2007-08 DRIVELINE/AXLES

Rear Differential - Element

SPECIAL TOOLS

Ref. No.	Tool Number	Description	Qty
①	07GAD-PH70201	Oil Seal Driver	1
②	07JAB-001020A	Holder Handle	1
③	07JAD-PL90100	Oil Seal Driver	1
④	07NAD-PX40100	Attachment, 78 x 80 mm	1
⑤	07RAB-TB4010B	Companion Flange Holder	1
⑥	07749-0010000	Driver	1

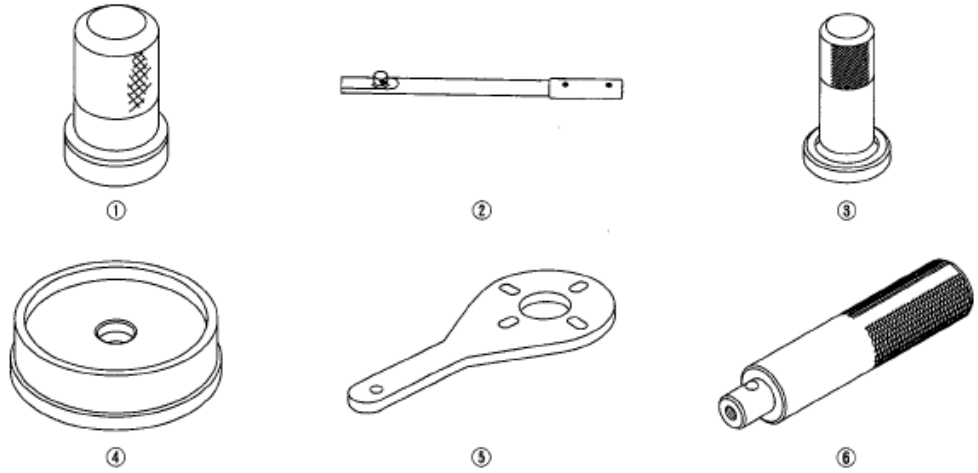


Fig. 1: Identifying Special Tools
Courtesy of AMERICAN HONDA MOTOR CO., INC.

COMPONENT LOCATION INDEX

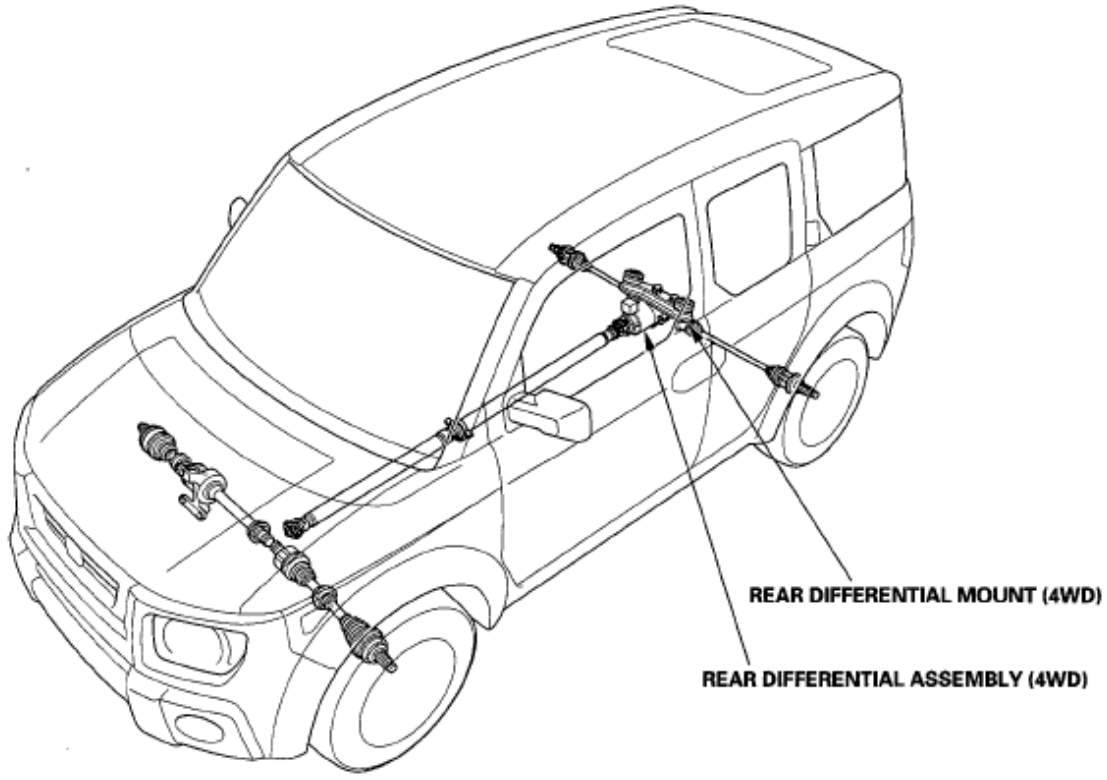


Fig. 2: Identifying Rear Differential Components Location
Courtesy of AMERICAN HONDA MOTOR CO., INC.

SYSTEM DESCRIPTION

REAL-TIME 4WD-DUAL PUMP SYSTEM

Outline

The Real-time 4WD-Dual Pump System model has a hydraulic clutch and a differential mechanism in the rear differential assembly. Under normal conditions, the vehicle is driven by the front wheels. However, depending on the driving force of the front wheels and the road conditions, the system instantly transmits appropriate driving force to the rear wheels without requiring the driver to switch between 2WD (front wheel drive) and 4WD (four wheel drive). The switching mechanism between 2WD and 4WD is integrated into the rear differential assembly to make the system light and compact.

In addition, the dual pump system switches off the rear-wheel-drive force when braking in a forward direction. This allows the braking system to work properly on models equipped with an vehicle stability assist (VSA).

Construction

The rear differential assembly consists of the torque control differential case assembly and the rear differential carrier assembly. The torque control differential case assembly consists of the differential clutch assembly, the companion flange, and the oil pump body assembly. The rear differential carrier assembly consists of the

differential mechanism.

The differential clutch assembly consists of the clutch guide, the clutch hub, the clutch plate, the clutch disc, the return spring, and the pilot clutch.

The oil pump body assembly consists of the front oil pump, the rear oil pump, the hydraulic control mechanism, and the clutch piston. The clutch piston has a disc spring that constantly provides the differential clutch assembly with a preset torque to prevent abnormal sound.

The clutch guide in the differential clutch assembly is connected to the propeller shaft via the companion flange, and it receives the driving force from the transfer assembly. The clutch guide rotates the clutch plate and the front oil pump in the oil pump body assembly.

The clutch hub in the differential clutch assembly has clutch discs that are splined with the hypoid drive pinion gear. The hypoid drive gear drives the rear oil pump.

The front and rear oil pumps are trochoidal pumps. The rear oil pump capacity is 2.5 percent larger than the front oil pump to handle the rotation difference between the front and rear wheels caused by worn front tires and tight corner braking. The oil pumps are designed so the fluid intake works as a fluid discharge when the oil pumps rotate in reverse. Honda Dual Pump Fluid is used instead of differential fluid.

Operation

When there is a difference in rotation speed between the front wheels (clutch guide) and rear wheels (hypoid drive pinion gear), hydraulic pressure from the front and rear oil pumps engages the differential clutch, and drive force from the transfer assembly is applied to the rear wheels.

The hydraulic pressure control mechanism in the oil pump body assembly selects 4WD mode when the vehicle is started abruptly, or when accelerating in forward or reverse (causing rotation difference between the front and rear wheels), or when braking in reverse (when decelerating). It switches to 2WD mode when the vehicle is driven at a constant speed in forward or reverse (when there is no rotation difference between the front and rear wheels), or when braking in forward (when decelerating).

To protect the system, the differential clutch assembly is lubricated by hydraulic pressure generated by the oil pumps in both 4WD and 2WD modes. Also, the thermal switch relieves the hydraulic pressure on the clutch piston and cancels 4WD mode if the temperature of the differential fluid rises above normal.

REAR DIFFERENTIAL ASSEMBLY

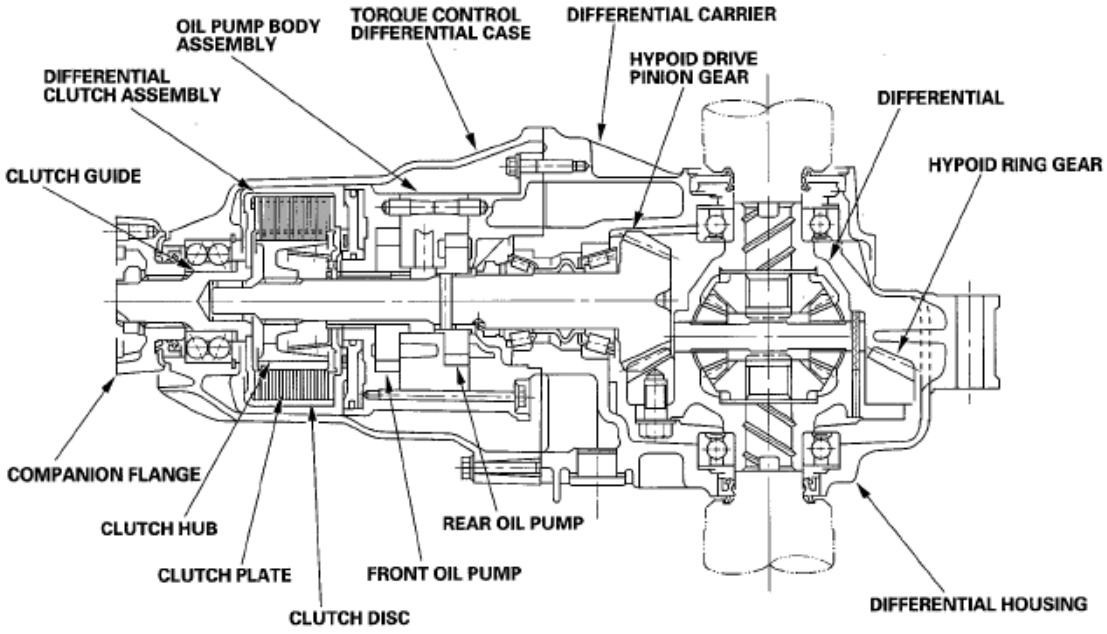


Fig. 3: Identifying Rear Differential Sectional View
Courtesy of AMERICAN HONDA MOTOR CO., INC.

