

# HOLLAND COUPLING PRODUCTS

# PINTLE HOOK, COUPLER AND DRAWBAR CATALOG AND SPECIFICATION GUIDE





XL-PH10397SG-en-US Rev B

# YOUR COMPLETE SOURCE FOR COMMERCIAL VEHICLE PRODUCT SOLUTIONS

In 2006, two industrial icons merged to form SAF-HOLLAND, a global leader in the design and manufacture of high-quality components and systems for the commercial vehicle industry. Today, SAF-HOLLAND represents a range of brands providing suspension/axle systems, fifth wheels, kingpins, coupling products, landing gear and liftgate solutions for truck, tractor, bus, and trailer applications.



- ► FIFTH WHEELS
- LANDING GEAR
- ► KINGPINS
- COUPLINGS
- ► LIFTGATES



- MECHANICAL SUSPENSION/ AXLE SYSTEMS
- ► TRAILER AXLES/BRAKES
- AIR-RIDE SUSPENSION/ AXLE SYSTEMS
- ► KINGPINS



- SEVERE-DUTY VOCATIONAL AIR-RIDE SUSPENSIONS
- ► BUS AIR-RIDE SUSPENSIONS
- STEER AIR-RIDE
   SUSPENSIONS



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XE-1249-28	6
XE-1245-46 XE-1385	6
XE-T-87	6
XE-T-91	6
XW-1235	6
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# **Replacements for Discontinued Models**

Discontinued	Replaced By
CP-380	. CP-400-CA
СР380-А	. СР-400-Н
CP-400-5A	. XA-T-150-AF*
DB-1250-15	. DB-040DQ1
DB-1307-S	. Discontinued
DB-1385	. DB-060FQ1
EH-20/40	. EH-3050
РН-16-В	. BH-200RN51

Discontinued	Replaced By
PH-200	PH-210RA11
PH-200-1	PH-210RN11
PH-207A	Discontinued
PH-30	PH-30RP41
PH-75	Discontinued
PH-T-60-AL	PH-10RP51
PH-T-90-A & PH-T-100-A	PH-30SA41
PH-T-125-A & PH-T-126-A	PH-30SB41
* Mounting hole pattern different	

#### National Stock Number\* (NSN) Reference Chart

\*also refered to as 'NATO' Stock Number

#### HOLLAND Cage Code – 74410 HOLLAND Casting Code – HLH

NSN	DESIGNATED HOLLAND MODEL NUMBER	MODEL STATUS	CURRENT HOLLAND MODEL			
PINTLE HOOKS						
2540012653887	PH-16-B	Obsolete	BH-200RN51			
2540006519484	PH-T-60-C	Obsolete	No Replacement			
2540007072564	PH-T-370	Active (special order)	PH-T-370			
2540007760103	PH-760M-X Series	Active	PH-760M-S Series			
2540008359039	PH-30	Obsolete	PH-30RP51			
2340008539059	PH-T-60-AOL-8	Active	PH-T-60-AOL-8			
2540008916831	PH-T-60-AL	Obsolete	PH-10RP51			
2540012819723	PH-75	Obsolete	No Replacement			
2540013373725	PH-760M-A Series	Active	PH-760M-A Series			
2540013768063	PH-T-60-AOS-L-8	Active	PH-T-60-AOS-L-8			
2540013892221	PH-T-60-AOL-8	Active	PH-T-60-AOL-8			
2540014759206	РН-775-Е	Active	PH-775-E			
2540015070802	PH-775-01552	Active	PH-775-01552			
2540015306881	PH-T-60-S08350	Spec'd no paint – Contact SAF-HOLLAND for information				
2540015584395	PH-775SL21	Active	PH-775SL21			
COUPLERS						
2540012137842	CP-360	Active	CP-360			
2540004999407	CP-400-5A	Active	CP-400-5A			
2540007687455	CP-400-CA	Active	CP-400-CA			
2540011460115	CP-400-S04729	Active	CP-400-S04729			
2540012058577	CP-360-S01340	Active	CP-360-S01340			
2540013594964	CP-730-S05745	Active	CP-730-S05745			
DRAWBARS						
2540011647252	DB-060FQ1	Active	DB-060FQ1			
2540011647252	DB-1385	Obsolete	DB-060FQ1			
2540011924699	DB-1238	Active	DB-1238			
2540012356865	DB-1235-1	Active	DB-1235-1			
2540013825836	DB-1249-S06588	Active	DB-1249-S06588			
2540014619306	DB-1250-3	Active	DB-1250-3			
2540014886221	DB-610-30	Active	DB-610-30			
5306011974369	DB-1249-2H	Active	DB-1249-2H			
5306012698693	DB-1249-49	Active	DB-1249-49			



# **Coupling Products by Mounting Type and Rated Capacities**

SAF-HOLLAND Group

MODEL	MOUNT	MAXII VERTICA		MAXIMUN TRAILER V		MAXIMUM GROSS TRAILER WEIGHT WITH A MAXIMUM VERTICAL LOAD OF 500 LB. (227 KG)		
		lb.	kg	lb.	kg	lb.	kg	
PINTLE HOOKS								
BH-200RN / BH-50mmRN	Rigid - Hook Rating	4,000	1,814	20,000	9,072			
	Rigid - Ball Rating	1,000	454	10,000	4,536			
PH-10RP	Rigid	2,000	907	10,000	4,536			
PH-T-60-AOS-L-8	Swivel	3,600	1,633	18,000	8,165			
PH-T-60-AOL-8	Rigid	6,000	2,722	30,000	13,608			
PH-30RP	Rigid	6,000	2,722	30,000	13,608			
PH-30SA	Swivel	6,000	2,722	30,000	13,608			
PH-30SB	Swivel	6,000	2,722	30,000	13,608			
PH-760	Swivel	9,800	4,445	49,000	22,226			
PH-775	Swivel	20,000	9,072	100,000	45,360			
'AIR CUSHIONED' PINTLE								
PH-300 / PH-300-R	Rigid	18,000	8,165	72,000	32,659			
PH-210	Rigid	18,000	8,165	90,000	40,824			
PH-310	Rigid	20,000	9,072	100,000	45,360			
PH-400 / PH-400-H	Rigid	20,000	9,072	100,000	45,360			
PH-410	Rigid	20,000	9,072	100,000	45,360			
PH-419	Rigid	20,000	9,072	100,000	45,360			
PH-550	Rigid	25,000	11,340	100,000	45,360			
COUPLERS – DROP JAW								
СР-400-Н	Rigid	7,500	3,402	30,000	13,608			
CP-360	Rigid	3,000	1,361	52,000	23,587			
CP-730	Swivel	20,000	9,072	100,000	45,360			
CP-740	Rigid	20,000	9,072	100,000	45,360			
COUPLERS – PIN & CLEVIS								
PH-990ST71	Swivel	3,000	1,361	100,000	45,360			
PH-995SH71	Swivel	3,000	1,361	100,000	45,360			
BALL HITCH								
BH-50		8,000	3,629	80,000	36,288			
<b>COUPLINGS (NON-ROAD</b>	) FOR INDUSTRIAL / GSE		·	· ·				
CP-400-GSE / CP-400-CA	Rigid	7,500	3,402	30,000	13,608			
EH-3050	Rigid	500	227	50,000	22,680			
DB-010EJ1	Weld-On	2,000	907	10,000	4,536	20,000	9,072	
DB-020FK1	Weld-On	4,000	1,814	20,000	9,072	40,000	18,144	
DRAWBARS								
DB-1250-3	Rigid Bolt-On	3,000	1,361	15,000	6,804	50,000	22,680	
DB-1228-1	Rigid Bolt-On	4,000	1,814	20,000	9,072	60,000	27,216	
DB-1238	Rigid Bolt-On	4,500	2,041	22,000	9,979	70,000	31,752	
DB-1407-SE	Swivel Weld-On	500	227	34,000	15,422	.,		
DB-1235-1	Rigid Bolt-On	7,000	3,175	35,000	15,876	90,000	40,824	
DB-1235-3	Rigid Bolt-on	7,000	3,175	35,000	15,876	90,000	40,824	
DB-1407-S	Swivel Weld-On	500	227	40,000	18,144			
DB-040DQ1	Rigid Bolt-On	8,000	3,629	40,000	18,144	60,000	27,216	
DB-1245-1	Rigid Bolt-On	8,000	3,629	40,000	18,144	90,000	40,824	
DB-1249-2H	Rigid Bolt-On	9,000	4,082	45,000	20,412	85,000	38,556	
DB-1249-49	Rigid Bolt-On	9,000	4,082	45,000	20,412	85,000	38,556	
DB-045BW1	Swivel Weld-On	9,000	4,082	45,000	20,412	85,000	38,556	
DB-045BS1	Rigid Bolt-On	9,000	4,082	45,000	20,412	85,000	38,556	
DB-610-30	Swivel Weld-On	9,000	4,082	45,000	20,412	85,000	38,556	
DB-060FQ1	Rigid Bolt-On	15,000	6,804	60,000	27,216	90,000	40,824	
DB-1407 Series	Rigid Bolt-On	16,000	7,258	85,000	38,556	120,000	54,432	
DB-1400	Rigid Weld-On	18,000	8,165	90,000	40,824	120,000	54,432	
DB-1422	Rigid Weld-On	18,000	8,165	90,000	40,824	120,000	54,432	
DB-100FQ1	Rigid Bolt-On	20,000	9,072	100,000	45,360	125,000	56,700	
DRAWBARS 'AIR CUSHIC		,	-,=			-,		
DB-1400AC	Rigid Weld-On	18,000	8,165	90,000	40,824	120,000	54,432	

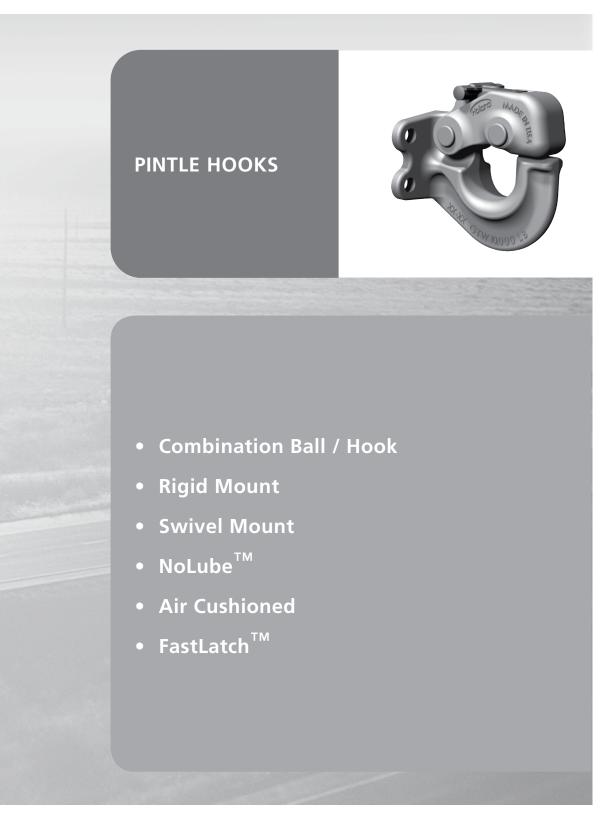
# Identifying Marks on Pintle Hooks, Couplers and Drawbars



SAF-HOLLAND Group

PART NUMBER	MAIN FRAME NUMBER	DISTINGUISHING FEATURES
PH-16-B	XE-02137-HLH	2" Fixed Ball Duplex Hitch
PH-30	AA-52550-4	Has Push-Button Lock
PH-30RP41	AA-52550-4	Rigid Pintle Hook with 4-Bolt 1.75" x 2.38" Bolt Pattern
PH-35	AA-52550-1	Swivel Pintle Hook with Mounting Flanges
PH-200	XD-02384-2	7/8″ 4-Bolt Mounting
PH-210	XD-10570	7/8 <sup>°</sup> 4-Bolt Mounting
PH-300	XD-01155-1	7/8″ 6-Bolt Mounting 1.88″ x 6″ Spacing
PH-310	XD-10572	7/8″ 6-Bolt Mounting 1.88″ x 6″ Spacing
PH-400	XD-02275-1	7/8″ 10-Bolt Mounting
PH-400-H	XD-02275-1	7/8″ 8-Bolt Mounting
PH-410	XD-10573	7/8″ 6-Bolt Mounting 2.38″ x 5″ Spacing
PH-419	XD-11231	7/8" 6-Bolt Mounting 2.38" x 5" Spacing
PH-760	AA-52550-2	3/4" 2-Bolt Mounting Flanges 6.5" Apart
PH-775SL11	AA-55220-3 74410	Swivel Pintle Hook with Housing
PH-775SL21	AA-55220-3 74410	Swivel Pintle Hook with Housing
PH-T-60-AL	XA-T-60-A	1/2" 4-Bolt Mounting 2.12" x 3.4" Bolt Pattern
PH-T-60-AOL-8	AA-52550-4	Has Cotter Pin and Chain Latch Lock
PH-T-60-AOS-L-8	AA-52550-4 AA-52550-1	Swivel Pintle Hook with Mounting Flanges
	XE-T-91	Swivel Pintle Hook with Mounting Flanges and Square Spring
PH-T-90-A		
PH-T-100-A	XE-T-87	Swivel Pintle Hook with Mounting Flanges and Round Spring
PH-T-125-A	XE-T-87	Swivel Pintle Hook - Undermount and Round Spring
PH-T-126-A	XE-T-91	Swivel Pintle Hook - Undermount and Square Spring
PH-990ST71	XD-10286	Swivel Pintle Hook with Housing and Large "Fish Mouth"
CP-360	XD-361	Rigid Coupler 6-Bolt Mounting
CP-380	XD-380	Rigid Coupler 4-Bolt 4.5" x 4.5"
CP-380-A	XD-380	Rigid Coupler 4-Bolt 4.5" x 4.5" Bolt Pattern and Secondary Lock
CP-400-5A	XD-400-5-1	Rigid Coupler 4-Bolt 1.5" x 3.25" Bolt Pattern
CP-400-CA	XD-400	Rigid Coupler 4-Bolt 4.5" x 4.5" Bolt Pattern
CP-400-GSE	XD-400	Rigid Coupler 4-Bolt 4.5" x 4.5" Bolt Pattern
СР-400-Н	XD-400	Rigid Coupler 4-Bolt 4.5" x 4.5" Bolt Pattern with Secondary Lock
CP-740	XD-731	Rigid Couper with Hood
DB-010EJ1	DB-010EJ1	2.5" I.D. Eye with 2" x 4" Mounting Mase
DB-020FK1	MH-1800-D	3″ I.D. Eye
DB-030DQ1	XE-10373	2.38" Eye with 4-Bolt Mounting for 1/2" Bolts
DB-040DQ1	XE-10373	2.38" Eye with 4-Bolt Mounting for 5/8" Bolts
DB-060FQ1	XE-1385	3" I.D. Eye with 4-Bolt Mounting for 3/4" Bolts
DB-100FQ1	XE-1385	3" I.D. Eye with 4-Bolt Mounting for 7/8" Bolts
DB-045BW1	Date Stamp Only	2.38" I.D. Eye Drawbar with Housing 3" x 4" x 6"
DB-610-30	XW-1249-48	3" I.D. Eye Drawbar with Housing 3" x 4" x 6"
DB-1228-1	XE-1228	2.5" I.D. Eye with 6-Bolt Mounting 1.25" x 3" Shank
DB-1235-1	XE-1235	3" I.D. Eye with 6-Bolt Mounting 3.12" x 3.12" Shank
DB-1235-3	XW-1235	3.0" I.D. Eye with 6-Bolt Mounting 3.12" x 3.0" Shank
DB-1238	XE-1230	3" I.D. Eye with 6-Bolt Mounting 1.62" x 3" Shank
DB-1245-1	XE-1245	2.38" I.D. Eye with 6-Bolt Mounting 3.12" x 3.12" Shank
DB-1249-2H	XE-1249-2H-10	3" I.D. Eye with 2" O.D. x 4.25" Shank
DB-1249-49	XE-1249-48	3" I.D. Eye with 2" O.D. x 8.5" Shank
DB-1250-3	Date Stamp Only	2.5″ I.D. Eye Drawbar with 1.5″ Diameter x 3.25″ Shank
DB-1307-S-1	XE-1249	3″ I.D. Eye Drawbar with Housing 5″ O.D. x 8.25″
DB-1400	DB-1400	2.38″ I.D. Eye Weld-on Drawbar
DB-1400AC-1	DB-1400AC	2.38 <sup>°</sup> I.D. Eye Weld-on Drawbar with Snubber on 12 <sup>°</sup> Rod
DB-1400AC-2	DB-1400AC	2.38" I.D. Eye Weld-on Drawbar with Snubber on 8" Rod
DB-1400AC-3	DB-1400AC	2.38" I.D. Eye Weld-on Drawbar with Snubber on 7" Rod
DB-1400AC-4	DB-1400AC	2.38" I.D. Eye Weld-on Drawbar with Snubber on 10" rod
DB-1407-S	Date Stamp Only	2.38" I.D. Eye Drawbar with Housing 5" O.D. x 8.25"
DB-1407-SE	Date Stamp Only	2.38" I.D. Eye Drawbar with Housing 5" O.D. x 9.63"
DB-1407-52	1422	2.38 I.D. Eye Drawbar with Housing 5 O.D. X 5.05
00-1422	1722	2.30 I.D. Lyc Diawbai iol Aritaine Woulding



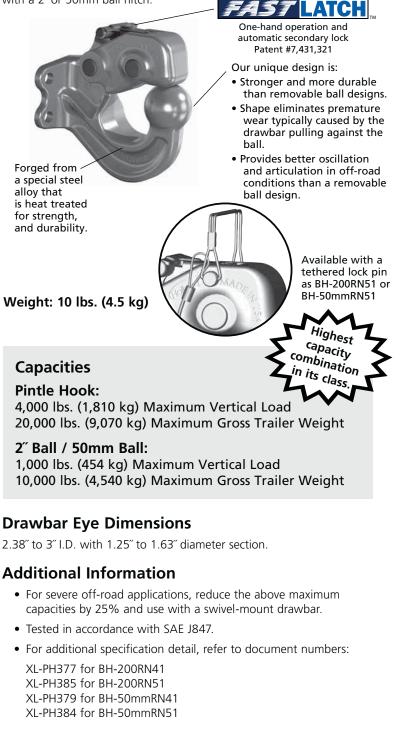




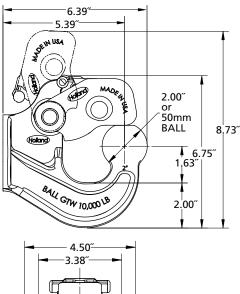


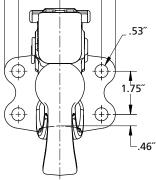
#### BH-200RN41 Features 2<sup>°</sup> diameter ball BH-50mmRN41 Features 50mm diameter ball Application

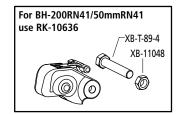
A rigid mount pintle hook that combines a pintle hook and ball hitch. Designed for customers who need the strength and capacity to pull trailers equipped with drawbars, as well as the flexibility to pull trailers with a 2<sup>°</sup> or 50mm ball hitch.

