

## **AF-SERIES (ABOVE FRAME) ROLL OFF CABLE HOISTS**

**MODELS:** AF -174 & -194

RAIL TYPES: (OR, IO, IX, HH, EH, EX, OX)

Tandem Axle: 50,000 - 60,000 lb. capacities 18' to 24' recommended container lengths

**AF (Above Frame)** The Galbreath Above Frame (AF) cable hoists are versatile enough to work with any truck chassis, suspensions, exhaust systems and fuel tanks. The AF hoist is ideal for use with alternative fuel chassis such as CNG and LNG. As the lift cylinders can be mounted on top of the chassis frame, it provides additional space for other accessories. Plus, the single-cylinder reeving system improves load and unload speeds by up to 25%.



#### **Standard Features**

- Inside air controls mounted in our ergonomic power tower featuring Plug And Play™ wiring
- · Secondary manual controls mounted outside on driver's side
- · Tarp/Valve mounting platform Included
- 47 gallon Behind The Cab (BTC) mounted hydraulic tank
- 3 Micron filtration inside steel tank with dual sight/temp gauge & air breather
- Reverse mount, inboard above frame lift cylinders
- Offset front sheave assembly w/ 10" grease grooved cable sheaves
- · Winch rail w/ rod protector
- Stationary rear hold downs
- Automatic spring loaded pass over front container lock
- 4" O.D. Side rollers with bronze bearings
- 3/8" T1 Wear strips on top of main frame rails (all extendable tail models)
- 1/2" Inside rail container guides on top of main frame (IO-models only)
- Swivel eye cable end (OR, EX, OX); Swivel w/ latch (IO, IX), knuckle (HH, EH)
- · Auto fold air assist ICC bumper standard on OR, IO, OX models
- Auto Folding Mechanical ICC bumper is standard on IX models; EX, HH, EH models do not require one
- Heavy duty lowered rear hinge
- Pintle adaptable rear apron & bumper assembly complete w/ DOT approved LED Lighting
- · LED Mid body turn signal lights
- Dual hoist maintenance/safety props
- Backup alarm & hoist up alarm with signal light in cab
- Warranty: 12 months & 2 years limited on hydraulic components
- Customized engineering layouts ensure the best fit for each customer
- · Engineered and manufactured in the US

FEATURE	TANDEM AXLE
Hoist Main Frame	10" x 4" x 1/2" A 500 grade C tubing (3/8" on EX/OX/IX/EH models)
Hoist Subframe	4" x 3" x 1/4" A500 grade C tubing
Hydraulic Pump	Gear type 37.5 GPM @1,500 RPM (nominal)
Operating Pressure	3,200 PSI
Hydraulic Valve	2 or 3-spool / 45 GPM w/ safety bypass
Oil Reservoir	47 gallon BTC steel tank w/ internal 3 micron return filtration
Lift Cylinders	(2) Dual acting rod type
Hinge Shaft	2 ½" Solid steel
Winch Cylinder	(1) Dual acting rod type
Cable / Cable End	7/6" Steel cable / swivel cable end, swivel w/ latch or knuckle
Cable Sheaves	10" Grease grooved
Cable Anchors	(4) Cable clamps
Front Stops	1 ½" Steel plate
Front Safety Lock	Automatic spring loaded pass over front container safety lock Stationary
Rear Hold Downs	rear hold downs
Outside Rollers	4" O.D. with bronze bearings
Inside Rail	$\frac{1}{2}$ Angle steel (IO models only); $\frac{3}{8}$ " T1 wear strips on all ext. tail models
Tail	Fixed tail (OR, IO models); 60" or 48" ext.tail (EX, IX, EH & OX models)
ICC Bumper	Auto fold air assist (Auto fold mechanical on IX models)







Inside air controls in power tower or integrated into center console on cab over trucks; secondary outside manual controls at main control valve



47 gallon (BTC) steel hydraulic tank w/ in tank 3 micron filtration and a dual sight and temperature gauge



