

TIP

Check that the spring collar and drive shaft clip are installed before setting the nut and tool. These cannot be installed after they have been set with a special tool set.

Set the tool (**Figure 6-25, (1)**) one step lower than the secondary spring seat (**Figure 6-25, (3)**) so that the bolt tip contacts it and make sure the nut contacts the threaded part of the bolt (**Figure 6-25, (4)**) while pushing the tool.

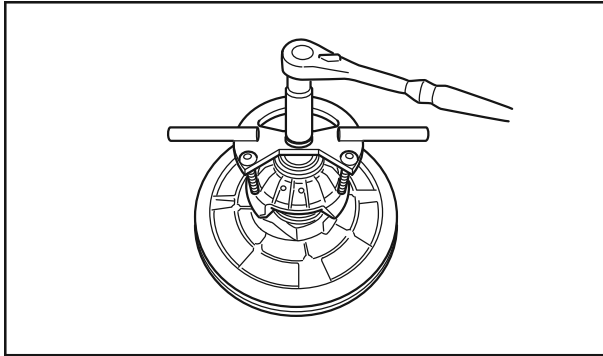


Figure 6-26

3. Tighten:
 - Nut

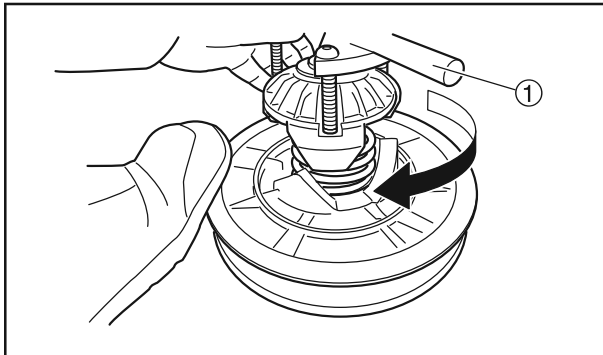


Figure 6-27

4. After tightening the nut to a certain extent, press down the secondary sheave, hold the handle of tool (**Figure 6-27, (1)**) and turn it clockwise, align to the alignment mark made when it was removed, and further tighten the nut.

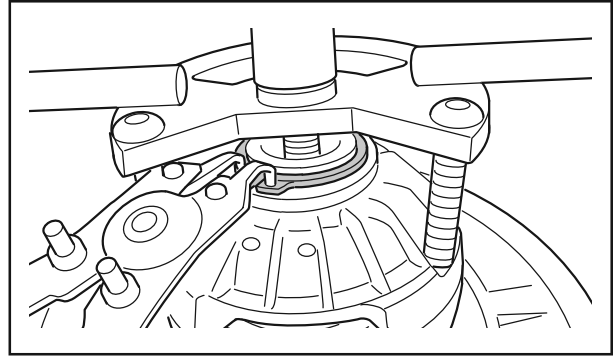


Figure 6-28

5. Fully tighten the nut, and install the drive shaft clip in the groove of the secondary sheave.
6. Remove:
 - Nut
 - Tool
 - Bolt

Install the Secondary Sheave Assembly

Installation is done in the reverse of removal with the following notes:

- Clean the splined input shaft of the rear axle and apply a light film of anti seize compound to the shaft before installing the sheave assembly.
- Tighten all fasteners to the specified torque.

Specification:

Secondary Sheave Assembly Bolt Torque
 28–32 N·m (2.8–3.2 m·kg; 21–24 lb·ft)

6

REAR AXLE – CARBURETOR MODELS

Axle Shafts

1. Remove the wheels.
2. Remove the brake drum. *See Inspect the Brake Drums and Shoes on page 3-33.*

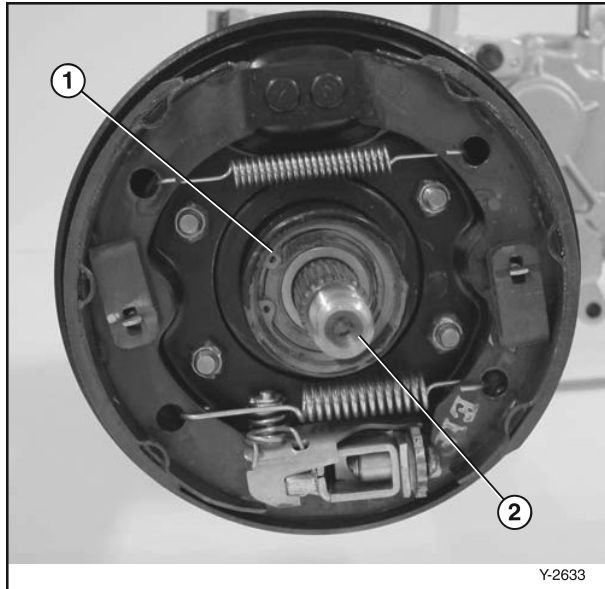


Figure 6-29

3. Remove the snap ring (**Figure 6-29, (1)**).
4. Pull the axle with the bearing (**Figure 6-29, (2)**) straight out of the axle tube.

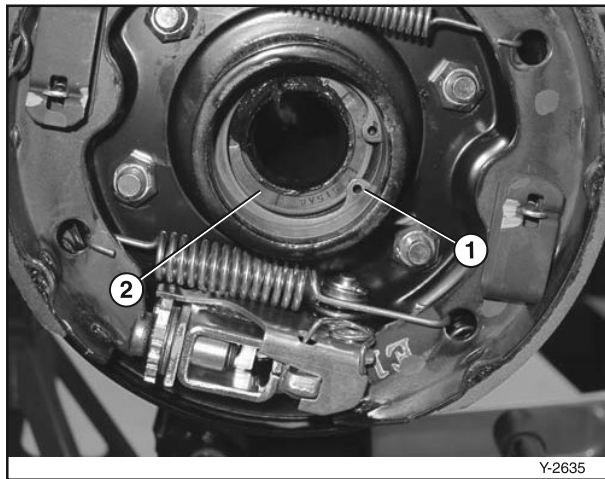


Figure 6-30

5. Remove the inner snap ring (**Figure 6-30, (1)**).
6. Use a seal puller and remove the axle seal (**Figure 6-30, (2)**).
7. Install a new axle seal.
8. Install inner snap ring.

TIP

When installing the axle, rotate the axle slowly while installing to align the splines on the axle shaft with the splines on the differential gear.

9. Install axle with bearing until it is seated on inner snap ring.
10. Install outer snap ring, brake drum and wheel.

Remove the Rear Axle

1. Park the vehicle on a flat surface.
2. Block the front wheels.
3. Remove the seat.
4. Disconnect the negative (-) battery cable.
5. Remove the drive belt. *See Replace the Drive Belt on page 3-10.*
6. Remove secondary sheave assembly. *See SECONDARY SHEAVE ASSEMBLY on page 6-10.*



Figure 6-31

7. Remove retaining nut (**Figure 6-31, (1)**). Remove choke cable from the body.
8. Remove rear access panel.
9. Raise the rear of the vehicle and lower onto jack stands under the rear frame.
10. Place a hydraulic jack under the rear axle to support it.