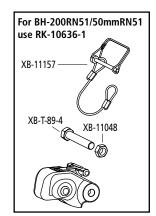


#### **Mounting Dimensions**







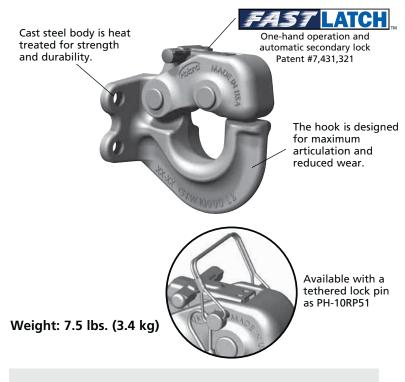




#### PH-10RP41

#### Application

A rigid mount pintle hook designed for over-the-road and off-road towing.



#### Capacities

2,000 lbs. (910 kg) Maximum Vertical Load 10,000 lbs. (4,540 kg) Maximum Gross Trailer Weight

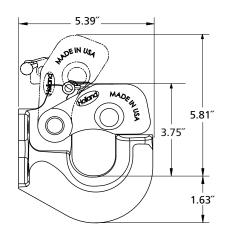
#### **Drawbar Eye Dimensions**

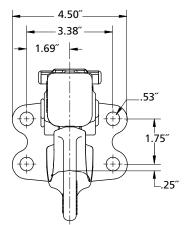
2" to 3" I.D. with 1.25" to 1.63" diameter section.

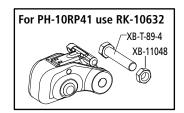
#### **Additional Information**

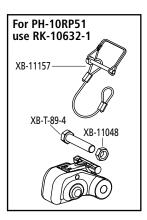
- For severe off-road applications, reduce the above maximum capacities by 25% and use with a swivel-mount drawbar.
- Tested in accordance with SAE J847.
- For additional specification detail, refer to document number XL-PH350. For PH-10RP51, refer to XL-PH387.

#### **Mounting Dimensions**







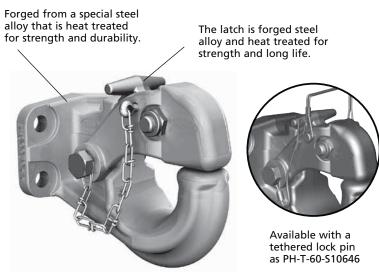




#### PH-T-60-AOL-8 (with chained cotter pin) PH-T-60-S10646 (with tethered lock pin)

#### Application

A rigid mount pintle hook designed for over-the-road and off-road towing within stated capacities.



Weight: 11 lbs. (5 kg)

#### Capacities

6,000 lbs. (2,720 kg) Maximum Vertical Load 30,000 lbs. (13,610 kg) Maximum Gross Trailer Weight

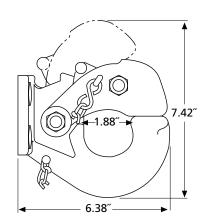
#### **Drawbar Eye Dimensions**

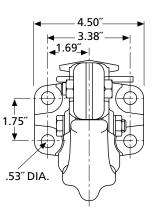
 $2^{\prime\prime}$  to  $3^{\prime\prime}$  I.D. with 1.25  $^{\prime\prime}$  to 1.63  $^{\prime\prime}$  diameter section.

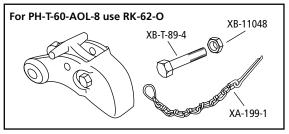
#### **Additional Information**

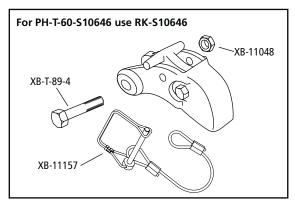
- For severe off-road applications, reduce the above maximum capacities by 25% and use with a swivel-mount drawbar.
- Tested in accordance with SAE J847.
- For additional specification detail, refer to document number XL-PH203, or XL-PH333 for PH-T-60-S10646.

#### **Mounting Dimensions**











#### PH-30RP41

#### Application

A versatile rigid mount pintle hook designed for over-the-road and off-road towing.



#### Capacities

6,000 lbs. (2,720 kg) Maximum Vertical Load 30,000 lbs. (13,610 kg) Maximum Gross Trailer Weight

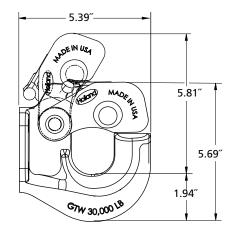
#### **Drawbar Eye Dimensions**

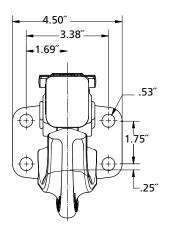
2.38" to 3" I.D. with 1.25" to 1.63" diameter section.

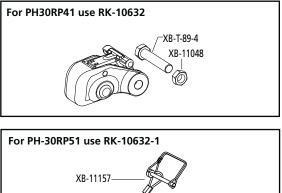
#### **Additional Information**

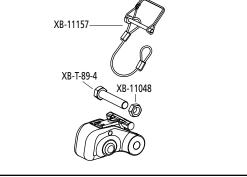
- For severe off-road applications, reduce the above maximum capacities by 25% and use with a swivel-mount drawbar.
- Tested in accordance with SAE J847.
- For additional specification detail, refer to document number XL-PH351. For PH-30RP51, refer to XL-PH364.

#### **Mounting Dimensions**









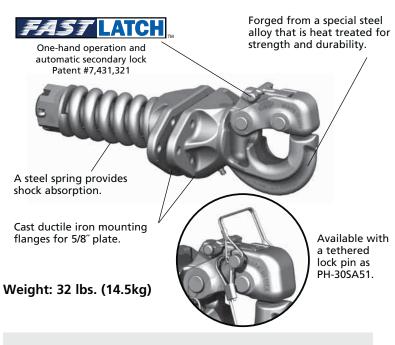
# Pintle Hooks – Swivel Mount (with Spring Shock Absorption)



#### PH-30SA41

#### Application

A split flange mount, swivel style pintle hook designed for over-the-road and off-road applications. The spring provides shock absorption at the coupling—ideal for utility and construction applications.



#### Capacities

6,000 lbs. (2,720 kg) Maximum Vertical Load 30,000 lbs. (13,610 kg) Maximum Gross Trailer Weight

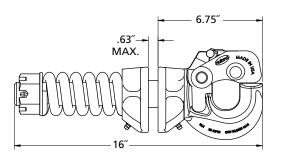
#### **Drawbar Eye Dimensions**

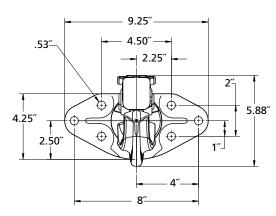
2.38" to 3" I.D. with 1.25" to 1.63" diameter section.

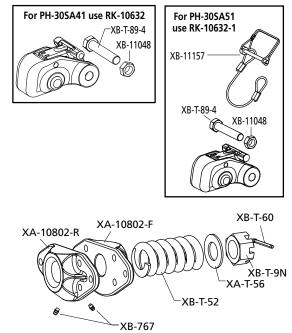
#### **Additional Information**

- For severe off-road applications, reduce the above maximum capacities by 25%. Not for use with a swivel-mount drawbar.
- Tested in accordance with SAE J847.
- For additional specification detail, refer to document number XL-PH368. For PH-30SA51, refer to XL-PH369.

#### **Mounting Dimensions**







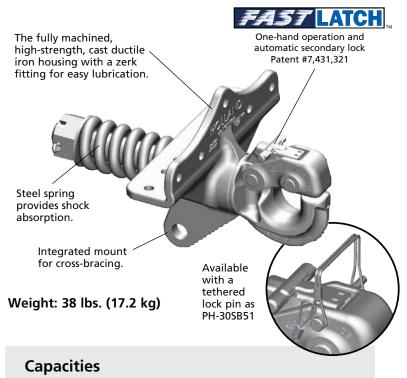


SAF-HOLLAND Group

#### PH-30SB41

#### Application

An under-mount, swivel style pintle hook designed for over-the-road and off-road applications. The spring provides shock absorption at the coupling—ideal for utility and construction applications.



6,000 lbs. (2,720 kg) Maximum Vertical Load 30,000 lbs. (13,610 kg) Maximum Gross Trailer Weight

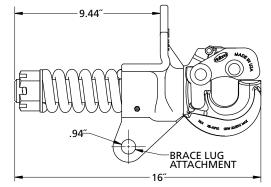
#### **Drawbar Eye Dimensions**

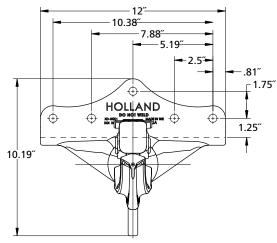
2.38" to 3" I.D. with 1.25" to 1.63" diameter section.

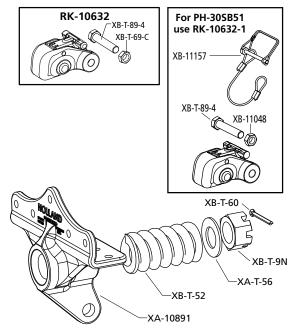
#### **Additional Information**

- For severe off-road applications, reduce the above maximum capacities by 25%. Not for use with a swivel-mount drawbar.
- Tested in accordance with SAE J847.
- For additional specification detail, refer to document number XL-PH365. For PH-30SB51, refer to XL-PH371.

#### **Mounting Dimensions**







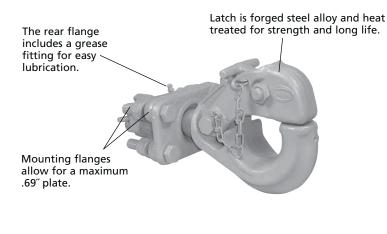


#### PH-T-60-AOS-L-8

#### Application

A split flange mounted, swivel style pintle hook designed for over-the-road and off-road applications.

The body is forged from special alloy steel that is heat treated for strength and durability. The special pintle shape is designed for maximum articulation and reduced wear.



Weight: 15 lbs. (6.8 kg)

#### Capacities

3,600 lbs. (1,630 kg) Maximum Vertical Load 18,000 lbs. (8,160 kg) Maximum Gross Trailer Weight

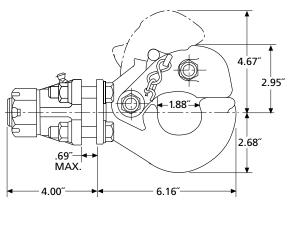
#### **Drawbar Eye Dimensions**

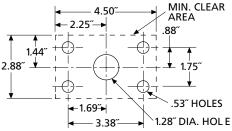
2" to 3" I.D. with 1.25" to 1.63" diameter section.

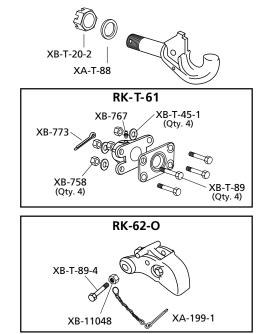
#### **Additional Information**

- For severe off-road applications, reduce the above maximum capacities by 25%. Not for use with a swivel-mount drawbar.
- Tested in accordance with SAE J847.
- For additional specification detail, refer to document number XL-PH208.

#### **Mounting Dimensions**







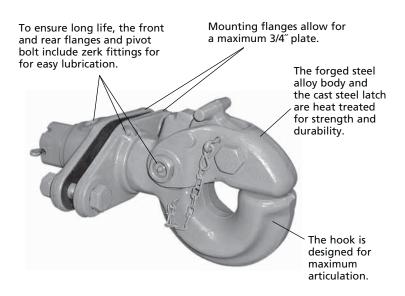


#### SAF-HOLLAND Group

#### **PH-760**

#### Application

Heavy-duty construction for on- and off-road applications where a significant amount of articulation is required in a swivel-style split flange mount pintle hook.



Weight: 36 lbs. (16.3 kg)

#### Capacities

9,800 lbs. (4,440 kg) Maximum Vertical Load 49,000 lbs. (22,230 kg) Maximum Gross Trailer Weight

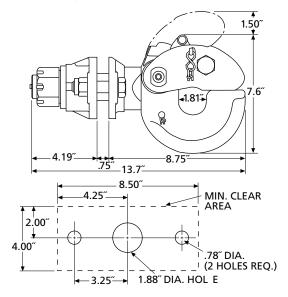
#### **Drawbar Eye Dimensions**

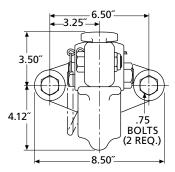
3" I.D. with 1.25" to 1.63" diameter section.

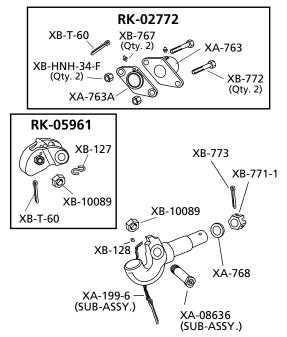
#### **Additional Information**

- For severe off-road applications, reduce the above maximum capacities by 25%. Not for use with a swivel-mount drawbar.
- Tested in accordance with SAE J847.
- For additional specification detail, refer to document number XL-PH215.

#### **Mounting Dimensions**





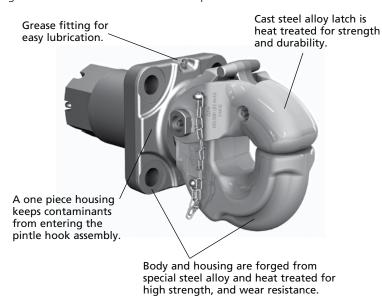




#### PH-775-01552 (Lubricated)

#### Application

Heavy-duty construction for on- and off-road applications where a significant amount of articulation is required.



Weight: 60 lbs. (27.2 kg)

#### Capacities

20,000 lbs. (9,070 kg) Maximum Vertical Load 100,000 lbs. (45,360 kg) Maximum Gross Trailer Weight

#### **Drawbar Eye Dimensions**

3" I.D. with 1.63" diameter section.

#### **Additional Information**

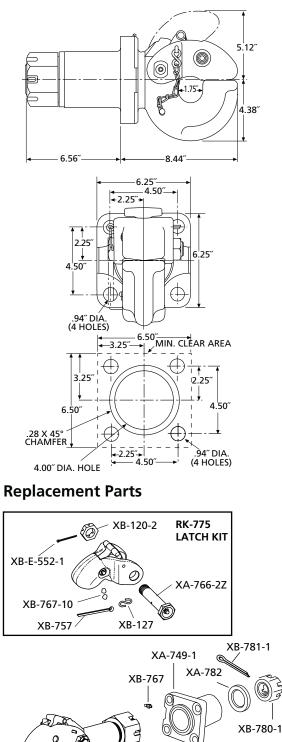
- For severe off-road applications, reduce the above maximum capacities by 25%. Not for use with a swivel-mount drawbar.
- Tested in accordance with SAE J847.
- For additional specification detail, refer to document number XL-PH246.

