

# TECHNICAL PROCEDURE

## TRAILER SUSPENSION SYSTEMS

**SUBJECT:** Hub Requirements for Tire Inflation System Installation

**LIT NO:** L838

**DATE:** June 2007

**REVISION:** A

Hendrickson Trailer Suspension Systems requires a minimum depth for the hub bore (figure 1a) when installing a Hendrickson tire inflation system on undressed or undressed tire inflation system-prepared axles. This hub requirement helps keep the proper clearance between the rotary joint assembly and the spindle nut system (figure 1b), thus preventing contact or interference between these parts, which could result in wheel-end failure.

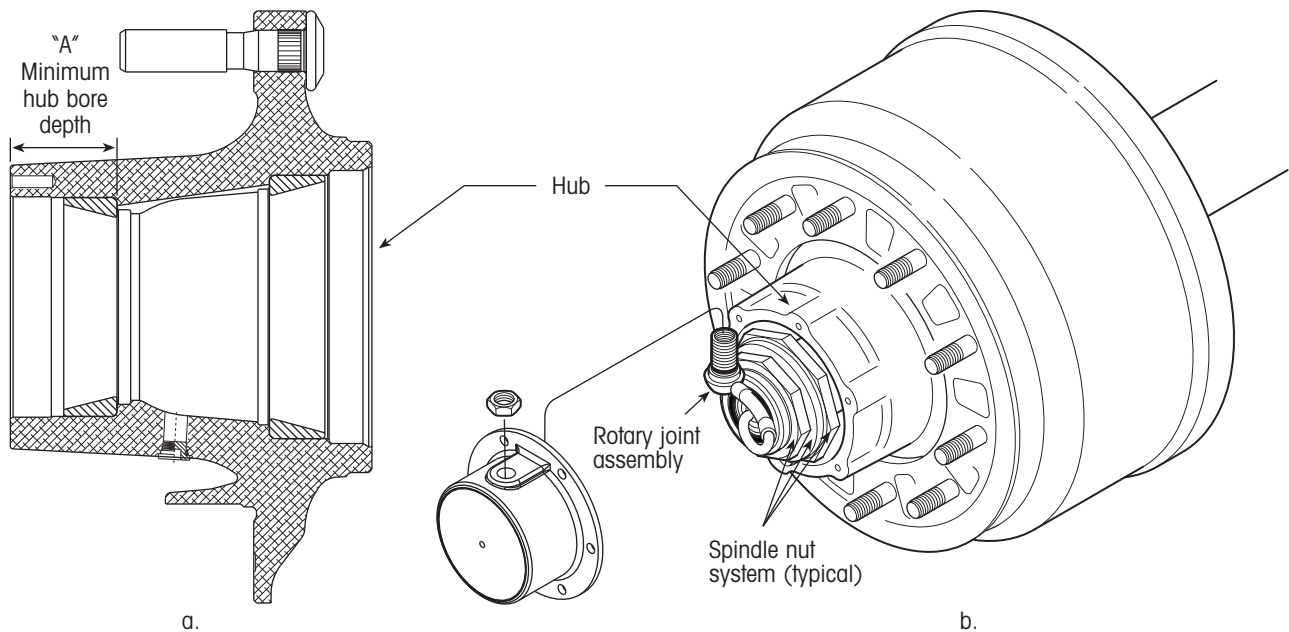
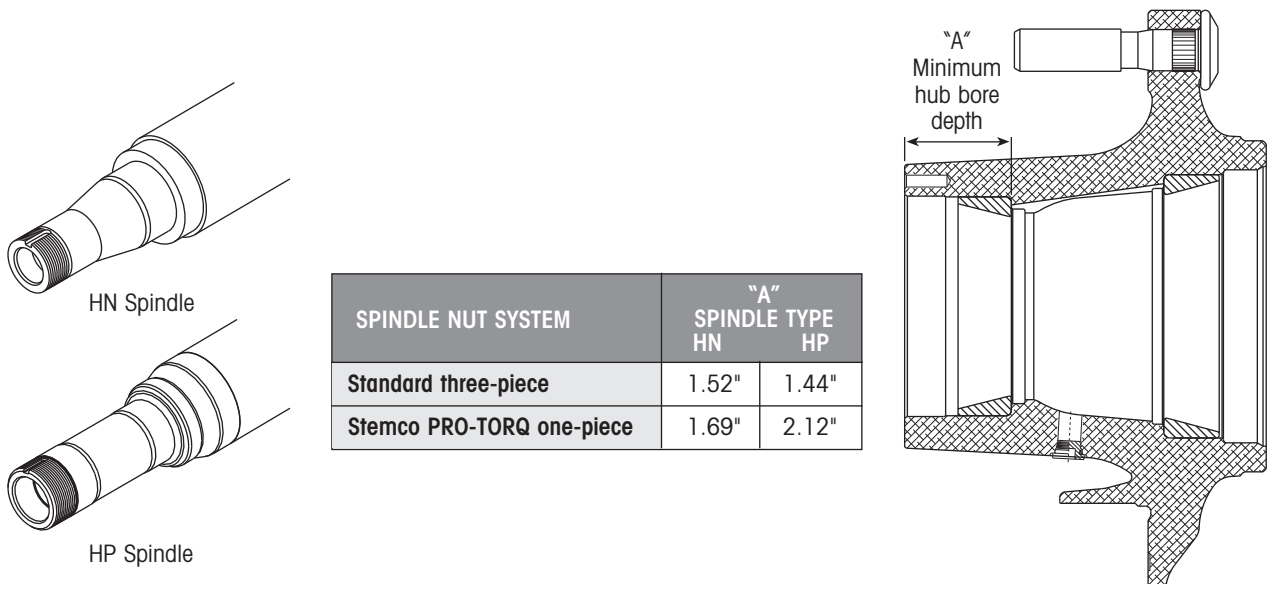