11. Remove the rear wheels.

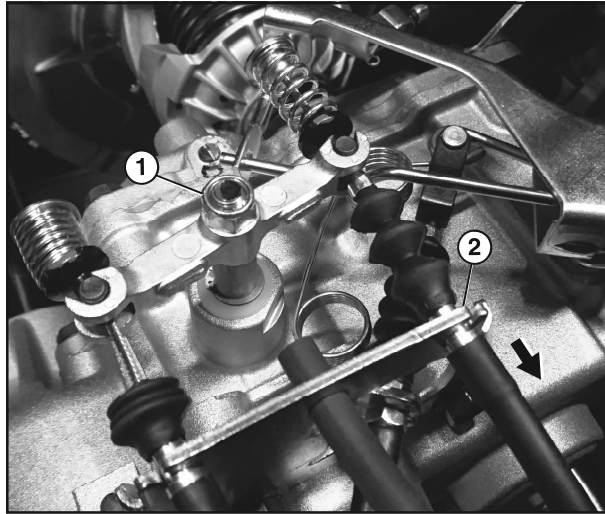


Figure 6-32

- 12. Remove nut (Figure 6-32, (1)) from the shifter shaft.
Slide shift lever off the shaft.
- 13. Pull the cables back out of the cast bracket on the transaxle and slide the inner cables out of the slot (Figure 6-32, (2)).
- 14. Move bracket, shift lever and cables toward the front of car away from rear axle.

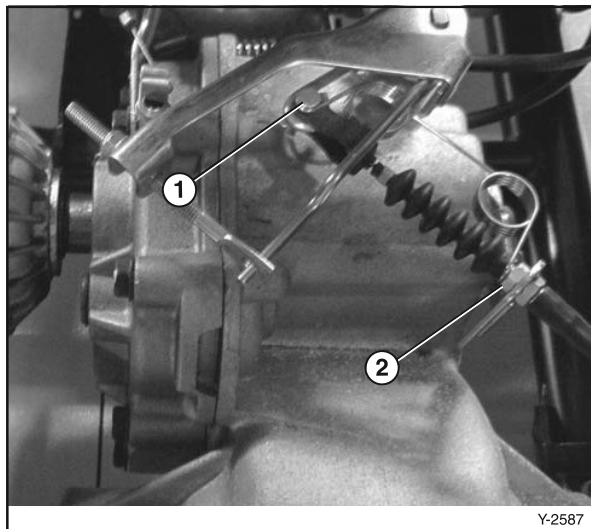


Figure 6-33

- 15. Remove the clevis pin (Figure 6-33, (1)) and disconnect the throttle cable from the speed limiter.
- 16. Loosen the jam nuts (Figure 6-33, (2)) and remove the throttle cable from the bracket.

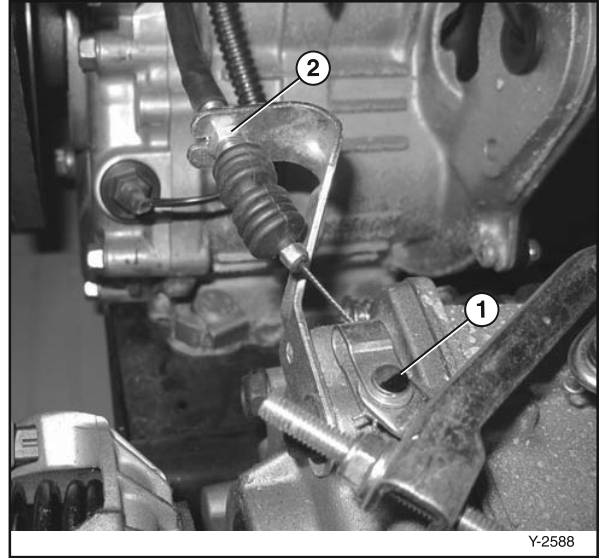


Figure 6-34

- 17. Remove the clevis pin (Figure 6-34, (1)) and disconnect the throttle cable.
- 18. Loosen the jam nuts (Figure 6-34, (2)) and remove the throttle cable from the bracket.

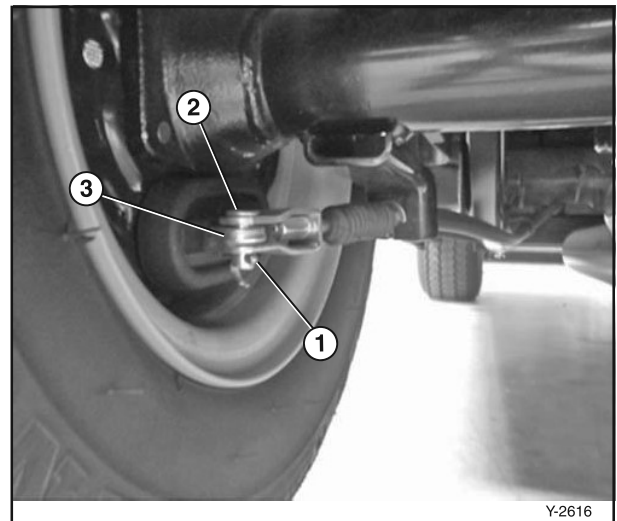


Figure 6-35

- 19. Remove the cotter pin (Figure 6-35, (1)) and remove the clevis pin (Figure 6-35, (2)) from the brake arm (Figure 6-35, (3)).
- 20. Remove the retaining ring and remove the brake cable from the axle.

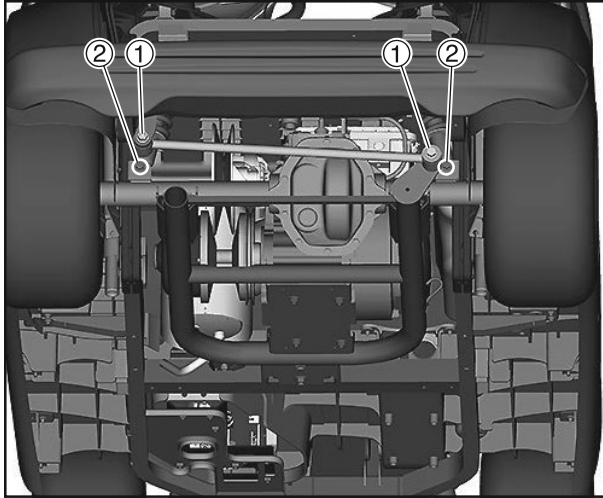


Figure 6-36

21. Remove the rear suspension connecting rod bolts (**Figure 6-36, (1)**). Remove connecting rod.
22. Remove the rear shock lower mounting bolts (**Figure 6-36, (2)**).

NOTICE

When lowering the rear axle, watch the wire leads and cables. Control the height in order that wire leads and cables should not be too tight. If the operation is difficult, remove the cables.

23. Using the hydraulic jack, slowly lower the rear axle and rear suspension assembly to the floor.

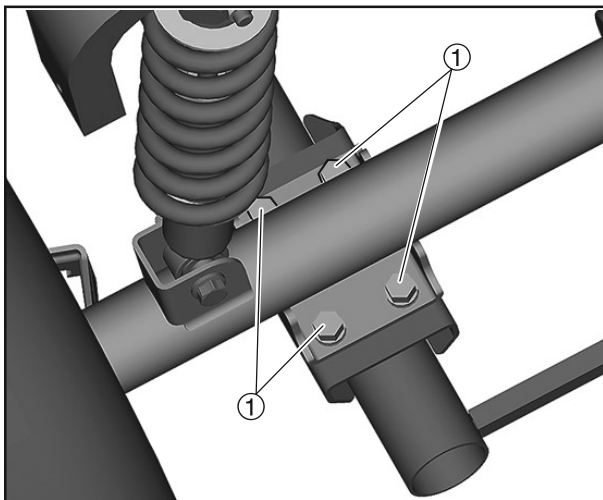


Figure 6-37

24. Remove four rear axle mounting bolts (**Figure 6-37, (1)**) from each side of axle.

25. With the help of an assistant, lift up and slide the rear axle assembly from vehicle.

Install the Rear Axle – Carburetor Models

Installation is done in the reverse of removal with the following notes:

- Tighten all fasteners to the specified torque.
- Adjust the shift cables. *See Adjust the Shift Cable on page 3-11.*
- Adjust the brake cable.
- Adjust throttle cables. *See Adjust the Throttle Cables on page 3-19.*

Specification:**Shift Cable Equalizer Bracket Locknut Torque**

3.5–5.5 N·m (0.4–0.6 m·kg; 31–49 lb-in.)