The Holland PH-775-01552 complies with NOM-035-SCT-2-2010 Safety Specifications and Test Methods.

#### Interchangeable with New PH-995SH71, see page 33.



#### **Mounting Dimensions**



PH-775-D ASSEMBLY

XA-199-4



#### PH-775SL11 (NoLube<sup>®</sup>)

#### Application

Heavy-duty construction for on- and off-road applications where a significant amount of articulation is required.



#### Capacities

20,000 lbs. (9,070 kg) Maximum Vertical Load 100,000 lbs. (45,360 kg) Maximum Gross Trailer Weight

#### **Drawbar Eye Dimensions**

3" I.D. with a 1.63" diameter section.

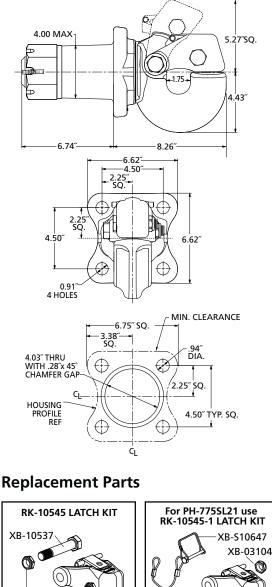
#### Additional Information

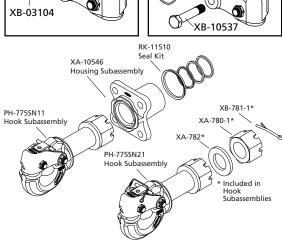
- For severe off-road applications, reduce the above maximum capacities by 25%. Not for use with a swivel-mount drawbar.
- Tested in accordance with SAE J847.
- For additional specification detail, refer to document number XL-PH334. For PH-775SL21, refer to XL-PH339.

The Holland PH-775SL NoLube complies with NOM-0350-SCT-2-2010 Safety Specifications and Test Methods.

# Pintle Hooks – Swivel Mount

#### **Mounting Dimensions**



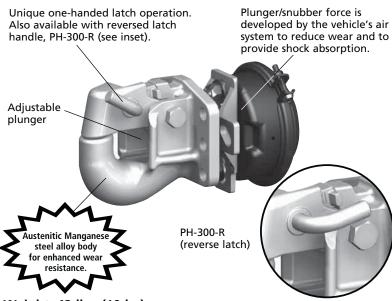




#### PH-300 and PH-300-R

#### Application

A rigid mount pintle hook designed for enhanced wear resistance. Used for on- and off-road applications.



Weight: 42 lbs. (19 kg)

The complete assembly includes a pintle hook, plunger, air chamber, and mounting bracket. For pintle hooks without an air chamber, bracket, or plunger, order PH-300-1 or PH-300-R-1.

The PH-300 can be operated with or without the air chamber. For easier coupling, drawbar guides are available, see page 56.

#### Capacities

18,000 lbs. (8,160 kg) Maximum Vertical Load 72,000 lbs. (32,660 kg) Maximum Gross Trailer Weight

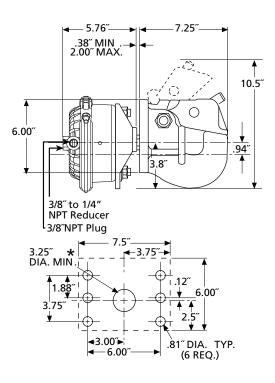
#### **Drawbar Eye Dimensions**

2.38" to 3" I.D. with 1.25" to 1.63" diameter section.

#### **Additional Information**

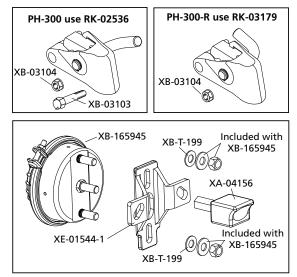
- For severe off-road applications, reduce the above maximum capacities by 25% and use with a swivel-mount drawbar.
- Tested in accordance with SAE J847 (Type II).
- For additional specification detail, refer to document number XL-PH243. For PH-300-R, refer to XL-PH248.

#### **Mounting Dimensions**



\* Center hole not required if used without air chamber.

#### **Replacement Parts**



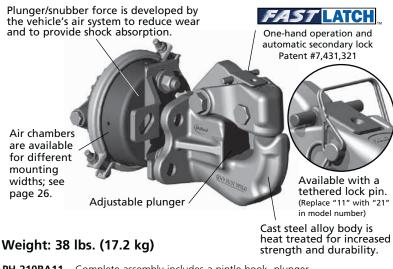


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#### PH-210

#### Application

A rigid mount pintle hook designed for trailers and semitrailers in doubles and triples operations. Used for off- and over-the-road applications. Air cushioned snubber is designed to minimize the gap between the pintle hook and the drawbar on vehicles with air systems.



PH-210RA11 – Complete assembly includes a pintle hook, plunger, air chamber, and mounting bracket.
PH-210RN11 – Pintle hook without an air chamber, bracket or plunger.
PH-210RM11 – Pintle hook with plunger only.
For additional model numbers, see page 26.
The PH-210 can be operated with or without the air chamber.
For easier coupling, drawbar guides are available, see page 56.

#### Capacities

18,000 lbs. Maximum Vertical Load 90,000 lbs. Maximum Gross Trailer Weight

#### **Drawbar Eye Dimensions**

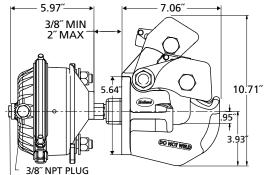
2.38" to 3" I.D. with 1.25" to 1.63" diameter section.

#### **Additional Information**

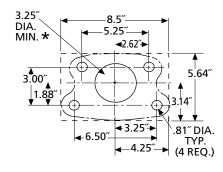
- For severe off-road applications, reduce the above maximum capacities by 25% and use with a swivel-mount drawbar.
- Tested in accordance with SAE J847.
- For additional specification detail, refer to document number XL-PH340.
- Also available PH210 Series with tethered lock pin. Replace "11" with "21" in model number.

The Holland PH-210 complies with NOM-0350-SCT-2-2010 Safety Specifications and Test Methods.

#### **Mounting Dimensions**

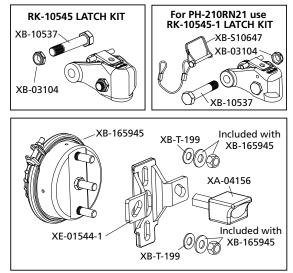


- 3/8" TO 1/4" NPT REDUCER



\* Center hole not required if used without air chamber.

#### **Replacement Parts**

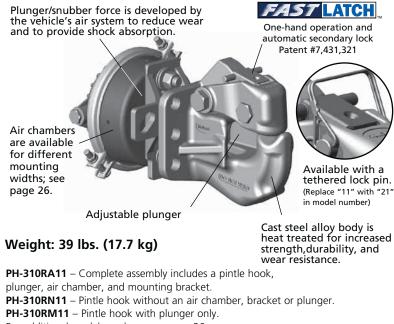




#### PH-310

#### Application

A rigid mount pintle hook designed for trailers and semitrailers in doubles and triples operations. Used for off- and over-the-road applications. Air cushioned snubber is designed to minimize the space between the pintle hook and the drawbar on vehicles with air systems.



For additional model numbers, see page 26.

The PH-310 can be operated with or without the air chamber. For easier coupling, drawbar guides are available, see page 56.

#### Capacities

20,000 lbs. (9,070 kg) Maximum Vertical Load 100,000 lbs. (45,360 kg) Maximum Gross Trailer Weight

#### **Drawbar Eye Dimensions**

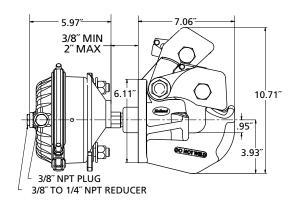
2.38" to 3" I.D. with 1.25" to 1.63" diameter section.

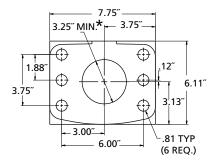
#### **Additional Information**

- For severe off-road applications, reduce the above maximum capacities by 25% and use with a swivel-mount drawbar.
- Tested in accordance with SAE J847.
- For additional specification detail, refer to document number XL-PH341.
- Also available PH310 Series with tethered lock pin. Replace "11" with "21" in model number.

The Holland PH-310 complies with NOM-0350-SCT-2-2010 Safety Specifications and Test Methods.

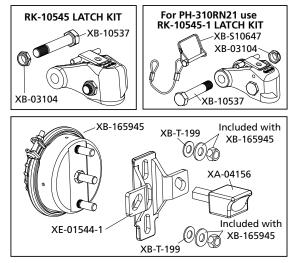
#### **Mounting Dimensions**





\* Center hole not required if used without air chamber.

#### **Replacement Parts**



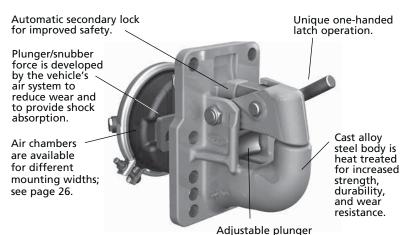


SAF-HOLLAND Group

#### PH-400 and PH-400-H

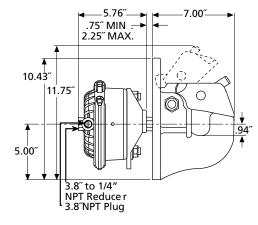
#### Application

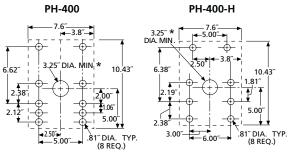
A rigid mount pintle hook designed for trailers and semitrailers in doubles and triples operations. Used for off- and over-the-road applications. Air cushioned snubber is designed to minimize the gap between the pintle hook and the drawbar on vehicles with air systems.



# Mounting Dimensions

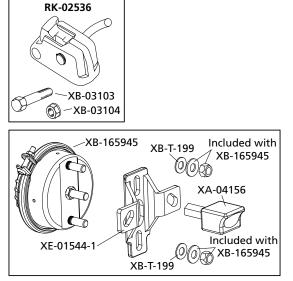
#### PH-400 and PH-400-H





\* Center hole not required if used without air chamber.

#### **Replacement Parts**



XA-02608 Cylinder and Bracket Sub-Assembly

#### Weight: 48 lbs. (21.8 kg)

The complete assembly includes a pintle hook, plunger, air chamber, and mounting bracket. For pintle hooks without an air chamber, bracket, or plunger, order PH-400-1 or PH-400-1-H.

The PH-400 and PH-400-H can be operated with or without the air chamber. For easier coupling, drawbar guides are available, see page 56.

#### Capacities

20,000 lbs. (9,070 kg) Maximum Vertical Load 100,000 lbs. (45,360 kg) Maximum Gross Trailer Weight

#### **Drawbar Eye Dimensions**

2.38" to 3" I.D. with 1.25" to 1.63" diameter section.

#### **Additional Information**

- For severe off-road applications, reduce the above maximum capacities by 25% and use with a swivel-mount drawbar.
- Tested in accordance with SAE J847.
- For additional specification detail, refer to document number XL-PH244 or PH-247.

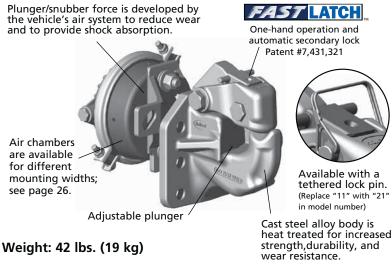
The Holland PH-400 and PH-400-H complies with NOM-0350-SCT-2-2010 Safety Specifications and Test Methods.



#### PH-410

#### Application

A rigid mount pintle hook designed for trailers and semitrailers in doubles and triples operations. Used for off- and over-the-road applications. Air cushioned snubber is designed to minimize the gap between the pintle hook and the drawbar on vehicles with air systems.



PH-410RA11 – Complete assembly includes a pintle hook, plunger, air chamber, and mounting bracket.
PH-410RN11 – Pintle hook without an air chamber, bracket or plunger.
PH-410RM11 – Pintle hook with plunger only.
For additional model numbers, see page 26.
The PH-410 can be operated with or without the air chamber.
For easier coupling, drawbar guides are available, see page 56.

#### Capacities

20,000 lbs. (9,070 kg) Maximum Vertical Load 100,000 lbs. (45,360 kg) Maximum Gross Trailer Weight

#### **Drawbar Eye Dimensions**

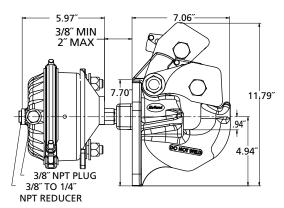
2.38" to 3" I.D. with 1.25" to 1.63" diameter section.

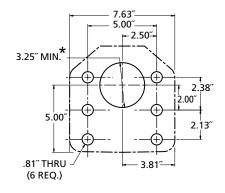
#### **Additional Information**

- For severe off-road applications, reduce the above maximum capacities by 25% and use with a swivel-mount drawbar.
- Tested in accordance with SAE J847.
- For additional specification detail, refer to document number XL-PH342.
- Also available PH410 Series with tethered lock pin. Replace "11" with "21" in model number.

The Holland PH-410 complies with NOM-0350-SCT-2-2010 Safety Specifications and Test Methods.

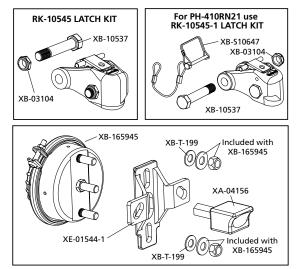
#### **Mounting Dimensions**





\* Center hole not required if used without air chamber.

#### **Replacement Parts**



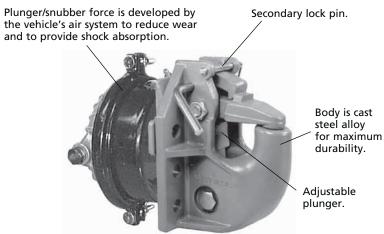


**SAF-HOLLAND Group** 

#### PH-550

#### Application

A rigid mount pintle hook designed for trailers and semitrailers in doubles and triples operations. Used for off- and over-the-road applications. Air cushioned snubber is designed to minimize the gap between the pintle hook and the drawbar on vehicles with air systems.



#### Weight: 47 lbs. (21.3 kg)

The complete assembly includes a pintle hook, bullet, mounting bracket, and air chamber. For pintle hook and plunger only, order PH-550-1. The PH-550 must be operated with an air chamber. For easier coupling, drawbar guides are available; see page 56.

#### Capacities

25,000 lbs. (11,340 kg) Maximum Vertical Load 100,000 lbs. (45,360 kg) Maximum Gross Trailer Weight

#### **Drawbar Eye Dimensions**

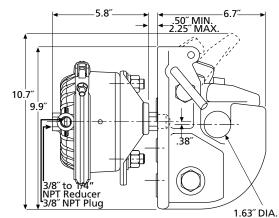
2.38" to 3" I.D. with 1.63" to 1.75" diameter section.

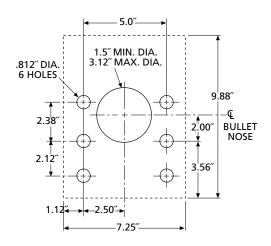
#### Additional Information

- For severe off-road applications, reduce the above maximum capacities by 25% and use with a swivel-mount drawbar.
- Tested in accordance with SAE J847.
- For additional specification detail, refer to document number XL-PH261.

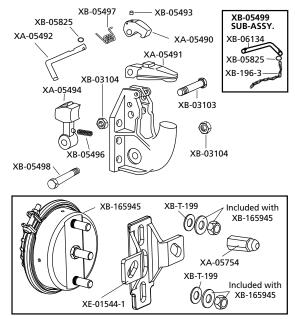
The Holland PH-550 complies with NOM-0350-SCT-2-2010 Safety Specifications and Test Methods.

#### **Mounting Dimensions**





#### **Replacement Parts**



# Pintle Hooks – Rigid Mount – Air Cushioned

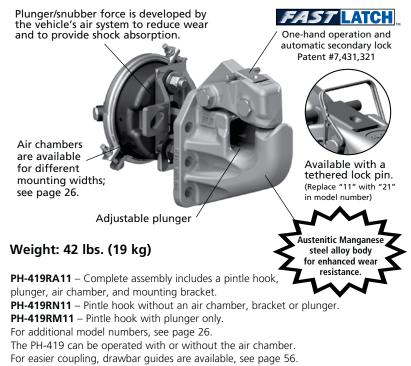
NEW



#### **PH-419**

#### Application

A rigid mount pintle hook designed for trailers and semitrailers used in doubles and triples operations. Used for off- and over-the-road applications. Air cushioned snubber is designed to minimize the gap between the pintle hook and the drawbar on vehicles with air systems.