HYDRAULIC CONTROL SYSTEM

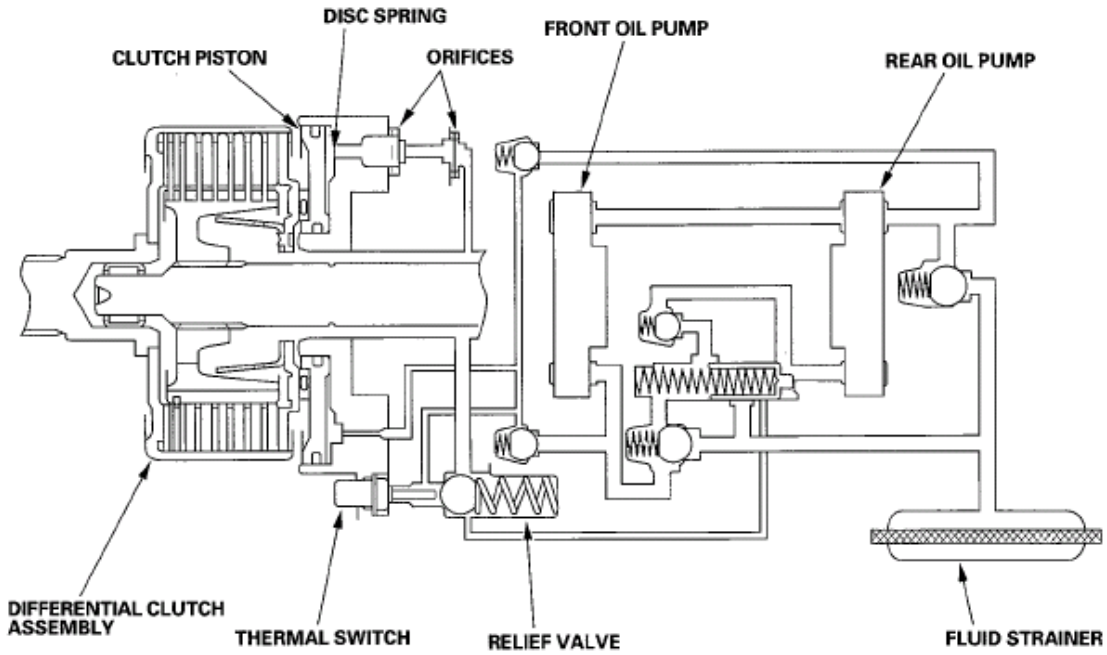


Fig. 4: Hydraulic Control System Diagram
Courtesy of AMERICAN HONDA MOTOR CO., INC.

Forward Start and Acceleration (4WD)

During a forward start and forward acceleration, the dual pump system can engage four wheel drive.

If the front wheels spin faster than the rear wheels, the front oil pump spins faster than the rear oil pump. The front pump draws fluid through check valve B and discharges it. Some of the discharged fluid is drawn in by the rear oil pump. The remaining fluid will pass through check valve E into the clutch piston. There, hydraulic pressure is regulated by two orifices.

The regulated hydraulic pressure at the clutch piston pushes the plates and discs of the clutch together to form a connection. The engaged clutch then passes driving force from the transfer assembly to the rear wheels, producing 4WD.

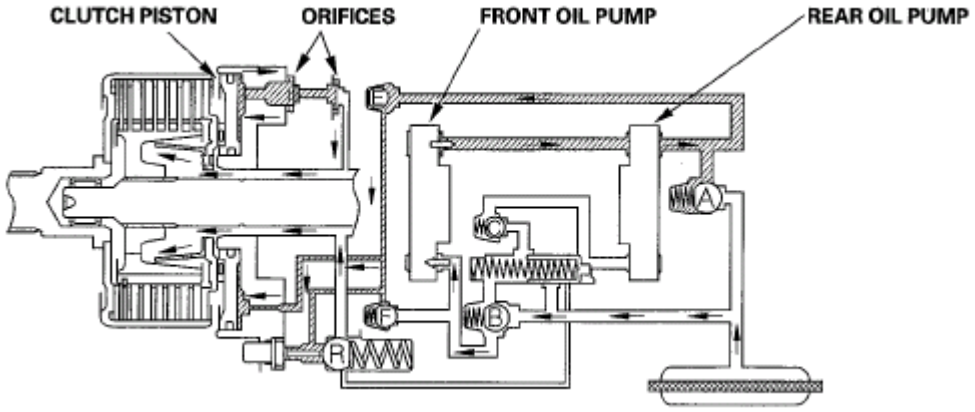


Fig. 5: Fluid Flow Diagram - Forward Start And Acceleration (4WD)
Courtesy of AMERICAN HONDA MOTOR CO., INC.

Forward Driving at Constant Speed (2WD)

When driving forward at a constant speed (cruising), the dual pump system functions in two wheel drive mode. The rotation speed of the front and rear wheels is the same, so the speed of the front and rear pumps is also the same. Fluid discharged by the front oil pump is drawn in by the rear oil pump and is circulated through the system. Because there is no pressure built up at the clutch piston, the clutch does not engage, and the vehicle remains in 2WD (front wheel drive).

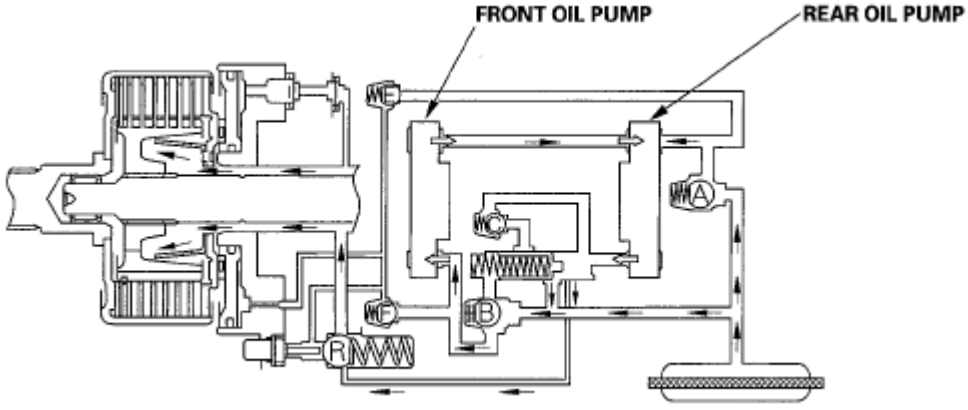


Fig. 6: Fluid Flow Diagram - Forward Driving At Constant Speed (2WD)

Courtesy of AMERICAN HONDA MOTOR CO., INC.

Forward Deceleration (2WD)

During forward deceleration, the dual pump system functions in two wheel drive mode.

Because of braking characteristics, the speed of the rear wheels may exceed the speed of the front wheels during deceleration. If so, the rear oil pump spins faster than the front oil pump.

Fluid discharged by the rear oil pump is simply drawn in again by the rear pump and recirculated. Because there is no pressure built up at the clutch piston, the clutch piston does not engage, and the vehicle remains in 2WD (front wheel drive).

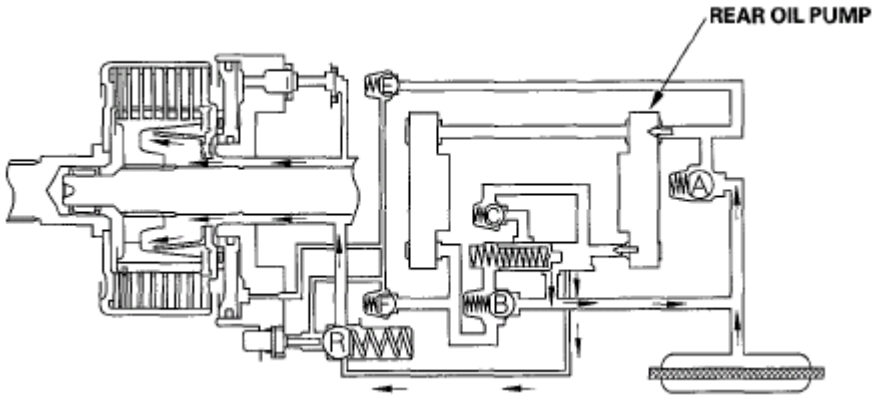


Fig. 7: Fluid Flow Diagram - Forward Deceleration (2WD)
Courtesy of AMERICAN HONDA MOTOR CO., INC.

Reverse Start and Acceleration (4WD)

During reverse start and reverse acceleration, the dual pump system can engage four wheel drive.

If the front wheels spin faster than the rear wheels, the front oil pump spins faster than the rear oil pump. The front oil pump draws in fluid through check valve A and discharges it. (Note that in reverse, the direction of the pumps is the opposite of that during forward driving.)

Some of the fluid that is discharged by the front oil pump is drawn in by the rear oil pump. The remaining fluid passes through check valve F into the cylinder of the clutch piston, where it is regulated by two orifices.

The regulated hydraulic pressure at the clutch piston may force the plates and discs of the clutch together to form a connection. The engaged clutch passes driving force from the transfer assembly to the rear wheels, producing 4WD.

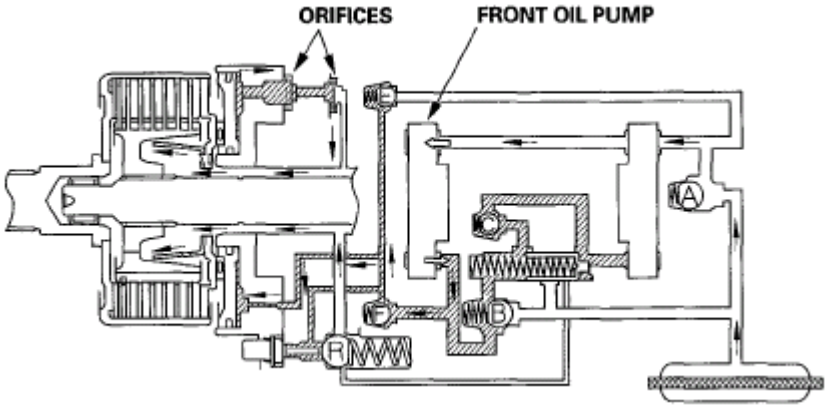


Fig. 8: Fluid Flow Diagram - Reverse Start And Acceleration (4WD)
Courtesy of AMERICAN HONDA MOTOR CO., INC.

Reverse Driving at Constant Speed (2WD)

When driving in reverse at a constant speed, the dual pump system functions in two wheel drive mode.

The rotation speed of the front and rear wheels is the same, so the speed of the front and rear pumps is also the same. Fluid discharged by the front oil pump is drawn in by the rear oil pump and is circulated through the system. But, because there is a difference in the capacity between the two pumps, fluid flows through check valve E, and then through orifices. This fluid lubricates and cools the clutch assembly and bearings.

In this condition, only a low pressure is built up at the clutch piston. Therefore the clutch does not engage, and the vehicle remains in 2WD (front wheel drive).

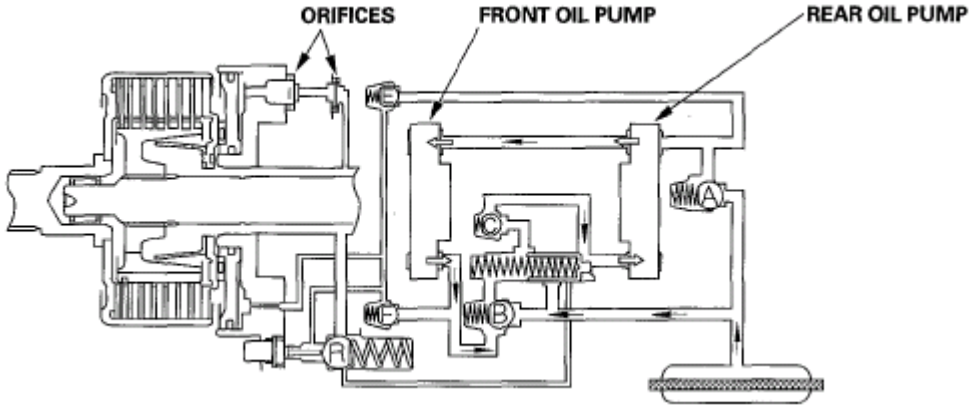


Fig. 9: Fluid Flow Diagram - Reverse Driving At Constant Speed (2WD)
Courtesy of AMERICAN HONDA MOTOR CO., INC.

Reverse Deceleration (4WD)

During reverse deceleration, the dual pump system can engage four wheel drive.

