

INSTALLATION INSTRUCTIONS

and PERIODIC MAINTENANCE

40E

Forward Bin Dumper

Manual Number 8335898

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corporation**

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This manual provides instruction for installing Cascade 40E Forward Bin Dumpers.

Follow the suggested installation procedures for best results. If you have any questions or need more information, contact your nearest Cascade Service Department for assistance. Refer to back cover.

Read the **WARNING** Statements placed throughout this Manual to emphasize safety during attachment installation.

IMPORTANT: Field alterations may impair performance or capability and could result in loss of warranty. Consult Cascade for any required modifications.

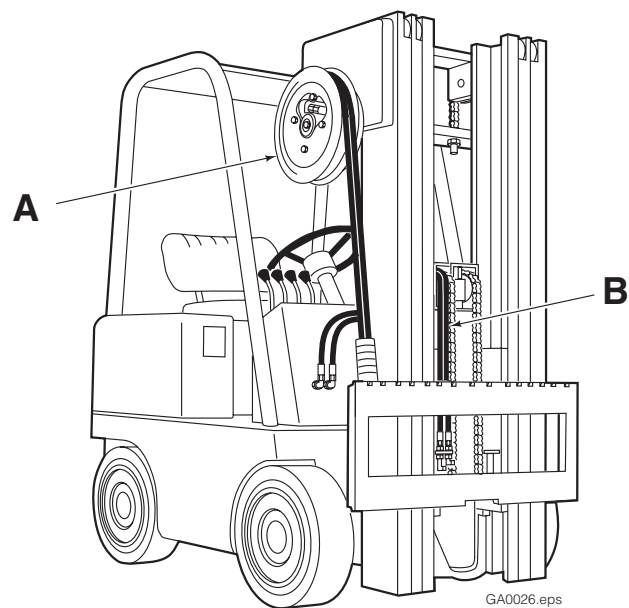
IMPORTANT: E-Series Forward Bin Dumpers are metric. Supply fittings adapted as required for application.

NOTE: All specifications are shown in US and (Metric) units where applicable. All fasteners have a torque value range of $\pm 10\%$ of stated value.

RECOMMENDED HYDRAULIC SUPPLY

The E-Series Forward Bin Dumper can be operated with any of the hydraulic supply arrangements shown below. Refer to Cascade *Hose & Cable Reel Selection Guide*, Part No. 212199, to select the correct hose reel for the mast and truck. Hose and fitting requirements are as follows:

- Hoses and fittings for DUMP function should be at least No. 6 with 9/32 in. (7 mm) minimum ID.



- A** RH THINLINE™ 2-Port Hose Reel Group
OR
B Mast Single Internal Reeving

TRUCK REQUIREMENTS

Truck Relief Setting

2000 psi (138 bar, 13.8 MPa) Recommended
2400 psi (164 bar, 16.4 MPa) Maximum

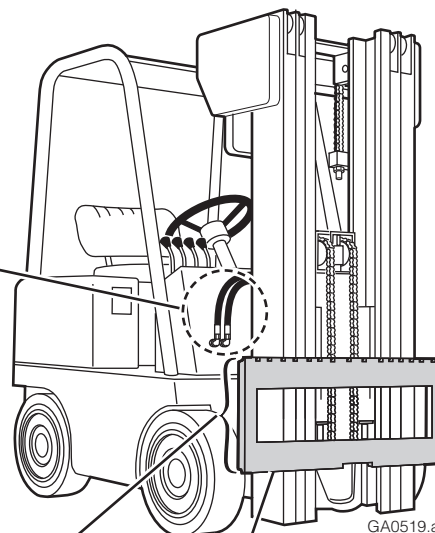
Truck Flow Volume ^①

	Min. ^②	Recommended	Max. ^③
E-Series	5 GPM (19 L/min.)	7.5 GPM (28 L/min.)	10 GPM (38 L/min.)