#### **Capacities**

20,000 lbs. (9,070 kg) Maximum Vertical Load 100,000 lbs. (45,360 kg) Maximum Gross Trailer Weight

#### **Drawbar Eye Dimensions**

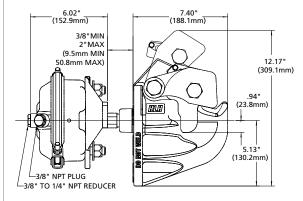
3" I.D. with 1.25" to 1.63" diameter section.

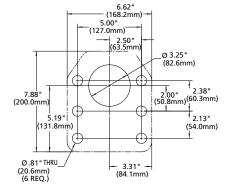
#### Additional Information

- For severe off-road applications, reduce the above maximum capacities by 25% and use with a swivel-mount drawbar.
- Tested in accordance with SAE J847.
- For additional specification detail, refer to document number XL-PH10409.
- Also available PH419 Series with tethered lock pin. Replace "11" with "21" in model number.

The Holland PH-419 complies with NOM-0350-SCT-2-2010 Safety Specifications and Test Methods.

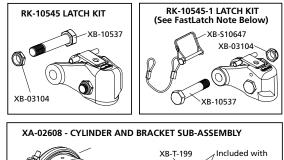
#### **Mounting Dimensions**

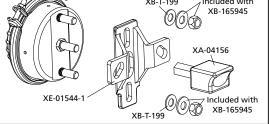




\* Center hole not required if used without air chamber.

#### **Replacement Parts**







# NEW PH-419 – BEST COMBINATION OF WEAR RESISTANCE, STRENGTH AND SAFETY

#### Enhanced Wear Resistance

- Austenitic manganese steel alloy body
- The hook 'work hardens' at contact surfaces with the drawbar eye

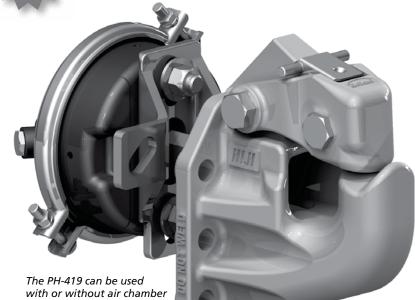
# Strength by Design

- Body designed to optimize strength based on the nonlinear material properties of the austenitic manganese steel alloy
- Compared to a PH-410, which features our higher-strength carbon steel alloy, the PH-419 body is visibly more robust having been optimized via CAD / FEA for the austenitic manganese material properties

# Safety by HOLLAND

 Our high standards of safety are the result of over a century of experience in the design, testing, manufacturing, and quality control of coupling products

# NEW PH-419 PINTLE HOOK



The PH-419 can be used with or without air chamber and is compatible with drawbar eye dimensions of 3" (76mm) I.D. with a 1.63" (41.5mm) cross section.



**CAPACITIES** 20,000 Lbs. (9.070 Kg) Maximum Vertical Load

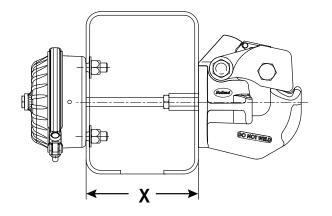
100,000 Lbs. (45,860 Kg) Maximum Gross Trailer Weight

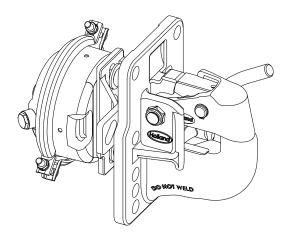
APPLICATIONS Heavy-duty 'A' train (converter dolly) applications for bulk liquids, dry bulk, aggregates and quarry materials.

Patent Pending



#### Air Chamber Assemblies and Mounting Kits



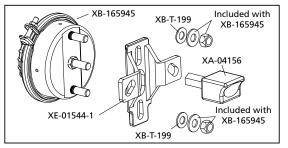


	SELECT "X" DIMENSION FOR MOUNTING	AIR CHAMBER ROD LENGTH	AIR CHAMBER/ PLUNGER ASSEMBLY P/N WHEN ORDERED SEPARATELY	PINTLE HOOK PART NUMBERS *****								
PINTLE HOOK ONLY				PH-210RN11	PH-300-1	PH-300-R-1	PH-310RN11	PH-400-1	PH-400-1-H	PH-410RN11	PH-410RN11	
PINTLE HOOK WITH PLUNGER ONLY				PH-210RM11			PH-310RM11			PH-410RM11	PH-419RM11	PH-550-1
PINTLE HOOK	.75″ - 2.0″	1.8″	XA-02608*	PH-210RA11	PH-300	PH-300-R	PH-310RA11			PH-410RA11	PH-419RA11	
WITH COMPLETE	2.0″ - 12.0″	12.0″	XA-10198***	PH-210RF11			PH-310RF11			PH-410RF11	PH-419RF11	
AIR CHAMBER	.75″ - 2.25″	1.8″	XA-02608*					PH-400	РН-400-Н			
ASSEMBLY	.50″ - 2.25″		XA-09862**									PH-550**

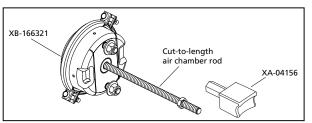
#### WHAT'S INCLUDED:

- \* Includes plunger, mounting bracket, and air chamber.
- \*\* For PH-550, includes bullet, mounting bracket, and air chamber (plunger is factory installed to the pintle hook).
- \*\*\* Includes plunger and air chamber with cut-to-length rod.
- \*\*\*\*\* To add the Tethered Lock Inset Pin Option for FastLatch models PH-210, PH-310, PH-410 and PH-419, replace the '11' with '21' in the part number.

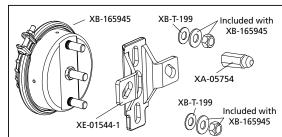
#### XA-02608



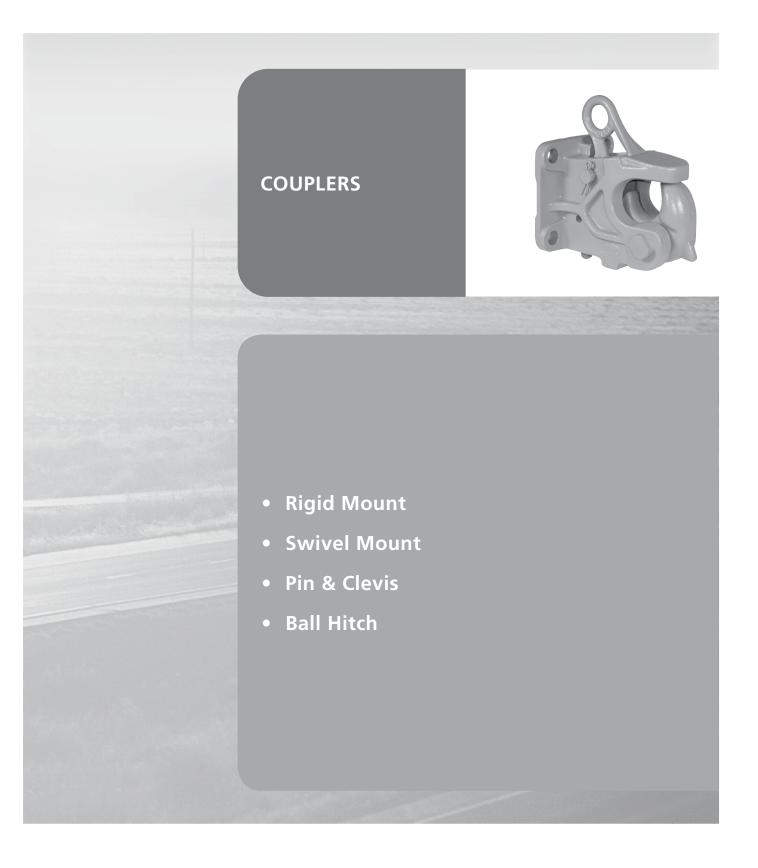
XA-10198



XA-09862







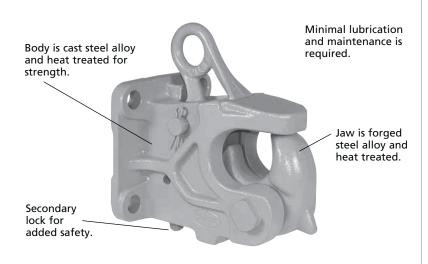




#### СР-400-Н

#### Application

A versatile rigid mount coupler used for trailers and equipment in overthe-road and off-road applications. Especially useful when frequent and automatic coupling is desired, and when the weight of the drawbar makes it impractical to lift. The latch automatically closes and locks upon coupling.



Weight: 26 lbs. (11.8 kg)

#### Capacities

7,500 lbs. (3,400 kg) Maximum Vertical Load 30,000 lbs. (13,610 kg) Maximum Gross Trailer Weight

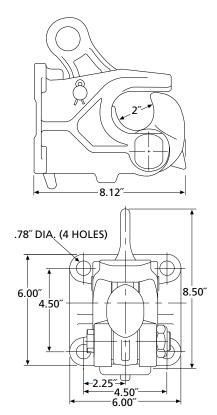
#### **Drawbar Eye Dimensions**

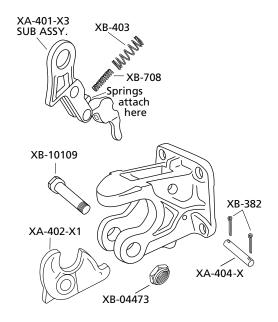
2.50" to 3" I.D. with 1.25" to 1.63" diameter section.

#### **Additional Information**

- For severe off-road applications, reduce the above maximum capacities by 25% and use with a swivel-mount drawbar.
- For additional specification detail, refer to document number XL-PH233.

#### **Mounting Dimensions**



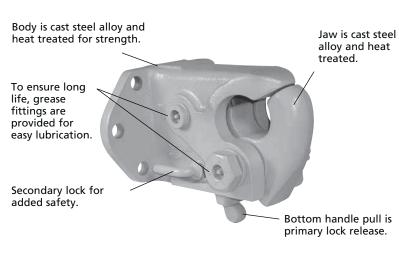




#### CP-360

#### Application

A rigid mount coupler used for trailers and equipment in over-the-road and off-road applications. Especially useful when frequent and automatic coupling is desired, and when the weight of the drawbar makes it impractical to lift. The latch automatically closes and locks upon coupling.



Weight: 44 lbs. (20 kg)

#### Capacities

3,000 lbs. (1,360 kg) Maximum Vertical Load 52,000 lbs. (23,590 kg) Maximum Gross Trailer Weight

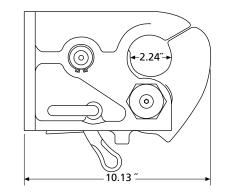
#### **Drawbar Eye Dimensions**

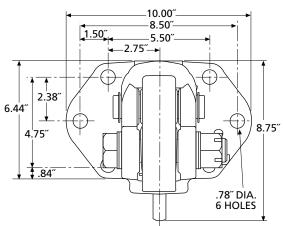
2.50" to 3" I.D. with 1.25" to 1.63" diameter section.

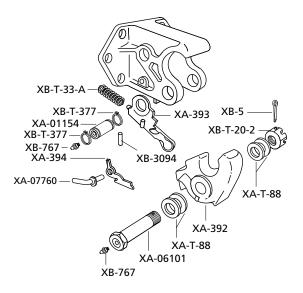
#### **Additional Information**

- For severe off-road applications, reduce the above maximum capacities by 25% and use with a swivel-mount drawbar.
- For additional specification detail, refer to document number XL-PH231.

#### **Mounting Dimensions**









### CP-740 and CP-730

#### Application

A very strong, specialized coupler used for trailers and equipment in over-the-road and off-road applications. Especially useful when frequent and automatic coupling is desired. The latch automatically closed and locks upon coupling.

#### **CP-740 Rigid Mount**

Primary lock release mechanism.

Secondary lock release mechanism automatically locks for added safety.

To ensure long life, grease fittings (3) are provided for easy lubrication.

Body is cast steel alloy and heat treated.

Jaw is forged steel alloy and heat treated.

Hooded guide directs

the drawbar into the

jaw for easy coupling.

#### Weight: 70 lbs. (32.7 kg)

#### Capacities

20,000 lbs. (9,070 kg) Maximum Vertical Load 100,000 lbs. (45,360 kg) Maximum Gross Trailer Weight

#### **Drawbar Eye Dimensions**

3" I.D. with a 1.63" diameter section.

#### **Additional Information**

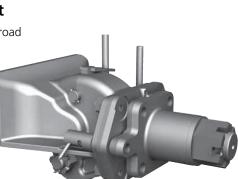
- For severe off-road applications, reduce the above maximum capacities by 25% and use with a swivel-mount drawbar.
- For additional specification detail, refer to document number XL-PH268.

#### **CP-730 Swivel Mount**

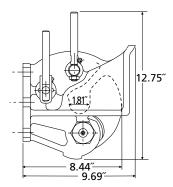
The CP-730 is an on- and off-road coupler featuring the CP-740 coupler with a lubricated, swivel mount housing and spring-loaded lock pin.

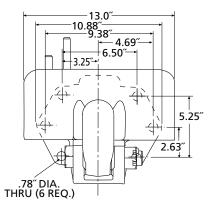
When the spring-loaded lock pin is engaged, the coupler remains rigid when coupling, or when towing a trailer equipped with a swivel-style drawbar. Simply disengage the lock pin to return the coupler to swivel mode.

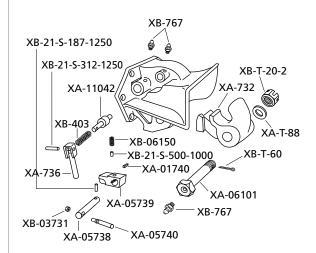
Please contact SAF-HOLLAND for more information.



#### Mounting Dimensions (CP-740)







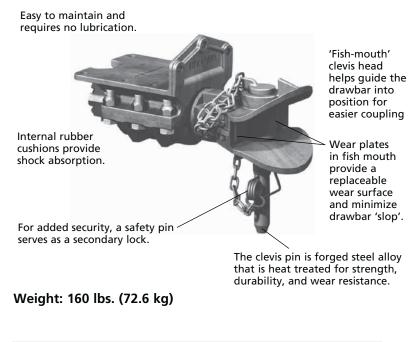


SAF-HOLLAND Group

# PH-990ST71 (Rubber Cushioned)

#### Application

A special frame-mount, swivel style pin coupler with a "fish mouth" head and rubber cushions for shock absorption. Designed for extreme-duty trailers and semitrailers in doubles and triples operations. Used for over-the-road and off-road applications.



Capacities

3,000 lbs. (1,360 kg) Maximum Vertical Load 100,000 lbs. (45,360 kg) Maximum Gross Trailer Weight

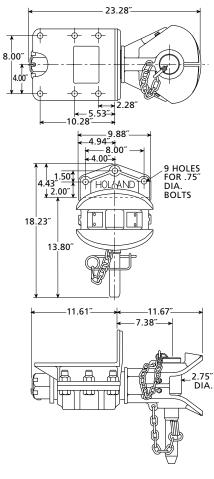
#### **Drawbar Eye Dimensions**

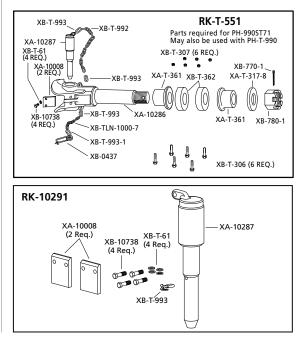
3" I.D. with a 1.63" diameter section.

#### **Additional Information**

- For severe off-road applications, reduce the above maximum capacities by 25%. Not for use with a swivel-mount drawbar.
- For additional specification detail, refer to document number XL-PH219.

#### **Mounting Dimensions**





# Pin and Clevis Coupler – Swivel Mount (Over-the-Road)

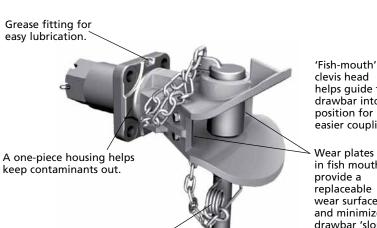
NEW



### PH-995SH71 (Non-Cushioned)

#### Application

A non-cushioned swivel-mount pin and clevis coupler designed for over-the-road and off-road applications of drawbar style trailers.



clevis head helps guide the drawbar into position for easier coupling

Wear plates in fish mouth provide a replaceable wear surface and minimize drawbar 'slop'.

Large 2.75" (70 mm) diameter

clevis pin reduces 'slop' between the pin and drawbar eye.

For added security, a safety pin serves as a secondary lock.

