

# **Owner's Manual**

# Rectangular and Square Shank Drawbars

Installation, Operation and Maintenance Procedures

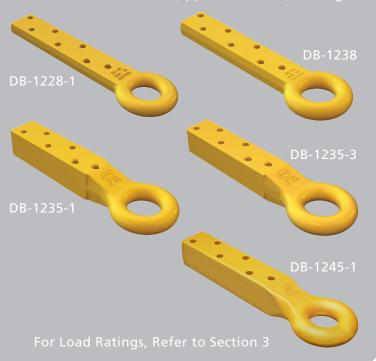
- For on/off-road applications
- Weight: DB-1228-1 (approx.) 20 lbs. (9.07 kg)

DB-1238 (approx.) 26 lbs. (11.79 kg

DB-1235-1 (approx.) 20 lbs. (19.05 kg)

DB-1235-3 (approx.) 20 lbs. (11.14 kg)

DB-1245-1 (approx.) 20 lbs. (18.59 kg







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#### Introduction

This manual provides information necessary for the proper operation, maintenance, and inspection of the SAF-HOLLAND® drawbar.

**NOTE:** For HOLLAND® replacement

components contact SAF-HOLLAND® Customer Service: 1-888-396-6501.

## Warranty

Refer to the complete warranty for the country in which the product will be used. A copy of the written warranty can be downloaded from our SAF-HOLLAND® website (www.safholland.com).

# Notes, Cautions, and Warnings

Read and understand all of the procedures presented in this manual before starting any work on the pintle hook.

**NOTE:** In the United States, work shop safety requirements are defined by federal and/or state Occupational Safety and Health Act. Equivalent laws could exist in other countries. This manual is written based on the assumption that OSHA or other applicable employee safety regulations are followed by the location where work is performed.

Proper tools MUST be used to perform the mounting and maintenance procedures described in this manual.

This manual contains the terms "NOTE", "IMPORTANT", "CAUTION", and "WARNING" followed by important product information. These terms are defined as follows:

NOTE: Includes additional information to enable accurate and easy

performance of procedures.

Includes additional IMPORTANT:

information that if NOT followed could lead to hindered product performance.

CAUTION

Used without the safety alert symbol, indicates a potentially hazardous situation which, if not avoided, could result in property damage.

**ACAUTION** Indicates a potentially hazardous situation which, if not avoided, could result in minor or moderate injury.

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



# 1. General Safety Instructions

**IMPORTANT:** Read this manual before

using this product.
Keep this manual in a safe location for future reference.

**▲**WARNING

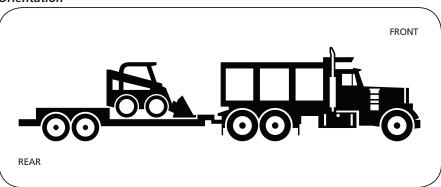
Failure to follow the instructions and safety precautions in this manual can result in equipment failure which, if not avoided, could result in death or serious injury.

Read and observe all warning and caution hazard alert messages in this publication. The information provided can help prevent death, serious injury and/or damage to components.

**NOTE:** In this manual, all descriptions of orientation are relative to

the vehicle.

#### Orientation





# 2. Drawbar Eye Dimensions

#### 2.1 DB-1228

2.5" (63.5 mm) I.D. with 1.25" (31.8 mm) x 1.5" (38.1 mm) cross section.

#### 2.2 DB-1245-1

2.38" (60.3 mm) I.D. with a 1.63" (41.3 mm) diameter cross section.

### 2.3 DB-1238, DB-1235-1, DB-1235-3

3.0" (76.2 mm) I.D. with a 1.63" (41.3 mm) diameter cross section.

#### **Rigid Tongue Trailer:**

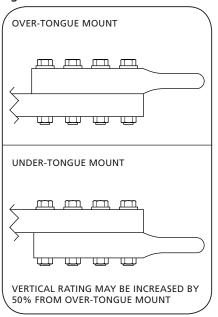
SAF-HOLLAND® testing confirms that the type of drawbar mount for a rigid tongue trailer can affect the vertical load capacity of the tongue/drawbar assembly due to the bolt loads associated with the particular mounting type (Figure 1).