- ① Cascade Forward Bin Dumpers are compatible with SAE 10W petroleum base hydraulic fluid meeting Mil. Spec. MIL-O-5606 or MIL-O-2104B. Use of synthetic or aqueous base hydraulic fluid is not recommended. If fire resistant hydraulic fluid is required, special seals must be used. Contact Cascade.
- ② Flow less than recommended will result in reduced system performance.
- ③ Flow greater than maximum can result in excessive heating, reduced system performance and short hydraulic system life.



WARNING: Rated capacity of the truck/attachment combination is a responsibility of the original truck manufacturer and may be less than that shown on the attachment nameplate. Consult the truck nameplate.



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GA0028.eps

Carriage Mount Dimension (A) ISO

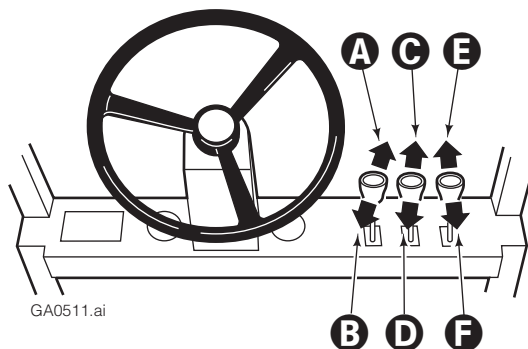
	Minimum	Maximum
Class II	380,0 mm	381,0 mm
Class II	476,0 mm	476,0 mm

Carriage

Clean carriage bars and inspect carriage bars. Make sure the bars are parallel and that ends are flush. Repair any damaged notches.

Auxiliary Valve Functions

Check for compliance with ANSI (ISO) standards:



GA0511.ai

Main Functions

A	Hoist Down
B	Hoist Up

C	Tilt Forward
D	Tilt Back

Auxiliary Functions

E	Dumper Forward
F	Dumper Back

INSTALLATION

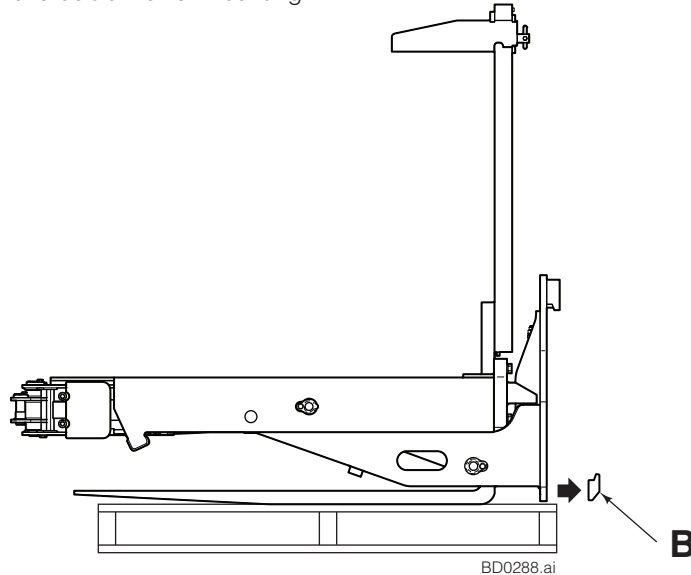
Follow the steps shown to install the attachment on the truck.
Read and understand all **WARNING** and **CAUTION** statements.
If a procedure is not understood, ask a supervisor, or call the
nearest Cascade Service Department for assistance.

1 Prepare Attachment

- A** Remove banding. If required, set the attachment upright on pallet. Use straps (or chains) as necessary.
- B** If equipped, remove bolt-on lower mounting hooks.

