



**IMPORTANT SERVICE
INFORMATION FOR:**

- ✓ SERVICE MANAGER
- ✓ SERVICE ADVISOR
- ✓ TECHNICIAN
- ✓ PARTS DEPARTMENT

BULLETIN NUMBER:

IB17-E-001B

ISSUE DATE:

JANUARY 2020

GROUP:

STEERING

KINGPIN REPLACEMENT KIT INSTALLATION TIPS

AFFECTED VEHICLES

- 2008MY-Current Isuzu N-Series Vehicles
- 2012-2018MY Isuzu NPR Stripped Chassis (Reach)

This bulletin supersedes bulletin IB13-E-001A. This bulletin is being updated to revise content. Please discard bulletin IB13-E-001A.

INFORMATION

AIPDN has consolidated kingpin replacement kits to a single type of kit. This kit comes with two (2) thin kingpin thrust bearings. If the vehicle you are servicing arrived equipped with a thicker kingpin thrust bearing on the passenger side, you will have to install a spacer in order to utilize the new thinner bearing in the kingpin replacement kit.

Isuzu recommends replacing all the kingpin thrust bearing spacers with new parts anytime a new kingpin replacement kit is installed. These spacers **are not** included in the kingpin replacement kits.

This bulletin also addresses a number of concerns that may arise when installing kingpin replacement kits.

INSTRUCTIONS

Original Thrust Bearing Configuration

2008 and newer N-Series vehicles may be equipped with two different thrust bearing configurations, depending on the model and production date (see Chart 1). Use this chart to determine if you will need a spacer to complete the repair, as AIPDN will be providing kingpin replacement kits that come only with two thin thrust bearings.

NOTE: Isuzu recommends replacing any spacers with new parts (P/No.8-94168-490-0) anytime a kingpin replacement kit is installed.

NOTE: If your dealership has any of the original kingpin replacement kits that were applicable to the vehicle you are servicing in stock, continue to install those kits until you exhaust the stock.

Refer to the parts catalogue for vehicles produced prior to 2008MY.

Original Kingpin Configuration

	2 Thin Bearings
	1 Thin & 1 Thick Bearing

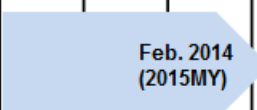
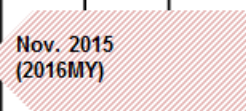
Series	Vehicle Model Year											
	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
NRR NQR NPR XD NPR HD												
NPR GAS NPR GAS HD												
NPR Eco-Max												
NPR Strip Chassis												

Chart 1

Thrust Bearing Differences and Locations

Depending on model year and production date 2008MY – current N-Series kingpin thrust bearings were originally configured in two (2) different ways:

- With thin (13.8mm) bearings and a spacer on both the left and right hand sides.
- With a thin bearing and spacer on the LH (Driver) side and a thick (15.8mm) bearing on the RH (Passenger) side.

Refer to Chart 2 for clarification.

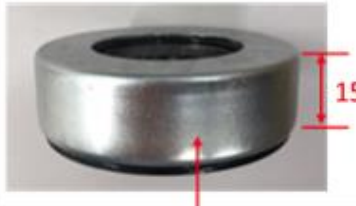
From Chart 1	LH (Driver side)	RH (Passenger side)
 	<div>Spacer (P/No. 8-94168-490-0)</div>  <div>13.8 mm</div> <div>Thin Bearing</div>	<div>Spacer (P/No. 8-94168-490-0)</div>  <div>13.8 mm</div> <div>Thin Bearing</div>
	<div>Spacer (P/No. 8-94168-490-0)</div>  <div>13.8 mm</div> <div>Thin Bearing</div>	<div>No Spacer Required</div>  <div>15.8 mm</div> <div>Thick Bearing</div>

