



Holtz Industries, Inc. | 200 South Terrace Court | Newark, OH 43055 TF: 1-800-535-0104 | Web: www.holtzindustries.com

## **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 ¾"
- 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/ reese adaptable



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

|   | FEATURE                | U20-HK / U30-HK   |  |
|---|------------------------|---|--|
| Ī | Hoist main frame       | Adjustable - structural tubing A500 Grade C                 |  |
|   | Jib frame/pivot tube   | Structural tubing A500 Grade C & A514 - T1 steel            |  |
|   | Hydraulic pump         | Gear type 37.5 GPM @1,500 RPM                               |  |
|   | Operating pressure     | 3,500 PSI   |  |
|   | Hydraulic valve        | 2 spool / 45 GPM w/ safety bypass                           |  |
|   | Oil reservoir          | 20-gallon steel tank w/ internal 3 micron return filtration |  |
|   | Lift cylinders         | (2) dual acting rod type                                    |  |
|   | Jib cylinders          | (1) dual acting rod type                                    |  |
|   | Hinge shaft            | 2" solid steel  |  |
|   | Front stops            | Jib fully extended into steel jib locks                     |  |
|   | Hold downs             | Stationary rear hold downs (outside rail)                   |  |
|   | Container stools       | Rollers w/ bronze bearings                                  |  |
|   | Pickup Hook            | A514-T1 steel   |  |
|   | Adjustable hook height | Bolt on (54" or 61 ¾")                                      |  |
|   |                        |   |  |



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



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Add air for non-air trucks







LED work lights



Variety of fenders (steel, aluminum and poly)



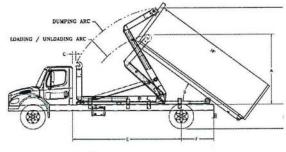
Rear view/backup camera systems

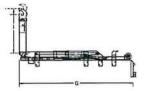
**U30-HK-156** shown with poly fenders, aluminum diamond plate toolbox and bumper mounted work lights



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### Figure 1





| Lift Bar<br>Dia. | Hook Ht.     | Bar to Hold<br>Down | Hold Down<br>Locations | Inside Sill<br>Width | Outside Sill<br>Width | Long Sill<br>Ht. |
|------------------|--------------|---------------------|------------------------|----------------------|-----------------------|------------------|
| A                | В            | c                   | D                      | E                    | F                     | G                |
| 2 1/4"           | 54" & 61 34" | 127 ½" min.         | Outside                | 36 ½" min.           | 41 ¾" max.            | 6" min.          |

### **Notes for Figure 1**

- 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 in³ (U20) & 17.5 in³ (U30) or more per each frame rail.

| Truck Channel Ht.            | RBM  | Yield (PSI) | RBM/PSI = SM in <sup>3</sup>   |  |  |
|------------------------------|--|-------------|--|--|--|
| 10" or more<br>(single wall) | 1,860,000-3,000,000<br>2,100,000-3,600,000 | 120,000 psi | 15.5 in <sup>3</sup> - 25 in <sup>3</sup><br>17.5 in <sup>3</sup> - 30 in <sup>3</sup> |  |  |
| 10" or more<br>(double wall) | 1,550,000-3,000,000                        | 100,000 psi | 15.5 in <sup>3</sup> - 30 in <sup>3</sup><br>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 minimum specification on the U20-HK (1,850,000 / 120,000 = 15.42 in ). For frames less than 10° consult engineering.

| pecifications (Single Axle)                        | U20-HK-120              | U20-HK-132   | U20-HK-144   | U30-HK-138               | U30-HK-156              | U30-HK-17       |
|--|-------------------------|--------------|--------------|--------------------------|-------------------------|-----------------|
| 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) 3,4          | 106"                    | 106"         | 106"         | 119 16"                  | 119 3/6"                | 119 3/6"        |
| B – Max. Hook Height (Dumping) 3,4                 | 131 %"                  | 131 %"       | 131 %"       | 156 %6"                  | 156 1/16"               | 156 16"         |
| C - Back of Cab to Hoist 5                         | 2 14"                   | 2 1/4"       | 2 1/4*       | 3 1/2"                   | 3 1/2"                  | 3 1/2"          |
| D – Dump Angle (per recommended container range) * | 56° - 42°               | 50° - 35°    | 50° - 35°    | 68° - 41°                | 56° - 38°               | 49° - 35°       |
| E – (CA) Cab to Axle 5                             | 120*                    | 132"         | 144"         | 138"                     | 156"                    | 176"            |
| F – After Frame <sup>6</sup>                       | 38 1/2" or 62 1/2"      | 50 1/2"      | 38 1/2"      | 44 %" or 68 %"           | 50 ¾" or 74 ¾"          | 54 ¾"           |
| G – Hoist Length                                   | 155 %" or 179 %6"       | 179 5/6"     | 179 5/16"    | 179 ¾6" or 203 ¾6"       | 203 1/4" or 227 1/4"    | 227 1/4"        |
| 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" or 61 ¾"            | 54" or 61 ¾" | 54" or 61 %" | 54" or 61 ¾"             | 54" or 61 ¾"            | 54" or 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"x31/2"x78"    |
| Jib Cylinder - (1) dual acting                     | 3"x 2"x 37"             | 3"x 2"x 37"  | 3"x 2"x 37"  | 4"x 2 1/2"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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