dumping Capacity	24,000 (10,886 Kg)
A Dump Angle	54°
B Lowest Hook Height	44" (1,118 mm)
C Effective Length	115" (2,921 mm)
D Truck Frame Height	41" (1,041 mm)
E Hooklift Height	49.38" (1,254 mm)
G Hooklift Length	128" (3,251 mm)
H Center of Gravity	52" (1,321 mm)
I Chassis Cab to Axle	84" to 102" (2,134 to 2,591 mm)
J Max. Height/Loading	134" (3,404 mm)
K Longest Body to Dump	174" (4,420 mm)
L Max. Height/Dumping	183" (4,648 mm)
Shipping Weight	2,500 (1,134 Kg)
Hook Height	54" (1,372 mm)
Shipping Dimensions	128" x 74" x 47" (3,251x1,880x1,194 mm)
Min. Frame RBM	1,100,000
Min. Truck GVWR	25,000 (11,340 Kg)
Load Angle w/ SBL	45°
Rec. Body Lengths*	10' to 12.5' (3.0 to 3.8 m)
Rec. Body Lengths**	To 14.5' (4.4 m)

*(Assumes 3ft. overhang from center of rear roller pin)
(Bumper typically 12" from center of roller pin)

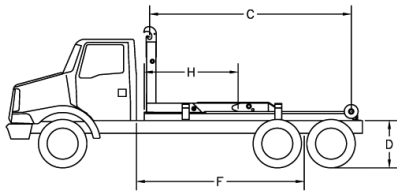
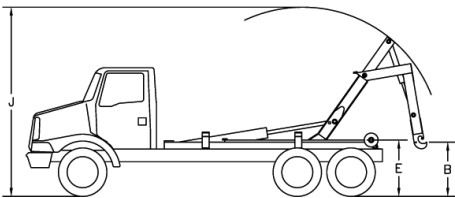
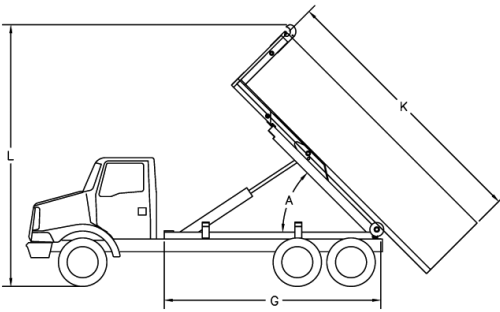
** (Assumes 5ft. overhang from center of rear roller pin)
(May require bumper and latch options)

Stellar Shuttle Model 96-10-24 Hydraulic Hooklift Specifications

Lifting Capacity:	24,000 pounds gross weight evenly distributed in, or on, body.
Container Length:	10-foot through 12.5-foot from front A-frame to rear of skid rails. Longer bodies up to 14.5-feet may be accommodated if full dump angle is not required (may require special body-mounted or extendable truck-mounted bumper and additional latches to meet the Federal Motor Carrier Safety Administration (FMCSA) Rear End Protection regulation 393.86 and Securing Hooklift Containers regulation 393.134).
Maximum Dump Angle:	54°
Operating Pressure:	4200 PSI maximum.
Weight of Hooklift:	Hooklift weight not to exceed 2,500 pounds.
Height of Hooklift:	Hooklift height not to exceed 8.38" as measured from top of truck frame to top of hooklift rollers.
Hook Height:	54-inches from bottom of skid rails to bottom of hook bar. Hooklift must be able to pick up body 10-inches below grade, when mounted on a 41" truck frame height.
Hydraulic Pump:	Direct-coupled high-pressure piston pump.
Hydraulic Control Valve:	Hydraulic valve mounted directly onto the oil reservoir.
Controls:	Dual manual levers with sealed cable actuators mounted in the truck cab to allow full feathering of all hooklift functions.
Tilting Hook Assembly:	Hooklift must have pivoting type front tilt section (jib) to provide a low degree loading/unloading angle. Hook to include automatic mechanical safety latch which disengages only when the container/body is in proper position to be picked up or dropped off.
Tilt Cylinder:	Single 4-inch bore with 2-inch diameter rod cylinder. Cylinder must be double acting and include dual integral pilot-operated counterbalance valves to prevent cylinder collapse in case of hose failure. Cylinder must be fully retracted when in the transport mode to prevent exposure of cylinder rod to corrosive road salts.
Tilt Section Operation:	Hooklift must include a hydraulic lock-out device to prevent operation of the tilt section while hooklift is in the dumping mode.
Lift/Dump Cylinder:	Single 5.5-inch bore with 2.5-inch diameter rod cylinder. Cylinder must be double acting and include dual integral pilot-operated counterbalance valves to prevent cylinder collapse in case of hose failure.
Dump/Tilt Interlock:	Dumping must be accomplished through a rear pivot. Tilt and lift sections must lock into a rigid full length 25" wide frame to provide support for the container while in the dump mode. These sections form this frame without the use of mechanical latches which rely on gravity, springs, or container/body mounted latches. The system must be protected from out of sequence operation.
Rear Body Hold-downs:	Dual fixed-position hold down devices mounted to the dump frame to secure the body to the hooklift through all ranges of the dump mode. This must be accomplished without the use of steel springs and/or hydraulic/air cylinders. Hooklift must be compatible with containers manufactured to ANSI Z245.60 recommended standard for waste containers.
Rear Dump Hinge Pin:	2-inch diameter carbon steel and zinc plated or type 17-4 stainless steel.
Pins:	All pins to be carbon steel and zinc plated or type 17-4 stainless steel.
Bushings:	All bushings to be of the DX pre-lubricated variety, used with grease fittings. Bronze bushings not allowed due to survivability in heavy containment and corrosive environments.
Hoses & Hyd. Fittings:	All hoses and fittings are to be SAE; metrics are not to be allowed. O-ring face seal fittings to be utilized wherever possible.
Origin of Manufacture:	Hooklift to be designed and manufactured in the United States of America.

STELLAR SHUTTLE

32,000-pound Hooklift Loaders



- Will accommodate bodies from 12-feet up to 17.5-feet long and still retain the maximum rated dump angle on a 41-inch high frame truck. Longer bodies may be accommodated with reduced dumping capabilities.
- Transmission-mounted PTO and hydraulic pump required to power the hooklift.
- Standard in-cab manual controls which allow for precise metering of the manual stack-type hydraulic valve.
- Twenty-Five (25) gallon frame-mounted oil tank.
- Operating pressure is 4,200 psi.
- Maximum hydraulic flow is 24-gallons per minute.
- Patented dump/load interface on double pivot models.
- Hydraulic locks to prevent cylinder collapse in case of hose failure.
- Hook latch to prevent body from becoming detached prematurely.
- Mechanical rear body tie-down latches.
- Resettable dump/tilt tabs.
- Hydraulic rotary valve to prevent front tilt movement when the dump frame is raised.
- Permanently lubricated and greaseable bushings used throughout.
- Grease zerks at all pin points to allow purging of contaminants.
- Carbon steel and zinc plated or type 17-4 stainless steel pins used throughout.
- All weldments painted with two-part polyurethane enamel.

	<u>108-14-32</u>	<u>138-18-32</u>	<u>174-20-32</u>	<u>190-24-32</u>
Lifting/Dumping Capacity (pounds)	32,000 (14,515 Kg)	32,000 (14,515 Kg)	32,000 (14,515 Kg)	32,000 (14,515 Kg)
A Dump Angle	57°	50°	50°	51°
B Lowest Hook Height	49"	51"	50"	50"
C Effective Length	(1,245 mm) 144"	(1,295 mm) 176"	(1,270 mm) 206"	(1,270 mm) 223"
D Truck Frame Height	(3,658 mm) 41"	(4,470 mm) 41"	(5,232 mm) 41"	(5,664 mm) 41"
E Hooklift Height	(1,041 mm) 52.31"	(1,041 mm) 52.31"	(1,041 mm) 52.31"	(1,041 mm) 52.31"
Chassis Cab to Axle	(1,329 mm) 122" to 128"	(1,329 mm) 150" to 158"	(1,329 mm)	(1,329 mm)
F Chassis Cab to Trunnion	(3,099 to 3,251 mm) 102" to 108"	(3,810 to 4,013 mm) 130" to 144"	160" to 174"	174" to 190"
G Hooklift Length	(2,591 to 2,743 mm) 156"	(3,302 to 3,658 mm) 188"	(4,064 to 4,420 mm) 219"	(4,420 to 4,826 mm) 236"
H Center of Gravity	(3,962 mm) 67"	(4,775 mm) 81"	(5,563 mm) 93"	(5,994 mm) 98"
J Max. Height When Loading	(1,702 mm) 156"	(2,057 mm) 171"	(2,362 mm) 188"	(2,489 mm) 199"
K Longest Body to Dump	(3,962 mm) 204"	(4,343 mm) 234"	(4,775 mm) 264"	(5,055 mm) 282"
L Max. Height When Dumping	(5,182 mm) 214"	(5,944 mm) 235"	(6,706 mm) 259"	(7,163 mm) 273"
Shipping Weight (pounds)	(5,436 mm) 3,600	(5,969 mm) 3,900	(6,579 mm) 4,900	(6,934 mm) 5,400
Hook Height (from bottom of hook bar)	(1,633 Kg) 61.75"	(1,769 Kg) 61.75"	(2,223 Kg) 61.75"	(2,449 Kg) 61.75"
Shipping Dimensions (LxHxW)	(1,568 mm) 156" x 83" x 49"	(1,568 mm) 188" x 83" x 49"	(1,568 mm) 219" x 84" x 49"	(1,568 mm) 236" x 84" x 49"
Min. Frame RBM	(3,962x2,108x1,245 mm) 1,600,000	(4,775x2,108x1,245 mm) 1,600,000	(5,563x2,134x1,245 mm) 1,600,000	(5,994x2,134x1,245 mm) 1,600,000
Min. Truck GVWR	32,000 (14,515 Kg)	32,000 (14,515 Kg)	43,000 (19,504 Kg)	43,000 (19,504 Kg)
Load Angle w/Shortest Body Length	41°	35°	33°	31°
Recommended Body Lengths*	12' to 15' (3.7 to 4.6 m)	15' to 17.5' (4.6 to 5.3 m)	17.5' to 20' (5.3 to 6.1 m)	19' to 21.5' (5.8 to 6.6 m)
Recommended Body Lengths**	To 17' (5.2 m)	To 19.5' (5.9 m)	To 22' (6.7 m)	To 23.5' (7.2 m)

* (Assumes 3ft. overhang from center of rear roller pin)
(Bumper typically 12" from center of roller pin)

** (Assumes 5ft. overhang from center of rear roller pin)
(May require bumper and latch options)

Stellar Shuttle Model 108-14-32 Hydraulic Hooklift Specifications

Lifting Capacity:	32,000 pounds gross weight evenly distributed in, or on, body.
Container Length:	12-foot through 15-foot from front A-frame to rear of skid rails. Longer bodies up to 17.5-feet may be accommodated if full dump angle is not required (may require special body-mounted or extendable truck-mounted bumper and additional latches to meet the Federal Motor Carrier Safety Administration (FMCSA) Rear End Protection regulation 393.86 and Securing Hooklift Containers regulation 393.134).
Maximum Dump Angle:	57°
Operating Pressure:	4200 PSI maximum.
Weight of Hooklift:	Hooklift weight not to exceed 3,600 pounds.
Height of Hooklift:	Hooklift height not to exceed 11.31" as measured from top of truck frame to top of hooklift rollers.
Hook Height:	61.75-inches from bottom of skid rails to bottom of hook bar. Hooklift must be able to pick up body 10-inches below grade, when mounted on a 41" truck frame height.
Hydraulic Pump:	Direct-coupled high-pressure piston pump.
Hydraulic Control Valve:	Hydraulic valve mounted directly onto the oil reservoir.
Controls:	Dual manual levers with sealed cable actuators mounted in the truck cab to allow full feathering of all hooklift functions.
Tilting Hook Assembly:	Hooklift must have pivoting type front tilt section (jib) to provide a low degree loading/unloading angle. Hook to include automatic mechanical safety latch which disengages only when the container/body is in proper position to be picked up or dropped off.
Tilt Cylinder:	Single 4-inch bore with 2-inch diameter rod cylinder. Cylinder must be double acting and include dual integral pilot-operated counterbalance valves to prevent cylinder collapse in case of hose failure. Cylinder must be fully retracted when in the transport mode to prevent exposure of cylinder rod to corrosive road salts.
Tilt Section Operation:	Hooklift must include a hydraulic lock-out device to prevent operation of the tilt section while hooklift is in the dumping mode.
Lift/Dump Cylinder:	Single 6-inch bore with 2.5-inch diameter rod cylinder. Cylinder must be double acting and include dual integral pilot-operated counterbalance valves to prevent cylinder collapse in case of hose failure.
Dump/Tilt Interlock:	Dumping must be accomplished through a rear pivot. Tilt and lift sections must lock into a rigid full length 26" wide frame with front saddles to provide support for the container while in the dump mode. These sections form this frame without the use of mechanical latches which rely on gravity, springs, or container/body mounted latches. The system must be protected from out of sequence operation.
Rear Body Hold-downs:	Dual fixed-position hold down devices mounted to the dump frame to secure the body to the hooklift through all ranges of the dump mode. This must be accomplished without the use of steel springs and/or hydraulic/air cylinders. Hooklift must be compatible with containers manufactured to ANSI Z245.60 recommended standard for waste containers.
Rear Dump Hinge Pin:	2.5-inch diameter carbon steel and zinc plated or type 17-4 stainless steel.
Pins:	All pins to be carbon steel and zinc plated or type 17-4 stainless steel.
Bushings:	All bushings to be of the DX pre-lubricated variety, used with grease fittings. Bronze bushings not allowed due to survivability in heavy containment and corrosive environments.
Hoses & Hyd. Fittings:	All hoses and fittings are to be SAE; metrics are not to be allowed. O-ring face seal fittings to be utilized wherever possible.
Origin of Manufacture:	Hooklift to be designed and manufactured in the United States of America.

Stellar Shuttle Model 138-18-32 Hydraulic Hooklift Specifications

Lifting Capacity:	32,000 pounds gross weight evenly distributed in, or on, body.
Container Length:	15-foot through 17.5-foot from front A-frame to rear of skid rails. Longer bodies up to 19.5-feet may be accommodated if full dump angle is not required (may require special body-mounted or extendable truck-mounted bumper and additional latches to meet the Federal Motor Carrier Safety Administration (FMCSA) Rear End Protection regulation 393.86 and Securing Hooklift Containers regulation 393.134).
Maximum Dump Angle:	50°
Operating Pressure:	4200 PSI maximum.
Weight of Hooklift:	Hooklift weight not to exceed 3,900 pounds.
Height of Hooklift:	Hooklift height not to exceed 11.31" as measured from top of truck frame to top of hooklift rollers.
Hook Height:	61.75-inches from bottom of skid rails to bottom of hook bar. Hooklift must be able to pick up body 10-inches below grade, when mounted on a 41" truck frame height.
Hydraulic Pump:	Direct-coupled high-pressure piston pump.
Hydraulic Control Valve:	Hydraulic valve mounted directly onto the oil reservoir.
Controls:	Dual manual levers with sealed cable actuators mounted in the truck cab to allow full feathering of all hooklift functions.
Tilting Hook Assembly:	Hooklift must have pivoting type front tilt section (jib) to provide a low degree loading/unloading angle. Hook to include automatic mechanical safety latch which disengages only when the container/body is in proper position to be picked up or dropped off.
Tilt Cylinder:	Single 4-inch bore with 2-inch diameter rod cylinder. Cylinder must be double acting and include dual integral pilot-operated counterbalance valves to prevent cylinder collapse in case of hose failure. Cylinder must be fully retracted when in the transport mode to prevent exposure of cylinder rod to corrosive road salts.
Tilt Section Operation:	Hooklift must include a hydraulic lock-out device to prevent operation of the tilt section while hooklift is in the dumping mode.
Lift/Dump Cylinder:	Single 6-inch bore with 2.5-inch diameter rod cylinder. Cylinder must be double acting and include dual integral pilot-operated counterbalance valves to prevent cylinder collapse in case of hose failure.
Dump/Tilt Interlock:	Dumping must be accomplished through a rear pivot. Tilt and lift sections must lock into a rigid full length 26" wide frame with front saddles to provide support for the container while in the dump mode. These sections form this frame without the use of mechanical latches which rely on gravity, springs, or container/body mounted latches. The system must be protected from out of sequence operation.
Rear Body Hold-downs:	Dual fixed-position hold down devices mounted to the dump frame to secure the body to the hooklift through all ranges of the dump mode. This must be accomplished without the use of steel springs and/or hydraulic/air cylinders. Hooklift must be compatible with containers manufactured to ANSI Z245.60 recommended standard for waste containers.
Rear Dump Hinge Pin:	2.5-inch diameter carbon steel and zinc plated or type 17-4 stainless steel.
Pins:	All pins to be carbon steel and zinc plated or type 17-4 stainless steel.
Bushings:	All bushings to be of the DX pre-lubricated variety, used with grease fittings. Bronze bushings not allowed due to survivability in heavy containment and corrosive environments.
Hoses & Hyd. Fittings:	All hoses and fittings are to be SAE; metrics are not to be allowed. O-ring face seal fittings to be utilized wherever possible.
Origin of Manufacture:	Hooklift to be designed and manufactured in the United States of America.

Stellar Shuttle Model 174-20-32 Hydraulic Hooklift Specifications

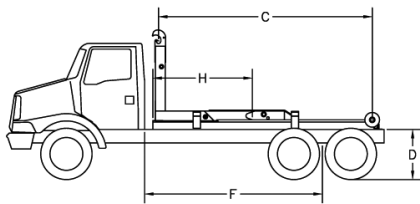
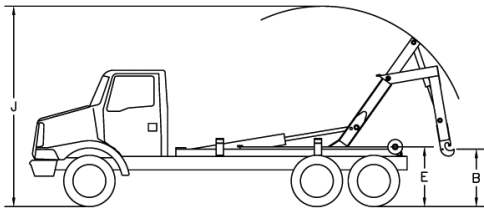
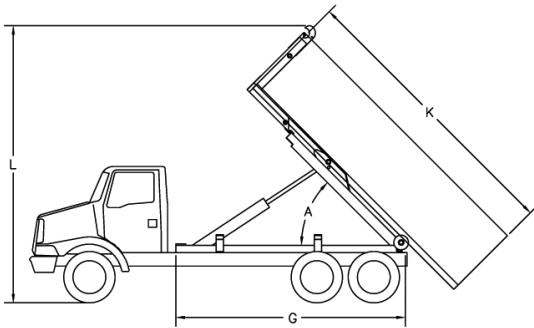
Lifting Capacity:	32,000 pounds gross weight evenly distributed in, or on, body.
Container Length:	17.5-foot through 20-foot from front A-frame to rear of skid rails. Longer bodies up to 20-feet may be accommodated if full dump angle is not required (may require special body-mounted or extendable truck-mounted bumper and additional latches to meet the Federal Motor Carrier Safety Administration (FMCSA) Rear End Protection regulation 393.86 and Securing Hooklift Containers regulation 393.134).
Maximum Dump Angle:	50°
Operating Pressure:	4200 PSI maximum.
Weight of Hooklift:	Hooklift weight not to exceed 4,900 pounds.
Height of Hooklift:	Hooklift height not to exceed 11.31" as measured from top of truck frame to top of hooklift rollers.
Hook Height:	61.75-inches from bottom of skid rails to bottom of hook bar. Hooklift must be able to pick up body 10-inches below grade, when mounted on a 41" truck frame height.
Hydraulic Pump:	Direct-coupled high-pressure piston pump.
Hydraulic Control Valve:	Hydraulic valve mounted directly onto the oil reservoir.
Controls:	Dual manual levers with sealed cable actuators mounted in the truck cab to allow full feathering of all hooklift functions.
Tilting Hook Assembly:	Hooklift must have pivoting type front tilt section (jib) to provide a low degree loading/unloading angle. Hook to include automatic mechanical safety latch which disengages only when the container/body is in proper position to be picked up or dropped off.
Tilt Cylinder:	Single 4-inch bore with 2-inch diameter rod cylinder. Cylinder must be double acting and include dual integral pilot-operated counterbalance valves to prevent cylinder collapse in case of hose failure. Cylinder must be fully retracted when in the transport mode to prevent exposure of cylinder rod to corrosive road salts.
Tilt Section Operation:	Hooklift must include a hydraulic lock-out device to prevent operation of the tilt section while hooklift is in the dumping mode.
Lift/Dump Cylinder:	Single 6-inch bore with 2.5-inch diameter rod cylinder. Cylinder must be double acting and include dual integral pilot-operated counterbalance valves to prevent cylinder collapse in case of hose failure.
Dump/Tilt Interlock:	Dumping must be accomplished through a rear pivot. Tilt and lift sections must lock into a rigid full length 26" wide frame with front saddles to provide support for the container while in the dump mode. These sections form this frame without the use of mechanical latches which rely on gravity, springs, or container/body mounted latches. The system must be protected from out of sequence operation.
Rear Body Hold-downs:	Dual fixed-position hold down devices mounted to the dump frame to secure the body to the hooklift through all ranges of the dump mode. This must be accomplished without the use of steel springs and/or hydraulic/air cylinders. Hooklift must be compatible with containers manufactured to ANSI Z245.60 recommended standard for waste containers.
Rear Dump Hinge Pin:	2.5-inch diameter carbon steel and zinc plated or type 17-4 stainless steel.
Pins:	All pins to be carbon steel and zinc plated or type 17-4 stainless steel.
Bushings:	All bushings to be of the DX pre-lubricated variety, used with grease fittings. Bronze bushings not allowed due to survivability in heavy containment and corrosive environments.
Hoses & Hyd. Fittings:	All hoses and fittings are to be SAE; metrics are not to be allowed. O-ring face seal fittings to be utilized wherever possible.
Origin of Manufacture:	Hooklift to be designed and manufactured in the United States of America.

Stellar Shuttle Model 190-24-32 Hydraulic Hooklift Specifications

Lifting Capacity:	32,000 pounds gross weight evenly distributed in, or on, body.
Container Length:	15-foot through 17.5-foot from front A-frame to rear of skid rails. Longer bodies up to 19.5-feet may be accommodated if full dump angle is not required (may require special body-mounted or extendable truck-mounted bumper and additional latches to meet the Federal Motor Carrier Safety Administration (FMCSA) Rear End Protection regulation 393.86 and Securing Hooklift Containers regulation 393.134).
Maximum Dump Angle:	51°
Operating Pressure:	4200 PSI maximum.
Weight of Hooklift:	Hooklift weight not to exceed 5,400 pounds.
Height of Hooklift:	Hooklift height not to exceed 11.81" as measured from top of truck frame to top of hooklift rollers.
Hook Height:	61.75-inches from bottom of skid rails to bottom of hook bar. Hooklift must be able to pick up body 10-inches below grade, when mounted on a 41" truck frame height.
Hydraulic Pump:	Direct-coupled high-pressure piston pump.
Hydraulic Control Valve:	Hydraulic valve mounted directly onto the oil reservoir.
Controls:	Dual manual levers with sealed cable actuators mounted in the truck cab to allow full feathering of all hooklift functions.
Tilting Hook Assembly:	Hooklift must have pivoting type front tilt section (jib) to provide a low degree loading/unloading angle. Hook to include automatic mechanical safety latch which disengages only when the container/body is in proper position to be picked up or dropped off.
Tilt Cylinder:	Single 4-inch bore with 2-inch diameter rod cylinder. Cylinder must be double acting and include dual integral pilot-operated counterbalance valves to prevent cylinder collapse in case of hose failure. Cylinder must be fully retracted when in the transport mode to prevent exposure of cylinder rod to corrosive road salts.
Tilt Section Operation:	Hooklift must include a hydraulic lock-out device to prevent operation of the tilt section while hooklift is in the dumping mode.
Lift/Dump Cylinder:	Single 6-inch bore with 2.5-inch diameter rod cylinder. Cylinder must be double acting and include dual integral pilot-operated counterbalance valves to prevent cylinder collapse in case of hose failure.
Dump/Tilt Interlock:	Dumping must be accomplished through a rear pivot. Tilt and lift sections must lock into a rigid full length 26" wide frame with front saddles to provide support for the container while in the dump mode. These sections form this frame without the use of mechanical latches which rely on gravity, springs, or container/body mounted latches. The system must be protected from out of sequence operation.
Rear Body Hold-downs:	Dual fixed-position hold down devices mounted to the dump frame to secure the body to the hooklift through all ranges of the dump mode. This must be accomplished without the use of steel springs and/or hydraulic/air cylinders. Hooklift must be compatible with containers manufactured to ANSI Z245.60 recommended standard for waste containers.
Rear Dump Hinge Pin:	2.5-inch diameter carbon steel and zinc plated or type 17-4 stainless steel.
Pins:	All pins to be carbon steel and zinc plated or type 17-4 stainless steel.
Bushings:	All bushings to be of the DX pre-lubricated variety, used with grease fittings. Bronze bushings not allowed due to survivability in heavy containment and corrosive environments.
Hoses & Hyd. Fittings:	All hoses and fittings are to be SAE; metrics are not to be allowed. O-ring face seal fittings to be utilized wherever possible.
Origin of Manufacture:	Hooklift to be designed and manufactured in the United States of America.

STELLAR SHUTTLE

34,000-pound Hooklift Loaders



- Will accommodate bodies from 15-feet up to 17.5-feet long and still retain the maximum rated dump angle on a 41-inch high frame truck. Longer bodies may be accommodated with reduced dumping capabilities.
- Transmission-mounted PTO and hydraulic pump required to power the hooklift.
- Standard in-cab manual controls which allow for precise metering of the manual stack-type hydraulic valve.
- Twenty-Five (25) gallon frame-mounted oil tank.
- Operating pressure is 4,200 psi.
- Maximum hydraulic flow is 24-gallons per minute.
- Patented dump/load interface on double pivot models.
- Hydraulic locks to prevent cylinder collapse in case of hose failure.
- Hook latch to prevent body from becoming detached prematurely.
- Mechanical rear body tie-down latches.
- Resettable dump/tilt tabs.
- Hydraulic rotary valve to prevent front tilt movement when the dump frame is raised.
- Permanently lubricated and greaseable bushings used throughout.
- Grease zerks at all pin points to allow purging of contaminants.
- Carbon steel and zinc plated or type 17-4 stainless steel pins used throughout.
- All weldments painted with two-part polyurethane enamel.

138-18-34

Lifting/Dumping Capacity (pounds)	34,000 (15,422 Kg)
A Dump Angle	52°
B Lowest Hook Height	39" (991 mm)
C Effective Length	176" (4,470 mm)
D Truck Frame Height	41" (1,041 mm)
E Hooklift Height	52.31" (1,329 mm)
Chassis Cab to Axle	150" to 158" (3,810 to 4,013 mm)
F Chassis Cab to Trunnion	130" to 144" (3,302 to 3,658 mm)
G Hooklift Length	188" (4,775 mm)
H Center of Gravity	81" (2,057 mm)
J Max. Height When Loading	172" (4,369 mm)
K Longest Body to Dump	234" (5,944 mm)
L Max. Height When Dumping	232" (5,893 mm)
Shipping Weight (pounds)	4,100 (1,860 Kg)
Hook Height (from bottom of hook bar)	54" (1,372 mm)
Shipping Dimensions (LxHxW)	188" x 76" x 49" (4775x1930x1245 mm)
Min. Frame RBM	2,200,000
Min. Truck GVWR (pounds)	43,000 (19,504 Kg)
Load Angle w/Shortest Body Length	36°
Recommended Body Lengths*	15' to 17.5' (4.6 to 5.3 m)
Recommended Body Lengths**	To 19.5' (5.9 m)

*Assumes 3ft. overhang from center of rear roller pin)
(Bumper typically 12" from center of roller pin)

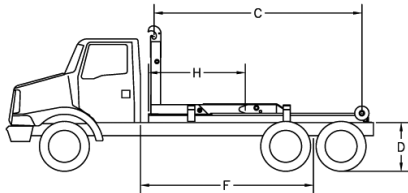
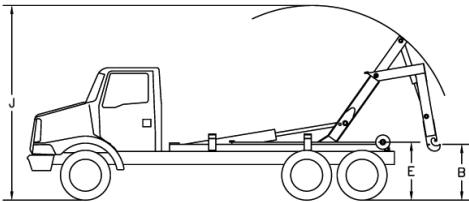
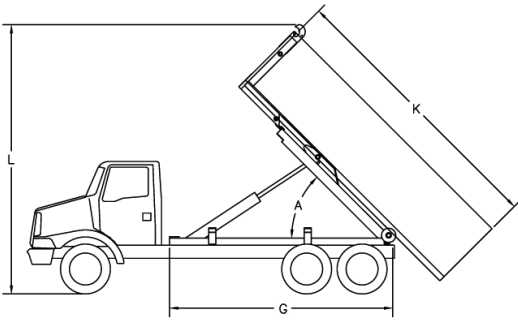
**Assumes 5ft. overhang from center of rear roller pin)
(May require bumper and latch options)

Stellar Shuttle Model 138-18-34 Hydraulic Hooklift Specifications

Lifting Capacity:	34,000 pounds gross weight evenly distributed in, or on, body.
Container Length:	15-foot through 17.5-foot from front A-frame to rear of skid rails. Longer bodies up to 19.5-feet may be accommodated if full dump angle is not required (may require special body-mounted or extendable truck-mounted bumper and additional latches to meet the Federal Motor Carrier Safety Administration (FMCSA) Rear End Protection regulation 393.86 and Securing Hooklift Containers regulation 393.134).
Maximum Dump Angle:	52°
Operating Pressure:	4200 PSI maximum.
Weight of Hooklift:	Hooklift weight not to exceed 4,100 pounds.
Height of Hooklift:	Hooklift height not to exceed 11.31” as measured from top of truck frame to top of hooklift rollers.
Hook Height:	54-inches from bottom of skid rails to bottom of hook bar. Hooklift must be able to pick up body 10-inches below grade, when mounted on a 41” truck frame height.
Hydraulic Pump:	Direct-coupled high-pressure piston pump.
Hydraulic Control Valve:	Hydraulic valve mounted directly onto the oil reservoir.
Controls:	Dual manual levers with sealed cable actuators mounted in the truck cab to allow full feathering of all hooklift functions.
Tilting Hook Assembly:	Hooklift must have pivoting type front tilt section (jib) to provide a low degree loading/unloading angle. Hook to include automatic mechanical safety latch which disengages only when the container/body is in proper position to be picked up or dropped off.
Tilt Cylinder:	Single 4-inch bore with 2-inch diameter rod cylinder. Cylinder must be double acting and include dual integral pilot-operated counterbalance valves to prevent cylinder collapse in case of hose failure. Cylinder must be fully retracted when in the transport mode to prevent exposure of cylinder rod to corrosive road salts.
Tilt Section Operation:	Hooklift must include a hydraulic lock-out device to prevent operation of the tilt section while hooklift is in the dumping mode.
Lift/Dump Cylinder:	Single 7-inch bore with 3-inch diameter rod cylinder. Cylinder must be double acting and include dual integral pilot-operated counterbalance valves to prevent cylinder collapse in case of hose failure.
Dump/Tilt Interlock:	Dumping must be accomplished through a rear pivot. Tilt and lift sections must lock into a rigid full length 26” wide frame with front saddles to provide support for the container while in the dump mode. These sections form this frame without the use of mechanical latches which rely on gravity, springs, or container/body mounted latches. The system must be protected from out of sequence operation.
Rear Body Hold-downs:	Dual fixed-position hold down devices mounted to the dump frame to secure the body to the hooklift through all ranges of the dump mode. This must be accomplished without the use of steel springs and/or hydraulic/air cylinders. Hooklift must be compatible with containers manufactured to ANSI Z245.60 recommended standard for waste containers.
Rear Dump Hinge Pin:	2.5-inch diameter carbon steel and zinc plated or type 17-4 stainless steel.
Pins:	All pins to be carbon steel and zinc plated or type 17-4 stainless steel.
Bushings:	All bushings to be of the DX pre-lubricated variety, used with grease fittings. Bronze bushings not allowed due to survivability in heavy containment and corrosive environments.
Hoses & Hyd. Fittings:	All hoses and fittings are to be SAE; metrics are not to be allowed. O-ring face seal fittings to be utilized wherever possible.
Origin of Manufacture:	Hooklift to be designed and manufactured in the United States of America.

STELLAR SHUTTLE

40,000-pound Hooklift Loaders



- Will accommodate bodies from 12-feet up to 21.5-feet long and still retain the maximum rated dump angle on a 41-inch high frame truck. Longer bodies may be accommodated with reduced dumping capabilities.
- Transmission-mounted PTO and hydraulic pump required to power the hooklift.
- Standard in-cab manual controls which allow for precise metering of the manual stack-type hydraulic valve.
- Twenty-Five (25) gallon frame-mounted oil tank.
- Operating pressure is 4,200 psi.
- Maximum hydraulic flow is 24-gallons per minute.
- Patented dump/load interface on double pivot models.
- Hydraulic locks to prevent cylinder collapse in case of hose failure.
- Hook latch to prevent body from becoming detached prematurely.
- Mechanical rear body tie-down latches.
- Resettable dump/tilt tabs.
- Hydraulic rotary valve to prevent front tilt movement when the dump frame is raised.
- Permanently lubricated and greaseable bushings used throughout.
- Grease zerks at all pin points to allow purging of contaminants.
- Carbon steel and zinc plated or type 17-4 stainless steel pins used throughout.
- All weldments painted with two-part polyurethane enamel.

