
Massey Ferguson®

**GC2400 / GC2410 / GC2600 / GC2610
Compact Tractor**

**WORKSHOP SERVICE MANUAL
4283093M1**

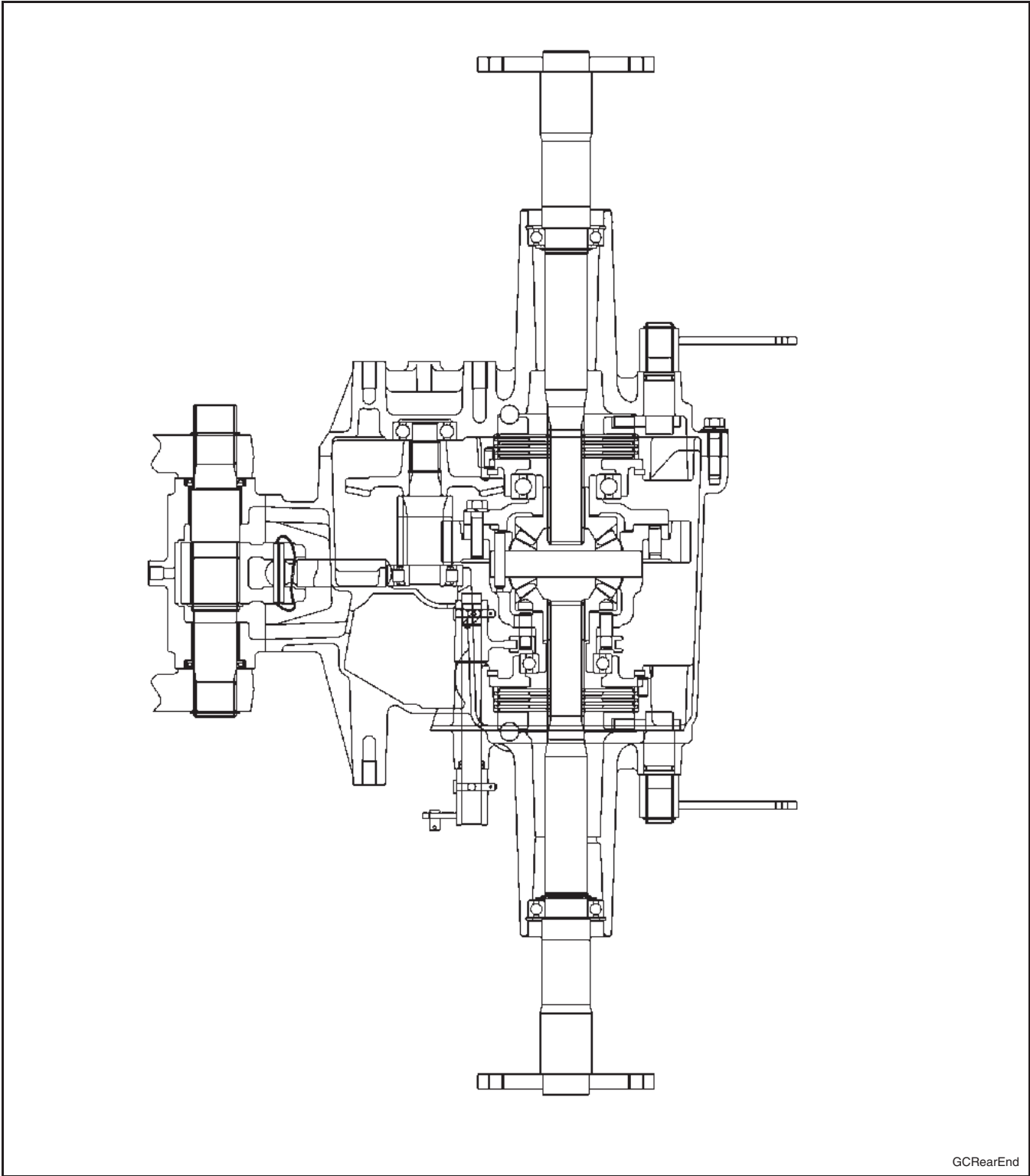
07 - Rear Axle and Brakes

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REAR AXLE AND BRAKES

ASSEMBLY GUIDELINES

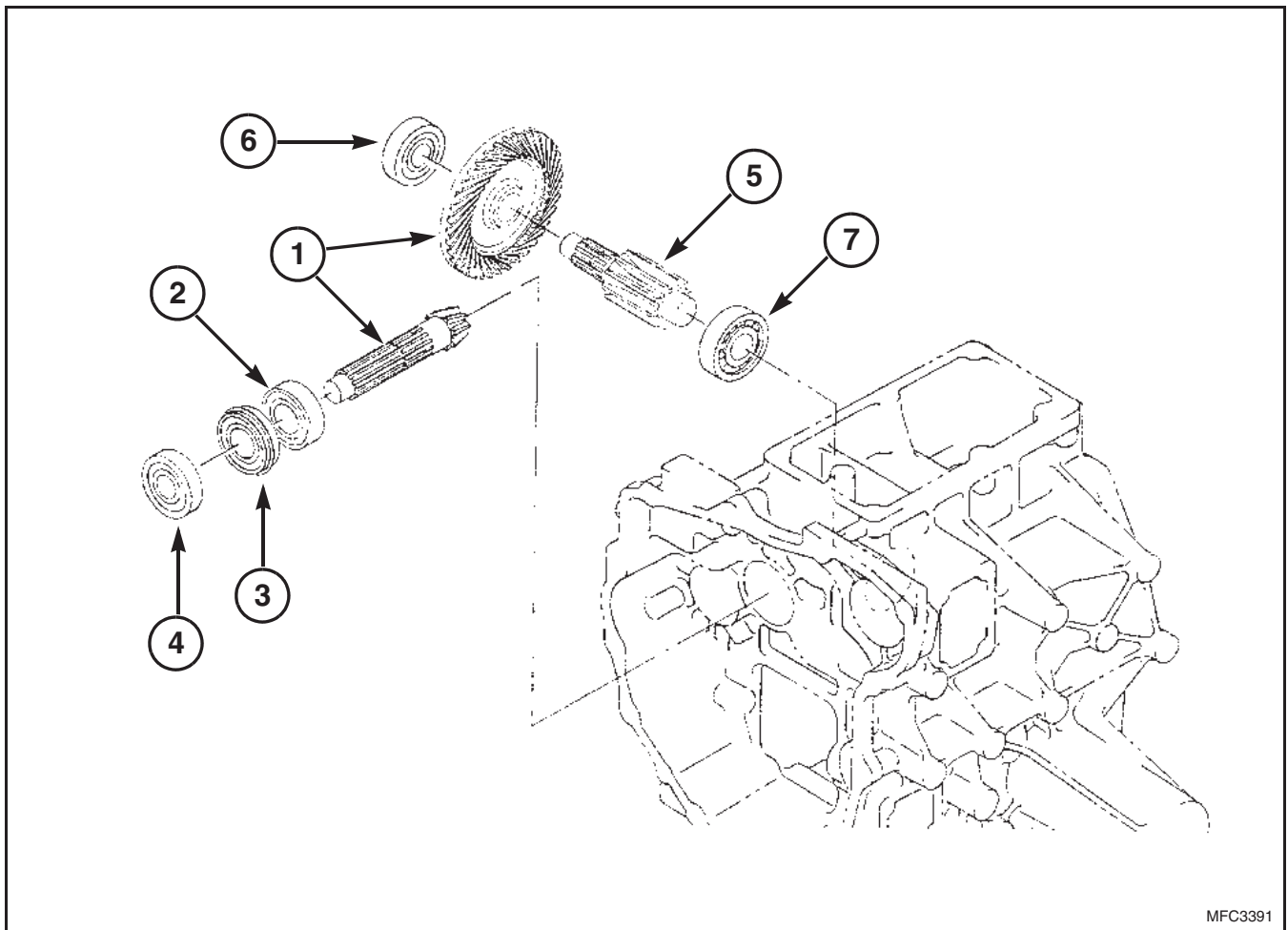


GC Rear End

FIG. 1

FIG. 1: Rear End Assembly

Rear Axle and Brakes

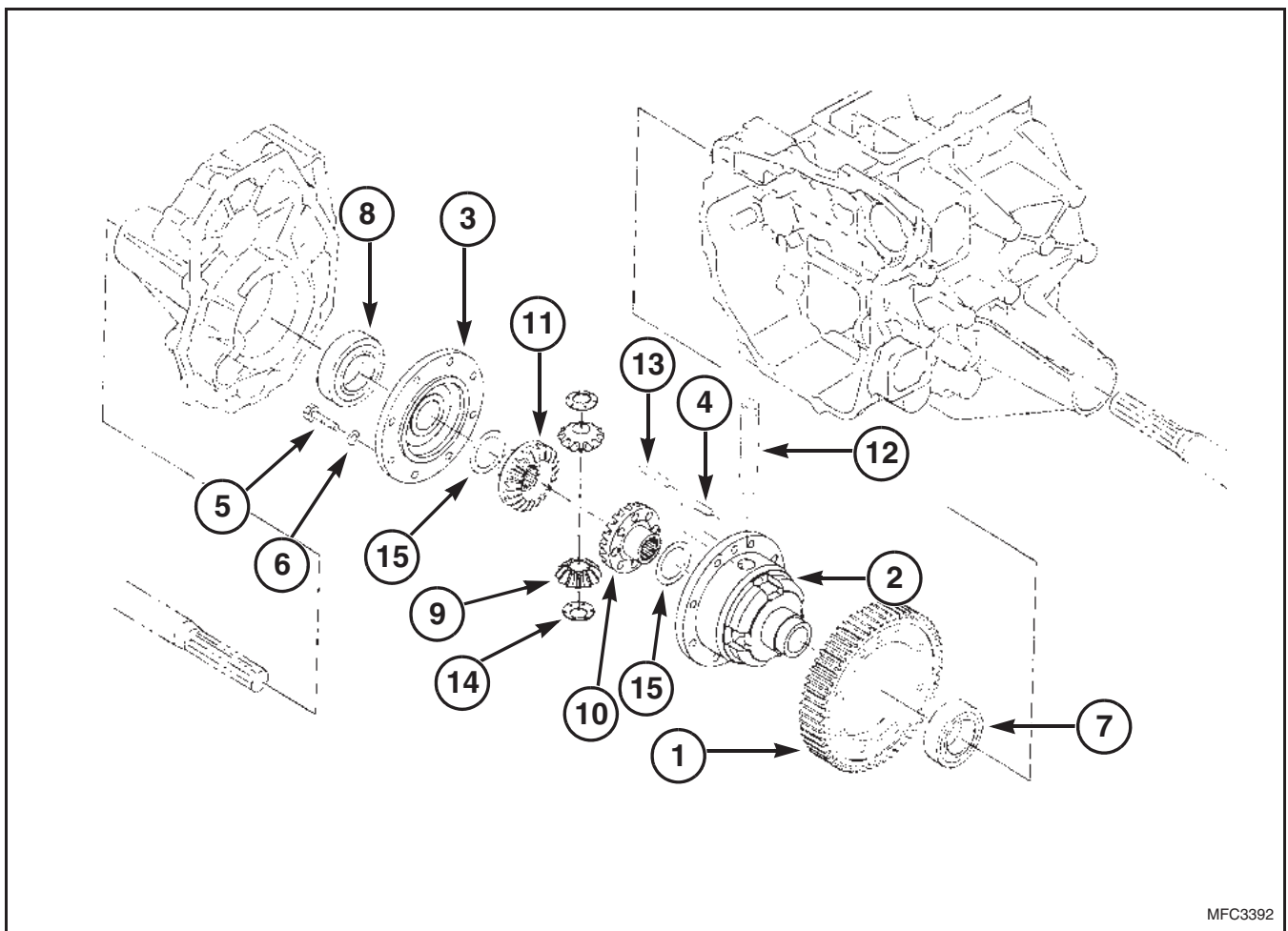


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FIG. 2

FIG. 2: Rear ring and pinion components.

- (1) Ring and Pinion kit
- (2) Ball Bearing
- (3) Bearing with Retaining Ring
- (4) Ball Bearing
- (5) Spur Gear 10
- (6) Ball Bearing
- (7) Roller Bearing



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FIG. 3