Reverse mount, inboard above frame lift cylinders



Automatic spring loaded pass over front container safety lock



4" O.D. side rollers w/bronze bushings



Offset front sheave assembly w/10" grease grooved cable sheaves



Single cylinder winch rail w/rod protector





Auto folding air assist ICC bumper (standard on OR, IO, OX models); auto folding mechanical ICC bumper (standard on IX models)



Split bumpers w/ LED lighting



HD lowered rear hinge with pintle adaptable rear apron

#### **Available Options**

- Pioneer® tarping systems
- · Pintle hooks and towing applications
- · Auxiliary hydraulic hook ups and wet kits
- · Outside rail skid plates; full length or rear wing
- · Outboard supported side rollers
- Toolboxes in various types and sizes (poly, steel, aluminum)
- Fenders in various types and configurations (poly, steel, aluminum)
- · Rear window screen protection
- Lift axles (steer and non-steer)
- Auxiliary container stops and rear hold downs
- · Various cable ends
- · Safety and additional LED work lights
- Speed limiting parameters for hoist up and ground speed
- Scale systems
- Backup camera systems



Pioneer® tarping systems



Pintle hooks and wet kits for towing applications



4" O.D. Outboard supported side rollers



Outside rail skid plates; full length or rear wing



Toolboxes in various types and sizes



Fenders in various types and configurations



Rear window screen protection



Lift axles (steer and non-steer)

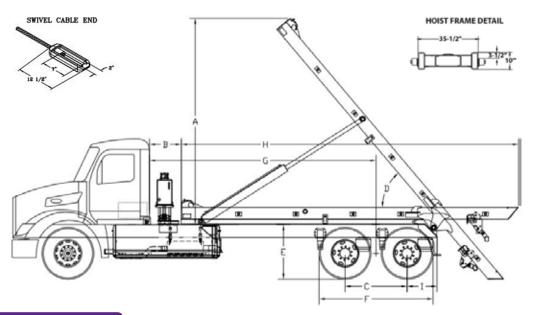


LED work lights



Back-up camera system

AF-EX-174 shown with a Pioneer® RP4500SARG
Tarp System, auto folding rear ICC bumper, rear
wing skid plates, hooker hold downs, HD nylon
ratchet hold downs, lift axle, poly fenders, and
safety vis light options



#### Notes for chart below:

- 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) Frame Height = top of truck chassis frame to ground. Using 22.5" tires only. For larger tires, consult engineering for clearance.
- 4) This distance allows for the standard behind the cab (BTC) oil reservoir, tarper platform. Must add 3" for adding Pioneer® Tarp or 7" for Roll Rite Tarp in most cases; check with engineering for validation.
- $5) \ Request \ additional \ tail \ length \ for \ spring \ suspensions \ higher \ than \ 45''; see \ chart \ 1 \ for \ reference.$