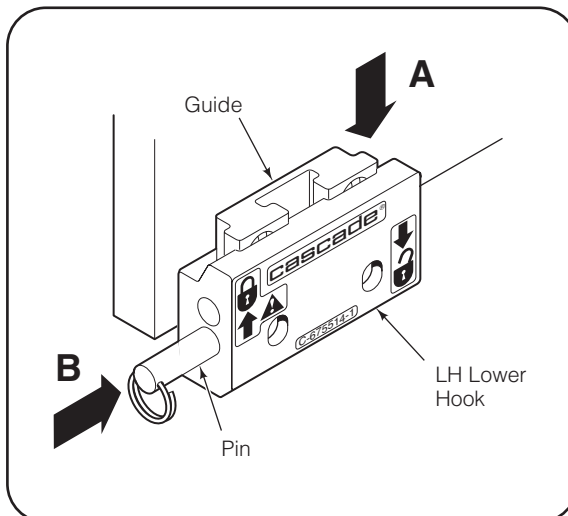


WARNING: Verify that the overhead hoist and chains or straps are rated for the weight of the attachment. Refer to nameplate for attachment weight.

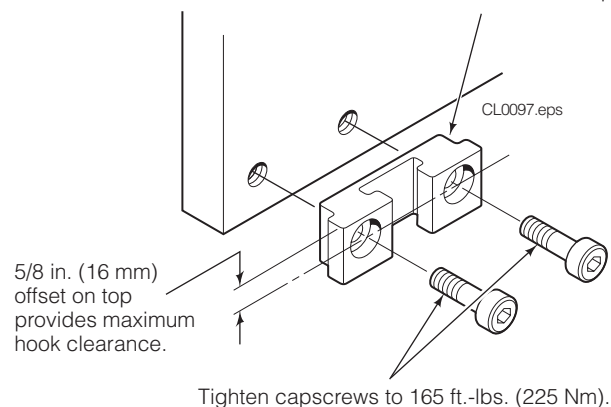


2 Unlock quick-change lower mounting hooks, if equipped

- A** Remove pin and drop hooks into unlocked position.
- B** Reinstall pin in lower hole.



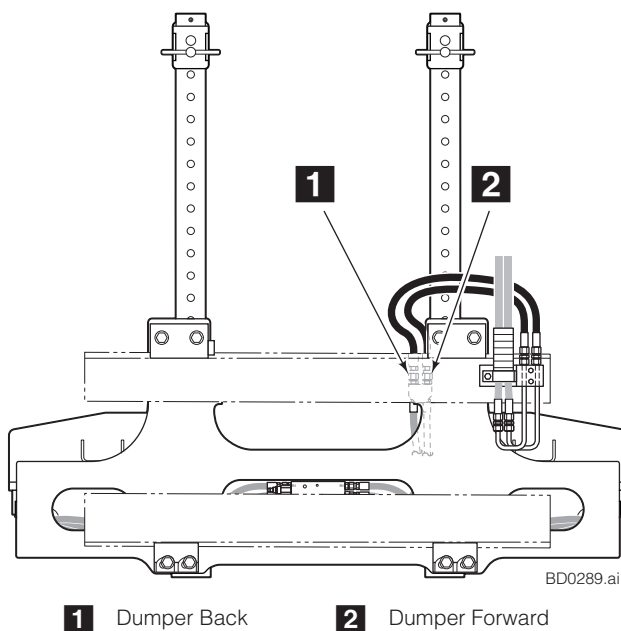
NOTE: Guides can be reversed to change hook-to-carriage clearance. Refer to lower hook installation, Step 6.



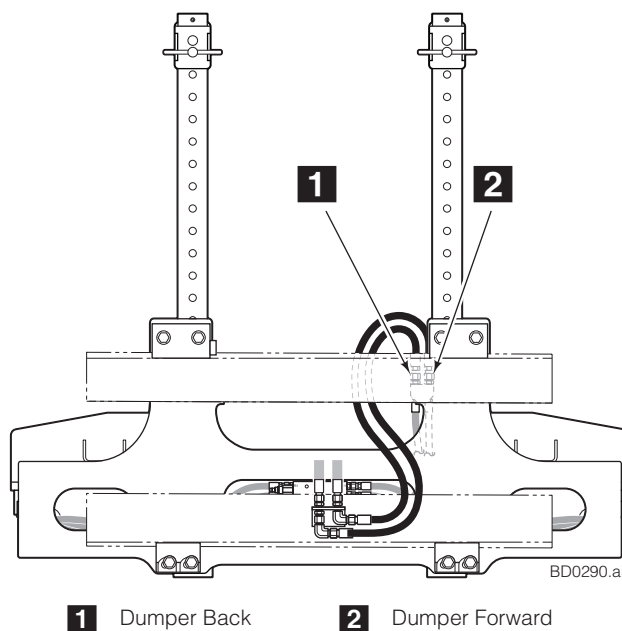
3 Prepare Hoses

- A** Determine hose lengths required for hydraulic supply.
- B** Cut hoses to length, install end fittings or quick disconnect kits.