FIG. 3: Rear ring and pinion components.

- (1) Spur Gear, 56
- (2) Differential Case
- (3) Differential Case
- (4) Pin
- (5) Bolt
- (6) Lock Washer
- (7) Bearing
- (8) Bearing
- (9) Bevel Pinion, 12
- (10) Bevel Gear, 20
- (11) Bevel gear, 20
- (12) Pinion Shaft
- (13) Pin 08X45
- (14) Pinion Washer
- (15) Washer 38X52X01

Rear Axle and Brakes

Disassembly

Remove the rear transmission housing assembly as outlined in the CHASSIS section of this manual.

FIG. 4: Remove the snap ring to remove the differential lock arm from the LH side. Use care not to lose or damage the O-rings (1) on the differential lock shaft.

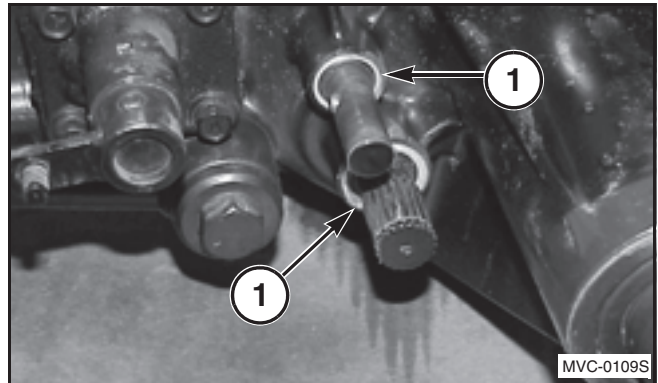


FIG. 4

FIGS. 5–7: Remove the hardware from the RH axle housing. Remove the RH axle housing.