When decelerating in reverse direction, the speed of the rear wheels may exceed the speed of the front wheels

(due to engine braking). In this condition, the rear oil pump draws fluid through check valves B and C. Fluid discharged from the rear oil pump then flows through check valve E to the clutch piston. There, pressure is regulated by two orifices. The regulated hydraulic pressure at the clutch piston may force the plates and discs of the clutch together to form a connection. The engaged clutch passes driving force from the transfer assembly to the rear wheels, producing 4WD.

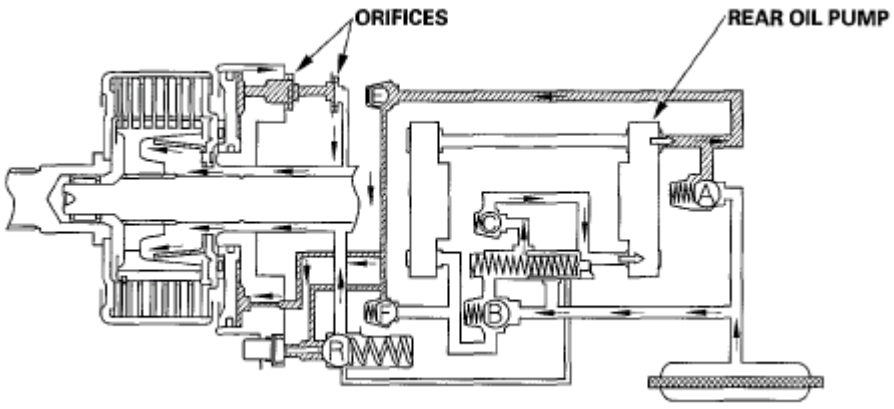


Fig. 10: Fluid Flow Diagram - Reverse Deceleration (4WD)
Courtesy of AMERICAN HONDA MOTOR CO., INC.

Thermal Switch Operation (2WD)

During 4WD operation, pressure-regulated fluid is in contact with the clutch piston and the thermal switch.

If the temperature of the fluid in the differential goes too high, the thermal switch pushes open the relief valve R. This causes the pressure in the clutch piston to drop, and 4WD mode is disengaged.

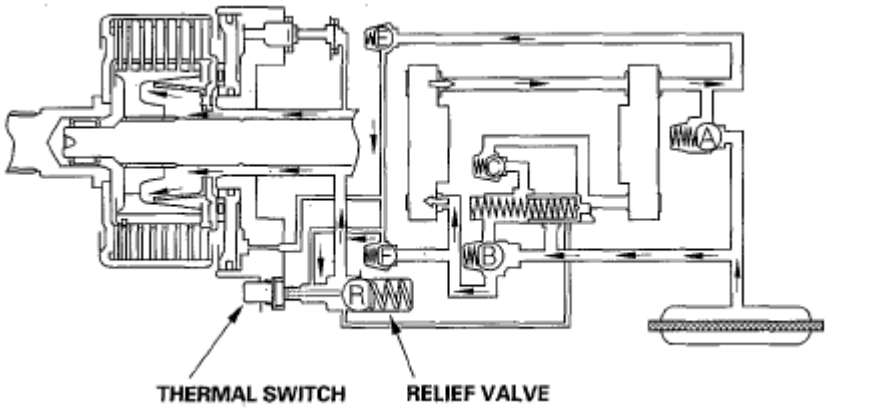


Fig. 11: Fluid Flow Diagram - Thermal Switch Operation (2WD)
Courtesy of AMERICAN HONDA MOTOR CO., INC.

Relief Valve Operation

When the fluid pressure goes higher than the relief valve spring force, check valve R opens. Pressure applied at the clutch piston is held constant. This feature adds stability by preventing the rear wheel drive system from

experiencing excessive torque.

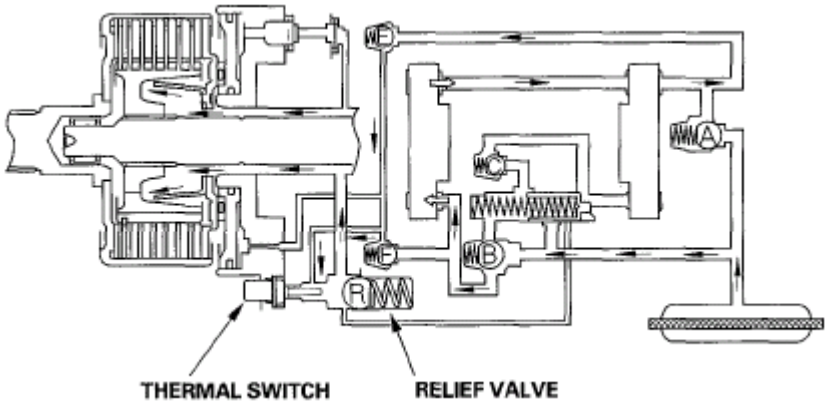


Fig. 12: Fluid Flow Diagram - Relief Valve Operation
Courtesy of AMERICAN HONDA MOTOR CO., INC.

DUAL PUMP SYSTEM FUNCTION TEST

MANUAL TRANSMISSION

Starting and accelerating in forward gears (4WD mode)

NOTE: Do not test repeatedly or the fluid will overheat.

1. Raise the vehicle so all four wheels are off the ground (see **LIFT AND SUPPORT POINTS**).
2. Start the engine, and let it idle until the radiator fan comes on at least twice.
3. With the engine at idle, shift into 1st gear, and release the clutch pedal.
4. Firmly apply the parking brake to lock the rear wheels.
   - If the engine stalls, the 4WD system is normal.
   - If the engine continues running, there is a problem in the 4WD system. Check the differential fluid. If the differential fluid is normal, replace the torque control differential (TCD) case kit.

Starting and accelerating in reverse gear (4WD mode)

NOTE: Do not test repeatedly or the fluid will overheat.

1. Raise the vehicle so all four wheels are off the ground (see **LIFT AND SUPPORT POINTS**).
2. Start the engine, and let it idle until the radiator fan comes on at least twice.
3. With the engine at idle, shift into reverse gear, and release the clutch pedal.
4. Firmly apply the parking brake to lock the rear wheels.
   - If the engine stalls, the 4WD system is normal.
   - If the engine continues running, there is a problem in the 4WD system. Check the differential fluid.

If the differential fluid is normal, replace the torque control differential (TCD) case kit.

AUTOMATIC TRANSMISSION

Starting and accelerating in forward positions (4WD mode)

NOTE: Do not test repeatedly or the fluid will overheat.

1. Raise the vehicle so all four wheels are off the ground (see **LIFT AND SUPPORT POINTS**).
2. Make a mark (A) on either No. 1 or No. 2 propeller shaft (B).

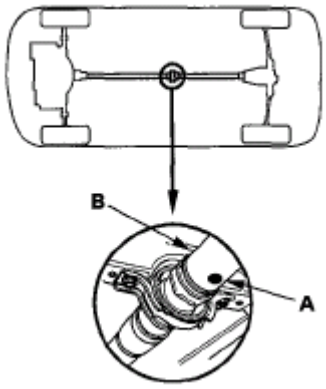


Fig. 13: Identifying Mark On Either No. 1 Or No. 2 Propeller Shaft
Courtesy of AMERICAN HONDA MOTOR CO., INC.

3. Start the engine, and let it idle until the radiator fan comes on at least twice.
4. With the engine at idle, shift to the 1 position.
5. Firmly apply the parking brake to lock the rear wheels, and measure the time it takes the propeller shaft to rotate 10 times.
   - If the time is 10 seconds or more, the 4WD system is normal.
   - If the time is less than 10 seconds, there is a problem in the 4WD system. Check the differential fluid. If the differential fluid is normal, replace the torque control differential (TCD) case kit.

Starting and accelerating in the R position (4WD mode)

NOTE: Do not test repeatedly or the fluid will overheat.

1. Raise the vehicle so all four wheels are off the ground (see **LIFT AND SUPPORT POINTS**).
2. Make a mark (A) on either No. 1 or No. 2 propeller shaft (B).

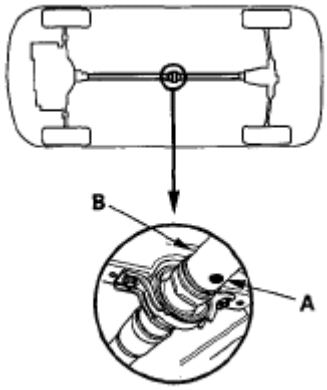


Fig. 14: Identifying Mark On Either No. 1 Or No. 2 Propeller Shaft
Courtesy of AMERICAN HONDA MOTOR CO., INC.

3. Start the engine, and let it idle until the radiator fan comes on at least twice.
4. With the engine at idle, shift to the R position.
5. Firmly apply the parking brake to lock the rear wheels, and measure the time it takes the propeller shaft to rotate 10 times.
    - If the time is 10 seconds or more, the 4WD system is normal.
    - If the time is less than 10 seconds, there is a problem in the 4WD system. Check the differential fluid. If the differential fluid is normal, replace the torque control differential (TCD) case kit.

MANUAL TRANSMISSION/AUTOMATIC TRANSMISSION

Decelerating in forward gears (2WD mode)

1. Block the front wheels (A), raise the left rear wheel, and support it with a safety stand (B) as shown.

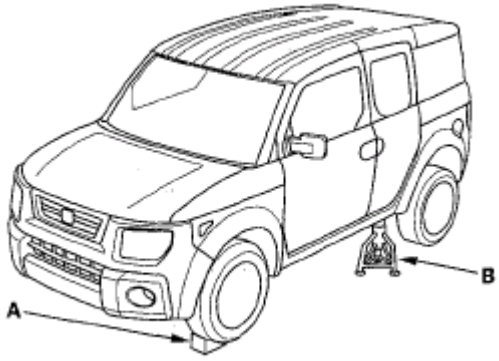


Fig. 15: Identifying Front Wheels And Safety Stand
Courtesy of AMERICAN HONDA MOTOR CO., INC.

2. Hold the tire, and turn it counterclockwise continuously for more than one rotation.
    - If the rotation of the wheel does not gradually feel heavy while rotating, the 2WD system when decelerating in a forward gear is normal.

- If the rotation of the wheel gradually feels heavy while rotating, there is a problem in the 2WD system. Check the differential fluid. If the fluid is normal, replace the torque control differential (TCD) case kit.

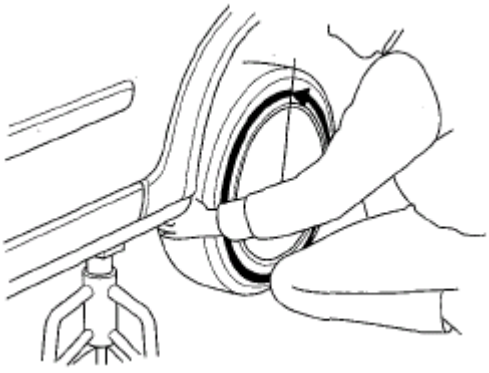


Fig. 16: Holding Tire And Turn Tire Counterclockwise
Courtesy of AMERICAN HONDA MOTOR CO., INC.

Decelerating in reverse gear (4WD mode)

1. Block the front wheels (A), raise the left rear wheel, and support it with a safety stand (B) as shown.

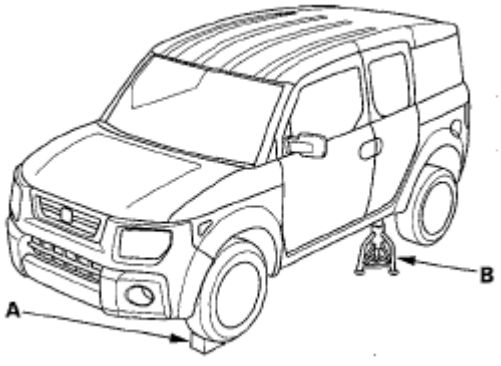


Fig. 17: Identifying Rear Wheels And Safety Stand
Courtesy of AMERICAN HONDA MOTOR CO., INC.

