Component Procedures: Axle Shaft Assembly

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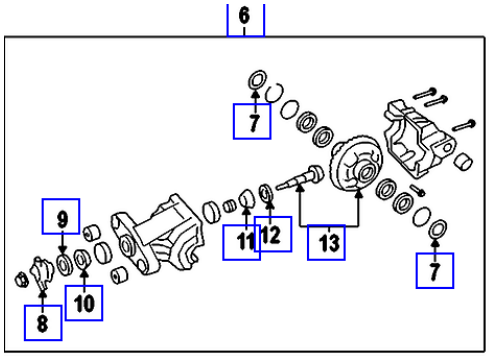
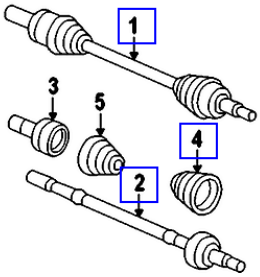
Rear Axle (Article 65757)





Parts and Labor (itype_189)

Labor

Operation	Qualifier Path	Skill	Std Hrs	Wty Hrs
Remove & Install	Rear Axle > Drive Axles > Drive Axle Assembly?	B	1.8	1.4
Remove & Install	Rear Axle > Drive Axles > Drive Axle Assembly?		0.2	
Remove & Install	Rear Axle > Drive Axles > Drive Axle Assembly?		0.5	
Remove & Install	Rear Axle > Drive Axles > Drive Axle Assembly?		0.5	
Remove & Install	Rear Axle > Drive Axles > Drive Axle Assembly?	B	3.3	0.0
Remove & Install	Rear Axle > Drive Axles > Drive Axle Assembly?		0.2	
Remove & Install	Rear Axle > Drive Axles > Drive Axle Assembly?		0.5	
Remove & Install	Rear Axle > Drive Axles > Drive Axle Assembly?		0.5	
Remove & Replace	Rear Axle > Drive Axles > Drive Axle Assembly?	B	1.8	1.4
Remove & Replace	Rear Axle > Drive Axles > Drive Axle Assembly?		0.2	
Remove & Replace	Rear Axle > Drive Axles > Drive Axle Assembly?	B	3.3	0.0
Remove & Replace	Rear Axle > Drive Axles > Drive Axle Assembly?		0.2	

Specifications Quick Reference (itype_439)

Quick Specifications
- item

Wheel Drive Shafts (Article 10904)

The wheel drive shaft assemblies are flexible assemblies consisting of an inner and outer constant velocity joint connected by a interconnecting shaft. The inner constant velocity joint is flexible and can move in and out. The inner constant velocity joint is not replaceable. The outer constant velocity joint is flexible, but cannot move in or out. The outer constant velocity joint is pressed onto the interconnecting shaft and is replaced as a complete outer constant velocity joint and interconnecting shaft assembly. Both constant velocity joints use rubber joint boots to protect and seal the constant velocity joints from dirt, water, and atmospheric conditions. The joint boots also contain lubricating grease required by the constant velocity joints for lubrication and quiet operation. The Inner joint boot kits are not available for the raised bar drive shaft design, but are replaceable on the straight bar drive shaft design. The outer joint boot kits are available and can be replaced individually as required. The inner constant velocity joints incorporate a male spline and interlock with the differential gears using barrel type snap rings. The snap rings are replaced after removal. The outer constant velocity joint is secured to the wheel/ hub assembly with a locking nut and

washer. The nut must be peened over into the keyway of the outer constant velocity joint stem to secure. The nut is discarded after removal. The wheel drive shafts transmit power from the differential to the wheel hub s. The constant velocity joints enable the wheel drive shafts to transmit the power with a flexible and quiet operation.