#### **Hinged Tongue Trailer:**

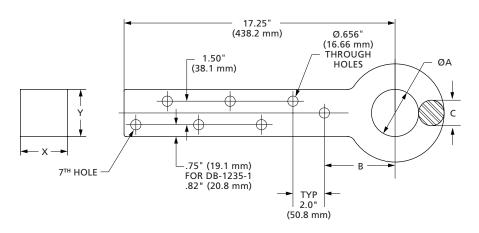
When used in hinged tongue trailer applications where maximum vertical load cannot exceed 500 lbs. (227 kg).

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

#### Figure 1







RIGID TONGUE TRAILERS PART	OVER TONGUE MOUNT	WEI	GHT	UNDER TONGUE MOUNT WEIGHT		UNDER TONGUE MOUNT	WEIGHT		
NUMBER	CAPACITIES	LB.	KG.	CAPACITIES	LB.	KG.	CAPACITIES	LB.	KG.
DB-1228-1	GTW	20,000	9,072	GTW	20,000	9,072	GTW	60,000	27,216
	VERTICAL	4,000	1,814	VERTICAL	6,000	2,722	VERTICAL	500	227
DB-1238	GTW	22,000	9,979	GTW	22,000	9,979	GTW	70,000	31,752
	VERTICAL	4,500	2,041	VERTICAL	6,750	3,062	VERTICAL	500	227
DB-1245-1	GTW	40,000	18,144	GTW	40,000	18,144	GTW	90,000	40,824
	VERTICAL	8,000	3,629	VERTICAL	12,000	5,433	VERTICAL	500	227
DB-1235-3	GTW	35,000	15,876	GTW	35,000	15,875	GTW	90,000	40,824
	VERTICAL	7,000	3,175	VERTICAL	10,500	4,763	VERTICAL	500	227
DB-1235-1	GTW	35,000	15,876	GTW	35,000	15,876	GTW	90,000	40,824
	VERTICAL	7,000	3,175	VERTICAL	10,500	4,763	VERTICAL	500	227

NOTE: When used for hinged tongue trailer applications

Max Vertical: 500 lbs. (227 kg) Max GTW: 85,000 lbs. (38,555 kg)

PART NUMBER	A	В	С	NUMBER OF HOLES	Y Y	Υ
DB-1228-1	2.5" (63.5 mm)	4.5" (114.3 mm)	Oval 1.25" (31.8 mm) x 1.5" (38.1)	7	1.25" (31.8 mm)	3.0" (76.2 mm)
DB-1238	3.0" (76.2 mm)	4.5" (114.3 mm)	Ø1.63" (41.3 mm)	7	1.62" (41.3 mm)	3.0" (76.2 mm)
DB-1235-1	3.0" (76.2 mm)	6.0" (152.4 mm)	Ø1.63" (41.3 mm)	6	3.12" (79.4 mm)	3.12" (79.4 mm)
DB-1235-3	3.0" (76.2 mm)	6.5" (165.1 mm)	Ø1.63" (41.3 mm)	6	3.0" (76.2 mm)	3.0" (76.2 mm)
DB-1245-1	2.38" (60.5 mm)	6.0" (152.4 mm)	Ø1.63" (41.3 mm)	6	3.0" (76.2 mm)	3.0" (76.2 mm)



# 3. Load Ratings

This product meets or exceeds the testing requirements for SAE J847 Type II Loads.

For Load Ratings Refer to Table on Page 5.

NOTE: When used for hinged tongue trailer applications Max Vertical: 500 lb. (227 kg) Max GTW: 85,000 lb. (38,555 kg)

# 4. Towing Applications

For general on/off road towing. For severe off-road applications, reduce the above capacities by 25%.

#### IMPORTANT:

Off-road refers to terrain on which a tow/towed vehicle will operate that 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 referred to as 'two-track' roads.