2. Hold the tire, and turn it clockwise continuously for more than one rotation.
   - If the rotation of the wheel gradually feels heavy while rotating, the 4WD system when decelerating in reverse is normal.
   - If the rotation of the wheel does not gradually feel heavy while rotating, there is a problem in the 4WD system. Check the differential fluid. If the fluid is normal, replace the torque control differential (TCD) case kit.

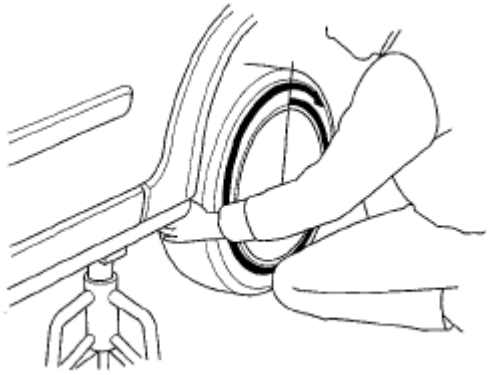


Fig. 18: Holding Tire And Turning Counterclockwise
Courtesy of AMERICAN HONDA MOTOR CO., INC.

SYMPTOM TROUBLESHOOTING INDEX

TROUBLESHOOTING CHART

Symptom	Diagnostic Procedure	Also check for
Will not go into 4WD mode	• Fluid level too low. Add recommended fluid. • Incorrect fluid type. Drain and fill the differential with the recommended fluid.	Most problems in the unit are to be diagnosed by identifying noises from the gears or bearings. Be careful during diagnosis not to confuse differential noises with those from other drivetrain components.
Will not return to 2WD mode	Incorrect fluid type. Drain and fill the differential with the recommended fluid.	
Gear or bearing noises	• Fluid level too low. Add recommended fluid. • Incorrect or worn out fluid. Drain and fill the differential with the recommended fluid. • Damaged or chipped gears. Replace the differential carrier assembly.	
Rear differential overheats	• Fluid level too low. Add recommended fluid. • Incorrect fluid type. Drain and fill the differential with the recommended fluid.	
	• Fluid level too high. Lower to proper level. • Clogged breather line. Clean or replace.	

Rear differential leaks fluid	• Worn or damaged oil seal. Replace. • Damaged sealing washer. Replace. • Loose mounting bolts or inadequate sealing. Recheck torque or apply sealant.	
Rear differential screeches, whines, moans, or squeaks	• Fluid level too low. Add recommended fluid. • Incorrect or worn out fluid. Drain and fill the differential with the recommended fluid. • Incorrect tire rolling circumference. Adjust tire pressure or replace tires. • Damaged pump. Replace torque control differential (TCD) case kit.	

REAR DIFFERENTIAL FLUID INSPECTION AND REPLACEMENT

1. Raise the vehicle on the lift.
2. Remove the filler plug (A) and washer (B), then check the condition of the fluid, and make sure the fluid is at the proper level (C).

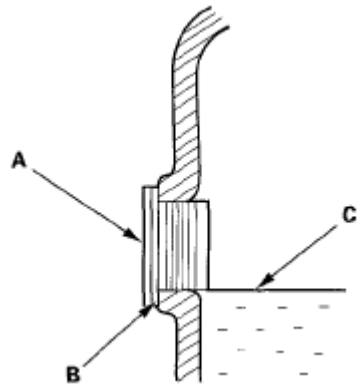


Fig. 19: Identifying Fluid Is At Proper Level
Courtesy of AMERICAN HONDA MOTOR CO., INC.

3. The fluid level must be up to the fill hole. If it is below the hole, add the recommended fluid until it runs out, then reinstall the filler plug with a new washer.
4. If the fluid is dirty, remove the drain plug (A), and drain the fluid.

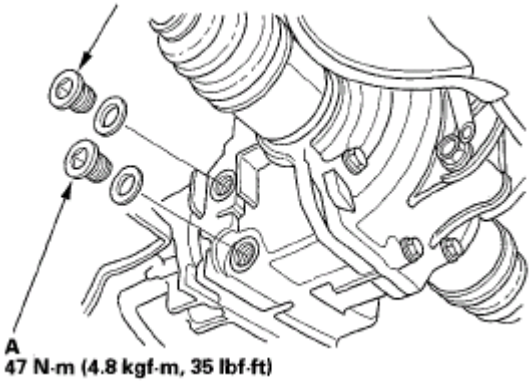


Fig. 20: Identifying Drain Plug With Torque Specification
Courtesy of AMERICAN HONDA MOTOR CO., INC.

5. Clean the drain plug, then reinstall it with a new washer, and refill the differential with the recommended fluid to the proper level.

NOTE: If you disassemble the differential, check the fluid level again after the 4WD system check is finished. Add fluid if necessary.

Fluid Capacity:

1.0 L (1.1 US qt) at fluid change

1.2 L (1.3 US qt) at overhaul

Recommended fluid: Honda Dual Pump Fluid II (P/N 08200-9007)

6. Reinstall the filler plug (B) with a new washer.

REAR DIFFERENTIAL REMOVAL

1. Drain the differential fluid. Reinstall the drain plug with a new washer (see **REAR DIFFERENTIAL FLUID INSPECTION AND REPLACEMENT**).
2. Remove the tail pipe (A).

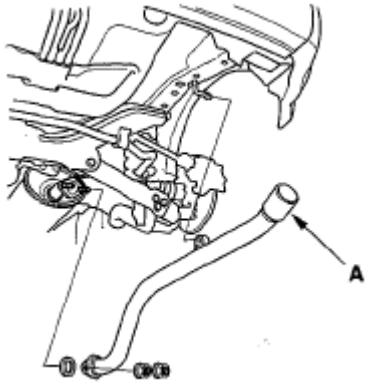
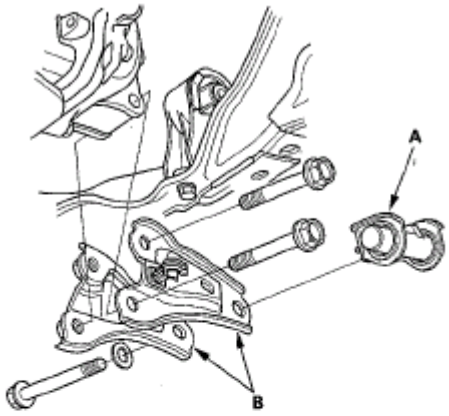


Fig. 21: Identifying Tail Pipe
Courtesy of AMERICAN HONDA MOTOR CO., INC.

3. Separate the No. 2 propeller shaft from the rear differential assembly (see step 7 on **PROPELLER SHAFT REMOVAL**).
4. Remove the rear differential damper (A) (M/T model), place a transmission jack under the rear differential assembly, then remove right and left rear differential mounting brackets B.

M/T model



A/T model

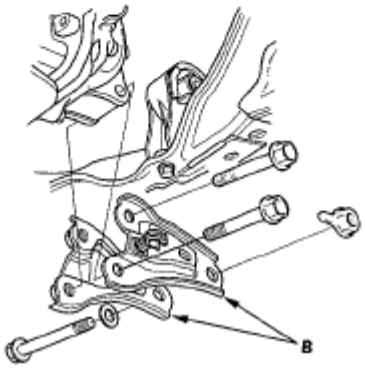


Fig. 22: Identifying Rear Differential Damper (M/T Model) And Mounting Bracket

Courtesy of AMERICAN HONDA MOTOR CO., INC.

5. Remove the mounting bolts and the plates.

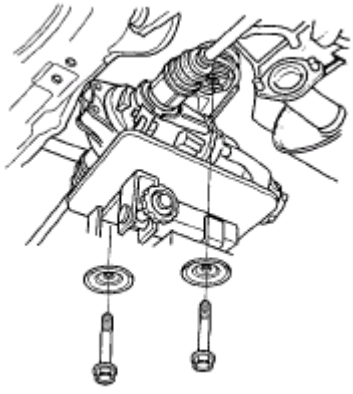


Fig. 23: Identifying Mounting Bolts And Plates
Courtesy of AMERICAN HONDA MOTOR CO., INC.

6. Disconnect the breather tube A from the rear differential assembly.

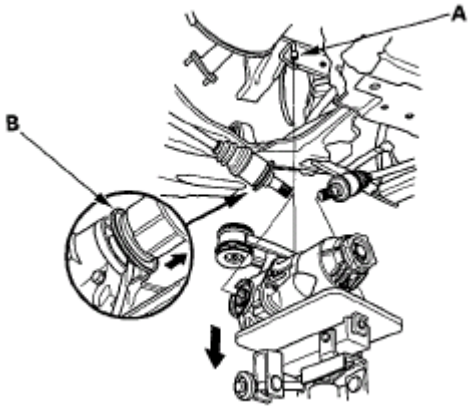


Fig. 24: Identifying Breather Tube And Rear Differential Assembly
Courtesy of AMERICAN HONDA MOTOR CO., INC.

7. Lower the rear differential assembly while pulling both driveshaft inboard joints out of the rear differential assembly.

NOTE: Be careful not to damage the driveshaft ring (B) when prying out the driveshaft inboard joints.

8. Remove the rear differential mount assembly A from the rear differential assembly (B).

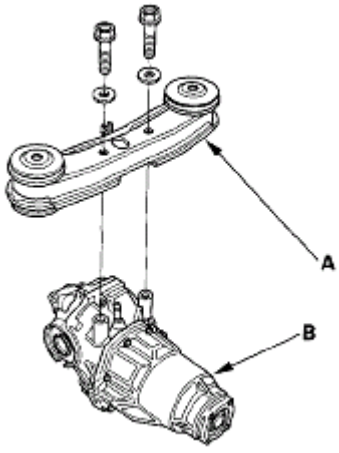


Fig. 25: Identifying Rear Differential Mount Assembly And Rear Differential Assembly
Courtesy of AMERICAN HONDA MOTOR CO., INC.

OIL SEAL REPLACEMENT

Special Tools Required

- Oil seal driver 07GAD-PH70201
- Oil seal driver 07JAD-PL90100
- Attachment, 78 x80 mm 07NAD-PX40100
- Driver 07749-0010000

1. Remove the oil seals (A) from the rear differential carrier assembly.

NOTE: Be careful not to damage the differential carrier while prying out the seals.

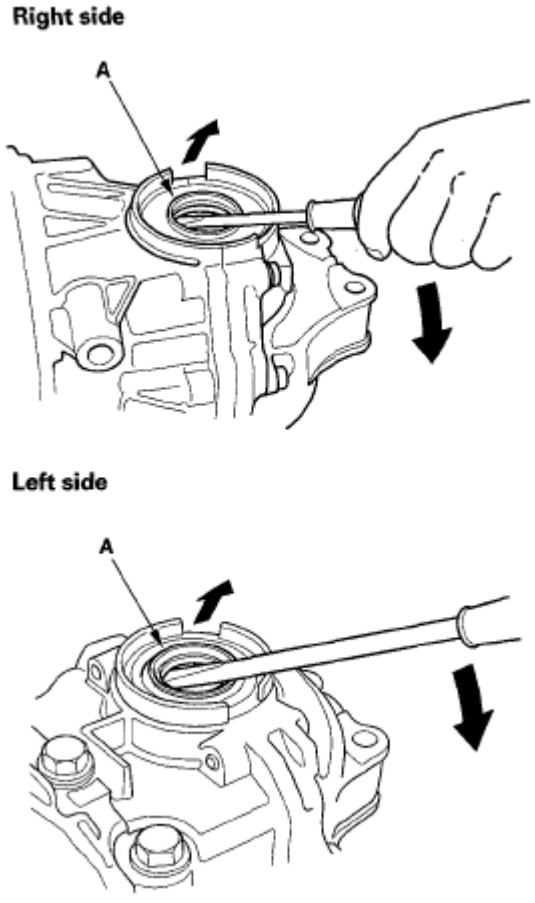


Fig. 26: Identifying Oil Seals
Courtesy of AMERICAN HONDA MOTOR CO., INC.