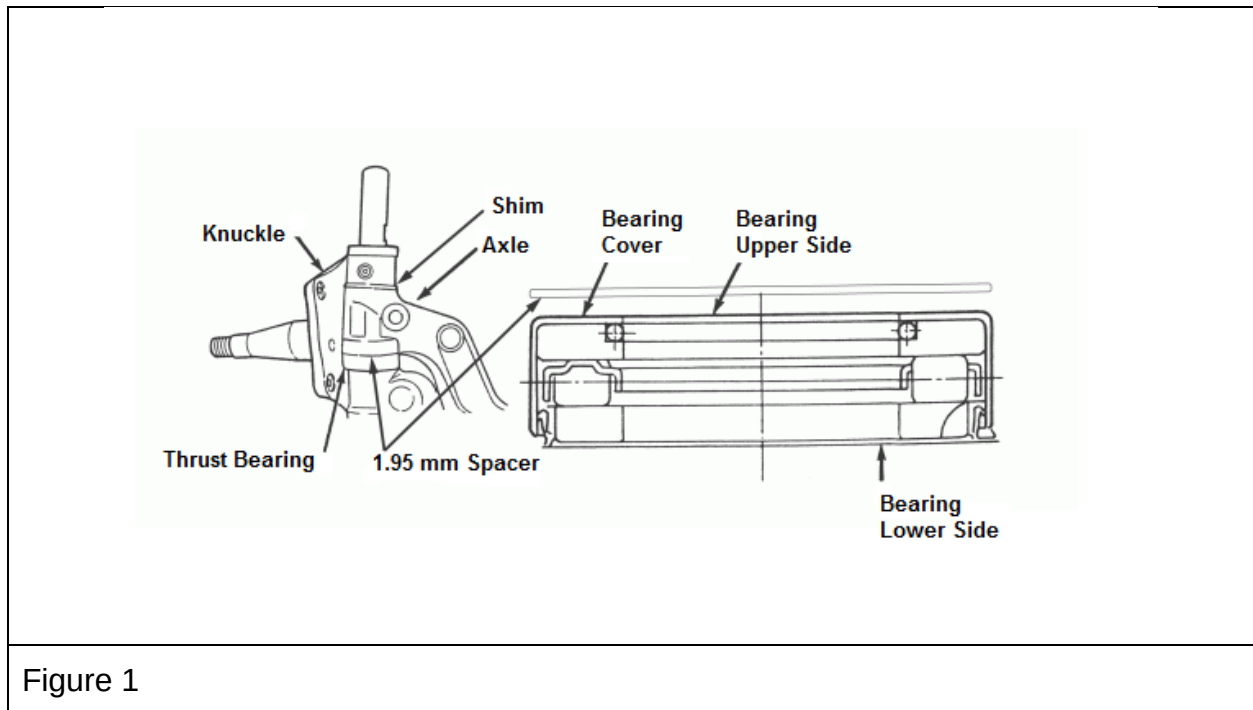
Chart 2

Spacer Installation

When installing the thinner (13.8 mm) thrust bearings, a 1.95 mm spacer **must** be installed on the top of each bearing. (See Figure 1.)

Refer to Chart 2 for clarification.

IMPORTANT: 1.95mm spacers (P/No. 8-94168-490-0) are not included in the kingpin kit. Dealerships must order these spacers separately.



Thrust Bearing Installation Direction

When the thrust bearings are installed, the seal on the bearing should be facing downward. (See Figure 2.)