RH 2-port THINLINE™ Hose Reel



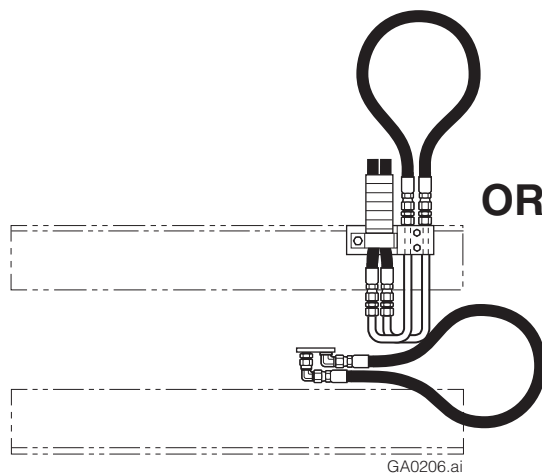
Single Internal Hose Reeving



Back (Driver's) Views

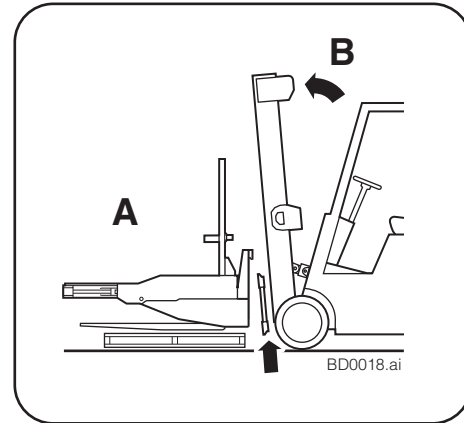
4 Flush hydraulic supply hoses

- A** Install hoses using union fittings.
- B** Operate auxiliary valves for 30 seconds.
- C** Remove union fittings.

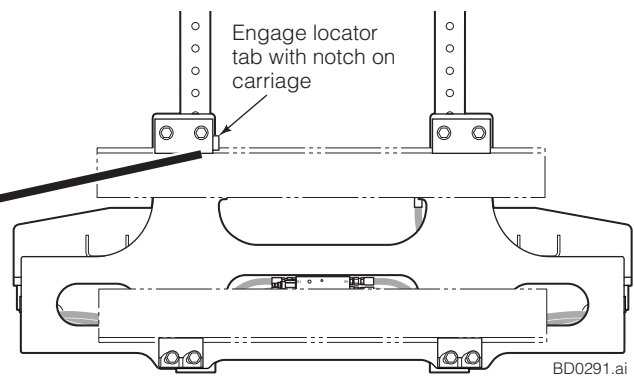
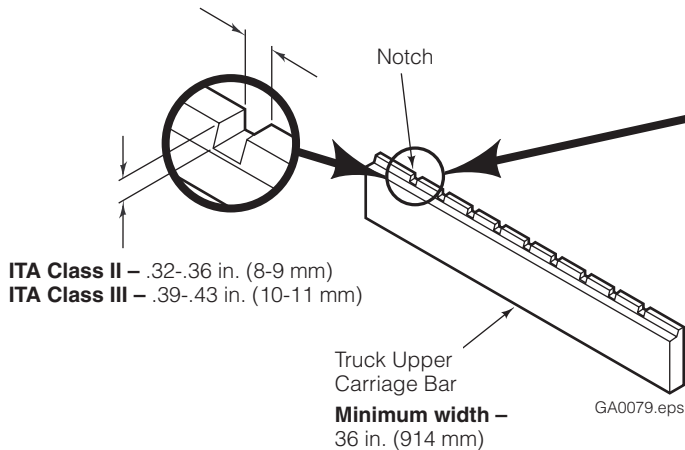


5 Mount attachment on truck carriage

- A** Center truck behind the attachment.
- B** Tilt mast forward and raise carriage into position.
- C** Engage top mounting hooks with carriage. Make sure locator tab on left hook engages with a notch on top carriage bar.
- D** Lift the attachment 2 in. (5 cm) off pallet.