## 5. General Information

- DO NOT modify or add to the product.
- This product is covered by SAF-HOLLAND'S® Commercial Warranty. SAF-HOLLAND® reserves the right, without giving prior notice, to change specifications and dimensions as designs are altered or improved.
- Inspect the coupling device on the tow vehicle and trailer for proper operation. DO NOT use any coupling device that DOES NOT operate properly.
- Other steps and inspections are also required. Consult D.O.T. regulations and American Trucking Association for complete coupling and uncoupling procedures. These cover items such as cargo securement, brakes, lights, safety chains and other important requirements.

# 6. General Safety Information

This equipment MUST NOT be used in a careless manner.

#### **During Operation:**

- Maintain adequate vertical (tongue) load to properly control the towed unit (generally 10% of maximum GTW) but DO NOT exceed the rated capacities.
- DO NOT damage the coupling components. Be particularly careful during coupling and uncoupling.
- 3. NEVER strike any part of the item with a steel hammer.



# 7. Mounting Instructions

- Use a mounting structure of sufficient strength to support the rated capacity of the drawbar in accordance with SAE J849 and SAE J847 respectively.
- Install the drawbar in compliance with all federal, state, or local agency regulations or laws governing the installation and use of the product. Consult with these agencies prior to installation or use.
- The capacities published for these drawbars are based on an over-tongue mount as illustrated in (Figure 2). If mounted under-tongue, as in (Figure 3) the vertical rating may be increased by 50%. The hinged tongue rating is not affected by over/ under mounting.
- Insert and tighten six (6) (DB-1235-1, DB-1235-3 and DB-1245-1) or seven (7) (DB-1228-1 and DB-1238) new 5/8" (.63") Grade 8 bolts, ASTM Grade C lock nuts, and hardened washers.
- Properly tighten the mounting fasteners. The recommended minimum torque is 109-188 ft-lbs. (148-255 N•m).

Figure 2

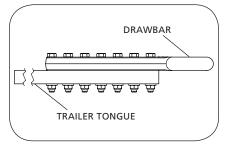
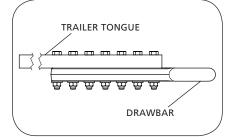


Figure 3





# 8. Operating Instructions

- Before operating, inspect for wear, damaged, or missing parts, and a secure mount. Correct as required before use.
- Position the drawbar eye over the 2. horn of the pintle and lower into place (Figure 4 and 5).
- Engage the drawbar with the 3. coupling device per the manufacturers instructions.

**AWARNING** Failure to correctly secure the drawbar can result in separation of the trailer, which, if not avoided, could result in death or serious injury.

#### Figure 4

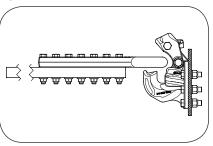
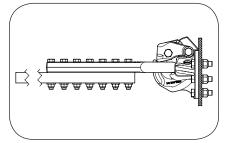


Figure 5





#### 9. Maintenance

For proper performance, the following maintenance steps should be performed every 30,000 miles (48,280 km) or three (3) months, whichever comes first.

**AWARNING** Failure to inspect and maintain the drawbar may result in separation of the pintle hook and drawbar, which, if not avoided, could result in death or serious injury.

- Clean and check for wear, damaged, or missing parts, and a secure mount. Inspect for worn, damaged or missing parts. Replace as required using only Genuine SAF-HOLLAND® parts.
- Inspect, in particular, the coupling contact area of the drawbar. Inspect for any nicks, gouges and deformation, which may interfere with or affect the safe use of the drawbar. If cracks are visible, replace.
- Using calipers or the SAF-HOLLAND® drawbar gauges TF-11887, measure the cross section of the drawbar eve. Replace the complete product when wear exceeds 0.125" (3.18 mm) from the original surface profile. For original profile dimension (Refer to Section 2, page 4 Dimensions).
- Inspect the drawbar fasteners. For bolted connections refer to proper torque in Section 7. In addition to being a safety hazard, a loose drawbar will cause excessive "chucking" and rapid wear. Reinstall or replace any drawbar which is NOT securely mounted.







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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