

## **SINGLE PIVOT HOOK HOISTS**

54" OR 61 3/4" HOOK HEIGHT (BOLT ON) MODELS: U20-HK & U30-HK

**Single Pivot Hook Hoists** feature a universal fit for nearly any chassis. The simple design of the single pivot hook hoist means fewer moving parts and less maintenance. Designed to operate in a variety of applications, single pivot hook hoists can be used in the waste, construction, recreation, landscaping, and auto industries. The U20-HK & U30-HK models offer benefits through their versatility and dual hook height capabilities.



### **Standard Features**

- Inside air controls mounted in ergonomic power tower featuring Plug And Play™ wiring
- Backup alarm & hoist up alarm with signal light in cab
- Secondary manual controls mounted outside on driver's side
- Outside frame rail stationary rear container hold downs
- Rear flanged rollers with rear transition container supports
- Rear roller is ductile cast iron with bronze bushing
- T1 steel hook, bolt on hook height 54" or 61 34"
- Welded & bolted on roller stools with 4" OD rollers & bronze bushings
- Rear apron & bumper assembly complete with LED lighting & pintle/reese adaptable
- · Steel tank with dual sight / temp gauge air breather
- Hoist maintenance / safety prop
- Warranty: 2-year limited on hydraulic system
- Customized engineering layouts ensure the best fit for each customer
- Engineered and manufactured in the U.S.



Inside air controls in power tower



Secondary outside manual control valve with protective cover



Rear apron & bumper assembly

complete w/ LED lighting & pintle/

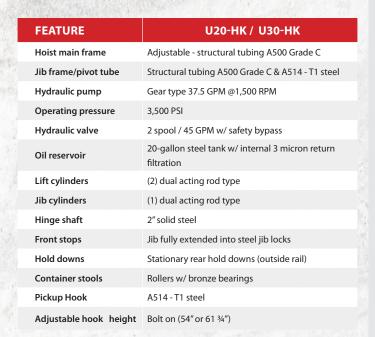
Solid steel front jib locks



Steel tank with dual sight/temp gauge and air breather



Welded & bolted on roller stools with 4" OD rollers & bronze bushings





Outside frame rail stationary rear container hold downs



Rear flanged rollers with rear transition container supports



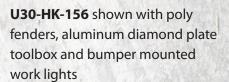


T1 steel hook, adjustable bolt on from 54" to 61 34"



# **Available Options**

- Pioneer tarping systems
- · Additional container hold downs
- Auxiliary hydraulic hook-ups / wet kits
- Variety of fenders (steel, aluminum & poly)
- Toolbox styles and sizes (steel, aluminum)
- Pintle hook and reese style hitch assemblies
- Safety and LED work lights
- Scale systems
- · Add air for non-air trucks
- Rear view / backup camera systems
- Additional LED safety & work light configurations
- · Lift axles, tires and rims





Pioneer tarping systems



Toolbox styles and sizes (steel, aluminum)



Pintle hook & reese style hitch assemblies



Add air for non-air trucks







Variety of fenders (steel, aluminum and poly)



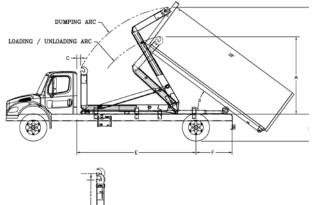
LED work lights

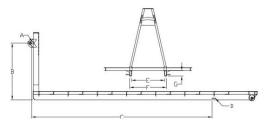


Rear view/backup camera systems



### Figure 1





Lift Bar Dia.	Hook Ht.	Bar to Hold Down	Hold Down Locations	Inside Sill Width	Outside Sill Width	Long Sill Ht.
A	В	c	D	E	F	G
2 ½"	54" & 61 ¾"	127 ½" min.	Outside	36 ½" min.	41 ¾" max.	6" min.

#### **Notes for Figure 1**

- When recommending container lengths, weight distribution, fender interference and overhang are factors.

  Please consult your local ordinances when determining the model of hoist needed to suit your container needs.
- 2 Factory tested with recommended container length and water level load.
- 3 Total maximum height will depend on the container and frame height. Consult engineering for clearance.
- 4 Frame Height = Top of truck chassis frame to ground. Using 17 ½" & 22 ½" tires. Any truck frame higher than 42" will change hoist capacities, dump angle and its ability to snatch onto the bar; consult engineering if higher than 42". Optimized dump angle is achieved with conatiners that are the same length as the overall hoist.
- 5 This distance does not allow for a behind the cab (BTC) oil reservoir, tarper platform and or room to add a tarper; must add space for those items.
- 6 Air ride suspensions require up to 25" maximum after frame.