Weight: 97 lbs. (44 kg)

#### Capacities

3,000 lbs. (1,360 kg) Maximum Vertical Load 100,000 lbs. (45,360 kg) Maximum Gross Trailer Weight

#### **Drawbar Eye Dimensions**

3" I.D. with a 1.63" diameter section.

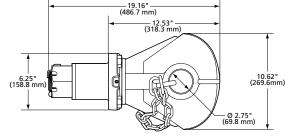
#### **Additional Information**

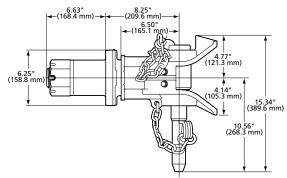
- For severe off-road applications, reduce the above maximum capacities by 25%. Not for use with a swivel-mount drawbar.
- For additional specification detail, refer to document number XI-PH10412UM

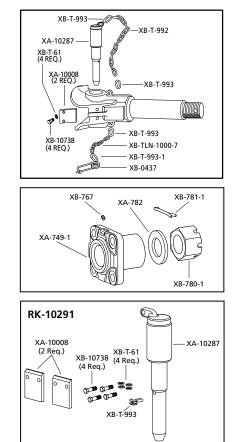
Interchangeable with PH-775-01552, see page 33.



#### **Mounting Dimensions**









# **New Installations**

#### **Complete Pintle Hook Assembly** PH-775-01552

#### Features XA-749-1 Lubricated Housing

100,000 lb. (45,360 kg) Max. GTW 20,000 lb. (9,070 kg) Max. Vertical

See page 16



#### **Complete Pin & Clevis Assembly** PH-995SH71

#### Features XA-749-1 Lubricated Housing

100,000 lb. (45,360 kg) Max. GTW 3,000 lb. (1,360 kg) Max. Vertical

See page 32

# **Retrofit/Interchange Installations**



XA-749-1 Lubricated Swivel Housing

#### **Hook & Latch Sub-Assemblies**



#### PH-775-D

Compatible with XA-749-1 Lubricated Swivel Housing only

Standard Latch with Chained Cotter Pin





#### PH-775SN11 with FastLatch™

Compatible with XA-749-1 Lubricated and XA-10546 NoLube<sup>™</sup> Swivel Housings

PH-775SN21 with FastLatch™ and Tethered Lock Pin

Compatible with XA-749-1 Lubricated and XA-10546 NoLube<sup>™</sup> Swivel Housings

#### **Pin & Clevis Sub-Assembly**



#### PH-995SN71

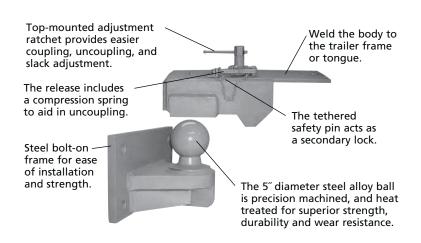
Compatible with XA-749-1 Lubricated Swivel Housing only



#### BH-50 (Includes Ball and Receiver Assemblies)

#### Application

This ball hitch is ideal for heavy-duty over-the-road applications where high articulation (up to 30°) in all directions is required, and in applications where the vehicle and trailer remain coupled. The BH-50 minimizes reduces chucking.



Weight: 135 lbs. (61.2 kg)

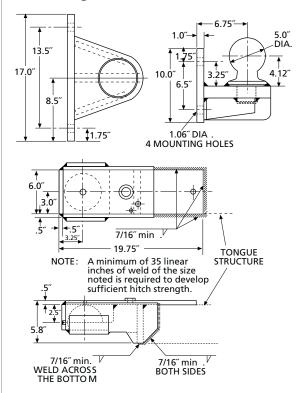
#### Capacities

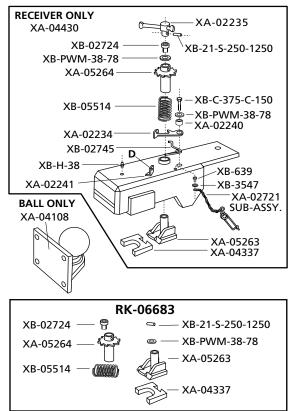
8,000 lbs. (3,630 kg) Maximum Vertical Load 80,000 lbs. (36,290 kg) Maximum Gross Trailer Weight

#### **Additional Information**

• For additional specification detail, refer to document number XL-PH254.

#### **Mounting Dimensions**







# COUPLINGS INDUSTRIAL / GSE



- Couplers
- E-Hitch
- Lunettes



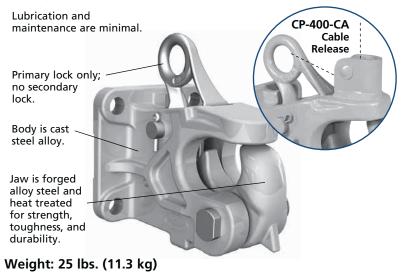


# CP-400-GSE and CP-400-CA

# Application

Strong rigid mount couplers that are designed for industrial material handling and ground support applications. The CP-400-GSE and CP-400-CA are useful where coupling is frequent, and quick and easy coupling release is desired. The latch automatically closes and locks upon coupling.

The CP400-CA features an integral roller which accommodates a cable release system to open the coupler from the driver's position.



## Capacities

7,500 lbs. (3,400 kg) Maximum Vertical Load 30,000 lbs. (13,610 kg) Maximum Drawbar Pull

**IMPORTANT:** There is no secondary lock mechanism. This coupler is not designed for overthe-road applications.

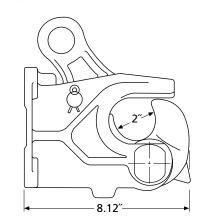
# **Drawbar Eye Dimensions**

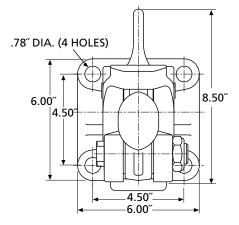
2.50" to 3" I.D. with 1.25" to 1.63" diameter section.

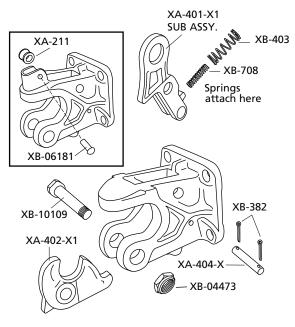
## **Additional Information**

• For more product specific mounting information and operating instructions, refer to SAF-HOLLAND document number XL-PH348 or XL-PH232.

# **Mounting Dimensions**







## Replacement Parts

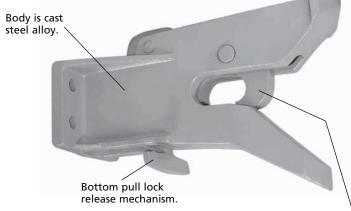


# XA-T-150-AF Bolt-On and CP-T-150-S02986 Weld-On

# Application

Automatic rigid mount coupler designed for a variety of industrial material handling applications. Useful in instances where coupling is frequent and quick coupling is desired. The latch automatically closes and locks upon coupling.

Available without pre-drilled mounting holes. Order CP-T-150-S02986.



Jaw remains open upon lock release and automatically closes and locks when drawbar is inserted.

Weight: 15 lbs. (6.8 kg)

# **Capacities for both Coupler and Coupler Ring**

50 lbs. (23 kg) Maximum Vertical Load 15,000 lbs. (6,800 kg) Maximum Drawbar Pull

**IMPORTANT:** There is no secondary lock mechanism. This coupler is not designed for over-theroad applications.

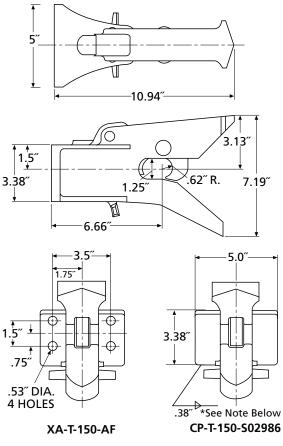
### **Drawbar Eye Dimensions**

Maximum 1" diameter cross-section.

## Additional Information

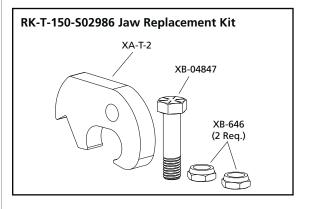
• For more product specific mounting information and operating instructions, refer to SAF-HOLLAND document number XL-PH235.

### **Mounting Dimensions**



NOTE: Maximum of 16.76 linear inches of .38" fillet weld required to develop rated capacity.

# **Replacement Parts**



# Coupler - Rigid Mount (Industrial / GSE)



# ен-3050 **ЕНіtch**



- 30,000 lb. (13,610 kg) or 50,000 lb. (22,680 kg) Maximum Drawbar Pull, depending on mounting fasteners
- 500 lb. (227 kg) Maximum Vertical Load
- NATO 3" (76mm) Drawbar Eye Compatible

#### **Drawbar Eye Dimensions**

 $2.375^{\prime\prime}$  (60mm) to  $3.0^{\prime\prime}$  (76mm) with maximum  $1.75^{\prime\prime}$  (44mm) diameter section.

# PATENT PENDING DESIGN

- High-strength, cast steel frame, pin and handle.
- Upper Pin Guard and an internally mounted spring helps protect the e-Hitch from impacts.
- The 2.125" (54mm) diameter steel pin minimizes towbar 'slop'. Pin wear is decreased due to it's larger surface area and heat-treating to increase hardness.
- Throat area features a negative slope to minimize towbar 'chucking' (bouncing).
- Corrosion resistant coatings on all components. A choice of yellow or white powder coat frame is available.
  - EH-3050-13 Safety Yellow
  - EH-3050-14 White
- Handle is interchangeable between rigid and fold-down settings. Simply remove the handle, turn 180°, and reinstall to provide the other setting.



For additional specification detail, refer to document XL-PH10399.

**IMPORTANT:** There is no secondary lock mechanism. This coupler is not designed for overthe-road applications.

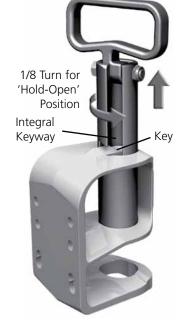
# INTERNALLY MOUNTED PIN SPRING AND INTEGRAL KEYWAY FOR HANDS-FREE HOLD OPEN PIN POSITION



Steel spring is mounted inside the robust pin to protect it from impact damage.

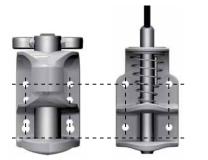
Keyway is designed into the pin, and the key is designed into the frame. This eliminates the need to 'hunt' for the keyway when opening and closing.

The integral keyway also includes a 'hold-open' position via a 1/8-turn of the handle.

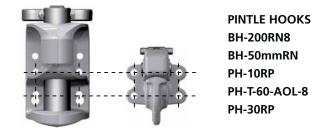




## "Flex-Mount" Bolt Pattern



E-HITCH EH-20 EH-40



EH-3050 bolt pattern is interchangeable with the above HOLLAND models.

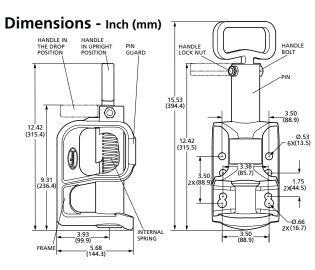


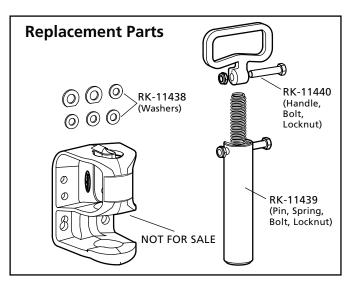
**VARIABLE FOUR (4) BOLT MOUNTING PATTERN** Use only Grade 8 bolts.

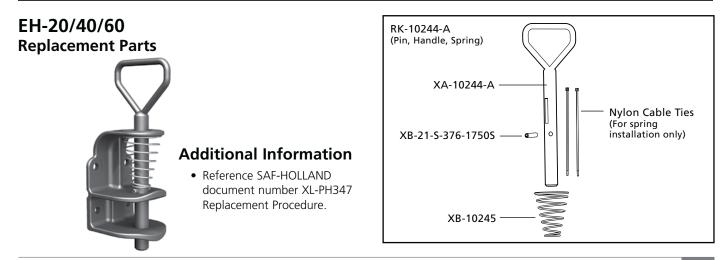
Two 1/2" bolts are required for all installations in either the top or middle rows.

Two bolts are required in the bottom row.

For 30,000 lb. (13,610 kg) MDBP installation, use upper slot sized for 1/2" bolts. For 50,000 lb. (22,680 kg) MDBP installation, use lower slot sized for 5/8" bolts.









# DB-010EJ1 and DB-020FK1

- Forged, one-piece steel alloy lunettes
- Non-hardened/non-painted for weldability
- Intended for industrial truck and GSE applications
- Tested in accordance with SAE J847

DB-010EJ1



Weld onto 2"x 4" (11 gauge) structural tubing

DB-020FK1



Forged steel universal weld-on lunette

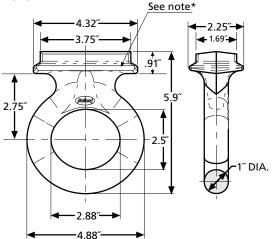
Rigid Tongu	ue Trailers			Hinged Tongue Trailers					
				500 lb. Maximum Vertical Load Weight			ight		
	Capacities	lb.	kg	lb.	kg	lb.	kg		
DB-010EJ1 2.88″ Eye	GTW VERTICAL	10,000 2,000	4,536 907	20,000 500	9,072 227	15	6.8		
<b>DB-020FK1</b> 3″ Eye	GTW VERTICAL	20,000 4,000	9,072 1,814	40,000 500	18,144 227	22	10		

### **Additional Information**

• For additional specifications, refer to document XL-DB124.

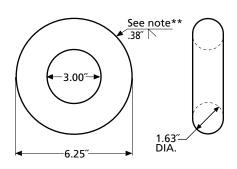
### **Mounting Dimensions**

#### DB-010EJ1



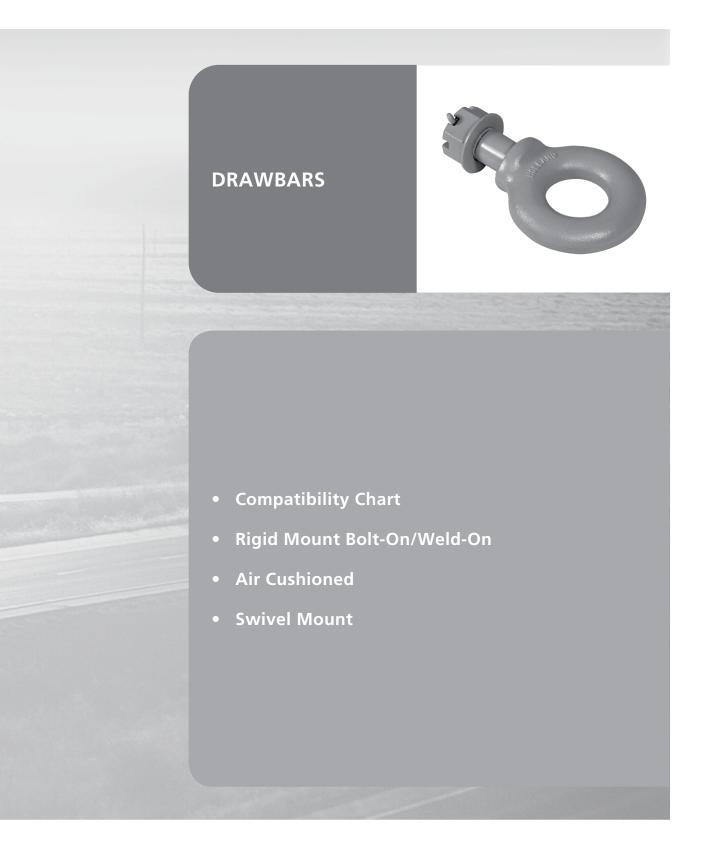
\*NOTE: A minimum of 12<sup>"</sup> linear inches of .38<sup>"</sup> weld on 2<sup>"</sup>x 4<sup>"</sup> (11 gauge) structural tubing required to obtain ratings.

#### DB-020FK1



\*\*NOTE: 8.5<sup>°</sup> of linear weld .38<sup>°</sup> bevel groove weld (3<sup>°</sup>x 1.25<sup>°</sup> bar used) required to obtain ratings.