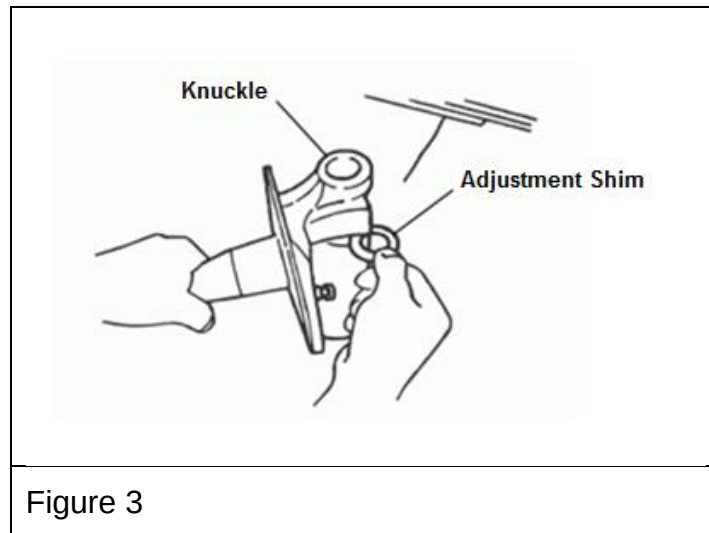


Shim Installation

Shims are used to adjust the steering knuckle to axle clearance. (See Figure 3.) The shims are installed on the top of the axle as shown in Figure 3. Shims are available in different thicknesses. No more than two (2) shims should be installed. (See Figure 4 for an illustration of incorrect spacer and shim usage.) Refer to the applicable Isuzu Workshop Manual (WSM) for further instructions and clearance specifications.

These shims are ***not included*** in the kingpin replacement kit. Isuzu recommends replacing these shims with new ones whenever the kingpin is replaced.

Refer to the appropriate Parts Catalogue for shim part numbers.



3 Shims

No Spacer

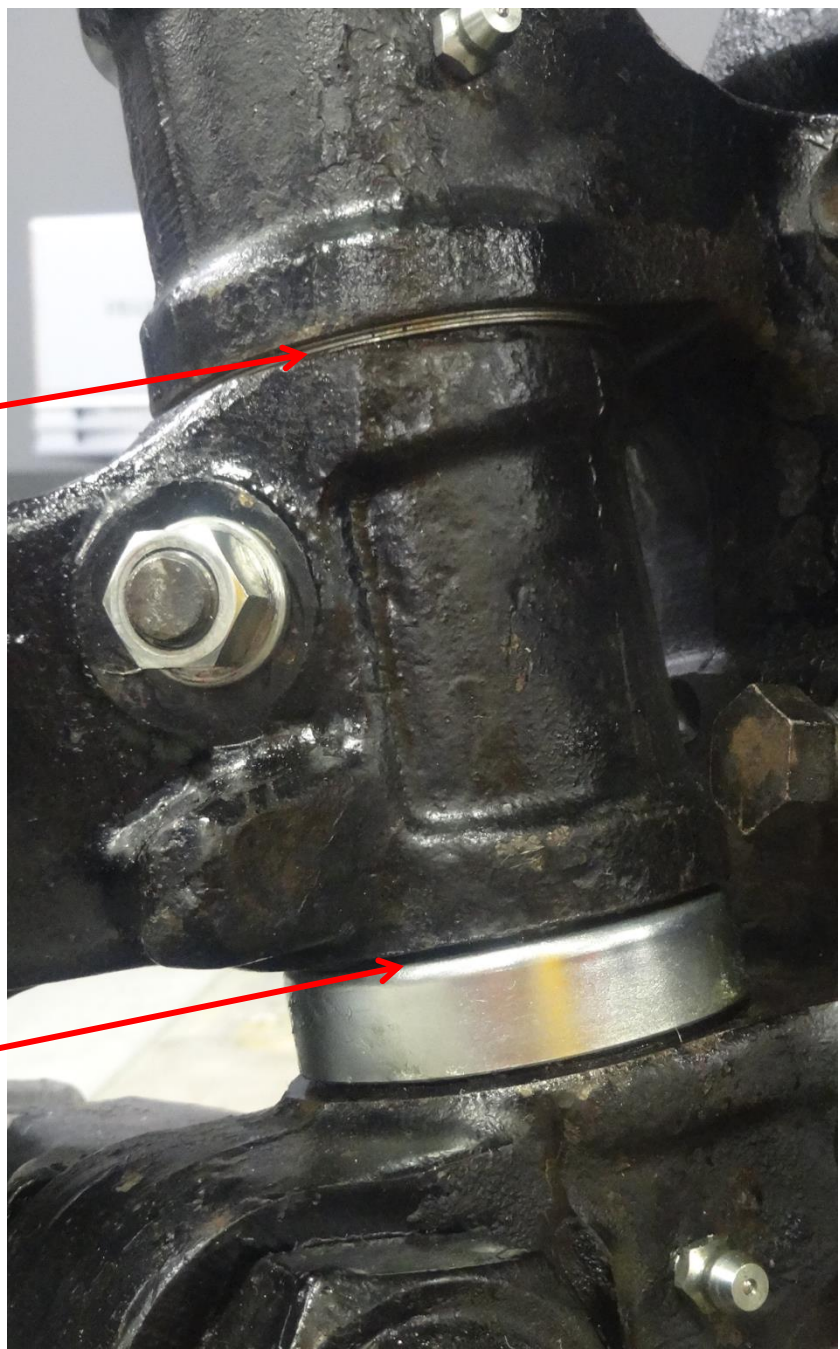


Figure 4

Grease Seal Installation

The grease seals for the kingpins are installed in the underside of the top flange of the steering knuckle. (See Figure 5.)

