

Operating an air suspension outside its specified ride height can reduce ride quality, damage cargo and increase suspension wear. To take full advantage of the benefits, each suspension on the trailer must be operated at its designed ride height.

For complete instructions, refer to Hendrickson literature number L459 Checking Trailer Ride Height procedures. This document should have been read before continuing with this version of the procedures.

PREPARATION

1. **Place** the trailer on a flat, level, debris-free surface.
2. **Chock** the trailer wheels and release the trailer parking brakes.
3. **Check** the air pressure in the trailer tires. The tires must be at the manufacturer's recommended pressure when checking trailer ride height. If necessary, inflate or deflate the tires to match this recommended pressure.
4. **Maintain** air pressure in the trailer air-ride suspension system.

Trailer ride height can be checked with the trailer coupled to or uncoupled from the tractor. If the trailer is uncoupled from the tractor, maintain pressure in the trailer air-ride suspension system by applying shop air to the trailer emergency glad hand. This ensures that the trailer parking brakes remain released.

MEASURING RIDE HEIGHT

A suspension's ride height is defined as the distance from the suspension mounting surface (the bottom of the trailer or slider box) to the center of the axle (Figure 1) with air in the air springs.

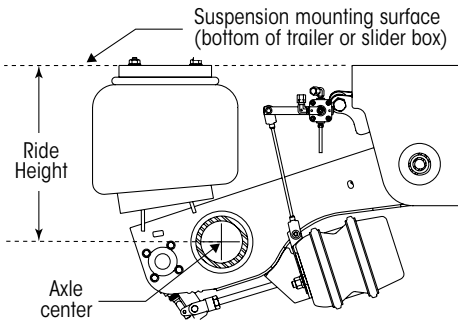


Figure 1: Ride height defined

Suspension ride height should always be measured on the axle with the height control valve (Figure 1). There are two easy ways to measure suspension ride height:

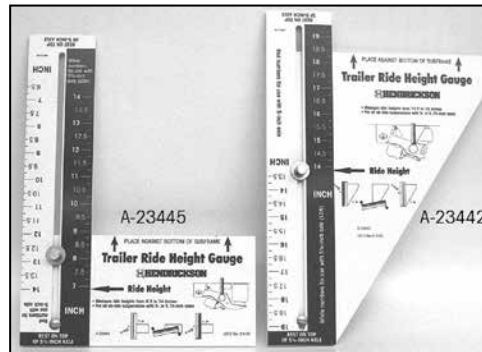


Figure 2: Hendrickson ride height gauges

1. Using a **Hendrickson Ride Height Gauge** (Figure 2).



Figure 3: Using gauge to measure ride height

Measure the distance between the axle and the mounting surface of the suspension. Ride height gauges work with both 5-inch and LDA™ Large-Diameter Axles. Ensure the proper scale on the ride height gauge is being used.

To order a Ride Height Gauge, contact the Hendrickson customer service department at 866-RIDEAIR (866-743-3247) and specify part number A-23442 (Ride Height Gauge for conventional top-mount suspensions) or A-23445 (Ride Height Gauge for low-ride suspensions).

2. Using a **tape measure** -

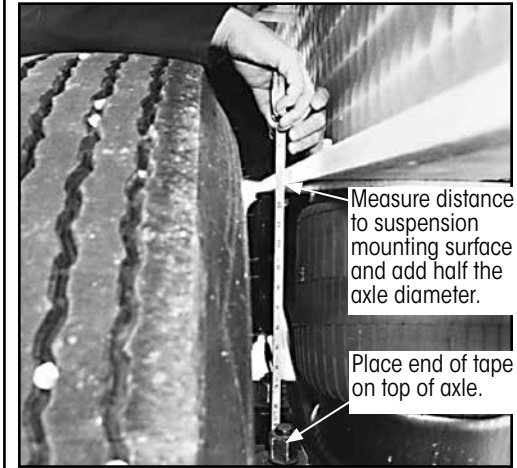


Figure 4: Measuring ride height

- A. **Measure** the distance from the top of the axle to the mounting surface of the suspension (Figure 4).
- B. **Add** half of the axle diameter to this measurement to determine the suspension's ride height.

Example A: Measuring Ride Height:

On 5-inch axles add 2 1/2 inches to the measured distance.