# **Drawbar Compatibilty**



			NON- IND/GSE											
			R	R	R	R	R	R	R	R	R	R	R	1
DRAWBAR NUM	BER		DB-010EJ1	DB-020FK1	DB-1250-3	DB-1228-1	DB-1238	DB-030DQ1	DB-1235-1	DB-1235-3	DB-040DQ1	DB-1245-1	DB-1249-2H	DB-1249-49
Max Vertical Loa	d		2,000	4,000	3,000	4,000	4,500	6,000	7,000	7,000	8,000	8,000	9,000	9,000
GTW			10,000	20,000	15,000	20,000	22,000	30,000	35,000	35,000	40,000	40,000	45,000	45,000
GTW w/500 lbs. \	/ert	ical	20,000	40,000	50,000	60,000	70,000	38,000	90,000	90,000	60,000	90,000	85,000	85,000
Eye I.D. Diamete	r		2.5″	3″	2.5″	2.5″	3″	2.5″	3″	3″	2.5″	2.38″	3″	3″
PINTLE HOOK MO	DEL	MAX GT	W											
PH-10RP	R	10,000	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х
BH-200RN	R	20,000	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	X	Х
BH-50mmRN	R	20,000	X	Х	Х	Х	Х	Х	Х	Х	Х	Х	X	Х
PH-T-60-AOS-L-8	S	18,000	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х
PH-T-60-AOL-8	R	30,000	X	Х	Х	Х	Х	X	Х	Х	Х	X	X	Х
PH-30RP	R	30,000	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х
PH-30SA	S	30,000	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	X	Х
PH-30SB	S	30,000	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х
PH-300 / 300-R	R	72,000	X	Х	Х	Х	Х	Х	Х	Х	Х	Х	X	Х
PH-210	R	90,000	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х
PH-310	R	100,000	Х	Х	Х	Х	Х	X	Х	Х	Х	Х	X	Х
PH-400 / 400-H	R	100,000	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х
PH-410	R	100,000	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х
PH-419	R	100,000	0	Х	0	0	Х	0	Х	Х	0	0	Х	Х
PH-550	R	100,000	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х
PH-760	S	49,000	0	0	0	0	Х	0	Х	Х	0	0	Х	Х
PH-775	S	100,000	0	0	0	0	Х	0	Х	Х	0	0	Х	X
COUPLER MODE	L													
СР-400-Н	R	30,000	Х	Х	Х	Х	Х	X	Х	Х	Х	Х	Х	Х
CP-360	R	52,000	Х	Х	Х	Х	Х	Х	Х	Х	Х	0	Х	Х
CP-730	S	100,000	0	0	0	0	0	0	Х	Х	0	0	0	Х
CP-740	R	100,000	0	0	0	0	0	0	Х	Х	0	0	0	Х
PH-990ST71	S	100,000	0	0	0	0	0	0	Х	Х	0	0	0	X
PH-995SH71	S	100,000	0	0	0	0	0	0	Х	Х	0	0	0	Х
INDUSTRIAL / AV	/IAT	ION GRO	UND SUP	PORT EQ	JIPMENT	(Non-Roa	ad)							
CP-400-GSE / CA	R	30,000	X	Х	Х	Х	Х	Х	Х	Х	Х	Х	х	Х
EH-3050	R	50,000	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х

R = RIGID X = COMPATIBLE

S = SWIVEL O = NOT COMPATIBLE

This information reflects only the dimensional compatibility between HOLLAND lunettes (eyes) and HOLLAND pintle hook horns, coupler jaws and clevis pins.

This information is not an assurance of operational or application compatibility between coupling products. Compatibility of the complete 'coupling system' requires additional information.

Please go to the Reference Sections of this catalog (page 59) for helpful information, including:

- Safety Information
- Coupling System Selection
- Operating Conditions
- Mounting Information





	S	S	R	S	S				R	R	R	R
DB-045BS1	DB-045BW1	DB-610-30	DB-060FQ1	DB-1407-S	DB-1407-SE	DB-1407-L-1	DB-1407-S-1	DB-1407-SE-1	DB-1400	DB-1400AC	DB-1422	DB-100FQ1
9,000	9,000	9,000	15,000	500	500	16,000	16,000	16,000	18,000	18,000	18,000	20,000
45,000	45,000	45,000	60,000	40,000	34,000	85,000	85,000	85,000	90,000	90,000	90,000	100,000
85,000	85,000	85,000	90,000	40,000	34,000	120,000	120,000	120,000	120,000	120,000	120,000	125,000
2.38″	2.38″	3″	3″	2.38″	2.38″	2.38″	2.38″	2.38″	2.38″	2.38″	2.38″	3″
PINTLE HO	OK MODEL	MAX GTV	v									
Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х
Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х
Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х
Х	0	0	Х	0	0	Х	Х	Х	Х	Х	Х	Х
Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х
Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х
Х	0	0	Х	0	0	Х	Х	Х	Х	Х	Х	Х
Х	0	0	Х	0	0	Х	Х	Х	Х	Х	Х	Х
Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х
Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х
Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х
Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х
Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х
0	0	Х	Х	0	0	0	0	0	0	0	0	Х
Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х
0	0	0	Х	0	0	0	0	0	0	0	0	Х
0	0	0	Х	0	0	0	0	0	0	0	0	X
COUPLER	MODEL											
Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х
0	0	Х	Х	0	0	0	0	0	0	0	0	Х
0	0	Х	0	0	0	0	0	0	0	0	0	0
0	0	Х	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0
INDUSTRI	AL / AVIAT	ION GROU	ND SUPPOI	RT EQUIPM	ENT (Non-	Road)						
х	Х	Х	х	х	х	Х	х	х	Х	Х	х	Х
X	X	X	X	X	X	X	X	X	X	X	X	X
	11											

R = RIGID X = COMPATIBLE

S = SWIVEL O = NOT COMPATIBLE

This information reflects only the dimensional compatibility between HOLLAND lunettes (eyes) and HOLLAND pintle hook horns, coupler jaws and clevis pins.

This information is not an assurance of operational or application compatibility between coupling products. Compatibility of the complete 'coupling system' requires additional information.

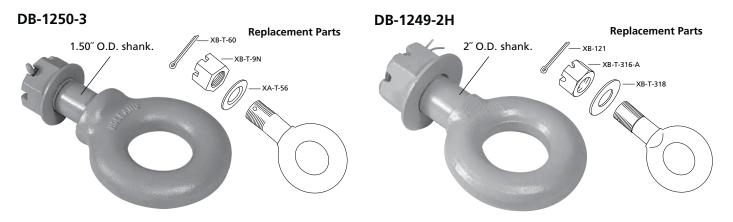
Please go to the Reference Sections of this catalog (page 59) for helpful information, including:

- Safety Information
- Coupling System Selection
- Operating Conditions
- Mounting Information



# DB-1250-3 and DB-1249-2H

- Forged, one-piece steel alloy drawbar
- Heat treated for strength
- I.D. of eye is induction hardened for wear resistance
- Tested in accordance with SAE J847



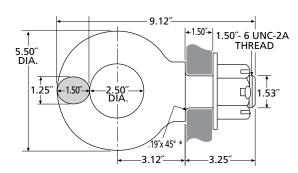
Rigid Tongu	ie Trailers			Hinged Tongue Trailers					
				500 lb. Max. Vertical Load Wei			eight		
	Capacities	lb.	kg	lb.	kg	lb.	kg		
<b>DB-1250-3</b> 2.5″ Eye	GTW VERTICAL	15,000 3,000	6,804 1,361	50,000 500	22,680 227	9	4		
<b>DB-1249-2H</b> 3″ Eye	GTW VERTICAL	45,000 9,000	20,412 4,082	85,000 500	38,556 227	14	6.4		

### **Additional Information**

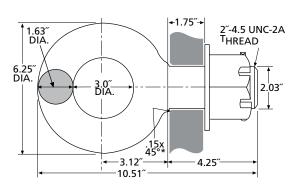
- Not recommended for swivel mount applications.
- When mounted, high clamp force is required to provide rated capacities.
- For off-road applications, reduce published capacities by 25% and use with swivel-mount coupling.
- For additional specifications, refer to documents XL-DB104 and XL-DB103.

### **Mounting Dimensions**

DB-1250-3



### DB-1249-2H



\*NOTE: The mounting surface must have an adequate chamfer, as shown above, so that the drawbar mounts flush with the mounting surface.



# DB-040DQ1, DB-060FQ1 and DB-100FQ1

- Forged, one-piece steel alloy drawbar
- Heat treated for strength
- Tested in accordance with SAE J847.

#### DB-040DQ1



DB-060FQ1 DB-100FQ1



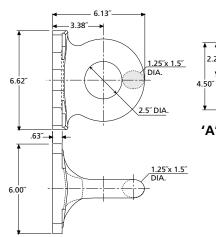
Rigid Tongu	e Trailers			Hinged Tongue Trailers						
				500 lb. Max.	Vertical Load	Dimension	Grade 8	Weight		
	Capacities	lb.	kg	lb.	kg	'A'	Fastener Size		kg	
<b>DB-040DQ1</b> 2.5″ Eye	GTW VERTICAL	40,000 8,000	18,144 3,629	60,000 500	27,216 227	0.656″	5/8″	14	6.4	
<b>DB-060FQ1</b> 3″ Eye	GTW VERTICAL	60,000 15,000	27,216 6,804	90,000 500	40,824 227	0.780″	3/4″	19	8.6	
<b>DB-100FQ1</b> 3 <sup>~</sup> Eye	GTW VERTICAL	100,000 20,000	45,360 9,072	125,000 500	56,700 227	0.910	7/8″	19	8.6	

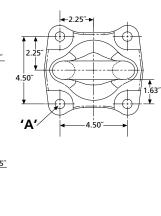
## **Additional Information**

- IMPORTANT DO NOT WELD Not designed for welded installation.
- Use only Grade 8 bolts and Grade C locknuts
- For off-road applications, reduce published capacities by 25% and use with swivel-mount coupling.
- For additional specifications, refer to documents XL-DB126 and XL-DB125.

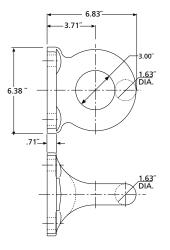
# **Mounting Dimensions**

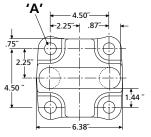
#### DB-040DQ1





### DB-060FQ1 & DB100FQ1

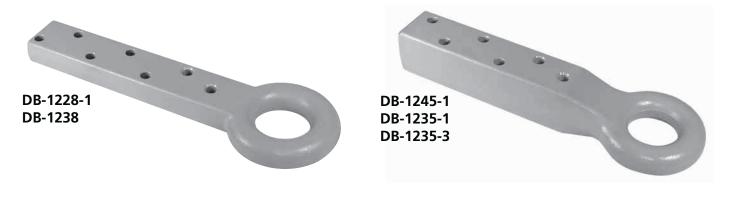






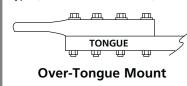
# DB-1228-1, DB-1238, DB-1245-1, DB-1235-1 & DB-1235-3

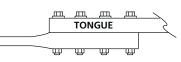
- Forged, one-piece steel alloy drawbars
- Heat treated for strength
- I.D. of eye is induction hardened for wear resistance.
- Tested in accordance with SAE J847.



### **Rigid Tongue Trailers**

SAF-HOLLAND testing confirms that the type of drawbar mount for a rigid tongue trailer can affect the vertical load capacity of the tongue/drawbar assembly due to the bolt loads associated with the particular mounting type (reference chart below).





**Under-Tongue Mount** Vertical rating may be increased by 50% from over-tongue mount.

#### **Hinged Tongue Trailers**

When used in hinged tongue trailer applications where maximum vertical load cannot exceed 500 lbs. (227 kg).

Hinged tongue capacities are not affected by over/under-tongue mounting.

					-					
Rigid Tongue	e Trailers						Hinged Tongue Trailers			
	Capacities	lb.	kg		lb.	kg		lb.	kg	
<b>DB-1228-1</b>	GTW	20,000	9,072	GTW	20,000	9,072	GTW	60,000	27,216	
2.5″ ID Eye	VERTICAL	4,000	1,814	VERTICAL	6,000	2,722	VERTICAL	500	227	
<b>DB-1238</b>	GTW	22,000	9,979	GTW	22,000	9,979	GTW	70,000	31,752	
3″ ID Eye	VERTICAL	4,500	2,041	VERTICAL	6,750	3,062	VERTICAL	500	227	
<b>DB-1245-1</b>	GTW	40,000	18,144	GTW	40,000	18,144	GTW	90,000	40,824	
2.38″ ID Eye	VERTICAL	8,000	3,629	VERTICAL	12,000	5,433	VERTICAL	500	227	
<b>DB-1235-3</b>	GTW	35,000	15,876	GTW	35,000	15,875	GTW	90,000	40,824	
3″ ID Eye	VERTICAL	7,000	3,175	VERTICAL	10,500	4,763	VERTICAL	500	227	
<b>DB-1235-1</b>	GTW	35,000	15,876	GTW	35,000	15,876	GTW	90,000	40,824	
3″ ID Eye	VERTICAL	7,000	3,175	VERTICAL	10,500	4,763	VERTICAL	500	227	

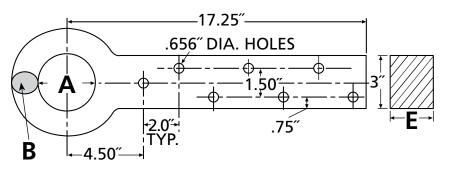
#### Additional Information

- SAF-HOLLAND recommends that all bolt holes be used.
- Use only Grade 8 bolts and Grade C locknuts.
- **IMPORTANT DO NOT WELD** Not designed for welded installation.
- For off-road applications, reduce published capacities by 25% and use with swivel-mount coupling.
- For additional specifications, refer to document XL-DB101.



# **Mounting Dimensions**

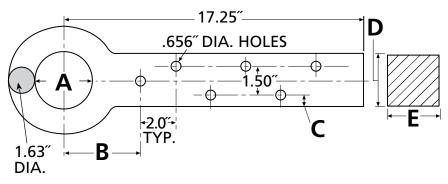
DB-1228-1 **DB-1238** 



		Dimensions		Weight		
	Α	В	E	lb.	kg	
DB-1228-1	2.50″	1.25″ x 1.50″ Oval	1.25	20	9.1	
DB-1238	3.0″	1.63″ Round	1.62″	26	11.8	

## **Mounting Dimensions**

DB-1245-1 DB-1235-1 DB-1235-3

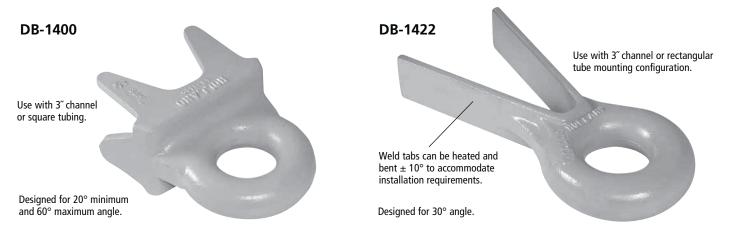


		Weight					
	Α	В	С	D	E	lb.	kg
DB-1245-1	2.38″	6.0″	0.75″	3.0″	3.0″	41	18.6
DB-1235-3	3.0″	6.5″	0.75″	3.0″	3.0″	41	18.6
DB-1235-1	3.0″	6.0″	0.82″	3.12″	3.12″	42	19.1



# DB-1400 and DB-1422

- Forged, one-piece steel alloy drawbar
- I.D. of eye is induction hardened for wear resistance
- Tested in accordance with SAE J847

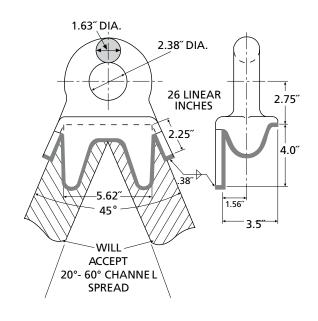


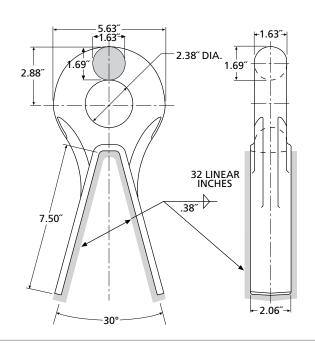
<b>Rigid Tong</b>	ue Trailers			Hinged Tongue Trailers					
				500 lb. Max. Vertical Load Weig			ight		
	Capacities	lb.	kg	lb.	kg	lb.	kg		
<b>DB-1400</b> 2.38″ Eye	GTW VERTICAL	90,000 18,000	40,824 8,165	120,000 500	54,432 227	14	6.4		
<b>DB-1422</b> 2.38″ Eye	GTW VERTICAL	90,000 18,000	40,824 8,165	120,000 500	54,432 227	11	5		

### **Additional Information**

- For off-road applications, reduce the published capacities by 25% and use with a swivel-mount coupling.
- For additional specifications, refer to documents XL-DB113 and XL-DB116.