Rear Axle Mounting Bolt Torque

49–68 N·m (4.9–6.8 m·kg; 36–50 lb-ft)

Lower Rear Shock Absorber Bolt Torque

52–58 N·m (5.2–5.8 m·kg; 38–43 lb-ft)

Suspension Connecting Rod Nut Torque

75–105 N·m (7.5–10.5 m·kg; 55–77 lb-ft)

Wheel Nut Torque

88 N·m (8.8 m·kg; 65 lb-ft)

Disassemble the Rear Axle

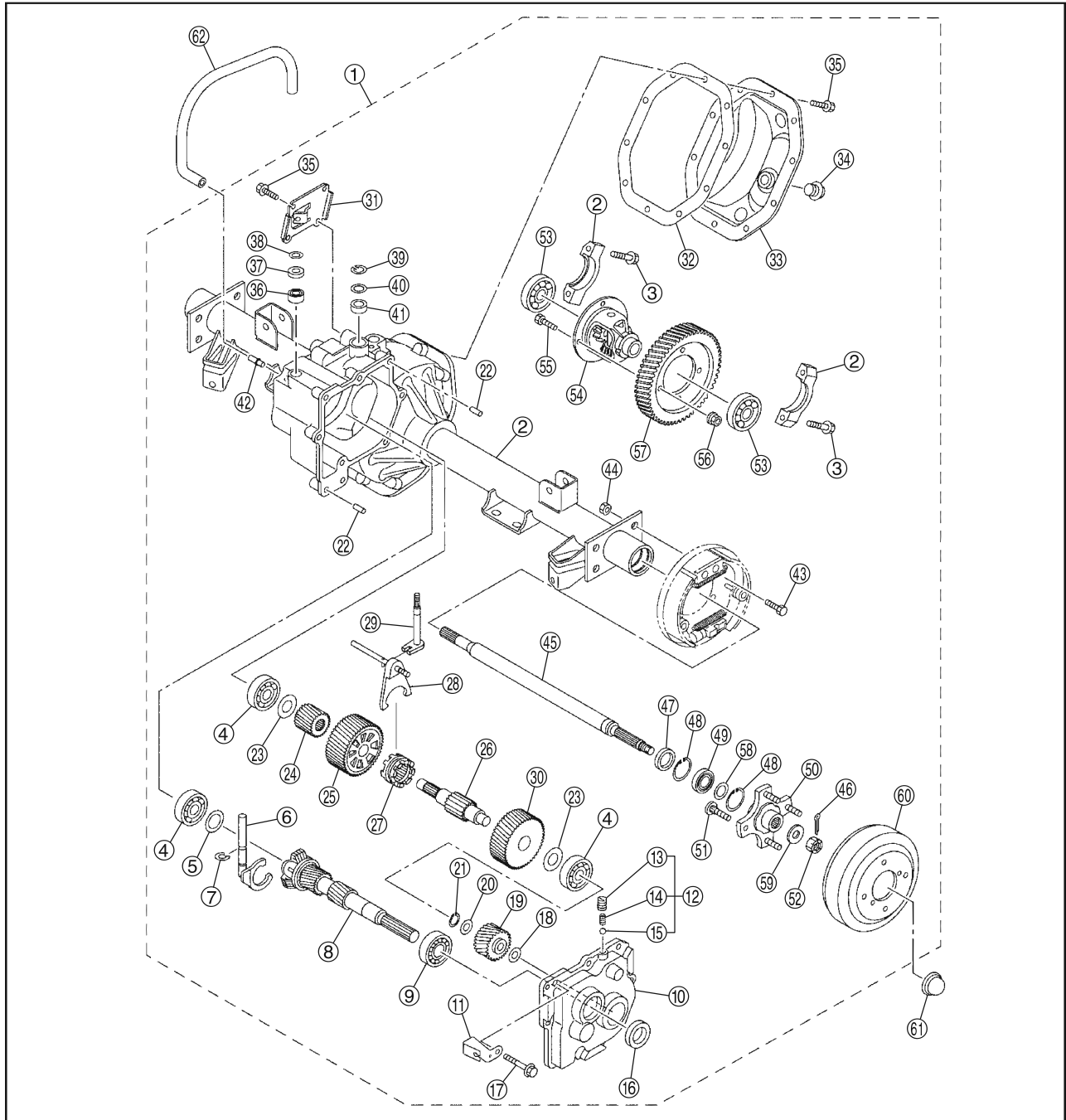


Figure 6-38

6

DRIVE TRAIN

REAR AXLE – CARBURETOR MODELS

1. Rear Axle Assembly
2. Carrier Assembly
3. Bolt (four used)
4. Bearing (three used)
5. Shim 0.76 mm (0.030 in.)
6. Governor Lever
7. Retaining Ring
8. Input Shaft
9. Bearing
10. Case Cover
11. Bracket
12. Detent Assembly
13. Set Screw
14. Spring
15. Ball
16. Oil Seal
17. Flange Bolt (seven used)
18. Washer
19. Idler Gear
20. Washer
21. Retaining Ring
22. Dowel Pin (two used)
23. Washer (two used)
24. Gear
25. Forward Gear
26. Counter Shaft
27. Shift Collar
28. Shift Fork
29. Shift Lever
30. Reverse Gear
31. Bracket
32. Gasket
33. Differential Cover
34. Check Plug
35. Bolt (10 used)
36. Bearing
37. Oil Seal
38. Retaining Ring
39. Retaining Ring
40. Washer
41. Oil Seal
42. Vent Fitting
43. Bolt (eight used)
44. Nut (eight used)
45. Axle Shaft
46. Cotter Pin (two used)
47. Oil Seal (two used)
48. Retaining Ring
49. Bearing
50. Hub
51. Stud (eight used)
52. Castle Nut (two used)
53. Bearing (two used)
54. Differential Assembly
55. Bolt (four used)
56. Nut (four used)
57. Ring Gear
58. Thrust Washer (two used)
59. Washer (two used)
60. Brake Drum
61. Dust Cover
62. Vent Hose

1. Remove the rear axle from the car. See *REAR AXLE – CARBURETOR MODELS* on page 6-13.
2. Place a drain pan under the differential cover.