2. Install the right side oil seal (A) squarely using the 78 x 80 mm attachment (B) and driver (C). Installation depth of the oil seal is 9 mm (0.35 in.) below the machined edge of the rear differential carrier assembly. Be careful not to damage the lip of the oil seal.

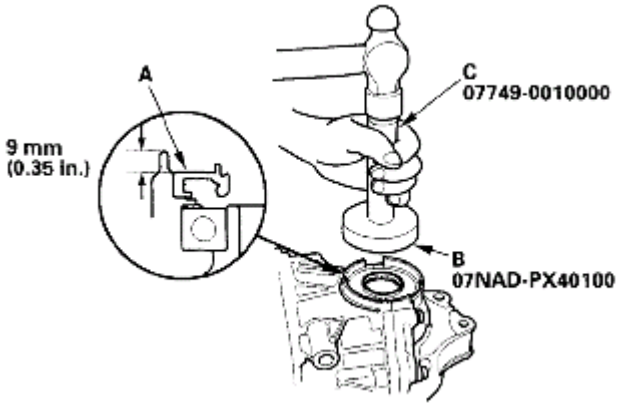


Fig. 27: Identifying Right Side Oil Seal
Courtesy of AMERICAN HONDA MOTOR CO., INC.

3. Install the left side oil seal (A) even and flush with the machined edge of the rear differential carrier assembly using the oil seal driver (B). Be careful not to damage the lip of the oil seal.

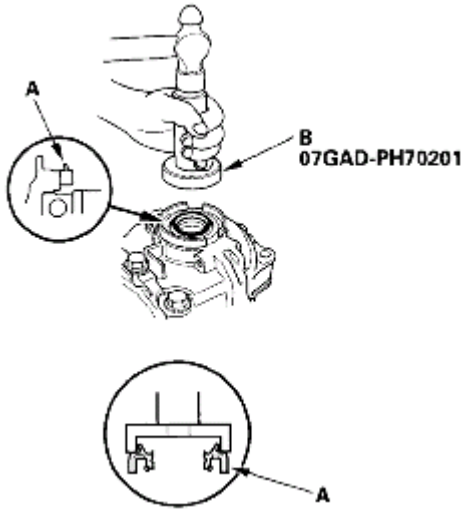


Fig. 28: Identifying Left Side Oil Seal
Courtesy of AMERICAN HONDA MOTOR CO., INC.

4. Remove the companion flange (see step 2 on **Rear Differential Disassembly**).
5. Remove the oil seal (A) from the torque control differential (TCD) case (B).

NOTE: Be careful not to damage the shaft or case while prying out the oil seal.

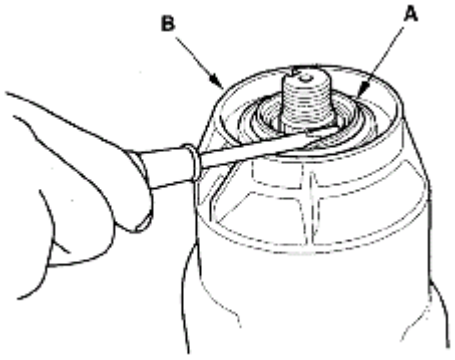


Fig. 29: Identifying Oil Seal
Courtesy of AMERICAN HONDA MOTOR CO., INC.

6. Install the oil seal (A) even and flush with the case using the oil seal driver (B). Be careful not to damage the lip of the oil seal.

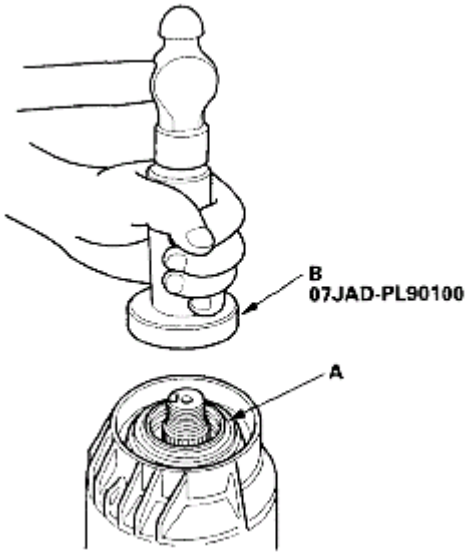


Fig. 30: Identifying Oil Seal
Courtesy of AMERICAN HONDA MOTOR CO., INC.

7. Install the companion flange (see step 9 on **Rear Differential Reassembly**).

REAR DIFFERENTIAL DISASSEMBLY

Special Tools Required

- Holder handle 07JAB-001020A
- Companion flange holder 07RAB-TB4010B

1. Remove the drain plug (A), the filler plug (B), and washers (C).

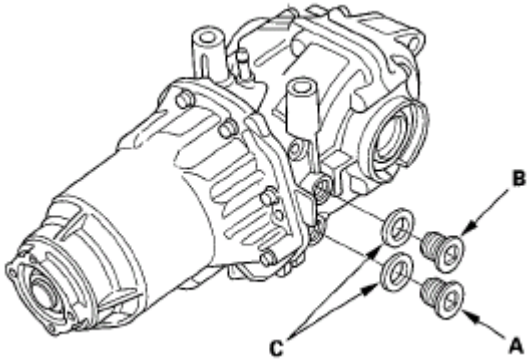


Fig. 31: Identifying Drain Plug, Filler Plug And Washers
Courtesy of AMERICAN HONDA MOTOR CO., INC.

2. Lift up the locking tab on the lock nut (A) from the groove of the clutch guide, making sure that the tab completely clears the groove to prevent damaging the clutch guide.

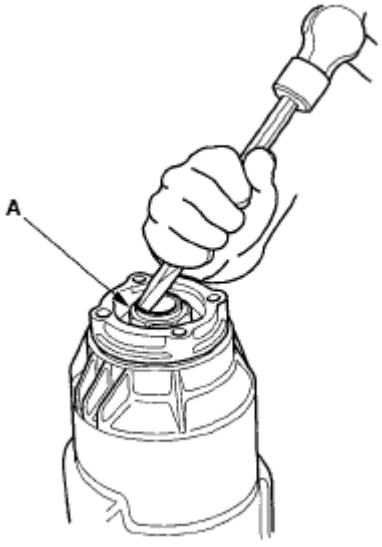


Fig. 32: Lifting Locking Tab On Lock Nut
Courtesy of AMERICAN HONDA MOTOR CO., INC.

3. Install the companion flange holder (A) and holder handle (B) on the companion flange.

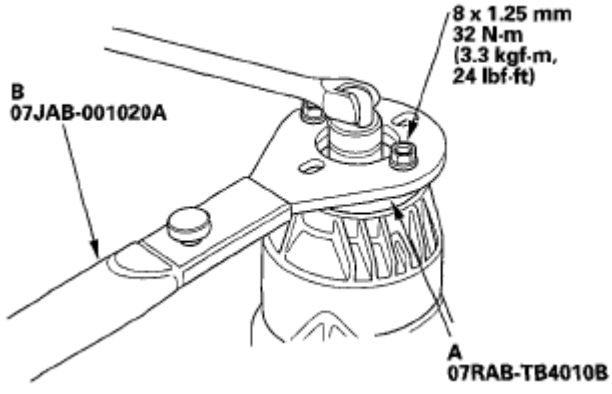


Fig. 33: Identifying Companion Flange Holder And Holder Handle With Torque Specification
Courtesy of AMERICAN HONDA MOTOR CO., INC.

4. Loosen the locknut (A) counterclockwise so that its tab (B) comes out from the groove (C) in the clutch guide.

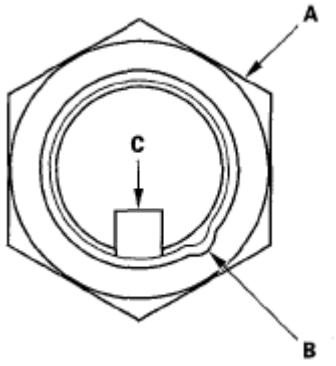


Fig. 34: Identifying Locknut
Courtesy of AMERICAN HONDA MOTOR CO., INC.

5. Tighten the locknut (A) until its tab (B) aligns with the groove (C).

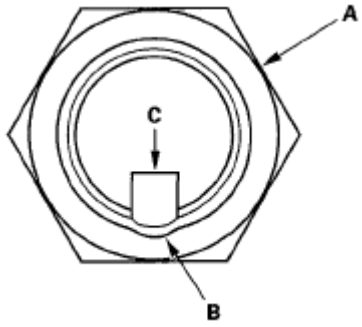


Fig. 35: Identifying Locknut, Tab And Groove
Courtesy of AMERICAN HONDA MOTOR CO., INC.

6. Clean any dirt from inside of the groove in the clutch guide.
7. Remove the locknut (A), the spring washer (B), the back-up ring (C), the O-ring (D), and the companion flange (E).

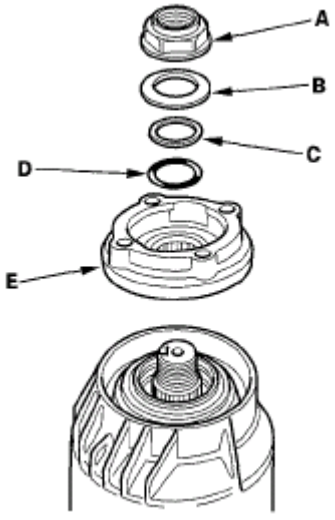


Fig. 36: Identifying Locknut, Spring Washer, Back-Up Ring, O-Ring And Companion Flange
Courtesy of AMERICAN HONDA MOTOR CO., INC.

8. Remove the eight mounting bolts (A) in a crisscross pattern in several steps, then remove the torque control differential (TCD) case (B) and the dowel pins (C).

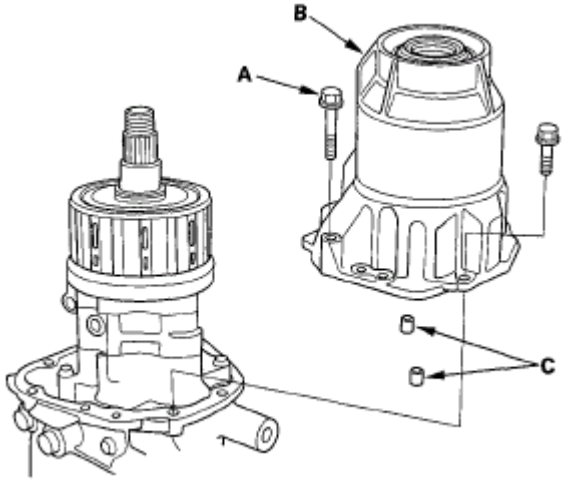


Fig. 37: Identifying Mounting Bolts
Courtesy of AMERICAN HONDA MOTOR CO., INC.