## **Mounting Dimensions**

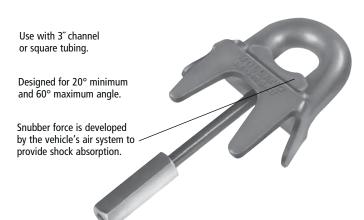




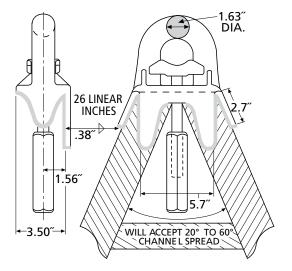


## DB-1400AC Series: DB-1400AC-1, DB-1400AC-2, DB-1400AC-3, DB-1400AC-4

- Forged, one-piece steel alloy drawbar
- I.D. of eye is induction hardened for wear resistance
- Tested in accordance with SAE J847



### **Mounting Dimensions**

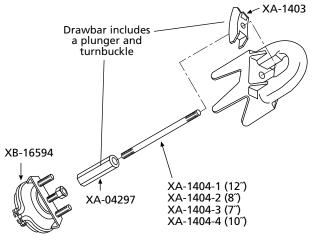


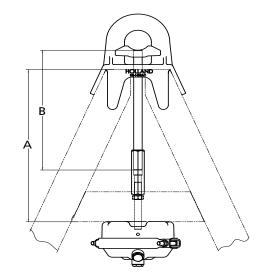
Rigid Tongu	ue Trailers			Hinged Tongue Trailers				
				500 lb. Max.	Vertical Load	We	ight	
	Capacities	lb.	kg	lb.	kg	lb.	kg	
<b>DB-1400AC</b> 2.38″ Eye	GTW VERTICAL	90,000 18,000	40,824 8,165	120,000 500	54,432 227	14	6.4	

## Additional Information

- For off-road applications, reduce the published capacities by 25% and use with a swivel-mount coupling.
- For additional specifications, refer to document XL-DB114.

## **Replacement Parts**





**A** = Distance required to mount air chamber  $\mathbf{B} = \text{Rod length}$ 

MODEL*	DIM "A"	DIM "B"
DB-1400AC-1	15.25″	12.00″
DB-1400AC-2	11.25″	8.00″
DB-1400AC-3	10.25″	7.00″
DB-1400AC-4	13.25″	10.00″

\*Air cylinder is NOT included; order separately.



# DB-1407

- Forged, one-piece steel alloy drawbar
- Heat treated for strength
- I.D. of eye is induction hardened for wear resistance
- Tested in accordance with SAE J847

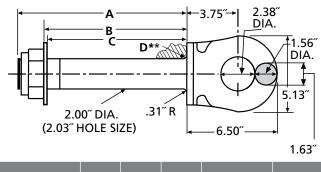


Rigid Tongue Trailers						
acities	lb.	kg		lb.	kg	
GTW	85,000 16,000	38,556 7 258	GTW VERTICAL	120,000 500	54,432 227	
		GTW 85,000	acities lb. kg GTW 85,000 38,556	kg         500           acities         lb.         kg           GTW         85,000         38,556         GTW	Sol lb. Max. Vertical L           acities         lb.         kg         lb.           GTW         85,000         38,556         GTW         120,000	

#### **Additional Information**

- For off-road applications, reduce the published capacities by 25% and use with a rigid-mount coupling.
- For additional specifications, refer to document XL-DB117.

## **Mounting Dimensions**

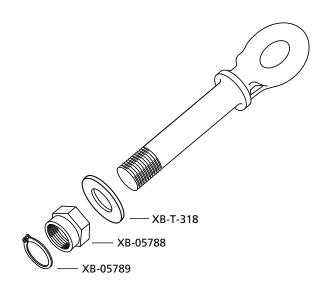


MODEL NO.	A	В	С	**CHAMFER D	WE Ib.	IGHT kg
DB-1407-S-1*	11.62″	9.6″	9.5″	.38″ x 45°	24	10.9
DB-1407-L-1*	12.25″	10.3″	10.1″	.38″ x 45°	25	11.3
DB-1407-SE-1*	13.13″	11.1″	11.0″	.38″ x 45°	26	11.8

\* Includes drawbar washer, nut and retaining ring.

\*\* The mounting surface must have adequate chamfer, as shown above, so that the drawbar mounts flush with the mounting surface.

### **Replacement Parts**





# DB-1407-SE and DB-1407-S Weld-On Assemblies

- Steel housing features replaceable rubber bushings
- Forged, one-piece steel alloy drawbar
- Heat treated for strength
- I.D. of eye is induction hardened for wear resistance
- Tested in accordance with SAE J847



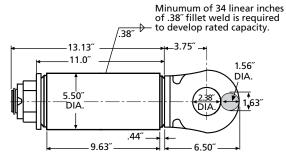
Hinged Tongue Trailers							
		500 lb. Max.	Vertical Load	Weight			
	Capacities	lb.	kg	lb.	kg		
<b>DB-1407-SE</b> 2.38″ Eye	GTW VERTICAL	34,000 500	15,422 227	50	22.6		
<b>DB-1407-S</b> 2.38″ Eye	GTW VERTICAL	40,000 500	18,144 227	45	20.4		

### **Additional Information**

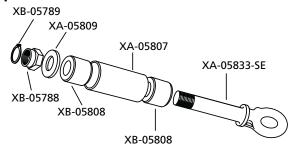
- Rubber cushioned housings are recommended for hinged tongue trailer applications only.
- For off-road applications, reduce the published capacities by 25% and use with a swivel-mount coupling.
- For additional specifications, refer to documents XL-DB119 and 118.

### **Mounting Dimensions**

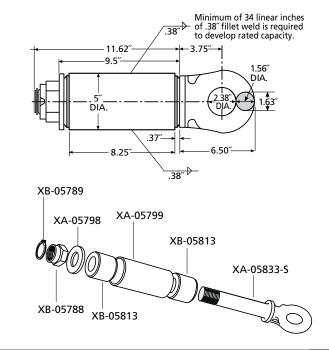
#### DB-1407-SE



#### **Replacement Parts**



#### DB-1407-S





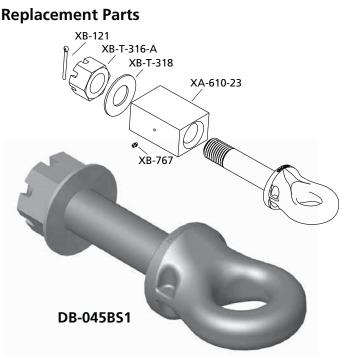
# DB-045BW1 Weld-On Assembly

- Steel block housing features close dimensional tolerances
- Features grease zerk for easy lubrication

# DB-045BS1 Bolt-On Drawbar

- Forged, one-piece steel alloy drawbar
- Heat treated for strength
- I.D. of eye is induction hardened for wear resistance
- Tested in accordance with SAE J847



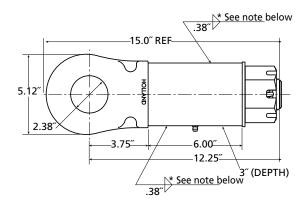


	Rigid Tongue Trailers				l Tongue	ue Trailers			
				500 lb. Max	. Vert. Load	Weight			
	Capacities	lb.	kg	lb.	kg	lb.	kg		
DB-045BW1 Assembly 2.38″ Eye	GTW VERTICAL	45,000 9,000	20,412 4,082	85,000 500	38,556 227	38	17.2		
DB-045BS1 Drawbar 2.38″ Eye	GTW VERTICAL	45,000 9,000	20,412 4,082	85,000 500	38,556 227	23	10.4		

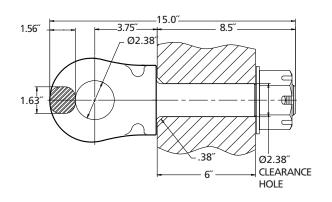
### **Additional Information**

- For off-road applications, reduce the published capacities by 25% and use with a rigid-mount coupling.
- For additional specifications, refer to document XL-DB131 or XL-DB132.

### **Mounting Dimensions**



**\*NOTE:** Minimum of 24 linear inches of .38<sup>"</sup> fillet weld required to develop rated capacity.



NOTE: The mounting surface must have an adequate chamfer, as shown above, so that the drawbar mounts flush with the mounting surface.



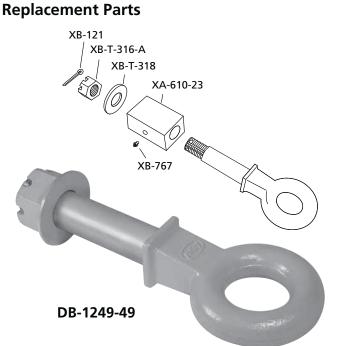
# DB-610-30 Weld-On Assembly

- Steel block housing features close dimensional tolerances
- Features grease zerk for easy lubrication

# DB-1249-49 Bolt-On Drawbar

- Forged, one-piece steel alloy drawbar •
- Heat treated for strength ٠
- I.D. of eye is induction hardened for wear resistance •
- Tested in accordance with SAE J847



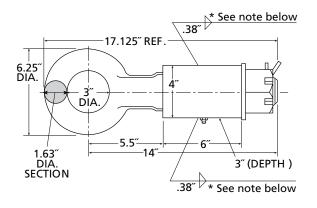


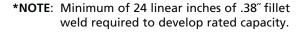
Rigid Tongue Trailers				Hinged	ed Tongue Trailers			
				500 lb. Max	. Vert. Load	Wei	ight	
	Capacities	lb.	kg	lb.	kg	lb.	kg	
DB-610-30 Assembly 3″ Eye	GTW VERTICAL	45,000 9,000	20,412 4,082	85,000 500	38,556 227	36	16.3	
<b>DB-1249-49 Drawbar</b> 3 <sup>~~</sup> Eye	GTW VERTICAL	45,000 9,000	20,412 4,082	85,000 500	38,556 227	24	10.9	

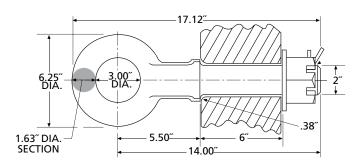
#### **Additional Information**

- For off-road applications, reduce the published capacities by 25% and use with a rigid-mount coupling.
- For additional specifications, refer to document XL-DB109 or XL-DB106.

### **Mounting Dimensions**



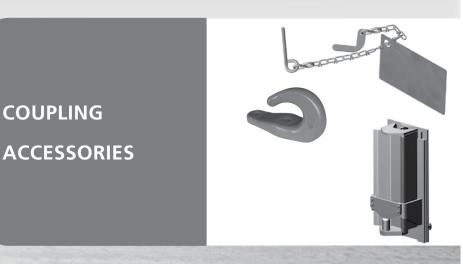




NOTE: The mounting surface must have an adequate chamfer, as shown above, so that the drawbar mounts flush with the mounting surface.







- Drawbar Guides
- Pintle Hook Wear Gages
- Plunger Adjustment Gages
- Tow Hooks
- Dolly Master



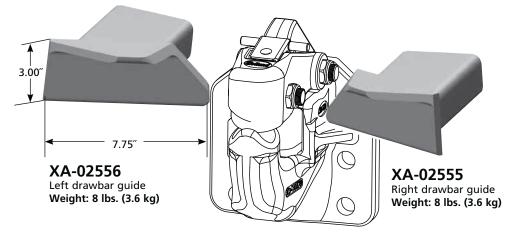


# Drawbar Guides: XA-02556 (left) and XA-02555 (right)

# Application

Used in conjunction with PH-210, PH-300(R), PH-310, PH-400(H), PH-410, PH-419 and PH-550 Series pintle hooks to simplify the coupling procedure by guiding the drawbar into the pintle hook throat.

For installation instructions, refer to document number XL-PH353.



# **Pintle Hook Wear Gages**



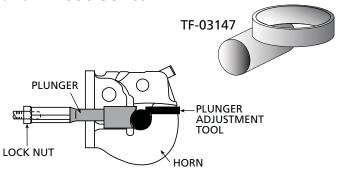
PINTLE HOOK	WEAR GAGE		
PH-550	TF-10520		
PH-200, PH-210, PH-300, PH-400, PH-400-H, PH-310 & PH-410	TF-10612 (shown)		
PH-760 and PH-775	TF-10521		
PH-T-60-AOL-8, PH-T-60-AOS-L-8, PH-30, PH-35	TF-10522		
PH-T-90-A and PH-T-126-A	TF-10523		
PH-30RP, PH-30SA, PH-30SB	TF-10960		
PH-10RP with Frame Numbers XD-11047 or XE-10634	TF-10960		
PH-10RP with Frame Number XD-11047-10	TF-11402		

# **Plunger Adjustment Gages**

# Application

The plunger adjustment gage establishes proper air cylinder plunger adjustment.

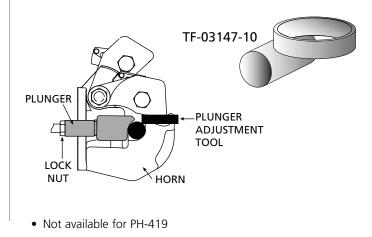
# PH-200, PH-300, PH-400, PH-400-H and PH-550 Series



## **Product Information**

• For more product specific mounting information and operating instructions, refer to document number XL-PH304.

# PH-210, PH-310 and PH-410 Series







# TH-10050-3 and TH-10050-5

# Application

Super strong and tough, these tow hooks are designed to be used in pairs for a tow cable or chain attachment. The tow hooks are designed for emergency towing only. Forges steel alloy tow hooks are heat treated and angled configuration to be used in pairs.



TH-10050-3L, -3R or -3B for boxed pair Use (2) 3/4" Grade 8 bolts

TH-10050-5L, -5R or -5B for boxed pair Use (2) 20mm Grade 8 bolts

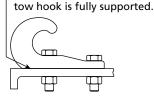
Full Face\* Mount rating: 45,000 lbs. (20,410 kg) Full Cantilevered\*\* rating: 33,000 lbs. (14,970 kg)

#### Weight: 4.6 lbs. (2.1 kg) each

#### \*Full Face Mount The mounting face of the

**\*\*Cantilevered Mount** The mounting surface of the tow hook

extends beyond the mounting structure.



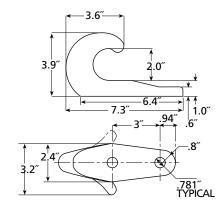
Max. 1

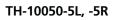
## **Additional Information**

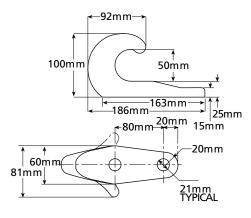
• For more product specific mounting information and operating instructions, refer to document number XL-PH-310.

# **Mounting Dimensions**

#### TH-10050-3L, -3R







# Drawbar Hinge and Frame Brackets: XD-5275, XD-5315, RK-1024, XB-1020

## XD-5275

#### Description

Drawbar front bracket. Replaces Fruehauf part FLA-005275

Capacities 200 lbs. Maximum Vertical Load 53,000 lbs. Maximum Gross Trailer Weight

# XD-5315

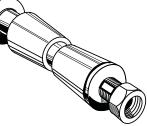
Description Drawbar hinge. Replaces Fruehauf part FCA-005315

Capacities 200 lbs. Maximum Vertical Load 56,000 lbs. Maximum Gross Trailer Weight



**RK-1024** 





# XB-1020

Description Bushing. Replaces Fruehauf part UXA-00000

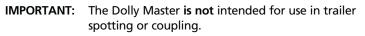


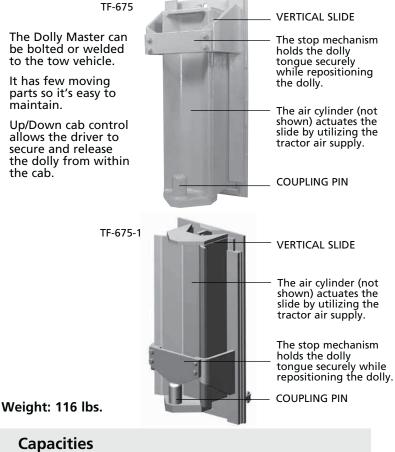


# TF-675 and TF-675-1 Dolly Master™

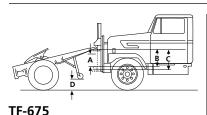
# Application

The Dolly Master<sup>™</sup> provides a low-cost, efficient way to **position converter dollies in the yard**. The Dolly Master is an air-operated, truckmounted steel frame assembly that includes a vertical slide with guide ramps to which a 1.75″ diameter coupling pin is attached. A double-acting air cylinder, which uses the truck's air supply, raises and lowers the slide. A control valve is operated from within the cab.