	<u>108-14-40</u>	<u>138-18-40</u>	<u>174-20-40</u>	<u>190-24-40</u>
A Lifting/Dumping Capacity (pounds)	40,000	40,000	40,000	40,000
A Dump Angle	(18,144 Kg) 57°	(18,144 Kg) 50°	(18,144 Kg) 50°	(18,144 Kg) 51°
B Lowest Hook Height	49" (1,245 mm)	51" (1,295 mm)	50" (1,270 mm)	50" (1,270 mm)
C Effective Length	144" (3,658 mm)	176" (4,470 mm)	206" (5,232 mm)	223" (5,664 mm)
D Truck Frame Height	41" (1,041 mm)	41" (1,041 mm)	41" (1,041 mm)	41" (1,041 mm)
E Hooklift Height	52.31" (1,329 mm)	52.31" (1,329 mm)	52.31" (1,329 mm)	52.31" (1,329 mm)
F Chassis Cab to Trunnion	102" to 108" (2,591 to 2,743 mm)	130" to 144" (3,302 to 3,658 mm)	160" to 174" (4,064 to 4,420 mm)	174" to 190" (4,420 to 4,826 mm)
G Hooklift Length	156" (3,962 mm)	188" (4,775 mm)	219" (5,563 mm)	236" (5,994 mm)
H Center of Gravity	66" (1,676 mm)	81" (2,057 mm)	93" (2,362 mm)	98" (2,489 mm)
J Max. Height When Loading	156" (3,962 mm)	172" (4,369 mm)	188" (4,775 mm)	199" (5,055 mm)
K Longest Body to Dump	204" (5,182 mm)	240" (6,096 mm)	264" (6,706 mm)	282" (7,163 mm)
L Max. Height When Dumping	214" (5,436 mm)	235" (5,969 mm)	259" (6,579 mm)	273" (6,934 mm)
Shipping Weight (pounds)	4,000 (1,814 Kg)	4,100 (1,860 mm)	4,900 (2,223 Kg)	5,400 (2,249 Kg)
Hook Height (from bottom of hook bar)	61.75" (1,568 mm)	61.75" (1,568 mm)	61.75" (1,568 mm)	61.75" (1,568 mm)
Shipping Dimensions (LxHxW)	156" x 84" x 49" (3,962x2,134x1,245 mm)	188" x 84" x 49" (4,775x2,134x1,245 mm)	219" x 84" x 49" (5,563x2,134x1,245 mm)	236" x 84" x 49" (5,994x2,134x1,245 mm)
Min. Frame RBM	2,200,000	2,200,000	2,200,000	2,200,000
Min. Truck GVWR (pounds)	43,000 (19,504 Kg)	43,000 (19,504 Kg)	43,000 (19,504 Kg)	43,000 (19,504 Kg)
Load Angle w/Shortest Body Length	41°	35°	33°	31°
Recommended Body Lengths*	12' to 15' (3.7 to 4.6 m)	15' to 17.5' (4.6 to 5.3 m)	17.5' to 20' (5.3 to 6.1 m)	19' to 21.5' (5.8 to 6.6 m)
Recommended Body Lengths**	To 17' (5.2 m)	To 19.5' (5.9 m)	To 22' (6.7 m)	To 23.5' (7.2 m)

*(Assumes 3ft. overhang from center of rear roller pin)
(Bumper typically 12" from center of roller pin)

** (Assumes 5ft. overhang from center of rear roller pin)
(May require bumper and latch options)

Stellar Shuttle Model 108-14-40 Hydraulic Hooklift Specifications

Lifting Capacity:	40,000 pounds gross weight evenly distributed in, or on, body.
Container Length:	12-foot through 14-foot from front A-frame to rear of skid rails. Longer bodies up to 17-feet may be accommodated if full dump angle is not required (may require special body-mounted or extendable truck-mounted bumper and additional latches to meet the Federal Motor Carrier Safety Administration (FMCSA) Rear End Protection regulation 393.86 and Securing Hooklift Containers regulation 393.134).
Maximum Dump Angle:	57°
Operating Pressure:	4200 PSI maximum.
Weight of Hooklift:	Hooklift weight not to exceed 4,000 pounds.
Height of Hooklift:	Hooklift height not to exceed 11.31" as measured from top of truck frame to top of hooklift rollers.
Hook Height:	61.75-inches from bottom of skid rails to bottom of hook bar. Hooklift must be able to pick up body 10-inches below grade, when mounted on a 41" truck frame height.
Hydraulic Pump:	Direct-coupled high-pressure piston pump.
Hydraulic Control Valve:	Hydraulic valve mounted directly onto the oil reservoir.
Controls:	Dual manual levers with sealed cable actuators mounted in the truck cab to allow full feathering of all hooklift functions.
Tilting Hook Assembly:	Hooklift must have pivoting type front tilt section (jib) to provide a low degree loading/unloading angle. Hook to include automatic mechanical safety latch which disengages only when the container/body is in proper position to be picked up or dropped off.
Tilt Cylinder:	Single 4-inch bore with 2-inch diameter rod cylinder. Cylinder must be double acting and include dual integral pilot-operated counterbalance valves to prevent cylinder collapse in case of hose failure. Cylinder must be fully retracted when in the transport mode to prevent exposure of cylinder rod to corrosive road salts.
Tilt Section Operation:	Hooklift must include a hydraulic lock-out device to prevent operation of the tilt section while hooklift is in the dumping mode.
Lift/Dump Cylinder:	Single 7-inch bore with 3-inch diameter rod cylinder. Cylinder must be double acting and include dual integral pilot-operated counterbalance valves to prevent cylinder collapse in case of hose failure.
Dump/Tilt Interlock:	Dumping must be accomplished through a rear pivot. Tilt and lift sections must lock into a rigid full length 26" wide frame with front saddles to provide support for the container while in the dump mode. These sections form this frame without the use of mechanical latches which rely on gravity, springs, or container/body mounted latches. The system must be protected from out of sequence operation.
Rear Body Hold-downs:	Dual fixed-position hold down devices mounted to the dump frame to secure the body to the hooklift through all ranges of the dump mode. This must be accomplished without the use of steel springs and/or hydraulic/air cylinders. Hooklift must be compatible with containers manufactured to ANSI Z245.60 recommended standard for waste containers.
Rear Dump Hinge Pin:	2.5-inch diameter carbon steel and zinc plated or type 17-4 stainless steel.
Pins:	All pins to be carbon steel and zinc plated or type 17-4 stainless steel.
Bushings:	All bushings to be of the DX pre-lubricated variety, used with grease fittings. Bronze bushings not allowed due to survivability in heavy containment and corrosive environments.
Hoses & Hyd. Fittings:	All hoses and fittings are to be SAE; metrics are not to be allowed. O-ring face seal fittings to be utilized wherever possible.
Origin of Manufacture:	Hooklift to be designed and manufactured in the United States of America.

Stellar Shuttle Model 138-18-40 Hydraulic Hooklift Specifications

Lifting Capacity:	40,000 pounds gross weight evenly distributed in, or on, body.
Container Length:	15-foot through 17.5-foot from front A-frame to rear of skid rails. Longer bodies up to 19.5-feet may be accommodated if full dump angle is not required (may require special body-mounted or extendable truck-mounted bumper and additional latches to meet the Federal Motor Carrier Safety Administration (FMCSA) Rear End Protection regulation 393.86 and Securing Hooklift Containers regulation 393.134).
Maximum Dump Angle:	50°
Operating Pressure:	4200 PSI maximum.
Weight of Hooklift:	Hooklift weight not to exceed 4,100 pounds.
Height of Hooklift:	Hooklift height not to exceed 11.31" as measured from top of truck frame to top of hooklift rollers.
Hook Height:	61.75-inches from bottom of skid rails to bottom of hook bar. Hooklift must be able to pick up body 10-inches below grade, when mounted on a 41" truck frame height.
Hydraulic Pump:	Direct-coupled high-pressure piston pump.
Hydraulic Control Valve:	Hydraulic valve mounted directly onto the oil reservoir.
Controls:	Dual manual levers with sealed cable actuators mounted in the truck cab to allow full feathering of all hooklift functions.
Tilting Hook Assembly:	Hooklift must have pivoting type front tilt section (jib) to provide a low degree loading/unloading angle. Hook to include automatic mechanical safety latch which disengages only when the container/body is in proper position to be picked up or dropped off.
Tilt Cylinder:	Single 4-inch bore with 2-inch diameter rod cylinder. Cylinder must be double acting and include dual integral pilot-operated counterbalance valves to prevent cylinder collapse in case of hose failure. Cylinder must be fully retracted when in the transport mode to prevent exposure of cylinder rod to corrosive road salts.
Tilt Section Operation:	Hooklift must include a hydraulic lock-out device to prevent operation of the tilt section while hooklift is in the dumping mode.
Lift/Dump Cylinder:	Single 7-inch bore with 3-inch diameter rod cylinder. Cylinder must be double acting and include dual integral pilot-operated counterbalance valves to prevent cylinder collapse in case of hose failure.
Dump/Tilt Interlock:	Dumping must be accomplished through a rear pivot. Tilt and lift sections must lock into a rigid full length 26" wide frame with front saddles to provide support for the container while in the dump mode. These sections form this frame without the use of mechanical latches which rely on gravity, springs, or container/body mounted latches. The system must be protected from out of sequence operation.
Rear Body Hold-downs:	Dual fixed-position hold down devices mounted to the dump frame to secure the body to the hooklift through all ranges of the dump mode. This must be accomplished without the use of steel springs and/or hydraulic/air cylinders. Hooklift must be compatible with containers manufactured to ANSI Z245.60 recommended standard for waste containers.
Rear Dump Hinge Pin:	2.5-inch diameter carbon steel and zinc plated or type 17-4 stainless steel.
Pins:	All pins to be carbon steel and zinc plated or type 17-4 stainless steel.
Bushings:	All bushings to be of the DX pre-lubricated variety, used with grease fittings. Bronze bushings not allowed due to survivability in heavy containment and corrosive environments.
Hoses & Hyd. Fittings:	All hoses and fittings are to be SAE; metrics are not to be allowed. O-ring face seal fittings to be utilized wherever possible.
Origin of Manufacture:	Hooklift to be designed and manufactured in the United States of America.

Stellar Shuttle Model 174-20-40 Hydraulic Hooklift Specifications

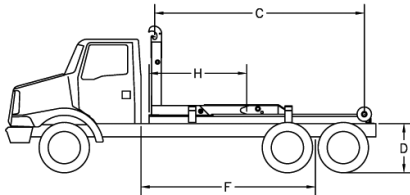
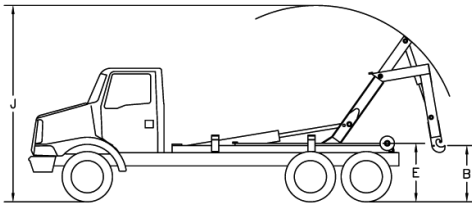
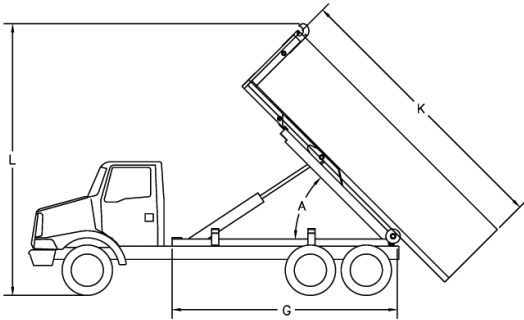
Lifting Capacity:	40,000 pounds gross weight evenly distributed in, or on, body.
Container Length:	17.5-foot through 20-foot from front A-frame to rear of skid rails. Longer bodies, up to 22-feet may be accommodated if full dump angle is not required (may require special body-mounted or extendable truck-mounted bumper and additional latches to meet the Federal Motor Carrier Safety Administration (FMCSA) Rear End Protection regulation 393.86 and Securing Hooklift Containers regulation 393.134).
Maximum Dump Angle:	50°
Operating Pressure:	4200 PSI maximum.
Weight of Hooklift:	Hooklift weight not to exceed 4,900 pounds.
Height of Hooklift:	Hooklift height not to exceed 11.31" as measured from top of truck frame to top of hooklift rollers.
Hook Height:	61.75-inches from bottom of skid rails to bottom of hook bar. Hooklift must be able to pick up body 10-inches below grade, when mounted on a 41" truck frame height.
Hydraulic Pump:	Direct-coupled high-pressure piston pump.
Hydraulic Control Valve:	Hydraulic valve mounted directly onto the oil reservoir.
Controls:	Dual manual levers with sealed cable actuators mounted in the truck cab to allow full feathering of all hooklift functions.
Tilting Hook Assembly:	Hooklift must have pivoting type front tilt section (jib) to provide a low degree loading/unloading angle. Hook to include automatic mechanical safety latch which disengages only when the container/body is in proper position to be picked up or dropped off.
Tilt Cylinder:	Single 4-inch bore with 2-inch diameter rod cylinder. Cylinder must be double acting and include dual integral pilot-operated counterbalance valves to prevent cylinder collapse in case of hose failure. Cylinder must be fully retracted when in the transport mode to prevent exposure of cylinder rod to corrosive road salts.
Tilt Section Operation:	Hooklift must include a hydraulic lock-out device to prevent operation of the tilt section while hooklift is in the dumping mode.
Lift/Dump Cylinder:	Single 7-inch bore with 3-inch diameter rod cylinder. Cylinder must be double acting and include dual integral pilot-operated counterbalance valves to prevent cylinder collapse in case of hose failure.
Dump/Tilt Interlock:	Dumping must be accomplished through a rear pivot. Tilt and lift sections must lock into a rigid full length 26" with frame with front saddles to provide support for the container while in the dump mode. These sections form this frame without the use of mechanical latches which rely on gravity, springs, or container/body mounted latches. The system must be protected from out of sequence operation.
Rear Body Hold-downs:	Dual fixed-position hold down devices mounted to the dump frame to secure the body to the hooklift through all ranges of the dump mode. This must be accomplished without the use of steel springs and/or hydraulic/air cylinders. Hooklift must be compatible with containers manufactured to ANSI Z245.60 recommended standard for waste containers.
Rear Dump Hinge Pin:	2.5-inch diameter carbon steel and zinc plated or type 17-4 stainless steel.
Pins:	All pins to be carbon steel and zinc plated or type 17-4 stainless steel.
Bushings:	All bushings to be of the DX pre-lubricated variety, used with grease fittings. Bronze bushings not allowed due to survivability in heavy containment and corrosive environments.
Hoses & Hyd. Fittings:	All hoses and fittings are to be SAE; metrics are not to be allowed. O-ring face seal fittings to be utilized wherever possible.
Origin of Manufacture:	Hooklift to be designed and manufactured in the United States of America.

Stellar Shuttle Model 190-24-40 Hydraulic Hooklift Specifications

Lifting Capacity:	40,000 pounds gross weight evenly distributed in, or on, body.
Container Length:	19-foot through 21.5-foot from front A-frame to rear of skid rails. Longer bodies up to 23.5-feet may be accommodated if full dump angle is not required (may require special body-mounted or extendable truck-mounted bumper and additional latches to meet the Federal Motor Carrier Safety Administration (FMCSA) Rear End Protection regulation 393.86 and Securing Hooklift Containers regulation 393.134).
Maximum Dump Angle:	51°
Operating Pressure:	4200 PSI maximum.
Weight of Hooklift:	Hooklift weight not to exceed 5,400 pounds.
Height of Hooklift:	Hooklift height not to exceed 11.81" as measured from top of truck frame to top of hooklift rollers.
Hook Height:	61.75-inches from bottom of skid rails to bottom of hook bar. Hooklift must be able to pick up body 10-inches below grade, when mounted on a 41" truck frame height.
Hydraulic Pump:	Direct-coupled high-pressure piston pump.
Hydraulic Control Valve:	Hydraulic valve mounted directly onto the oil reservoir.
Controls:	Dual manual levers with sealed cable actuators mounted in the truck cab to allow full feathering of all hooklift functions.
Tilting Hook Assembly:	Hooklift must have pivoting type front tilt section (jib) to provide a low degree loading/unloading angle. Hook to include automatic mechanical safety latch which disengages only when the container/body is in proper position to be picked up or dropped off.
Tilt Cylinder:	Single 4-inch bore with 2-inch diameter rod cylinder. Cylinder must be double acting and include dual integral pilot-operated counterbalance valves to prevent cylinder collapse in case of hose failure. Cylinder must be fully retracted when in the transport mode to prevent exposure of cylinder rod to corrosive road salts.
Tilt Section Operation:	Hooklift must include a hydraulic lock-out device to prevent operation of the tilt section while hooklift is in the dumping mode.
Lift/Dump Cylinder:	Single 7-inch bore with 3-inch diameter rod cylinder. Cylinder must be double acting and include dual integral pilot-operated counterbalance valves to prevent cylinder collapse in case of hose failure.
Dump/Tilt Interlock:	Dumping must be accomplished through a rear pivot. Tilt and lift sections must lock into a rigid full length 26" wide frame with front saddles to provide support for the container while in the dump mode. These sections form this frame without the use of mechanical latches which rely on gravity, springs, or container/body mounted latches. The system must be protected from out of sequence operation.
Rear Body Hold-downs:	Dual fixed-position hold down devices mounted to the dump frame to secure the body to the hooklift through all ranges of the dump mode. This must be accomplished without the use of steel springs and/or hydraulic/air cylinders. Hooklift must be compatible with containers manufactured to ANSI Z245.60 recommended standard for waste containers.
Rear Dump Hinge Pin:	2.5-inch diameter carbon steel and zinc plated or type 17-4 stainless steel.
Pins:	All pins to be carbon steel and zinc plated or type 17-4 stainless steel.
Bushings:	All bushings to be of the DX pre-lubricated variety, used with grease fittings. Bronze bushings not allowed due to survivability in heavy containment and corrosive environments.
Hoses & Hyd. Fittings:	All hoses and fittings are to be SAE; metrics are not to be allowed. O-ring face seal fittings to be utilized wherever possible.
Origin of Manufacture:	Hooklift to be designed and manufactured in the United States of America.

STELLAR SHUTTLE

52,000-pound Hooklift Loaders



- Will accommodate bodies from 15-feet up to 21.5-feet long and still retain the maximum rated dump angle on a 41-inch high frame truck. Longer bodies may be accommodated with reduced dumping capabilities.
- Transmission-mounted PTO and hydraulic pump required to power the hooklift.
- Standard in-cab manual controls which allow for precise metering of the manual stack-type hydraulic valve.
- Twenty-Five (25) gallon frame-mounted oil tank.
- Operating pressure is 4,200 psi.
- Maximum hydraulic flow is 24-gallons per minute.
- Patented dump/load interface on double pivot models.
- Hydraulic locks to prevent cylinder collapse in case of hose failure.
- Hook latch to prevent body from becoming detached prematurely.
- Mechanical rear body tie-down latches.
- Resettable dump/tilt tabs.
- Hydraulic rotary valve to prevent front tilt movement when the dump frame is raised.
- Permanently lubricated and greaseable bushings used throughout.
- Grease zerks at all pin points to allow purging of contaminants.
- Carbon steel and zinc plated or type 17-4 stainless steel pins used throughout.
- All weldments painted with two-part polyurethane enamel.

	<u>138-18-52</u>	<u>174-20-52</u>	<u>190-24-52</u>
Lifting/Dumping Capacity (pounds)	52,000	52,000	52,000
A Dump Angle	(23,587 Kg) 50°	(23,587 Kg) 50°	(23,587 Kg) 50°
B Lowest Hook Height	51" (1,295 mm)	36" (914 mm)	51" (1,295 mm)
C Effective Length	176" (4,470 mm)	206" (5,232 mm)	223" (5,664 mm)
D Truck Frame Height	41" (1,041 mm)	41" (1,041 mm)	41" (1,041 mm)
E Hooklift Height	53.06" (1,348 mm)	53.06" (1,348 mm)	53.06" (1,348 mm)
F Chassis Cab to Trunnion	138" to 144" (3,505 to 3,658 mm)	160" to 174" (4,064 to 4,420 mm)	174" to 190" (4,420 to 4,826 mm)
G Hooklift Length	190" (4,826 mm)	220" (5,588 mm)	237" (6,020 mm)
H Center of Gravity	80" (2,032 mm)	92" (2,337 mm)	96" (2,438 mm)
J Max. Height When Loading	170" (4,318 mm)	188" (4,775 mm)	195" (4,953 mm)
K Longest Body to Dump	234" (5,944 mm)	264" (6,706 mm)	282" (7,163 mm)
L Max. Height When Dumping	237" (6,020 mm)	261" (6,629 mm)	273" (6,934 mm)
Shipping Weight (pounds)	5,250 (2,381 Kg)	5,500 (2,495 Kg)	6,200 (2,812 Kg)
Hook Height (from bottom of hook bar)	61.75" (1,568 mm)	61.75" (1,568 mm)	61.75" (1,568 mm)
Shipping Dimensions (LxHxW)	190" x 86" x 49" (4,826x2,184x1,245 mm)	220" x 86" x 49" (5,588x2,184x1,245 mm)	237" x 86" x 49" (6,020x2,184x1,245 mm)
Min. Frame RBM	2,800,000	2,800,000	2,800,000
Min. Truck GVWR	54,000 (24,494 Kg)	54,000 (24,494 Kg)	54,000 (24,494 Kg)
Load Angle w/Shortest Body Length	35°	33°	32°
Recommended Body Lengths*	15' to 17.5' (4.6 to 5.3 m)	17.5' to 20' (5.3 to 6.1 m)	19' to 21.5' (5.8 to 6.6 m)
Recommended Body Lengths**	To 19' (5.8 m)	To 22' (6.7 m)	To 23.5' (7.2 m)

*(Assumes 3ft. overhang from center of rear roller pin)
(Bumper typically 12" from center of roller pin)

** (Assumes 5ft. overhang from center of rear roller pin)
(May require bumper and latch options)

Stellar Shuttle Model 138-18-52 Hydraulic Hooklift Specifications

Lifting Capacity:	52,000 pounds gross weight evenly distributed in, or on, body.
Container Length:	15-foot through 17.5-foot from front A-frame to rear of skid rails. Longer bodies up to 19.5-feet may be accommodated if full dump angle is not required (may require special body-mounted or extendable truck-mounted bumper and additional latches to meet the Federal Motor Carrier Safety Administration (FMCSA) Rear End Protection regulation 393.86 and Securing Hooklift Containers regulation 393.134).
Maximum Dump Angle:	50°
Operating Pressure:	4200 PSI maximum.
Weight of Hooklift:	Hooklift weight not to exceed 5,250 pounds.
Height of Hooklift:	Hooklift height not to exceed 12.06" as measured from top of truck frame to top of hooklift rollers.
Hook Height:	61.75-inches from bottom of skid rails to bottom of hook bar. Hooklift must be able to pick up body 10-inches below grade, when mounted on a 41" truck frame height.
Hydraulic Pump:	Direct-coupled high-pressure piston pump.
Hydraulic Control Valve:	Hydraulic valve mounted directly onto the oil reservoir.
Controls:	Dual manual levers with sealed cable actuators mounted in the truck cab to allow full feathering of all hooklift functions.
Tilting Hook Assembly:	Hooklift must have pivoting type front tilt section (jib) to provide a low degree loading/unloading angle. Hook to include automatic mechanical safety latch which disengages only when the container/body is in proper position to be picked up or dropped off.
Tilt Cylinder:	Single 5-inch bore with 2.5-inch diameter rod cylinder. Cylinder must be double acting and include dual integral pilot-operated counterbalance valves to prevent cylinder collapse in case of hose failure. Cylinder must be fully retracted when in the transport mode to prevent exposure of cylinder rod to corrosive road salts.
Tilt Section Operation:	Hooklift must include a hydraulic lock-out device to prevent operation of the tilt section while hooklift is in the dumping mode.
Lift/Dump Cylinder:	Single 8-inch bore with 3.5-inch diameter rod cylinder. Cylinder must be double acting and include dual integral pilot-operated counterbalance valves to prevent cylinder collapse in case of hose failure.
Dump/Tilt Interlock:	Dumping must be accomplished through a rear pivot. Tilt and lift sections must lock into a rigid full length 27" wide frame with front saddles to provide support for the container while in the dump mode. These sections form this frame without the use of mechanical latches which rely on gravity, springs, or container/body mounted latches. The system must be protected from out of sequence operation.
Rear Body Hold-downs:	Dual fixed-position hold down devices mounted to the dump frame to secure the body to the hooklift through all ranges of the dump mode. This must be accomplished without the use of steel springs and/or hydraulic/air cylinders. Hooklift must be compatible with containers manufactured to ANSI Z245.60 recommended standard for waste containers.
Rear Dump Hinge Pin:	3-inch diameter carbon steel and zinc plated or type 17-4 stainless steel.
Pins:	All pins to be carbon steel and zinc plated or type 17-4 stainless steel.
Bushings:	All bushings to be of the DX pre-lubricated variety, used with grease fittings. Bronze bushings not allowed due to survivability in heavy containment and corrosive environments.
Hoses & Hyd. Fittings:	All hoses and fittings are to be SAE; metrics are not to be allowed. O-ring face seal fittings to be utilized wherever possible.
Origin of Manufacture:	Hooklift to be designed and manufactured in the United States of America.

Stellar Shuttle Model 174-20-52 Hydraulic Hooklift Specifications

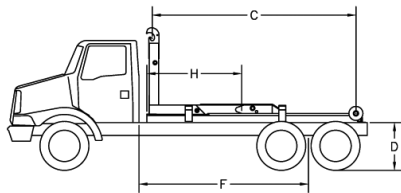
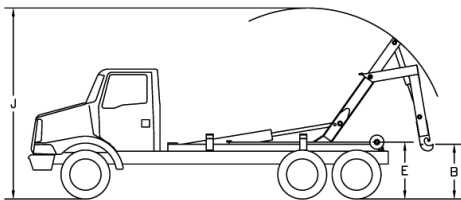
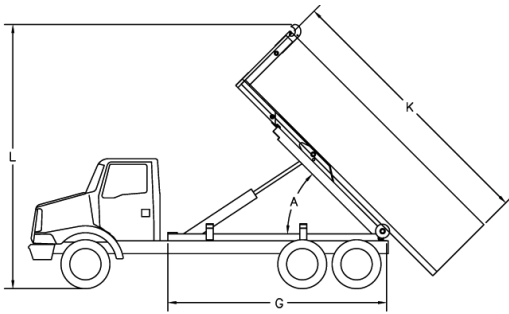
Lifting Capacity:	52,000 pounds gross weight evenly distributed in, or on, body.
Container Length:	17.5-foot through 20-foot from front A-frame to rear of skid rails. Longer bodies up to 22-feet may be accommodated if full dump angle is not required (may require special body-mounted or extendable truck-mounted bumper and additional latches to meet the Federal Motor Carrier Safety Administration (FMCSA) Rear End Protection regulation 393.86 and Securing Hooklift Containers regulation 393.134).
Maximum Dump Angle:	50°
Operating Pressure:	4200 PSI maximum.
Weight of Hooklift:	Hooklift weight not to exceed 5,500 pounds.
Height of Hooklift:	Hooklift height not to exceed 12.06" as measured from top of truck frame to top of hooklift rollers.
Hook Height:	61.75-inches from bottom of skid rails to bottom of hook bar. Hooklift must be able to pick up body 10-inches below grade, when mounted on a 41" truck frame height.
Hydraulic Pump:	Direct-coupled high-pressure piston pump.
Hydraulic Control Valve:	Hydraulic valve mounted directly onto the oil reservoir.
Controls:	Dual manual levers with sealed cable actuators mounted in the truck cab to allow full feathering of all hooklift functions.
Tilting Hook Assembly:	Hooklift must have pivoting type front tilt section (jib) to provide a low degree loading/unloading angle. Hook to include automatic mechanical safety latch which disengages only when the container/body is in proper position to be picked up or dropped off.
Tilt Cylinder:	Single 5-inch bore with 2.5-inch diameter rod cylinder. Cylinder must be double acting and include dual integral pilot-operated counterbalance valves to prevent cylinder collapse in case of hose failure. Cylinder must be fully retracted when in the transport mode to prevent exposure of cylinder rod to corrosive road salts.
Tilt Section Operation:	Hooklift must include a hydraulic lock-out device to prevent operation of the tilt section while hooklift is in the dumping mode.
Lift/Dump Cylinder:	Single 8-inch bore with 3.5-inch diameter rod cylinder. Cylinder must be double acting and include dual integral pilot-operated counterbalance valves to prevent cylinder collapse in case of hose failure.
Dump/Tilt Interlock:	Dumping must be accomplished through a rear pivot. Tilt and lift sections must lock into a rigid full length 27" wide frame with front saddles to provide support for the container while in the dump mode. These sections form this frame without the use of mechanical latches which rely on gravity, springs, or container/body mounted latches. The system must be protected from out of sequence operation.
Rear Body Hold-downs:	Dual fixed-position hold down devices mounted to the dump frame to secure the body to the hooklift through all ranges of the dump mode. This must be accomplished without the use of steel springs and/or hydraulic/air cylinders. Hooklift must be compatible with containers manufactured to ANSI Z245.60 recommended standard for waste containers.
Rear Dump Hinge Pin:	3-inch diameter carbon steel and zinc plated or type 17-4 stainless steel.
Pins:	All pins to be carbon steel and zinc plated or type 17-4 stainless steel.
Bushings:	All bushings to be of the DX pre-lubricated variety, used with grease fittings. Bronze bushings not allowed due to survivability in heavy containment and corrosive environments.
Hoses & Hyd. Fittings:	All hoses and fittings are to be SAE; metrics are not to be allowed. O-ring face seal fittings to be utilized wherever possible.
Origin of Manufacture:	Hooklift to be designed and manufactured in the United States of America.

Stellar Shuttle Mode 190-24-52 Hydraulic Hooklift Specifications

Lifting Capacity:	52,000 pounds gross weight evenly distributed in, or on, body.
Container Length:	19-foot through 21.5-foot from front A-frame to rear of skid rails. Longer bodies up to 23.5-feet may be accommodated if full dump angle is not required (may require special body-mounted or extendable truck-mounted bumper and additional latches to meet the Federal Motor Carrier Safety Administration (FMCSA) Rear End Protection regulation 393.86 and Securing Hooklift Containers regulation 393.134).
Maximum Dump Angle:	50°
Operating Pressure:	4200 PSI maximum.
Weight of Hooklift:	Hooklift weight not to exceed 6,200 pounds.
Height of Hooklift:	Hooklift height not to exceed 12.06" as measured from top of truck frame to top of hooklift rollers.
Hook Height:	61.75-inches from bottom of skid rails to bottom of hook bar. Hooklift must be able to pick up body 10-inches below grade, when mounted on a 41" truck frame height.
Hydraulic Pump:	Direct-coupled high-pressure piston pump.
Hydraulic Control Valve:	Hydraulic valve mounted directly onto the oil reservoir.
Controls:	Dual manual levers with sealed cable actuators mounted in the truck cab to allow full feathering of all hooklift functions.
Tilting Hook Assembly:	Hooklift must have pivoting type front tilt section (jib) to provide a low degree loading/unloading angle. Hook to include automatic mechanical safety latch which disengages only when the container/body is in proper position to be picked up or dropped off.
Tilt Cylinder:	Single 5-inch bore with 2.5-inch diameter rod cylinder. Cylinder must be double acting and include dual integral pilot-operated counterbalance valves to prevent cylinder collapse in case of hose failure. Cylinder must be fully retracted when in the transport mode to prevent exposure of cylinder rod to corrosive road salts.
Tilt Section Operation:	Hooklift must include a hydraulic lock-out device to prevent operation of the tilt section while hooklift is in the dumping mode.
Lift/Dump Cylinder:	Single 8-inch bore with 3.5-inch diameter rod cylinder. Cylinder must be double acting and include dual integral pilot-operated counterbalance valves to prevent cylinder collapse in case of hose failure.
Dump/Tilt Interlock:	Dumping must be accomplished through a rear pivot. Tilt and lift sections must lock into a rigid full length 27" wide frame with front saddles to provide support for the container while in the dump mode. These sections form this frame without the use of mechanical latches which rely on gravity, springs, or container/body mounted latches. The system must be protected from out of sequence operation.
Rear Body Hold-downs:	Dual fixed-position hold down devices mounted to the dump frame to secure the body to the hooklift through all ranges of the dump mode. This must be accomplished without the use of steel springs and/or hydraulic/air cylinders. Hooklift must be compatible with containers manufactured to ANSI Z245.60 recommended standard for waste containers.
Rear Dump Hinge Pin:	3-inch diameter carbon steel and zinc plated or type 17-4 stainless steel.
Pins:	All pins to be carbon steel and zinc plated or type 17-4 stainless steel.
Bushings:	All bushings to be of the DX pre-lubricated variety, used with grease fittings. Bronze bushings not allowed due to survivability in heavy containment and corrosive environments.
Hoses & Hyd. Fittings:	All hoses and fittings are to be SAE; metrics are not to be allowed. O-ring face seal fittings to be utilized wherever possible.
Origin of Manufacture:	Hooklift to be designed and manufactured in the United States of America.

STELLAR SHUTTLE

65,000-pound Hooklift Loaders



- Will accommodate bodies from 15-feet up to 21.5-feet long and still retain the maximum rated dump angle on a 41-inch high frame truck. Longer bodies may be accommodated with reduced dumping capabilities.
- Transmission-mounted PTO and hydraulic pump required to power the hooklift.
- Standard in-cab manual controls which allow for precise metering of the manual stack-type hydraulic valve.
- Twenty-Five (25) gallon frame-mounted oil tank.
- Operating pressure is 4,200 psi.
- Maximum hydraulic flow is 24-gallons per minute.
- Patented dump/load interface on double pivot models.
- Hydraulic locks to prevent cylinder collapse in case of hose failure.
- Hook latch to prevent body from becoming detached prematurely.
- Mechanical rear body tie-down latches.
- Resettable dump/tilt tabs.
- Hydraulic rotary valve to prevent front tilt movement when the dump frame is raised.
- Permanently lubricated and greaseable bushings used throughout.
- Grease zerks at all pin points to allow purging of contaminants.
- Carbon steel and zinc plated or type 17-4 stainless steel pins used throughout.
- All weldments painted with two-part polyurethane enamel.