9. Remove the 30 mm shim (A) and the clutch guide (B).

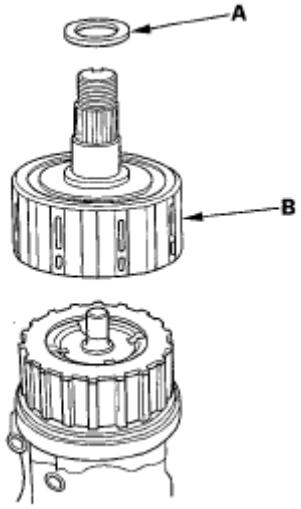


Fig. 38: Identifying Shim And Clutch Guide
Courtesy of AMERICAN HONDA MOTOR CO., INC.

10. Remove the clutch hub/plates/discs (A) and the pressure plate (B).

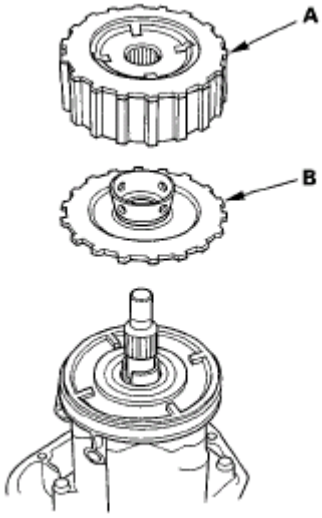


Fig. 39: Identifying Clutch Hub/Plates/Discs And Pressure Plate
Courtesy of AMERICAN HONDA MOTOR CO., INC.

11. Remove the thrust needle bearing (A) and the oil pump driveshaft (B).

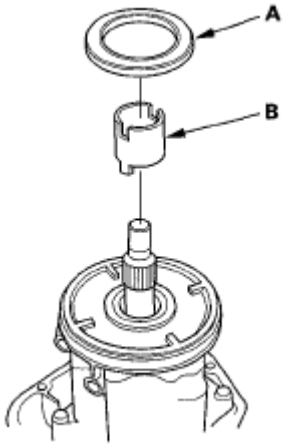


Fig. 40: Identifying Thrust Needle Bearing And Oil Pump Driveshaft
Courtesy of AMERICAN HONDA MOTOR CO., INC.

12. Remove the oil pump body assembly (A), the oil pump pin (B), the collar (C), the magnet (D), and the fluid strainer (E).

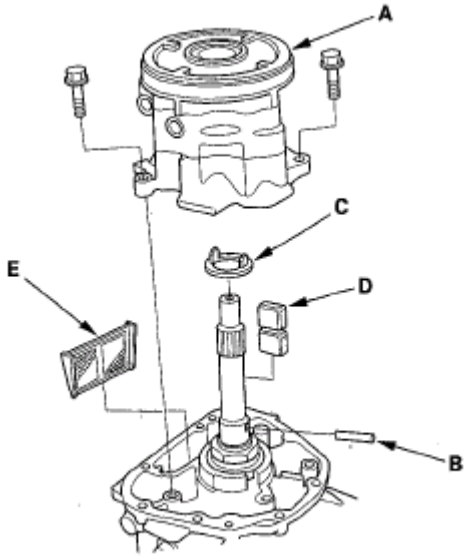


Fig. 41: Identifying Oil Pump Body Assembly
Courtesy of AMERICAN HONDA MOTOR CO., INC.

REAR DIFFERENTIAL REASSEMBLY

EXPLODED VIEW

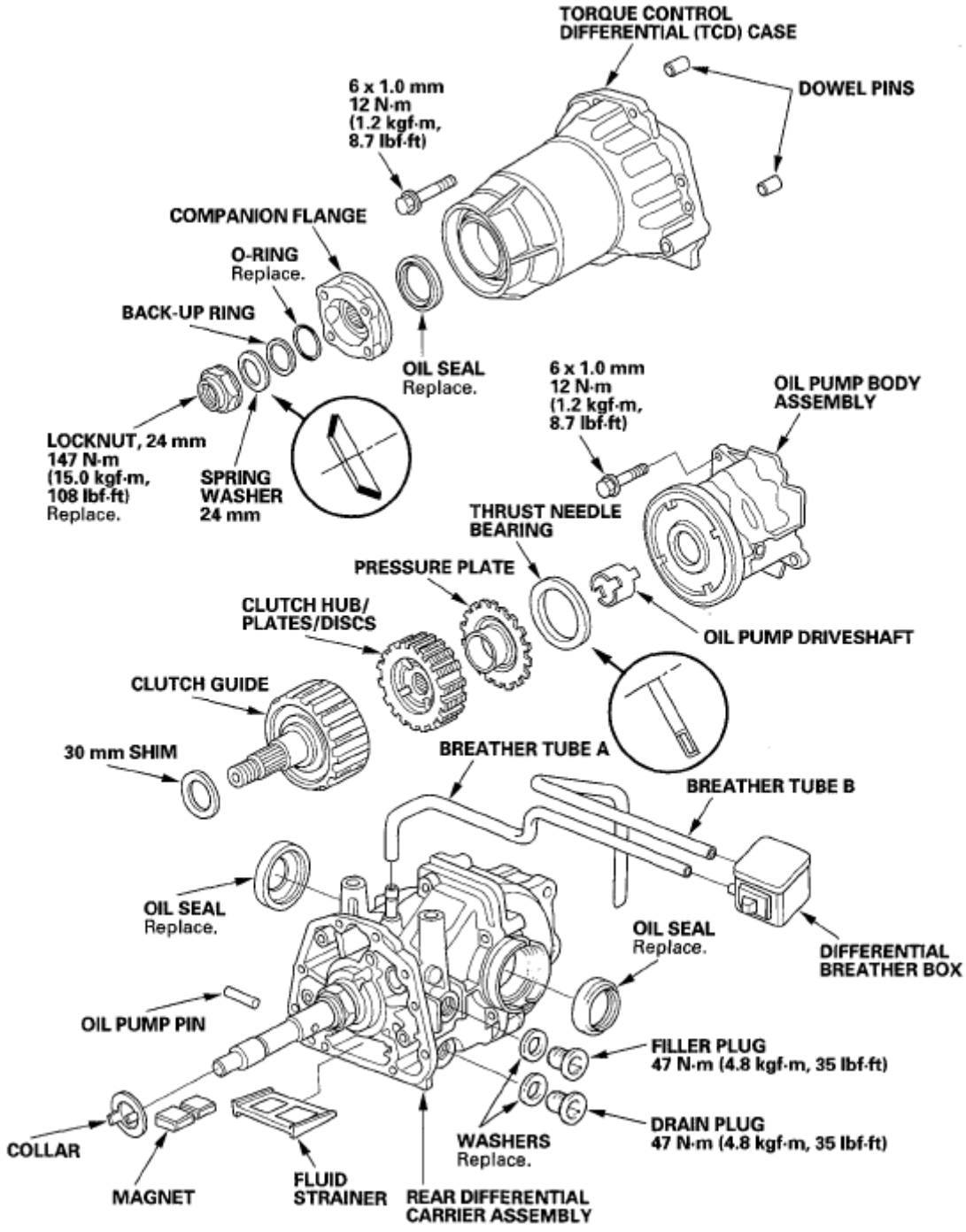


Fig. 42: Exploded View Of Rear Differential With Torque Specifications
Courtesy of AMERICAN HONDA MOTOR CO., INC.

Special Tools Required

- Holder handle 07JAB-001020A
- Companion flange holder 07RAB-TB4010B

1. Apply Dual Pump Fluid II (P/N 08200-9007) to the rubber of the fluid strainer (A) and the collar (B) then install the fluid strainer, the magnet (C), the oil pump pin (D), and the collar in the differential carrier assembly.

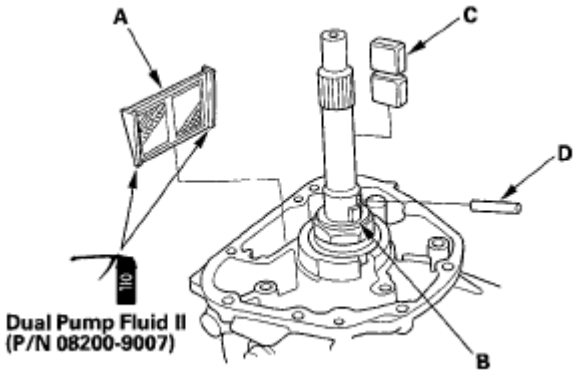


Fig. 43: Identifying Fluid Strainer, Collar, Fluid Strainer, Magnet And Oil Pump Pin
Courtesy of AMERICAN HONDA MOTOR CO., INC.

2. Align the tabs (A) of the collar (B) with the oil pump pin (C). Align the grooves (D) of the rear oil pump with the oil pump pin and collar tabs, then install the oil pump body assembly (E) on the differential carrier assembly.

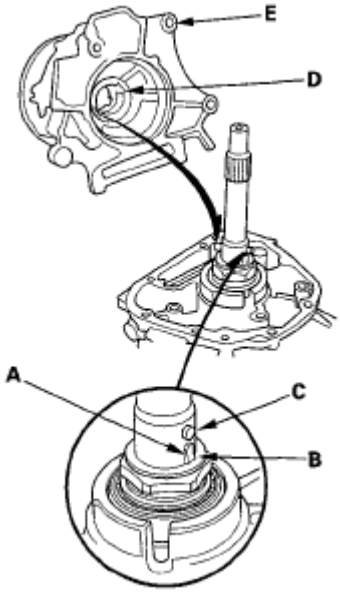


Fig. 44: Aligning Tabs Of Collar With Oil Pump Pin
Courtesy of AMERICAN HONDA MOTOR CO., INC.

3. Tighten the oil pump body assembly mounting bolts (A).

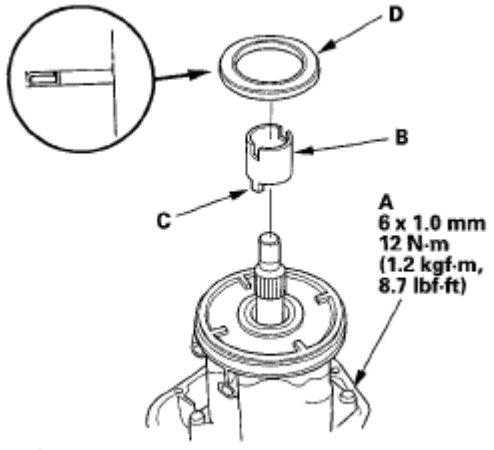


Fig. 45: Identifying Oil Pump Body Assembly Mounting Bolts With Torque Specification
Courtesy of AMERICAN HONDA MOTOR CO., INC.

4. Install the oil pump driveshaft (B) by aligning the projection (C) of the oil pump driveshaft with the groove of the front oil pump in the oil pump body assembly. Then install the thrust needle bearing (D).
5. If necessary, reassemble the differential clutch, and note these items:
   - Install one metal clutch plate (A) and one fiber clutch disc (B) in the clutch guide (C), then install the clutch hub (D) with snap ring (E) into the clutch guide.
   - Make sure the splines of the clutch hub and fiber clutch disc line up below the snap ring.
   - Install the remaining metal clutch plates and fiber clutch discs alternately until you have installed a total of eleven plates and ten discs, then install the pressure plate (F).
   - Make sure the differential clutch is assembled correctly. The pressure plate should be flush with the top of the clutch guide.