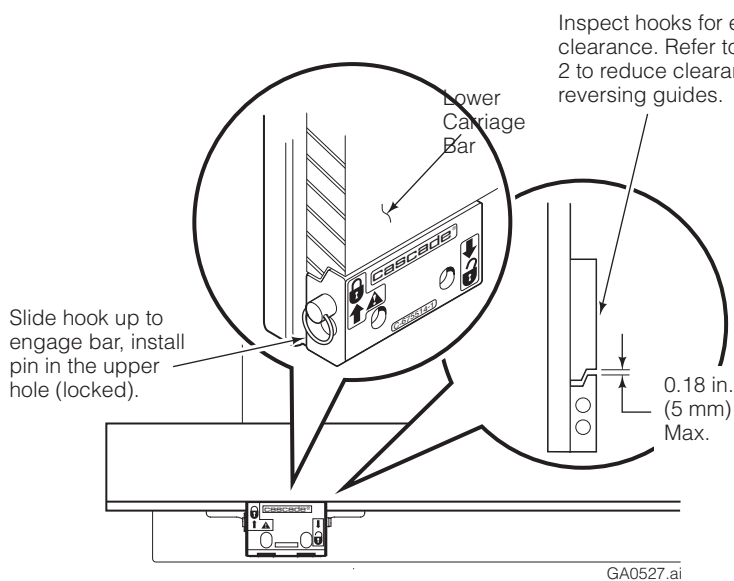


ITA Class II – .60-.66 in. (15-17 mm)
ITA Class III – .72-.78 in. (18-20 mm)