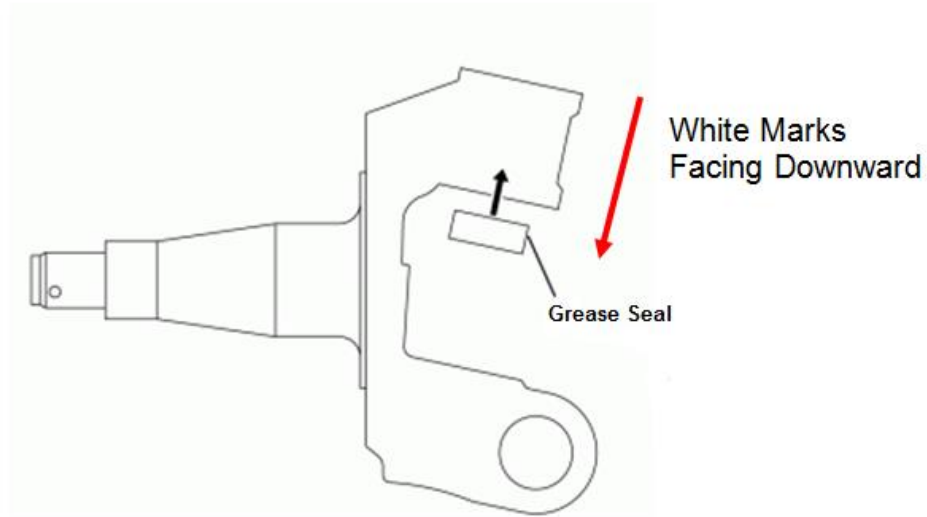


Figure 5

It is important to install these grease seals in the proper direction to allow grease to be discharged. Each seal has white marks on the downward side of the seal. (See Figure 6.)

IMPORTANT: Be sure to install these seals with the white marks facing down.



Figure 6

Kingpin Bushing Installation

Each kingpin bushing must be installed in the proper direction. Therefore, all new bushings are clearly marked ↑ LH (for the left/driver side) and ↑ RH (for the right/passenger side). (See Figure 7.) The arrows must be facing upwards for the applicable side when the bushings are installed.

Additionally, each bushing has a hole in the side (see Figure 8) that allows the entry of grease from the grease fitting installed on the steering knuckle. When installing the bushings, ensure that each hole in the bushing aligns with the grease fitting opening on the steering knuckle.

Use special tools grip CH 50439 and bushing repair tool CH 50440 (A) for removal of the kingpin bushings. Use special tools grip CH 50439 and bushing repair tool CH 50440 (A) and (B) for installation of the kingpin bushings.

Refer to the appropriate WSM for additional instructions.



Figure 7



Figure 8

Lower Sealing Plug Installation

Before installing the kingpin sealing plug in the bottom of the knuckle, apply Three Bond 1215 (Isuzu Part Number 2-90067-710-0 or equivalent) to the sealing plug.

Refer to Information Bulletin IB13-E-002.

Upper Seal Installation

Kingpin Replacement Kits may come with one of two different upper seals: a smaller diameter seal with a 14mm head retaining bolt, and a revised, larger diameter seal with a 21mm retaining bolt.

Tighten the smaller 14mm retaining bolt to 32 N·m (24 lb·ft).

Tighten the larger 21mm retaining bolt to 45 N·m (33 lb·ft).

Grease Fittings Installation

Over time grease fittings can become clogged with debris and dried grease. Therefore, kingpin kits all come with four (4) new grease fittings. Make sure to replace all four (two on each side) grease fittings with the new fittings.