	<u>138-18-65</u>	<u>174-20-65</u>	<u>190-24-65</u>
Lifting/Dumping Capacity (pounds)	65,000 (29,483 Kg)	65,000 (29,483 Kg)	65,000 (29,483 Kg)
A Dump Angle	50°	51°	50°
B Lowest Hook Height	45" (1,143 mm)	45" (1,143 mm)	42" (1,067 mm)
C Effective Length	174" (4,420 mm)	204" (5,182 mm)	221" (5,613 mm)
D Truck Frame Height	41" (1,041 mm)	41" (1,041 mm)	41" (1,041 mm)
E Hooklift Height	54" (1,372 mm)	54" (1,372 mm)	54" (1,372 mm)
F Chassis Cab to Trunnion	138" to 144" (3,505 to 3,658 mm)	160" to 174" (4,064 to 4,420 mm)	174" to 190" (4,420 to 4,826 mm)
G Hooklift Length	190" (4,826 mm)	220" (5,588 mm)	237" (6,020 mm)
H Center of Gravity	82" (2,083 mm)	91" (2,311 mm)	96" (2,438 mm)
J Max. Height When Loading	171" (4,343 mm)	188" (4,775 mm)	195" (4,953 mm)
K Longest Body to Dump	234" (5,944 mm)	264" (6,706 mm)	282" (7,163 mm)
L Max. Height When Dumping	238" (6,045 mm)	262" (6,655 mm)	272" (6,909 mm)
Shipping Weight (pounds)	6,300 (2,858 Kg)	6,875 (3,118 Kg)	7,300 (3,311 Kg)
Hook Height (from bottom of hook bar)	61.75" (1,568 mm)	61.75" (1,568 mm)	61.75" (1,568 mm)
Shipping Dimensions (LxHxW)	190" x 86" x 56" (4,826x2,184x1,422 mm)	220" x 86" x 56" (5,588x2,184x1,422 mm)	237" x 86" x 56" (6,020x2,184x1,422 mm)
Min. Frame RBM	3,200,000	3,200,000	3,200,000
Min. Truck GVWR (pounds)	54,000 (24,494 Kg)	54,000 (24,494 Kg)	54,000 (24,494 Kg)
Load Angle w/Shortest Body Length	34°	33°	29°
Recommended Body Lengths*	15' to 17.5' (4.6 to 5.3 m)	17' to 20' (5.2 to 6.1 m)	19' to 21.5' (5.8 to 6.6 m)
Recommended Body Lengths**	To 19.5' (5.9 m)	To 22' (6.7 m)	To 23.5' (7.2 m)

* (Assumes 3ft. overhang from center of rear roller pin)
(Bumper typically 12" from center of roller pin)

** (Assumes 5ft. overhang from center of rear roller pin)
(May require bumper and latch options)

Stellar Shuttle Model 138-18-65 Hydraulic Hooklift Specifications

Lifting Capacity:	65,000 pounds gross weight evenly distributed in, or on, body.
Container Length:	15-foot through 17.5-foot from front A-frame to rear of skid rails. Longer bodies up to 19.5-feet may be accommodated if full dump angle is not required (may require special body-mounted or extendable truck-mounted bumper and additional latches to meet the Federal Motor Carrier Safety Administration (FMCSA) Rear End Protection regulation 393.86 and Securing Hooklift Containers regulation 393.134).
Maximum Dump Angle:	50°
Operating Pressure:	4200 PSI maximum.
Weight of Hooklift:	Hooklift weight not to exceed 6,300 pounds.
Height of Hooklift:	Hooklift height not to exceed 13" as measured from top of truck frame to top of hooklift rollers.
Hook Height:	61.75-inches from bottom of skid rails to bottom of hook bar. Hooklift must be able to pick up body 10-inches below grade, when mounted on a 41" truck frame height.
Hydraulic Pump:	Direct-coupled high-pressure piston pump.
Hydraulic Control Valve:	Hydraulic valve mounted directly onto the oil reservoir.
Controls:	Dual manual levers with sealed cable actuators mounted in the truck cab to allow full feathering of all hooklift functions.
Tilting Hook Assembly:	Hooklift must have pivoting type front tilt section (jib) to provide a low degree loading/unloading angle. Hook to include automatic mechanical safety latch which disengages only when the container/body is in proper position to be picked up or dropped off.
Tilt Cylinder:	Single 5-inch bore with 2.5-inch diameter rod cylinder. Cylinder must be double acting and include dual integral pilot-operated counterbalance valves to prevent cylinder collapse in case of hose failure. Cylinder must be fully retracted when in the transport mode to prevent exposure of cylinder rod to corrosive road salts.
Tilt Section Operation:	Hooklift must include a hydraulic lock-out device to prevent operation of the tilt section while hooklift is in the dumping mode.
Lift/Dump Cylinder:	Dual 7-inch bore with 3-inch diameter rod cylinder. Cylinders must be double acting and include pilot-operated counterbalance valving to prevent cylinder collapse in case of hose failure.
Dump/Tilt Interlock:	Dumping must be accomplished through a rear pivot. Tilt and lift sections must lock into a rigid full length 34" wide frame with front saddles to provide support for the container while in the dump mode. These sections form this frame without the use of mechanical latches which rely on gravity, springs, or container/body mounted latches. The system must be protected from out of sequence operation.
Rear Body Hold-downs:	Dual fixed-position hold down devices mounted to the dump frame to secure the body to the hooklift through all ranges of the dump mode. This must be accomplished without the use of steel springs and/or hydraulic/air cylinders. Hooklift must be compatible with containers manufactured to ANSI Z245.60 recommended standard for waste containers.
Rear Dump Hinge Pin:	3-inch diameter carbon steel and zinc plated or type 17-4 stainless steel.
Pins:	All pins to be carbon steel and zinc plated or type 17-4 stainless steel.
Bushings:	All bushings to be of the DX pre-lubricated variety, used with grease fittings. Bronze bushings not allowed due to survivability in heavy containment and corrosive environments.
Hoses & Hyd. Fittings:	All hoses and fittings are to be SAE; metrics are not to be allowed. O-ring face seal fittings to be utilized wherever possible.
Origin of Manufacture:	Hooklift to be designed and manufactured in the United States of America.

Stellar Shuttle Model 174-20-65 Hydraulic Hooklift Specifications

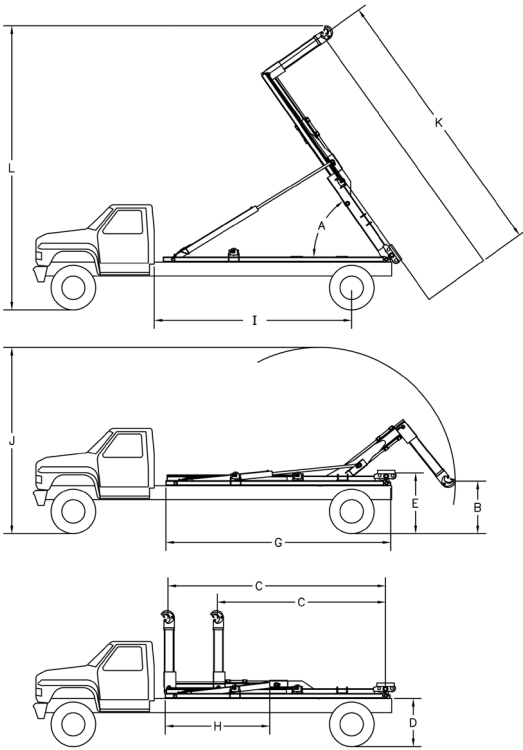
Lifting Capacity:	65,000 pounds gross weight evenly distributed in, or on, body.
Container Length:	17-foot through 20-foot from front A-frame to rear of skid rails. Longer bodies up to 22-feet may be accommodated if full dump angle is not required (may require special body-mounted or extendable truck-mounted bumper and additional latches to meet the Federal Motor Carrier Safety Administration (FMCSA) Rear End Protection regulation 393.86 and Securing Hooklift Containers regulation 393.134).
Maximum Dump Angle:	51°
Operating Pressure:	4200 PSI maximum.
Weight of Hooklift:	Hooklift weight not to exceed 6,875 pounds.
Height of Hooklift:	Hooklift height not to exceed 13" as measured from top of truck frame to top of hooklift rollers.
Hook Height:	61.75-inches from bottom of skid rails to bottom of hook bar. Hooklift must be able to pick up body 10-inches below grade, when mounted in a 41" truck frame height.
Hydraulic Pump:	Direct-coupled high-pressure piston pump.
Hydraulic Control Valve:	Hydraulic valve mounted directly onto the oil reservoir.
Controls:	Dual manual levers with sealed cable actuators mounted in the truck cab to allow full feathering of all hooklift functions.
Tilting Hook Assembly:	Hooklift must have pivoting type front tilt section (jib) to provide a low degree loading/unloading angle. Hook to include automatic mechanical safety latch which disengages only when the container/body is in proper position to be picked up or dropped off.
Tilt Cylinder:	Single 5-inch bore with 2.5-inch diameter rod cylinder. Cylinder must be double acting and include dual integral pilot-operated counterbalance valves to prevent cylinder collapse in case of hose failure. Cylinder must be fully retracted when in the transport mode to prevent exposure of cylinder rod to corrosive road salts.
Tilt Section Operation:	Hooklift must include a hydraulic lock-out device to prevent operation of the tilt section while hooklift is in the dumping mode.
Lift/Dump Cylinder:	Dual 7-inch bore with 3-inch diameter rod cylinder. Cylinders must be double acting and include pilot-operated counterbalance valving to prevent cylinder collapse in case of hose failure.
Dump/Tilt Interlock:	Dumping must be accomplished through a rear pivot. Tilt and lift sections must lock into a rigid full length 34" wide frame with front saddles to provide support for the container while in the dump mode. These sections form this frame without the use of mechanical latches which rely on gravity, springs, or container/body mounted latches. The system must be protected from out of sequence operation.
Rear Body Hold-downs:	Dual fixed-position hold down devices mounted to the dump frame to secure the body to the hooklift through all ranges of the dump mode. This must be accomplished without the use of steel springs and/or hydraulic/air cylinders. Hooklift must be compatible with containers manufactured to ANSI Z245.60 recommended standard for waste containers.
Rear Dump Hinge Pin:	3-inch diameter carbon steel and zinc plated or type 17-4 stainless steel.
Pins:	All pins to be carbon steel and zinc plated or type 17-4 stainless steel.
Bushings:	All bushings to be of the DX pre-lubricated variety, used with grease fittings. Bronze bushings not allowed due to survivability in heavy containment and corrosive environments.
Hoses & Hyd. Fittings:	All hoses and fittings are to be SAE; metrics are not to be allowed. O-ring face seal fittings to be utilized wherever possible.
Origin of Manufacture:	Hooklift to be designed and manufactured in the United States of America.

Stellar Shuttle Model 190-24-65 Hydraulic Hooklift Specifications

Lifting Capacity:	65,000 pounds gross weight evenly distributed in, or on, body.
Container Length:	19-foot through 21.5-foot from front A-frame to rear of skid rails. Longer bodies up to 23.5-feet may be accommodated if full dump angle is not required (may require special body-mounted or extendable truck-mounted bumper and additional latches to meet the Federal Motor Carrier Safety Administration (FMCSA) Rear End Protection regulation 393.86 and Securing Hooklift Containers regulation 393.134).
Maximum Dump Angle:	50°
Operating Pressure:	4200 PSI maximum.
Weight of Hooklift:	Hooklift weight not to exceed 7,300 pounds.
Height of Hooklift:	Hooklift height not to exceed 13" as measured from top of truck frame to top of hooklift rollers.
Hook Height:	61.75-inches from bottom of skid rails to bottom of hook bar. Hooklift must be able to pick up body 10-inches below grade, when mounted on a 41" truck frame height.
Hydraulic Pump:	Direct-coupled high-pressure piston pump.
Hydraulic Control Valve:	Hydraulic valve mounted directly onto the oil reservoir.
Controls:	Dual manual levers with sealed cable actuators mounted in the truck cab to allow full feathering of all hooklift functions.
Tilting Hook Assembly:	Hooklift must have pivoting type front tilt section (jib) to provide a low degree loading/unloading angle. Hook to include automatic mechanical safety latch which disengages only when the container/body is in proper position to be picked up or dropped off.
Tilt Cylinder:	Single 5-inch bore with 2.5-inch diameter rod cylinder. Cylinder must be double acting and include dual integral pilot-operated counterbalance valves to prevent cylinder collapse in case of hose failure. Cylinder must be fully retracted when in the transport mode to prevent exposure of cylinder rod to corrosive road salts.
Tilt Section Operation:	Hooklift must include a hydraulic lock-out device to prevent operation of the tilt section while hooklift is in the dumping mode.
Lift/Dump Cylinder:	Dual 7-inch bore with 3-inch diameter rod cylinder. Cylinders must be double acting and include pilot-operated counterbalance valving to prevent cylinder collapse in case of hose failure.
Dump/Tilt Interlock:	Dumping must be accomplished through a rear pivot. Tilt and lift sections must lock into a rigid full length 34" wide frame with front saddles to provide support for the container while in the dump mode. These sections form this frame without the use of mechanical latches which rely on gravity, springs, or container/body mounted latches. The system must be protected from out of sequence operation.
Rear Body Hold-downs:	Dual fixed-position hold down devices mounted to the dump frame to secure the body to the hooklift through all ranges of the dump mode. This must be accomplished without the use of steel springs and/or hydraulic/air cylinders. Hooklift must be compatible with containers manufactured to ANSI Z245.60 recommended standard for waste containers.
Rear Dump Hinge Pin:	3-inch diameter carbon steel and zinc plated or type 17-4 stainless steel.
Pins:	All pins to be carbon steel and zinc plated or type 17-4 stainless steel.
Bushings:	All bushings to be of the DX pre-lubricated variety, used with grease fittings. Bronze bushings not allowed due to survivability in heavy containment and corrosive environments.
Hoses & Hyd. Fittings:	All hoses and fittings are to be SAE; metrics are not to be allowed. O-ring face seal fittings to be utilized wherever possible.
Origin of Manufacture:	Hooklift to be designed and manufactured in the United States of America.

STELLAR Slider20

20,000-pound Sliding Jib Hooklift



- Will accommodate bodies from 13-feet up to 18-feet long and still retain the maximum rated dump angle on a 41-inch high frame truck. Longer bodies may be accommodated with reduced dumping capabilities.
- Transmission-mounted PTO and hydraulic pump required to power the hooklift.
- Standard in-cab manual controls which allow for precise metering of the manual hydraulic valve.
- Ten (10) gallon frame-mounted oil tank.
- Operating pressure is 4,500 psi.
- Maximum hydraulic flow is 16-gallons per minute.
- Patented dump/load interface as featured on most Stellar Hooklifts.
- Hydraulic locks to prevent cylinder collapse in case of hose failure.
- Slide through rear body tie-down latches.
- Plunger valve to prevent front jib movement when the dump frame is raised.
- Permanently lubricated and greaseable bushings used throughout.
- Grease zerks at all pin points to allow purging of contaminants.
- Carbon steel and zinc plated or type 17-4 stainless steel pins used throughout.
- All weldments painted with two-part polyurethane enamel.

	<u>54" HH</u>	<u>61.75" HH</u>	<u>54-61.75" HH</u>
Lifting/Dumping Capacity (pounds)	20,000 (9,072 Kg)	20,000 (9,072 Kg)	20,000 (9,072 Kg)
A Dump Angle	55°	55°	55°
B Lowest Hook Height	47" (1,194 mm)	47" (1,194 mm)	47" (1,194 mm)
C Effective Length	143" to 185" (3,632 to 4,699 mm)	143" to 185" (3,632 to 4,699 mm)	143" to 185" (3,632 to 4,699 mm)
D Truck Frame Height	41" (1,041 mm)	41" (1,041 mm)	41" (1,041 mm)
E Hooklift Height	51.63" (1,311 mm)	51.63" (1,311 mm)	51.63" (1,311 mm)
G Hooklift Length	195" (4,953 mm)	195" (4,953 mm)	195" (4,953 mm)
H Center of Gravity	87" (2,210 mm)	87" (2,210 mm)	87" (2,210 mm)
I Chassis Cab to Axle	138" to 156" (3,505 to 3,962 mm)	138" to 156" (3,505 to 3,962 mm)	138" to 156" (3,505 to 3,962 mm)
J Max. Height When Loading	159" (4,039 mm)	159" (4,039 mm)	159" (4,039 mm)
K Longest Body to Dump	240" (6,096 mm)	240" (6,096 mm)	240" (6,096 mm)
L Max. Height When Dumping	241" (6,121 mm)	241" (6,121 mm)	241" (6,121 mm)
Shipping Weight (pounds)	3,500 (1,588 Kg)	3,600 (1,633 kg)	3,700 (1,678 kg)
Hook Height (from bottom of hook bar)	54" (1,372 mm)	61.75" (1,568 mm)	54" or 61.75" (1,372 mm)
Shipping Dimensions (LxHxW)	195" x 75" x 53" (4,953x1,905x1,346 mm)	195" x 75" x 53" (4,953x1,905x1,346 mm)	195" x 75" x 53" (4,953x1,905x1,346 mm)
Min. Frame RBM	900,000	900,000	900,000
Min. Truck GVWR	25,000 (11,340 Kg)	25,000 (11,340 Kg)	25,000 (11,340 Kg)
Load Angle w/ Shortest Body Length	47°	47°	47°
Recommended Body Lengths*	13' to 18' (4.0 to 5.5 m)	13' to 18' (4.0 to 5.5 m)	13' to 18' (4.0 to 5.5 m)
Recommended Body Lengths**	To 20' (6.1 m)	To 20' (6.1 m)	To 20' (6.1 m)

*(Assumes 3ft. overhang from center of rear roller pin)
(Bumper typically 12" from center of roller pin)

** (Assumes 5ft. overhang from center of rear roller pin)
(May require bumper and latch options)

Stellar Slider20 54” Hook Height Hydraulic Hooklift Specifications

Lifting Capacity:	20,000 pounds gross weight evenly distributed in, or on, body.
Container Length:	13-foot through 18-foot from front A-frame to rear of skid rails. Longer bodies up to 20-feet may be accommodated if full dump angle is not required (may require special body-mounted or extendable truck-mounted bumper and additional latches to meet the Federal Motor Carrier Safety Administration (FMCSA) Rear End Protection regulation 393.86 and Securing Hooklift Containers regulation 393.134).
Maximum Dump Angle:	55°
Operating Pressure:	4500 PSI maximum.
Weight of Hooklift:	Hooklift weight not to exceed 3,500 pounds.
Height of Hooklift:	Hooklift height not to exceed 11.63” as measured from top of truck frame to top of hooklift rollers.
Hook Height:	54-inches from bottom of skid rails to bottom of hook bar. Hooklift must be able to pick up body 7-inches below grade when mounted on a truck with a 41” frame height.
Hydraulic Pump:	Direct-coupled high-pressure piston pump.
Hydraulic Control Valve:	Hydraulic valve mounted directly onto the oil reservoir.
Controls:	Dual manual levers with sealed cable actuators mounted in the truck cab to allow full feathering of all hooklift functions.
Sliding Jib Assembly:	Hooklift must have sliding type front jib section to provide a low degree loading/unloading angle. Hook to include automatic mechanical safety latch which disengages only when the container/body is in proper position to be picked up or dropped off.
Jib Cylinder:	Single 3-inch bore with 1.5-inch diameter rod cylinder. Cylinder must be double acting and include dual integral pilot-operated counterbalance valves to prevent cylinder collapse in case of hose failure.
Dumping Operation:	Hooklift must include a hydraulic lock-out device to prevent operation of the jib section while hooklift is in the dumping mode.
Lift/Dump Cylinder:	Dual 4-inch bore with 2-inch diameter rod cylinder. Cylinder must be double acting and include dual integral pilot-operated counterbalance valves to prevent cylinder collapse in case of hose failure.
Dump/Jib Interlock:	Dumping must be accomplished through a rear pivot. Jib and dump sections must lock into a rigid full length 13”-wide frame with front rollers to provide support for the container while in the dump mode. These sections form this frame without the use of mechanical latches which rely on gravity, springs, or container/body mounted latches. The system must be protected from out of sequence operation.
Rear Body Hold-downs:	Dual slide-through hold down devices mounted to the dump frame to secure the body to the hooklift through all ranges of the dump mode. This must be accomplished without the use of steel springs and/or hydraulic/air cylinders. They must allow bodies with different tie down locations to be loaded. Hooklift must be compatible with containers manufactured to ANSI Z245.60 recommended standard for waste containers.
Rear Dump Hinge Pin:	2-inch diameter carbon steel and zinc plated or type 17-4 stainless steel.
Pins:	All pins to be carbon steel and zinc plated or type 17-4 stainless steel.
Bushings:	All bushings to be of the DX pre-lubricated variety, used with grease fittings. Bronze bushings not allowed due to survivability in heavy containment and corrosive environments.
Hoses & Hyd. Fittings:	All hoses and fittings are to be SAE; metrics are not to be allowed. O-ring face seal fittings to be utilized wherever possible.
Origin of Manufacture:	Hooklift to be designed and manufactured in the United States of America.

Stellar Slider20 61.75" Hook Height Hydraulic Hooklift Specifications

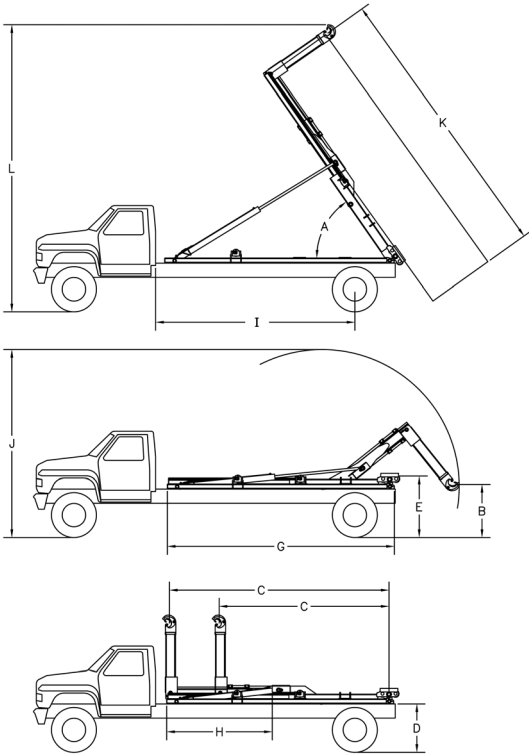
Lifting Capacity:	20,000 pounds gross weight evenly distributed in, or on, body.
Container Length:	13-foot through 18-foot from front A-frame to rear of skid rails. Longer bodies up to 20-feet may be accommodated if full dump angle is not required (may require special body-mounted or extendable truck-mounted bumper and additional latches to meet the Federal Motor Carrier Safety Administration (FMCSA) Rear End Protection regulation 393.86 and Securing Hooklift Containers regulation 393.134).
Maximum Dump Angle:	55°
Operating Pressure:	4500 PSI maximum.
Weight of Hooklift:	Hooklift weight not to exceed 3,600 pounds.
Height of Hooklift:	Hooklift height not to exceed 11.63" as measured from top of truck frame to top of hooklift rollers.
Hook Height:	61.75-inches from bottom of skid rails to bottom of hook bar. Hooklift must be able to pick up body 14.75-inches below grade when mounted on a truck with a 41" frame height.
Hydraulic Pump:	Direct-coupled high-pressure piston pump.
Hydraulic Control Valve:	Hydraulic valve mounted directly onto the oil reservoir.
Controls:	Dual manual levers with sealed cable actuators mounted in the truck cab to allow full feathering of all hooklift functions.
Sliding Jib Assembly:	Hooklift must have sliding type front jib section to provide a low degree loading/unloading angle. Hook to include automatic mechanical safety latch which disengages only when the container/body is in proper position to be picked up or dropped off.
Jib Cylinder:	Single 3-inch bore with 1.5-inch diameter rod cylinder. Cylinder must be double acting and include dual integral pilot-operated counterbalance valves to prevent cylinder collapse in case of hose failure.
Dumping Operation:	Hooklift must include a hydraulic lock-out device to prevent operation of the jib section while hooklift is in the dumping mode.
Lift/Dump Cylinder:	Dual 4-inch bore with 2-inch diameter rod cylinder. Cylinder must be double acting and include dual integral pilot-operated counterbalance valves to prevent cylinder collapse in case of hose failure.
Dump/Jib Interlock:	Dumping must be accomplished through a rear pivot. Jib and dump sections must lock into a rigid full length 13"-wide frame with front rollers to provide support for the container while in the dump mode. These sections form this frame without the use of mechanical latches which rely on gravity, springs, or container/body mounted latches. The system must be protected from out of sequence operation.
Rear Body Hold-downs:	Dual slide-through hold down devices mounted to the dump frame to secure the body to the hooklift through all ranges of the dump mode. This must be accomplished without the use of steel springs and/or hydraulic/air cylinders. They must allow bodies with different tie down locations to be loaded. Hooklift must be compatible with containers manufactured to ANSI Z245.60 recommended standard for waste containers.
Rear Dump Hinge Pin:	2-inch diameter carbon steel and zinc plated or type 17-4 stainless steel.
Pins:	All pins to be carbon steel and zinc plated or type 17-4 stainless steel.
Bushings:	All bushings to be of the DX pre-lubricated variety, used with grease fittings. Bronze bushings not allowed due to survivability in heavy containment and corrosive environments.
Hoses & Hyd. Fittings:	All hoses and fittings are to be SAE; metrics are not to be allowed. O-ring face seal fittings to be utilized wherever possible.
Origin of Manufacture:	Hooklift to be designed and manufactured in the United States of America.

Stellar Slider20 54"-61.75" Hook Height Hydraulic Hooklift Specifications

Lifting Capacity:	20,000 pounds gross weight evenly distributed in, or on, body.
Container Length:	13-foot through 18-foot from front A-frame to rear of skid rails. Longer bodies up to 20-feet may be accommodated if full dump angle is not required (may require special body-mounted or extendable truck-mounted bumper and additional latches to meet the Federal Motor Carrier Safety Administration (FMCSA) Rear End Protection regulation 393.86 and Securing Hooklift Containers regulation 393.134).
Maximum Dump Angle:	55°
Operating Pressure:	4500 PSI maximum.
Weight of Hooklift:	Hooklift weight not to exceed 3,700 pounds.
Height of Hooklift:	Hooklift height not to exceed 11.63" as measured from top of truck frame to top of hooklift rollers.
Hook Height:	54" hook height must be able to pick up body 7-inches below grade when mounted on a truck with a 41" frame height. 61.75" hook height must be able to pick up body 14.75-inches below grade when mounted on a truck with a 41" frame height.
Hydraulic Pump:	Direct-coupled high-pressure piston pump.
Hydraulic Control Valve:	Hydraulic valve mounted directly onto the oil reservoir.
Controls:	Dual manual levers with sealed cable actuators mounted in the truck cab to allow full feathering of all hooklift functions.
Sliding Jib Assembly:	Hooklift must have sliding type front jib section to provide a low degree loading/unloading angle. Hook to include automatic mechanical safety latch which disengages only when the container/body is in proper position to be picked up or dropped off.
Jib Cylinder:	Single 3-inch bore with 1.5-inch diameter rod cylinder. Cylinder must be double acting and include dual integral pilot-operated counterbalance valves to prevent cylinder collapse in case of hose failure.
Dumping Operation:	Hooklift must include a hydraulic lock-out device to prevent operation of the jib section while hooklift is in the dumping mode.
Lift/Dump Cylinder:	Dual 4-inch bore with 2-inch diameter rod cylinder. Cylinder must be double acting and include dual integral pilot-operated counterbalance valves to prevent cylinder collapse in case of hose failure.
Dump/Jlb Interlock:	Dumping must be accomplished through a rear pivot. Jib and dump sections must lock into a rigid full length 13"-wide frame with front rollers to provide support for the container while in the dump mode. These sections form this frame without the use of mechanical latches which rely on gravity, springs, or container/body mounted latches. The system must be protected from out of sequence operation.
Rear Body Hold-downs:	Dual slide-through hold down devices mounted to the dump frame to secure the body to the hooklift through all ranges of the dump mode. This must be accomplished without the use of steel springs and/or hydraulic/air cylinders. They must allow bodies with different tie down locations to be loaded. Hooklift must be compatible with containers manufactured to ANSI Z245.60 recommended standard for waste containers.
Rear Dump Hinge Pin:	2-inch diameter carbon steel and zinc plated or type 17-4 stainless steel.
Pins:	All pins to be carbon steel and zinc plated or type 17-4 stainless steel.
Bushings:	All bushings to be of the DX pre-lubricated variety, used with grease fittings. Bronze bushings not allowed due to survivability in heavy containment and corrosive environments.
Hoses & Hyd. Fittings:	All hoses and fittings are to be SAE; metrics are not to be allowed. O-ring face seal fittings to be utilized wherever possible.
Origin of Manufacture:	Hooklift to be designed and manufactured in the United States of America.

STELLAR Slider20-S

20,000-pound Sliding Jib Hooklift



- Will accommodate bodies from 10-feet up to 14-feet long and still retain the maximum rated dump angle on a 40-inch high frame truck. Longer bodies may be accommodated with reduced dumping capabilities.
- Transmission-mounted PTO and hydraulic pump required to power the hooklift.
- Standard in-cab manual controls which allow for precise metering of the manual hydraulic valve.
- Ten (10) gallon frame-mounted oil tank.
- Operating pressure is 4,500 psi.
- Maximum hydraulic flow is 24-gallons per minute.
- Patented dump/load interface as featured on most Stellar Hooklifts.
- Hydraulic locks to prevent cylinder collapse in case of hose failure.
- Slide through rear body tie-down latches.
- Plunger valve to prevent front jib movement when the dump frame is raised.
- Permanently lubricated and greaseable bushings used throughout.
- Grease zerks at all pin points to allow purging of contaminants.
- Carbon steel and zinc plated or type 17-4 stainless steel pins used throughout.
- All weldments painted with two-part polyurethane enamel.

	<u>35.63" HH</u>	<u>54" HH</u>	<u>35.63-54" HH</u>
Lifting/Dumping Capacity (pounds)	20,000 (9,072 Kg)	20,000 (9,072 Kg)	20,000 (9,072 Kg)
A Dump Angle	60°	60°	60°
B Lowest Hook Height	27" (686 mm)	8.63" (219 mm)	27-8.63" (219-686 mm)
C Effective Length	112" to 142" (2,845 to 3,607 mm)	112" to 142" (2,845 to 3,607 mm)	112" to 142" (2,845 to 3,607 mm)
D Truck Frame Height	40" (1,016 mm)	40" (1,016 mm)	40" (1,016 mm)
E Hooklift Height	51.88" (1,318 mm)	51.63" (1,311 mm)	51.63" (1,311 mm)
G Hooklift Length	152" (3,861 mm)	152" (3,861 mm)	152" (3,861 mm)
H Center of Gravity	63" (1,600 mm)	62" (1,575 mm)	62" (1,575 mm)
I Chassis Cab to Axle	108" to 120" (2,743 to 3,048mm)	108" to 120" (2,743 to 3,048mm)	108" to 120" (2,743 to 3,048mm)
J Max. Height When Loading	130.6" (3,318 mm)	142.6" (3,622 mm)	130.6" to 142.6" (3,318 to 3,622 mm)
K Longest Body to Dump	180" (4,572 mm)	180" (4,572 mm)	180" (4,572 mm)
L Max. Height When Dumping	157.75" (4,007 mm)	206.5" (5,245 mm)	157.75 or 206.5" (4,007 or 5,245 mm)
Shipping Weight (pounds)	3,850 (1,764 Kg)	3,920 (1,778 kg)	3,950 (1,792 kg)
Hook Height (from bottom of hook bar)	35.63" (905 mm)	54" (1,372 mm)	35.63" or 54" (905 or 1,372 mm)
Shipping Dimensions (LxHxW)	153" x 47" x 58" (3,886x1,194x1,473 mm)	153" x 47" x 58" (3,886x1,194x1,473 mm)	153" x 47" x 58" (3,886x1,194x1,473 mm)
Min. Frame RBM	900,000	900,000	900,000
Min. Truck GVWR	25,000 (11,340 Kg)	25,000 (11,340 Kg)	25,000 (11,340 Kg)
Load Angle w/ Shortest Body Length	60°	55°	55°
Recommended Body Lengths*	10' to 14' (3.0 to 4.3 m)	10' to 14' (3.0 to 4.3 m)	10' to 14' (3.0 to 4.3 m)
Recommended Flatbed Lengths*	Up to 16' (4.9 m)	Up to 16' (4.9 m)	Up to 16' (4.9 m)

*(Assumes 3ft. overhang from center of rear roller pin)
(Bumper typically 12" from center of roller pin)

Stellar Slider20-S 35.63” Hook Height Hydraulic Hooklift Specifications

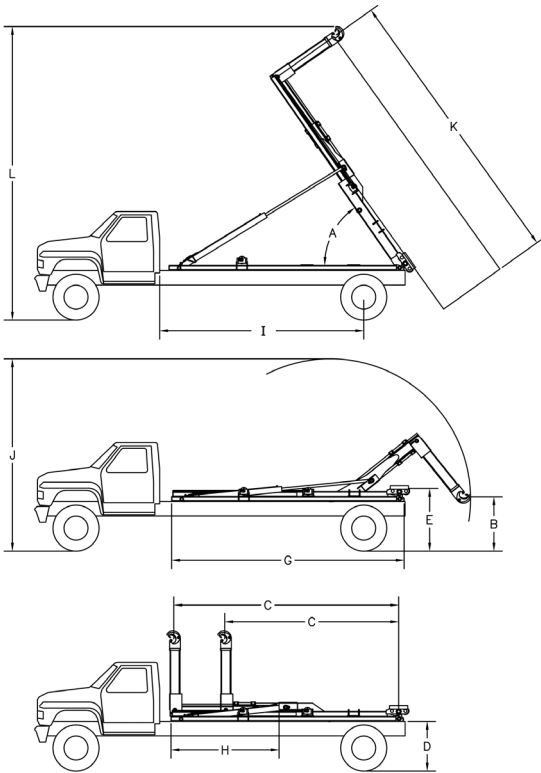
Lifting Capacity:	20,000 pounds gross weight evenly distributed in, or on, body.
Container Length:	10-foot through 14-foot from front A-frame to rear of skid rails. Longer bodies up to 20-feet may be accommodated if full dump angle is not required (may require special body-mounted or extendable truck-mounted bumper and additional latches to meet the Federal Motor Carrier Safety Administration (FMCSA) Rear End Protection regulation 393.86 and Securing Hooklift Containers regulation 393.134).
Maximum Dump Angle:	60°
Operating Pressure:	4500 PSI maximum.
Weight of Hooklift:	Hooklift weight not to exceed 3,850 pounds.
Height of Hooklift:	Hooklift height not to exceed 11.88” as measured from top of truck frame to top of hooklift rollers.
Hook Height:	35.63-inches from bottom of skid rails to bottom of hook bar. Hooklift must be able to pick up body 10-inches below grade when mounted on a truck with a 40” frame height.
Hydraulic Pump:	Direct-coupled high-pressure piston pump.
Hydraulic Control Valve:	Hydraulic valve mounted directly onto the oil reservoir.
Controls:	Dual manual levers with sealed cable actuators mounted in the truck cab to allow full feathering of all hooklift functions.
Sliding Jib Assembly:	Hooklift must have sliding type front jib section to provide a low degree loading/unloading angle. Hook to include automatic mechanical safety latch which disengages only when the container/body is in proper position to be picked up or dropped off.
Jib Cylinder:	Single 3-inch bore with 1.5-inch diameter rod cylinder. Cylinder must be double acting and include dual integral pilot-operated counterbalance valves to prevent cylinder collapse in case of hose failure.
Dumping Operation:	Hooklift must include a hydraulic lock-out device to prevent operation of the jib section while hooklift is in the dumping mode.
Lift/Dump Cylinder:	Dual 4-inch bore with 2.5-inch diameter rod cylinder. Cylinder must be double acting and include dual integral pilot-operated counterbalance valves to prevent cylinder collapse in case of hose failure.
Dump/Jib Interlock:	Dumping must be accomplished through a rear pivot. Jib and dump sections must lock into a rigid full length frame with front rollers to provide support for the container while in the dump mode. These sections form this frame without the use of mechanical latches which rely on gravity, springs, or container/body mounted latches. The system must be protected from out of sequence operation.
Rear Body Hold-downs:	Dual slide-through hold down devices mounted to the dump frame to secure the body to the hooklift through all ranges of the dump mode. This must be accomplished without the use of steel springs and/or hydraulic/air cylinders. They must allow bodies with different tie down locations to be loaded. Hooklift must be compatible with containers manufactured to ANSI Z245.60 recommended standard for waste containers.
Rear Dump Hinge Pin:	2-inch diameter carbon steel and zinc plated or type 17-4 stainless steel.
Pins:	All pins to be carbon steel and zinc plated or type 17-4 stainless steel.
Bushings:	All bushings to be of the DX pre-lubricated variety, used with grease fittings. Bronze bushings not allowed due to survivability in heavy containment and corrosive environments.
Hoses & Hyd. Fittings:	All hoses and fittings are to be SAE; metrics are not to be allowed. O-ring face seal fittings to be utilized wherever possible.
Origin of Manufacture:	Hooklift to be designed and manufactured in the United States of America.