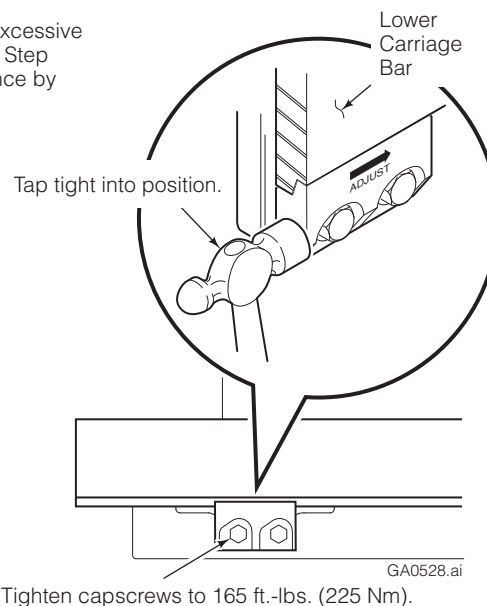


6 Install and engage lower hooks

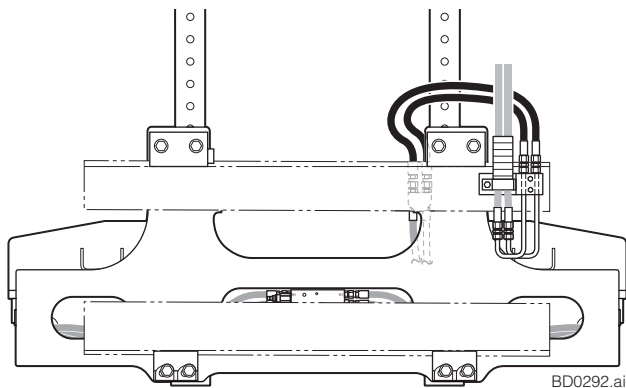
QUICK-CHANGE TYPE



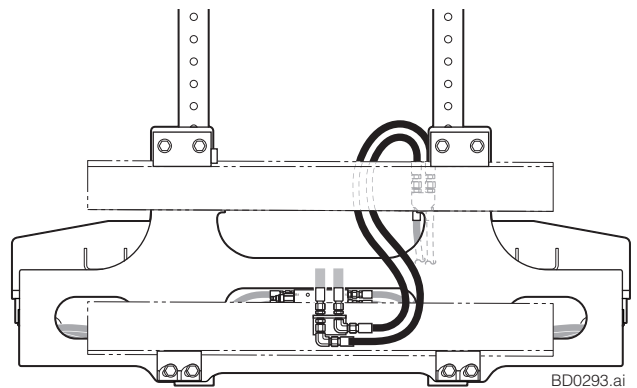
BOLT-ON TYPE



7 Connect hoses prepared in Step 3 to attachment



RH 2-port THINLINE™ Hose Reel



Single Internal Hose Reeving

Back (Driver's) Views

8 Cycle attachment functions

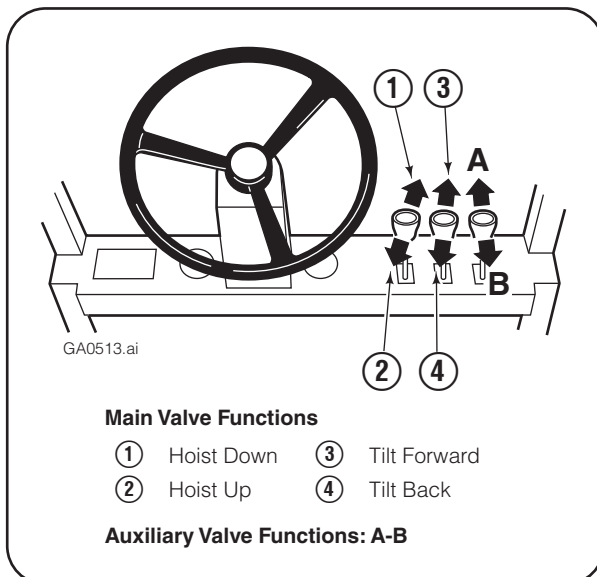
- With no load, cycle dumper forward and back several times.
- Pick up and dump a maximum load, check for smooth operation.
- Check for operation in accordance with ANSI (ISO) standard.
- Check for leaks at fittings, valve and cylinders.



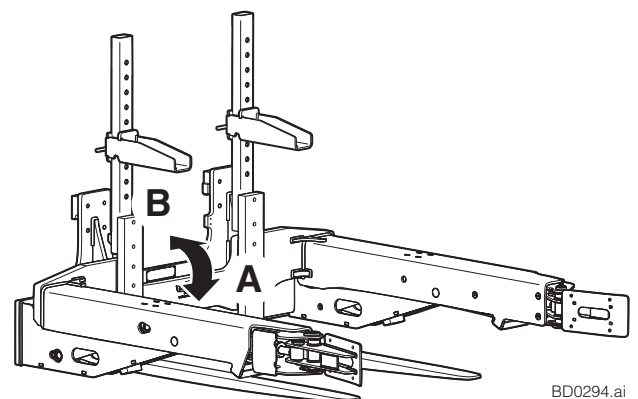
WARNING: Truck control handle and attachment function activation shown here conforms to ANSI B56.1 (ISO 3691) recommended practices. Failure to follow these practices may lead to serious bodily injury or property damage. End user, dealer and OEMs should review any deviation from the practices for safe operation.



WARNING: Make sure all personnel are clear of the attachment during testing.