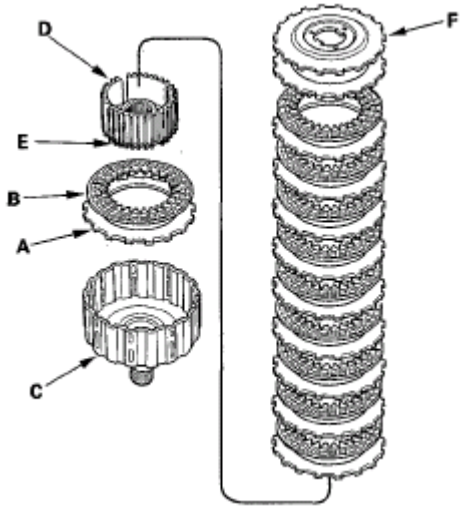


Fig. 46: Identifying Clutch Plate, Fiber Clutch Disc, Clutch Guide, Clutch Hub And Snap Ring
Courtesy of AMERICAN HONDA MOTOR CO., INC.

6. Install the differential clutch assembly (A) by aligning the tabs of the pressure plate (B) with the grooves of the oil pump driveshaft (C). Be careful not to let the pressure plate fall out of the clutch guide during assembly.

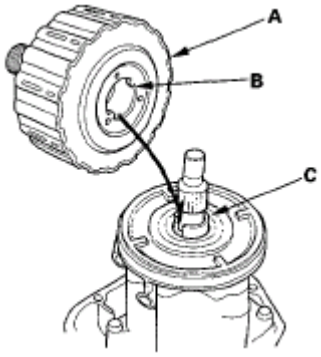


Fig. 47: Identifying Differential Clutch Assembly And Pressure Plate
Courtesy of AMERICAN HONDA MOTOR CO., INC.

7. Remove the dirt or oil from the sealing surfaces. Apply liquid gasket (P/N 08718-0001) evenly to the sealing surface. Install the component with in 5 minutes of applying the liquid gasket. Make sure you seal the entire circumference of the bolt holes to prevent fluid leakage.

NOTE:

- **If you apply liquid gasket P/N 08718-0012, the component must be installed within 4 minutes.**
- **If too much time has passed after applying the liquid gasket, remove the old liquid gasket and residue, then reapply the new liquid gasket.**
- **Allow it to cure at least 30 minutes after assembly before filling the differential with the recommended fluid.**

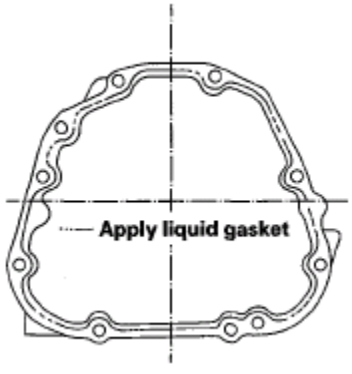


Fig. 48: Identifying Clutch Gasket
Courtesy of AMERICAN HONDA MOTOR CO., INC.

8. Install the 30 mm shim (A), the dowel pins (B), and the torque control differential (TCD) case (C). Torque the eight mounting bolts in a crisscross pattern in several steps.

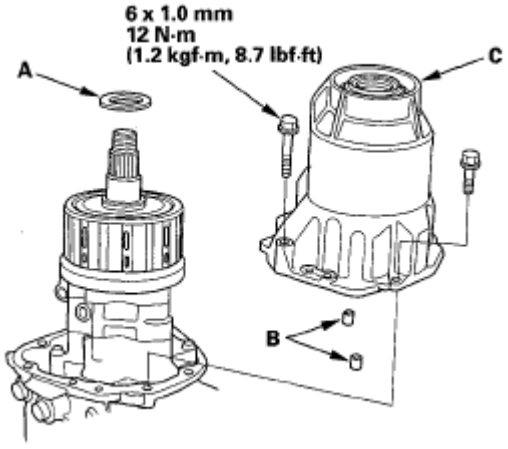


Fig. 49: Identifying Shim, Dowel Pins And Torque Control Differential (TCD) With Torque Specification
Courtesy of AMERICAN HONDA MOTOR CO., INC.

9. Install the companion flange (A), a new O-ring (B), back-up ring (C), spring washer (D), and a new locknut (E).

NOTE: Apply the Dual Pump Fluid II (P/N 08200-9007) to the O-ring.

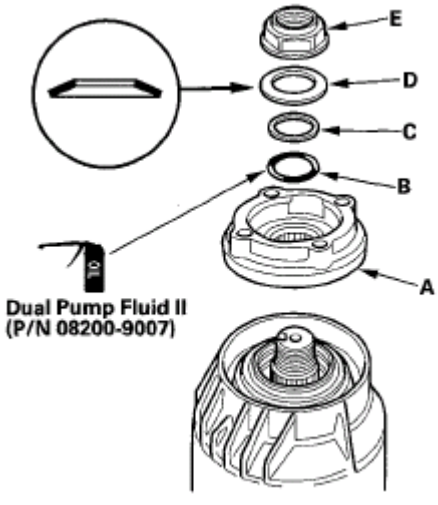


Fig. 50: Identifying Companion Flange, O-Ring, Back-Up Ring, Spring Washer And Locknut
Courtesy of AMERICAN HONDA MOTOR CO., INC.

10. Install the companion flange holder (A) and holder handle (B) to the companion flange, then tighten the new locknut to the specified torque.

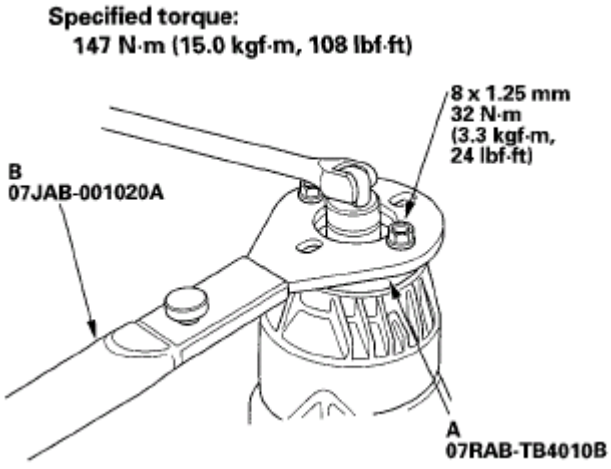


Fig. 51: Installing Companion Flange Holder And Holder Handle With Torque Specifications
Courtesy of AMERICAN HONDA MOTOR CO., INC.

11. Stake the lock nut shoulder (A) into the groove in the clutch guide.

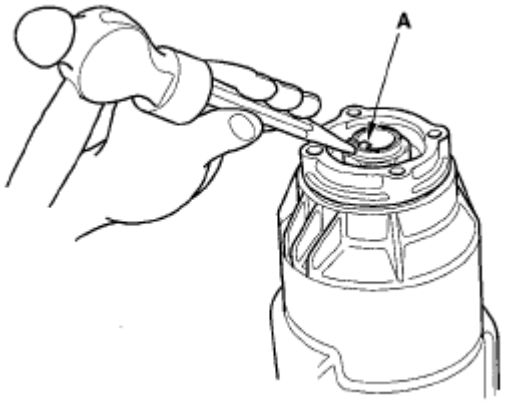


Fig. 52: Staking Lock Nut Shoulder Into Clutch Guide
Courtesy of AMERICAN HONDA MOTOR CO., INC.

12. Install the drain plug (A) and the filler plug (B) with new washers (C).

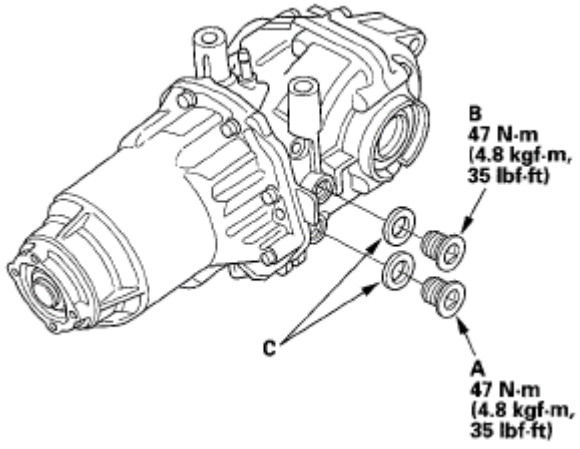


Fig. 53: Identifying Drain Plug, Filler Plug And Washers With Torque Specifications
Courtesy of AMERICAN HONDA MOTOR CO., INC.

REAR DIFFERENTIAL INSTALLATION

1. Install the rear differential mount assembly A to the rear differential assembly (B).

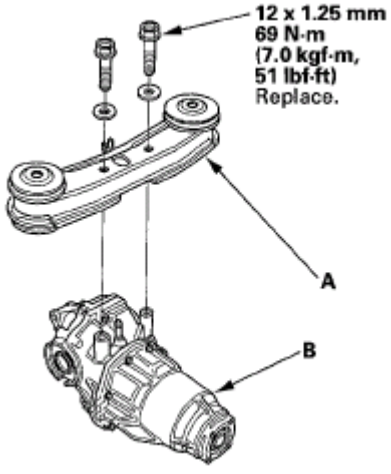


Fig. 54: Identifying Rear Differential Mount Assembly And Rear Differential Assembly With Torque Specification
Courtesy of AMERICAN HONDA MOTOR CO., INC.

2. Jack up the rear differential.
3. Install the new set rings (A) onto the driveshafts, then insert the driveshafts into the rear differential (B).

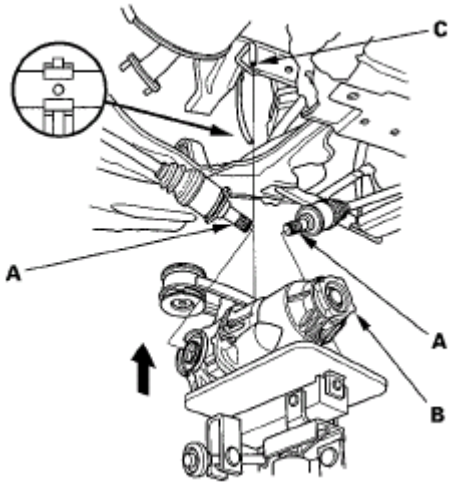


Fig. 55: Inserting Drivershaft Into Rear Differential
Courtesy of AMERICAN HONDA MOTOR CO., INC.

4. Lift the rear differential up into position, then push on both driveshafts to lock the set rings into place. Connect the breather tube (C).
5. Install the plates (A) and the rear differential mount assembly mounting bolts (B).

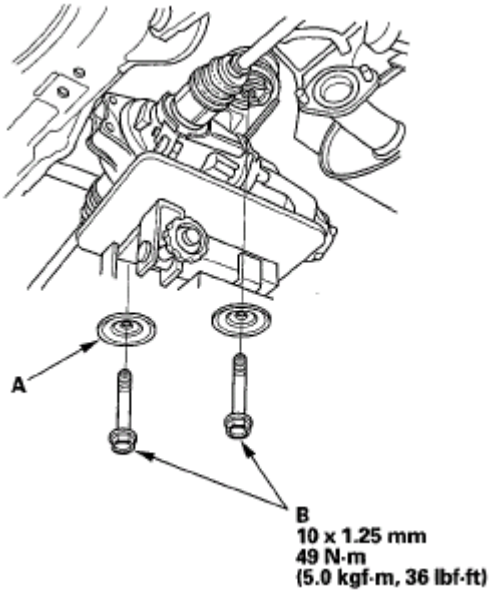


Fig. 56: Identifying Plates And Rear Differential Mount Assembly Mounting Bolts With Torque Specification
Courtesy of AMERICAN HONDA MOTOR CO., INC.