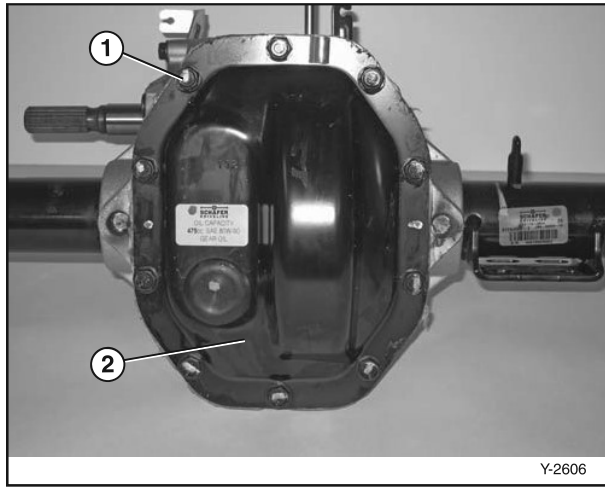


Figure 6-39

3. Remove the bolts (Figure 6-39, (1)) and remove the differential cover (Figure 6-39, (2)).
4. Allow the oil to drain.
5. Remove the axles. See *Axle Shafts* on page 6-13.

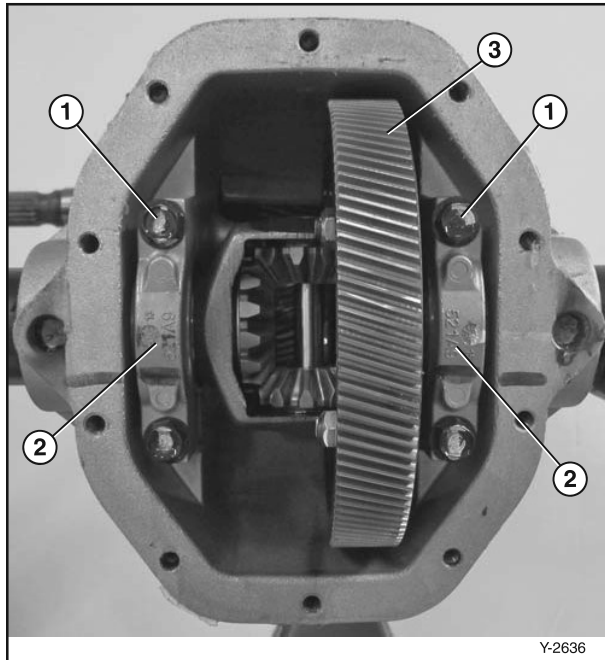


Figure 6-40

6. Remove the bolts (Figure 6-40, (1)) and the bearing caps (Figure 6-40, (2)).
7. Remove the differential assembly with the ring gear (Figure 6-40, (3)).

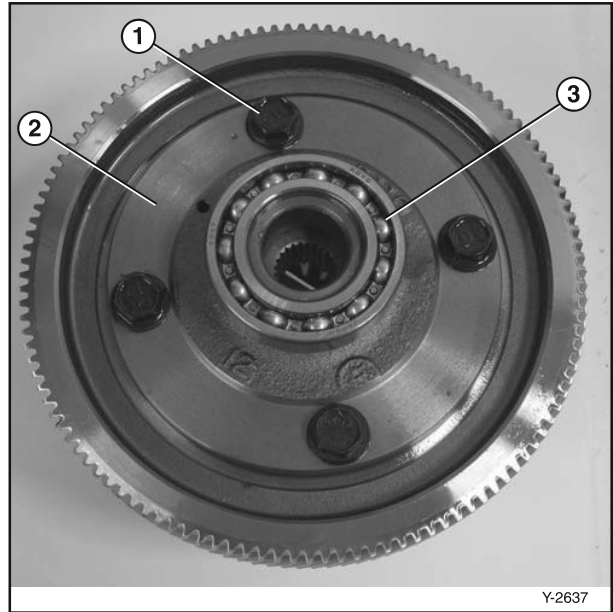


Figure 6-41

8. Remove the bolts and nuts (Figure 6-41, (1)) and remove the ring gear (Figure 6-41, (2)) from the differential assembly.
9. Inspect the bearings (Figure 6-41, (3)). They must rotate smoothly and quietly.

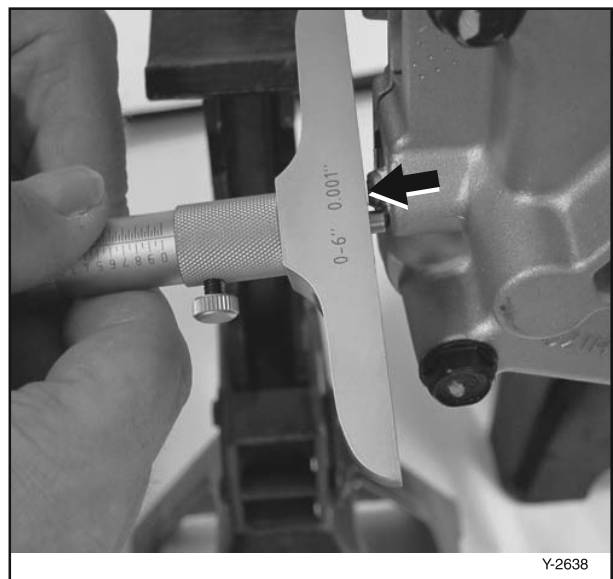


Figure 6-42

6

DRIVE TRAIN

10. Measure the height that the detent set screw protrudes from the case. When installed it must be at the same height.

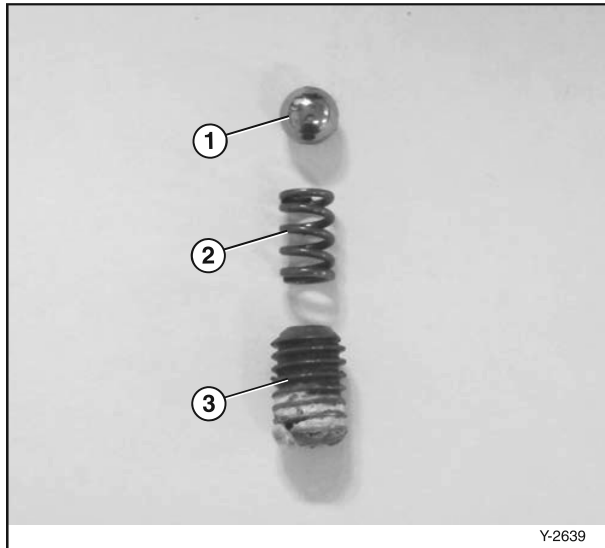


Figure 6-43

11. Remove the set screw (**Figure 6-43, (3)**), the spring (**Figure 6-43, (2)**) and the detent ball (**Figure 6-43, (1)**).