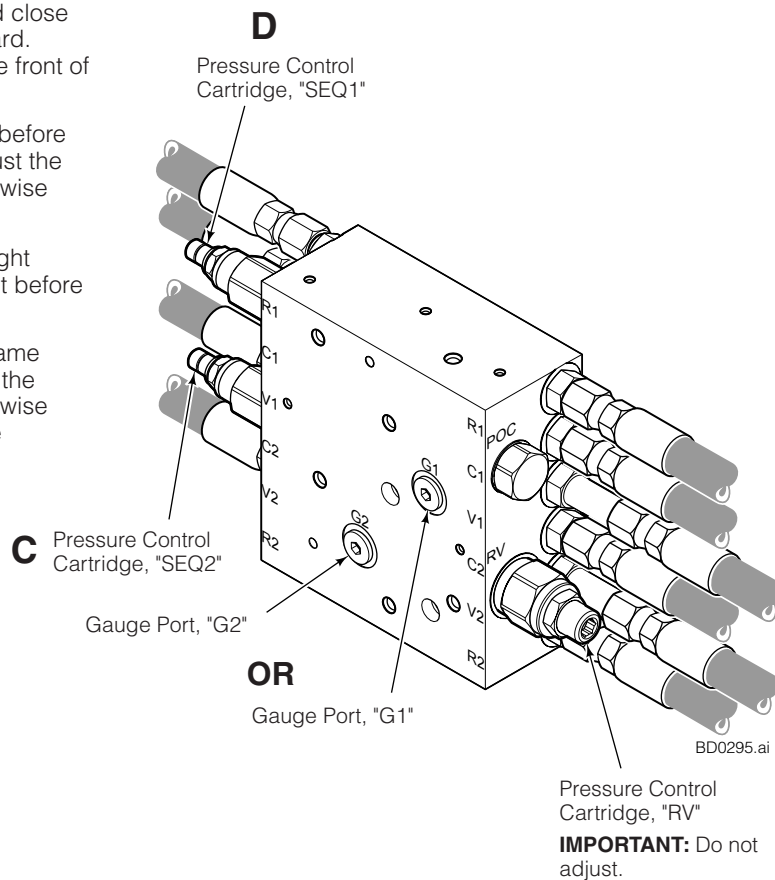
A Dumper Forward
B Dumper Back



9 Sequence Valve Adjustments

IMPORTANT: The valve is factory-adjusted and normally needs no adjustment. If required, adjust the cartridges as follows:

- A** Confirm that the TRUCK pressure delivered to the attachment valve is within the range shown on the attachment nameplate.
- B** Install a 5000 psi (345 bar) pressure gauge (with a No. 4 O-ring fitting) to the valve "G1" or "G2" gauge port.
- C** When dumping, the retainers should close first, then tip the tipping frame forward. Observe the retainers (located at the front of the attachment) holding the load.
 - If the frame begins to tip forward before the retainers are fully closed, adjust the "SEQ1" cartridge by turning clockwise (CW) to increase the pressure.
- D** When the tipping frame returns upright (BACK), the frame should be upright before the retainers open.
 - If the retainers open before the frame returns to upright position, adjust the "SEQ2" cartridge by turning clockwise (CW) to increase the pressure.



PERIODIC MAINTENANCE

Daily

Check items shown each day. Report problems to a supervisor.

- Check for loose or missing bolts, worn or damaged hoses and hydraulic leaks. Tighten hoses.
- Inspect top and front bin retainers for damage and proper adjustment.

1000-Hour Maintenance

Every time the lift truck is serviced or every 1000 hours of truck operation, whichever comes first, complete the following maintenance procedures:

- Check the clearance between the lower mounting hooks and the truck lower carriage bar:

Quick-Change Hooks – 3/16 in. (5 mm) maximum.

Bolt-On Hooks – Tight against truck lower carriage bar.

If adjustment is necessary, refer to Installation, Step 6. Tighten lower hook capscrews to 120 ft.-lbs. (165 Nm).

- Check torque on fork capscrews. Tighten to 170 ft.-lbs. (230 Nm).
- Check torque on upper hook capscrews. Tighten to 170 ft.-lbs. (230 Nm).

2000-Hour Maintenance

After each 2000 hours of truck operation, in addition to the daily and 1000-hour maintenance, perform the following procedures:

- Inspect all pivot pins and bushings for wear and replace as necessary.
- **Fork Inspection** – After 2000 hours of truck operation, forks in use shall be inspected at intervals of not more than 12 months (for single shift operations) or whenever any defect or permanent deformation is detected. Severe applications will require more frequent inspection.