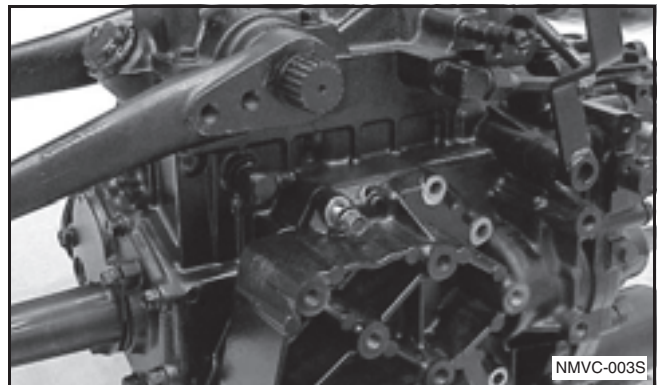


FIG. 5

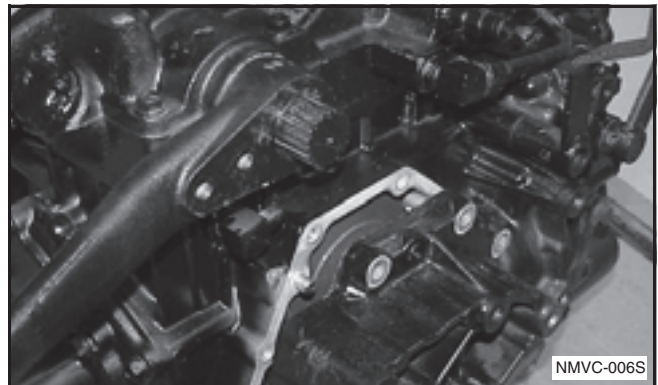


FIG. 6

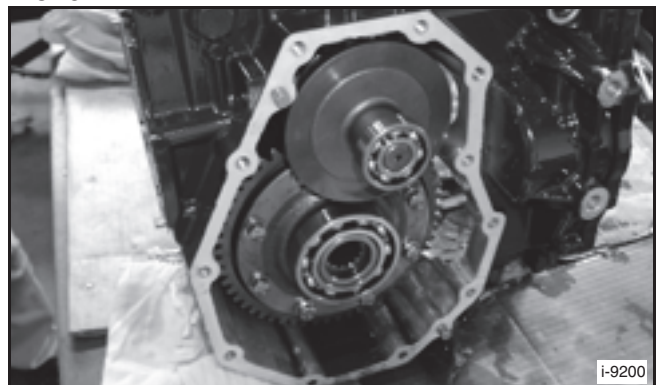


FIG. 7

FIG. 8: Remove the ring gear. Remove the bearing from the ring gear.

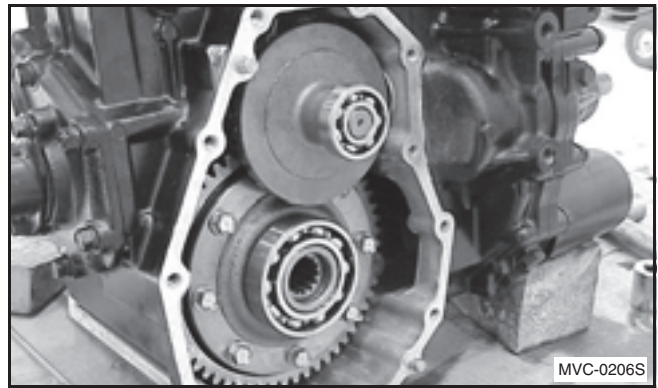


FIG. 8

FIGS. 9–10: Remove the pinion shaft.

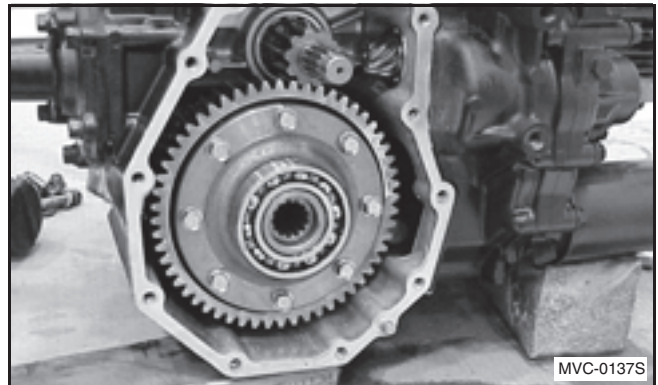


FIG. 9



FIG. 10

Rear Axle and Brakes

FIG. 11: Remove the differential assembly.

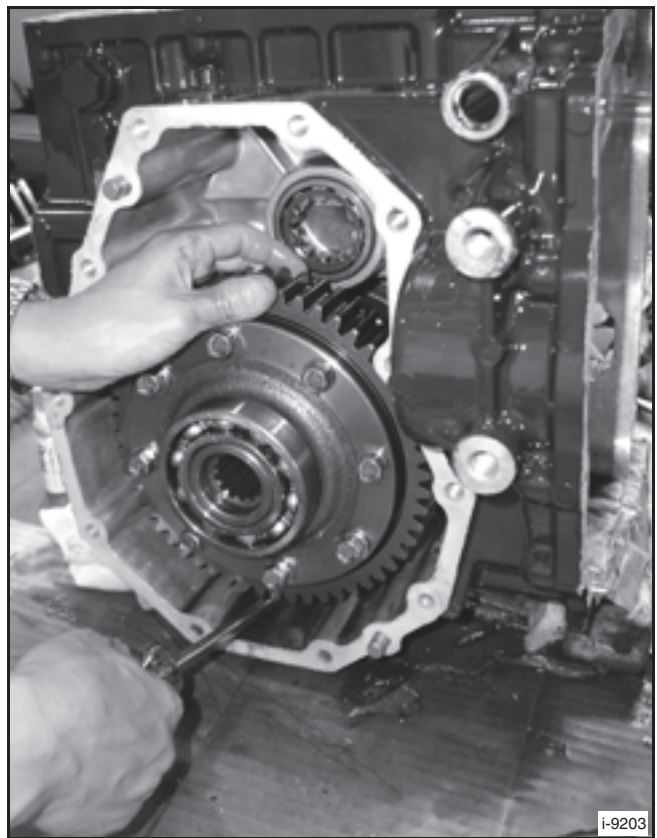


FIG. 11

FIGS. 12–13: Remove the differential lock shift fork assembly.

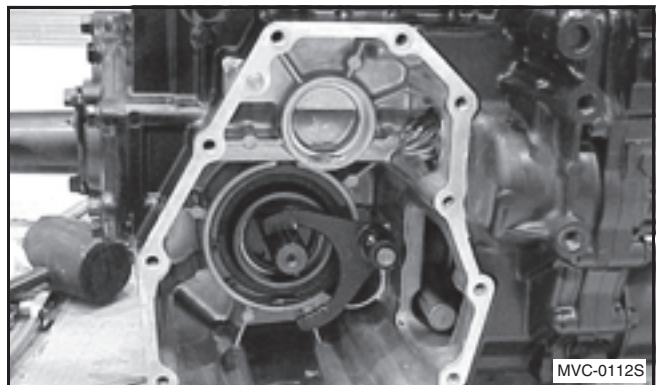


FIG. 12



FIG. 13

FIGS. 14–15: Remove the hardware securing the bull gear to the differential case. Remove the Spur gear.

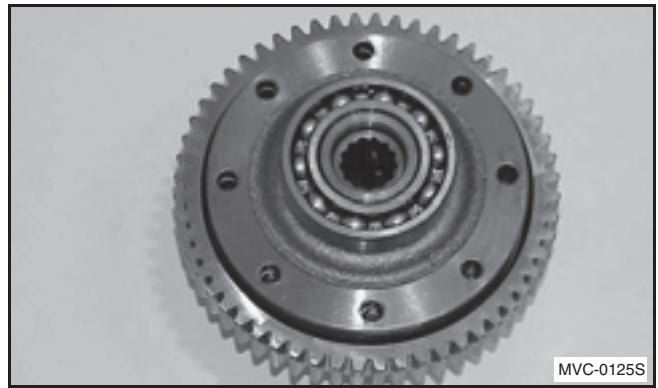


FIG. 14



FIG. 15

FIG. 16: Separate the differential case halves.