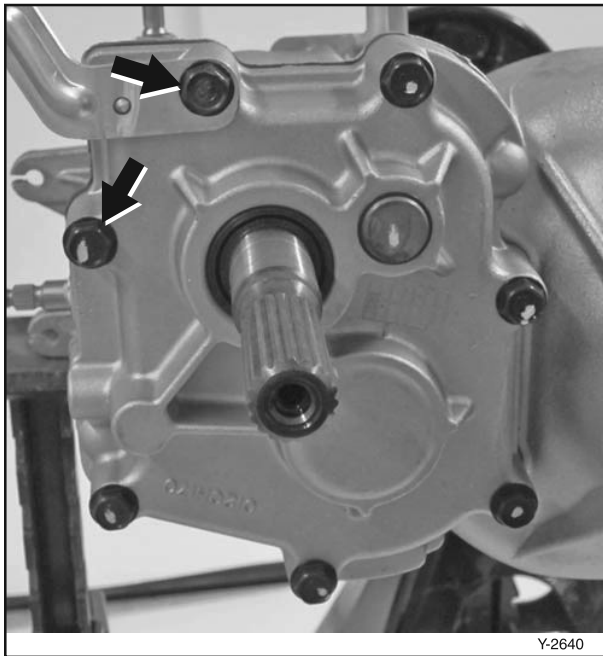


Figure 6-44

REAR AXLE – CARBURETOR MODELS

12. Remove the seven case cover bolts and remove the cover.

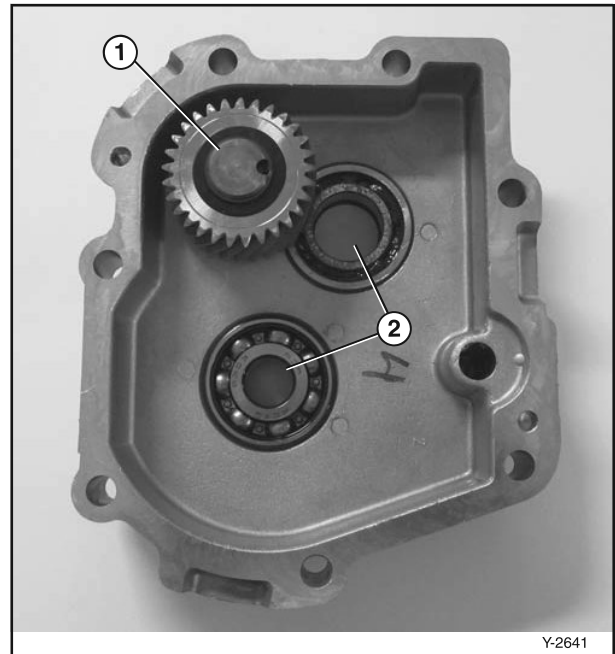


Figure 6-45

13. Inspect the idler gear (**Figure 6-45, (1)**) and the bearings (**Figure 6-45, (2)**). Make sure they move smoothly.



Figure 6-46

14. Replace the oil seal for the cover.

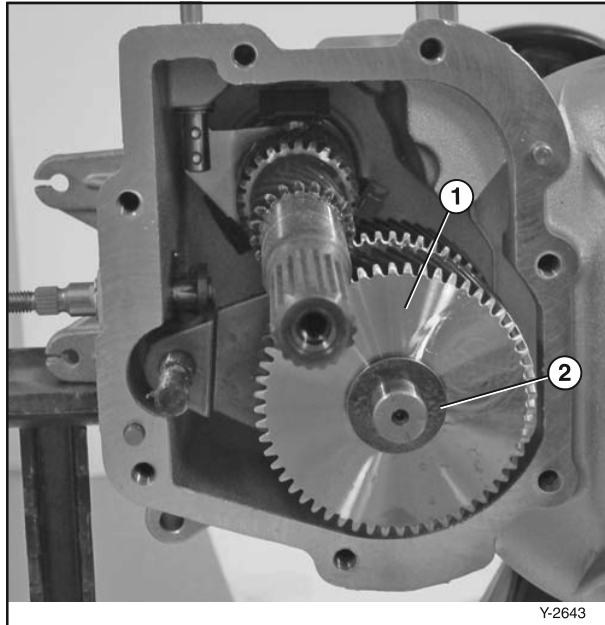


Figure 6-47

15. Remove the washer (Figure 6-47, (2)) and the reverse gear (Figure 6-47, (1)) from the countershaft.

16. Inspect the gear for wear.

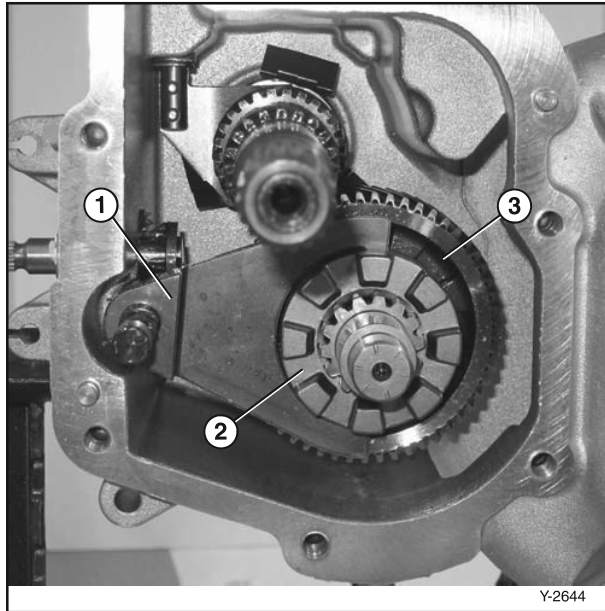


Figure 6-48

17. Remove the shift fork (Figure 6-48, (1)) along with the shift collar (Figure 6-48, (2)).

18. Remove the forward gear (Figure 6-48, (3)) and the countershaft.

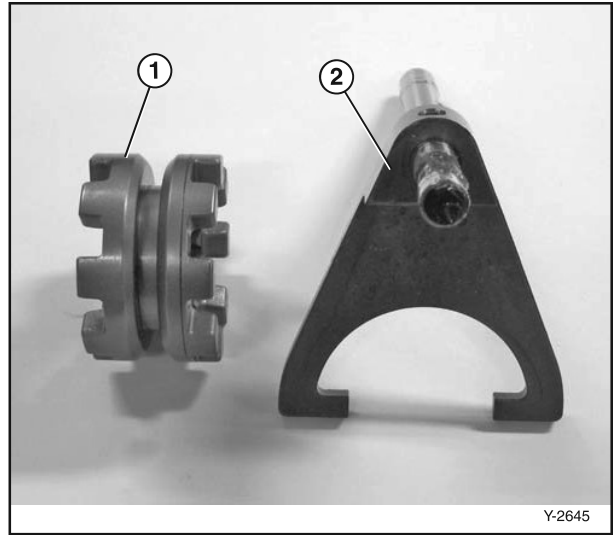


Figure 6-49

19. Inspect the shift collar (Figure 6-49, (1)) and the shift fork (Figure 6-49, (2)) for wear.

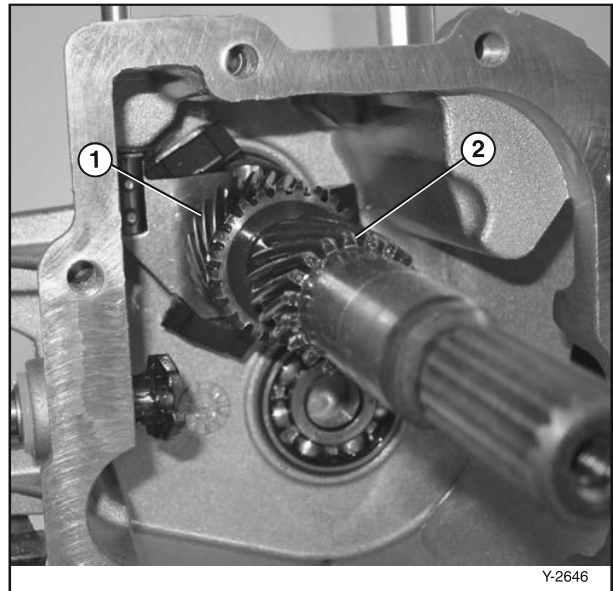


Figure 6-50

20. Remove the input shaft (Figure 6-50, (2)) and rotate the governor shaft (Figure 6-50, (1)) out of the groove on the input shaft.