Rear Wheel Drive Shaft Replacement (Article 10911)

Special Tools
- DT-48877 - Seal Protector
- DT-51504 - Seal Protector
- J-45859 - Wheel Hub Remover

Removal Procedure
- Raise and support the vehicle. Refer to Lifting and Jacking the Vehicle .
- Remove the tire and wheel assembly. Refer to Tire and Wheel Removal and Installation .
- If equipped with a staked nut, using a chisel tool (2) and a hammer (3), unstake the drive shaft nut collar (1) from the drive shaft slot. Click for full-size image
- With the aid of an assistant, apply the brakes.
- Remove and discard the wheel drive shaft retaining nut (1). Click for full-size image
- Using J-45859 - remover , separate the wheel drive shaft from the knuckle. Click for full-size image
- Remove the knuckle assembly. Refer to Knuckle Replacement .
- Carefully install the DT-51504 - protector (1) for the 195 mm axle or the DT-48877 - protector (1) for the 218 mm axle and 250 mm axle over the wheel drive shaft. Click for full-size image
- Carefully slide the DT-51504 - protector (1) for the 195 mm axle or the DT-48877 - protector (1) for the 218 mm axle and 250 mm axle into the differential output shaft seal.
- Remove the wheel drive shaft (1) from the vehicle. Click for full-size image
- Remove the washer (1) from the wheel drive shaft (2) and discard. Replace with NEW only. Click for full-size image

Installation Procedure
- DO NOT re-use the old washer, replace with NEW only.
- If there is no washer present on the wheel drive shaft when removed, install the NEW washer
- Install the NEW washer (1) on the wheel drive shaft (2). Click for full-size image
- Install the wheel drive shaft (1) in the vehicle. Click for full-size image
- Carefully install the wheel drive shaft into the differential unit the splines are past the DT-51504 - protector (1) for the 195 mm axle or the DT-48877 - protector (1) for the 218 mm axle and 250 mm axle. Click for full-size image
- Carefully remove the DT-51504 - protector for the 195 mm axle or the DT-48877 - protector for the 218 mm axle and 250 mm axle from the differential output shaft seal. Click for full-size image
- Install the wheel drive shaft until the it is fully seated in the rear differential .
- Install the knuckle assembly. Refer to Knuckle Replacement .
- Install and hand tighten the NEW wheel drive shaft nut (1). Click for full-size image
- Using a torque wrench and the proper size socket, tighten the wheel drive shaft nut to 270 Nm (199 lb ft) .
- If equipped with a staked nut, using a chisel tool (1) and a hammer, stake the drive shaft nut collar (2) into the drive shaft slot. Click for full-size image
- Install the tire and wheel assembly. Refer to Tire and Wheel Removal and Installation .
- Remove the support and lower the vehicle.

Wheel Drive Shafts - Fastener Specifications (Article 10916)

Application	Specification	
	Metric	English
Rear Wheel Drive Shaft Nut (New)	270 Nm	199 lb ft

All Technical Service Bulletins (itype_100)

Tsbs
- Rear Axle Chatter or Moan Type Noise on Low Speed Turns (Excluding ZL1, Z28) (PI0137E, 2014/12/04)

Shudder or Vibration During Acceleration (Article 10906)

A shudder/vibration, or a groan/scraping noise during acceleration may be caused by a worn or damaged constant velocity joint . The common cause of constant velocity joint damage is the loss of lubricating grease and/or the presence of foreign material and contaminates in the constant velocity joint. This usually occurs as a result of a torn or damaged constant velocity joint boot .

Carefully inspect the joint boot for cuts, tears or other signs of damage that may allow the loss of the lubricating grease and/or the entry of contaminates. If the boot is torn check for contact with foreign matter or other parts in the surrounding area. If there is no damage to the joint boots, remove the wheel drive shaft from the vehicle and inspect the constant velocity joints. Rotate the constant velocity joints in a circular motion. Do not allow the constant velocity joint inner races to become disengaged from the outer race housings, or damage to the constant velocity joints will occur. The movement of the constant velocity joints should be smooth and even. If any binding or impeded motion is felt, the constant velocity joint requires replacement.

Wheel Drive Shafts - Special Tools (Article 10914)

Illustration Tool Number/ Description
Click for full-size image CH-48894 Wheel Drive Shaft Clamping Pliers
Click for full-size image DT-48877 Seal Protector
Click for full-size image DT-51504 Seal Protector
Click for full-size image J-8059 Snap Ring Pliers
Click for full-size image J-35910 Drive Shaft Boot Clamp Pliers
Click for full-size image J-45859 Wheel Hub Remover

Noise (itype_156)

Tsbs
- Rear Axle Chatter or Moan Type Noise on Low Speed Turns (Excluding ZL1, Z28) (PI0137E, 2014/12/04)