



TECHNICAL BULLETIN

1-800-237-0022

Stock No. L32 - 4" DIAMETER, 48" TRUNNION LOAD CELL,

Stock No. L33 - 4" DIAMETER, 54" TRUNNION LOAD CELL

CONCEPT:

This load cell was designed to fit single point suspensions in heavy duty off road applications. The trunnion load cell replaces the 4" diameter by 48" or 54" long trunnion tubes or dead axles in existing suspensions.

APPLICATION:

- Logging trailers, end dumps, and other vehicles with single point suspensions.

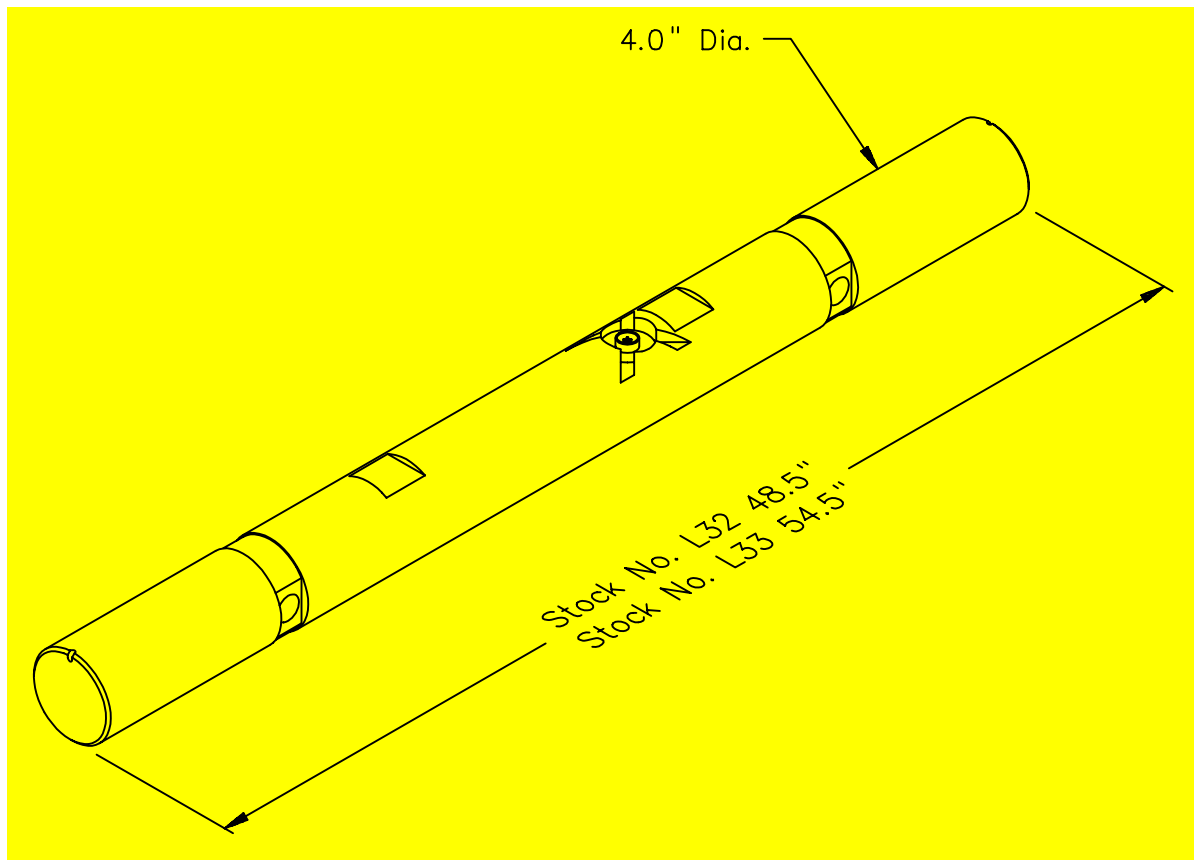


Figure 141-A

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SPECIFICATIONS:

- CAPACITY: 75,000 lb
- OUTPUT: .38 mV/V at 25,000 lb
- ACCURACY: Typical system error less than 1% of full scale.
- MATERIAL: High strength alloy steel.
- PLATING: Vulcan load cells are plated for increased rust protection.