6. Install the rear differential damper (A) (M/T model) and right and left rear differential mount brackets B.

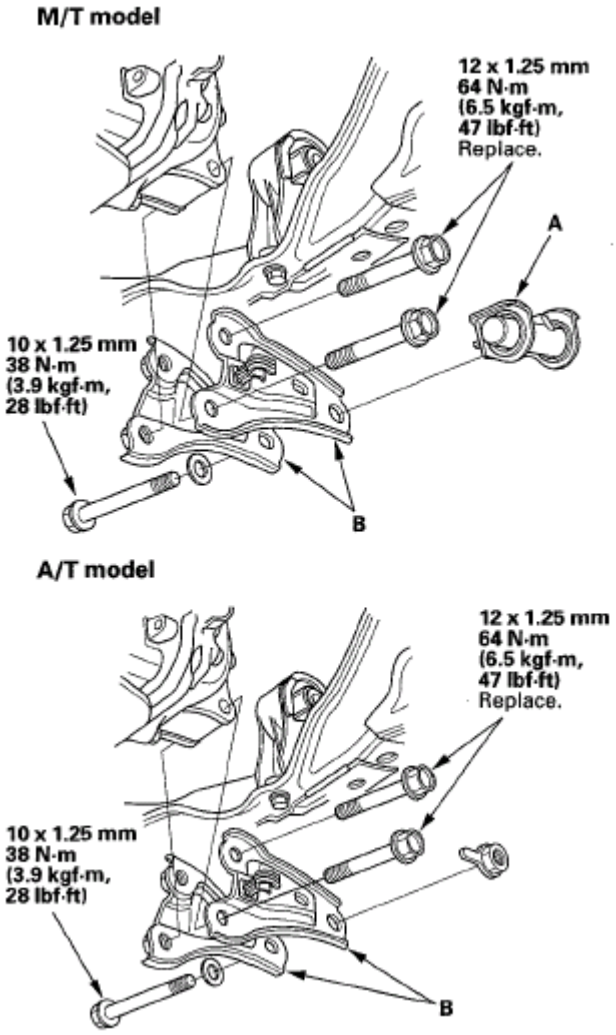


Fig. 57: Identifying Rear Differential Damper (M/T Model) With Torque Specifications
Courtesy of AMERICAN HONDA MOTOR CO., INC.

7. Connect the No. 2 propeller shaft onto the rear differential by aligning the reference mark (see step 1 on **PROPELLER SHAFT INSTALLATION**).
8. Install the tail pipe (A).

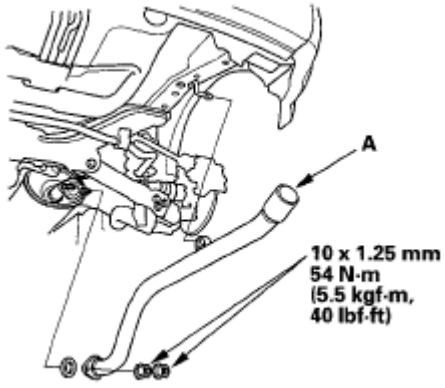


Fig. 58: Identifying Tail Pipe With Torque Specification
Courtesy of AMERICAN HONDA MOTOR CO., INC.

9. Refill the rear differential with the recommended fluid (see **REAR DIFFERENTIAL FLUID INSPECTION AND REPLACEMENT**).
10. Test-drive the vehicle.

REAR DIFFERENTIAL MOUNT REPLACEMENT

EXPLODED VIEW

M/T model

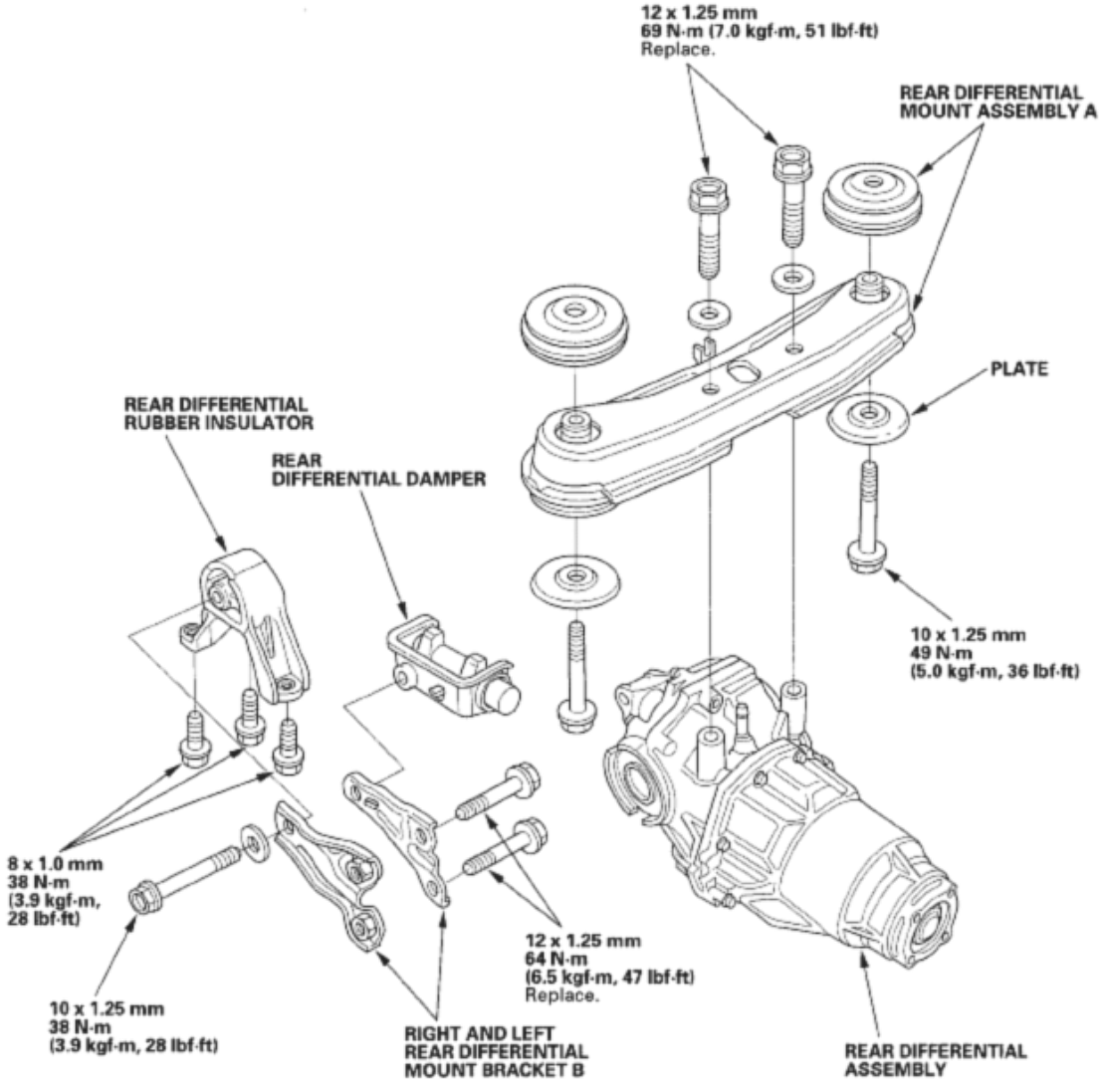


Fig. 59: Exploded View Of Rear Differential Mount With Torque Specifications (M/T Model)
Courtesy of AMERICAN HONDA MOTOR CO., INC.

A/T model

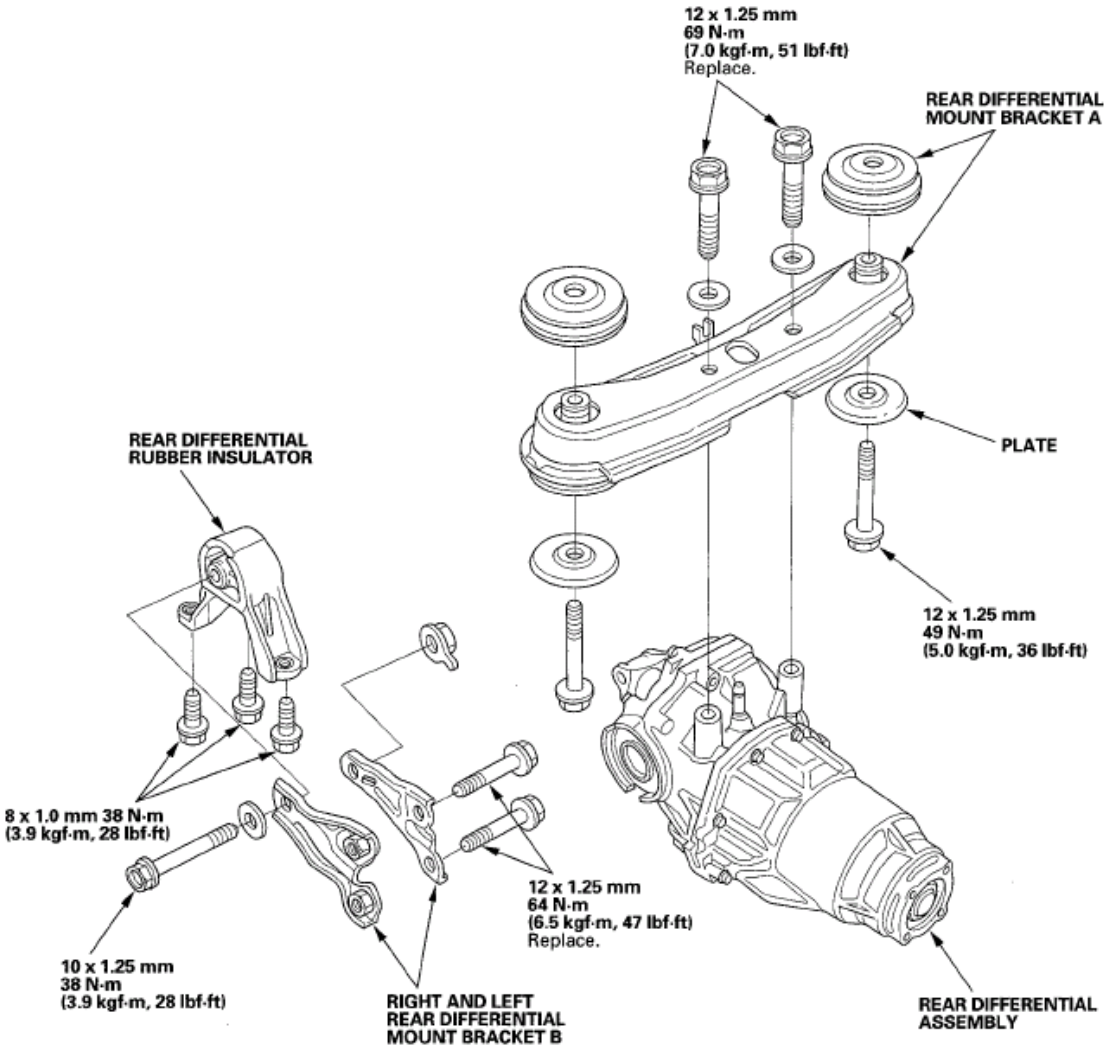


Fig. 60: Exploded View Of Rear Differential Mount With Torque Specifications (A/T Model)
Courtesy of AMERICAN HONDA MOTOR CO., INC.