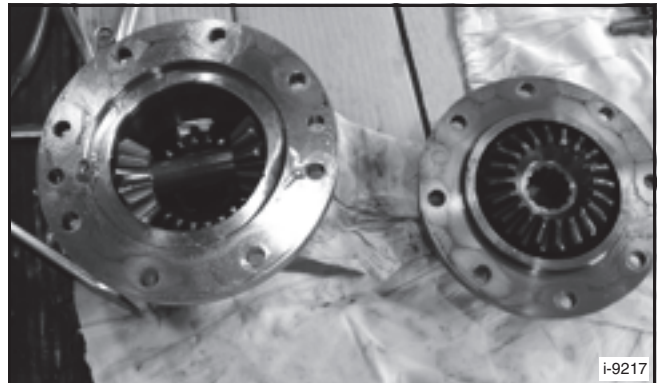


FIG. 16

Rear Axle and Brakes

FIGS. 17–18: Insert a punch in the hole (1) located in the case to remove the locking pin. Remove the pinion shaft, pinion gears and washers.

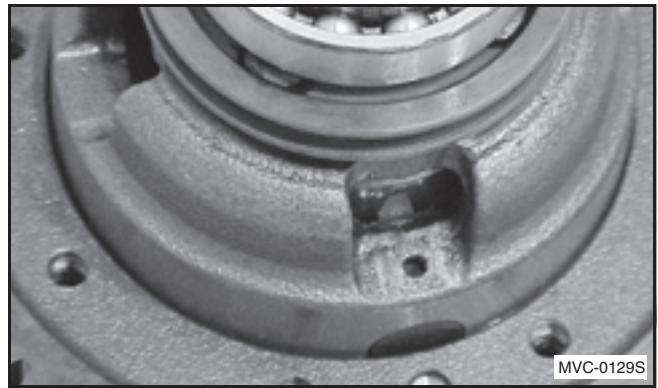


FIG. 17

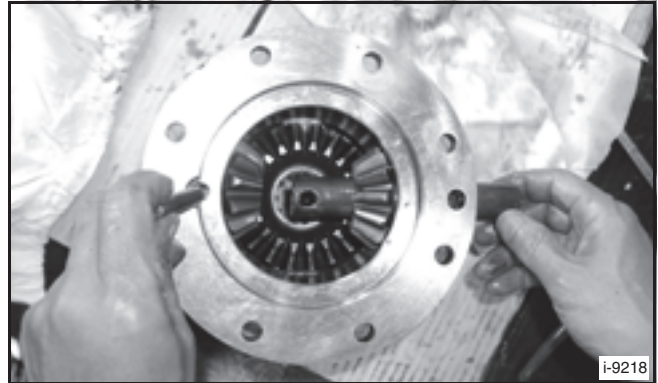


FIG. 18

FIGS. 19–20: Remove the side gears and shims between the side gear and case.

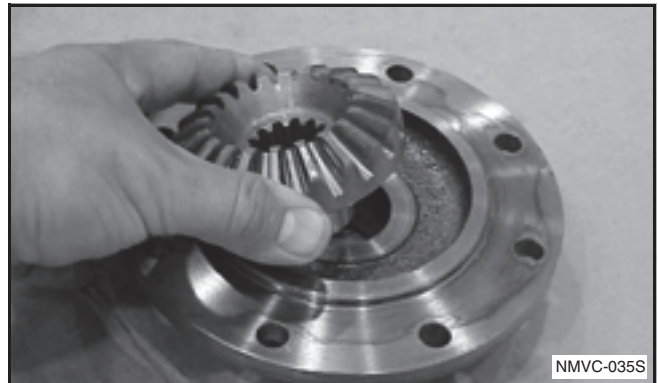


FIG. 19

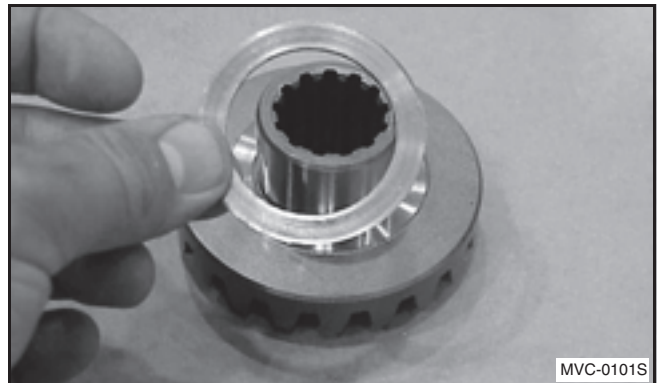


FIG. 20

FIG. 21: Remove the bearings from the case.



FIG. 21

Assembly

Assemble in reverse order of disassembly. Tighten all hardware to standard torque values. Use silicone between the axle housing and final case.

NOTE: Ring and pinion backlash is preset by machine tolerances of component parts. No adjustment is necessary.

Rear Axle and Brakes

DIFFERENTIAL LOCK

The differential lock is a pin type differential lock. The differential case must be removed to access the differential lock. Inspect all components for wear or damage. Do not forget to install O-rings on shift rail. All linkage should move freely.

FIG. 22: Differential lock components.

- (1) Differential Lock Sleeve
- (2) Differential Lock Shift Fork
- (3) Differential Lock Shaft
- (4) Pin 06X32
- (5) Washer
- (6) Cotter Pin
- (7) Snap Ring
- (8) O-ring

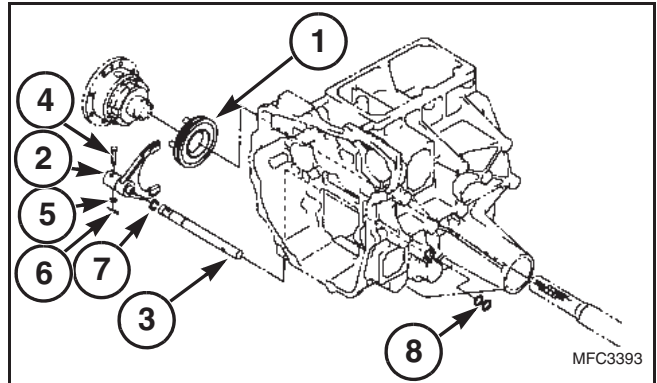


FIG. 22

FIG. 23: When the shift collar is in the OUT position, the differential lock is disengaged.

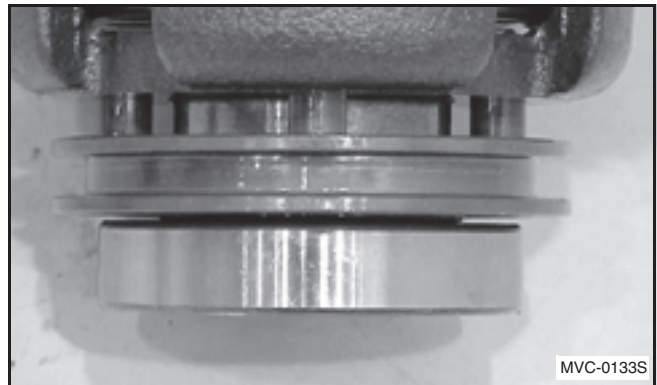


FIG. 23

FIG. 24: When the shift collar is in the IN position, the differential lock is disengaged.