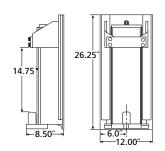


390 lbs. (177 kg) Maximum Vertical Load 15,000 lbs. (6,800 kg) Maximum Gross Trailer Weight

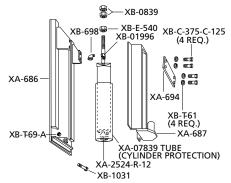


- A Maximum drawbar elevation range: 9"
- **B** 12" usable stroke
- **C** 14.75<sup>*′′*</sup> total stroke
- **D** Provide adequate clearance
- TF-675-1
  - A Maximum drawbar elevation range: 9"
  - **B** 12" usable stroke
  - C 14.75" total stroke
  - **D** Provide adequate clearance

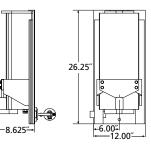
# **TF-675 Mounting Dimensions**



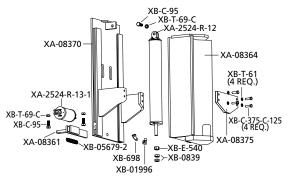
#### **Replacements Parts**



# **TF-675-1 Mounting Dimensions**



#### **Replacements Parts**



# **Additional Information**

• For more product specific mounting information and operating instructions, refer to document number XL-PH-240-01.



# REFERENCE SECTIONS

- Safety Information
- Warranty
- Coupling System Selection
- Operating Conditions
- Cushioning Systems
- Mounting Information
- Glossary





# Introduction

In the following section of this catalog, you will notice the terms "IMPORTANT" and "WARNING" followed by important product information. Those terms are described as follows:

**IMPORTANT:** Included additional information that if not followed could lead to hindered product performance.

Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.

# **General Safety Information**

In the safety information below, you will notice the term '**WARNING**' which indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.

- Always read the Product Specification Sheet or Owner's Manual associated with each product before installation or use of the product. These manuals are shipped with each product or can be obtained from the SAF-HOLLAND website at www.safholland.us.
- 2. Do not modify or add to these products.
- 3. Never exceed the manufacturer's rated capacities of a coupling device, including Maximum Gross Trailer Weight and Maximum Vertical Load.
- 4. For over-the-road applications, SAF-HOLLAND recommends that a coupling device be equipped with both a primary and secondary lock.
- 5. For off road applications or vehicle operation over rough terrain, use a 1) swivel-mount coupling device with a rigid-mount drawbar, or 2) a rigid-mount coupling device with a swivel-mount drawbar. Never use a swivel-mount coupling device with a swivelmount drawbar.
- For rigid tongue trailers towed with ball, pintle hook or coupler style coupling devices, most hitch and trailer manufacturers recommend a vertical (tongue) load of 10% - 15% of the gross trailer weight (GTW). Do not tow a trailer that has a negative vertical load.

**IMPORTANT:** Do not weld on these products, except as specified by SAF-HOLLAND for welded installation.

WARNING Weld repairs to repair a broken part or to build-up a worn surface are strictly forbidden. Such weld repairs could locally alter the chemistry and heat treatment of the metal, alter the strength of the coupling device, or create a stress concentration that could result in structural failure resulting in death or serious injury.

- Prior to use, always inspect a coupling device for excessive wear, cracks, bent or deformed components, secure mounting, and damaged or missing parts. Immediately inspect a coupling device which has been subjected to overload or binding due to jackknifing or excessive articulation.

Failure to inspect a coupling device prior to use could result in vehicle and trailer separation which, if not avoided, could result in death or serious injury.

- 9. Never strike any part of a coupling product with a hammer or other tool as parts could break.
- 10. Mounting bolts must be long enough to provide a minimum of two (2) full threads beyond the end of the nut. Always use ASTM Grade 8 bolts with ASTM Grade C lock nuts with hardened steel washers for installation and mounting. Torque to manufacturer's specifications and do not over-torque.
- **EVARNING** Failure to use a long enough bolt or proper fastener type for mounting could result in vehicle and trailer separation which, if not avoided, could result in death or serious injury.
- 11. Verify that the drawbar size is compatible with the coupling device of the tow vehicle. Refer to the 'Drawbar Compatibility Chart' located in this catalog.
- 12. Verify that a pintle hook latch closes and locks completely prior to use.
- **A**WARNING
- Failure to correctly close and lock a pintle hook latch can result in vehicle and trailer separation which, if not avoided, could result in death or serious injury.
- 13. Check the pintle hook latch gap, which is the space between a closed latch and the top of the pintle hook horn. If the latch gap is 0.38" (9.5mm) or larger, do not use the pintle hook.
- 14. Do not over-articulate a coupling connection by jackknifing or binding during vehicle operations.



Failure to avoid over-articulation of a coupling connection due to jackknifing or binding could result in failure of the coupling device(s) which, if not avoided, could result in death or serious injury.

- 15. Do not apply grease or other lubricants to the hook of the coupling device or drawbar eye which may trap abrasive sand and dirt which can accelerate wear in the coupling connection. Additionally, grease or other lubricants can hide cracks or damage present in coupling components.
- 16. Follow inspection and maintenance guidelines listed in the Product Specification Sheet or Owner's Manual available from the coupling manufacturer.

# **General Safety Information**



SAF-HOLLAND Group

17. Always use SAF-HOLLAND Original Parts for repair.

#### 

Installation and use of non original SAF-HOLLAND parts could result in failure of the coupling device(s) which, if not avoided, could result in death or serious injury.

SAF-HOLLAND recommends that trailer and dolly manufacturers, distributors, and users be familiar with applicable national, state and local regulations governing coupling systems and safety devices such as safety chains.

Within the United States, the following is a partial list of sources for regulations and information pertaining to trailer towing:

- National Highway Traffic Safety Administration (NHTSA) Federal Motor Carrier Safety Standards and Regulations
- National Association of Trailer Manufacturers (NATM)
- Trailer Safety Industry Coalition (TSIC)
- Society of Automotive Engineers (SAE) Design and Test Standards
- American Trucking Association (ATA) Technology & Maintenance Council (TMC) Recommended Practices
- Truck Trailer Manufacturers Association (TTMA)

Recommended coupling and uncoupling procedures are also available from several of the above listed sources.

# Warranty

Products in this catalog are covered by SAF-HOLLAND's Commercial Warranty for Coupling Products. For North America, this is a two-year parts and labor warranty. For other countries or regions, refer to the appropriate coupling products warranty available on our website.



# **Coupling System Selection**

#### **Gross Trailer Weight (GTW)**

GTW is the weight of an empty trailer plus the weight of its maximum payload. This is shown as Gross Vehicle Weight Rating (GVWR) as specified by the trailer manufacturer and is shown on the manufacturer's identification label located on the trailer. If the label is missing or unreadable, contact the trailer manufacturer for GVWR information.

Always use the GVWR as supplied by the trailer manufacturer as the 'minimum' gross trailer weight that the coupling system is to be selected for.

If various size trailers will be towed, the trailer with the largest GVWR must be used to determine the capacity requirements of the coupling device.

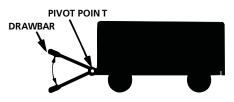
If a tow vehicle will pull multiple trailers at the same time, as with doubles, triples and road trains, the sum of the GVWRs for all towed trailers must be used to determine the capacity requirements of the coupling device.

#### **Maximum Vertical Load**

Vertical load is the upward force exerted on the drawbar eye of the trailer and the downward force exerted on the coupling device of the tow vehicle.

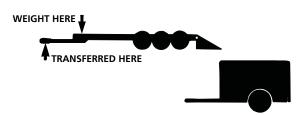
#### **Hinged Tongue Trailer**

The tongue is hinged to the trailer so that the tongue will not transfer the vertical weight of the trailer or payload to the coupling devices. The vertical load imposed on a coupling device by a hinged tongue trailer is approximately one-half of the weight of the hinged tongue/drawbar assembly only. Where vertical load on the coupling device is limited due to a hinged tongue, the maximum gross trailer weight rating for the drawbar/eye may be increased (see drawbar product pages for specific ratings).



#### **Rigid Tongue Trailer**

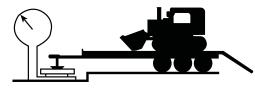
The tongue and trailer form a single rigid unit so that the vertical load measured at the drawbar eye includes the weight of the trailer and its payload. The vertical load is generally recommended to be a minimum of 10% - 15% of the maximum gross trailer weight.



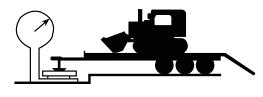
The type of load, density of the load, and placement of the load in relation to the trailer axles will have a significant effect on the vertical load at the trailer tongue. Excessive vertical loads, approaching 20% of gross trailer weight, can result in accelerated wear and over-loading of the coupling devices.

#### **Payload Changes Vertical Load**

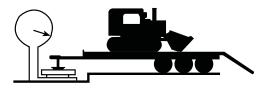
#### 1,000 POUNDS



4,000 POUNDS



#### 8,000 POUNDS



#### **Drawbar Compatibility**

The size of the drawbar eye (lunette) must be compatible with the coupling device of the tow vehicle. This includes the inside diameter (I.D.) of the eye and the cross-section dimension(s) of the eye. Proper eye selection will allow for adequate clearance between the eye and it's mating component to help prevent binding between coupling components. If a trailer is to be pulled by more than one tow vehicle, compatibility should be checked with the coupling devices of each tow vehicle.

#### **Over-The-Road Locking Systems**

SAF-HOLLAND recommends that all couplers and pintle hooks used in over-the-road applications be equipped with both a primary lock and secondary lock. Holland FastLatch™ incorporates both the primary and secondary locks into a single integrated latch system.





# **Operating Conditions**

## **Off-Road / Rough Terrain Applications**

#### **Reduction in Rated Capacities**

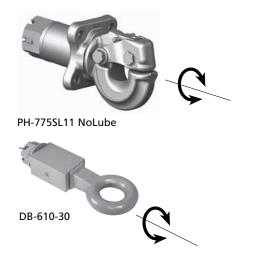
For off-road and rough terrain applications, the rated capacities (MGTW and Maximum Vertical Load) of the coupling devices for both the tow and towed vehicles should be reduced by a minimum of 25% to accommodate the increase in dynamic loading.

Example – A pintle hook rated at 100,000 lbs. (45,360 kg) MGTW and 20,000 lbs. (9,070 kg) maximum vertical load would, for off-road applications, be rated at 75,000 lbs. (34,020 kg) MGTW and 15,000 lbs. (6,800 kg) Maximum Vertical Load.

#### Articulation

Maximizing the range of articulation between the drawbar eye of the trailer and the coupling device of the tow vehicle is critical for good off-road performance. Holland pintle hooks are designed for maximum articulation with Holland drawbars. Other considerations include:

- A swivel-mount coupler/pintle hook or swivel-mount drawbar can further enhance articulation in offroad applications. The swivel-mount feature provides rotation to help prevent binding between the drawbar eye, coupler or pintle hook. Note however that you should never use a swivel-mount coupler/pintle hook with a swivel-mount drawbar. The two swivel-mount components could lead to over-rotation of the coupling device.
- It is important to coordinate the size of the drawbar eve with the mating component of the coupler or pintle hook. Proper sizing will allow for optimum articulation of the coupling system when driving over uneven terrain. Reference Drawbar Compatibility Chart on pages 42 - 43 for assistance in the selection process.



# **Cushioning Systems**

Holland cushioning (shock absorption) systems include:

#### **Rubber Mount**

Absorbs shock loads from hard coupling, vehicle launch and braking (reference Holland products PH-990. DB-1407-S, and DB-1407-SE).



**Steel Spring** 

Absorbs shock loads during vehicle launch and acceleration (reference Holland products PH-30SA and PH-30SB).



**Pneumatic Snubber** 

For vehicles equipped with air systems, a snubber with force supplied by an air service chamber helps to minimize 'free play' or 'slack' between the drawbar eye and coupling device as well as absorbing shock loads during deceleration and braking (Reference Holland products PH-210, PH-300(R), PH-310, PH-400(H), PH-410, PH-419, PH-550, and DB-1400AC).





PH-210

DB-1400AC



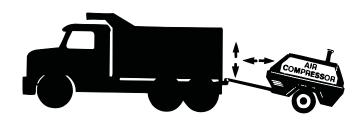
# **Mounting Information**

#### **Mounting Height**

When mounting a coupling device, a height should be selected that results in the chassis of the towed vehicle being close to level with the ground. An offset in mounting height will create vertical and horizontal displacement of the drawbar in relation to the mating component of the coupling device. This mismatch in height will lead to accelerated wear and changes in vehicle handling.

#### **Improper Mounting Height**

(causing excessive vertical and horizontal movement)

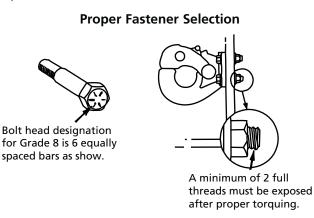


### **Mounting Surface**

The mounting surface for a coupling device must be flat and of adequate strength to support the rated capacity of the coupling device. It must have sufficient vertical load and horizontal load capability to comply with the requirements of SAE J847.

### **Mounting Hardware**

All mounting hardware must be new ASTM Grade 8 bolts with hardened steel washers and ASTM Grade C locknuts. Bolts should be of sufficient length to provide a minimum of two (2) full threads beyond the end of the nut under recommended torque.



To develop the full rated capacity of a coupling device, all required mounting fasteners must be present with proper and equal torque applied to each fastener. Torque values and procedures should follow SAE J429 and are stated in the Owner's Manual shipped with each Holland coupling product. This information is also available online at the SAF-HOLLAND website.



#### ASTM

American Society for Testing and Materials

#### **Converter Dolly / Dolly**

An auxiliary axle chassis consisting of a frame with single or tandem axles, suspension, fifth wheel, and tongue with drawbar. A dolly is used to convert a semi-trailer into a full trailer.

#### 'A' Dolly

A converter dolly with a single point of attachment to the towing vehicle; the point being located along the centerline of the dolly.



#### 'C' Dolly

A converter dolly with two points of attachment to the towing vehicle; the points being equally spaced along the centerline of the dolly.

#### Drawbar

The structural member of the trailer tongue that attaches the drawbar eye or lunette to the trailer tongue. Drawbars are typically bolt-on or weld-on and are available as rigid mount or swivel mount.

#### Drawbar Eye / Lunette

A round 'doughnut' shaped device used to couple a trailer tongue to a towing vehicle equipped with a coupling device such as a pintle hook or coupler.

#### **Full Trailer**

A trailer equipped with two or more axles that support the entire weight of the trailer. Full trailers typically feature a hinged trailer tongue.

# Gross Trailer Weight (GTW) / Maximum Gross Trailer Weight (MGTW)

The actual total weight measured at the ground of a fully loaded trailer or multiple coupled trailers. Maximum Gross Trailer Weight is the largest weight of both the trailer(s) and payload that can safely be towed by a coupling device.

#### Gross Vehicle Weight Rating (GVWR)

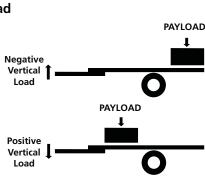
The value specified by the manufacturer as the loaded maximum weight of a single motor vehicle or trailer.

#### Jackknife

Over-articulation between the towing and towed vehicles (generally greater than 90 degrees) that results in binding at the coupling connection.

#### **Negative Vertical Load**

The load as an upward force measured at the drawbar located at the coupling end of the trailer tongue. A negative vertical load typically results from the payload being placed behind the trailer axle (see illustration).



#### Off-Road

Refers to terrain on which a towing/towed vehicle will operate which is ungraded, rough or undulating, with no maintained travel surface, generally considered to not be part of the public road system. Examples include agricultural fields, construction sites, utility right-of-way, temporary logging roads, and what is commonly referenced as 'two-track' roads.

#### **Over-The-Road**

Refers to terrain on which a towing/towed vehicle will operate which is paved or features a graded surface, generally considered to part of the public road system.

#### SAE

Society of Automotive Engineers

 $\ensuremath{\textbf{J429}}$  - Mechanical and material requirements for externally threaded fasteners

**J847** - Trailer towbar eye and pintle hook/coupler performance

#### Semi-trailer

A trailer, except pole trailer, so constructed that a substantial part of its weight rests upon or is carried by another vehicle or converter dolly.

#### Tare Weight / Unloaded Vehicle Weight (UVW)

The total weight of a vehicle at the ground, including normal fluids and equipment, in a condition to receive occupants and payload.

#### **Trailer Tongue**

The structural member of a trailer that connects to a towing vehicle.

#### Vertical Load / Maximum Vertical Load

The load or downward force measured at the drawbar located at the coupling end of the trailer tongue. Maximum Vertical Load is the manufacturer's recommended static vertical load (down) that can be safely applied to the coupling device.







# They're called "Original Parts" for a reason! Why trust anything else?









Service parts for HOLLAND, SAF, NEWAY, and former Binkley, Simplex, and TruckMaster Products.

From fifth wheel rebuild kits to suspension bushing repair kits, SAF-HOLLAND Original Parts are the same quality components used in the original component assembly. SAF-HOLLAND Original Parts are tested and designed to provide maximum performance and durability. Will-fits, look-alikes or worse yet counterfeit parts will only limit the performance potential and could possibly void SAF-HOLLAND's warranty. Always be sure to spec SAF-HOLLAND Original Parts when servicing your SAF-HOLLAND product.



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