Lubricating the Kingpins

When the installation of the kingpins is completed, use a grease gun to inject grease at each of the four (4) grease fittings. Continue to inject grease until new grease is seen in a complete circle around each kingpin upper sealing plug and at each pivot point (two per side). (See Figure 9.)

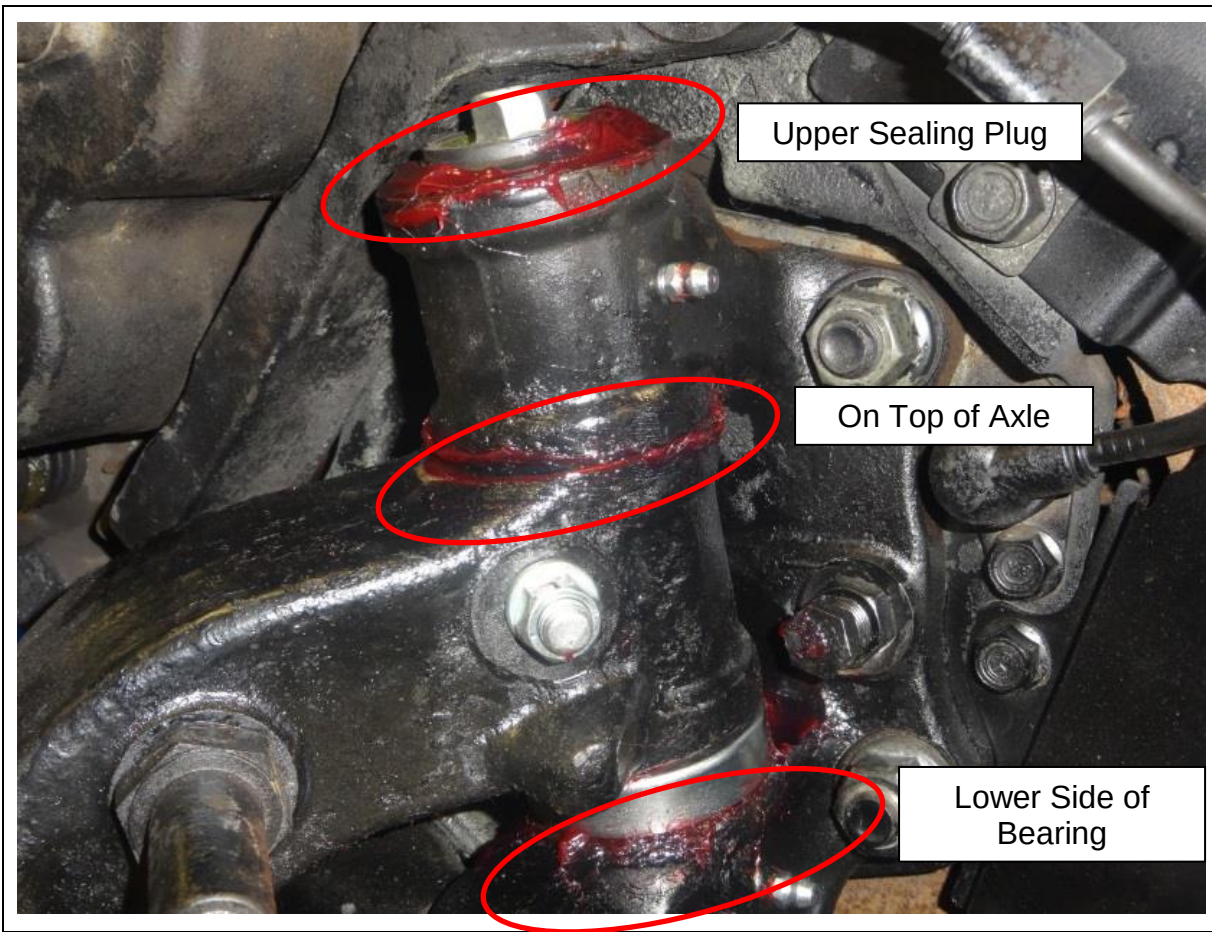


Figure 9

Please refer to the applicable WSM for additional installation procedures.