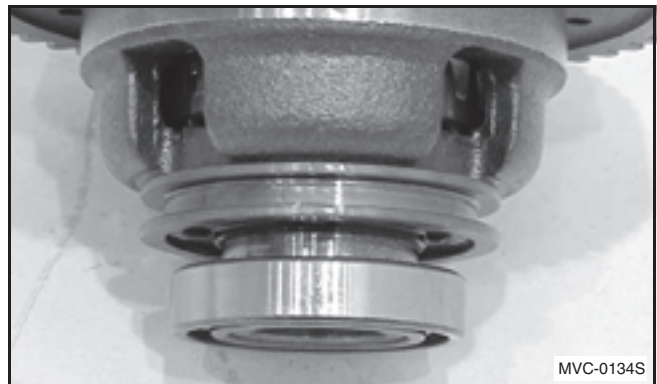


FIG. 24

FIG. 25: Differential lock linkage.

Make sure linkage moves freely.

- (1) Pedal
- (2) Bushing
- (3) Spring
- (4) Washer

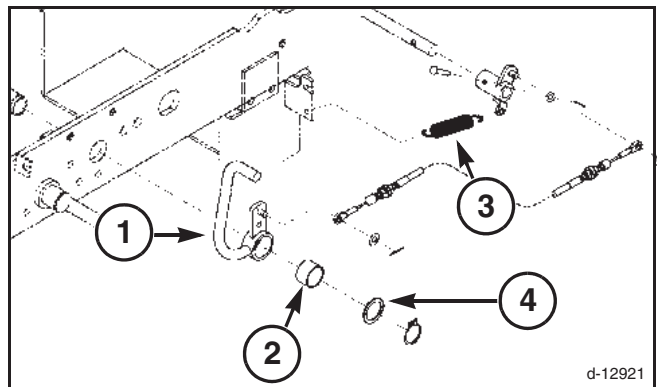


FIG. 25

Assembly

FIG. 26: Assemble in reverse order of disassembly.

Tighten all hardware to standard torque values.

Use silicone between the axle housing and final case.

Be sure the differential lock shift fork is engaged.

Lubricate the O-rings (1) installed on the differential lock shift shaft.



FIG. 26

Rear Axle and Brakes

BRAKES AND AXLES

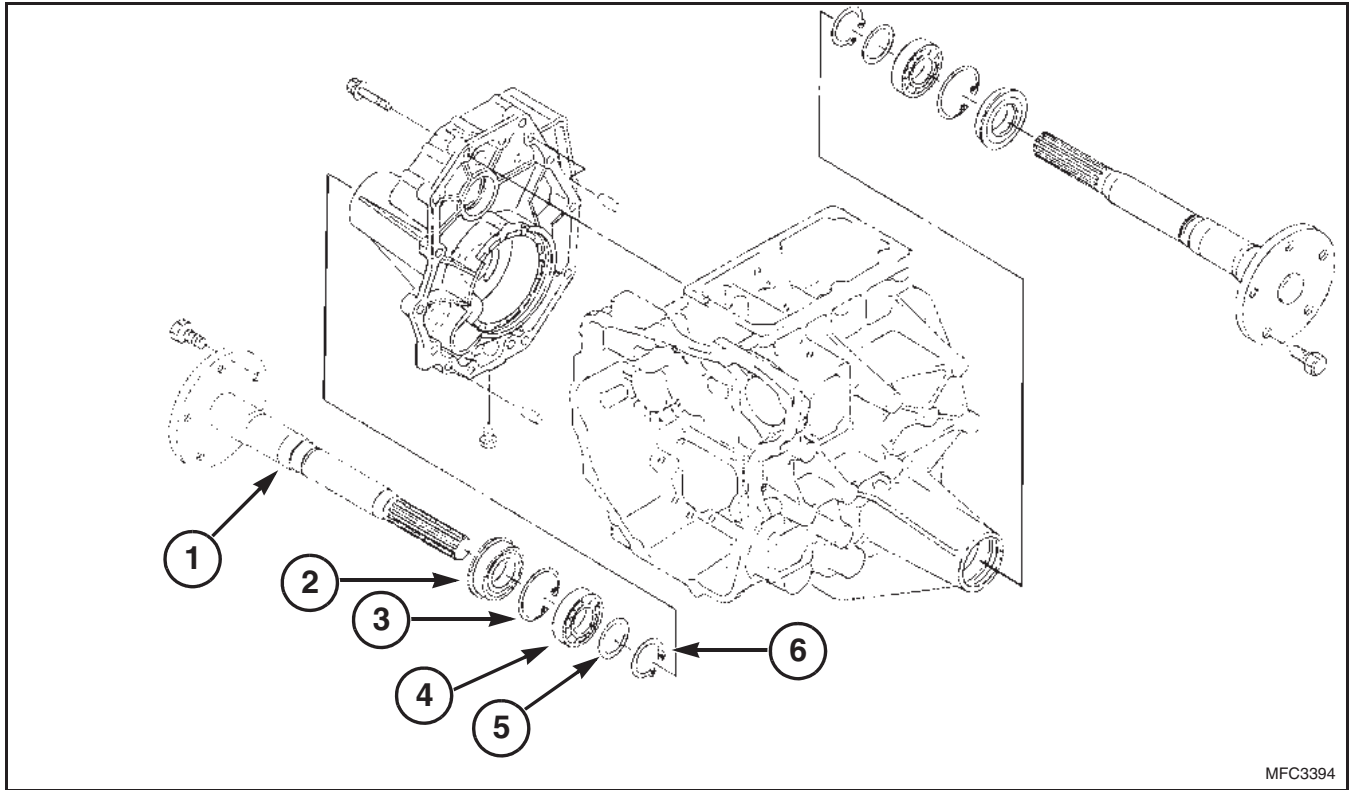
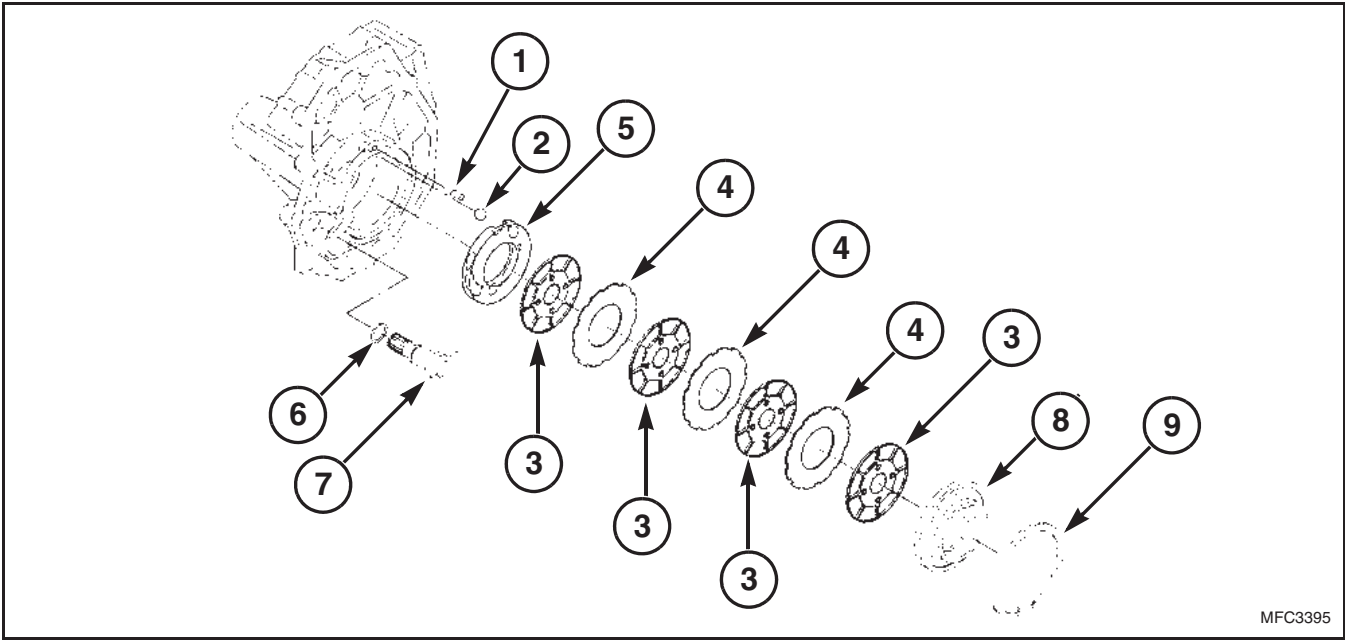


FIG. 27

FIG. 27: Rear Axle Shaft.