Stellar Slider20-S 54" Hook Height Hydraulic Hooklift Specifications

Lifting Capacity:	20,000 pounds gross weight evenly distributed in, or on, body.
Container Length:	10-foot through 14-foot from front A-frame to rear of skid rails. Longer bodies up to 20-feet may be accommodated if full dump angle is not required (may require special body-mounted or extendable truck-mounted bumper and additional latches to meet the Federal Motor Carrier Safety Administration (FMCSA) Rear End Protection regulation 393.86 and Securing Hooklift Containers regulation 393.134).
Maximum Dump Angle:	60°
Operating Pressure:	4500 PSI maximum.
Weight of Hooklift:	Hooklift weight not to exceed 3,920 pounds.
Height of Hooklift:	Hooklift height not to exceed 11.88" as measured from top of truck frame to top of hooklift rollers.
Hook Height:	54-inches from bottom of skid rails to bottom of hook bar. Hooklift must be able to pick up body 10-inches below grade when mounted on a truck with a 40" frame height.
Hydraulic Pump:	Direct-coupled high-pressure piston pump.
Hydraulic Control Valve:	Hydraulic valve mounted directly onto the oil reservoir.
Controls:	Dual manual levers with sealed cable actuators mounted in the truck cab to allow full feathering of all hooklift functions.
Sliding Jib Assembly:	Hooklift must have sliding type front jib section to provide a low degree loading/unloading angle. Hook to include automatic mechanical safety latch which disengages only when the container/body is in proper position to be picked up or dropped off.
Jib Cylinder:	Single 3-inch bore with 1.5-inch diameter rod cylinder. Cylinder must be double acting and include dual integral pilot-operated counterbalance valves to prevent cylinder collapse in case of hose failure.
Dumping Operation:	Hooklift must include a hydraulic lock-out device to prevent operation of the jib section while hooklift is in the dumping mode.
Lift/Dump Cylinder:	Dual 4-inch bore with 2.5-inch diameter rod cylinder. Cylinder must be double acting and include dual integral pilot-operated counterbalance valves to prevent cylinder collapse in case of hose failure.
Dump/Jib Interlock:	Dumping must be accomplished through a rear pivot. Jib and dump sections must lock into a rigid full length frame with front rollers to provide support for the container while in the dump mode. These sections form this frame without the use of mechanical latches which rely on gravity, springs, or container/body mounted latches. The system must be protected from out of sequence operation.
Rear Body Hold-downs:	Dual slide-through hold down devices mounted to the dump frame to secure the body to the hooklift through all ranges of the dump mode. This must be accomplished without the use of steel springs and/or hydraulic/air cylinders. They must allow bodies with different tie down locations to be loaded. Hooklift must be compatible with containers manufactured to ANSI Z245.60 recommended standard for waste containers.
Rear Dump Hinge Pin:	2-inch diameter carbon steel and zinc plated or type 17-4 stainless steel.
Pins:	All pins to be carbon steel and zinc plated or type 17-4 stainless steel.
Bushings:	All bushings to be of the DX pre-lubricated variety, used with grease fittings. Bronze bushings not allowed due to survivability in heavy containment and corrosive environments.
Hoses & Hyd. Fittings:	All hoses and fittings are to be SAE; metrics are not to be allowed. O-ring face seal fittings to be utilized wherever possible.
Origin of Manufacture:	Hooklift to be designed and manufactured in the United States of America.

Stellar Slider20-S 35.63 - 54" Hook Height Hydraulic Hooklift Specifications

Lifting Capacity:	20,000 pounds gross weight evenly distributed in, or on, body.
Container Length:	10-foot through 14-foot from front A-frame to rear of skid rails. Longer bodies up to 20-feet may be accommodated if full dump angle is not required (may require special body-mounted or extendable truck-mounted bumper and additional latches to meet the Federal Motor Carrier Safety Administration (FMCSA) Rear End Protection regulation 393.86 and Securing Hooklift Containers regulation 393.134).
Maximum Dump Angle:	60°
Operating Pressure:	4500 PSI maximum.
Weight of Hooklift:	Hooklift weight not to exceed 3,950 pounds.
Height of Hooklift:	Hooklift height not to exceed 11.88" as measured from top of truck frame to top of hooklift rollers.
Hook Height:	35.63" hook height must be able to pick up body 10-inches below grade when mounted on a truck with a 40" frame height. 54" hook height must be able to pick up body 46-inches below grade when mounted on a truck with a 40" frame height.
Hydraulic Pump:	Direct-coupled high-pressure piston pump.
Hydraulic Control Valve:	Hydraulic valve mounted directly onto the oil reservoir.
Controls:	Dual manual levers with sealed cable actuators mounted in the truck cab to allow full feathering of all hooklift functions.
Sliding Jib Assembly:	Hooklift must have sliding type front jib section to provide a low degree loading/unloading angle. Hook to include automatic mechanical safety latch which disengages only when the container/body is in proper position to be picked up or dropped off.
Jib Cylinder:	Single 3-inch bore with 1.5-inch diameter rod cylinder. Cylinder must be double acting and include dual integral pilot-operated counterbalance valves to prevent cylinder collapse in case of hose failure.
Dumping Operation:	Hooklift must include a hydraulic lock-out device to prevent operation of the jib section while hooklift is in the dumping mode.
Lift/Dump Cylinder:	Dual 4-inch bore with 2.5-inch diameter rod cylinder. Cylinder must be double acting and include dual integral pilot-operated counterbalance valves to prevent cylinder collapse in case of hose failure.
Dump/Jlb Interlock:	Dumping must be accomplished through a rear pivot. Jib and dump sections must lock into a rigid full length frame with front rollers to provide support for the container while in the dump mode. These sections form this frame without the use of mechanical latches which rely on gravity, springs, or container/body mounted latches. The system must be protected from out of sequence operation.
Rear Body Hold-downs:	Dual slide-through hold down devices mounted to the dump frame to secure the body to the hooklift through all ranges of the dump mode. This must be accomplished without the use of steel springs and/or hydraulic/air cylinders. They must allow bodies with different tie down locations to be loaded. Hooklift must be compatible with containers manufactured to ANSI Z245.60 recommended standard for waste containers.
Rear Dump Hinge Pin:	2-inch diameter carbon steel and zinc plated or type 17-4 stainless steel.
Pins:	All pins to be carbon steel and zinc plated or type 17-4 stainless steel.
Bushings:	All bushings to be of the DX pre-lubricated variety, used with grease fittings. Bronze bushings not allowed due to survivability in heavy containment and corrosive environments.
Hoses & Hyd. Fittings:	All hoses and fittings are to be SAE; metrics are not to be allowed. O-ring face seal fittings to be utilized wherever possible.
Origin of Manufacture:	Hooklift to be designed and manufactured in the United States of America.



- Will accommodate bodies from 12-feet up to 16-feet long and still retain the maximum rated dump angle on a 40-inch high frame truck. Longer bodies may be accommodated with reduced dumping capabilities.
- Transmission-mounted PTO and hydraulic pump required to power the hooklift.
- Standard in-cab manual controls which allow for precise metering of the manual hydraulic valve.
- Twenty-five (25) gallon frame-mounted oil tank.
- Operating pressure is 4,500 psi.
- Maximum hydraulic flow is 24-gallons per minute.
- Patented dump/load interface as featured on most Stellar Hooklifts.
- Hydraulic locks to prevent cylinder collapse in case of hose failure.
- Slide through rear body tie-down latches.
- Plunger valve to prevent front jib movement when the dump frame is raised.
- Permanently lubricated and greaseable bushings used throughout.
- Grease zerks at all pin points to allow purging of contaminants.
- Carbon steel and zinc plated or type 17-4 stainless steel pins used throughout.
- All weldments painted with two-part polyurethane enamel.

	<u>35.63" HH</u>	<u>54" HH</u>	<u>61.75" HH</u>	<u>35.63-54" HH</u>	<u>54-61.75" HH</u>
Lifting/Dumping Capacity	26,000 (11,703 Kg)	26,000 (11,703 Kg)	26,000 (11,703 Kg)	26,000 (11,703 Kg)	26,000 (11,703 Kg)
A Dump Angle	68°	68°	68°	68°	68°
B Lowest Hook Height	6" (152 mm)	41.5" (1,054 mm)	48.5" (1,232 mm)	6" or 41.5" (152-1,054 mm)	41.5" or 48.5" (1,054-1,232 mm)
C Effective Length	129" -171" (3,277-4,343 mm)	129" -171" (3,277-4,343 mm)	129" -171" (3,277-4,343 mm)	129" -171" (3,277-4,343 mm)	129" -171" (3,277-4,343 mm)
D Truck Frame Height	40" (1,016 mm)	40" (1,016 mm)	40" (1,016 mm)	40" (1,016 mm)	40" (1,016 mm)
E Hooklift Height	51.88" (1,343 mm)	51.88" (1,343 mm)	51.88" (1,343 mm)	51.88" (1,343 mm)	51.88" (1,343 mm)
G Hooklift Length	182.75" (4,641 mm)	182.75" (4,641 mm)	182.75" (4,641 mm)	182.75" (4,641 mm)	182.75" (4,641 mm)
H Center of Gravity	83.25" (4,641 mm)	83.25" (4,641 mm)	83.25" (4,641 mm)	83.25" (4,641 mm)	83.25" (4,641 mm)
I Chassis Cab to Axle	130"-144" (3,302-3,658 mm)	130"-144" (3,302-3,658 mm)	130"-144" (3,302-3,658 mm)	130"-144" (3,302-3,658 mm)	130"-144" (3,302-3,658 mm)
Chassis Cab to Trunion	130"-138" (3,302-3,505 mm)	130"-138" (3,302-3,505 mm)	130"-138" (3,302-3,505 mm)	130"-138" (3,302-3,505 mm)	130"-138" (3,302-3,505 mm)
J Max. Height/Loading	140.63" (3,572 mm)	152" (3,860 mm)	157.56" (4,002 mm)	140.63-152" (3,572-3,860 mm)	152-157.56" (3,860-4,002 mm)
K Longest Body to Dump	216" (5,486 mm)	216" (5,486 mm)	216" (5,486 mm)	216" (5,486 mm)	216" (5,486 mm)
L Max. Height/Dumping	225.59" (5,729 mm)	232.43" (5,903mm)	235.43" (5,979 mm)	225.59-232.43" (5,729-5,903 mm)	232.43-235.43" (5,903-5,979 mm)
Shipping Weight	3,200 (1,451 kg)	3,300 (1,497 kg)	3,400 (1,542 kg)	3,500 (1,588 kg)	3,600 (1,633 kg)
Hook Height	35.63" (Fixed) (905 mm)	54" (Fixed) (1,372 mm)	61.75" (Fixed) (1,568 mm)	35.63" or 54" (Hyd) (905-1372 mm)	54 or 61.75" (Hyd) (1,372 or 1,568 mm)
Shipping Dimensions	185" x 46" x 58" (4,699x1,168x1,473 mm)	185" x 46" x 76" (4,699x1,168x1,930 mm)	185" x 46" x 84" (4,699x1,168x2,133 mm)	185" x 46" x 58" (4,699x1,168x1,473 mm)	185" x 46" x 76" (4,699x1,168x1,930 mm)
Min. Frame RBM	1,300,000	1,300,000	1,300,000	1,300,000	1,300,000
Min. Truck GVWR	25,000 (11,340 Kg)	25,000 (11,340 Kg)	25,000 (11,340 Kg)	25,000 (11,340 Kg)	25,000 (11,340 Kg)
Load Angle w/ SBL	43°	37°	37°	43°-37°	37°
Rec. Body Lengths*	12' - 16' (3,658-4,877 mm)	12' - 16' (3,658-4,877 mm)	12' - 16' (3,658-4,877 mm)	12' - 16' (3,658-4,877 mm)	12' - 16' (3,658-4,877 mm)
Rec. Flatbed Lengths	12' - 18' (3,658-5,486 mm)	12' - 18' (3,658-5,486 mm)	12' - 18' (3,658-5,486 mm)	12' - 18' (3,658-5,486 mm)	12' - 18' (3,658-5,486 mm)

*Assumes 3ft. overhang from center of rear roller pin
(Bumper typically 12" from center of roller pin)

Stellar Slider26 35.63” Hook Height Hydraulic Hooklift Specifications

Lifting Capacity:	Up to 26,000 pounds gross weight evenly distributed in, or on, body.
Container Length:	12-foot through 16-foot from front A-frame to rear of skid rails. Longer bodies up to 20-feet may be accommodated if full dump angle is not required (may require special body-mounted or extendable truck-mounted bumper and additional latches to meet the Federal Motor Carrier Safety Administration (FMCSA) Rear End Protection regulation 393.86 and Securing Hooklift Containers regulation 393.134).
Maximum Dump Angle:	68°
Operating Pressure:	Up to 4500 PSI maximum.
Weight of Hooklift:	Hooklift weight not to exceed 3,200 pounds.
Height of Hooklift:	Hooklift height not to exceed 11.63” as measured from top of truck frame to top of hooklift rollers.
Hook Height:	36-inches from bottom of skid rails to bottom of hook bar. Hooklift must be able to pick up body 6-inches below grade when mounted on a truck with a 40” frame height.
Hydraulic Pump:	Direct-coupled high-pressure piston pump.
Hydraulic Control Valve:	Hydraulic valve mounted directly onto the oil reservoir.
Controls:	Dual manual levers with sealed cable actuators mounted in the truck cab to allow full feathering of all hooklift functions.
Sliding Jib Assembly:	Hooklift must have sliding type jib section to provide a low overall loading height. Jib booms are hexagonal shaped for reducing flex, to add structural integrity and ease wear pad replacement.
Jib Cylinder:	Single 3-inch bore with 1.5-inch diameter rod cylinder. Cylinder must be double acting and include dual integral pilot-operated counterbalance valves to prevent cylinder collapse in case of hose failure.
Dumping Operation:	Hooklift must include a hydraulic lock-out device to prevent operation of the jib section while Hooklift is in the dumping mode.
Lift/Dump Cylinders:	Dual 5-inch bore with 2.5-inch diameter rod cylinders. Cylinders must be double acting and include dual integral pilot-operated counterbalance valves to prevent cylinder collapse in case of hose failure.
Dump/Jlb Interlock:	Dumping must be accomplished through a rear pivot. Jib and dump sections must lock into a rigid full length with front rollers to provide support for the container while in the dump mode. These sections form this frame without the use of mechanical latches which rely on gravity, or container/body mounted latches. The system must be protected from out of sequence operation.
Rear Body Hold-downs:	Dual slide-through hold down devices mounted to the dump frame to secure the body to the hooklift through all ranges of the dump mode. This must be accomplished without the use of steel springs and/or hydraulic/air cylinders. They must allow bodies with different tie down locations to be loaded. Hooklift must be compatible with containers manufactured to ANSI Z245.60 recommended standard for waste containers. Inside latches are also available for certain model hooklifts.
Rear Dump Hinge Pin:	2-inch diameter carbon steel and zinc plated or type 17-4 stainless steel.
Pins:	All pins to be carbon steel and zinc plated or type 17-4 stainless steel.
Bushings:	All bushings to be of the DX pre-lubricated variety, used with grease fittings. Bronze bushings not allowed due to survivability in heavy containment and corrosive environments.
Hoses & Hyd. Fittings:	All hoses and fittings are to be SAE; metrics are not to be allowed. O-ring face seal fittings to be utilized wherever possible.
Origin of Manufacture:	Hooklift to be designed and manufactured in the United States of America.

Stellar Slider26 54” Hook Height Hydraulic Hooklift Specifications

Lifting Capacity:	Up to 26,000 pounds gross weight evenly distributed in, or on, body.
Container Length:	12-foot through 16-foot from front A-frame to rear of skid rails. Longer bodies up to 20-feet may be accommodated if full dump angle is not required (may require special body-mounted or extendable truck-mounted bumper and additional latches to meet the Federal Motor Carrier Safety Administration (FMCSA) Rear End Protection regulation 393.86 and Securing Hooklift Containers regulation 393.134).
Maximum Dump Angle:	68°
Operating Pressure:	Up to 4500 PSI maximum.
Weight of Hooklift:	Hooklift weight not to exceed 3,300 pounds.
Height of Hooklift:	Hooklift height not to exceed 11.63” as measured from top of truck frame to top of hooklift rollers.
Hook Height:	54-inches from bottom of skid rails to bottom of hook bar. Hooklift must be able to pick up body 41.5-inches below grade when mounted on a truck with a 40” frame height.
Hydraulic Pump:	Direct-coupled high-pressure piston pump.
Hydraulic Control Valve:	Hydraulic valve mounted directly onto the oil reservoir.
Controls:	Dual manual levers with sealed cable actuators mounted in the truck cab to allow full feathering of all hooklift functions.
Sliding Jib Assembly:	Hooklift must have sliding type jib section to provide a low overall loading height. Jib booms are hexagonal shaped for reducing flex, to add structural integrity and ease wear pad replacement.
Jib Cylinder:	Single 3-inch bore with 1.5-inch diameter rod cylinder. Cylinder must be double acting and include dual integral pilot-operated counterbalance valves to prevent cylinder collapse in case of hose failure.
Dumping Operation:	Hooklift must include a hydraulic lock-out device to prevent operation of the jib section while Hooklift is in the dumping mode.
Lift/Dump Cylinders:	Dual 5-inch bore with 2.5-inch diameter rod cylinders. Cylinders must be double acting and include dual integral pilot-operated counterbalance valves to prevent cylinder collapse in case of hose failure.
Dump/Jlb Interlock:	Dumping must be accomplished through a rear pivot. Jib and dump sections must lock into a rigid full length with front rollers to provide support for the container while in the dump mode. These sections form this frame without the use of mechanical latches which rely on gravity, or container/body mounted latches. The system must be protected from out of sequence operation.
Rear Body Hold-downs:	Dual slide-through hold down devices mounted to the dump frame to secure the body to the hooklift through all ranges of the dump mode. This must be accomplished without the use of steel springs and/or hydraulic/air cylinders. They must allow bodies with different tie down locations to be loaded. Hooklift must be compatible with containers manufactured to ANSI Z245.60 recommended standard for waste containers. Inside latches are also available for certain model hooklifts.
Rear Dump Hinge Pin:	2-inch diameter carbon steel and zinc plated or type 17-4 stainless steel.
Pins:	All pins to be carbon steel and zinc plated or type 17-4 stainless steel.
Bushings:	All bushings to be of the DX pre-lubricated variety, used with grease fittings. Bronze bushings not allowed due to survivability in heavy containment and corrosive environments.
Hoses & Hyd. Fittings:	All hoses and fittings are to be SAE; metrics are not to be allowed. O-ring face seal fittings to be utilized wherever possible.
Origin of Manufacture:	Hooklift to be designed and manufactured in the United States of America.

Stellar Slider26 61.75” Hook Height Hydraulic Hooklift Specifications

Lifting Capacity:	Up to 26,000 pounds gross weight evenly distributed in, or on, body.
Container Length:	12-foot through 16-foot from front A-frame to rear of skid rails. Longer bodies up to 20-feet may be accommodated if full dump angle is not required (may require special body-mounted or extendable truck-mounted bumper and additional latches to meet the Federal Motor Carrier Safety Administration (FMCSA) Rear End Protection regulation 393.86 and Securing Hooklift Containers regulation 393.134).
Maximum Dump Angle:	68°
Operating Pressure:	Up to 4500 PSI maximum.
Weight of Hooklift:	Hooklift weight not to exceed 3,400 pounds.
Height of Hooklift:	Hooklift height not to exceed 11.63” as measured from top of truck frame to top of hooklift rollers.
Hook Height:	61.75-inches from bottom of skid rails to bottom of hook bar. Hooklift must be able to pick up body 48.5-inches below grade when mounted on a truck with a 40” frame height.
Hydraulic Pump:	Direct-coupled high-pressure piston pump.
Hydraulic Control Valve:	Hydraulic valve mounted directly onto the oil reservoir.
Controls:	Dual manual levers with sealed cable actuators mounted in the truck cab to allow full feathering of all hooklift functions.
Sliding Jib Assembly:	Hooklift must have sliding type jib section to provide a low overall loading height. Jib booms are hexagonal shaped for reducing flex, to add structural integrity and ease wear pad replacement.
Jib Cylinder:	Single 3-inch bore with 1.5-inch diameter rod cylinder. Cylinder must be double acting and include dual integral pilot-operated counterbalance valves to prevent cylinder collapse in case of hose failure.
Dumping Operation:	Hooklift must include a hydraulic lock-out device to prevent operation of the jib section while Hooklift is in the dumping mode.
Lift/Dump Cylinders:	Dual 5-inch bore with 2.5-inch diameter rod cylinders. Cylinders must be double acting and include dual integral pilot-operated counterbalance valves to prevent cylinder collapse in case of hose failure.
Dump/Jlb Interlock:	Dumping must be accomplished through a rear pivot. Jib and dump sections must lock into a rigid full length with front rollers to provide support for the container while in the dump mode. These sections form this frame without the use of mechanical latches which rely on gravity, or container/body mounted latches. The system must be protected from out of sequence operation.
Rear Body Hold-downs:	Dual slide-through hold down devices mounted to the dump frame to secure the body to the hooklift through all ranges of the dump mode. This must be accomplished without the use of steel springs and/or hydraulic/air cylinders. They must allow bodies with different tie down locations to be loaded. Hooklift must be compatible with containers manufactured to ANSI Z245.60 recommended standard for waste containers. Inside latches are also available for certain model hooklifts.
Rear Dump Hinge Pin:	2-inch diameter carbon steel and zinc plated or type 17-4 stainless steel.
Pins:	All pins to be carbon steel and zinc plated or type 17-4 stainless steel.
Bushings:	All bushings to be of the DX pre-lubricated variety, used with grease fittings. Bronze bushings not allowed due to survivability in heavy containment and corrosive environments.
Hoses & Hyd. Fittings:	All hoses and fittings are to be SAE; metrics are not to be allowed. O-ring face seal fittings to be utilized wherever possible.
Origin of Manufacture:	Hooklift to be designed and manufactured in the United States of America.

Stellar Slider26 35.63"-54" Hook Height Hydraulic Hooklift Specifications

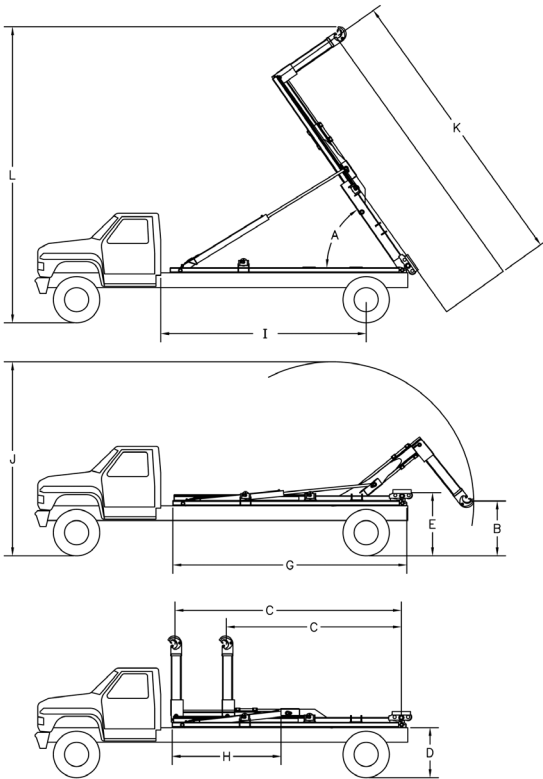
Lifting Capacity:	Up to 26,000 pounds gross weight evenly distributed in, or on, body.
Container Length:	12-foot through 16-foot from front A-frame to rear of skid rails. Longer bodies up to 20-feet may be accommodated if full dump angle is not required (may require special body-mounted or extendable truck-mounted bumper and additional latches to meet the Federal Motor Carrier Safety Administration (FMCSA) Rear End Protection regulation 393.86 and Securing Hooklift Containers regulation 393.134).
Maximum Dump Angle:	68°
Operating Pressure:	Up to 4500 PSI maximum.
Weight of Hooklift:	Hooklift weight not to exceed 3,500 pounds.
Height of Hooklift:	Hooklift height not to exceed 11.63" as measured from top of truck frame to top of hooklift rollers.
Hook Height:	36.63" hook height must be able to pick up body 6-inches below grade when mounted on a truck with a 40" frame height. 54" hook height must be able to pick up body 41.5-inches below grade when mounted on a truck with a 40" frame height.
Hydraulic Pump:	Direct-coupled high-pressure piston pump.
Hydraulic Control Valve:	Hydraulic valve mounted directly onto the oil reservoir.
Controls:	Dual manual levers with sealed cable actuators mounted in the truck cab to allow full feathering of all hooklift functions.
Sliding Jib Assembly:	Hooklift must have sliding type jib section to provide a low overall loading height. Jib booms are hexagonal shaped for reducing flex, to add structural integrity and ease wear pad replacement.
Jib Cylinder:	Single 3-inch bore with 1.5-inch diameter rod cylinder. Cylinder must be double acting and include dual integral pilot-operated counterbalance valves to prevent cylinder collapse in case of hose failure.
Dumping Operation:	Hooklift must include a hydraulic lock-out device to prevent operation of the jib section while Hooklift is in the dumping mode.
Lift/Dump Cylinders:	Dual 5-inch bore with 2.5-inch diameter rod cylinders. Cylinders must be double acting and include dual integral pilot-operated counterbalance valves to prevent cylinder collapse in case of hose failure.
Dump/Jib Interlock:	Dumping must be accomplished through a rear pivot. Jib and dump sections must lock into a rigid full length with front rollers to provide support for the container while in the dump mode. These sections form this frame without the use of mechanical latches which rely on gravity, or container/body mounted latches. The system must be protected from out of sequence operation.
Rear Body Hold-downs:	Dual slide-through hold down devices mounted to the dump frame to secure the body to the hooklift through all ranges of the dump mode. This must be accomplished without the use of steel springs and/or hydraulic/air cylinders. They must allow bodies with different tie down locations to be loaded. Hooklift must be compatible with containers manufactured to ANSI Z245.60 recommended standard for waste containers. Inside latches are also available for certain model hooklifts.
Rear Dump Hinge Pin:	2-inch diameter carbon steel and zinc plated or type 17-4 stainless steel.
Pins:	All pins to be carbon steel and zinc plated or type 17-4 stainless steel.
Bushings:	All bushings to be of the DX pre-lubricated variety, used with grease fittings. Bronze bushings not allowed due to survivability in heavy containment and corrosive environments.
Hoses & Hyd. Fittings:	All hoses and fittings are to be SAE; metrics are not to be allowed. O-ring face seal fittings to be utilized wherever possible.
Origin of Manufacture:	Hooklift to be designed and manufactured in the United States of America.

Stellar Slider26 54"-61.75" Hook Height Hydraulic Hooklift Specifications

Lifting Capacity:	Up to 26,000 pounds gross weight evenly distributed in, or on, body.
Container Length:	12-foot through 16-foot from front A-frame to rear of skid rails. Longer bodies up to 20-feet may be accommodated if full dump angle is not required (may require special body-mounted or extendable truck-mounted bumper and additional latches to meet the Federal Motor Carrier Safety Administration (FMCSA) Rear End Protection regulation 393.86 and Securing Hooklift Containers regulation 393.134).
Maximum Dump Angle:	68°
Operating Pressure:	Up to 4500 PSI maximum.
Weight of Hooklift:	Hooklift weight not to exceed 3,600 pounds.
Height of Hooklift:	Hooklift height not to exceed 11.63" as measured from top of truck frame to top of hooklift rollers.
Hook Height:	54" hook height must be able to pick up body 41.5-inches below grade when mounted on a truck with a 40" frame height. 61.75" hook height must be able to pick up body 48.5-inches below grade when mounted on a truck with a 40" frame height.
Hydraulic Pump:	Direct-coupled high-pressure piston pump.
Hydraulic Control Valve:	Hydraulic valve mounted directly onto the oil reservoir.
Controls:	Dual manual levers with sealed cable actuators mounted in the truck cab to allow full feathering of all hooklift functions.
Sliding Jib Assembly:	Hooklift must have sliding type jib section to provide a low overall loading height. Jib booms are hexagonal shaped for reducing flex, to add structural integrity and ease wear pad replacement.
Jib Cylinder:	Single 3-inch bore with 1.5-inch diameter rod cylinder. Cylinder must be double acting and include dual integral pilot-operated counterbalance valves to prevent cylinder collapse in case of hose failure.
Dumping Operation:	Hooklift must include a hydraulic lock-out device to prevent operation of the jib section while Hooklift is in the dumping mode.
Lift/Dump Cylinders:	Dual 5-inch bore with 2.5-inch diameter rod cylinders. Cylinders must be double acting and include dual integral pilot-operated counterbalance valves to prevent cylinder collapse in case of hose failure.
Dump/Jlb Interlock:	Dumping must be accomplished through a rear pivot. Jib and dump sections must lock into a rigid full length with front rollers to provide support for the container while in the dump mode. These sections form this frame without the use of mechanical latches which rely on gravity, or container/body mounted latches. The system must be protected from out of sequence operation.
Rear Body Hold-downs:	Dual slide-through hold down devices mounted to the dump frame to secure the body to the hooklift through all ranges of the dump mode. This must be accomplished without the use of steel springs and/or hydraulic/air cylinders. They must allow bodies with different tie down locations to be loaded. Hooklift must be compatible with containers manufactured to ANSI Z245.60 recommended standard for waste containers. Inside latches are also available for certain model hooklifts.
Rear Dump Hinge Pin:	2-inch diameter carbon steel and zinc plated or type 17-4 stainless steel.
Pins:	All pins to be carbon steel and zinc plated or type 17-4 stainless steel.
Bushings:	All bushings to be of the DX pre-lubricated variety, used with grease fittings. Bronze bushings not allowed due to survivability in heavy containment and corrosive environments.
Hoses & Hyd. Fittings:	All hoses and fittings are to be SAE; metrics are not to be allowed. O-ring face seal fittings to be utilized wherever possible.
Origin of Manufacture:	Hooklift to be designed and manufactured in the United States of America.

STELLAR Slider34

34,000-pound Sliding Jib Hooklift



- Will accommodate bodies from 14-feet up to 20-feet (4267mm to 6096mm) long and still attain the maximum rated dump angle on a 41-inch (1041mm) high frame truck. Longer bodies may be accommodated with reduced dumping capabilities.
- Transmission-mounted PTO and hydraulic pump required to power the hooklift.
- Standard in-cab manual controls which allow for precise metering of the manual hydraulic valve.
- Twenty-five (25) gallon (95L.) frame-mounted oil tank.
- Operating pressure is 4,500 psi.
- Maximum hydraulic flow is 24-gallons per minute.
- Patented dump/load interface as featured on most Stellar Hooklifts.
- Hydraulic locks to prevent cylinder collapse in case of hose failure.
- Slide through rear body tie-down latches.
- Plunger valve to prevent front jib movement when the dump frame is raised.
- Permanently lubricated and greaseable bushings used throughout.
- Grease zerks at all pin points to allow purging of contaminants.
- Carbon steel and zinc plated or type 17-4 stainless steel pins used throughout.
- All weldments painted with two-part polyurethane enamel.