Models	AF-OR-174	AF-OR-194	AF-EX-174	AF-EX-194	AF-OX-174	AF-OX-194
FEATURE						
Recommended Container Size 1	18' to 22'	20' to 24'	18' to 20'	20' to 22'	18' to 22'	20' to 24'
Rated Hoist Capacity <sup>2</sup>	60,000 lbs.	60,000 lbs.	60,000 lbs.	60,000 lbs.	60,000 lbs.	60,000 lbs.
A – Height above truck frame <sup>3,5</sup>	173"	188"	173"	188"	173"	188"
B – Back of cab to hoists <sup>4</sup>	6"	6"	6"	6"	6"	6"
C – Axle spread	51" - 60"	51" - 60"	51" - 60"	51" - 60"	51" - 60"	51" - 60"
D – Raised Dump Angle <sup>3,5</sup>	50°	50°	50°	50°	50°	50°
D1 – Load Angle <sup>3,5</sup>	n/a	n/a	35°	35°	26°	26°
E – Top of truck frame to ground <sup>3,5</sup>	45"	45"	45"	45"	45"	45"
F – Tire O.D. to O.D.	104" max	104" max	104" max	104" max	104" max	104" max
G – Cab to trunnion (CT) <sup>4</sup> add 3" for Pioneer Tarp or 7" for Roll Rite Tarp	186"	206"	186"	206"	186"	206"
H – Hoist Length	282 ½"	305 ½"	242"	262"	282 ½"	305 ½"
H1 – Hoist Length w/tail extended	n/a	n/a	302"	322"	330 ½"	353 ½"
I – After Frame	25"	25"	25"	25"	25"	25"
Lift Cylinders (reverse mount - dual cylinders)	6"x 3.5"x 73"	6"x 3.5"x 73"	6"x 3.5"x 73"	6"x 3.5"x 73"	6"x 3.5"x 73"	6"x 3.5"x 73"
Winch Cylinder (single cylinder)	7"x 4"x 80"	7"x 4"x 90"	7"x 4"x 80"	7"x 4"x 90"	7"x 4"x 80"	7"x 4"x 90"
Tail Cylinder (single cylinder)	n/a	n/a	3.5" x 2.5" x 60"			
Approximate weight with standard features (ship out weight used; unmounted)	7,882 lbs.	8,149 lbs.	8,967 lbs.	9,234 lbs.	9,177 lbs.	9,444 lbs.

<sup>\*</sup> Containers that overhang the rear of the bumper (Fixed or Folding ICC) by more than 24" will require the appropriate flagging to meet DOT requirements \*

#### Minimum Truck Requirements (Tandem Axle)

Axle rating: 18,000 front / 44,000 rear Transmission torque: 383 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 20 in  $^{3}$  or more per each frame rail.

Truck Channel Height	RBM	Yield (PSI)	RBM/PSI = SM in <sup>3</sup>
10" or more (single wall)	2,400,000 - 4,500,000	120,000 PSI	20 in <sup>3</sup> - 37.5 in <sup>3</sup>
10" or more (double wall)	2,000,000 - 4,000,000	100,000 PSI	20 in <sup>3</sup> - 40 in <sup>3</sup>

Note: The single walled 120k psi with RBM less than 2,400,000 would not be acceptable because its SM would fall below the 20 in minimum specification (2,300,000/120,000 = 19.17in). For frames less than 10° consult engineering.

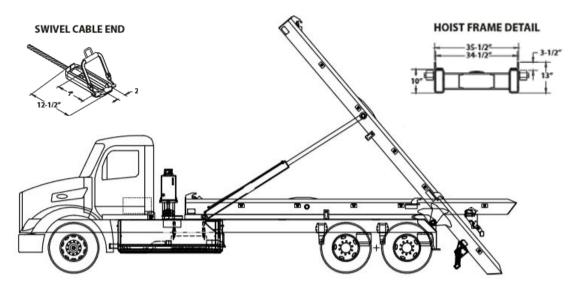
Cycle Times @ 3,200 PSI & 1,500 RPM	37.5 GPM
Hoist Up -	21 sec.
Hoist Down -	13 sec.
Winch On -	21 sec.
Winch Off -	14 sec.

\*AF-OR-174 theoretical times shown. Dash 194 hoists will be about 2 seconds slower in their respecitive Winch times.

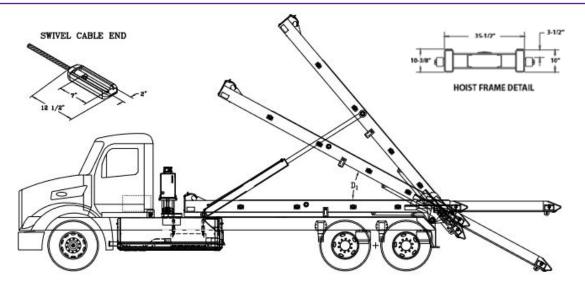
TRUCK FRAME HEIGHT & TAIL LENGTH CHART			
Frame H	eight (Inches)	Tail Length measured from center o rear hinge to tip of tail	
MIN.	MAX.	Added Length	<b>Total Length</b>
42"	46"	0 inches - Std.	69 ¾"
46.5"	49"	4"	73 ¾"
49.5"	52"	8"	77 ¾"
52.5"	55"	12"	81 ¾"
55.5"	58"	16"	85 ¾"
*Round to the nearest inch*			