Figure 1. Hub requirement when used with a Hendrickson tire inflation system

In a previous publication, Hendrickson published a chart of approved hub and wheel-end component combinations that provided the required clearance. Recognizing the limited selection these combinations imposed, Hendrickson decided not to dictate which components can or cannot be used. In other words, we are no longer requiring "this hub" in combination with "that spindle nut system" when installing a Hendrickson tire inflation system on undressed or undressed tire inflation system-prepared axles. Instead, you may use any hub with a Hendrickson tire inflation system, **provided a minimum hub bore depth requirement (dimension "A" in figure 2) is maintained.**



SPINDLE NUT SYSTEM	"A" SPINDLE TYPE	
	HN	HP
Standard three-piece	1.52"	1.44"
Stemco PRO-TORQ one-piece	1.69"	2.12"

Figure 2. Minimum hub bore depth

Dimension "A" is the minimum hub bore depth required to install a Hendrickson tire inflation system and is measured from the bottom of the bearing cup to the hubcap mounting surface.

If the hub bore dimension is less than the dimension shown in the chart in figure 2, you may still use the hub with a Hendrickson tire inflation system, but a Hendrickson hubcap spacer kit is required.

Hendrickson offers hubcap spacer kits for HN and HP spindles to accommodate most hubs without the required bore dimension. Each kit consists of 3/8-inch spacers, gaskets, hubcap bolts and lock washers in enough quantities to adopt one axle. The hubcap spacer kit part numbers are as follows:

SPINDLE TYPE	HUBCAP SPACER KIT PART NUMBER
HN	S-28040
HP	S-28093



## HENDRICKSON HUPCAP SPACER KIT INSTALLATION

If the hub you intend to use does not meet the minimum hub bore depth requirement for a Hendrickson tire inflation system, use the following procedure to install the hubcap spacer kit.

1. Sandwich the spacer between two gaskets as shown in figure 3.
2. Install the hubcap using the bolts and lock washer provided in the kit. Tighten the hubcap bolts to 12-18 ft. lbs. (16-20 N•m) of torque.

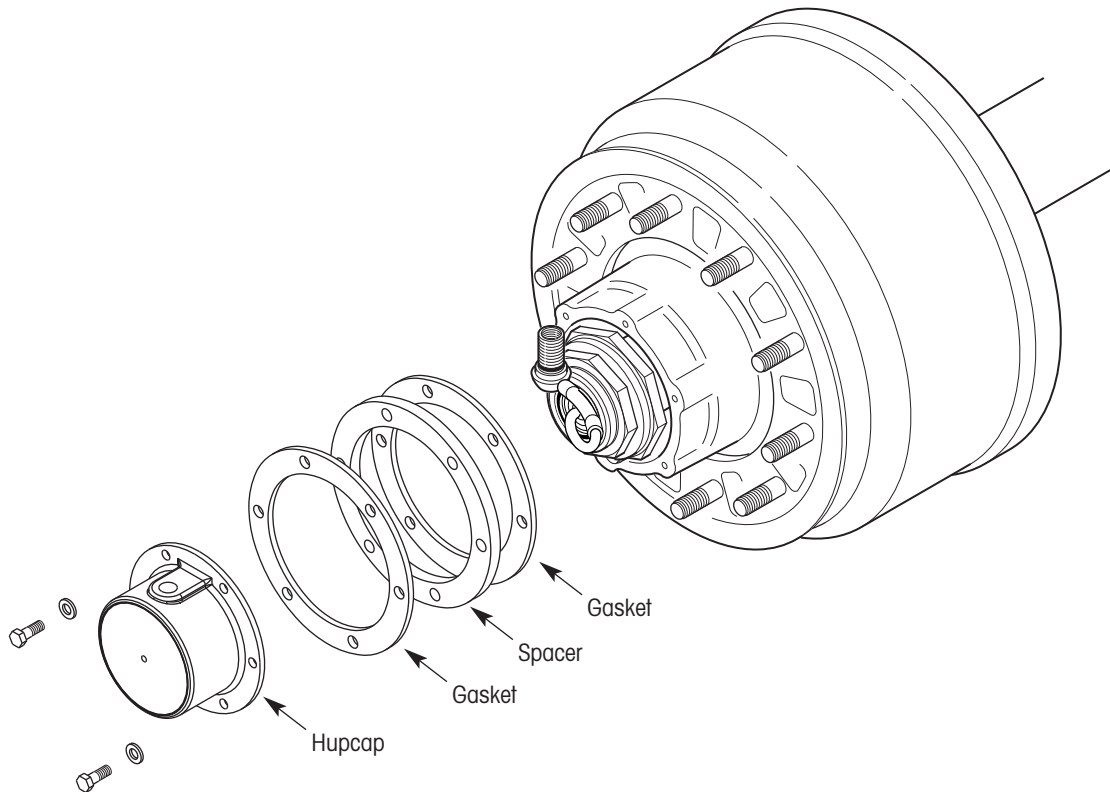


Figure 3. Hubcap spacer kit installation

For questions, additional information or hubcap spacer kit ordering details, contact the Hendrickson technical service department at 800-455-0043 in the United States or 800-668-5360 in Canada.

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