- (1) Axle
- (2) Seal
- (3) Snap ring
- (4) Bearing
- (5) Collar
- (6) Snap ring

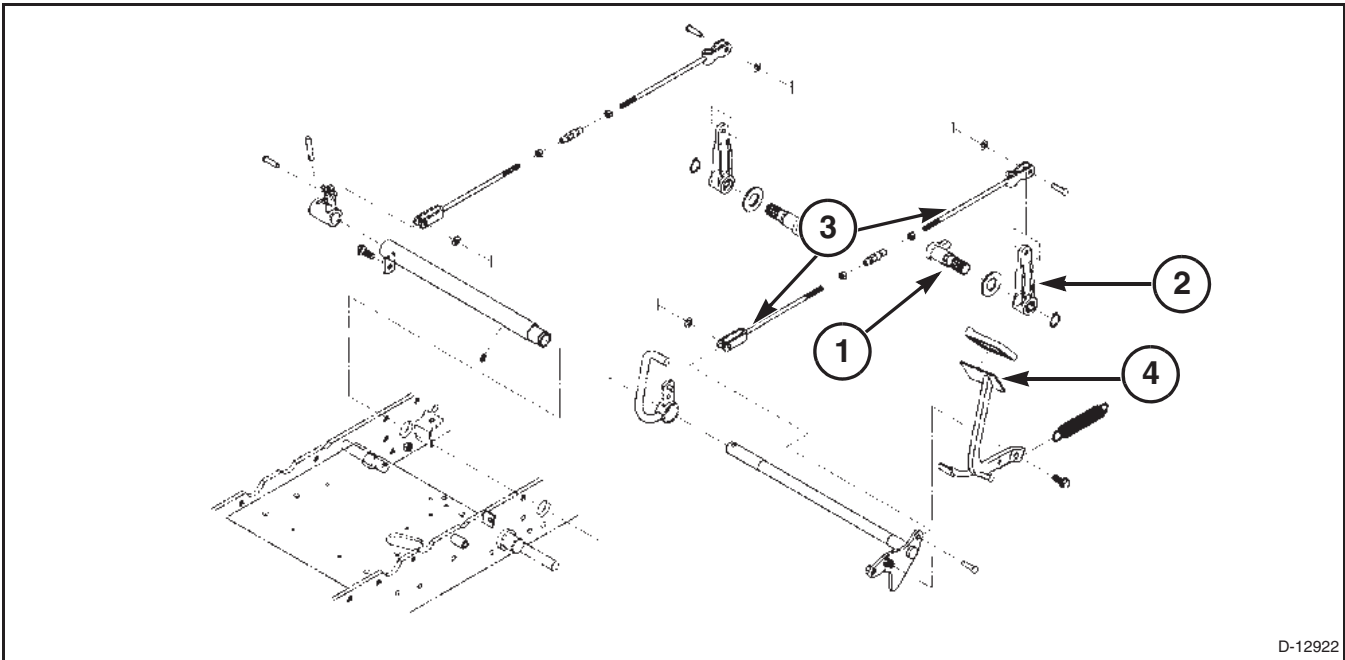


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FIG. 28

FIG. 28: Brakes components.

- (1) Pin
- (2) Ball
- (3) Friction Plate
- (4) Separator Plate
- (5) Pressure Plate
- (6) O-ring
- (7) Cam
- (8) Brake Metal
- (9) Snap Ring



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FIG. 29

FIG. 29: Brake linkage components.

- 1. Cam
- 2. Arm
- 3. Rod
- 4. Pedal

Rear Axle and Brakes

FIGS. 30–31: Remove the transmission as outlined in the CHASSIS section of this manual. Separate the RH axle housing from the transmission.

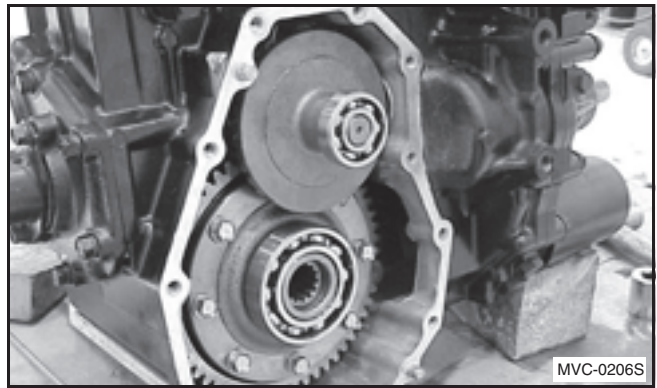


FIG. 30

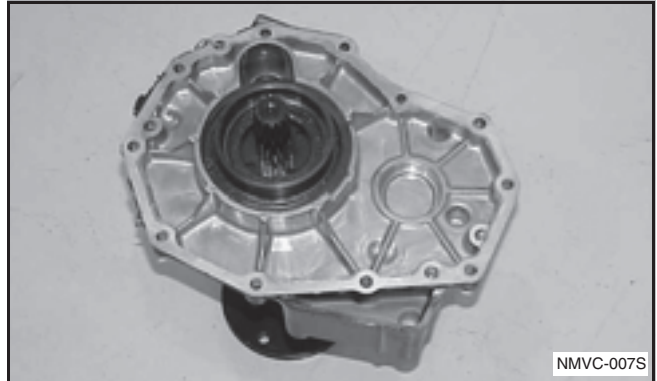


FIG. 31

FIG. 32: Note the spline alignment marks on the LH and RH brake arms. Remove the snap ring to remove the RH brake arm and LH brake arm.



FIG. 32

FIG. 33: Remove the snap ring from the RH brake housing.

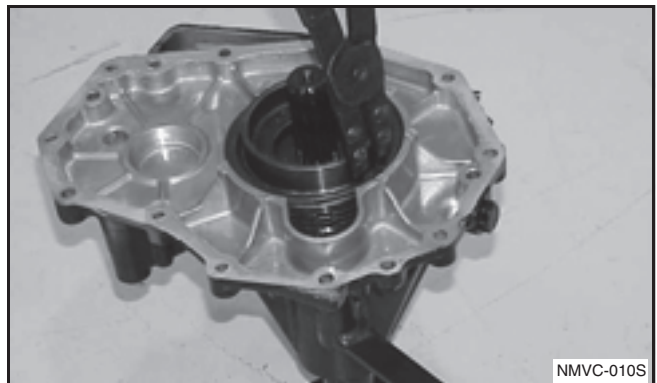


FIG. 33

FIGS. 34–35: Remove the brake cover. Remove the brake discs and separator plates.