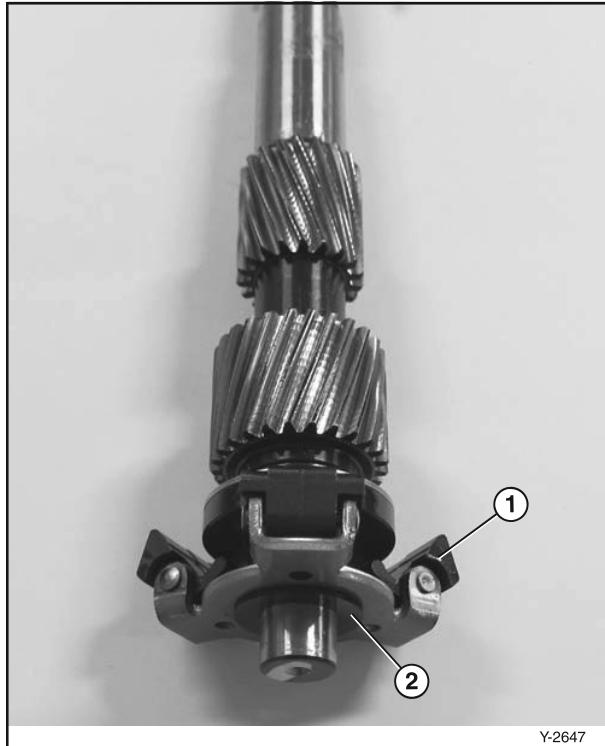


Figure 6-51

21. Inspect the weights (**Figure 6-51, (1)**) for the governor. Make sure they move freely.
22. Make sure the shim (**Figure 6-51, (2)**) is smooth on both sides.

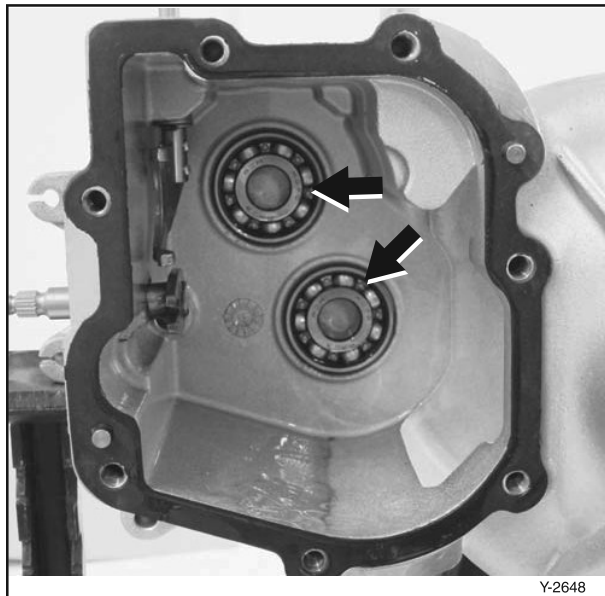


Figure 6-52

23. Inspect the bearings in the case. They must rotate smoothly.

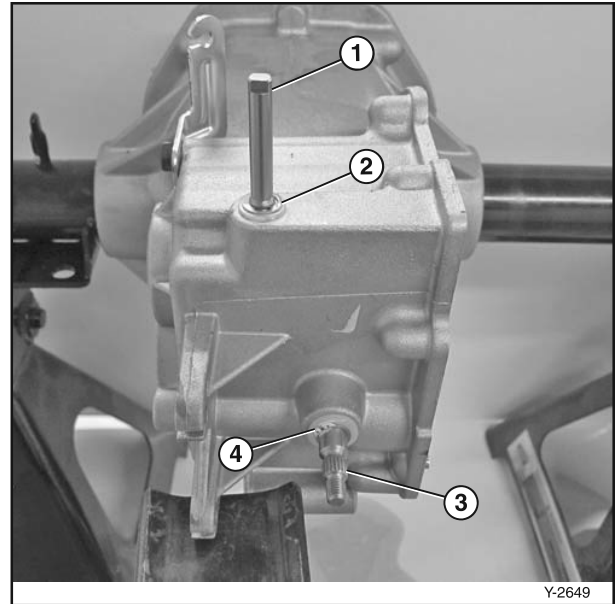


Figure 6-53

24. Remove the snap ring (**Figure 6-53, (2)**) and slide the governor shaft (**Figure 6-53, (1)**) inside the case to remove.
25. Remove the snap ring (**Figure 6-53, (4)**) and slide the shift lever (**Figure 6-53, (3)**) into the case to remove.

Assemble the Rear Axle

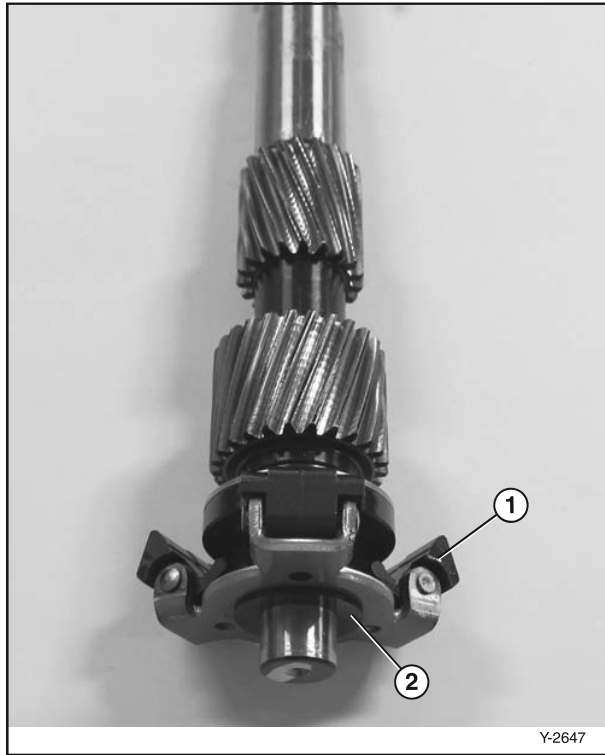


Figure 6-54

1. When installing the input shaft make sure to use the same shim (Figure 6-54, (2)) that was removed. (Figure 6-54, (1)) shows the weights.

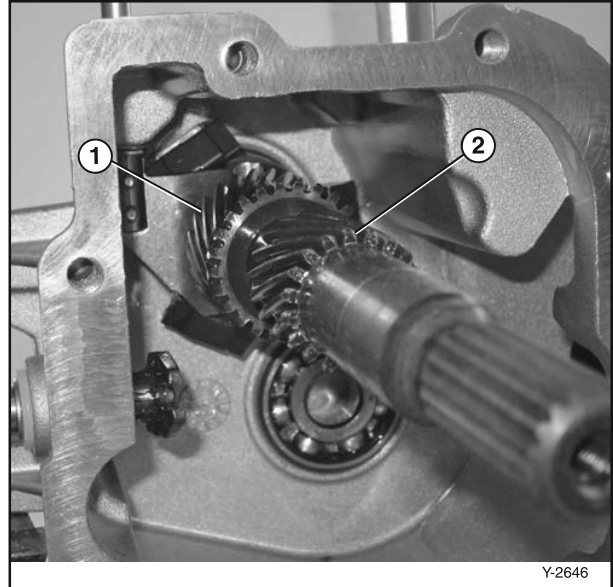


Figure 6-55

2. Install the input shaft (Figure 6-55, (2)) into case and make sure the bracket for the governor shaft (Figure 6-55, (1)) is in the groove on the input shaft. Rotate the governor shaft in while installing the input shaft.
3. Install the countershaft with the forward gear.