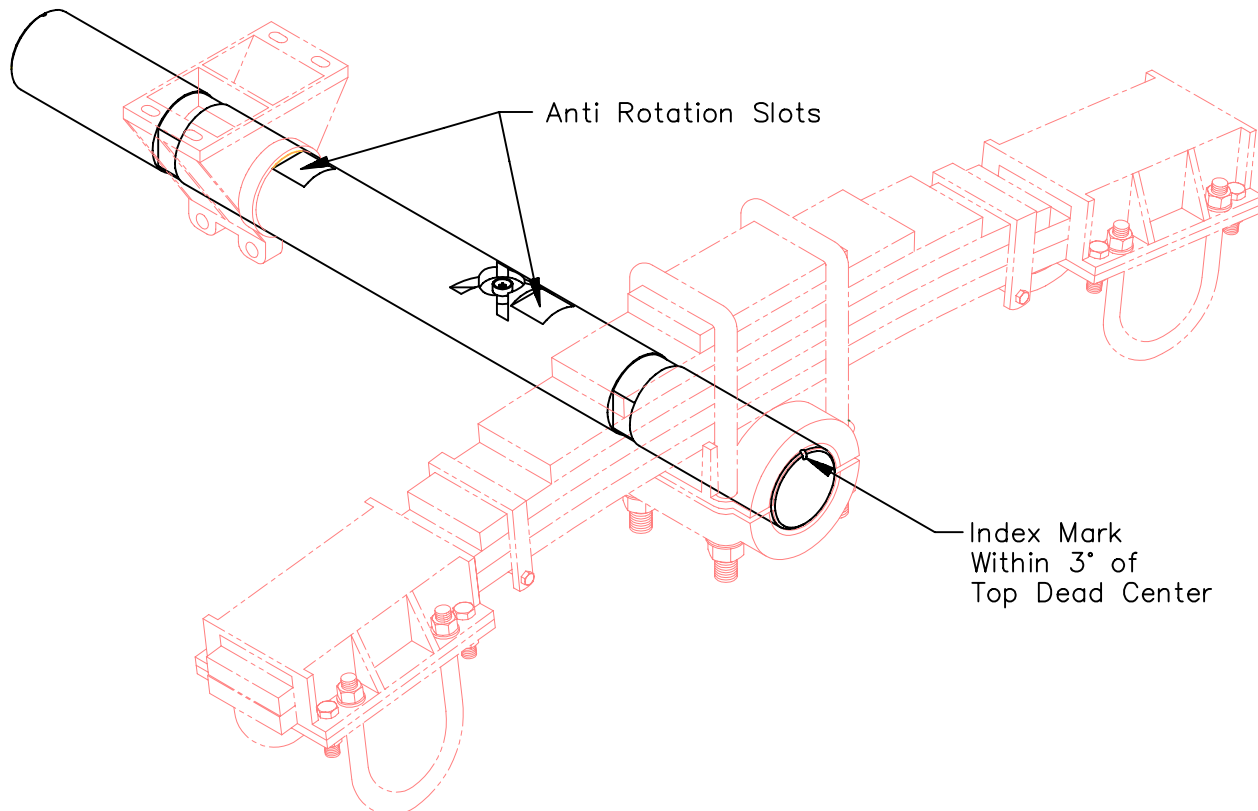


Figure 141-B



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INSTALLATION PROCEDURE:

1. Position the VULCAN Trunnion load cell with the connector and the index marks facing **up**.
Note: To achieve the best accuracy, place the trailer on a level surface and install the trunnion so that the index marks are within 3° of being vertical, see Figure 141-B.
2. Center the VULCAN Trunnion load cell between the trunnion clamps on the trailer.
3. Reassemble and *torque* all the u-bolts to the torque specifications listed:

| | Oiled | Dry |
|---------------------------------|-----------|-----------|
| 5/8" – 18 UNF Grade 8 Cap Screw | 130 lb-ft | 180 lb-ft |
| 1 1/8" – 12 UNF U-bolt | 670 lb-ft | 880 lb-ft |

Note: After initial break in period of approximately 1000 miles, and at least every 4 months thereafter, check **all** u-bolts, cap screws, and nuts to insure that recommend torque values are being maintained.

4. Anti-rotation slots may be used by placing a piece of flatbar in the machined slots and fastening it to the trunnion clamp. This procedure is not required if the trunnion clamps can keep the trunnion load cell from rotating.
5. **Do not** grease or lubricate inside the VULCAN load cell connector or Vulcoder connector. These components are highly sensitive to foreign substances and inaccurate readings will occur if these components are contaminated. **Your manufacturer's warranty does not cover the failure of VULCAN components due to contamination (use of grease or other conductive substance) in either of these component connectors.**
6. VULCAN load cells are plated for increased rust protection. Certain minimum maintenance will be necessary to claim warranty of load cells. Apply a high quality paint to the load cell. For environments where high concentrations of salts are used on road surfaces, undercoating is recommended (3M, Universal Rubberized Undercoating, 3M P/N: 8883). Spray undercoating when load cells are connected to electronics and fully assembled with the suspension and trailer frame. See "Vulcan Load Cell Maintenance" document 44-20006-001 for further details.



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7. For additional electronic installation notes and system operational procedures, see the "*Vulcan Operations and Maintenance Manual*" for V200 systems and the "*Owner's Manual*" for V500 or V600 systems.

Starting calibration numbers for this system follow:

V200 Electronics – V22 1 lead Vulcoder - Cal Number 8200

V500 and V600 Electronics - V26 1 lead Vulcoder - Cal Number 8200