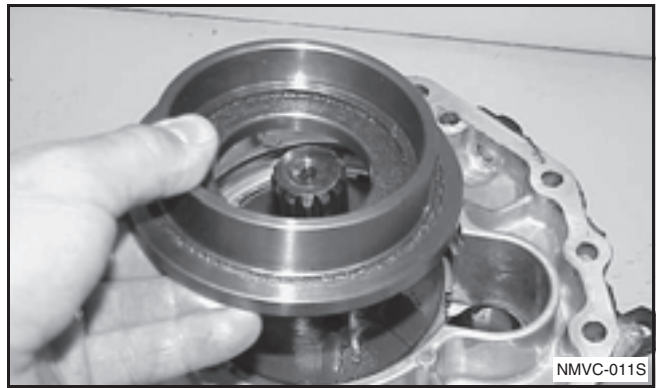


FIG. 34

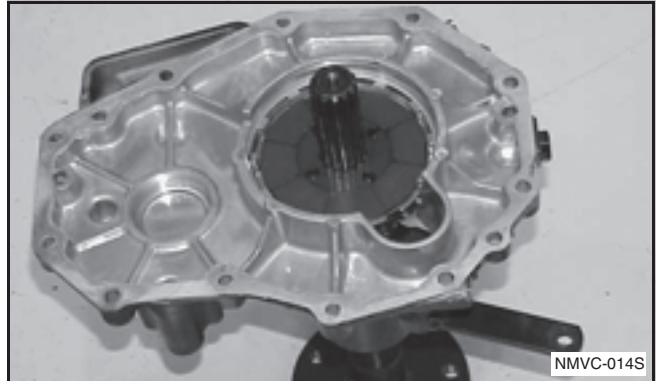


FIG. 35

FIG. 36: Remove the Pressure Plate.



FIG. 36

Rear Axle and Brakes

FIGS. 37–38: The ramps (1) in the pressure plate ride up the steel balls (2) in the axle housing when the fork on the brake cam rotates the pressure plate. The fork on the brake arm engages into the notch in the pressure plate. Remove the balls and the brake arms. Note the position of the O-ring seal on the brake arm.

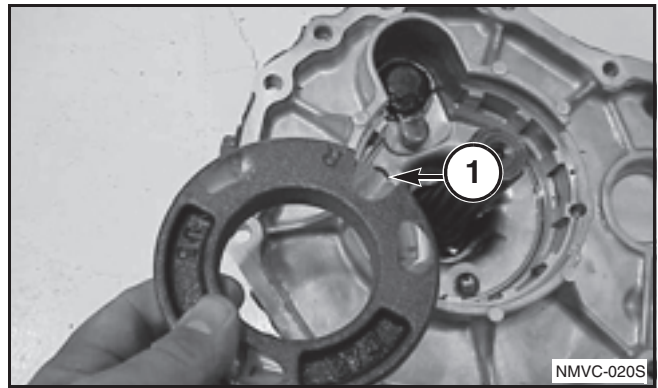


FIG. 37

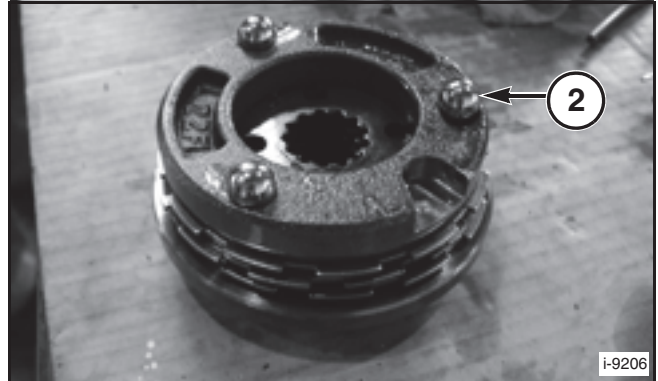


FIG. 38

FIGS. 39–40: Remove the seal from the axle. Remove the snap ring from the axle and pull the axle out of the housing.



FIG. 39

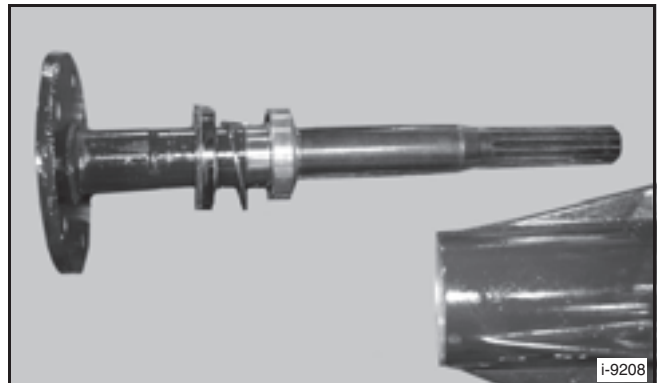


FIG. 40

FIG. 41: To service the LH axle and brake, the ring gear, differential assembly and differential lock fork must be removed. Remove the snap ring from the housing and repeat the procedure used to remove the RH brake and axle.

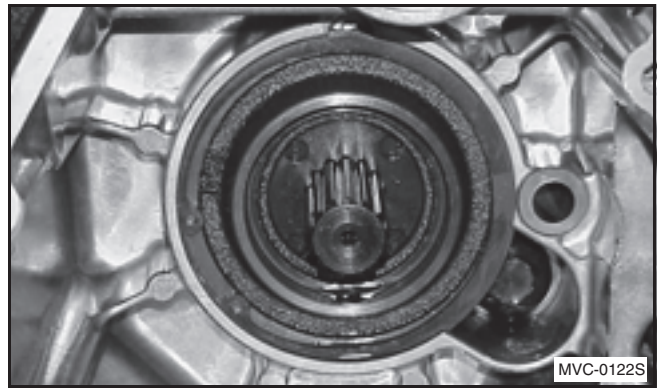


FIG. 41

Rear Axle and Brakes

INSPECTION

Inspect friction plates, separator plates and actuator. Replace if worn excessively or warped.

Inspect bearings and snap rings.

Inspect linkage. All parts should move freely.

Friction Plates

Replace the plates whose surfaces have become glossy by carbonization or whose thickness exceeds the usable limit.

Standard Thickness:	3.3 - 3.4 mm (.0130 - 0.134 inch)
Usable Limit	3.0 mm (0.118 inch)

NOTE: Also replace where grooves have been worn out completely even if only on one side.

Pressure Plate Assembly

Check the ball, spring, pressure plate, and brake rod for abnormality. Replace defective parts. Replace the actuator where thickness is reduced beyond usable limit.

Standard Thickness:	13.5 - 14.5 mm (0.53 - 0.57 inch)
Usable Limit	13.0 mm (0.51 inch)

NOTE: Slight scratches on the friction surface can be corrected with sandpaper (#1000).

Separator Plate

Measure the thickness and replace the plate where thickness is reduced beyond usable limit or where surfaces are damaged.

Standard Thickness:	1.92 - 2.08 mm (0.075 - 0.082 inch)
Usable Limit	1.7 mm (0.067 inch)

Assembly

Assemble in reverse order of disassembly.

Tighten all hardware to standard torque values.

