

# SPL<sup>®</sup> 250/350 Lite Center Bearing Replacement

Date: **January 2020**

To: **All Dana Aftermarket Group Spicer Driveshaft Customers**

## Required Tools & Equipment:

- 3M Scotch-Weld DP420NS Black Epoxy Adhesive (50 ml) 7100148758 (sold separately–Spicer<sup>®</sup> part # 10152047)
- 3M EPX Plus II Applicator 7100148764 (sold separately – Spicer part # 10152053)
- Spicer 350CB03X center bearing kit (Kit includes 3M mixing nozzle 7100104991, 2 slingers, center bearing assembly, and instructions)
- Cleaning solvent (Brake Clean or Acetone)
- Split bearing puller or 3 jaw gear puller
- 3/8-inch wide paint brush
- Scraper
- Rotary tool with wire brush
- 1/2-inch drive impact
- Dead blow hammer

## Center Bearing Removal:

1. Prior to removing the center bearing from the coupling shaft, locate the yellow paint stripe on the outer diameter of the splined sleeve. This mark is used for alignment of the rear driveshaft for installation. This paint stripe may be removed during the center bearing replacement process and will need to be re-marked when completed. Transfer the mark to the opposite side of the center bearing as a reference.



7. Install the second slinger with the large diameter toward the bearing by sliding it over the sleeve with a twisting motion. Be sure that the slinger is fully seated against the bearing.



8. Rotate the bearing to ensure that it moves freely.
9. Check the yellow alignment mark and re-mark if necessary, by locating the missing tooth in the splined sleeve with your finger and marking the corresponding location on the OD of the splined sleeve with a paint marker.
10. Allow the coupling shaft assembly to set for 3 hours to allow the adhesive to cure for handling prior to reinstallation of the shaft into the truck.
11. After installation, allow the adhesive to cure for an additional 3 hours (6 hours total) before operating the vehicle.

2. Remove the metal bracket from the center bearing by grasping the metal bracket on each side and rotating it as shown. **Caution: Wear gloves to protect your hands from any burrs and sharp edges.**



3. Use a cut-off wheel or hacksaw to cut through the rubber isolator and metal support ring to remove the rubber isolator from the bearing. **Caution: Wear protective eyewear to protect from flying debris.**



4. Remove the bearing and slingers from the splined sleeve using a split bearing puller or 3 jaw gear puller. **Note: The puller needs to react against the end of the splined sleeve to remove the bearing and slingers. It is recommended that a centering tool be used in the end of the splined sleeve to prevent damage to the sleeve and spline coating. Refer to Figure 1 for dimension details of a recommend design.**

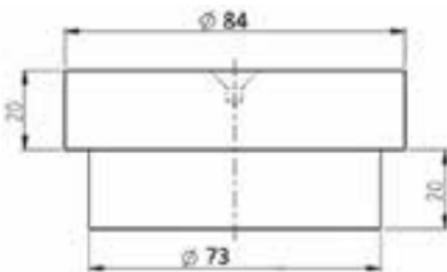


Figure 1

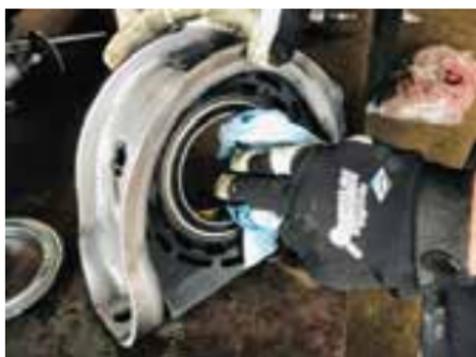


**Caution: Do not use an air chisel to remove the bearing from the sleeve to prevent damage to the splined sleeve.**

5. Clean the adhesive from the outer diameter of the splined sleeve using a scraper and wire brush or wire wheel to completely remove all the original adhesive residue. Use caution to prevent damage to the knurled surface.

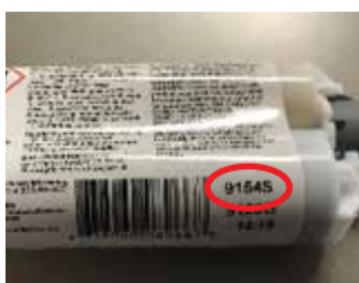


6. Clean the outer diameter of the splined sleeve, inner race of the new bearing, and inner diameter of the new slingers with a non-residue solvent such as brake clean or acetone to remove any dirt or oil residue. Wipe the areas a second time with the solvent using a clean towel.



## Center Bearing Installation:

1. Assemble the 3M DP420NS Black adhesive cartridge and mixing nozzle into the dispenser and dispense a small amount of adhesive onto a paper towel to prepare the adhesive for use. **Note: The 3M DP420NS Epoxy has an 18-month shelf life. Be sure to verify that the epoxy is within this shelf life, using the date code on the back of the cartridge as shown in the photo below (this example shows 9154). The first digit (9) represents the last digit of the year of manufacture and the next three digits are the day of that year (154st day of 2019).**



2. Apply a single 1/8-inch bead of DP420NS adhesive to the smooth area next to the shoulder where the first slinger is located. Spread the adhesive evenly over the slinger area using a small paint brush.



**Note: 3M DP420NS Black Epoxy has a 30-minute working time. Have the new parts and tools ready for re-assembly as per Step 6 above.**

3. Install the first slinger with the large diameter toward the bearing by sliding it over the sleeve with a twisting motion. Be sure that the slinger is fully seated against the shoulder on the sleeve.



4. Apply a two 1/8-inch beads of the DP420NS adhesive around the splined sleeve over the knurled area of the sleeve and spread it evenly using the brush.



5. Slide the new center bearing over the splined sleeve and seat it completely against the slinger. **NOTE: The bearing is a very close slip fit on the splined sleeve and may require tapping into place using a piece of tubing and hammer. A section of 4-inch diameter schedule 40 PVC pipe works well to prevent damage to the bearing seal. Caution: Wear protective eyewear to protect from flying debris.**



6. Apply a single 1/8-inch bead of DP420NS adhesive around the splined sleeve in the area of the outer slinger and spread it evenly over the slinger area using the brush.



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