	<u>54" HH</u>	<u>61.75" HH</u>	<u>54-61.75" HH</u>
Lifting Capacity	28,800	34,000	28,800 - 34,000
Dumping Capacity	(13,063 Kg) 34,000 (15,422 Kg)	(15,422 Kg) 34,000 (15,422 kg)	(13,063 - 15,422 Kg) 34,000 (15,422 Kg)
A Dump Angle	50°	50°	50°
B Lowest Hook Height	48" (1,219 mm)	42" (1,067 mm)	48" or 42" (1,219-1,067 mm)
C Effective Length	168" to 208" (4,267 to 5,283 mm)	168" to 208" (4,267 to 5,283 mm)	168" to 208" (4,267 to 5,283 mm)
D Truck Frame Height	41" (1,041 mm)	41" (1,041 mm)	41" (1,041 mm)
E Hooklift Height	52.63" (1,337 mm)	52.63" (1,337 mm)	52.63" (1,337 mm)
G Hooklift Length	216" (5,486 mm)	216" (5,486 mm)	216" (5,486 mm)
H Center of Gravity	101" (2,565 mm)	101.45" (2,577 mm)	97" (2,464 mm)
I Chassis Cab to Axle	180" to 188" (4,572 to 4,775 mm)	180" to 188" (4,572 to 4,775 mm)	180" to 188" (4,572 to 4,775 mm)
Chassis Cab to Trunion	160" to 174" (4,064 to 4,420 mm)	160" to 174" (4,064 to 4,420 mm)	160" to 174" (4,064 to 4,420 mm)
J Max. Height When Loading	164" (4,166 mm)	164" (4,166 mm)	164" (4,166 mm)
K Longest Body to Dump	252" (6,401 mm)	252" (6,401 mm)	252" (6,401 mm)
L Max. Height When Dumping	252" (6,041 mm)	252" (6,041 mm)	252" (6,041 mm)
Shipping Weight	4,300 (1,950 kg)	4,300 (1,950 kg)	4,475 (2,030 kg)
Shipping Dimensions (LxHxW)	211" x 78" x 53" (5,359x1,981x1,346 mm)	211" x 78" x 53" (5,359x1,981x1,346 mm)	211" x 78" x 53" (5,359x1,981x1,346 mm)
Min. Frame RBM	2,200,000	2,200,000	2,200,000
Min. Truck GVWR	32,000 (14,515 Kg)	32,000 (14,515 kg)	32,000 (14,515 kg)
Load Angle w/ Shortest Body Length	38°	36°	38° or 36°
Recommended Container Lengths*	14' to 20' (4.9 to 6.7 m)	14' to 20' (4.9 to 6.7 m)	14' to 20' (4.9 to 6.7 m)
Recommended Flatbed Lengths**	14' to 21' (4.9 to 7.3 m)	14' to 21' (4.9 to 7.3 m)	14' to 21' (4.9 to 7.3 m)

* (Assumes 3ft. overhang from center of rear roller pin)
(Bumper typically 12" from center of roller pin)

** (Assumes 5ft. overhang from center of rear roller pin)
(May require bumper and latch options)

Stellar Slider34 54” Hook Height Hydraulic Hooklift Specifications

Lifting Capacity:	Max. Lifting Capacity: 28,800 lbs., evenly distributed in, or on the body.
Dumping Capacity:	Max. Dump Capacity: 34,000 lbs., evenly distributed in, or on the body.
Container Length:	14-foot through 20-foot from front A-frame to rear of skid rails. Longer bodies up to 21-feet may be accommodated if full dump angle is not required (may require special body-mounted or extendable truck-mounted bumper and additional latches to meet the Federal Motor Carrier Safety Administration (FMCSA) Rear End Protection regulation 393.86 and Securing Hooklift Containers regulation 393.134).
Maximum Dump Angle:	50°
Operating Pressure:	Up to 4,500 PSI maximum.
Weight of Hooklift:	Hooklift weight not to exceed 4,300 pounds.
Height of Hooklift:	Hooklift height not to exceed 11.63” as measured from top of truck frame to top of hooklift rollers.
Hook Height:	54-inches from bottom of skid rails to bottom of hook bar. Hooklift must be able to pick up body 13.75-inches below grade when mounted on a truck with a 41” frame height.
Hydraulic Pump:	Direct-coupled high-pressure piston pump.
Hydraulic Control Valve:	Hydraulic valve mounted directly onto the oil reservoir.
Controls:	Dual manual levers with sealed cable actuators mounted in the truck cab to allow full feathering of all hooklift functions.
Sliding Jib Assembly:	Hooklift must have sliding type jib section to provide a low overall loading height. Jib booms are hexagonal shaped for reducing flex, to add structural integrity and ease wear pad replacement.
Jib Cylinder:	Single 3-inch bore with 1.5-inch diameter rod cylinder. Cylinder must be double acting and include dual integral pilot-operated counterbalance valves to prevent cylinder collapse in case of hose failure.
Dumping Operation:	Hooklift must include a hydraulic lock-out device to prevent operation of the jib section while Hooklift is in the dumping mode.
Lift/Dump Cylinders:	Dual 5-inch bore with 2.5-inch diameter rod cylinders. Cylinders must be double acting and include dual integral pilot-operated counterbalance valves to prevent cylinder collapse in case of hose failure.
Dump/Jib Interlock:	Dumping must be accomplished through a rear pivot. Jib and dump sections must lock into a rigid full length with front rollers to provide support for the container while in the dump mode. These sections form this frame without the use of mechanical latches which rely on gravity, or container/body mounted latches. The system must be protected from out of sequence operation.
Rear Body Hold-downs:	Dual slide-through hold down devices mounted to the dump frame to secure the body to the hooklift through all ranges of the dump mode. This must be accomplished without the use of steel springs and/or hydraulic/air cylinders. They must allow bodies with different tie down locations to be loaded. Hooklift must be compatible with containers manufactured to ANSI Z245.60 recommended standard for waste containers. Inside latches are also available for certain model hooklifts.
Rear Dump Hinge Pin:	2-inch diameter carbon steel and zinc plated or type 17-4 stainless steel.
Pins:	All pins to be carbon steel and zinc plated or type 17-4 stainless steel.
Bushings:	All bushings to be of the DX pre-lubricated variety, used with grease fittings. Bronze bushings not allowed due to survivability in heavy containment and corrosive environments.
Hoses & Hyd. Fittings:	All hoses and fittings are to be SAE; metrics are not to be allowed. O-ring face seal fittings to be utilized wherever possible.
Origin of Manufacture:	Hooklift to be designed and manufactured in the United States of America.

Stellar Slider34 61.75" Hook Height Hydraulic Hooklift Specifications

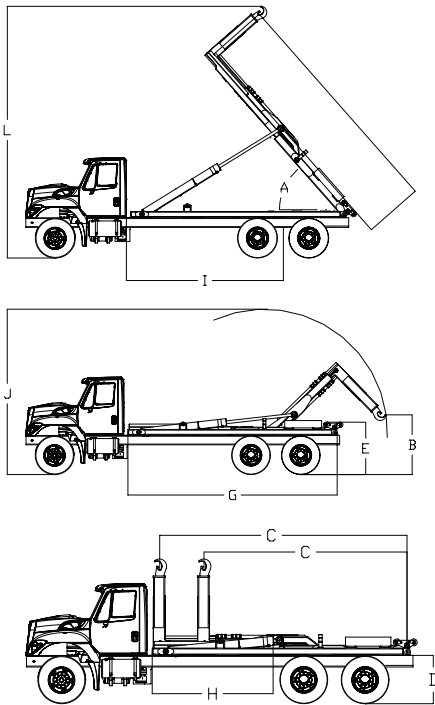
Lifting Capacity:	Max. Lifting Capacity: 34,000 lbs., evenly distributed in, or on the body.
Dumping Capacity:	Max. Dump Capacity: 34,000 lbs., evenly distributed in, or on the body.
Container Length:	14-foot through 20-foot from front A-frame to rear of skid rails. Longer bodies up to 21-feet may be accommodated if full dump angle is not required (may require special body-mounted or extendable truck-mounted bumper and additional latches to meet the Federal Motor Carrier Safety Administration (FMCSA) Rear End Protection regulation 393.86 and Securing Hooklift Containers regulation 393.134).
Maximum Dump Angle:	50°
Operating Pressure:	Up to 4,500 PSI maximum.
Weight of Hooklift:	Hooklift weight not to exceed 4,300 pounds.
Height of Hooklift:	Hooklift height not to exceed 11.63" as measured from top of truck frame to top of hooklift rollers.
Hook Height:	61.75-inches from bottom of skid rails to bottom of hook bar. Hooklift must be able to pick up body 19.75-inches below grade when mounted on a truck with a 41" frame height.
Hydraulic Pump:	Direct-coupled high-pressure piston pump.
Hydraulic Control Valve:	Hydraulic valve mounted directly onto the oil reservoir.
Controls:	Dual manual levers with sealed cable actuators mounted in the truck cab to allow full feathering of all hooklift functions.
Sliding Jib Assembly:	Hooklift must have sliding type jib section to provide a low overall loading height. Jib booms are hexagonal shaped for reducing flex, to add structural integrity and ease wear pad replacement.
Jib Cylinder:	Single 3-inch bore with 1.5-inch diameter rod cylinder. Cylinder must be double acting and include dual integral pilot-operated counterbalance valves to prevent cylinder collapse in case of hose failure.
Dumping Operation:	Hooklift must include a hydraulic lock-out device to prevent operation of the jib section while Hooklift is in the dumping mode.
Lift/Dump Cylinders:	Dual 5-inch bore with 2.5-inch diameter rod cylinders. Cylinders must be double acting and include dual integral pilot-operated counterbalance valves to prevent cylinder collapse in case of hose failure.
Dump/Jlb Interlock:	Dumping must be accomplished through a rear pivot. Jib and dump sections must lock into a rigid full length with front rollers to provide support for the container while in the dump mode. These sections form this frame without the use of mechanical latches which rely on gravity, or container/body mounted latches. The system must be protected from out of sequence operation.
Rear Body Hold-downs:	Dual slide-through hold down devices mounted to the dump frame to secure the body to the hooklift through all ranges of the dump mode. This must be accomplished without the use of steel springs and/or hydraulic/air cylinders. They must allow bodies with different tie down locations to be loaded. Hooklift must be compatible with containers manufactured to ANSI Z245.60 recommended standard for waste containers. Inside latches are also available for certain model hooklifts.
Rear Dump Hinge Pin:	2-inch diameter carbon steel and zinc plated or type 17-4 stainless steel.
Pins:	All pins to be carbon steel and zinc plated or type 17-4 stainless steel.
Bushings:	All bushings to be of the DX pre-lubricated variety, used with grease fittings. Bronze bushings not allowed due to survivability in heavy containment and corrosive environments.
Hoses & Hyd. Fittings:	All hoses and fittings are to be SAE; metrics are not to be allowed. O-ring face seal fittings to be utilized wherever possible.
Origin of Manufacture:	Hooklift to be designed and manufactured in the United States of America.

Stellar Slider34 54"-61.75" Hook Height Hydraulic Hooklift Specifications

Lifting Capacity:	Max. Lifting Capacity: 28,800 (54" HH) or 34,000 (61.75" HH) lbs., evenly distributed in, or on the body.
Dumping Capacity:	Max. Dump Capacity: 34,000 lbs., evenly distributed in, or on the body.
Container Length:	14-foot through 20-foot from front A-frame to rear of skid rails. Longer bodies up to 21-feet may be accommodated if full dump angle is not required (may require special body-mounted or extendable truck-mounted bumper and additional latches to meet the Federal Motor Carrier Safety Administration (FMCSA) Rear End Protection regulation 393.86 and Securing Hooklift Containers regulation 393.134).
Maximum Dump Angle:	50°
Operating Pressure:	Up to 4,500 PSI maximum.
Weight of Hooklift:	Hooklift weight not to exceed 4,475 pounds.
Height of Hooklift:	Hooklift height not to exceed 11.63" as measured from top of truck frame to top of hooklift rollers.
Hook Height:	54" hook height must be able to pick up body 13.75-inches below grade when mounted on a truck with a 41" frame height. 61.75" hook height must be able to pick up body 19.75-inches below grade when mounted on a truck with a 41" frame height.
Hydraulic Pump:	Direct-coupled high-pressure piston pump.
Hydraulic Control Valve:	Hydraulic valve mounted directly onto the oil reservoir.
Controls:	Dual manual levers with sealed cable actuators mounted in the truck cab to allow full feathering of all hooklift functions.
Sliding Jib Assembly:	Hooklift must have sliding type jib section to provide a low overall loading height. Jib booms are hexagonal shaped for reducing flex, to add structural integrity and ease wear pad replacement.
Jib Cylinder:	Single 3-inch bore with 1.5-inch diameter rod cylinder. Cylinder must be double acting and include dual integral pilot-operated counterbalance valves to prevent cylinder collapse in case of hose failure.
Dumping Operation:	Hooklift must include a hydraulic lock-out device to prevent operation of the jib section while Hooklift is in the dumping mode.
Lift/Dump Cylinders:	Dual 5-inch bore with 2.5-inch diameter rod cylinders. Cylinders must be double acting and include dual integral pilot-operated counterbalance valves to prevent cylinder collapse in case of hose failure.
Dump/Jlb Interlock:	Dumping must be accomplished through a rear pivot. Jib and dump sections must lock into a rigid full length with front rollers to provide support for the container while in the dump mode. These sections form this frame without the use of mechanical latches which rely on gravity, or container/body mounted latches. The system must be protected from out of sequence operation.
Rear Body Hold-downs:	Dual slide-through hold down devices mounted to the dump frame to secure the body to the hooklift through all ranges of the dump mode. This must be accomplished without the use of steel springs and/or hydraulic/air cylinders. They must allow bodies with different tie down locations to be loaded. Hooklift must be compatible with containers manufactured to ANSI Z245.60 recommended standard for waste containers. Inside latches are also available for certain model hooklifts.
Rear Dump Hinge Pin:	2-inch diameter carbon steel and zinc plated or type 17-4 stainless steel.
Pins:	All pins to be carbon steel and zinc plated or type 17-4 stainless steel.
Bushings:	All bushings to be of the DX pre-lubricated variety, used with grease fittings. Bronze bushings not allowed due to survivability in heavy containment and corrosive environments.
Hoses & Hyd. Fittings:	All hoses and fittings are to be SAE; metrics are not to be allowed. O-ring face seal fittings to be utilized wherever possible.
Origin of Manufacture:	Hooklift to be designed and manufactured in the United States of America.

STELLAR Slider40

40,000-pound Sliding Jib Hooklift



- Will accommodate bodies from 12-feet up to 16-feet long and still attain the maximum rated dump angle on a 41-inch high frame truck. Longer bodies may be accommodated with reduced dumping capabilities.
- Transmission-mounted PTO and hydraulic pump required to power the Hooklift loader.
- Standard in-cab manual controls which allow for precise metering of the manual hydraulic valve.
- Twenty-five (25) gallon (95L.) frame-mounted oil tank.
- Operating pressure is 4,500 psi.
- Maximum hydraulic flow is 24-gallons per minute.
- Patented dump/load interface as featured on most Stellar Shuttle Hooklifts.
- Hydraulic locks to prevent cylinder collapse in case of hose failure.
- Slide through rear body tie-down latches, and optional inside latches.
- Plunger valve to prevent front jib movement when the dump frame is raised.
- Permanently lubricated and greaseable bushings used throughout.
- Grease zerks at all pin points to allow purging of contaminants.
- Carbon steel and zinc plated or type 17-4 stainless steel pins used throughout.
- All weldments painted with two-part polyurethane enamel.

	<u>54" HH</u>	<u>61.75" HH</u>	<u>54-61.75" HH</u>
Lifting Capacity	37,000 (16,783 Kg)	40,000 (18,144 Kg)	37,000 - 40,000 (16,783 - 18,144 Kg)
Dumping Capacity	40,000 (18,144 Kg)	40,000 (18,144 kg)	40,000 (18,144 Kg)
A Dump Angle	51°	51°	51°
B Lowest Hook Height	47.75" (1,213 mm)	40.75" (1,035 mm)	47.75" or 40.75" (1,213-1,035 mm)
C Effective Length	132" to 168" (3,353 to 4,267 mm)	132" to 168" (3,353 to 4,267 mm)	132" to 168" (3,353 to 4,267 mm)
D Truck Frame Height	43" (1,092 mm)	43" (1,092 mm)	43" (1,092 mm)
E Hooklift Height	55" (1,397 mm)	55" (1,397 mm)	55" (1,397 mm)
G Hooklift Length	180" (4,572 mm)	180" (4,572 mm)	180" (4,572 mm)
H Center of Gravity	76" (1,930 mm)	76" (1,930 mm)	69.50" (1,765 mm)
I Chassis Cab to Trunion	130" to 144" (3,302 to 3,658 mm)	130" to 144" (3,302 to 3,658 mm)	130" to 144" (3,302 to 3,658 mm)
J Max. Height When Loading	152" (3,861 mm)	157" (3,988 mm)	157" (3,988 mm)
K Longest Body to Dump	228" (5,791 mm)	228" (5,791 mm)	228" (5,791 mm)
L Max. Height When Dumping	230" (5,842 mm)	230" (5,842 mm)	230" (5,842 mm)
Shipping Weight	4,200 (1,905 Kg)	4,250 (1,928 Kg)	4,550 (2,064 Kg)
Shipping Dimensions (LxHxW)	182" x 79" x 48" (4,623x2,007x1,219 mm)	182" x 79" x 48" (4,623x2,007x1,219 mm)	182" x 86" x 48" (4,623x2,184x1,219 mm)
Min. Frame RBM	2,200,000	2,200,000	2,200,000
Min. Truck GVWR	43,000 (19,504 Kg)	43,000 (19,504 Kg)	43,000 (19,504 Kg)
Load Angle w/ Shortest Body Length	38°	36°	36° or 34°
Recommended Container Lengths*	12' to 16' (3.6 to 4.9 m)	12' to 16' (3.6 to 4.9 m)	12' to 16' (3.6 to 4.9 m)
Recommended Flatbed Lengths**	to 18' (5.5 m)	to 18' (5.5 m)	to 18' (5.5 m)

* (Assumes 3ft. overhang from center of rear roller pin)
(Bumper typically 12" from center of roller pin)

** (Assumes 5ft. overhang from center of rear roller pin)
(May require bumper and latch options)

Stellar Slider40 54” Hook Height Hydraulic Hooklift Specifications

Lifting Capacity:	Max. Lifting Capacity: 37,000 lbs., evenly distributed in, or on the body.
Dumping Capacity:	Max. Dump Capacity: 40,000 lbs., evenly distributed in, or on the body.
Container Length:	12-foot through 16-foot from front A-frame to rear of skid rails. Longer bodies up to 18-feet may be accommodated if full dump angle is not required (may require special body-mounted or extendable truck-mounted bumper and additional latches to meet the Federal Motor Carrier Safety Administration (FMCSA) Rear End Protection regulation 393.86 and Securing Hooklift Containers regulation 393.134).
Maximum Dump Angle:	51°
Operating Pressure:	Up to 4,500 PSI maximum.
Weight of Loader:	Loader weight not to exceed 4,200 pounds.
Height of Loader:	Loader height not to exceed 12” as measured from top of truck frame to top of loader rollers.
Hook Height:	54-inches from bottom of skid rails to bottom of hook bar. Loader must be able to pick up body 6.25-inches below grade when mounted on a truck with a 43” frame height.
Hydraulic Pump:	Direct-coupled high-pressure piston pump.
Hydraulic Control Valve:	Hydraulic valve mounted directly onto the oil reservoir.
Controls:	Dual manual levers with sealed cable actuators mounted in the truck cab to allow full feathering of all loader functions.
Sliding Jib Assembly:	Hooklift must have sliding type jib section to provide a low overall loading height. Jib booms are hexagonal shaped for reducing flex, to add structural integrity and ease wear pad replacement.
Jib Cylinder:	Single 4-inch bore with 2-inch diameter 36-stroke rod cylinder. Cylinder must be double acting and include dual integral pilot-operated counterbalance valves to prevent cylinder collapse in case of hose failure.
Dumping Operation:	Hooklift must include a hydraulic lock-out device to prevent operation of the jib section while Hooklift is in the dumping mode.
Lift/Dump Cylinders:	Dual 5-inch bore with 2.5-inch diameter 62.25-stroke rod cylinders. Cylinders must be double acting and include dual integral pilot-operated counterbalance valves to prevent cylinder collapse in case of hose failure.
Dump/Jib Interlock:	Dumping must be accomplished through a rear pivot. Jib and dump sections must lock into a rigid full length with front rollers to provide support for the container while in the dump mode. These sections form this frame without the use of mechanical latches which rely on gravity, or container/body mounted latches. The system must be protected from out of sequence operation.
Rear Body Hold-downs:	Dual slide-through hold down devices mounted to the dump frame to secure the body to the loader through all ranges of the dump mode. This must be accomplished without the use of steel springs and/or hydraulic/air cylinders. They must allow bodies with different tie down locations to be loaded. Hooklift must be compatible with containers manufactured to ANSI Z245.60 recommended standard for waste containers. Inside latches are also available for certain model hooklifts.
Rear Dump Hinge Pin:	2.5-inch diameter carbon steel and zinc plated or type 17-4 stainless steel pins used throughout.
Pins:	All pins to be carbon steel and zinc plated or type 17-4 stainless steel pins used throughout.
Bushings:	All bushings to be of the DX pre-lubricated variety, used with grease fittings. Bronze bushings not allowed due to survivability in heavy containment and corrosive environments.
Hoses & Hyd. Fittings:	All hoses and fittings are to be SAE; metrics are not to be allowed. O-ring face seal fittings to be utilized wherever possible.
Origin of Manufacture:	Hooklift to be designed and manufactured in the United States of America.

Stellar Slider40 54” Hook Height Hydraulic Hooklift Specifications

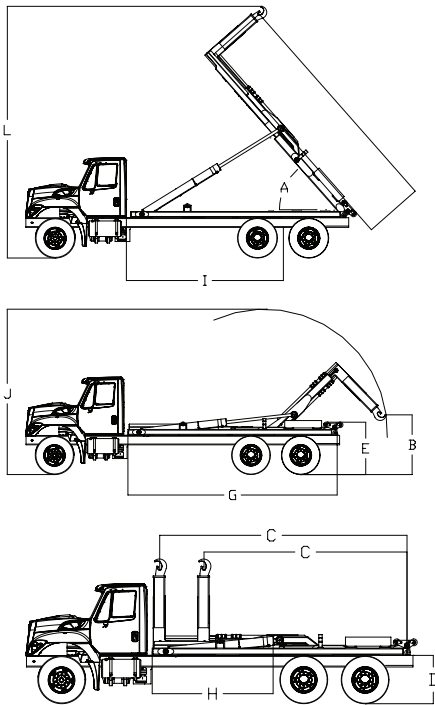
Lifting Capacity:	Max. Lifting Capacity: 37,000 lbs., evenly distributed in, or on the body.
Dumping Capacity:	Max. Dump Capacity: 40,000 lbs., evenly distributed in, or on the body.
Container Length:	12-foot through 16-foot from front A-frame to rear of skid rails. Longer bodies up to 18-feet may be accommodated if full dump angle is not required (may require special body-mounted or extendable truck-mounted bumper and additional latches to meet the Federal Motor Carrier Safety Administration (FMCSA) Rear End Protection regulation 393.86 and Securing Hooklift Containers regulation 393.134).
Maximum Dump Angle:	51°
Operating Pressure:	Up to 4,500 PSI maximum.
Weight of Loader:	Loader weight not to exceed 4,200 pounds.
Height of Loader:	Loader height not to exceed 12” as measured from top of truck frame to top of loader rollers.
Hook Height:	54-inches from bottom of skid rails to bottom of hook bar. Loader must be able to pick up body 6.25-inches below grade when mounted on a truck with a 43” frame height.
Hydraulic Pump:	Direct-coupled high-pressure piston pump.
Hydraulic Control Valve:	Hydraulic valve mounted directly onto the oil reservoir.
Controls:	Dual manual levers with sealed cable actuators mounted in the truck cab to allow full feathering of all loader functions.
Sliding Jib Assembly:	Hooklift must have sliding type jib section to provide a low overall loading height. Jib booms are hexagonal shaped for reducing flex, to add structural integrity and ease wear pad replacement.
Jib Cylinder:	Single 4-inch bore with 2-inch diameter 36-stroke rod cylinder. Cylinder must be double acting and include dual integral pilot-operated counterbalance valves to prevent cylinder collapse in case of hose failure.
Dumping Operation:	Hooklift must include a hydraulic lock-out device to prevent operation of the jib section while Hooklift is in the dumping mode.
Lift/Dump Cylinders:	Dual 5-inch bore with 2.5-inch diameter 62.25-stroke rod cylinders. Cylinders must be double acting and include dual integral pilot-operated counterbalance valves to prevent cylinder collapse in case of hose failure.
Dump/Jib Interlock:	Dumping must be accomplished through a rear pivot. Jib and dump sections must lock into a rigid full length with front rollers to provide support for the container while in the dump mode. These sections form this frame without the use of mechanical latches which rely on gravity, or container/body mounted latches. The system must be protected from out of sequence operation.
Rear Body Hold-downs:	Dual slide-through hold down devices mounted to the dump frame to secure the body to the loader through all ranges of the dump mode. This must be accomplished without the use of steel springs and/or hydraulic/air cylinders. They must allow bodies with different tie down locations to be loaded. Hooklift must be compatible with containers manufactured to ANSI Z245.60 recommended standard for waste containers. Inside latches are also available for certain model hooklifts.
Rear Dump Hinge Pin:	2.5-inch diameter carbon steel and zinc plated or type 17-4 stainless steel pins used throughout.
Pins:	All pins to be carbon steel and zinc plated or type 17-4 stainless steel pins used throughout.
Bushings:	All bushings to be of the DX pre-lubricated variety, used with grease fittings. Bronze bushings not allowed due to survivability in heavy containment and corrosive environments.
Hoses & Hyd. Fittings:	All hoses and fittings are to be SAE; metrics are not to be allowed. O-ring face seal fittings to be utilized wherever possible.
Origin of Manufacture:	Hooklift to be designed and manufactured in the United States of America.

Stellar Slider40 54"-61.75" Hook Height Hydraulic Hooklift Specifications

Lifting Capacity:	Max. Lifting Capacity: 37,000 (54" HH) or 40,000 (61.75" HH) lbs., evenly distributed in, or on the body.
Dumping Capacity:	Max. Dump Capacity: 40,000 lbs., evenly distributed in, or on the body.
Container Length:	12-foot through 16-foot from front A-frame to rear of skid rails. Longer bodies up to 18-feet may be accommodated if full dump angle is not required (may require special body-mounted or extendable truck-mounted bumper and additional latches to meet the Federal Motor Carrier Safety Administration (FMCSA) Rear End Protection regulation 393.86 and Securing Hooklift Containers regulation 393.134).
Maximum Dump Angle:	51°
Operating Pressure:	Up to 4,500 PSI maximum.
Weight of Loader:	Loader weight not to exceed 4,550 pounds.
Height of Loader:	Loader height not to exceed 12" as measured from top of truck frame to top of loader rollers.
Hook Height:	54" hook height must be able to pick up body 6.25-inches below grade when mounted on a truck with a 43" frame height. 61.75" hook height must be able to pick up body 21-inches below grade when mounted on a truck with a 43" frame height.
Hydraulic Pump:	Direct-coupled high-pressure piston pump.
Hydraulic Control Valve:	Hydraulic valve mounted directly onto the oil reservoir.
Controls:	Dual manual levers with sealed cable actuators mounted in the truck cab to allow full feathering of all loader functions.
Sliding Jib Assembly:	Hooklift must have sliding type jib section to provide a low overall loading height. Jib booms are hexagonal shaped for reducing flex, to add structural integrity and ease wear pad replacement.
Jib Cylinder:	Single 3-inch bore with 2-inch diameter rod cylinder. Cylinder must be double acting and include dual integral pilot-operated counterbalance valves to prevent cylinder collapse in case of hose failure.
Dumping Operation:	Hooklift must include a hydraulic lock-out device to prevent operation of the jib section while Hooklift is in the dumping mode.
Lift/Dump Cylinders:	Dual 5-inch bore with 2.5-inch diameter rod cylinders. Cylinders must be double acting and include dual integral pilot-operated counterbalance valves to prevent cylinder collapse in case of hose failure.
Dump/Jib Interlock:	Dumping must be accomplished through a rear pivot. Jib and dump sections must lock into a rigid full length with front rollers to provide support for the container while in the dump mode. These sections form this frame without the use of mechanical latches which rely on gravity, or container/body mounted latches. The system must be protected from out of sequence operation.
Rear Body Hold-downs:	Dual slide-through hold down devices mounted to the dump frame to secure the body to the loader through all ranges of the dump mode. This must be accomplished without the use of steel springs and/or hydraulic/air cylinders. They must allow bodies with different tie down locations to be loaded. Hooklift must be compatible with containers manufactured to ANSI Z245.60 recommended standard for waste containers. Inside latches are also available for certain model hooklifts.
Rear Dump Hinge Pin:	2.5-inch diameter carbon steel and zinc plated or type 17-4 stainless steel pins used throughout.
Pins:	All pins to be carbon steel and zinc plated or type 17-4 stainless steel pins used throughout.
Bushings:	All bushings to be of the DX pre-lubricated variety, used with grease fittings. Bronze bushings not allowed due to survivability in heavy containment and corrosive environments.
Hoses & Hyd. Fittings:	All hoses and fittings are to be SAE; metrics are not to be allowed. O-ring face seal fittings to be utilized wherever possible.
Origin of Manufacture:	Hooklift to be designed and manufactured in the United States of America.

STELLAR Slider50

50,000-pound Sliding Jib Hooklift



- Will accommodate bodies from 16-feet up to 21.5-feet (4877mm to 6553mm) long and still attain the maximum dump angle on a 41-inch (1041mm) high frame truck. Longer bodies may be accommodated with reduced dumping capabilities.
- Transmission-mounted PTO and hydraulic pump required to power the hooklift.
- Standard in-cab air manual controls which allow for precise metering of the manual hydraulic valve.
- Twentyfive (25) gallon (95L.) frame-mounted oil tank.
- Operating pressure is 4,500 psi.
- Maximum hydraulic flow is 24-gallons per minute.
- Patented dump/load interface as featured on most Stellar Hooklifts.
- Hydraulic locks to prevent cylinder collapse in case of hose failure.
- Slide through rear body tie-down latches.
- Hydraulic lock-out valve to prevent front jib movement when the dump frame is raised.
- Permanently lubricated and greaseable bushings used throughout.
- Grease zerks at all pin points to allow purging of contaminants.
- Carbon steel and zinc plated or type 17-4 stainless steel pins used throughout.
- All weldments painted with two-part polyurethane enamel.

	54" HH	61.75" HH	54-61.75" HH
Lifting Capacity	42,000 (19,051 Kg)	50,000 (22,680 Kg)	42,000 - 50,000 (19,051 - 22,680 Kg)
Dumping Capacity	50,000 (22,680 Kg)	50,000 (22,680 Kg)	50,000 (22,680 Kg)
A Dump Angle	51°	51°	51°
B Lowest Hook Height	46" (1,169 mm)	39.25" (997 mm)	46" or 39.25" (1,169 - 997 mm)
C Effective Length	192" to 238" (4,877 - 6,046 mm)	192" to 238" (4,877 - 6,046 mm)	192" to 238" (4,877 - 6,046 mm)
D Truck Frame Height	45" (1,143 mm)	45" (1,143 mm)	45" (1,143 mm)
E Hooklift Height	54" (1,372 mm)	62" (1,575 mm)	54" to 62" (1,372 - 1,575 mm)
G Hooklift Length	247.56" (6,288 mm)	247.56" (6,288 mm)	247.56" (6,288 mm)
H Center of Gravity	102" (102" mm)	102" (102" mm)	102" (102" mm)
I Chassis Cab to Trunion	202" optimum*** (5,131 mm)	202" optimum*** (5,131 mm)	202" optimum*** (5,131 mm)
J Max. Height When Loading	179.38" (4,557 mm)	183.68" (4,666 mm)	179.38" or 183.68" (4,557 - 4,666 mm)
K Longest Body to Dump	288" (7,315 mm)	288" (7,315 mm)	288" (7,315 mm)
L Max. Height When Dumping	281.50" (7,150 mm)	286.38" (7,274 mm)	286.38" (7,274 mm)
Maximum Operating Pressure	4,500 psi (31 Mpa)	4,500 psi (31 Mpa)	4,500 psi (31 Mpa)
Shipping Weight (pounds)	5,630 (2,554 Kg)	5,650 (2,563 Kg)	6,010 (2,726 Kg)
Shipping Dimensions (LxHxW)	249" x 53" x 83" (6,325 x 1,346 x 2,108 mm)	249" x 53" x 83" (6,325 x 1,346 x 2,108 mm)	249" x 53" x 83" (6,325 x 1,346 x 2,108 mm)
Min. Frame RBM	2,800,000	2,800,000	2,800,000
Min. Truck GVWR (pounds)	32,000 (14,515 Kg)	32,000 (14,515 Kg)	32,000 (14,515 Kg)
Load Angle w/ Shortest Body Length	38°	36°	38° or 36°
Recommended Container Lengths*	16' to 22' (4.9 to 6.7 m)	16' to 22' (4.9 to 6.7 m)	16' to 22' (4.9 to 6.7 m)
Recommended Flatbed Lengths**	16' to 24' (4.9 to 7.3 m)	16' to 24' (4.9 to 7.3 m)	16' to 24' (4.9 to 7.3 m)

*Assumes 3ft. overhang from center of rear roller pin)
(Bumper typically 12" from center of roller pin)

**Assumes 5ft. overhang from center of rear roller pin)
(May require bumper and latch options)

Can handle 22' bodies with special bumpers.
Please consult factory.