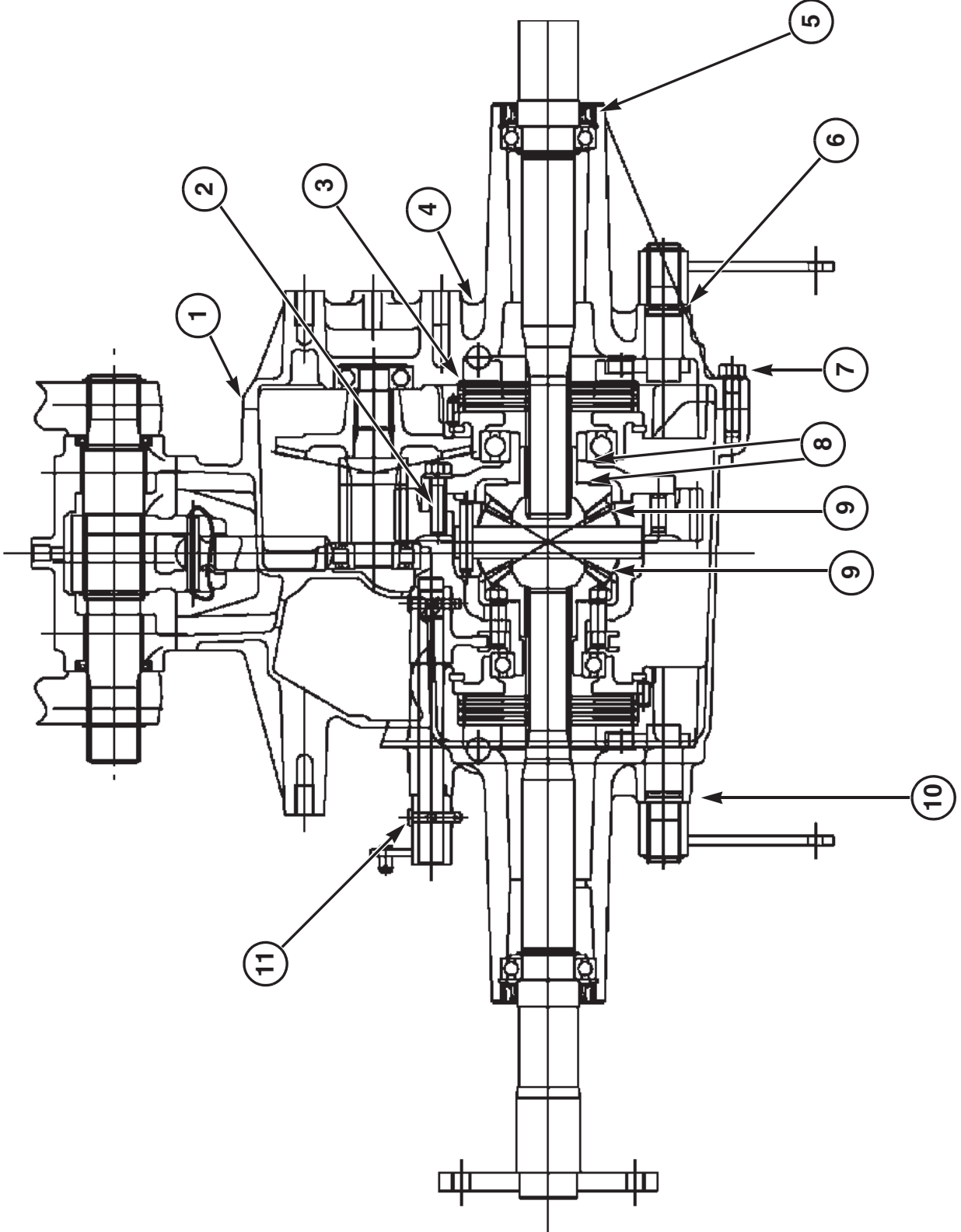
Use silicone between the axle housing and final case.

Use new seals during assembly.

Lubricate the O-rings and seals prior to assembly.

Make sure fork on brake cam aligns with the notch in the actuator.

Align the notch in the brake cover with the dowel pin.



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FIG. 42

Rear Axle and Brakes

FIG. 42: Rear Axle Assembly Guidelines

- (1) Apply Adhesive to the face.
- (2) Apply Loctite to the bolt.
- (3) Apply grease to the periphery of pressure plate.
- (4) Apply grease to the steel ball.
- (5) Apply grease to the oil seal lip.
- (6) Apply grease to the O-Ring.
- (7) Tightening torque 41.2 - 46.1 Nm (30.4 - 34.0 lbf ft).
- (8) Apply Adhesive.
- (9) Apply Adhesive.
- (10) Apply grease to the O-Ring.
- (11) Apply grease to the O-Ring.

BRAKE ADJUSTMENT

FIG. 43: Correct free-play (1) is 20 - 30 mm (7/8 inch - 1-1/8 inch)

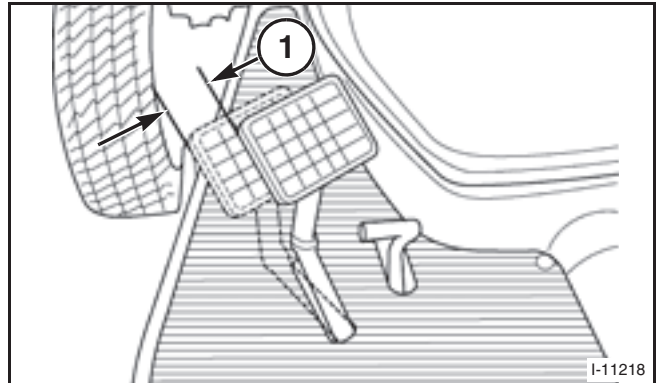


FIG. 43

FIG. 44: Remove and free the brake rod on right side.

Adjust brake rod on left side.

Loosen lock nut (1) (right-hand thread), and lock nut (2) (left-hand thread). Adjust turnbuckle (3) so free-play is correct for brake pedal.

Secure lock nuts against turnbuckles.

Adjust brake rod of other side in same manner.

Make sure lock nuts are secured when brake adjustment is complete. Check operation of parking brakes after adjustment is made.

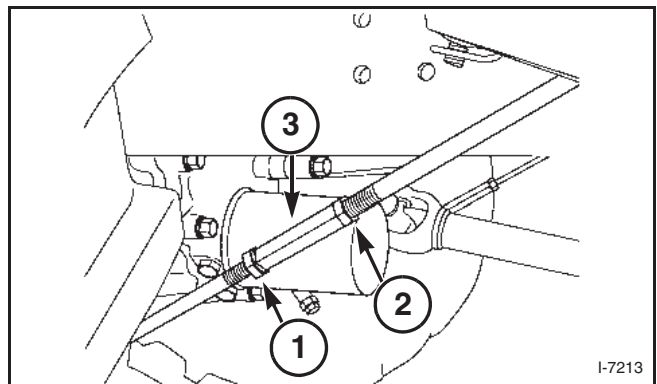


FIG. 44

Parking Brakes

FIG. 45: Parking brake assembly.

- (1) Latch
- (2) Spring

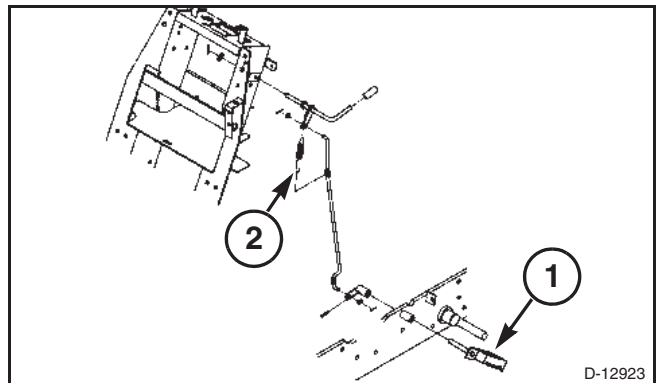


FIG. 45

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