Fork inspection shall be carried out by trained personnel to detect any damage that might impair safe use. Any fork that is defective shall be removed from service. Reference ANSI B56.1-2005 (ISO 3691).

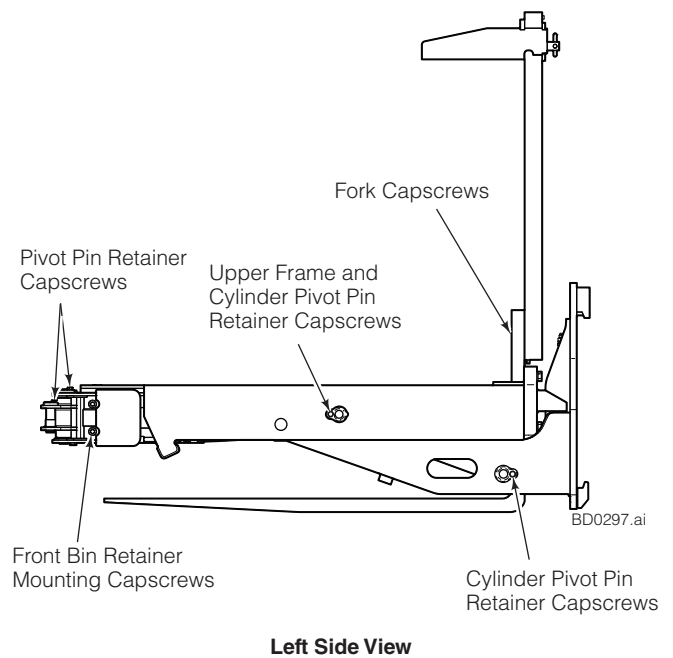
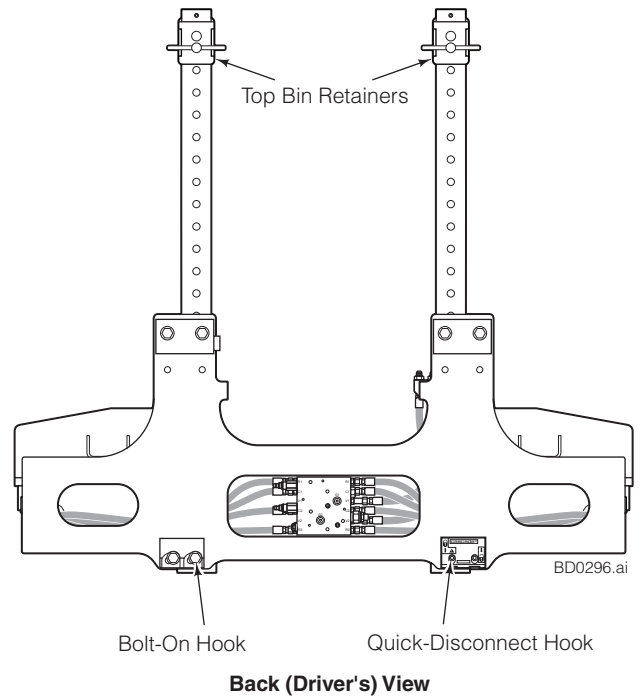
Inspect for the following defects:

- Surface cracks
- Straightness of blade and shank
- Fork angle
- Difference in height of fork tips
- Positioning lock
- Wear on fork blade and shank
- Wear on fork hooks
- Legibility of marking

NOTE: Fork Safety Kit 3014162 contains wear calipers, inspection sheets and safety poster. Also available is fork hook & carriage wear gauge 209560 (Class II) and 209561 (Class III).



WARNING: After completing any service procedure, always test each function through five complete cycles. First test with no load, then test with a load to make sure the attachment operates correctly before returning it to the job.



Do you have questions you need answered right now?

Call your nearest Cascade Service Department.

Visit us online at www.cascorp.com

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