***Weight distribution should always be done)

Stellar Slider50 54" Hook Height Hydraulic Hooklift Specifications

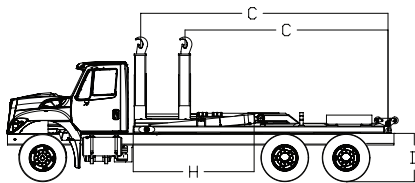
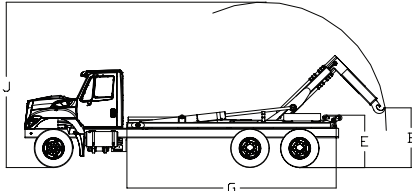
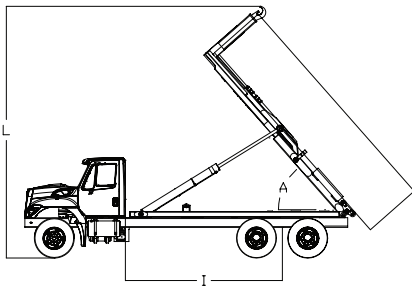
Lifting Capacity:	Max. Lifting Capacity: 43,000 lbs., evenly distributed in, or on the body.
Dumping Capacity:	Max. Dump Capacity: 50,000 lbs., evenly distributed in, or on the body.
Container Length:	16-foot through 21.5-foot from front A-frame to rear of skid rails. Longer bodies up to 24-feet may be accommodated if full dump angle is not required (may require special body-mounted or extendable truck-mounted bumper and additional latches to meet the Federal Motor Carrier Safety Administration (FMCSA) Rear End Protection regulation 393.86 and Securing Hooklift Containers regulation 393.134).
Maximum Dump Angle:	50°
Operating Pressure:	Up to 4,500 PSI maximum.
Weight of Hooklift:	Hooklift weight not to exceed 6,600 pounds.
Height of Hooklift:	Hooklift height not to exceed 12.44" as measured from top of truck frame to top of hooklift rollers.
Hook Height:	54-inches from bottom of skid rails to bottom of hook bar. Hooklift must be able to pick up body 13.75-inches below grade when mounted on a truck with a 41" frame height.
Hydraulic Pump:	Direct-coupled high-pressure piston pump.
Hydraulic Control Valve:	Hydraulic valve mounted directly onto the oil reservoir.
Controls:	Dual manual levers with sealed cable actuators mounted in the truck cab to allow full feathering of all hooklift functions.
Sliding Jib Assembly:	Hooklift must have sliding type jib section to provide a low overall loading height. Jib booms are hexagonal shaped for reducing flex, to add structural integrity and ease wear pad replacement.
Jib Cylinder:	Single 5-inch bore with 5.5-inch diameter rod cylinder. Cylinder must be double acting and include dual integral pilot-operated counterbalance valves to prevent cylinder collapse in case of hose failure.
Dumping Operation:	Hooklift must include a hydraulic lock-out device to prevent operation of the jib section while Hooklift is in the dumping mode.
Lift/Dump Cylinders:	Dual 7-inch bore with 3-inch diameter rod cylinders. Cylinders must be double acting and include dual integral pilot-operated counterbalance valves to prevent cylinder collapse in case of hose failure.
Dump/Jlb Interlock:	Dumping must be accomplished through a rear pivot. Jib and dump sections must lock into a rigid full length with front rollers to provide support for the container while in the dump mode. These sections form this frame without the use of mechanical latches which rely on gravity, or container/body mounted latches. The system must be protected from out of sequence operation.
Rear Body Hold-downs:	Dual slide-through hold down devices mounted to the dump frame to secure the body to the hooklift through all ranges of the dump mode. This must be accomplished without the use of steel springs and/or hydraulic/air cylinders. They must allow bodies with different tie down locations to be loaded. Hooklift must be compatible with containers manufactured to ANSI Z245.60 recommended standard for waste containers. Inside latches are also available for certain model hooklifts.
Rear Dump Hinge Pin:	3.5-inch diameter carbon steel and zinc plated or type 17-4 stainless steel.
Pins:	All pins to be carbon steel and zinc plated or type 17-4 stainless steel.
Bushings:	All bushings to be of the DX pre-lubricated variety, used with grease fittings. Bronze bushings not allowed due to survivability in heavy containment and corrosive environments.
Hoses & Hyd. Fittings:	All hoses and fittings are to be SAE; metrics are not to be allowed. O-ring face seal fittings to be utilized wherever possible.
Origin of Manufacture:	Hooklift to be designed and manufactured in the United States of America.

Stellar Slider50 61.75" Hook Height Hydraulic Hooklift Specifications

Lifting Capacity:	Max. Lifting Capacity: 50,000 lbs., evenly distributed in, or on the body.
Dumping Capacity:	Max. Dump Capacity: 50,000 lbs., evenly distributed in, or on the body.
Container Length:	16-foot through 21.5-foot from front A-frame to rear of skid rails. Longer bodies up to 24-feet may be accommodated if full dump angle is not required (may require special body-mounted or extendable truck-mounted bumper and additional latches to meet the Federal Motor Carrier Safety Administration (FMCSA) Rear End Protection regulation 393.86 and Securing Hooklift Containers regulation 393.134).
Maximum Dump Angle:	50°
Operating Pressure:	Up to 4,500 PSI maximum.
Weight of Hooklift:	Hooklift weight not to exceed 6,600 pounds.
Height of Hooklift:	Hooklift height not to exceed 12.44" as measured from top of truck frame to top of hooklift rollers.
Hook Height:	54-inches from bottom of skid rails to bottom of hook bar. Hooklift must be able to pick up body 13.75-inches below grade when mounted on a truck with a 41" frame height.
Hydraulic Pump:	Direct-coupled high-pressure piston pump.
Hydraulic Control Valve:	Hydraulic valve mounted directly onto the oil reservoir.
Controls:	Dual manual levers with sealed cable actuators mounted in the truck cab to allow full feathering of all hooklift functions.
Sliding Jib Assembly:	Hooklift must have sliding type jib section to provide a low overall loading height. Jib booms are hexagonal shaped for reducing flex, to add structural integrity and ease wear pad replacement.
Jib Cylinder:	Single 5-inch bore with 5.5-inch diameter rod cylinder. Cylinder must be double acting and include dual integral pilot-operated counterbalance valves to prevent cylinder collapse in case of hose failure.
Dumping Operation:	Hooklift must include a hydraulic lock-out device to prevent operation of the jib section while Hooklift is in the dumping mode.
Lift/Dump Cylinders:	Dual 7-inch bore with 3-inch diameter rod cylinders. Cylinders must be double acting and include dual integral pilot-operated counterbalance valves to prevent cylinder collapse in case of hose failure.
Dump/Jlb Interlock:	Dumping must be accomplished through a rear pivot. Jib and dump sections must lock into a rigid full length with front rollers to provide support for the container while in the dump mode. These sections form this frame without the use of mechanical latches which rely on gravity, or container/body mounted latches. The system must be protected from out of sequence operation.
Rear Body Hold-downs:	Dual slide-through hold down devices mounted to the dump frame to secure the body to the hooklift through all ranges of the dump mode. This must be accomplished without the use of steel springs and/or hydraulic/air cylinders. They must allow bodies with different tie down locations to be loaded. Hooklift must be compatible with containers manufactured to ANSI Z245.60 recommended standard for waste containers. Inside latches are also available for certain model hooklifts.
Rear Dump Hinge Pin:	3.5-inch diameter carbon steel and zinc plated or type 17-4 stainless steel.
Pins:	All pins to be carbon steel and zinc plated or type 17-4 stainless steel.
Bushings:	All bushings to be of the DX pre-lubricated variety, used with grease fittings. Bronze bushings not allowed due to survivability in heavy containment and corrosive environments.
Hoses & Hyd. Fittings:	All hoses and fittings are to be SAE; metrics are not to be allowed. O-ring face seal fittings to be utilized wherever possible.
Origin of Manufacture:	Hooklift to be designed and manufactured in the United States of America.

Stellar Slider50 54 - 61.75" Hook Height Hydraulic Hooklift Specifications

Lifting Capacity:	Max. Lifting Capacity: 43,000 or 50,000 lbs., evenly distributed in, or on the body.
Dumping Capacity:	Max. Dump Capacity: 50,000 lbs., evenly distributed in, or on the body.
Container Length:	16-foot through 21.5-foot from front A-frame to rear of skid rails. Longer bodies up to 24-feet may be accommodated if full dump angle is not required (may require special body-mounted or extendable truck-mounted bumper and additional latches to meet the Federal Motor Carrier Safety Administration (FMCSA) Rear End Protection regulation 393.86 and Securing Hooklift Containers regulation 393.134).
Maximum Dump Angle:	50°
Operating Pressure:	Up to 4,500 PSI maximum.
Weight of Hooklift:	Hooklift weight not to exceed 6,600 pounds.
Height of Hooklift:	Hooklift height not to exceed 12.44" as measured from top of truck frame to top of hooklift rollers.
Hook Height:	54-inches from bottom of skid rails to bottom of hook bar. Hooklift must be able to pick up body 13.75-inches below grade when mounted on a truck with a 41" frame height.
Hydraulic Pump:	Direct-coupled high-pressure piston pump.
Hydraulic Control Valve:	Hydraulic valve mounted directly onto the oil reservoir.
Controls:	Dual manual levers with sealed cable actuators mounted in the truck cab to allow full feathering of all hooklift functions.
Sliding Jib Assembly:	Hooklift must have sliding type jib section to provide a low overall loading height. Jib booms are hexagonal shaped for reducing flex, to add structural integrity and ease wear pad replacement.
Jib Cylinder:	Single 5-inch bore with 5.5-inch diameter rod cylinder. Cylinder must be double acting and include dual integral pilot-operated counterbalance valves to prevent cylinder collapse in case of hose failure.
Dumping Operation:	Hooklift must include a hydraulic lock-out device to prevent operation of the jib section while Hooklift is in the dumping mode.
Lift/Dump Cylinders:	Dual 7-inch bore with 3-inch diameter rod cylinders. Cylinders must be double acting and include dual integral pilot-operated counterbalance valves to prevent cylinder collapse in case of hose failure.
Dump/Jlb Interlock:	Dumping must be accomplished through a rear pivot. Jib and dump sections must lock into a rigid full length with front rollers to provide support for the container while in the dump mode. These sections form this frame without the use of mechanical latches which rely on gravity, or container/body mounted latches. The system must be protected from out of sequence operation.
Rear Body Hold-downs:	Dual slide-through hold down devices mounted to the dump frame to secure the body to the hooklift through all ranges of the dump mode. This must be accomplished without the use of steel springs and/or hydraulic/air cylinders. They must allow bodies with different tie down locations to be loaded. Hooklift must be compatible with containers manufactured to ANSI Z245.60 recommended standard for waste containers. Inside latches are also available for certain model hooklifts.
Rear Dump Hinge Pin:	3.5-inch diameter carbon steel and zinc plated or type 17-4 stainless steel.
Pins:	All pins to be carbon steel and zinc plated or type 17-4 stainless steel.
Bushings:	All bushings to be of the DX pre-lubricated variety, used with grease fittings. Bronze bushings not allowed due to survivability in heavy containment and corrosive environments.
Hoses & Hyd. Fittings:	All hoses and fittings are to be SAE; metrics are not to be allowed. O-ring face seal fittings to be utilized wherever possible.
Origin of Manufacture:	Hooklift to be designed and manufactured in the United States of America.



- Will accommodate bodies from 16-feet up to 21.5-feet (4877mm to 6553mm) long and still attain the maximum dump angle on a 41-inch (1041mm) high frame truck. Longer bodies may be accommodated with reduced dumping capabilities.
- Transmission-mounted PTO and hydraulic pump required to power the hooklift.
- Standard in-cab air manual controls which allow for precise metering of the manual hydraulic valve.
- Twentyfive (25) gallon (95L.) frame-mounted oil tank.
- Operating pressure is 4,500 psi.
- Maximum hydraulic flow is 24-gallons per minute.
- Patented dump/load interface as featured on most Stellar Hooklifts.
- Hydraulic locks to prevent cylinder collapse in case of hose failure.
- Slide through rear body tie-down latches.
- Hydraulic lock-out valve to prevent front jib movement when the dump frame is raised.
- Permanently lubricated and greaseable bushings used throughout.
- Grease zerks at all pin points to allow purging of contaminants.
- Carbon steel and zinc plated or type 17-4 stainless steel pins used throughout.
- All weldments painted with two-part polyurethane enamel.

	54" HH	61.75" HH	54-61.75" HH
Lifting Capacity	52,000 (23,587 Kg)	65,000 (29,484 Kg)	52,000 - 65,000 (23,587 - 29,484 Kg)
Dumping Capacity	65,000 (29,484 Kg)	65,000 (29,484 Kg)	65,000 (29,484 Kg)
A Dump Angle	50°	50°	50°
B Lowest Hook Height	44.51" (1,131 mm)	38" (965 mm)	44.51" or 38" (1,131 - 965 mm)
C Effective Length	193" to 217" (4,902 to 5,512 mm)	193" to 217" (4,902 to 5,512 mm)	193" to 217" (4,902 to 5,512 mm)
D Truck Frame Height	41" (1,041 mm)	41" (1,041 mm)	41" (1,041 mm)
E Hooklift Height	54.56" (1,385 mm)	54.56" (1,385 mm)	54.56" (1,385 mm)
G Hooklift Length	227" (5,766 mm)	227" (5,766 mm)	227" (5,766 mm)
H Center of Gravity	103" (2,616 mm)	103" (2,616 mm)	103" (2,616 mm)
I Chassis Cab to Trunion	180" optimum*** (4,572 mm) 170" minimum*** (4,318 mm) 190" optimum with tarper*** (4,826 mm)	180" optimum*** (4,572 mm) 170" minimum*** (4,318 mm) 190" optimum with tarper*** (4,826 mm)	180" optimum*** (4,572 mm) 170" minimum*** (4,318 mm) 190" optimum with tarper*** (4,826 mm)
J Max. Height When Loading	175" (4,445 mm)	179" (4,547 mm)	175" or 179" (4,445 - 4,547 mm)
K Longest Body to Dump	288" (7,315 mm)	288" (7,315 mm)	288" (7,315 mm)
L Max. Height When Dumping	259" (6,579 mm)	264" (6,706 mm)	259" or 264" (6,579 - 6,706 mm)
Maximum Operating Pressure	4,500 psi (31 Mpa)	4,500psi (31 Mpa)	4,500psi (31 Mpa)
Shipping Weight (pounds)	6,600 (2,994 Kg)	6,600 (2,994 Kg)	6,700 (3,039 Kg)
Shipping Dimensions (LxHxW)	234" x 86" x 53" (5,944 x 2,184 x 1,346 mm)	234" x 86" x 53" (5,944x2,184x1,346 mm)	234" x 86" x 53" (5,944x2,184x1,346 mm)
Min. Frame RBM	3,200,000	3,200,000	3,200,000
Min. Truck GVWR (pounds)	54,000 (24,494 Kg)	54,000 (24,494 Kg)	54,000 (24,494 Kg)
Load Angle w/ Shortest Body Length	40°	37°	40° or 37°
Recommended Container Lengths*	16' to 21.5' (4.9 to 6.6 m)	16' to 21.5' (4.9 to 6.6 m)	16' to 21.5' (4.9 to 6.6 m)
Recommended Flatbed Lengths**	16' to 24' (4.9 to 7.3 m)	16' to 24' (4.9 to 7.3 m)	16' to 24' (4.9 to 7.3 m)

*(Assumes 3ft. overhang from center of rear roller pin)
(Bumper typically 12" from center of roller pin)

** (Assumes 5ft. overhang from center of rear roller pin)
(May require bumper and latch options)

Stellar Slider65 54” Hook Height Hydraulic Hooklift Specifications

Lifting Capacity:	Max. Lifting Capacity: 52,000 lbs., evenly distributed in, or on the body.
Dumping Capacity:	Max. Dump Capacity: 65,000 lbs., evenly distributed in, or on the body.
Container Length:	16-foot through 22-foot from front A-frame to rear of skid rails. Longer bodies up to 24-feet may be accommodated if full dump angle is not required (may require special body-mounted or extendable truck-mounted bumper and additional latches to meet the Federal Motor Carrier Safety Administration (FMCSA) Rear End Protection regulation 393.86 and Securing Hooklift Containers regulation 393.134).
Maximum Dump Angle:	50°
Operating Pressure:	Up to 4,500 PSI maximum.
Weight of Hooklift:	Hooklift weight not to exceed 6,600 pounds.
Height of Hooklift:	Hooklift height not to exceed 12.44” as measured from top of truck frame to top of hooklift rollers.
Hook Height:	54-inches from bottom of skid rails to bottom of hook bar. Hooklift must be able to pick up body 13.75-inches below grade when mounted on a truck with a 41” frame height.
Hydraulic Pump:	Direct-coupled high-pressure piston pump.
Hydraulic Control Valve:	Hydraulic valve mounted directly onto the oil reservoir.
Controls:	Dual manual levers with sealed cable actuators mounted in the truck cab to allow full feathering of all hooklift functions.
Sliding Jib Assembly:	Hooklift must have sliding type jib section to provide a low overall loading height. Jib booms are hexagonal shaped for reducing flex, to add structural integrity and ease wear pad replacement.
Jib Cylinder:	Single 5-inch bore with 5.5-inch diameter rod cylinder. Cylinder must be double acting and include dual integral pilot-operated counterbalance valves to prevent cylinder collapse in case of hose failure.
Dumping Operation:	Hooklift must include a hydraulic lock-out device to prevent operation of the jib section while Hooklift is in the dumping mode.
Lift/Dump Cylinders:	Dual 7-inch bore with 3-inch diameter rod cylinders. Cylinders must be double acting and include dual integral pilot-operated counterbalance valves to prevent cylinder collapse in case of hose failure.
Dump/Jlb Interlock:	Dumping must be accomplished through a rear pivot. Jib and dump sections must lock into a rigid full length with front rollers to provide support for the container while in the dump mode. These sections form this frame without the use of mechanical latches which rely on gravity, or container/body mounted latches. The system must be protected from out of sequence operation.
Rear Body Hold-downs:	Dual slide-through hold down devices mounted to the dump frame to secure the body to the hooklift through all ranges of the dump mode. This must be accomplished without the use of steel springs and/or hydraulic/air cylinders. They must allow bodies with different tie down locations to be loaded. Hooklift must be compatible with containers manufactured to ANSI Z245.60 recommended standard for waste containers. Inside latches are also available for certain model hooklifts.
Rear Dump Hinge Pin:	3.5-inch diameter carbon steel and zinc plated or type 17-4 stainless steel.
Pins:	All pins to be carbon steel and zinc plated or type 17-4 stainless steel.
Bushings:	All bushings to be of the DX pre-lubricated variety, used with grease fittings. Bronze bushings not allowed due to survivability in heavy containment and corrosive environments.
Hoses & Hyd. Fittings:	All hoses and fittings are to be SAE; metrics are not to be allowed. O-ring face seal fittings to be utilized wherever possible.
Origin of Manufacture:	Hooklift to be designed and manufactured in the United States of America.

Stellar Slider65 61.75" Hook Height Hydraulic Hooklift Specifications

Lifting Capacity:	Max. Lifting Capacity: 65,000 lbs., evenly distributed in, or on the body.
Dumping Capacity:	Max. Dump Capacity: 65,000 lbs., evenly distributed in, or on the body.
Container Length:	16-foot through 22-foot from front A-frame to rear of skid rails. Longer bodies up to 24-feet may be accommodated if full dump angle is not required (may require special body-mounted or extendable truck-mounted bumper and additional latches to meet the Federal Motor Carrier Safety Administration (FMCSA) Rear End Protection regulation 393.86 and Securing Hooklift Containers regulation 393.134).
Maximum Dump Angle:	50°
Operating Pressure:	Up to 4,500 PSI maximum.
Weight of Hooklift:	Hooklift weight not to exceed 6,600 pounds.
Height of Hooklift:	Hooklift height not to exceed 12.44" as measured from top of truck frame to top of hooklift rollers.
Hook Height:	61.75-inches from bottom of skid rails to bottom of hook bar. Hooklift must be able to pick up body 19.75-inches below grade when mounted on a truck with a 41" frame height.
Hydraulic Pump:	Direct-coupled high-pressure piston pump.
Hydraulic Control Valve:	Hydraulic valve mounted directly onto the oil reservoir.
Controls:	Dual manual levers with sealed cable actuators mounted in the truck cab to allow full feathering of all hooklift functions.
Sliding Jib Assembly:	Hooklift must have sliding type jib section to provide a low overall loading height. Jib booms are hexagonal shaped for reducing flex, to add structural integrity and ease wear pad replacement.
Jib Cylinder:	Single 5-inch bore with 5.5-inch diameter rod cylinder. Cylinder must be double acting and include dual integral pilot-operated counterbalance valves to prevent cylinder collapse in case of hose failure.
Dumping Operation:	Hooklift must include a hydraulic lock-out device to prevent operation of the jib section while Hooklift is in the dumping mode.
Lift/Dump Cylinders:	Dual 7-inch bore with 3-inch diameter rod cylinders. Cylinders must be double acting and include dual integral pilot-operated counterbalance valves to prevent cylinder collapse in case of hose failure.
Dump/Jlb Interlock:	Dumping must be accomplished through a rear pivot. Jib and dump sections must lock into a rigid full length with front rollers to provide support for the container while in the dump mode. These sections form this frame without the use of mechanical latches which rely on gravity, or container/body mounted latches. The system must be protected from out of sequence operation.
Rear Body Hold-downs:	Dual slide-through hold down devices mounted to the dump frame to secure the body to the hooklift through all ranges of the dump mode. This must be accomplished without the use of steel springs and/or hydraulic/air cylinders. They must allow bodies with different tie down locations to be loaded. Hooklift must be compatible with containers manufactured to ANSI Z245.60 recommended standard for waste containers. Inside latches are also available for certain model hooklifts.
Rear Dump Hinge Pin:	3.5-inch diameter carbon steel and zinc plated or type 17-4 stainless steel.
Pins:	All pins to be carbon steel and zinc plated or type 17-4 stainless steel.
Bushings:	All bushings to be of the DX pre-lubricated variety, used with grease fittings. Bronze bushings not allowed due to survivability in heavy containment and corrosive environments.
Hoses & Hyd. Fittings:	All hoses and fittings are to be SAE; metrics are not to be allowed. O-ring face seal fittings to be utilized wherever possible.
Origin of Manufacture:	Hooklift to be designed and manufactured in the United States of America.

Stellar Slider65 54"-61.75" Hook Height Hydraulic Hooklift Specifications

Lifting Capacity:	Max. Lifting Capacity: 52,000 (54" HH) or 65,000 (61.75" HH) lbs., evenly distributed in, or on the body.
Dumping Capacity:	Max. Dump Capacity: 65,000 lbs., evenly distributed in, or on the body.
Container Length:	16-foot through 22-foot from front A-frame to rear of skid rails. Longer bodies up to 24-feet may be accommodated if full dump angle is not required (may require special body-mounted or extendable truck-mounted bumper and additional latches to meet the Federal Motor Carrier Safety Administration (FMCSA) Rear End Protection regulation 393.86 and Securing Hooklift Containers regulation 393.134).
Maximum Dump Angle:	50°
Operating Pressure:	Up to 4,500 PSI maximum.
Weight of Hooklift:	Hooklift weight not to exceed 6,700 pounds.
Height of Hooklift:	Hooklift height not to exceed 12.44" as measured from top of truck frame to top of hooklift rollers.
Hook Height:	54" hook height must be able to pick up body 13.75-inches below grade when mounted on a truck with a 41" frame height. 61.75" hook height must be able to pick up body 19.75-inches below grade when mounted on a truck with a 41" frame height.
Hydraulic Pump:	Direct-coupled high-pressure piston pump.
Hydraulic Control Valve:	Hydraulic valve mounted directly onto the oil reservoir.
Controls:	Dual manual levers with sealed cable actuators mounted in the truck cab to allow full feathering of all hooklift functions.
Sliding Jib Assembly:	Hooklift must have sliding type jib section to provide a low overall loading height. Jib booms are hexagonal shaped for reducing flex, to add structural integrity and ease wear pad replacement.
Jib Cylinder:	Single 5-inch bore with 5.5-inch diameter rod cylinder. Cylinder must be double acting and include dual integral pilot-operated counterbalance valves to prevent cylinder collapse in case of hose failure.
Dumping Operation:	Hooklift must include a hydraulic lock-out device to prevent operation of the jib section while Hooklift is in the dumping mode.
Lift/Dump Cylinders:	Dual 7-inch bore with 3-inch diameter rod cylinders. Cylinders must be double acting and include dual integral pilot-operated counterbalance valves to prevent cylinder collapse in case of hose failure.
Dump/Jlb Interlock:	Dumping must be accomplished through a rear pivot. Jib and dump sections must lock into a rigid full length with front rollers to provide support for the container while in the dump mode. These sections form this frame without the use of mechanical latches which rely on gravity, or container/body mounted latches. The system must be protected from out of sequence operation.
Rear Body Hold-downs:	Dual slide-through hold down devices mounted to the dump frame to secure the body to the hooklift through all ranges of the dump mode. This must be accomplished without the use of steel springs and/or hydraulic/air cylinders. They must allow bodies with different tie down locations to be loaded. Hooklift must be compatible with containers manufactured to ANSI Z245.60 recommended standard for waste containers. Inside latches are also available for certain model hooklifts.
Rear Dump Hinge Pin:	3.5-inch diameter carbon steel and zinc plated or type 17-4 stainless steel.
Pins:	All pins to be carbon steel and zinc plated or type 17-4 stainless steel.
Bushings:	All bushings to be of the DX pre-lubricated variety, used with grease fittings. Bronze bushings not allowed due to survivability in heavy containment and corrosive environments.
Hoses & Hyd. Fittings:	All hoses and fittings are to be SAE; metrics are not to be allowed. O-ring face seal fittings to be utilized wherever possible.
Origin of Manufacture:	Hooklift to be designed and manufactured in the United States of America.

Skids & A-Frames

The beauty of the Stellar Shuttle Hooklift system is the quick, simple and safe manner in which it allows the operator to change from one body to another on a single truck. However, the Stellar Shuttle, or any other make of hydraulic Hooklift hooklift cannot pick up and load just any truck body as it comes from the initial body manufacturer. A special subframe and front hooking section must be added to, or built into, each body to allow it to be picked up by the Hooklift hooklift.

On the following pages are engineering drawings of the front A-frames and skids for most standard model Stellar Shuttle hydraulic Hooklift loaders. Most loaders of a certain lifting capacity will have a similar hook height. The length of the skid may be varied to coincide with the length of the body to be loaded. Take special care to assure that the skid length is not shorter than the minimum length noted in the specification sheet. For example, on the 84-12-8 hooklift, the minimum length skid would be 115-inches from the centerline of the hook bar to the rear most portion of the skid.

Another important measurement to follow in building the A-frame is the angle and position of the hook. Note that the hook height measurements shown in the drawings are from the bottom of the skid rails to the bottom of the hook bar. This is a critical measurement. Stellar recommends that the hook bar be set at 45° from vertical on the A-frame. The angle of the hook bar is critical in keeping the hook from binding with the body and allowing for a clean removal/engagement between the hook and the hook bar. The distance from the center of the hook bar to the front edge of the body is also important. Although it is common for the hook to touch the front of the body when offloading, keeping this space to the recommended distance will reduce damage to the front of the body. Stellar recommends that a steel plate be mounted on the back side of the A-frame opposite the hook bar to act as a wear plate.

Additional drawings are provided that detail the construction of a beaver tail and rear rollers on a flatbed body. The beaver tail will allow for vehicles and construction equipment with a low ground clearance a gentle sloping approach for loading onto the body while on the ground. When equipped with a frame-mounted winch, a Stellar Shuttle-equipped truck can easily pull a disabled vehicle onto a flatbed with rear beaver tail. The equipment is tied down to the body when on the ground. The fully loaded body is then pull up on top of the truck by the Stellar Shuttle.

A body equipped with rollers will allow the operator to place the body in a precise position when on paved surfaces. Rollers will also allow for positioning a body into a building or under an overhang before disengaging from the hook. The operator will start to off-load the body in the typical manner, but instead of leaving the truck brakes off and allowing the truck to roll out from under the body the brakes are set and the body will roll back away from the truck. A combination of these two methods may also be employed by allowing the truck to roll forward from the body until the front of the body is just off the ground with the full weight of the body on the rear rollers. The operator may then pull the body forward or roll it backwards into the desired position.

Another point to consider when building a skid is the body type to be mounted to the skid. When mounting a dump body or van body to a skid, it is proper to have the skid length equal to the length of the body. However, this is not always the rule.

When installing a sand/salt spreader or vacuum tank with a rear discharge it is important to protect the rear portions of the body when loading. Due to the angle of the body when loading, it is possible that extended portions of the body may touch the ground. Stellar recommends adding between 16 and 20-inches of skid length past the length of the body. This will typically provide adequate protection for a spinner chute or discharge port on these type bodies. Although it may seem obvious, it is critical that a tilt-up spinner chute be ordered on any spreader box destined to be installed with a Stellar Shuttle system.

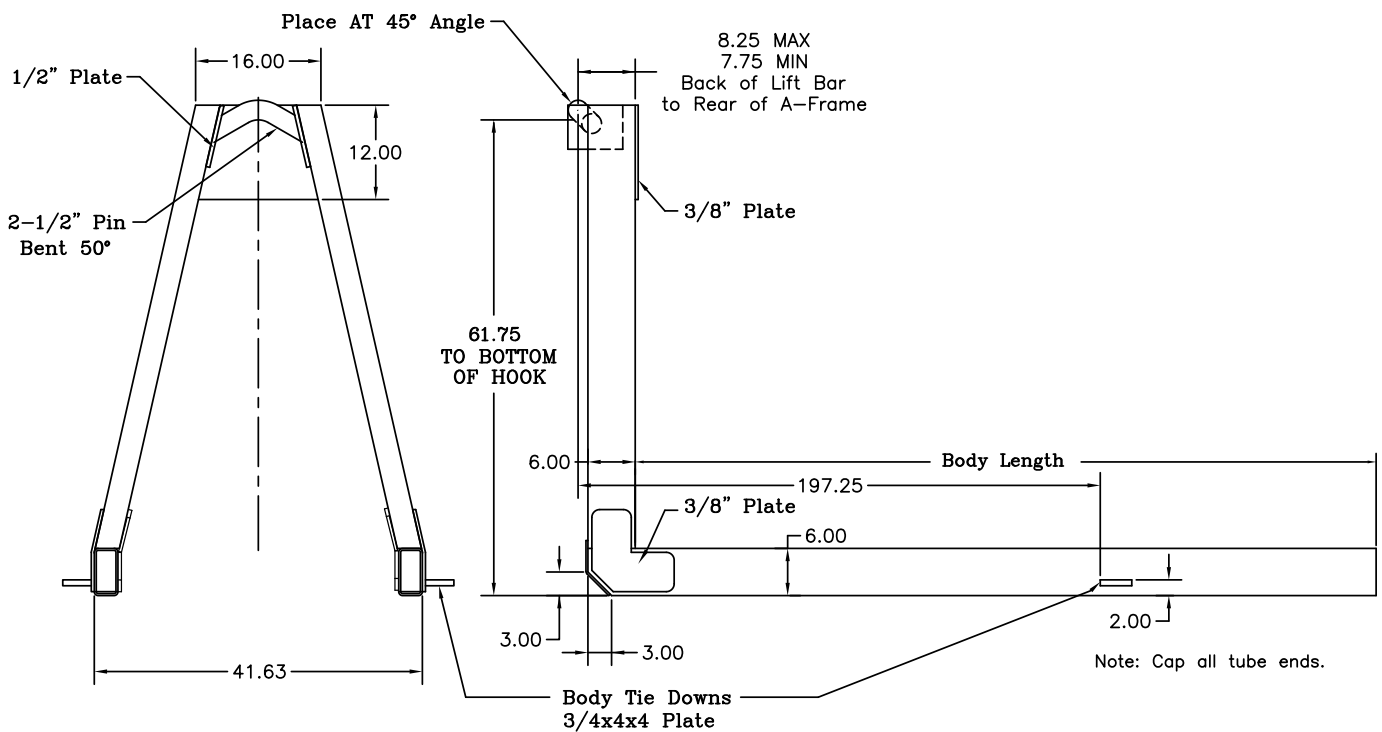
It has also been brought to our attention by one of our distributors that cross-member width on a spreader box has been a problem in the past. Since the inside width of our skid measures 37.63-inches, the standard 39-inches wide cross-members on some spreader boxes do not allow for a solid surface for welding to the skid. If possible, ask your spreader box supplier to supply crossmembers that are at least 41.5-inches wide to facilitate mounting to the skid.

An area of concern for many Stellar users is rear end protection when a body extends past the rear of the truck. Frequently referred to as the "ICC bumper" regulation, the rear-end protection regulation was originally written by the U.S. Office of Motor Carrier Safety. Implemented in the early 1950s, this regulation states that when an empty vehicle's clearance from the ground is greater than 30-inches, some sort of rear end protection is required. The regulation goes on to say that this device must be within 24-inches from the extreme rear of the vehicle and less than 30-inches from the ground. Stellar has found that this portion of the regulation is open to interpretation when concerning a removable body. Since the body is removable, does a Hooklift body extending more than 24-inches past the rear of the truck require a special bumper? The case could be made that the body is "the load". If the body is looked at as the load, a different regulation states that any part of the load extending over 48-inches past the rear of the vehicle would only require a red flag marker. Operators requiring rear-end protection for a Hooklift body may add a folding bumper to the body or an extendable bumper to the truck. Drawings are provided showing a couple of alternative bumpers that may be used to meet the "ICC bumper" regulation.

STELLAR SKID PRINT (PART NUMBER 3117)

Minimum recommended rail construction per number of rear rollers on hooklift.