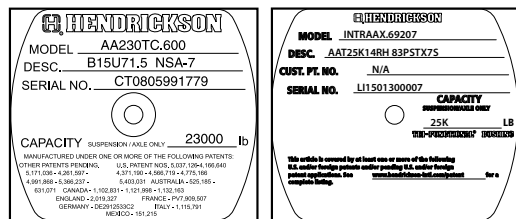
On LDA add 2 7/8 inches to the measured distance.

COMPARING MEASURED RIDE HEIGHT TO DESIGNED RIDE HEIGHT

Once ride height has been measured, compare the value with the designed ride height listed on the suspension identification tag.

Suspension identification tag locations vary by suspension model and can be found in the following locations:

Suspension System	Tag Location
HIS slider with INTRAAX®	Front cross member on HS slider box.
HS slider with HT	Front cross member on HS slider box.
HT primary	Front of roadside frame bracket or inside of curbside beam.
INTRAAX primary fixed	Inside of curbside beam or possibly the roadside beam.
T primary	Front of roadside frame bracket.
ULTRAA-K® slider	On roadside slider box side rail above front frame bracket.
K-2® slider with HT suspensions	On roadside slider box side rail above front frame bracket.
VANTRAAX® (K-2) slider	On roadside slider box side rail above front frame bracket.



Pre "smart" description Current description
Figure 5: Typical suspension ID tag on INTRAAX suspensions

The ID tag (Figure 5 and Figure 6) contains four lines of important information: model number, model description, serial number and, if applicable, customer part number. In 2002, a new model naming system was implemented. This new naming system provides most of the suspension identification information in a "smart" format on the description line, whereas the previous system provided most of the suspension identification information on the model line.



Legacy



Current

Figure 6: Typical suspension ID tags

Read the designed ride height from the model line (HT and HS models) or the description line (early INTRAAX® models, pre "smart" description INTRAAX models and current INTRAAX models) according to the following examples. The BOLD number in the following examples indicates ride height:

HT model	HT230-15-025
HS model	HS190T-14-4801A
INTRAAX description (early)	AA230TBA.. 14A1A01..
INTRAAX description (pre "smart" descriptions)	AA230TC.. B15U71.5..
INTRAAX description (current)	AAT25K 14RHS77N
ULTRAA-K®	UTKNT40K 9 16RHL77
VANTRAAX®	HKNT40K 9 16RHL77

If you cannot determine the ride height from the information on the identification tag, contact the Hendrickson Trailer Technical Service department in the United States and Canada at 866.RIDEAIR (743.3247) or email HTTS@Hendrickson-intl.com. They will help you determine the designed ride height of your suspension.

ADJUSTING SUSPENSION RIDE HEIGHT

For optimal suspension performance, the actual ride height must equal the designed ride height. A ride height that measures lower than the designed ride height must be raised, while a ride height that measures higher than the designed ride height must be lowered. To adjust the suspension ride height:

1. **Disconnect** the height control valve linkage (Figure 1) at the lower bracket.
2. **Push** the height control valve arm up to raise the ride height (add air to the air springs) or down to lower the ride height (remove air from the air springs) until the distance between the suspension mounting surface and the center of the axle equals the designed ride height.

NOTE: Ensure reservoir pressure is at a minimum of 90 psi. This ensures adequate pressure to open the pressure protection valve (PPV).

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

3. With the suspension at the proper ride height, **lock** the control arm in the neutral position by inserting the wooden centering pin through the control arm and into the hole in the valve body.
3. **Reconnect** the height control valve linkage to the lower bracket. **If necessary, adjust** the linkage length so the control arm is held in the neutral position when the suspension is at the designed ride height.
5. **Remove the wooden centering pin.**

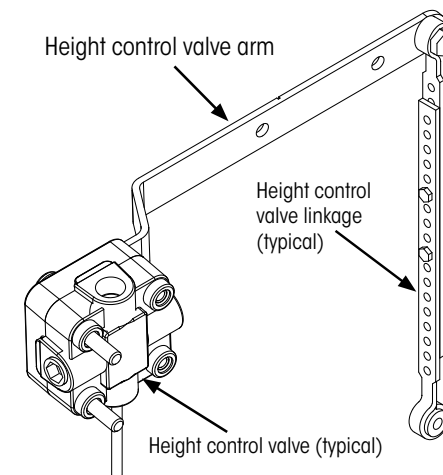


Figure 1: Typical height control valve components

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