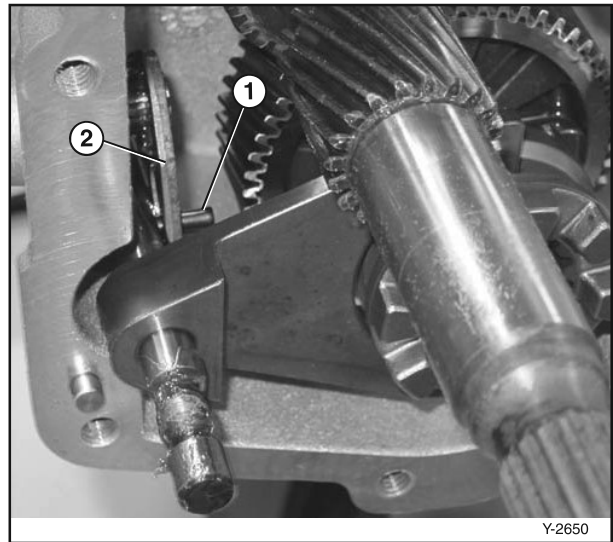


Figure 6-56

4. Install the shift fork and shift collar onto the countershaft making sure that the roll pin (Figure 6-56, (1)) on the shift fork shaft is in the groove on the shifter lever (Figure 6-56, (2)).

6

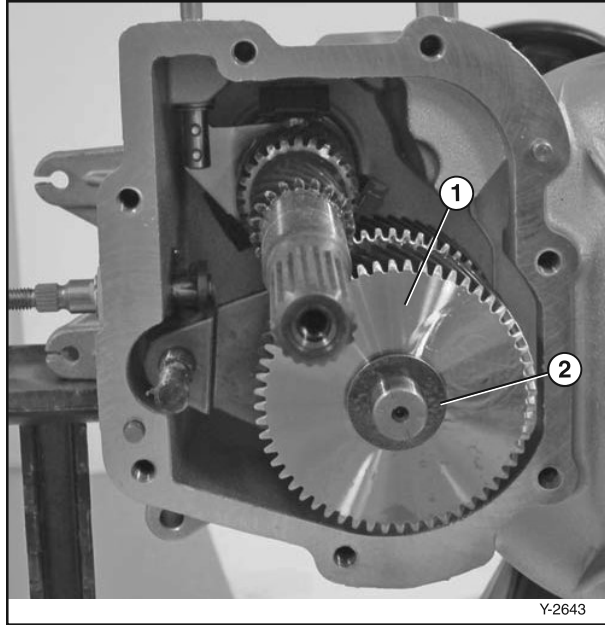


Figure 6-57

5. Install the reverse gear (Figure 6-57, (1)) and the washer (Figure 6-57, (2)).

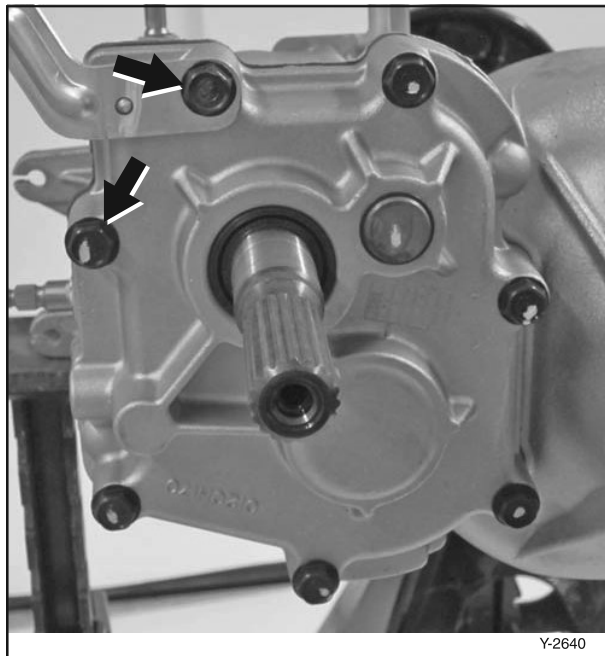


Figure 6-58

6. Use a new gasket and install the cover. Tighten the cover bolts in a crisscross pattern to specification.

Specification:

Gearcase Cover Bolts

Initial Torque

20 N·m (2.0 m·kg; 14.8 lb-ft)

Final Torque

31 N·m (3.2 m·kg; 22.9 lb-ft)

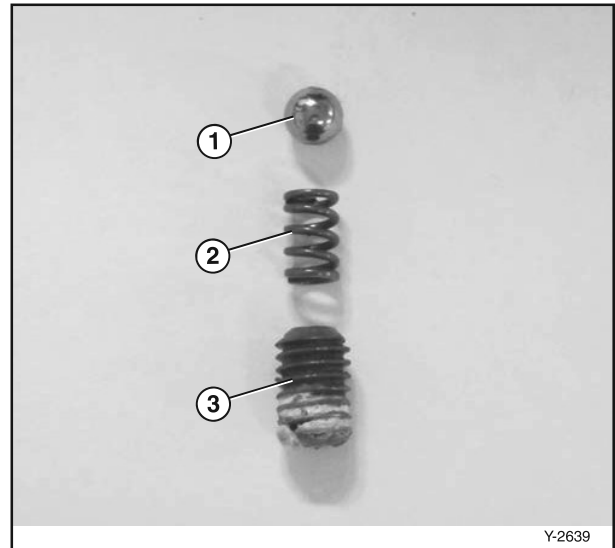


Figure 6-59

7. Install the detent ball (Figure 6-59, (1)), the spring (Figure 6-59, (2)) and the set screw (Figure 6-59, (3)).
8. Tighten the set screw to the same height that was measured before disassembly.

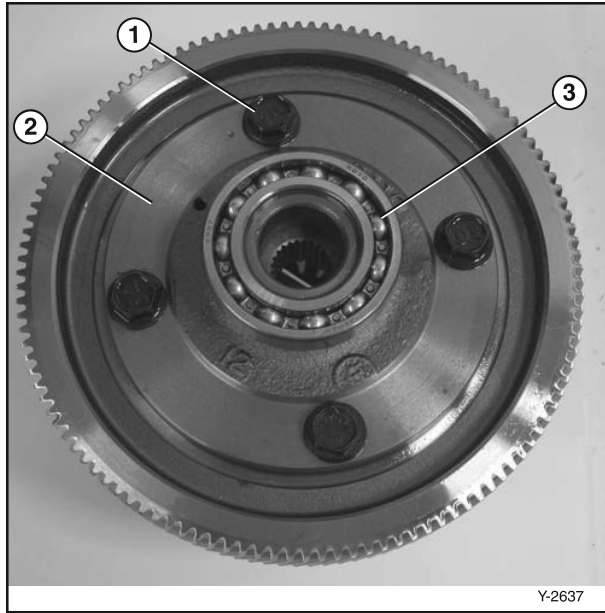


Figure 6-60

9. Install the ring gear (**Figure 6-60, (2)**) to the differential assembly. Tighten bolts (**Figure 6-60, (1)**) to specification.
(Figure 6-60, (3)) shows the bearings as well.