AF-IO-174	AF-IO-194	AF-IX-174	AF-HH-174	AF-HH-194	AF-EH-174
18' to 22'	20' to 24'	18' to 22'	18' to 20'	20' to 22'	18' to 20'
60,000 lbs.	60,000 lbs.	60,000 lbs.	50,000 lbs.	50,000 lbs.	50,000 lbs.
173"	188"	173"	173"	188"	173"
6"	6"	6"	6"	6"	6"
51" - 60"	51" - 60"	51" - 60"	51" - 60"	51" - 60"	51" - 60"
50°	50°	50°	50°	50°	50°
n/a	n/a	30°	n/a	n/a	35°
45"	45"	45"	45"	45"	45"
104" max	104" max	104" max	104" max	104" max	104" max
186"	206"	186"	186"	206"	186"
282 ½"	305 ½"	257 ½"	238"	261"	242"
n/a	n/a	317 ½"	n/a	n/a	302"
25"	25"	25"	25"	25"	25"
6"x 3.5"x 73"	6"x 3.5"x 73"	6"x 3.5"x 73"	6"x 3.5"x 73"	6"x 3.5"x 73"	6"x 3.5"x 73"
7"x 4"x 80"	7"x 4"x 90"	7"x 4"x 80"	7"x 4"x 80"	7"x 4"x 90"	7"x 4"x 80"
n/a	n/a	3.5" x 2.5" x 60"	n/a	n/a	3.5" x 2.5" x 60"
8,352 lbs.	8,619 lbs.	9,222 lbs.	7,875 lbs.	8,142 lbs.	8,997 lbs.

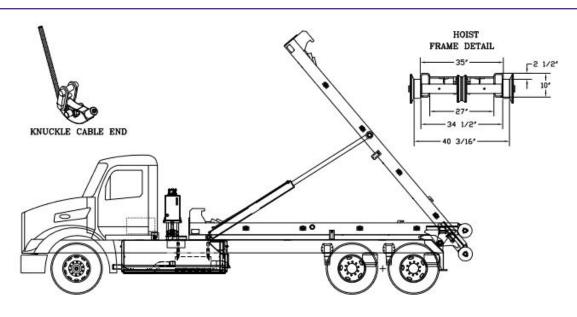
#### **IO & IX Models**



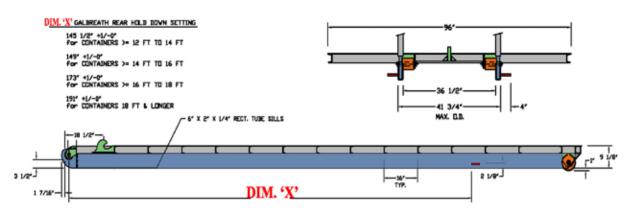
#### **EX & OX Models**



#### **HH & EH Models**

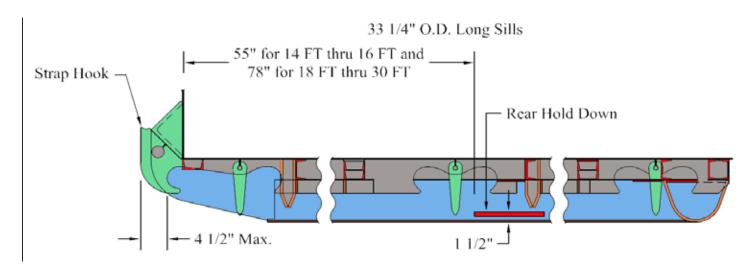


# **Outside Rail Container Requirements**



\*NOTE: For use with 10' containers, the hold down system will require other means such as ratchet type hold downs.

### **Inside Rail Container Requirements**





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