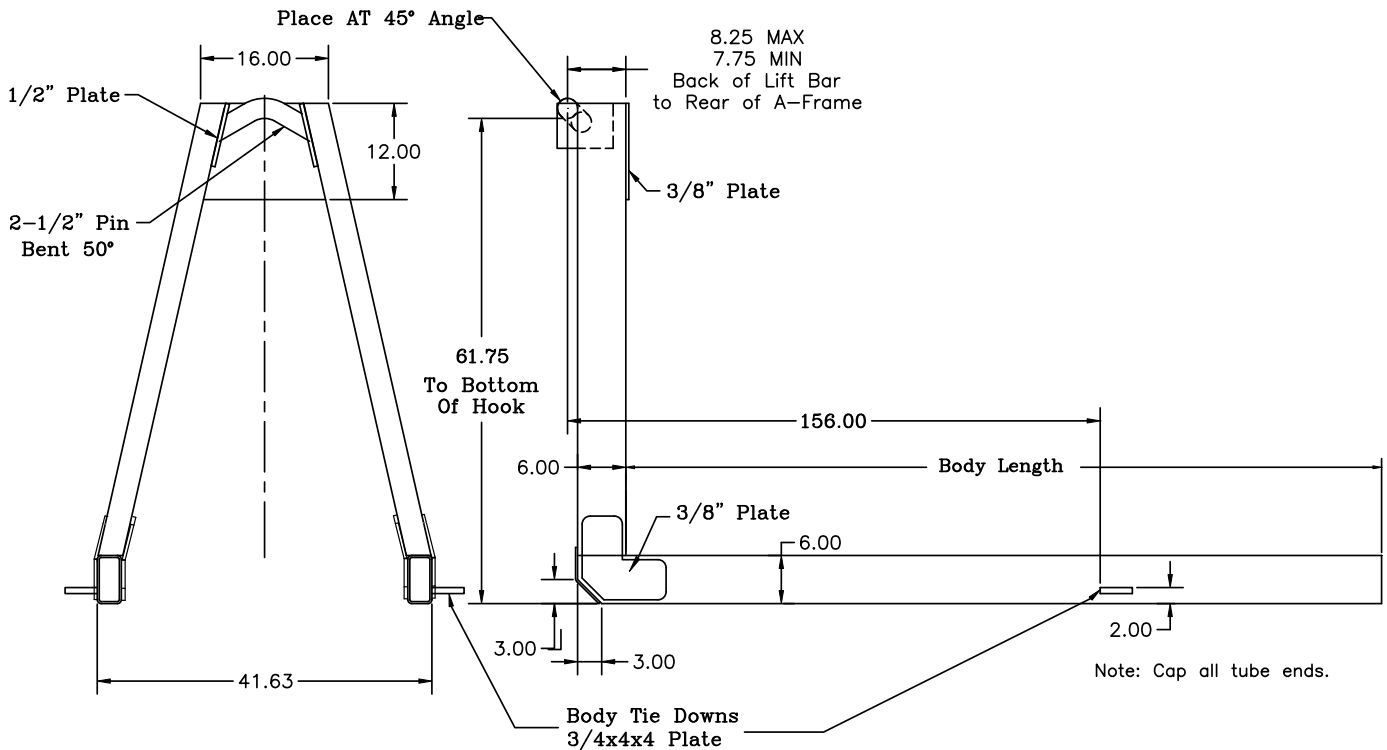
	Single	Double
190-24-20	6x2x1/4 & 1/2x2 Plt	6x2x1/4
174-20-32	6x2x1/4 & 1/2x2 Plt	6x2x1/4
194-20-32	6x2x1/4 & 1/2x2 Plt	6x2x1/4
190-22-32	6x2x1/4 & 1/2x2 Plt	6x2x1/4
210-22-32	6x2x1/4 & 1/2x2 Plt	6x2x1/4
174-20-40	6x3x3/8 & 1/2x3 Plt	6x3x3/8 & 1/2x3 Plt
190-22-40	6x3x3/8 & 1/2x3 Plt	6x3x3/8 & 1/2x3 Plt
174-20-52	6x3x3/8 & 1/2x3 Plt	6x3x3/8 & 1/2x3 Plt
190-24-52	6x3x3/8 & 1/2x3 Plt	6x3x3/8 & 1/2x3 Plt
174-20-65	6x3x3/8 & 1/2x3 Plt	6x3x3/8 & 1/2x3 Plt
190-24-65	6x3x3/8 & 1/2x3 Plt	6x3x3/8 & 1/2x3 Plt



STELLAR SKID PRINT (PART NUMBER 3118)

Minimum recommended rail construction per number of rear rollers on hooklift.

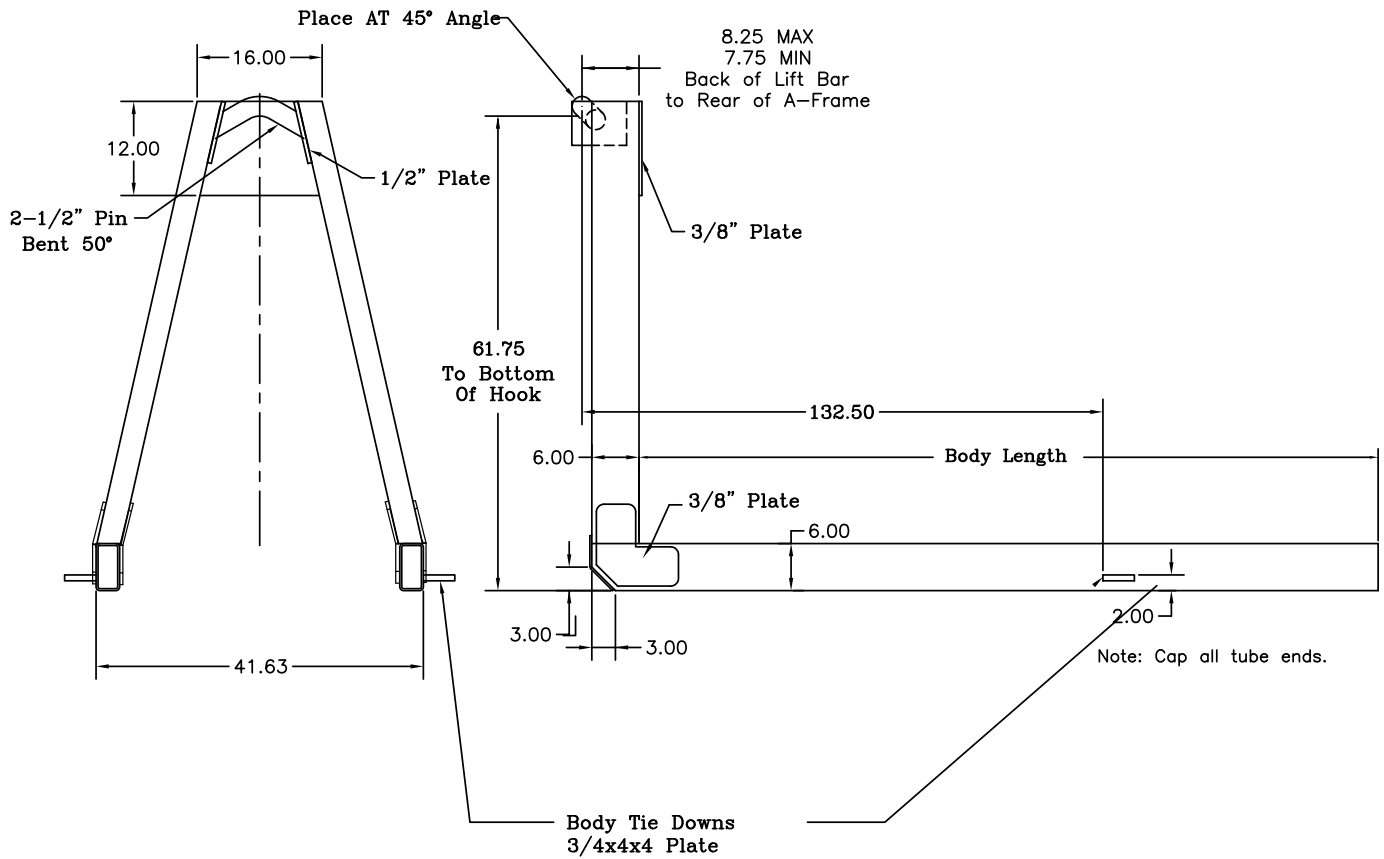
	Single	Double
168-20-20	6x2x1/4	6x2x1/4
158-18-32	6x2x1/4 & 1/2x2 Plt	6x2x1/4
138-18-32	6x2x1/4 & 1/2x2 Plt	6x2x1/4
138-18-40	6x3x3/8 & 1/2x3 Plt	6x3x3/8 & 1/2x3 Plt
138-18-52	6x3x3/8 & 1/2x3 Plt	6x3x3/8 & 1/2x3 Plt
138-18-65	6x3x3/8 & 1/2x3 Plt	6x3x3/8 & 1/2x3 Plt
Slider26	6x3x3/8 & 1/2x3 Plt	6x3x3/8 & 1/2x3 Plt
Slider40	6x3x3/8 & 1/2x3 Plt	6x3x3/8 & 1/2x3 Plt



STELLAR SKID PRINT (PART NUMBER 3120)

Minimum recommended rail construction per number of rear rollers on hooklift.

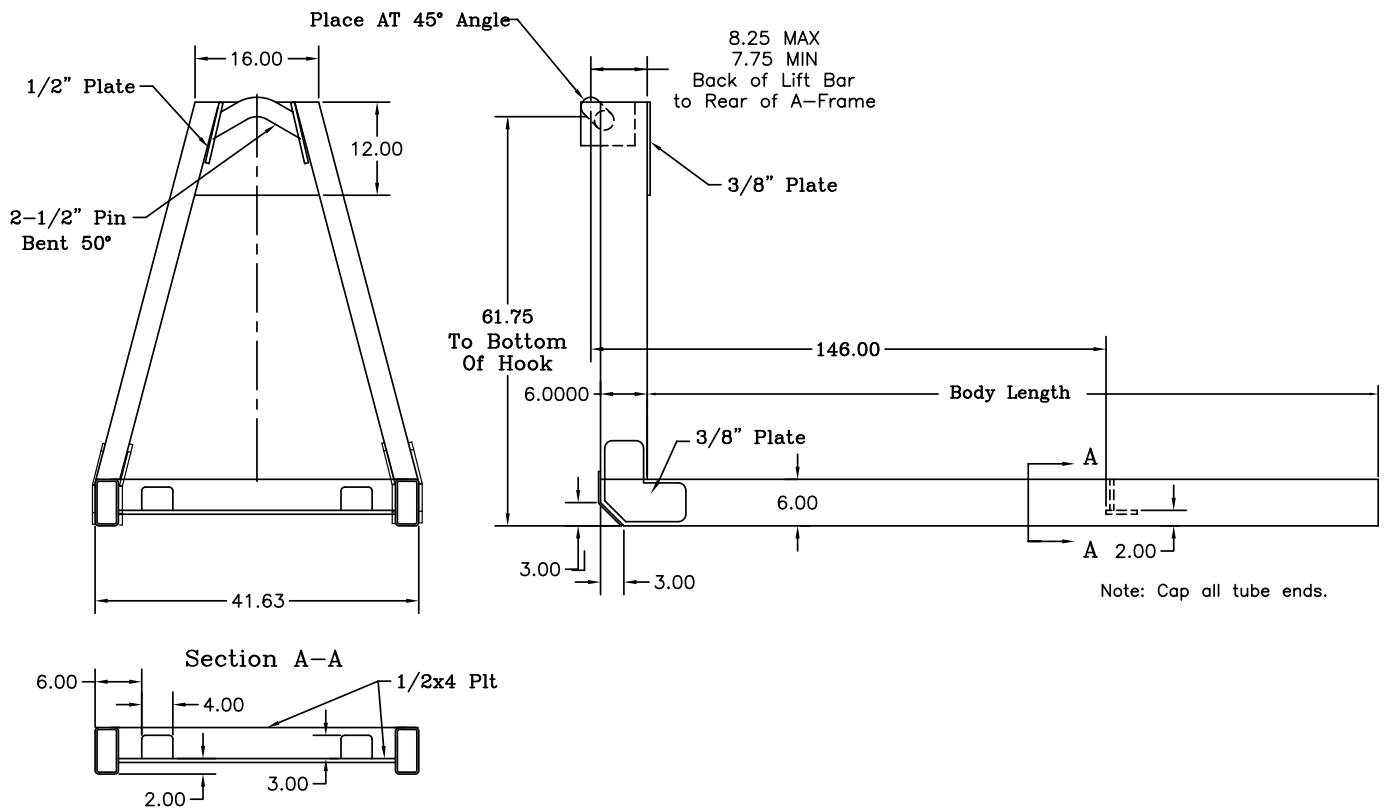
	Single	Double
108-14-32	6x3x3/8	6x2x1/4
128-14-32	6x3x3/8	6x2x1/4
108-14-40	6x3x3/8 & 1/2x3 Plt	6x3x3/8 & 1/2x3 Plt
Slider26	6x3x3/8 & 1/2x3 Plt	6x3x3/8 & 1/2x3 Plt
Slider40	6x3x3/8 & 1/2x3 Plt	6x3x3/8 & 1/2x3 Plt



STELLAR SKID PRINT (PART NUMBER 3121)

Minimum recommended rail construction
per number of rear rollers on hooklift.

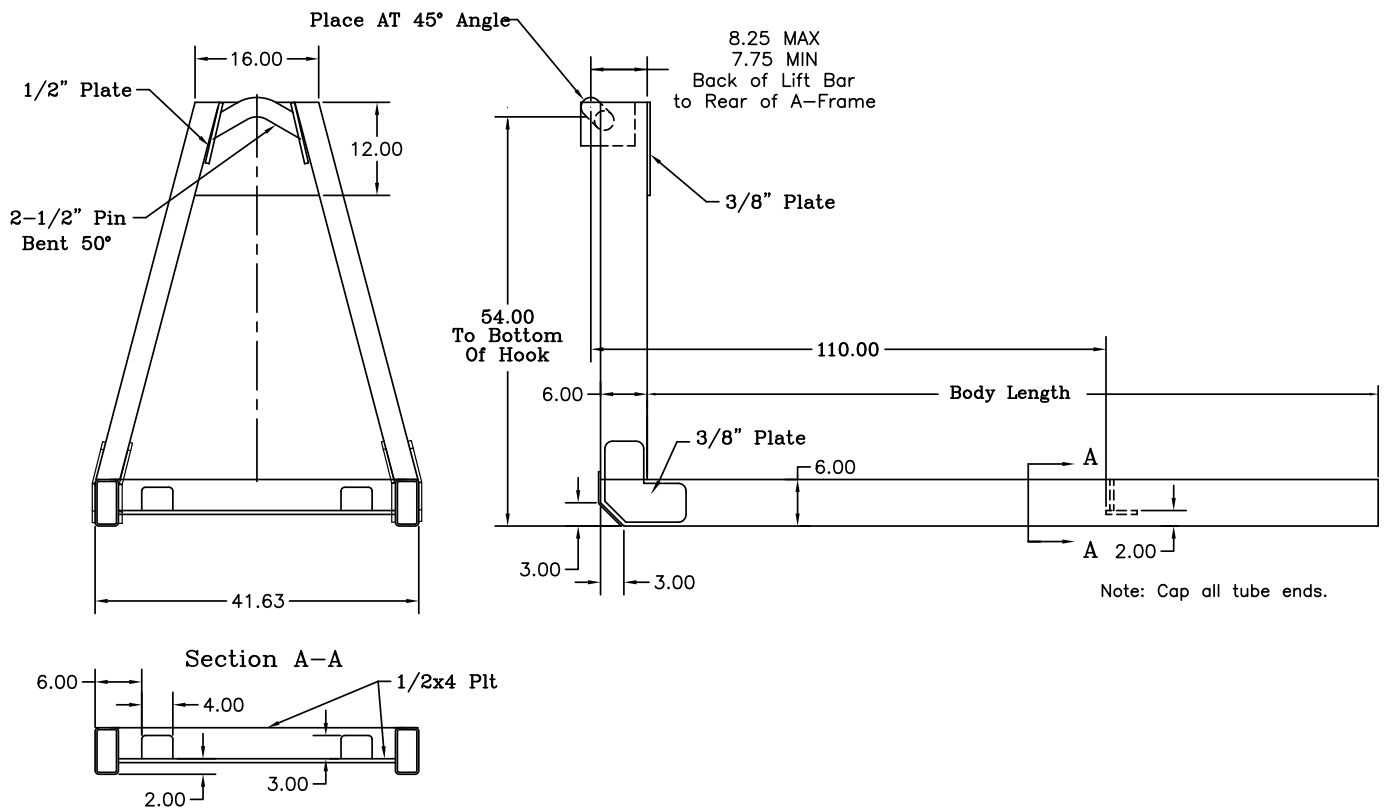
138-18-20	6x2x1/4
138-18-20 SPL	6x2x1/4
Slider26	6x2x1/4



STELLAR SKID PRINT (PART NUMBER 3122)

Minimum recommended rail construction per number of rear rollers on hooklift.

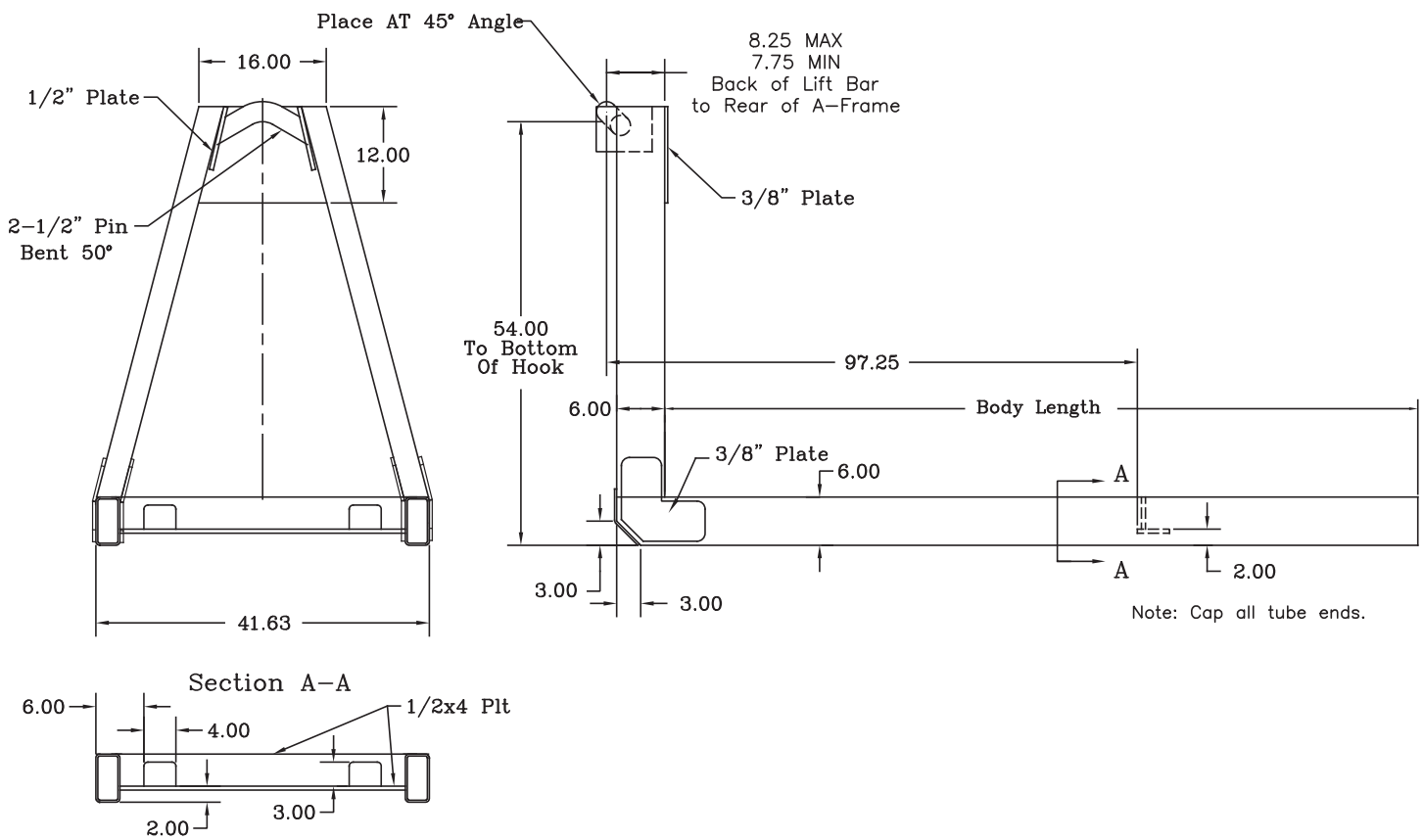
120-16-20	6x2x1/4
Slider20S	6x2x1/4
Slider26	6x2x1/4
Slider34	6x2x1/4



STELLAR SKID PRINT (PART NUMBER 3123)

Minimum recommended rail construction per number of rear rollers on hooklift.

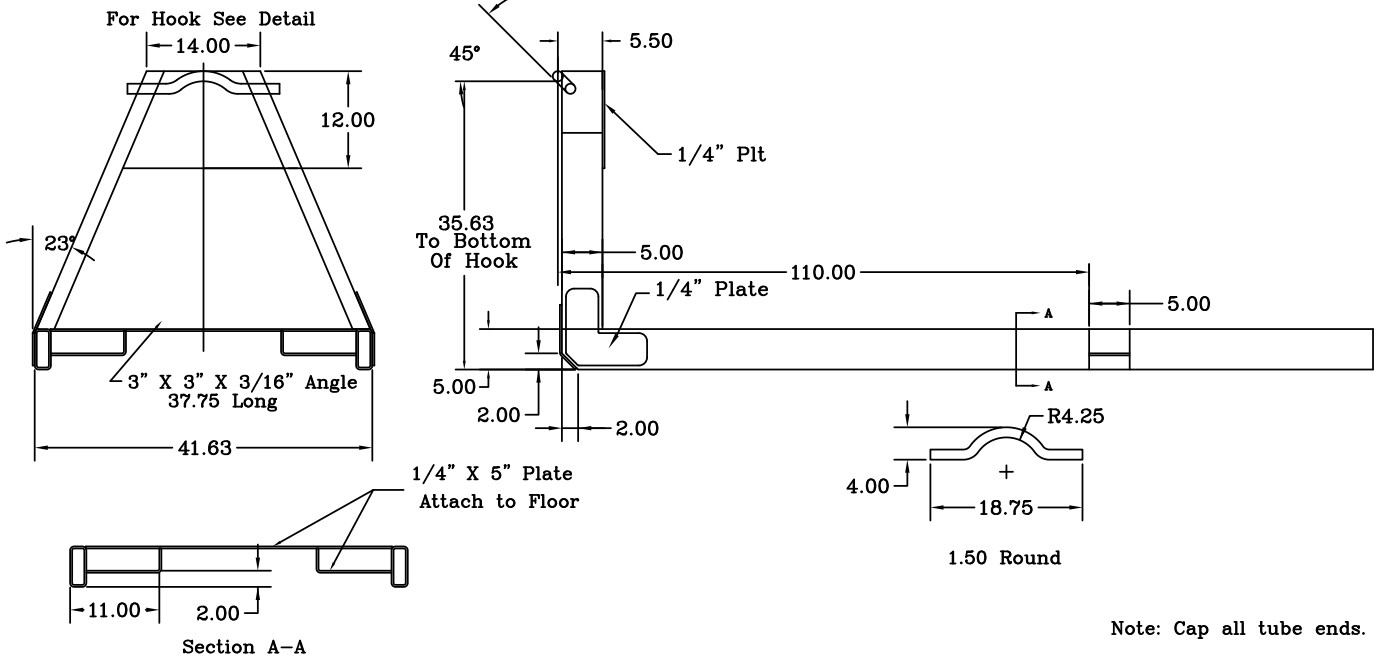
108-11-20	6x2x1/4
96-10-24	6x2x1/4
Slider20S	6x2x1/4
Slider26	6x2x1/4



STELLAR SKID PRINT (PART NUMBER 3125)

Minimum recommended rail construction per number of rear rollers on hooklift.

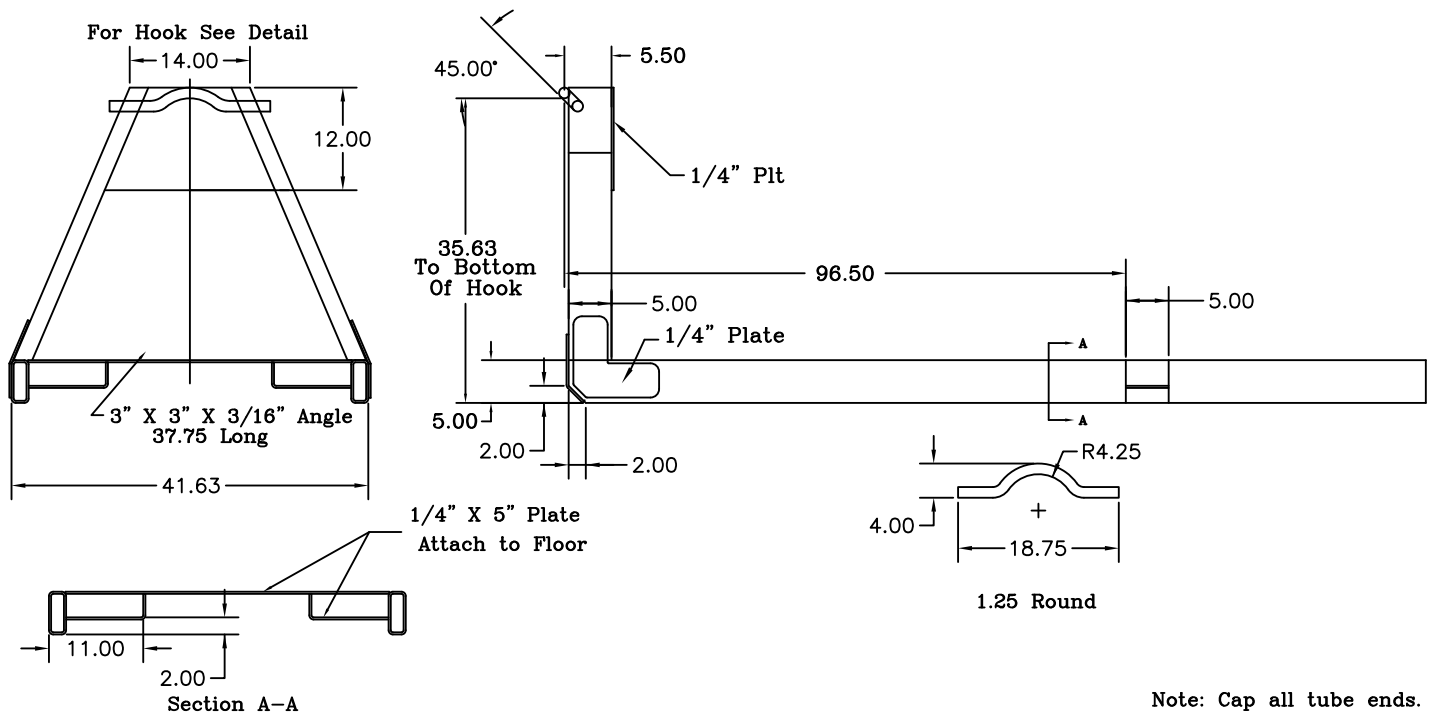
Minimum recommended rail construction.	
108-16-8	5x2x1/4
108-13-14	5x2x1/4
120-16-8	5x2x1/4
120-16-12	5x2x1/4
120-14-14	5x2x1/4
120-15-16	5x2x1/4
120-16-16	5x2x1/4
108-12 (Flex36)	5x2x1/4
120-14 (Flex36)	5x2x1/4
Slider20S	5x2x1/4
Slider26	5x2x1/4



STELLAR SKID PRINT (PART NUMBER 3126)

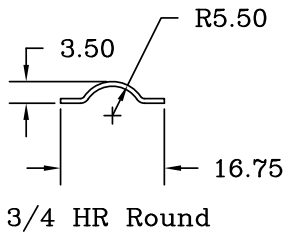
Minimum recommended rail construction per number of rear rollers on hooklift.

Minimum recommended rail construction.	
84-12-8	5x2x1/4
84-11-14	5x2x1/4
84-12-16	5x2x1/4
108-12-20/36	5x2x1/4
84-12-9SP	5x2x1/4
84-12-13SP	5x2x1/4
84-10 (Flex36)	5x2x1/4
84-12-12	5x2x1/4
Slider20S	5x2x1/4
Slider26	5x2x1/4



Note: Cap all tube ends.

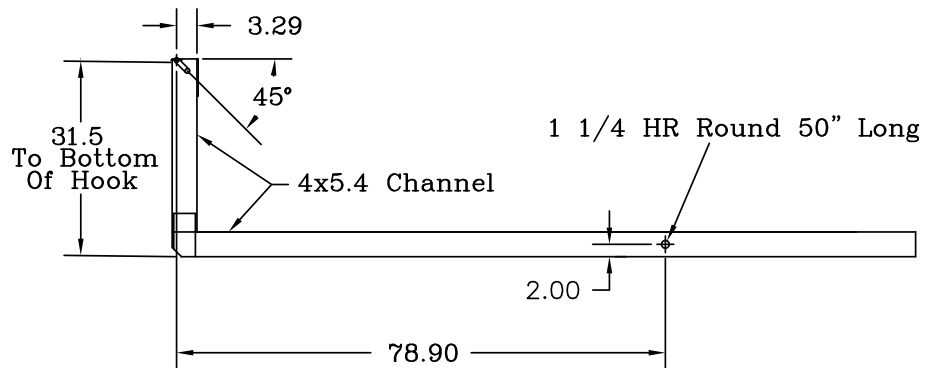
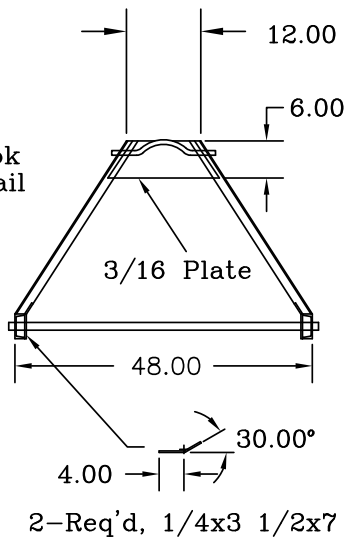
STELLAR SKID PRINT (PART NUMBER 3127)



Minimum recommended rail construction per number of rear rollers on hooklift.

56-9-3	5x2x1/4
60-10-4.5	5x2x1/4

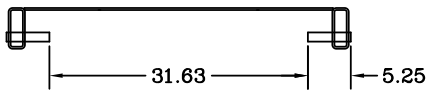
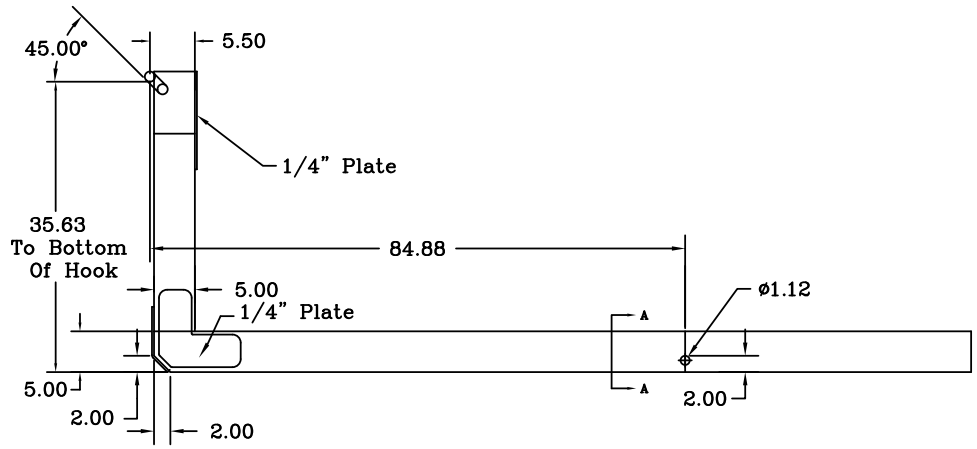
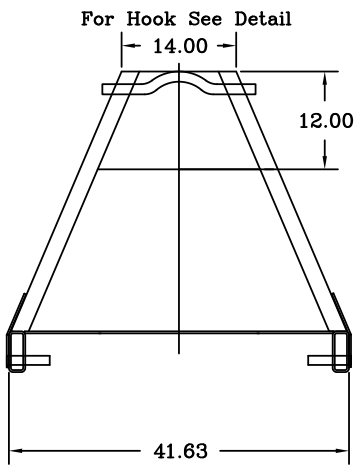
For Hook See Detail



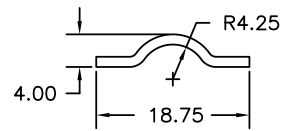
STELLAR SKID PRINT (PART NUMBER 3128)

Minimum recommended rail construction per number of rear rollers on hooklift.

60-10-5	5x2x1/4
60-10-8	5x2x1/4
60-8 (Flex36)	5x2x1/4
120-15-12	5x2x1/4



Section A-A



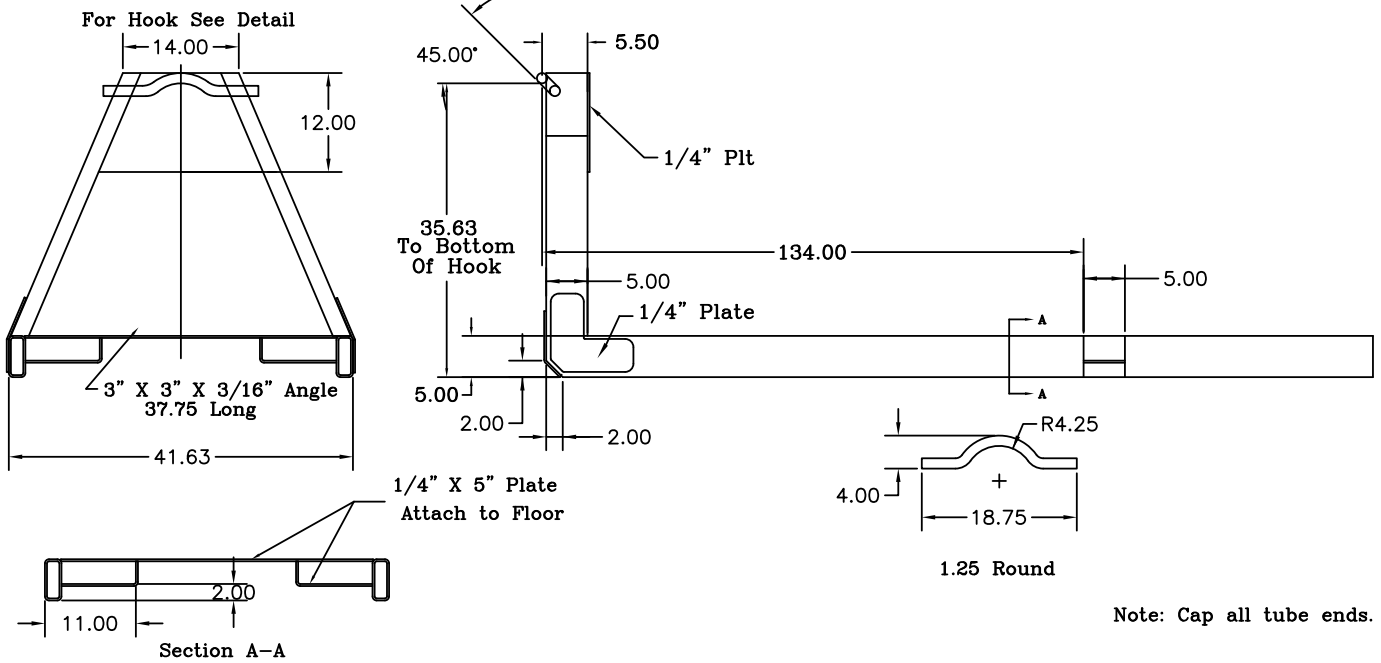
1.25 Round

Note: Cap all tube ends.