Specification:

Ring Gear Bolts Torque

54 N·m (5.5 m·kg; 39.8 lb-ft)

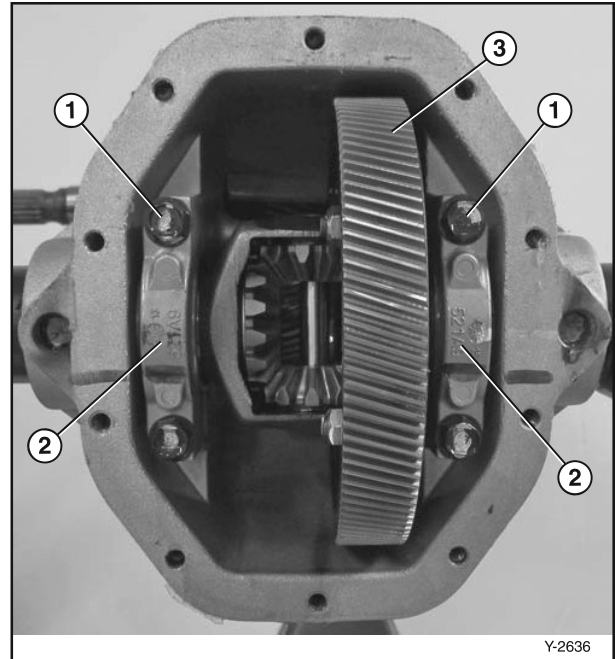


Figure 6-61

10. Install the differential assembly (**Figure 6-61, (3)**).
11. Install the bearing caps (**Figure 6-61, (2)**) and the bolts (**Figure 6-61, (1)**). Tighten the bolts to specification.

Specification:

Axle Bearing Cap Bolts Torque

54 N·m (5.5 m·kg; 39.8 lb-ft)

12. Clean the differential cover and the cover mounting surface.
13. Apply RTV gasket sealant to the cover.

DRIVE TRAIN

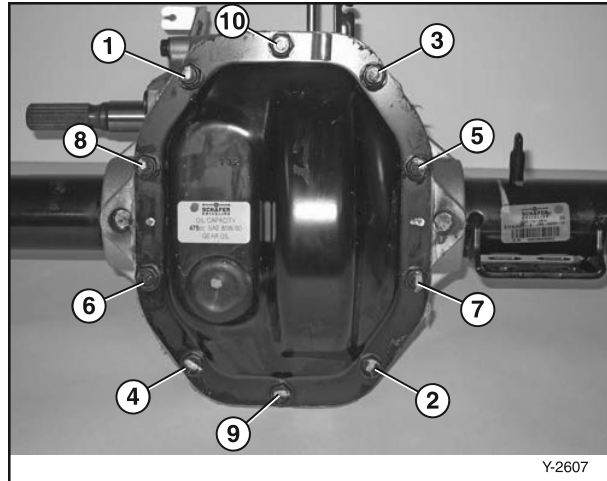


Figure 6-62

14. Install the differential cover and tighten the bolts in order from 1 to 10 to specification.

Specification:

Differential Cover Bolts

Initial Torque

20 N·m (2.0 m·kg; 14.8 lb-ft)

Final Torque

28 N·m (2.9 m·kg; 20.7 lb-ft)

15. Install the axle shafts.
16. Install the rear axle. See *Install the Rear Axle – Carburetor Models* on page 6-16.
17. Install rear axle gear oil. See *Check the Axle Oil Level* on page 3-40.

TRANSMISSION – EFI MODELS

Axle Shafts

1. Remove the wheels.

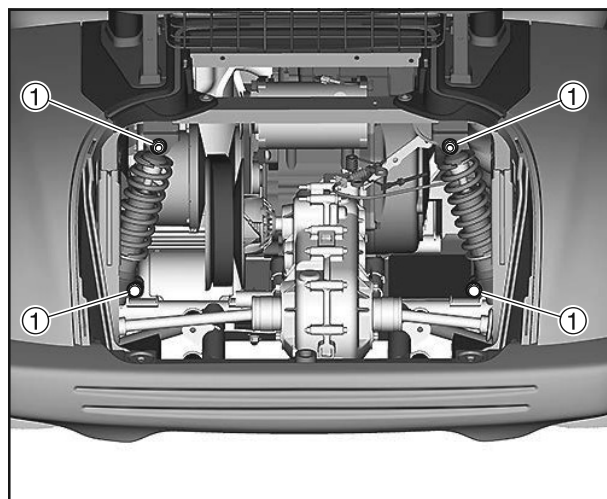


Figure 6-63

TRANSMISSION – EFI MODELS

2. Remove the bolts (Figure 6-63, (1)) of the rear shock absorber. Remove the rear shock absorber.

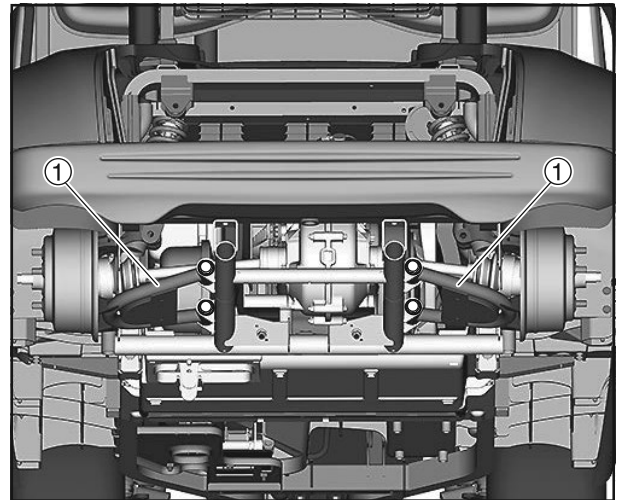


Figure 6-64

3. Remove the lower arm (Figure 6-64, (1)). See *REAR SUSPENSION COMPONENTS – EFI MODELS* on page 7-48.

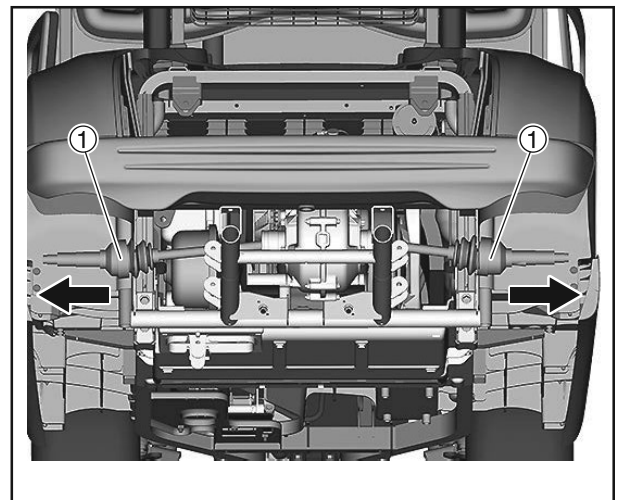


Figure 6-65

4. Pull out the drive shaft (Figure 6-65, (1)).

Remove the Transmission

1. Park the vehicle on a flat surface.
2. Block the front wheels.
3. Remove the seat.
4. Disconnect the negative (-) battery cable.
5. Remove the drive belt. See *Replace the Drive Belt* on page 3-10.