

H TECHNICAL PROCEDURE

TRAILER SUSPENSION SYSTEMS

SUBJECT: Checking Trailer Ride Height

LIT NO: L459

DATE: December 1999

REVISION: A

PREPARATION

1. Place the trailer on flat, level ground that is free of stones and debris.
2. Chock the wheels (Figure 1).
3. Check air pressure in tires. If necessary, inflate tire(s) to proper pressure (Figure 2).
4. Maintain pressure in the air system (Figure 3).



Figure 1. Chock the wheels



Figure 2. Check air pressure in tires



Figure 3. Maintain air pressure to suspension

CHECKING TRAILER RIDE HEIGHT

MEASURING DESIGNED KINGPIN HEIGHT

1. Check the ID tag on the front bulkhead or contact the trailer manufacturer for the designed kingpin height (Figure 4).
2. Measure the trailer's kingpin height. The trailer may or may not be connected to a tractor during the measurement.

NOTE: When the trailer and tractor are connected, the fifth wheel height of the tractor must equal the designed kingpin height of the trailer. If the fifth wheel height does not equal the kingpin height, then disconnect the tractor from the trailer.

NOTE: When the trailer is not connected to a tractor, measure from the ground to the kingpin mounting plate (Figure 5).

3. If necessary, adjust the landing gear to place the trailer at the designed kingpin height.
4. Verify the measurement of the kingpin height on the other side of the trailer.



Figure 4. Check ID tag



Figure 5. Measure from ground to kingpin

MEASURING DESIGNED RIDE HEIGHT

1. Locate the suspension ID tag on the front of the HT frame bracket, the front crossmember of the HS slider box or on the inside of the suspension beam on an INTRAAX® (Figures 6a through 6c).
2. Check the indicated (red) number in the following examples to find the designed ride height.

HT model: HT230-14-001

HS model: HS190T-14-4801A

INTRAAX model (early): AA230TBA..1 14A1A01...

INTRAAX description (current): B15U71.5...

3. Measure the ride height (Figure 7). If necessary, adjust the height control valve. The designed ride height is the distance from the center of the axle to the mounting surface of the suspension.

NOTE: To determine the ride height, add half of the diameter to the measurement shown on the tape measure. For example, a 5-inch diameter axle would have 2½ inches added to the measurement.



Figure 6a. ID tag on HT series suspensions



Figure 6b. ID tag on early INTRAAX suspensions



Figure 6c. ID tag on current INTRAAX suspensions

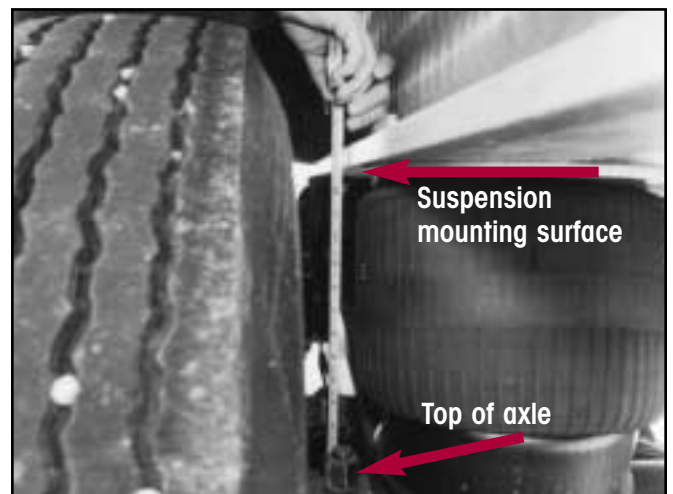


Figure 7. Measure the ride height

CHECKING TRAILER RIDE HEIGHT

ADJUSTING HEIGHT CONTROL VALVE

1. Disconnect linkage.
2. Push the control arm lever up to raise or down to lower the ride height until the distance between the vehicle frame and the center of the axle matches the suspension ride height.

NOTE: There must be a minimum of 80 psi air pressure in the air reservoir to open the brake protection valve and allow air to flow through the height control valve.

NOTE: A delay of 5 to 10 seconds may occur before the height control valve will allow air flow to or from the air springs.

4. After setting the ride height, position the lever to the neutral (center) position.
5. Adjust HCV linkage to fit between lever and lever attachment.

NOTE: There are three types of linkage for the height control valve (Figure 8):

Clamped-Type Linkage: Trim rod, if required, and insert into both the clamps and link ends. Tighten clamps to hold the height control valve in its neutral position when the suspension is at proper ride height.

Bolted-Type Linkage: Trim, if required, and fasten both links together with the supplied fasteners to hold the height control valve in its neutral position when the suspension is at designed ride height.

Welded-Type Linkage: Trim, if required, and weld both links together to hold the height control valve in its neutral position when the suspension is at proper ride height.

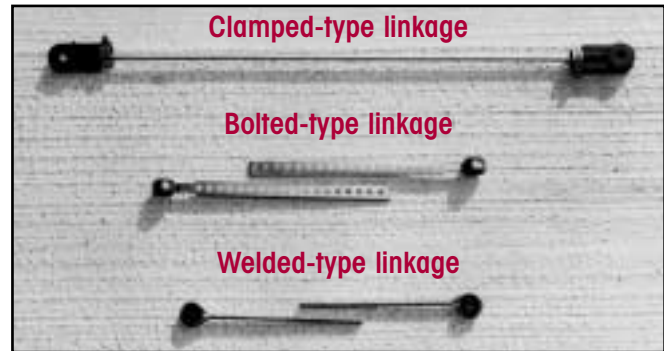


Figure 8. Adjust linkage if necessary

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