#### **Minimum Truck Requirements (Single Axle)**

Axle rating: U20 = 8,000 front / 18,000 rear; U30 = 12,000 front / 26,000 rear Truck torque: U20 = 212 ft. lbs.; U30 = 418 ft. lbs.

\*The chart below is an example of how to calculate the chassis section modulus (RBM / PSI = SM). Regardless of the frame YIELD and RBM, the min. SM must be  $15.5 \, \text{in}^3 \, (\text{U}20) \, \& \, 17.5 \, \text{in}^3 \, (\text{U}30)$  or more per each frame rail.

Truck Channel Ht.	RBM	Yield (PSI)	RBM/PSI = SM in <sup>3</sup>
10" or more	1,860,000-3,000,000	120,000 psi	15.5 in <sup>3</sup> - 25 in <sup>3</sup>
(single wall)	2,100,000-3,600,000		17.5 in <sup>3</sup> - 30 in <sup>3</sup>
10" or more	1,550,000-3,000,000	100,000 psi	15.5 in <sup>3</sup> - 30 in <sup>3</sup>
(double wall)	1,750,000-3,000,000		17.5 in <sup>3</sup> - 30 in <sup>3</sup>

Note: The single walled 120k psi with RBM less than 1,860,000 would not be acceptable because its SM would fall below the 15.5 in  $^3$  minimum specification on the U20-HK (1,850,000 / 120,000 = 15.42 in  $^3$ ). For frames less than  $10^\circ$  consult engineering.

Specifications (Single Axle)	U20-HK-120	U20-HK-132	U20-HK-144	U30-HK-138	U30-HK-156	U30-HK-176
Recommended Container Size – 1	10' to 14' or 12' to 16'	12'to 16'	12 to 16'	12' to 16' or 14' to 18'	14' to 18' or 16' to 20'	16' to 20'
Rated Hoist Capacity @ Hook Height 2	20,000 lbs	20,000 lbs	20,000 lbs	30,000 lbs	30,000 lbs	30,000 lbs
A – Max. Hook Height (Load/Unloading) <sup>3</sup> , <sup>4</sup>	106"	106"	106"	119 3/16"	119 ¾6″	119 3/16"
B – Max. Hook Height (Dumping) <sup>3</sup> , <sup>4</sup>	131 %"	131 %"	131 %"	156 3/16"	156 ¾6″	156 3/16"
C – Back of Cab to Hoist <sup>5</sup>	2 1/4"	2 1/4"	2 1/4"	3 ½"	3 ½"	3 1/2"
D – Dump Angle (per recommended container range) <sup>4</sup>	56º - 42º	50° - 35°	50º - 35º	680 - 410	56º - 38º	49º - 35º
E – (CA) Cab to Axle <sup>5</sup>	120"	132"	144"	138"	156"	176″
F – After Frame <sup>6</sup>	38 ½" or 62 ½"	50 ½"	38 ½"	44 ¾" or 68 ¾"	50 ¾" or 74 ¾"	54 ¾"
G – Hoist Length	155 %" or 179 5/16"	179 %6″	179 5/16"	179 3/16" or 203 3/16"	203 ¾" or 227 ¾"	227 3/8"
H – Frame Height <sup>4</sup>	42" or less	42" or less	42" or less	42" or less	42" or less	42" or less
I – Hook Height	54" <b>or</b> 61 ¾"	54" <b>or</b> 61 ¾"	54" <b>or</b> 61 ¾"	54" <b>or</b> 61 ¾"	54" <b>or</b> 61 3/4"	54" <b>or</b> 61 ¾"
Lift Cylinders - (2) dual acting	5" x 3" x 52"	5" x 3" x 52"	5" x 3" x 52"	6" x 3 ½" x 78"	6" x 3 ½" x 78"	6" x 3 ½" x 78"
Jib Cylinder - (1) dual acting	3" x 2" x 37"	3" x 2" x 37"	3" x 2" x 37"	4" x 2 ½" x 48"	4" x 2 ½" x 48"	4" x 2 ½" x 48"
Approximate Weight w/ Standard Features	3,427 lbs.	3,427 lbs.	3,427 lbs.	4,321 lbs.	4,321 lbs.	4,321 lbs.
Cycle Times @ 1,500 RPM (PSI / GPM)	3,500 / 37.5	3,500 / 37.5	3,500 / 37.5	3,500 / 37.5	3,500 / 37.5	3,500 / 37.5
Extending Dump	30 sec.	30 sec.	30 sec.	31 sec.	31 sec.	31 sec.
Retracting Dump	19 sec.	19 sec.	19 sec.	20 sec.	20 sec.	20 sec.
Extending Jib	4 sec.	4 sec.	4 sec.	4 sec.	4 sec.	4 sec.
Rectracting Jib	2 sec.	2 sec.	2 sec.	3 sec.	3 sec.	3 sec.

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