STELLAR SKID PRINT (PART NUMBER 97425)

Minimum recommended rail construction per number of rear rollers on hooklift.

120-15-9SP	5x2x1/4
120-15-13SP	5x2x1/4
120-16-13SP	5x2x1/4
Slider26	6x2x1/4

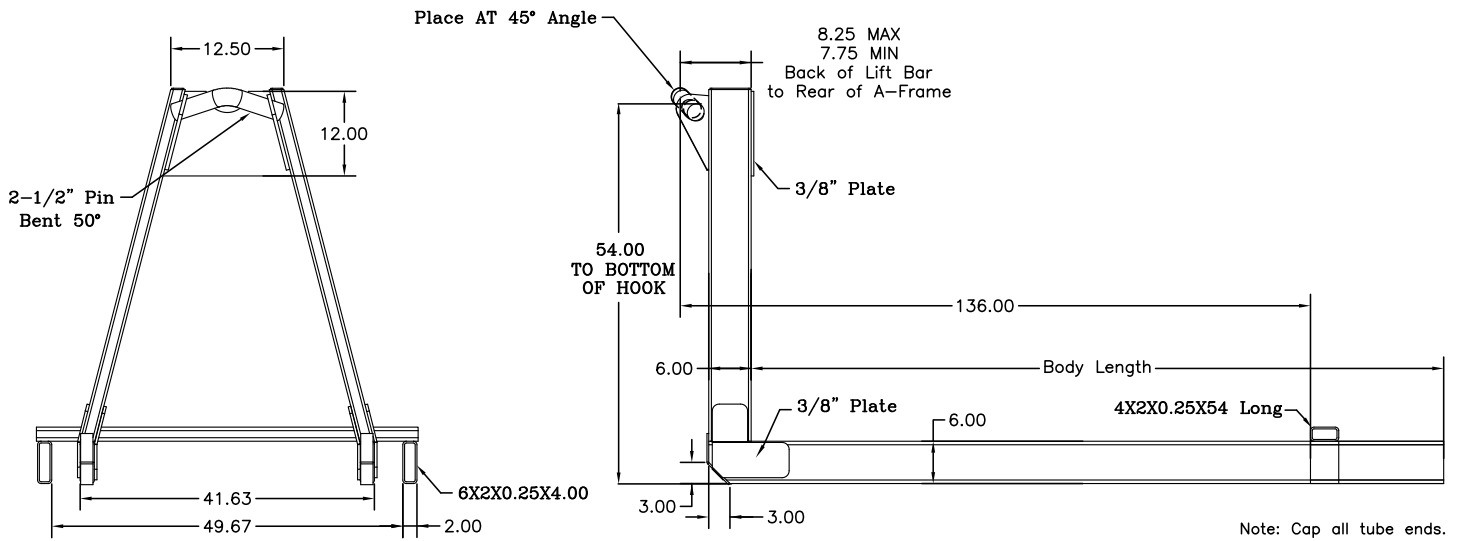


Note: Cap all tube ends.

STELLAR SKID PRINT (PART NUMBER 97426)

Minimum recommended rail construction
per number of rear rollers on hooklift.

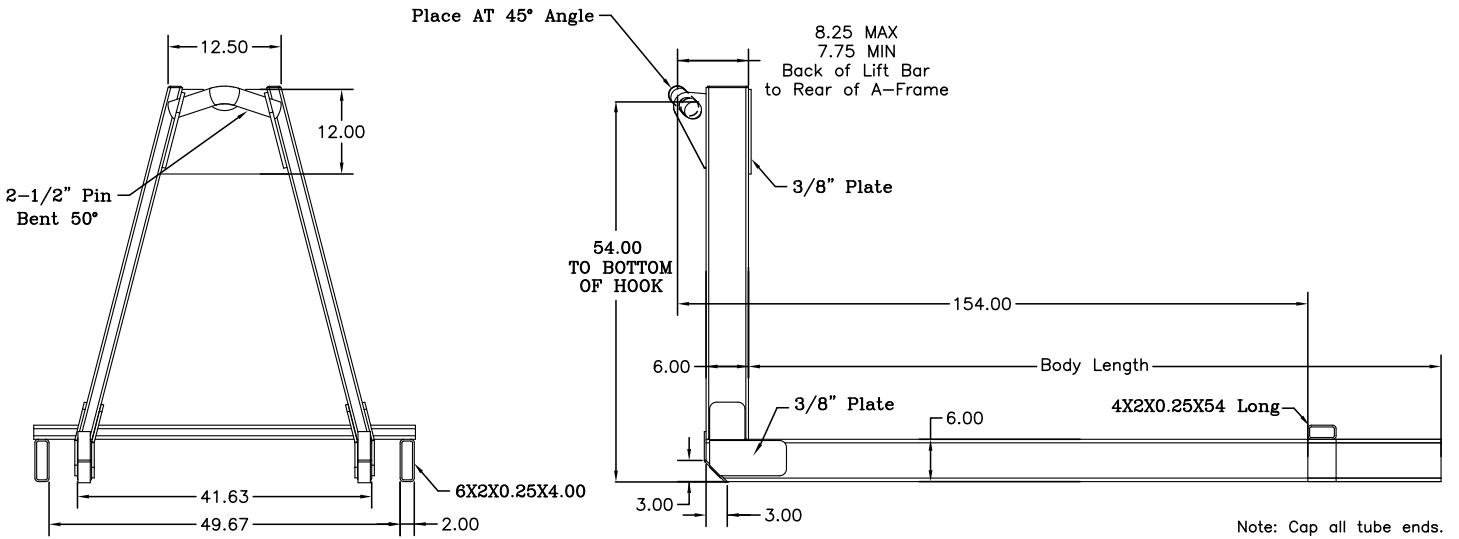
	Single	Double
120-15-20SP	6x2x1/4	6x2x1/4



STELLAR SKID PRINT (PART NUMBER 97427)

Minimum recommended rail construction
per number of rear rollers on hooklift.

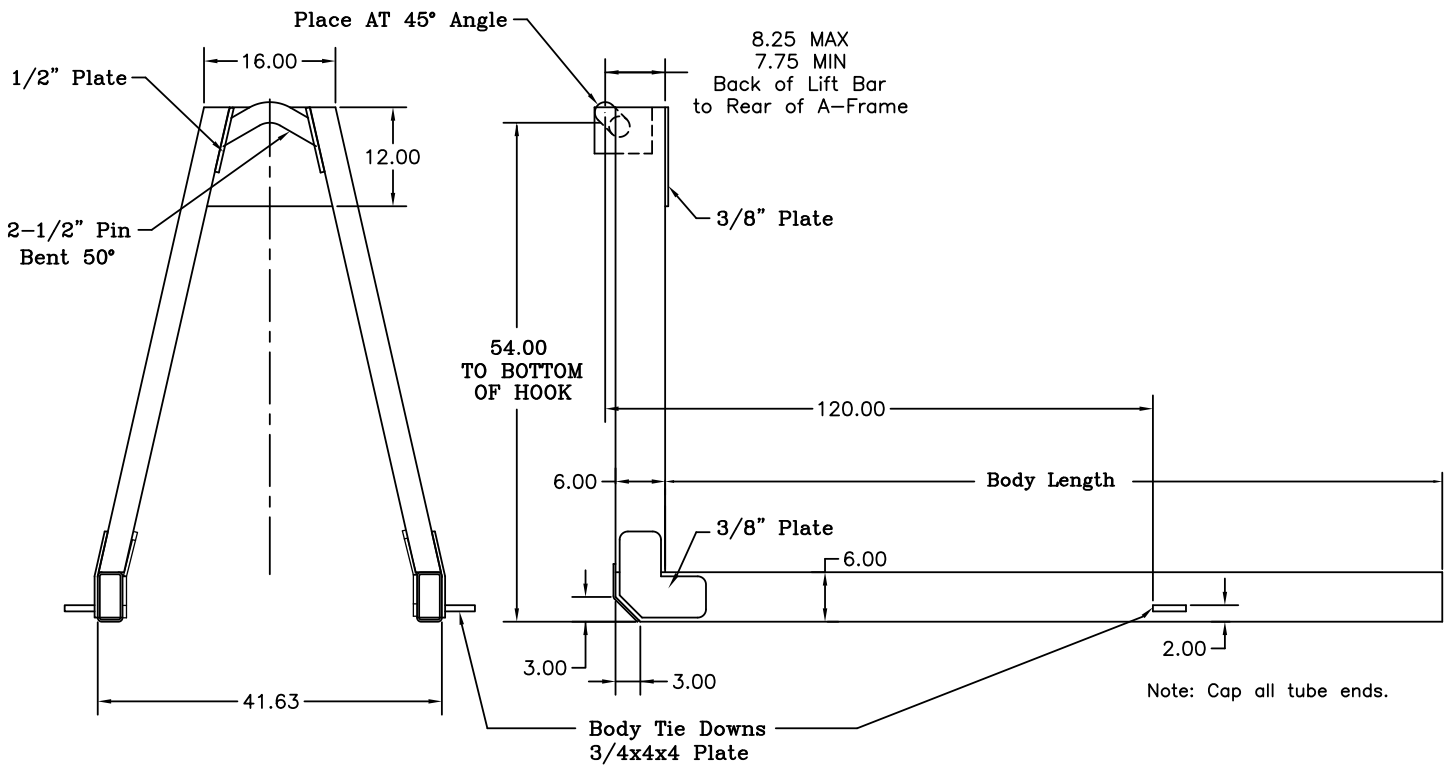
	Single	Double
138-18-20SP	6x2x1/4	6x2x1/4



STELLAR SKID PRINT (PART NUMBER 97428)

Minimum recommended rail construction per number of rear rollers on hooklift.

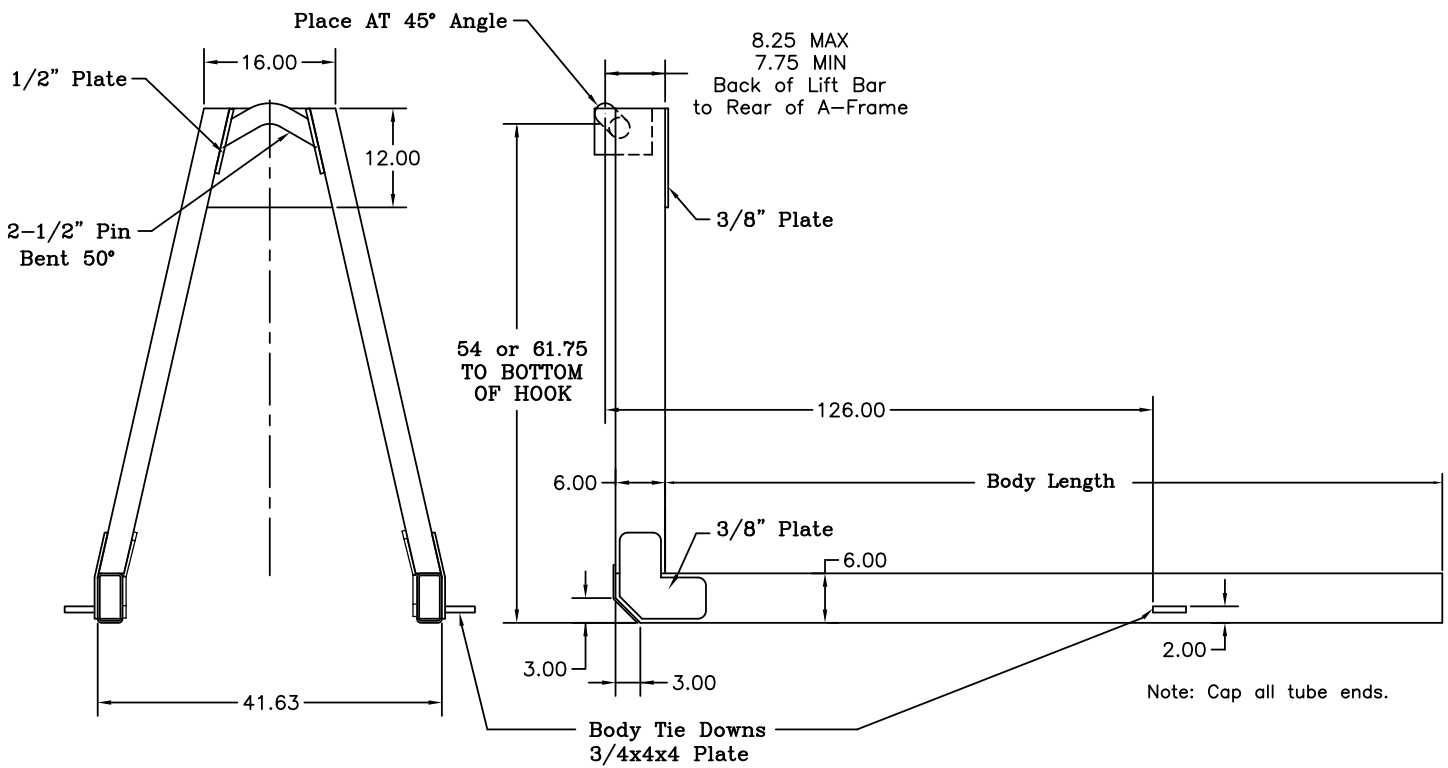
	Single	Double
138-13/18-20S	6x2x1/4	6x2x1/4
Slider20	6x2x1/4	6x2x1/4
Slider20S	6x2x1/4	6x2x1/4
Slider26	6x2x1/4	6x2x1/4



STELLAR SKID PRINT (PART NUMBER 97429)

Minimum recommended rail construction per number of rear rollers on hooklift.

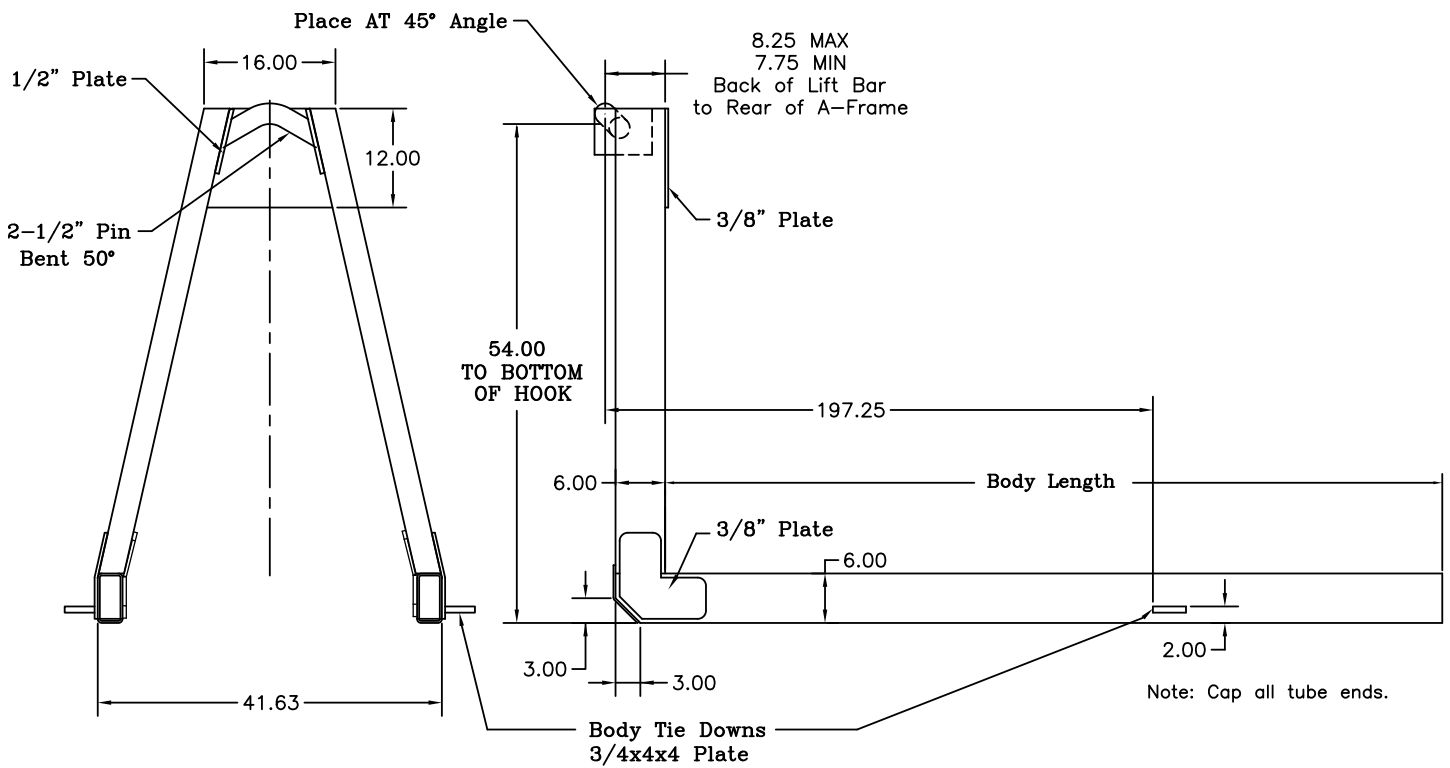
	Single	Double
Slider34	6x3x3/8 & 1/2x3 Plt	6x3x3/8 & 1/2x3 Plt
Slider40	6x3x3/8 & 1/2x3 Plt	6x3x3/8 & 1/2x3 Plt



STELLAR SKID PRINT (PART NUMBER 97430)

Minimum recommended rail construction per number of rear rollers on hooklift.

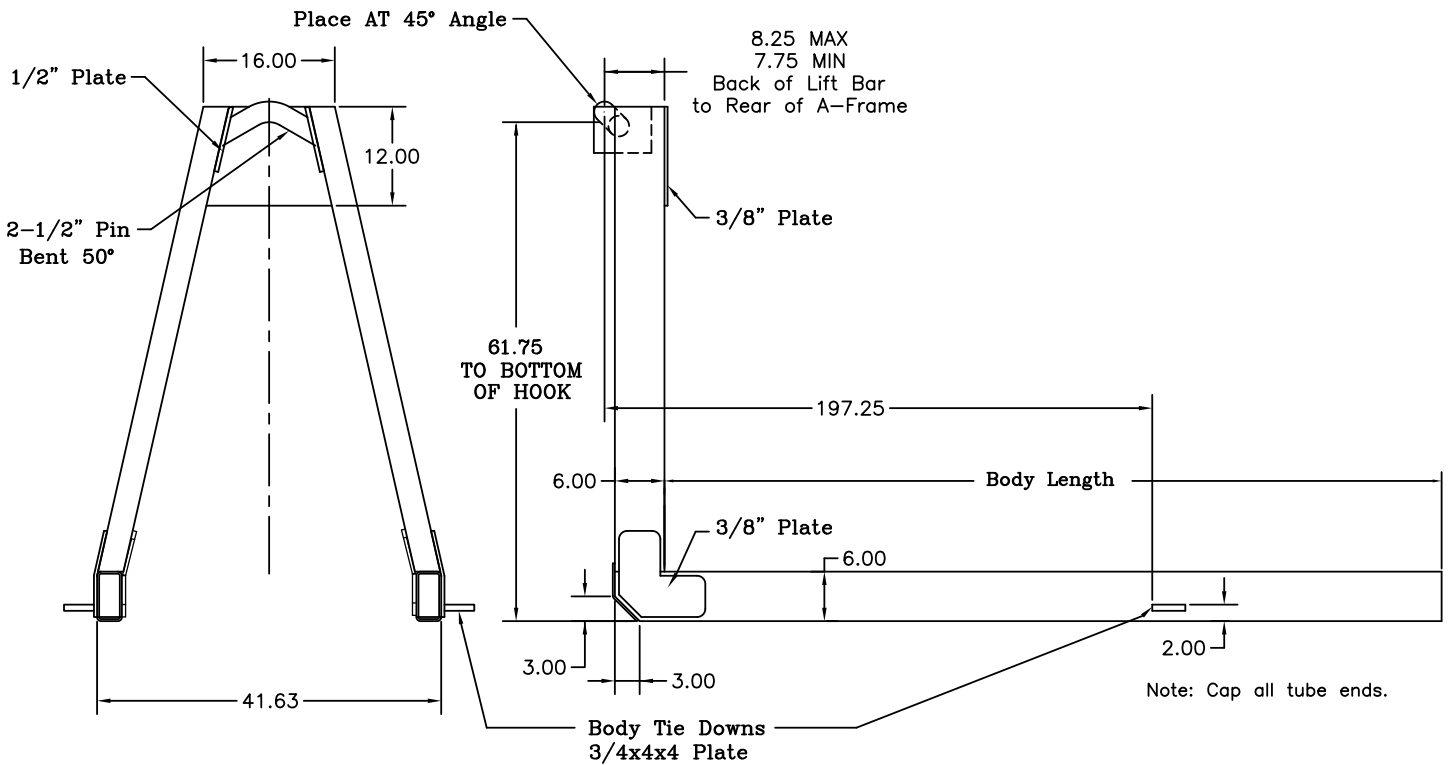
	Single	Double
190-24-50S	6x3x3/8 & 1/2x3 Plt	6x3x3/8 & 1/2x3 Plt
Slider50	6x3x3/8 & 1/2x3 Plt	6x3x3/8 & 1/2x3 Plt



STELLAR SKID PRINT (PART NUMBER 97462)

Minimum recommended rail construction per number of rear rollers on hooklift.

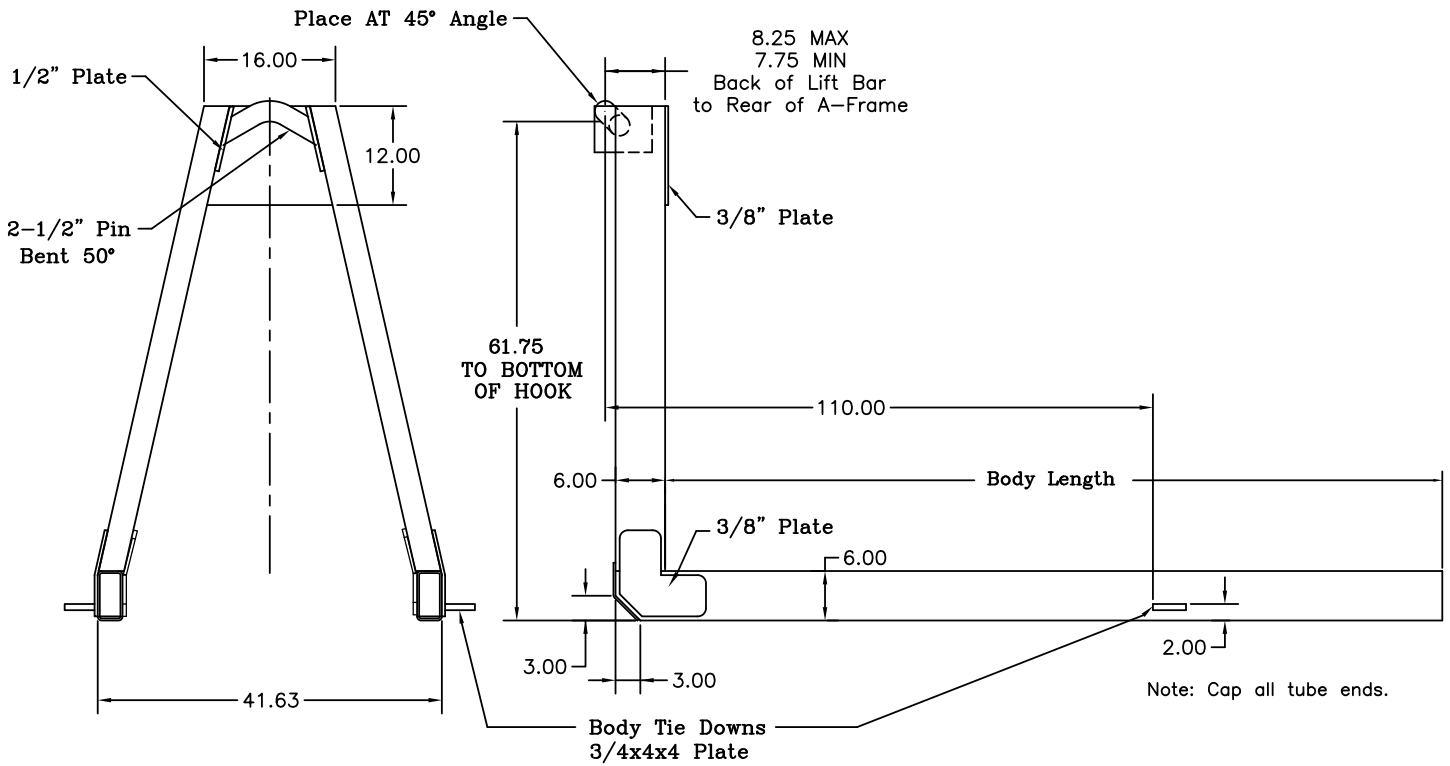
	Single	Double
190-24-60S	6x3x3/8 & 1/2x3 Plt	6x3x3/8 & 1/2x3 Plt
Slider50	6x3x3/8 & 1/2x3 Plt	6x3x3/8 & 1/2x3 Plt
Slider65	6x3x3/8 & 1/2x3 Plt	6x3x3/8 & 1/2x3 Plt



STELLAR SKID PRINT (PART NUMBER 97463)

Minimum recommended rail construction per number of rear rollers on hooklift.

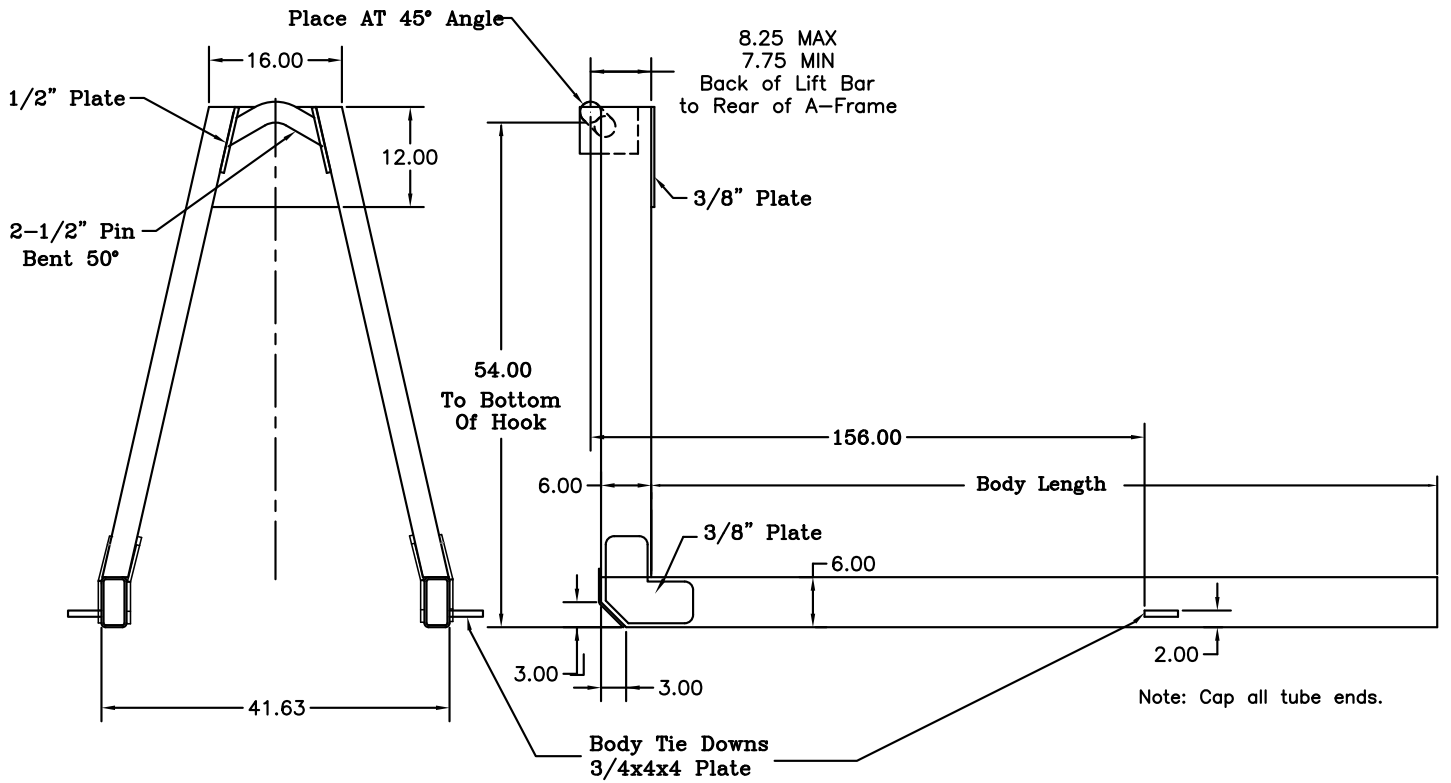
	Single	Double
108-11-32	6x2x1/4 & 1/2x2 Plt	6x2x1/4 & 1/2x2 Plt



STELLAR SKID PRINT (PART NUMBER 98939)

Minimum recommended rail construction per number of rear rollers on hooklift.

	Single	Double
138-18-34	6x3x3/8 & 1/2x3 Plt	6x3x3/8 & 1/2x3 Plt



Stellar Industries Limited Warranty Statement

Stellar Industries, Inc. (Stellar) warrants products designed and manufactured by Stellar to be free from defects in material and workmanship under proper use and maintenance. Products must be installed and operated in accordance with Stellar's written instructions and capacities. This warranty shall cover the following:

Stellar Cranes, Stellar Hooklift Hoists, Stellar Cable Hoists, Stellar Container Carriers, Stellar Service Trucks, and Stellar X-Tra-Lift Systems: Twelve (12) month warranty on parts from the date recorded by Stellar as the in-service date, not to extend beyond twenty-four (24) months from date of manufacture, Twelve (12) month repair labor from the date recorded by Stellar as the in-service date, not to extend beyond twenty-four (24) month from date of manufacture, and

Thirty-six (36) month warranty on all Stellar Manufactured structural parts from the date recorded by Stellar as the in-service date, not to extend beyond forty-eight (48) months from date of manufacture.

Stellar Tarper Systems:

Twelve (12) month warranty on parts from the date recorded by Stellar as the in-service date, not to extend beyond twenty-four (24) months from date of manufacture and Three (3) month repair labor from the date recorded by Stellar as the in-service date, not to extend beyond fifteen (15) month from date of manufacture.

The in-service date will be derived from the completed warranty registration card. In the event a warranty registration card is not received by Stellar, the factory ship date will be used.

Stellar's obligation under this warranty is limited to, and the sole remedy for any such defect shall be, the repair and/or replacement (at Stellar's option) of the unaltered part and/or component in question. Stellar after-sales service personnel must be notified by telephone, fax, or letter of any warranty- applicable damage within fourteen (14) days of its occurrence. If at all possible, Stellar will ship the replacement part within 24-hours of notification by the most economical, yet expedient, means possible. Expedited freight delivery will be at the expense of the owner.

Warranty claims must be submitted and shall be processed in accordance with Stellar's established warranty claim procedure. Stellar after-sales service personnel must be contacted prior to any warranty claim. A return materials authorization (RMA) account number must be issued to the claiming party prior to the return of any warranty parts. Parts returned without prior authorization will not be recognized for warranty consideration. All damaged parts must be returned to Stellar freight prepaid; freight collect returns will be refused. Freight reimbursement of returned parts will be considered as part of the warranty claim.

Warranty service will be performed by any Stellar new equipment distributor, or by any Stellar-recognized service center authorized to service the type of product involved, or by the Stellar factory in the event of a direct sale. At the time of requesting warranty service, the owner must present evidence of date of delivery of the product. The owner shall be obligated to pay for any overtime labor requested of the servicing company by the owner, any field service call charges, and any towing and/or transportation charges associated with moving the equipment to the designated repair/ service provider.

All obligations of Stellar and its authorized dealers and service providers shall be voided if someone other than an authorized Stellar dealer provides other than routine maintenance service without prior written approval from Stellar. In the case repair work is performed on a Stellar-manufactured product, original Stellar parts must be used to keep the warranty in force. The warranty may also be voided if the product is modified or altered in any way not approved, in writing, by Stellar.

The owner/operator is responsible for furnishing proof of the date of original purchase of the Stellar product in question. Warranty registration is the ultimate responsibility of the owner and may be accomplished by the completion and return of the Stellar product registration card provided with the product. If the owner is not sure of registration, he is encouraged to contact Stellar at the address below to confirm registration of the product in question. This warranty covers only defective material and workmanship. It does not cover depreciation or damage caused by normal wear and tear, accident, mishap, untrained operators, or improper or unintended use. The owner has the obligation of performing routine care and maintenance duties as stated in Stellar's written instructions, recommendations, and specifications. Any damage resulting from owner/operator failure to perform such duties shall void the coverage of this warranty. The owner will pay the cost of labor and supplies associated with routine maintenance.

The only remedies the owner has in connection with the breach or performance of any warranty on the Stellar product specified are those set above. In no event will Stellar, the Stellar distributor/dealer, or any company affiliated with Stellar be liable for business interruptions, costs of delay, or for any special, indirect, incidental, or consequential costs or damages. Such costs may include, but are not limited to, loss of time, loss of revenue, loss of use, wages, salaries, commissions, lodging, meals, towing, hydraulic fluid, or any other incidental cost.

All products purchased by Stellar from outside vendors shall be covered by the warranty offered by that respective manufacturer only. Stellar does not participate in, or obligate itself to, any such warranty.

Stellar reserves the right to make changes in design or improvement upon its products without imposing upon itself the same upon its products theretofore manufactured.

This warranty will apply to all Stellar Cranes, Stellar Hooklift Hoists, Stellar Cable Hoists, Stellar Container Carriers, Stellar Service Trucks, Stellar X-Tra-Lift Systems, and Stellar Tarper Systems shipped from Stellar's factory after January 1st, 2010. The warranty is for the use of the original owner only and is not transferable without prior written permission from Stellar.

THIS WARRANTY IS EXPRESSLY IN LIEU OF ANY OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. REMEDIES UNDER THIS WARRANTY ARE LIMITED TO THE PROVISION OF MATERIAL AND SERVICES, AS SPECIFIED HEREIN. STELLAR INDUSTRIES, INC. IS NOT RESPONSIBLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES.