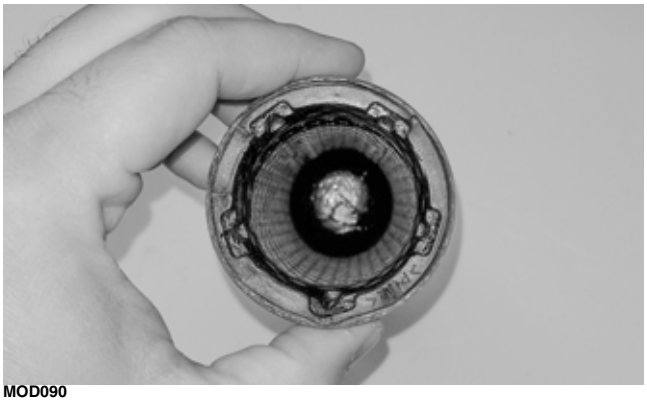
TEXTRON OFF ROAD

2019 SERVICE MANUAL

Prowler Pro Crew

MOD089

7. Remove and inspect the safety filter.

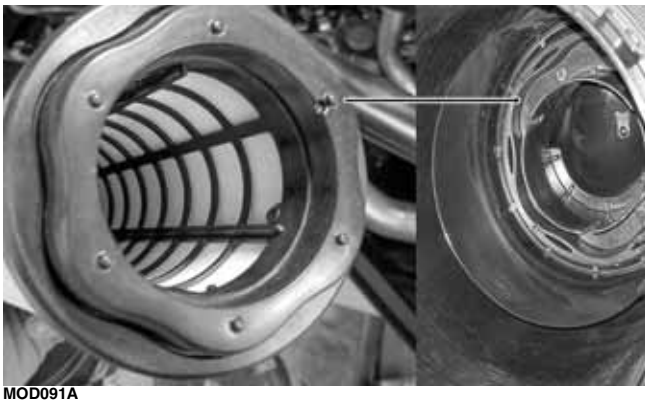


MOD090

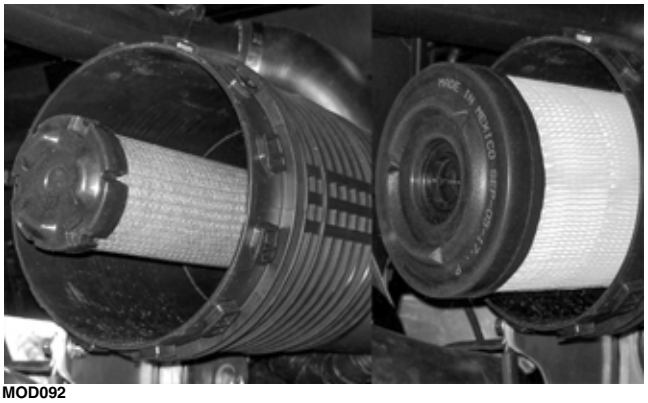
INSTALLING

1. Install safety filter; then install the primary filter.

■NOTE: The flower shape of the primary filter element must line up with the same-shaped void in the air filter housing for the air filter housing cover to fit properly.



MOD091A



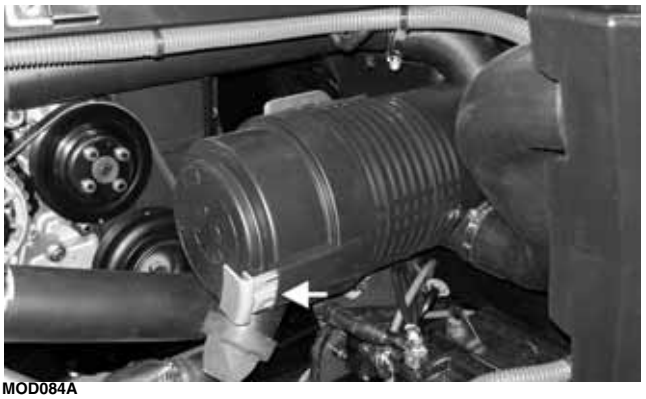
MOD092

2. Install the air filter housing cover with the clean-out valve at the 5 o'clock position; then turn the air filter housing cover clockwise until it seats.

■NOTE: The clean-out valve should be near the 6 o'clock position when the cover is seated.

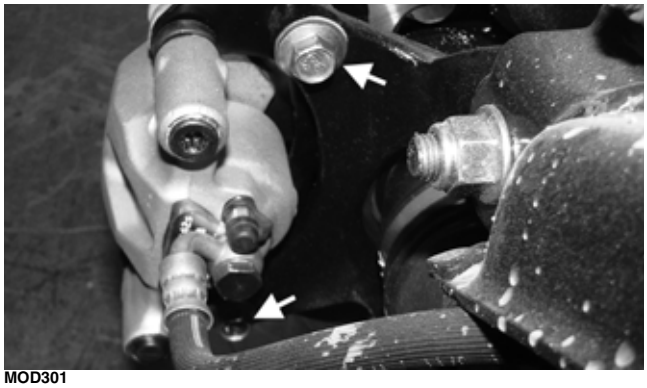
3. Lock the air filter housing cover.

MOD084C



MOD084A

4. Connect the snorkel to the housing; then tighten the clamp securely.

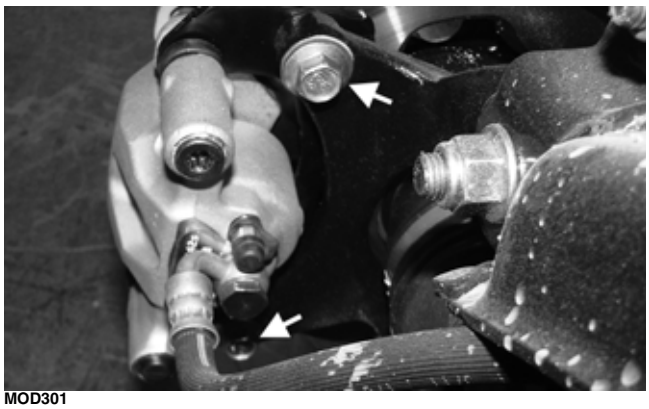


MOD301

B. Remove the pads from the caliper; then install the new brake pads.

MOD302

C. Secure the caliper holder to the knuckle with new "patch-lock" cap screws. Tighten to 45 ft-lb (61.2 N-m); then install the Torx head plug to the caliper.



MOD301

MOD512

5. Install the wheels and using a crisscross pattern, tighten the wheel nuts in 20 ft-lb (27.2 N-m) increments to a final torque of 100 ft-lb (136 N-m).
6. Burnish the brake pads.

BRAKE DISC

Using a micrometer, measure the thickness of the brake disc in the contact surface. If thickness is 0.125 in. or less, the disc must be replaced. To replace the brake disc, see Drive System – Hub/Brake Disc.

Burnishing Brake Pads

Brake pads must be burnished to achieve full braking effectiveness. Braking distance will be extended until brake pads are properly burnished.

⚠ WARNING

Do not attempt sudden stops or put yourself into a situation where a sudden stop will be required until the brake pads are properly burnished.

1. Choose an area large enough to safely accelerate the vehicle to 30 mph and to brake to a stop.
2. Accelerate to 30 mph; then release the accelerator pedal and depress the brake pedal to decelerate to 0-5 mph. Stopping distance should be approximately 50 ft.
3. Repeat procedure 20 times.

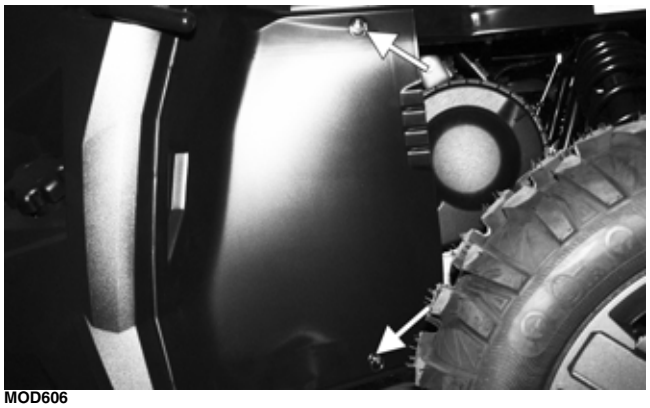
⚠ WARNING

Using the Operator's Manual as a guide, instruct the operator on the proper use, care, burnishing procedure (when brake pads are new), and maintenance of the hydraulic brake system.

Checking/Replacing Drive Belt

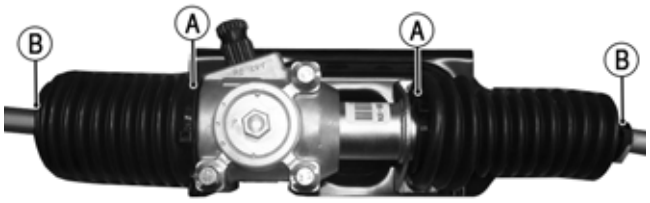
REMOVING

1. Tilt the cargo box up.
2. Remove the rear driver side inner fender by rotating the 1/4-turn fasteners counterclockwise.



MOD606

3. Loosen the clamp that holds the snorkel portion to the air inlet; then disconnect snorkel portion from air inlet.



MOD322A

3. Reinstall the rack and pinion into the vehicle; then install the wheels and using a crisscross pattern, tighten the wheel nuts in 20 ft-lb (27.2 N-m) increments to a final torque of 100 ft-lb (136 N-m); then lower the vehicle and remove the suitable lift and stands; then adjust the wheel alignment.
4. Lower the vehicle and remove the suitable lift and stands; then adjust the wheel alignment.

Steering Knuckles

REMOVING AND DISASSEMBLING

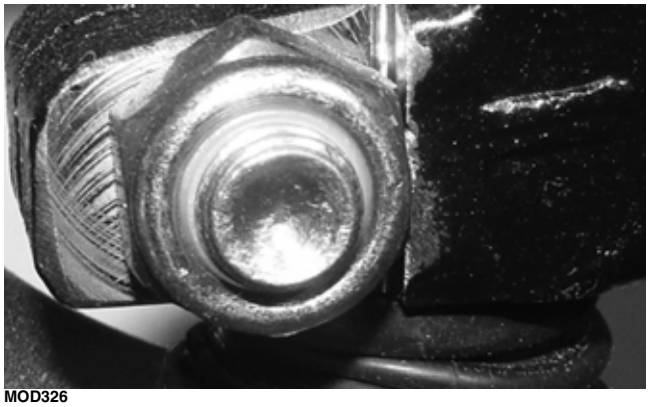
1. Secure the vehicle on a support stand to elevate the wheel; then remove the wheel and retaining plate.

⚠ WARNING

Make sure the vehicle is solidly supported on the support stand to avoid injury.

2. Remove the nut securing the hub.
3. Remove the brake caliper.
4. Remove the hub assembly.
5. Remove the cotter pin from the tie rod end and remove the tie rod end from the knuckle.
6. Remove the two cap screws securing the ball joints in the knuckle.

■NOTE: Turn the cap screws and not the lock nuts. The lock nuts are held in place by the steering knuckle.



MOD326

MOD325

7. With the cap screws completely removed tap the ball joint end out of the knuckle; then remove the knuckle.
8. Remove the snap ring securing the bearing in the knuckle; then press the bearing out of the knuckle.

MOD327

CLEANING AND INSPECTING

1. Clean all knuckle components.
2. Inspect the bearing for pits, scoring, rusting, or premature wear.
3. Inspect the knuckle for cracks, breaks, or galling of the bearing surface.

ASSEMBLING AND INSTALLING

1. Using a suitable press and driver, press the bearing into the knuckle until firmly seated; then install the snap ring with the sharp edge away from the bearing.

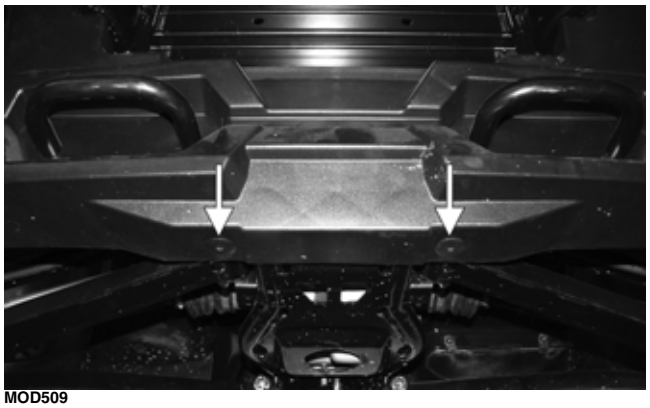
MOD327

2. Insert the CV shaft into the knuckle; then install the knuckle to the upper and lower ball joints and secure with the two cap screws. Tighten to 45 ft-lb (61.2 N-m).

Lower Fascia

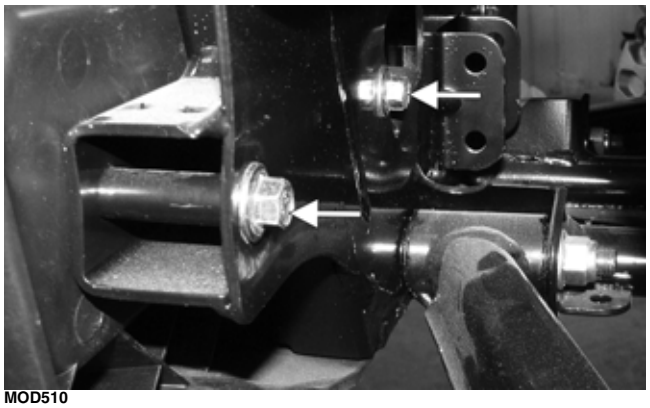
REMOVING

1. Remove the two cap screws located below the front tow hooks.



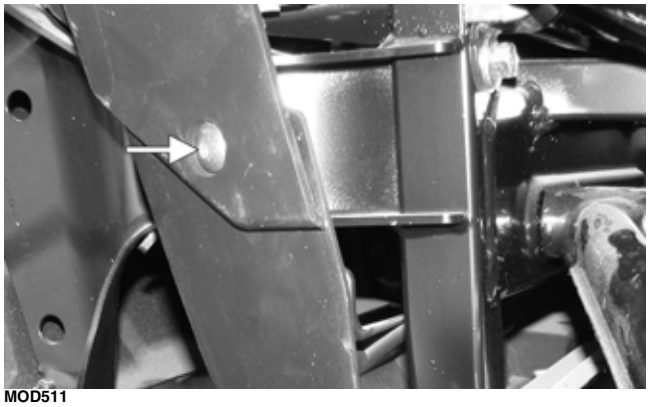
MOD509

2. Remove the two cap screws behind each tow hook and then remove the tow hooks.



MOD510

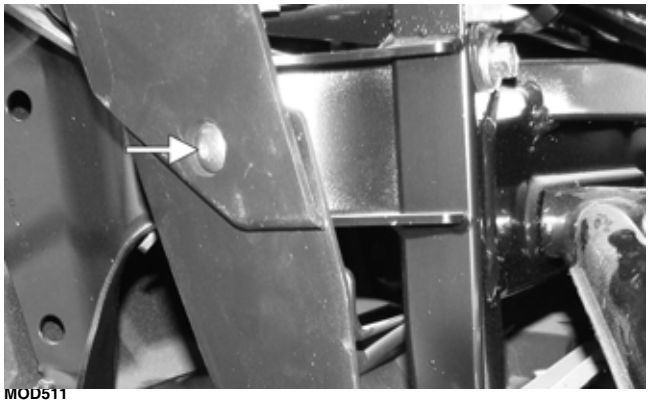
3. Remove the lower fascia-to-grille cap screw on each side.



MOD511

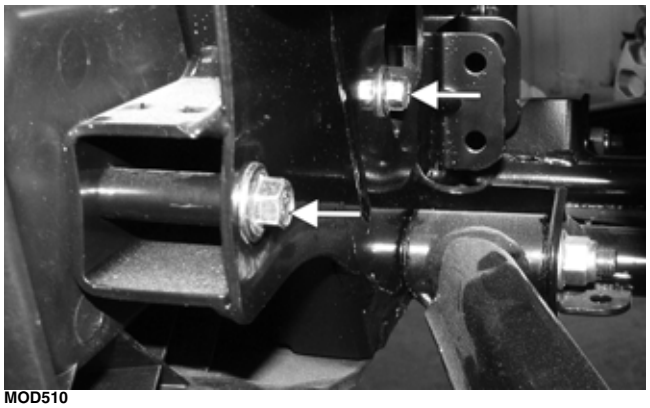
INSTALLING

1. Position the lower fascia into place; then install the lower fascia to grille cap screw on each side.



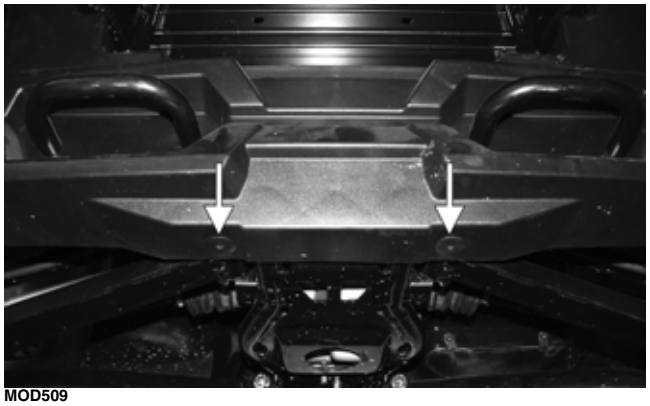
MOD511

2. Position the tow hooks into place; then install the two cap screws behind each tow hook. Tighten to 20 ft-lb (27.2 N-m).



MOD510

3. Install the two cap screws located below the front tow hooks.



MOD509

Front Fenders/Fender Flares

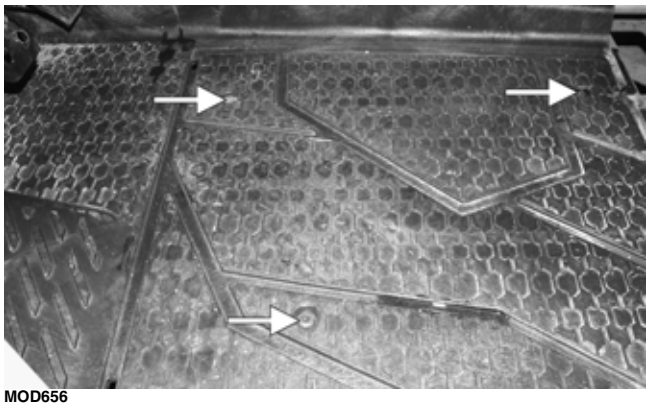
Removing the fender is recommended to remove the fender flare

REMOVING

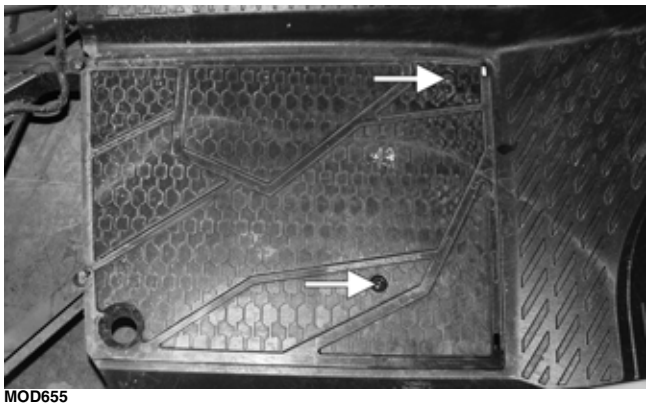
1. Remove the hood, upper hood and mid/upper dashboard. Located in the front of the inner fender, remove the two cap screws securing the fender, fender flare and grille to the headlight bracket.

MOD289A

5. Remove the five cap screws securing the floor to frame.



MOD656



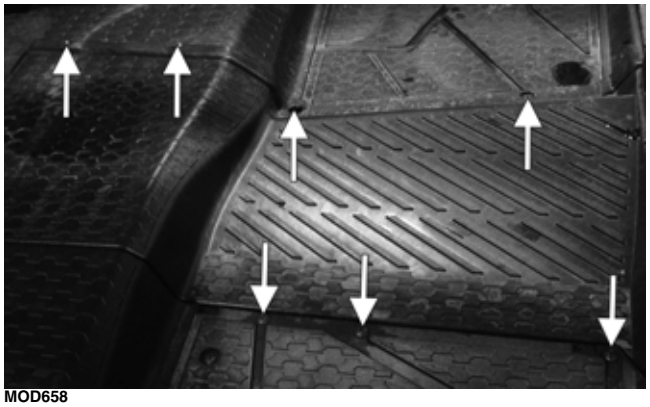
MOD655

6. Gently lift the rear of the floor up and lift the floor out of the vehicle.

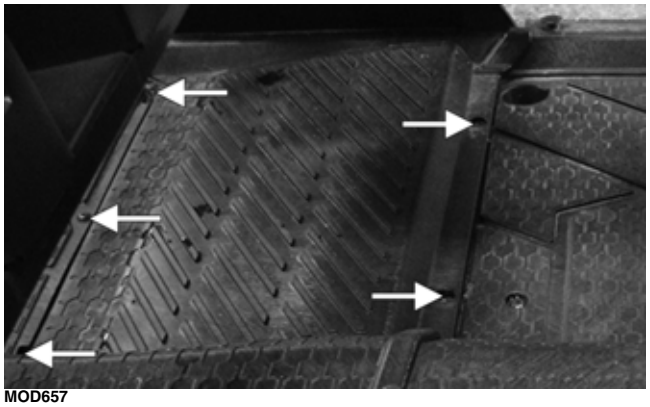
CENTER

REMOVING

1. Remove the front seats and front side panels.
2. Remove the 12 cap screws securing the center floor to the frame.



MOD658



MOD657

3. Gently lift the front portion of the center floor up and remove from vehicle.

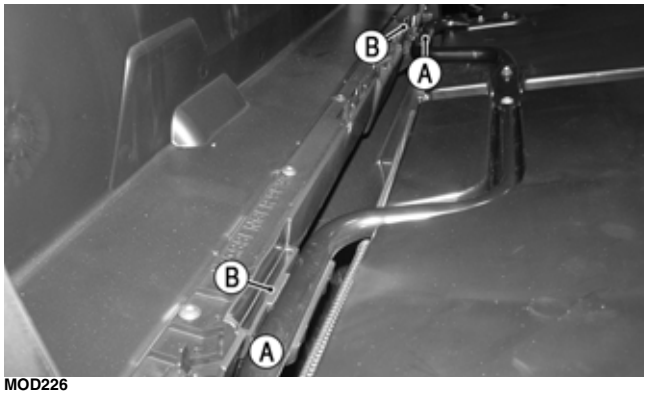
REAR

REMOVING

1. Remove the rear seats, behind-the-seat storage box panel, rear side panels, and rear seat base.
2. Remove the cap screw located near the rearmost corner of the floor on each side.

MOD290

3. Remove the 13 cap screws securing the rear floor to the frame.



MOD226


MOD165

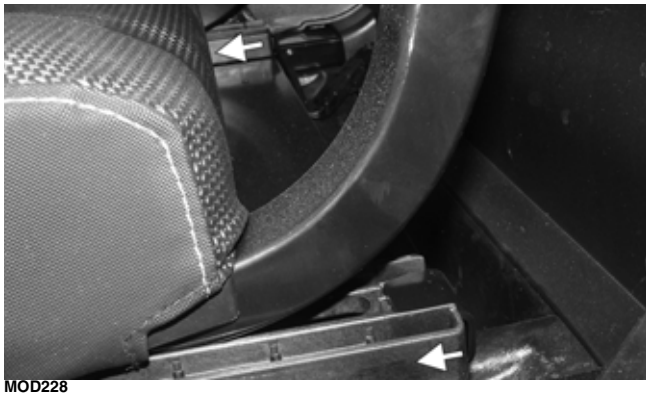
DRIVER SEAT

REMOVING

1. Remove the six cap screws from underneath the driver seat rails.

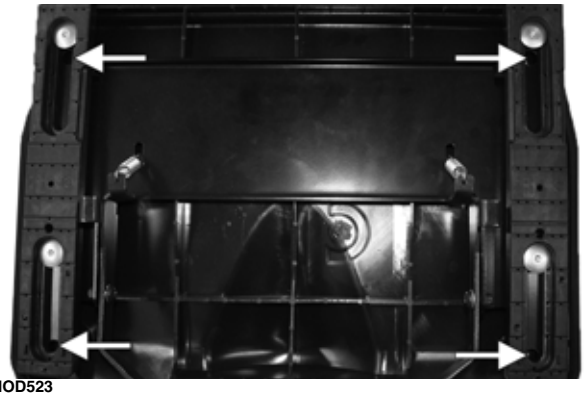

MOD661

2. Lift the seat adjustment lever; then move the seat assembly toward the front of the vehicle to clear the rear mounting channel.

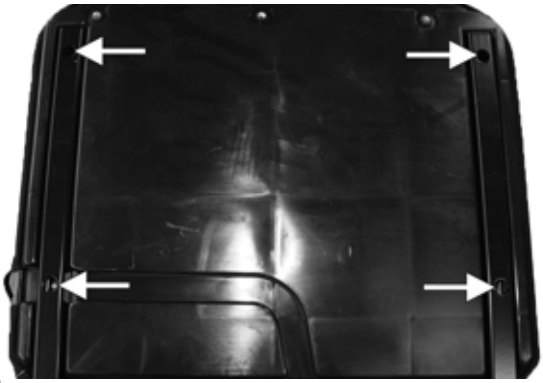

MOD228

DISASSEMBLING

1. Remove the four cap screws securing the seat bottom to the seat assembly; then remove the seat bottom from the seat assembly.

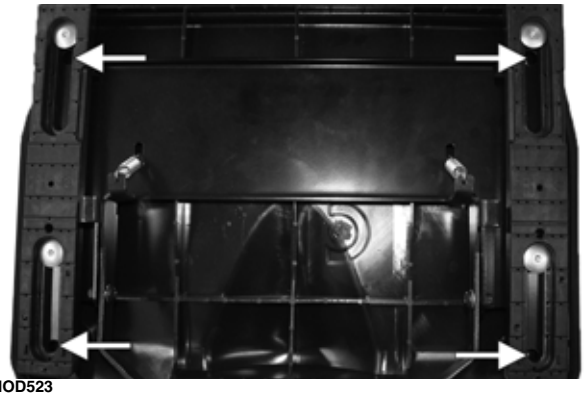

MOD523

2. Remove the four cap screws securing the seat backrest to the seat assembly; then remove the seat backrest from the seat assembly.

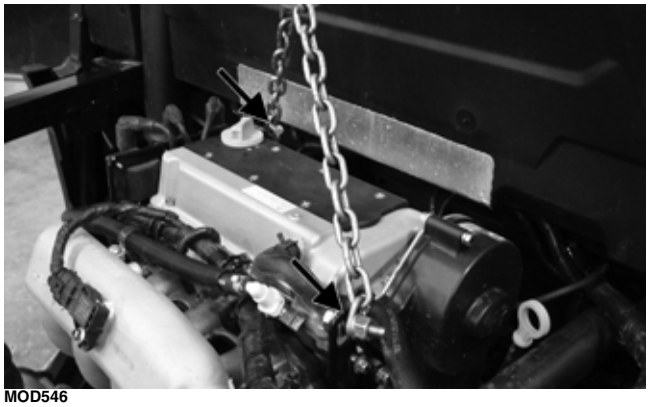

MOD524

ASSEMBLING

1. Position the seat bottom to the seat assembly; then install the four cap screws securing the seat bottom to the seat assembly. Tighten to 2 ft-lb (2.7 N-m).

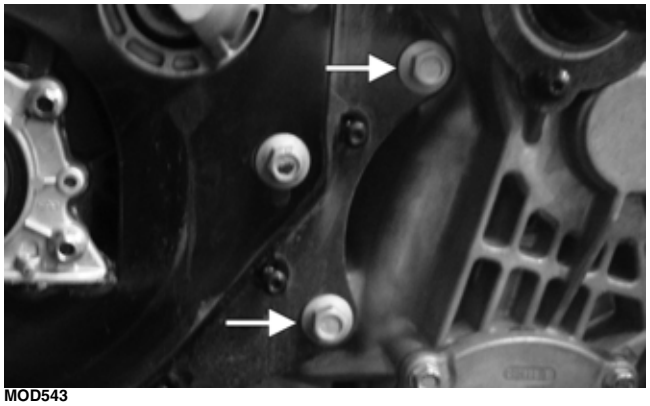

MOD523

2. Position the seat backrest to the seat assembly; then install the four cap screws securing the seat backrest to the seat assembly. Torque to 2 ft-lb (2.7 N-m).

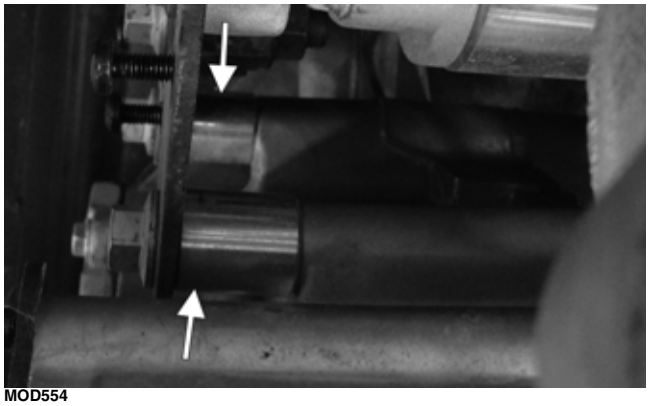


MOD546

7. Remove the two cap screws securing the engine to the transaxle. Account for the spacers and washers between the engine and transaxle.

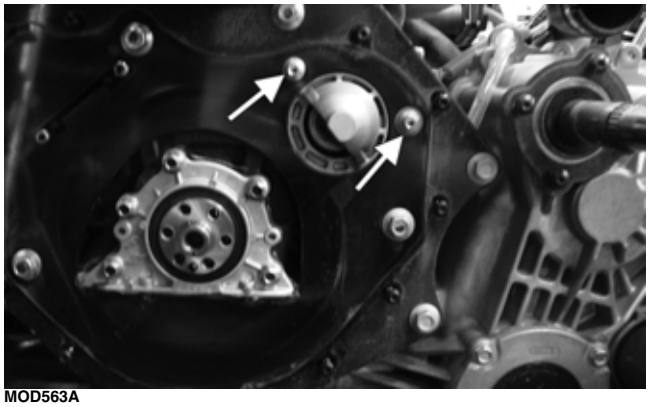


MOD543

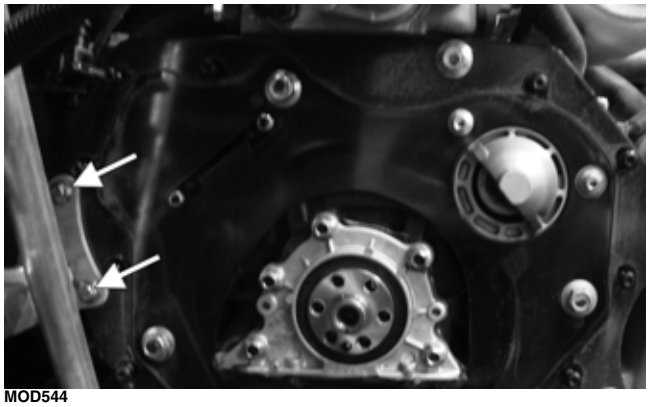


MOD554

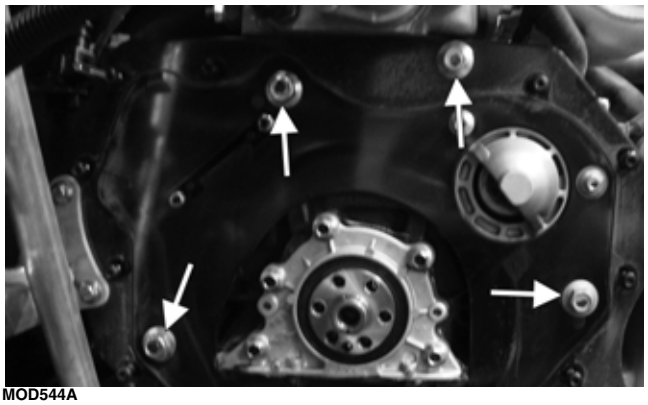
8. Remove the two cap screws securing the starter to the engine backplate; then remove the starter; then remove the two cap screws securing the driver-side backplate to the front mount; then remove the four cap screws for the engine backplate and remove the engine backplate.



MOD563A

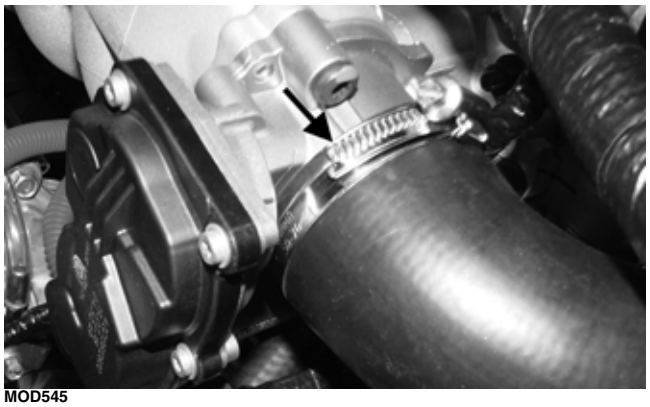


MOD544



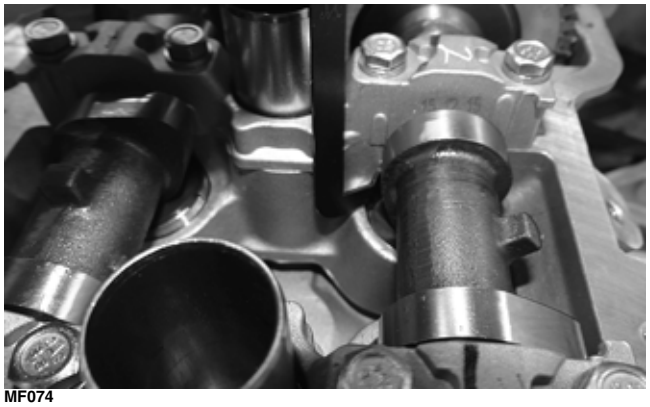
MOD544A

9. Remove the air intake to the engine.



MOD545

10. With tape or other suitable means, plug the intake for the engine to prevent foreign debris from entering.


MF074

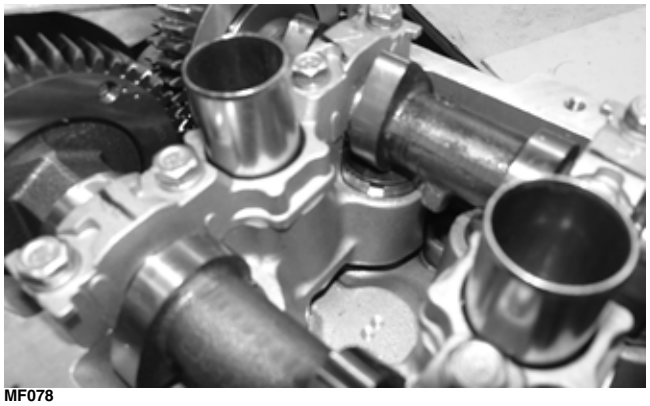
6. Remove the Valve Adjust Tool; then rotate the crankshaft through at least two revolutions, making sure the shim is adequately seated in the valve bucket.
7. Recheck the valve clearance on adjusted valves as prescribed in (see CHECKING VALVE CLEARANCE in this section).
8. Install the valve cover (see Installing Valve Cover in this section).

ALTERNATE VALVE CLEARANCE ADJUSTMENT

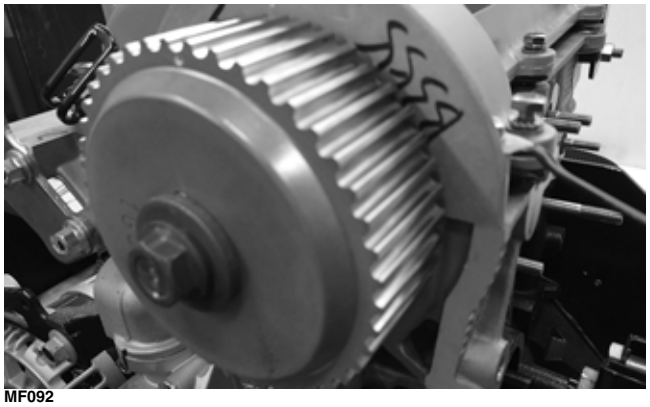
1. Remove the camshaft drive belt (see REMOVE AND INSTALL CAMSHAFT DRIVE BELT in this section).

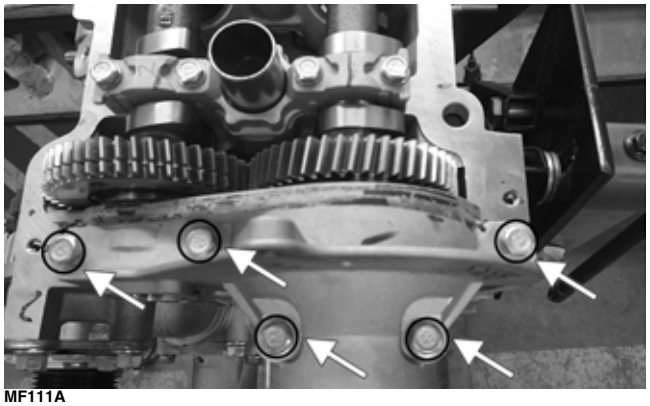
■NOTE: Valve clearance must be measured and recorded prior to step 2.

2. Rotate the camshaft drive pulley until the camshafts "unload" (camshaft lobes relaxed from valve buckets).

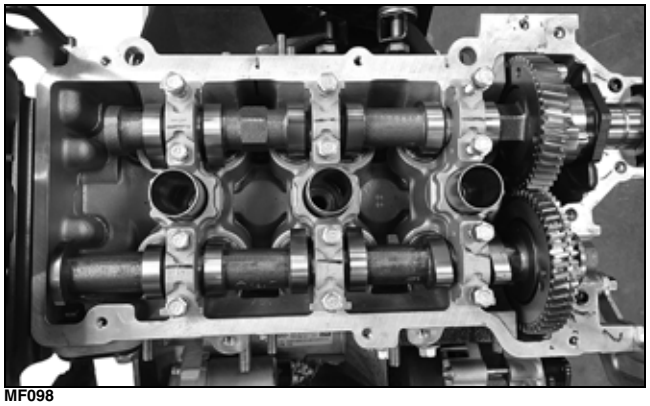

MF078

3. Remove the camshaft drive pulley; then remove the five cap screws securing the drive-end camshaft bearing housing and remove the housing.

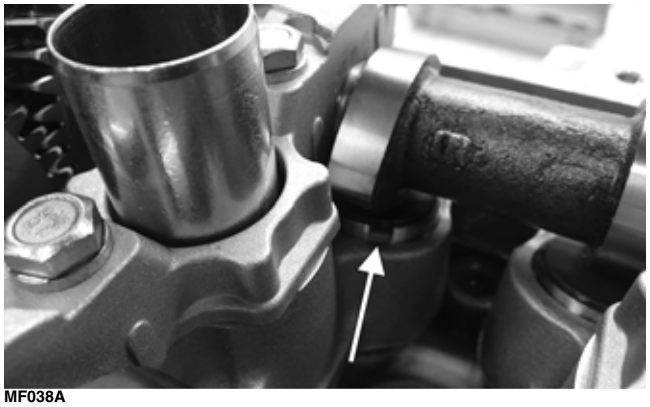

MF092


MF111A

4. Loosen but do not remove the cap screws securing the camshaft bearing housings to the cylinder head.

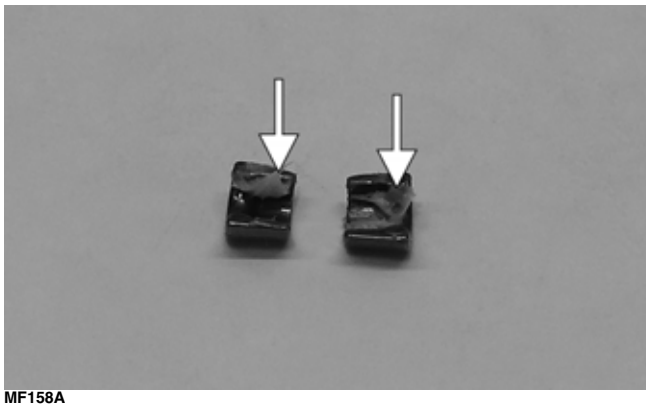

MF098

5. Use a sharp pick or small screwdriver to rotate the valve bucket until the notch is accessible; then lift the adjuster shim and remove using a small magnet or needle-nose pliers.


MF038A

MF159A

■**NOTE: Collets can be held in position during assembly by applying a small amount of grease to the inner surface of the collets.**



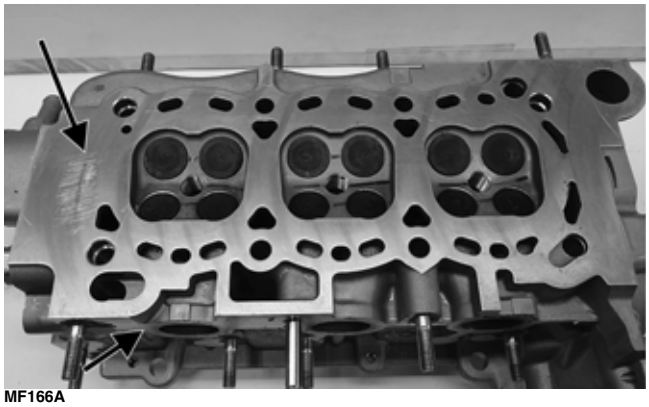
MF158A

INSTALLING CYLINDER HEAD

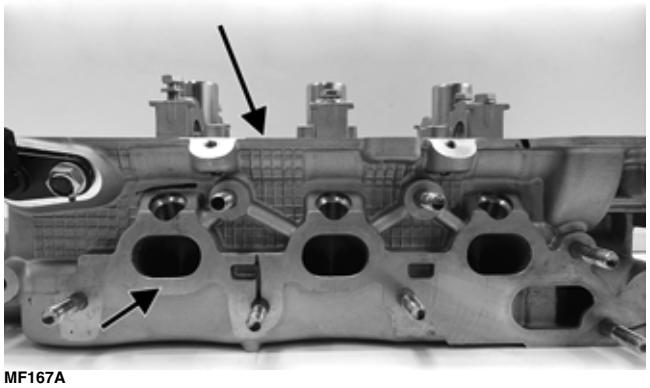
To install the cylinder head, use the following procedure:

■**NOTE: Whenever a major engine component is removed for inspection or service, new gaskets, seals, and O-rings must be installed. Never attempt to reuse gaskets or seals.**

1. Thoroughly clean all mating surfaces of the cylinder head and engine block as well as mating surfaces of any removed components.



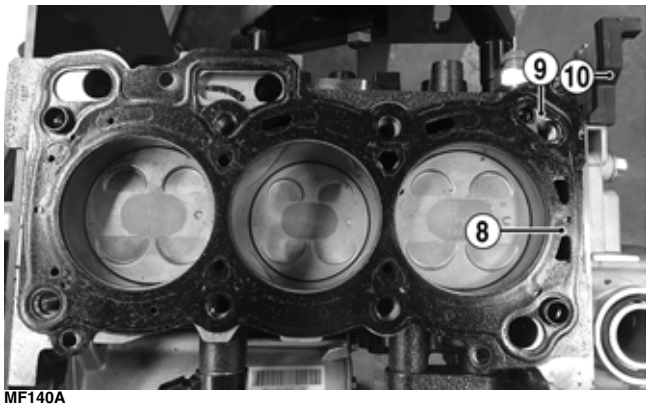
MF166A



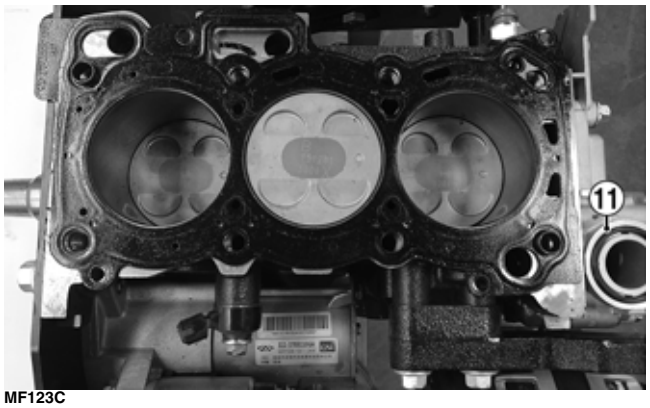
MF167A

2. If intake and exhaust manifolds were removed, using new gaskets, install and secure with attaching nuts (seven intake and six exhaust) and tighten to specifications. Install the heat shield onto the exhaust manifold.

3. Wipe all surfaces clean of lint, liquids, or other contaminates and place a new cylinder head gasket in place, making sure that the oil passage in the gasket (8) is properly aligned with the oil port (9) in the engine block; then install a new O-ring (11) and weather seal (10).



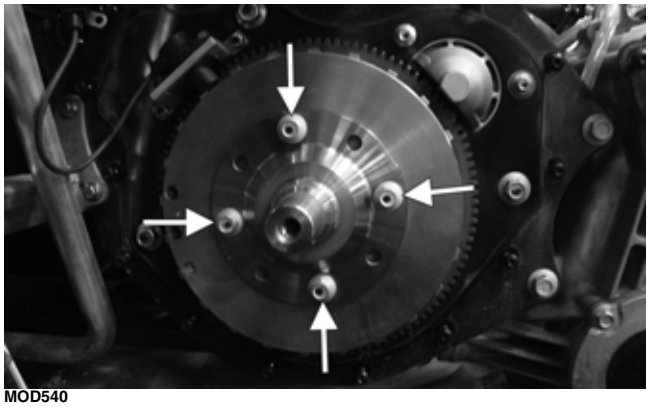
MF140A

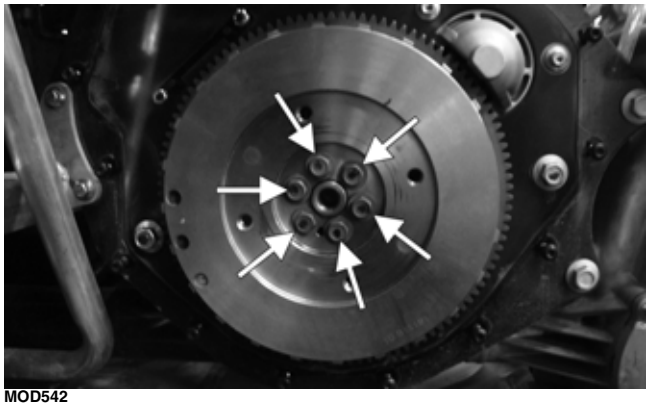


MF123C

CAUTION

To avoid severe engine damage, make sure that the oil passage in gasket (8) is properly aligned with the oil port (9) in the engine block.


MOD540


MOD542

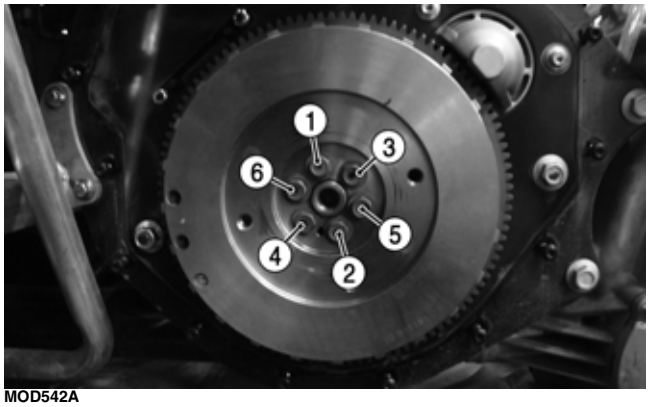
Inspecting

1. Inspect the drive belt housing for cracks, elongated mounting holes, or loose alignment pins.
2. Inspect the flywheel/ring gear assembly for worn or broken teeth, cracks, or elongated mounting holes.

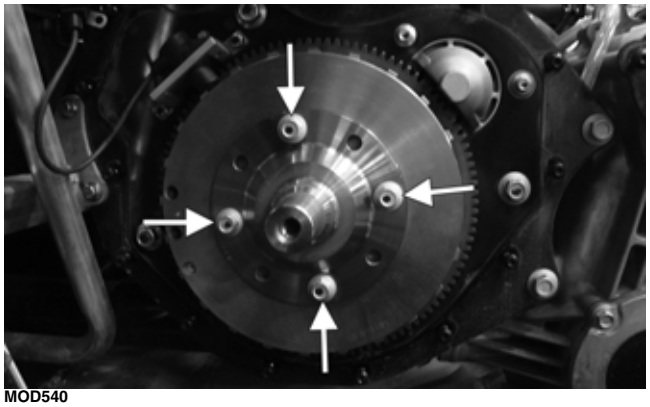
■**NOTE: The ring gear is not individually serviceable and must be replaced as an assembly with the flywheel.**

Installing

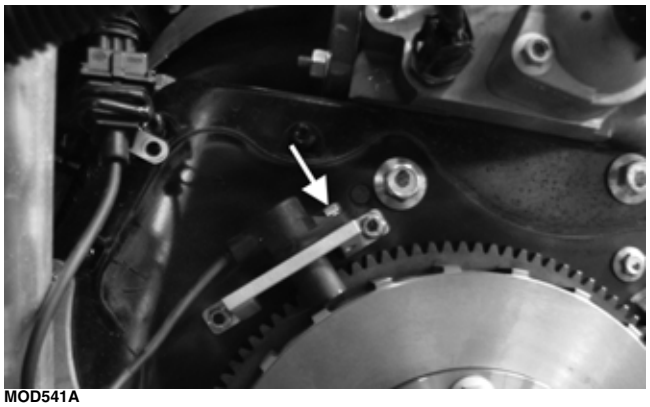
1. Using a suitable tool to hold the flywheel in place, install the flywheel on the crankshaft and using the pattern shown, tighten the six cap screws to 51.7 ft-lb (70 N-m); then install the PTO stub shaft and tighten the four cap screws to 36.9 ft-lb (50 N-m).

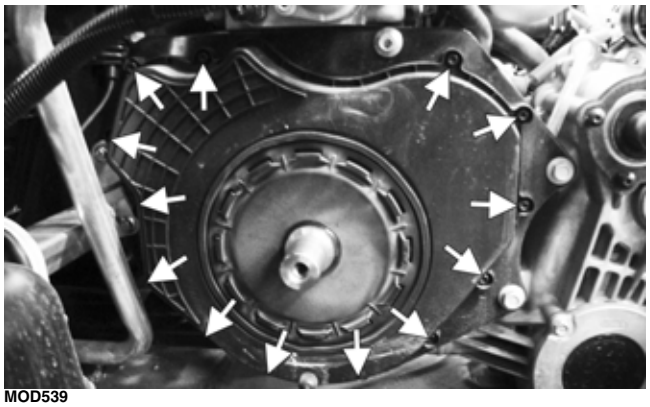


MOD542A


MOD540

2. Install the crankshaft position sensor to the crankshaft position sensor bracket and tighten the cap screw to 8 ft-lb (10.9 N-m); then spray a light film of alcohol on the crankshaft position sensor wire; then install the flywheel cover while routing the crankshaft position sensor wire correctly and gently pull on the crankshaft position sensor wire to take the slack out from under the flywheel cover. Tighten the cap screws to 4.5 ft-lb (6.1 N-m).


MOD541A


MOD539

3. Install the inner clutch cover; then near the engine PTO, install the retaining ring securing the inner clutch cover to the engine; then near the transaxle input shaft, install the four cap screws securing the inner clutch cover to the transaxle and tighten to 8 ft-lb (10.9 N-m).

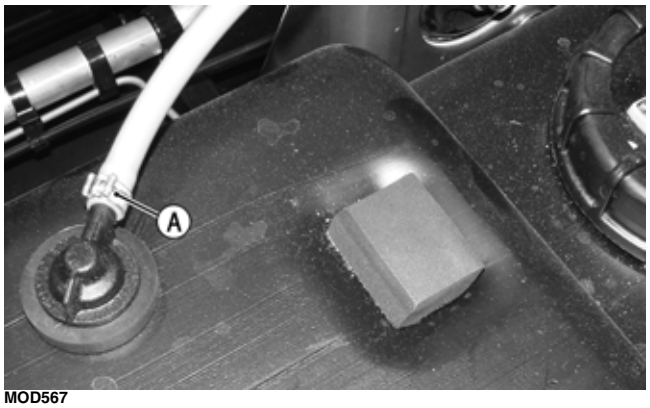
6. Inspect the gas tank mountings for security, signs of cracking, or wearing through the tank.
7. Inspect all gas and vent hoses for cracks, softening, or deterioration. Replace as required.

INSTALLING

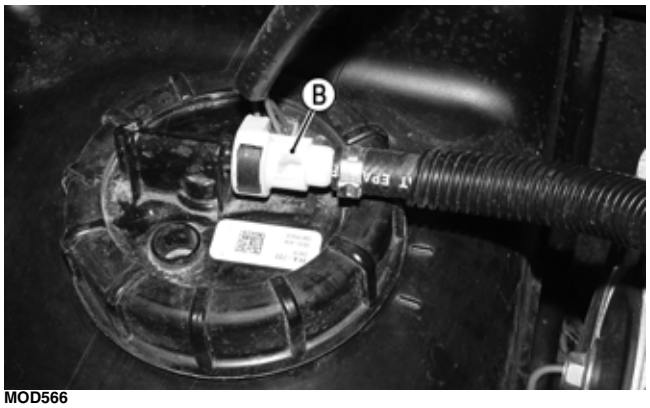
⚠ WARNING

Whenever any maintenance or inspection is made on the gas system during which there may be gas leakage, there should be no welding, smoking, open flames, etc., in the area.

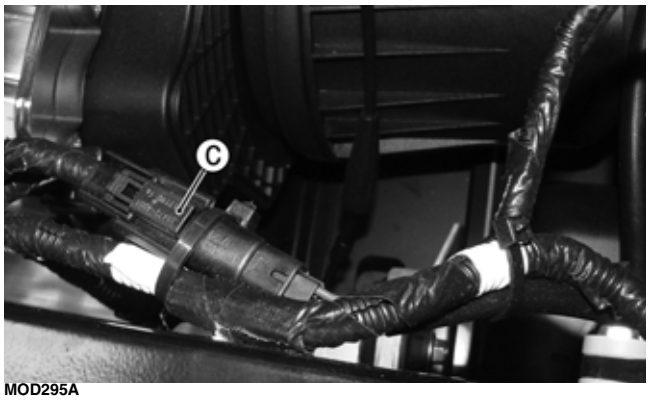
1. Place the gas tank into position in the vehicle; then connect the vent hose (A), gas hose (B), and fuel pump/gas level sensor connector (C).



MOD567



MOD566



MOD295A

2. Install the floor; then install the behind-the-seat storage box panel, seat base, seat backs, seat, and side panels.

Fuel Pump

■NOTE: The fuel pump is a non-serviceable component and must be replaced as an assembly (see the Electrical section).

Fuel/Vent Hoses

Inspect the fuel lines per the maintenance schedule. Damage from aging may not always be visible. Do not bend or obstruct the routing of the vent hose or fuel return hose.

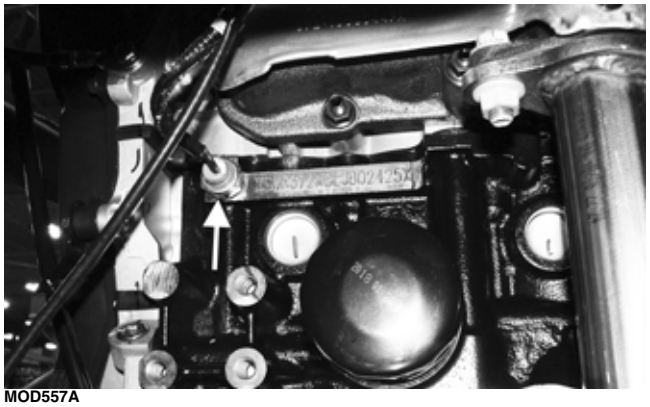
Oil Filter/Oil Pump

■NOTE: Whenever internal engine components wear excessively or break and whenever oil is contaminated, the oil pump should be replaced. The oil pump is a non-serviceable component.

TESTING OIL PUMP PRESSURE

■NOTE: The engine must be warmed up to operating temperature (cooling fan cycling) for this test.

1. Use the LCD gauge to monitor the RPM of the engine.
2. Tilt the cargo box into the up position; then disconnect the oil pressure switch connector; then remove the oil pressure switch from the engine; then connect a oil pressure tester to the oil pressure switch port.


MOD557A

■NOTE: Some oil seepage may occur when installing the oil pressure gauge. Wipe up oil residue with a cloth.

3. Start the engine. At idle the oil pressure gauge must read greater than 4.35-7.25 psi (30-50 kPa).

■NOTE: If oil pressure is lower than specified, check for an oil leak, damaged oil seal, or defective oil pump.

Secondary Coils

CAUTION

Disconnect the injector connectors before performing the following procedure.

1. Connect the primary ignition coil connector. Remove the spark plug cap from the spark plug.
2. Connect the spark plug cap to an ignition test plug or other suitable tool; then ground the tool away from the spark plug hole. While turning the engine over, check for sufficient spark.

RESISTANCE

CAUTION

Always disconnect the battery when performing resistance tests to avoid damaging the multimeter.

Primary Winding

1. Remove the connector from the ignition coil; then set the meter selector to the OHMS position.
2. Connect the red tester lead to one terminal; then connect the black tester lead to the other terminal.

MOD580

3. The meter reading must be less than 1 ohm.

■NOTE: Secondary coil resistance checks are not recommended. An internal diode in the coil prevents accurate secondary resistance measurements.

Spark Plug Cap

1. Remove the spark plug cap from the spark plug; then remove the spark plug wire from the ignition coil.
2. Set the meter selector to the OHMS position.
3. Connect one meter lead to the spark plug end and then connect one meter lead to the ignition coil end.

MOD581

4. The meter must show approximately 5,000 ohms.

Accessory Receptacle/ Connector

■NOTE: This test procedure is for either the receptacles or the connectors.

VOLTAGE (Switched)

1. Turn the ignition switch to the ON position; then set the meter selector to the DC Voltage position.

■NOTE: There are three black terminals and three orange/black terminals that are connected to their respective colors.

2. Connect the red tester lead to the orange/black wire; then connect the black tester lead to ground.
3. The meter must show battery voltage.

■NOTE: If the meter shows no battery voltage, troubleshoot the battery, SW. ACC fuse, SW. ACC relay, receptacle, connector, or the main wiring harness.

VOLTAGE (Constant)

1. Set the meter selector to the DC Voltage position.
2. Connect the red tester lead to the red/white wire; then connect the black tester lead to ground.
3. The meter must show battery voltage.

■NOTE: If the meter shows no battery voltage, troubleshoot the battery, fuse, receptacle, connector, or the main wiring harness.

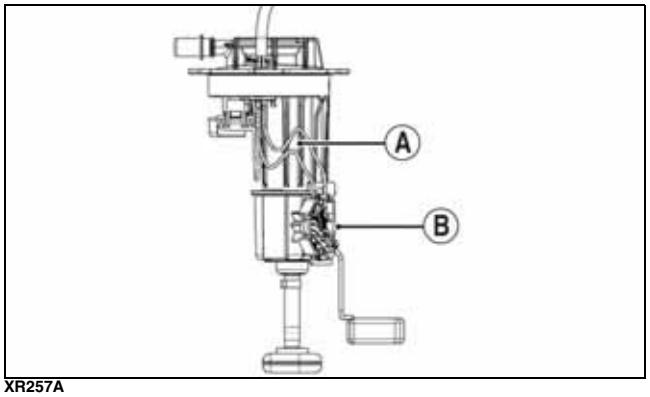
Switches

SEAT BELT LIMITER

■NOTE: This vehicle is equipped with a speed limitation device to limit the speed if the driver's seat belt is not fully engaged. The seat belt indicator light will remain illuminated until the driver's seat belt is fully engaged.

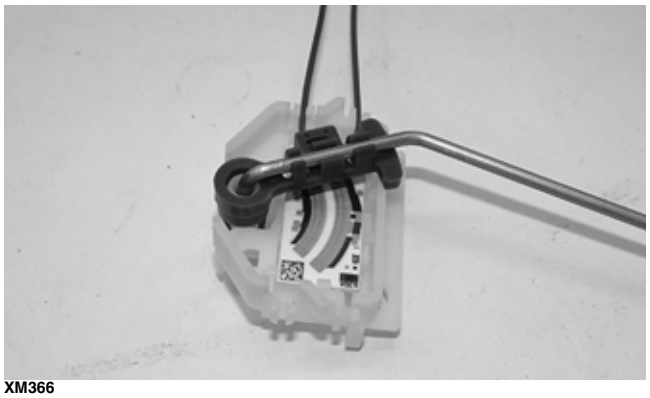
Resistance

1. Set the meter to the OHMS position.
2. Remove the driver-side rear inner fender. Locate the switch connector above the fuel tank; then disconnect.



XR257A

3. Keeping the float attached to the float arm, remove the float arm from the existing fuel level sensor. Press the float arm into the new fuel level sensor assembly. Ensure it locks into place.


XM366

■NOTE: Inspect the float for any damage or leaking by submerging in water and looking for any air bubbles. Replace if damaged.

4. Install the fuel level sensor assembly onto the fuel pump assembly housing. Once inserted, press down to make sure it locks into place.


MOD482

5. Connect the blue wires using the supplied splice connectors from the fuel level sensor kit. Secure the wires.

Installing Fuel Pump Assembly

1. Place the fuel pump assembly into the fuel tank with a new gasket aligning the match marks; then secure with the fuel tank nut. Tighten to 70 ft-lb (95.2 N-m).

■NOTE: It is important to install the fuel pump with the correct orientation to ensure adequate float lever clearance.

2. Connect the fuel hose and connect the return fuel hose; then connect the electrical plug to the main harness.
3. Connect the negative battery cable; then turn the ignition switch to the ON position and verify that no fuel leaks are present, the pump runs for several seconds, and the fuel gauge reading is normal.
4. Start the engine to verify proper engine operation; then shut off the engine and verify there are no leaks.

TILT SENSOR

⚠ WARNING

Incorrect installation of the tilt sensor could cause sudden loss of engine power which could result in loss of vehicle control resulting in injury or death.

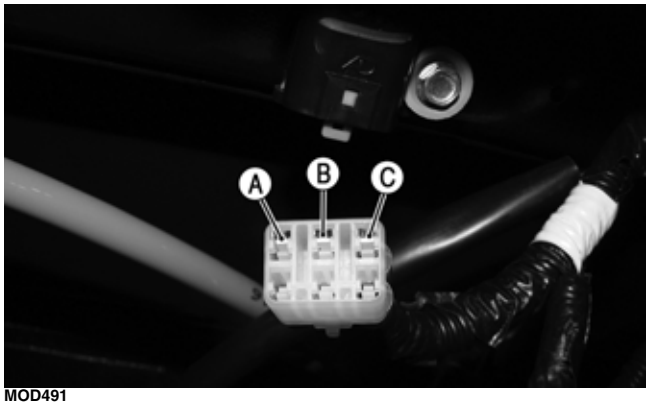
CAUTION

Do not drop the tilt sensor as shock can damage the internal mechanism.

Supply Voltage

1. Disconnect the three-wire connector from the sensor; then select DC Voltage on the multimeter and connect the red tester lead to the orange wire (C) and the black tester lead to the pink/black wire (A).

MOD490



MOD491

2. Turn the ignition switch to the ON position. The multimeter should read battery voltage. If battery voltage is not indicated, check the 20-amp EFI relay or the 10-amp EFI fuse in the PDM, wiring harness, or the ignition switch.
3. Remove the red tester lead and connect to the blue/brown wire. The multimeter should read less than 0.2 DC volts. If the specified voltage is not indicated, check wire connections at the ECM or substitute another ECM to verify the test.

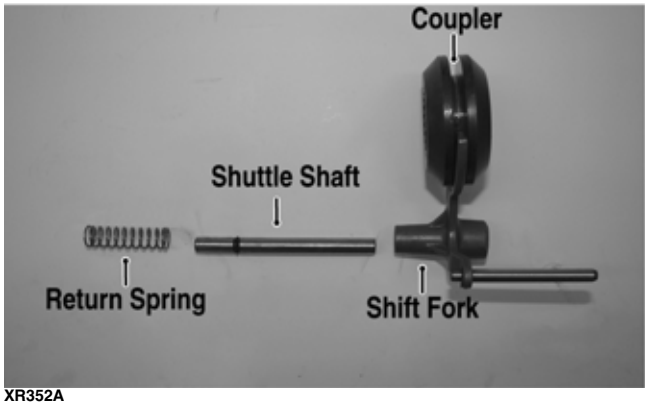
Display	Fault Description	Possible Cause	Fault Recovery Method
P0202	Cylinder #2 Fuel Injector Circuit Open	Injector #2 has been disconnected or its interconnect harness is open.	Correct condition**
P0203	Cylinder #3 Fuel Injector Circuit Open	Injector #3 has been disconnected or its interconnect harness is open.	Correct condition**
P0217	Engine Coolant Over Temperature Detected	There may be a malfunction of the cooling system.	Correct condition*
P0219	Engine Over-Speed Condition	The engine speed (RPM) has exceeded the ECM over-speed setpoint/limit.	Reduce engine speed
P0222	Throttle Position Sensor #2 Circuit Low/SG/Open	The throttle position sensor or its interconnect harness is open or shorted to chassis ground.	Correct condition*
P0223	Throttle Position Sensor #2 Circuit High	The throttle position sensor or its interconnect harness is shorted to battery power.	Correct condition*
P0261	Cylinder #1 Fuel Injector Circuit Low/SG	Injector #1 or its interconnect harness is shorted to chassis ground.	Correct condition**
P0262	Cylinder #1 Fuel Injector Circuit High	Injector #1 or its interconnect harness is shorted to battery power.	Correct condition**
P0264	Cylinder #2 Fuel Injector Circuit Low/SG	Injector #2 or its interconnect harness is shorted to chassis ground.	Correct condition**
P0265	Cylinder #2 Fuel Injector Circuit High	Injector #2 or its interconnect harness is shorted to battery power.	Correct condition**
P0267	Cylinder #3 Fuel Injector Circuit Low/SG	Injector #3 or its interconnect harness is shorted to chassis ground.	Correct condition**
P0268	Cylinder #3 Fuel Injector Circuit High	Injector #3 or its interconnect harness is shorted to battery power.	Correct condition**
P0325	Knock Sensor Range/Performance	The knock sensor or its interconnect harness is shorted to battery power, chassis ground, or open.	Correct condition*
P0326	Knock Sensor Intermittent/Erratic	The knock sensor or its interconnect harness is shorted to battery power, chassis ground, or open.	Correct condition*
P0363	Misfire Detected — Fueling Disabled (cannot be tripped at idle)	There could be a fouled spark plug or poor fuel quality. The ignition coil or fuel injector or their interconnect harnesses could also be malfunctioning.	Correct condition*
P0370	Loss of Crankshaft Position Sensor Synchronization/Gap Position	The crankshaft position sensor is not recognizing teeth as expected.	Correct condition*
P0371	Crankshaft Position Sensor Additional Teeth Detected	The crankshaft position sensor is not recognizing teeth as expected.	Correct condition*
P0372	Crankshaft Position Sensor Missing Tooth	The crankshaft position sensor is not recognizing teeth as expected.	Correct condition*
P0373	Crankshaft Position Sensor Spike Detected	The crankshaft position sensor is not recognizing teeth as expected.	Correct condition*
P0374	Crankshaft Position Sensor Signal Not Detected	The crankshaft position sensor or its interconnect harness is open or shorted to ground.	Correct condition*
P0444	EVAP System Purge Control Valve Circuit Open	The EVAP system purge control valve is disconnected or its interconnect harness is open.	Correct condition*
P0458	EVAP System Purge Control Valve Circuit Low/SG	The EVAP system purge control valve or its interconnect harness is shorted to chassis ground.	Correct condition*
P0459	EVAP System Purge Control Valve Circuit High/SP	The EVAP system purge control valve or its interconnect harness is shorted to battery power.	Correct condition*
P0480	Fan-Primary Relay Control Circuit Open	The primary fan relay or its interconnect harness is open.	Correct condition*
P0481	Fan-Secondary Relay Control Circuit Open	The secondary fan relay or its interconnect harness is open.	Correct condition*
P0500	Vehicle Speed-Sensor	The vehicle speed sensor circuit signal is intermittent or missing.	Correct condition**
P0503	Vehicle Speed Sensor Circuit Intermittent/ Erratic/High	The vehicle speed sensor circuit or its interconnect harness is open or shorted to battery power.	Correct condition**
P0504	Brake Switch Priority	Brake pressure switch #1 or its interconnect is open or shorted to chassis ground.	Correct condition*
P0562	System Voltage Low	The battery charge condition is low or the regulator/rectifier output is low.	Correct condition*
P0563	System Voltage High	The battery cable connections are loose or the regulator/rectifier output is high.	Correct condition*
P0600	Serial Communication Link	The ECM detected an internal condition.	Correct condition*
P0606	Internal Monitoring Error	The ECM detected an internal condition.	Correct condition*
P060C	Internal Monitoring 3 Error	The ECM detected an internal condition.	Correct condition*
P0615	Starter Relay Circuit	The start switch/button, starter relay, gearswitch or its interconnect harness is erratic or intermittent.	Correct condition*
P0616	Starter Relay Circuit Low	The start switch/button, starter relay or its interconnect harness is intermittent or shorted to chassis ground.	Correct condition*
P0617	Starter Relay Circuit High	The start switch/button, starter relay, or its interconnect harness is intermittent or shorted to battery power.	Correct condition*
P061A	Internal Monitoring of Torque Error	The ECM detected an internal condition.	Correct condition*
P061F	Electronic Throttle Control Driver Temperature Warning	The ECM detected an internal condition.	Correct condition*
P0627	Fuel Pump Control Circuit Open	The fuel pump control circuit or its interconnect harness is open.	Correct condition*
P0628	Fuel Pump Control Circuit Low/SG	The fuel pump control circuit or its interconnect harness is shorted to chassis ground.	Correct condition*
P0629	Fuel Pump Control Circuit High/SP	The fuel pump control circuit or its interconnect harness is shorted to battery power.	Correct condition*
P0630	VIN Not Programmed or Incompatible	Verify that the LCD gauge and ECM part numbers are correct for the vehicle model number and VIN.	Correct condition*
P0641	Sensor Reference Voltage #1 Circuit Low/Open	5-volt sensor power circuit #1 has been shorted to chassis ground.	Correct condition*

3. Lubricate the input shaft with High-Performance #2 Molybdenum Disulfide Grease packing the splines; then assemble allowing excess grease to freely escape. Grease the pinion housing seal; then install the input shaft into the pinion housing and secure with a new snap ring.

■NOTE: Any time drive splines are separated, clean all splines with parts-cleaning solvent and dry with compressed air; then lubricate with recommended grease.

GC009A

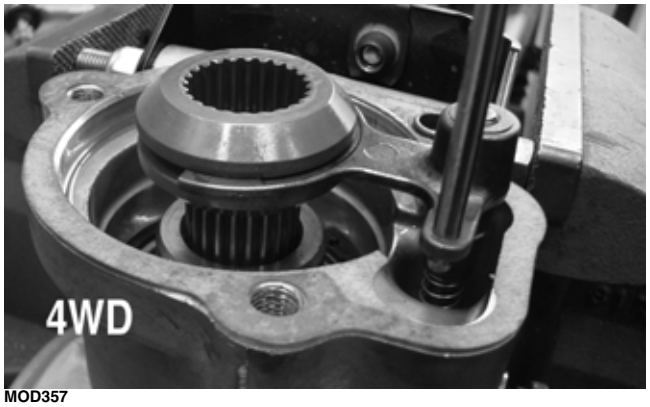
4. With the return spring over the shuttle shaft, place the shuttle shaft with O-ring into the differential housing.



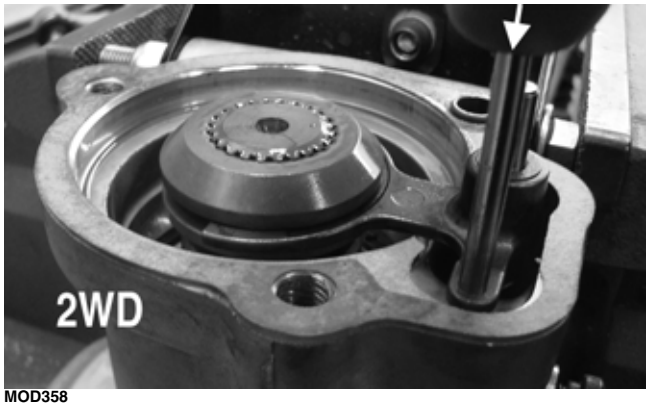
XR352A

XR354

5. Place the dowel pin into the differential housing; then install a new gasket. Place the coupler onto the shift fork; then simultaneously engage the shift fork to the shuttle shaft and the internal splines of the coupler to the splines of the pinion gear shaft; then verify the shift fork moves freely from 4WD to 2WD to 4WD by pushing down on the shift fork shaft and then releasing.

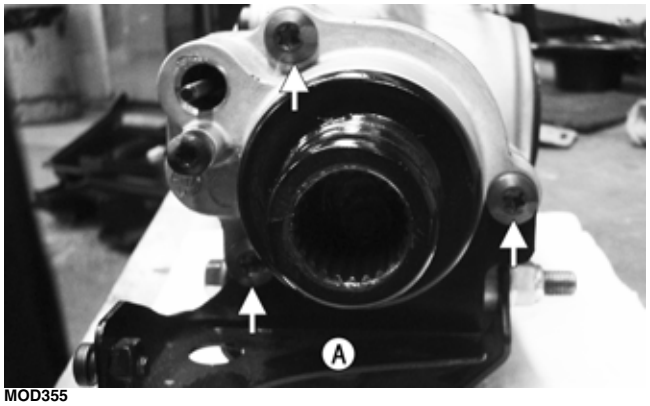


MOD357



MOD358

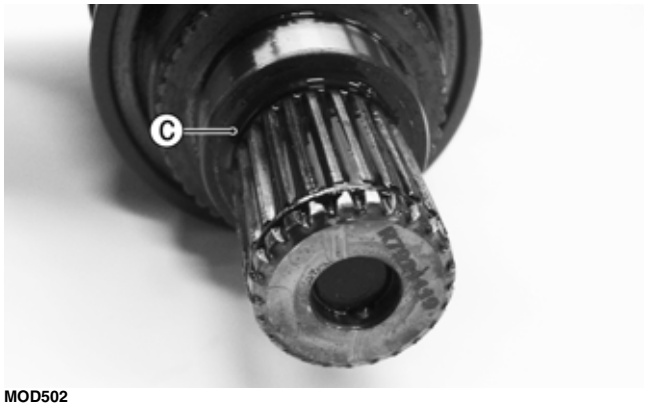
6. Align the splines of the output shaft to the internal splines of the coupler; then place the pinion housing onto the differential housing; then place the drive actuator bracket (A) into position; then secure the assembly with three cap screws and tighten to 22 ft-lb (29.9 N-m) (existing) or 28 ft-lb (38.1 N-m) (new differential housing).



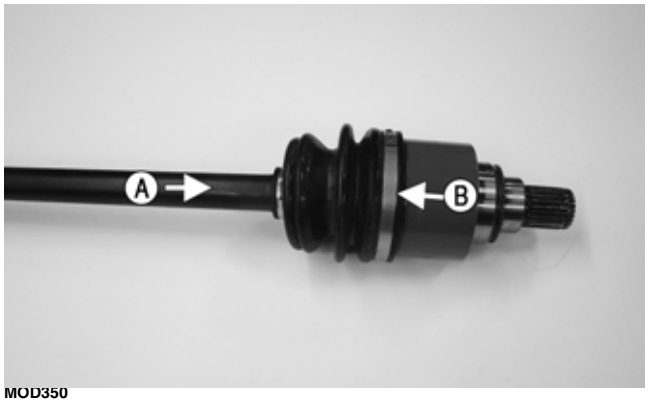
MOD355

Disassembling Differential Assembly

1. Using a Torx wrench, remove the cap screws securing the pinion housing; then remove pinion housing. Account for the coupler, fork, shuttle shaft with O-ring, and spring.

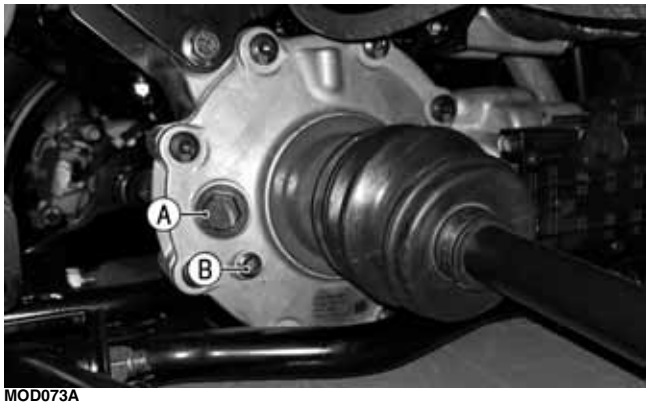


MOD502



MOD350

2. Insert the ball joints into the steering knuckles and secure with new cap screws and lock nuts tightened to 45 ft-lb (61.2 N-m); then install the tie rods to the steering knuckles and tighten to 32 ft-lb (43.5 N-m); then secure the lower shock eyelet to the A-arm with a cap screw and a new lock nut. Tighten to 45 ft-lb (61.2 N-m).
3. Install the hubs (see Hub/Brake Disc in this section).
4. Install the wheels and using a crisscross pattern, tighten the wheel nuts in 20 ft-lb (27.2 N-m) increments to a final torque of 100 ft-lb (136 N-m). Repeat steps 1-4 for opposite side.
5. Remove the vehicle from the support stand.
6. Check the front differential lubricant level and add lubricant as necessary.



MOD073A

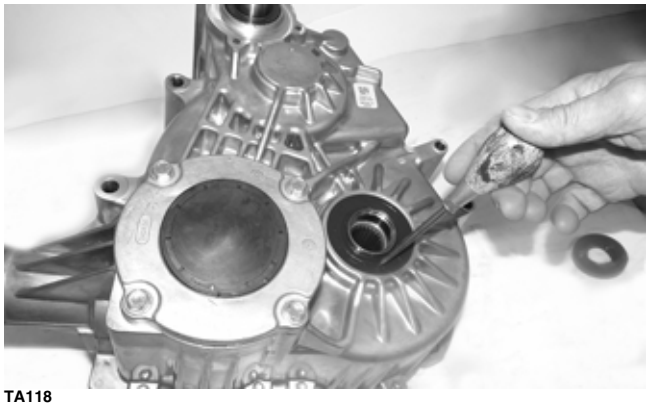
Transaxle

REPLACING SEALS

Output (Axle) Seals

■NOTE: The transaxle does not need to be removed for this procedure.

1. Support the vehicle on an appropriate stand; then remove a rear wheel and axle.
2. Using an awl and a mallet, pry the seal from the case taking care not to damage the seal bore.

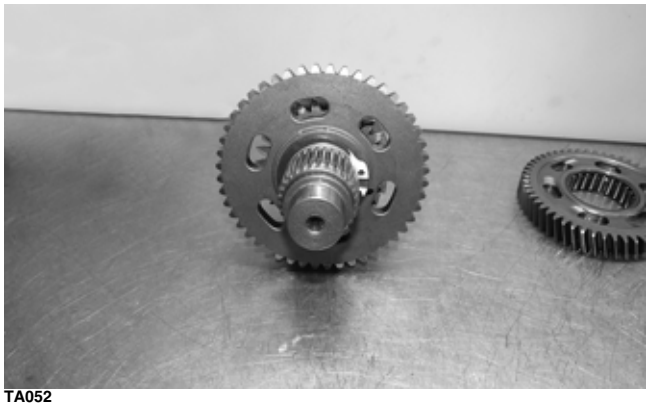


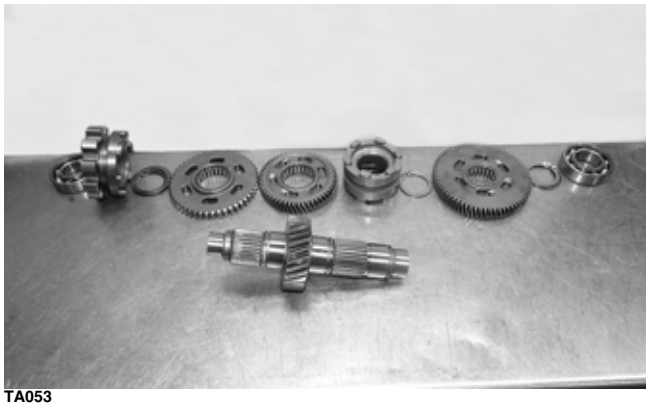
TA118

3. Wipe any oil or dirt from the seal area of the transaxle.
4. Using an appropriate seal installer and protector, install a new seal so it seats fully past the chamfer of the case — approximately 1.5-2.0 mm (0.06-0.08 in.) deep.

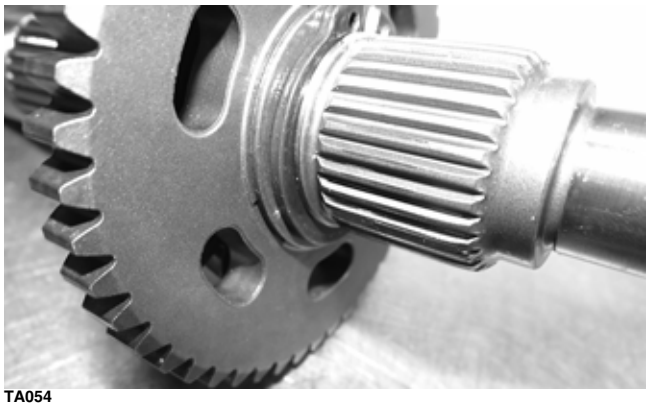
TA113

TA115


TA052

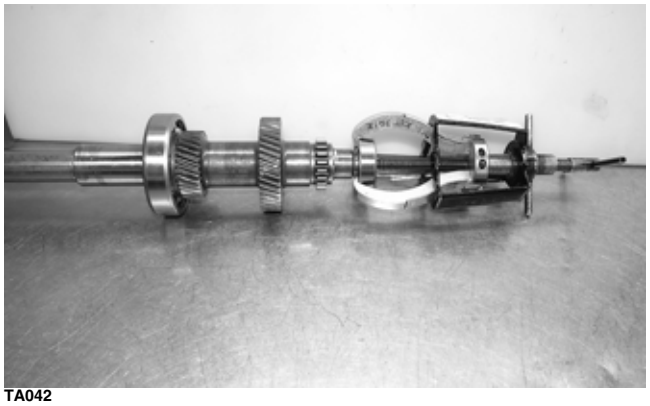

TA053

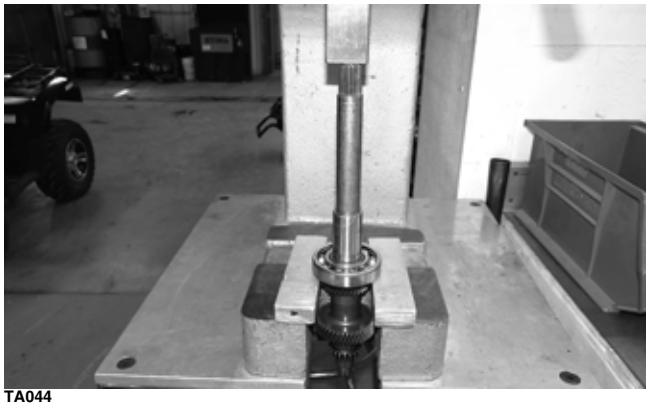
4. Inspect the dogs for nicks, cracks, chips, or signs of wear. If any are present, the dog must be replaced.


TA054

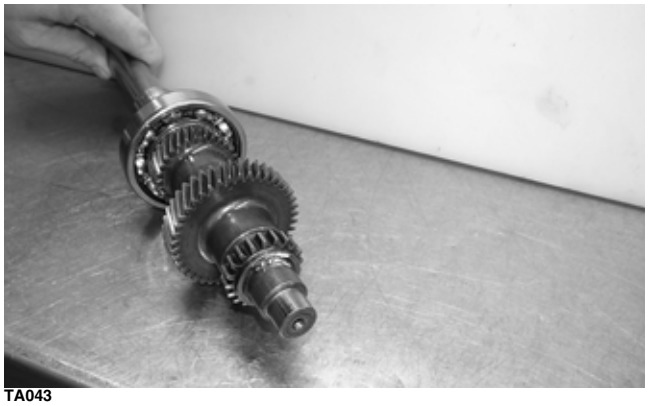
H. Input Shaft

1. Inspect the bearings for free and smooth turning. If either bearing does not turn freely, it must be replaced.

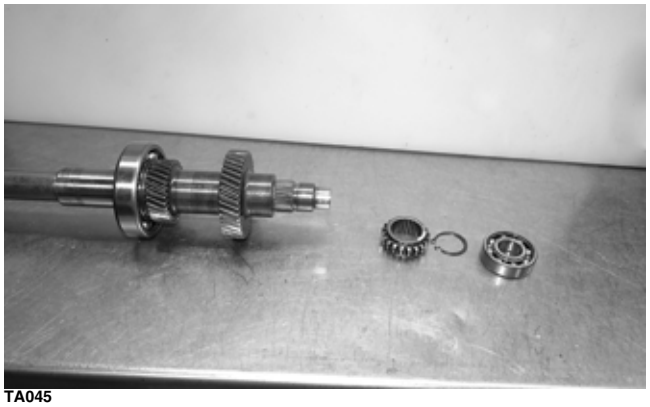

TA042


TA044

2. Inspect the sprocket teeth for nicks, cracks, chips, or signs of wear. If any are present, the sprocket must be replaced.


TA043

3. Inspect the shaft gear teeth for nicks, cracks, chips, or signs of wear. If any are present, the shaft must be replaced.

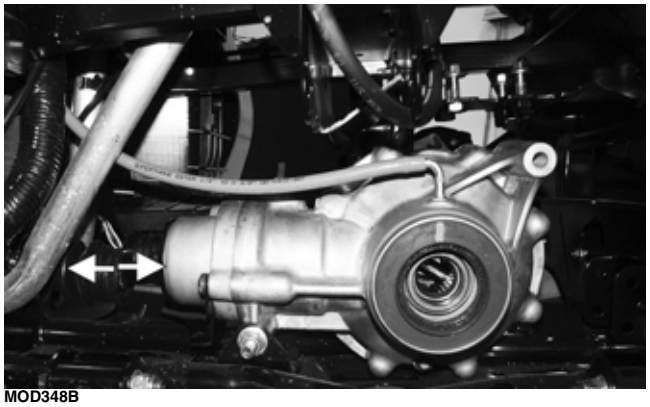

TA045

I. Pinion Assembly

Inspect the teeth of the pinion gear and front output shaft. If any chipping, nicks, wear, or damage are observed, the pinion assembly must be replaced.

Turn the pinion gear by hand. If any sticking or binding is observed, the bearing must be replaced. Use the following procedure:

1. Using an awl, pry the plug from the case. Discard the plug.

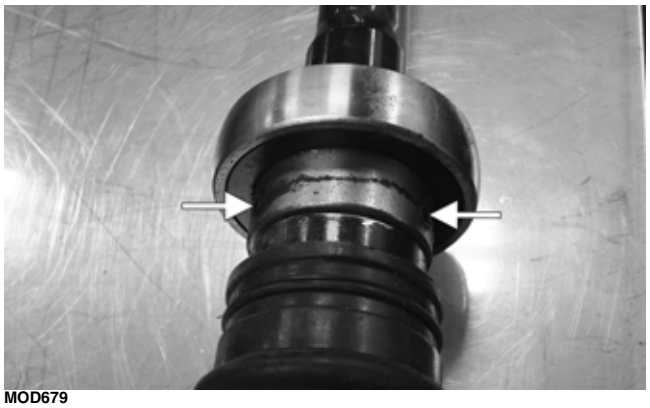

MOD348B

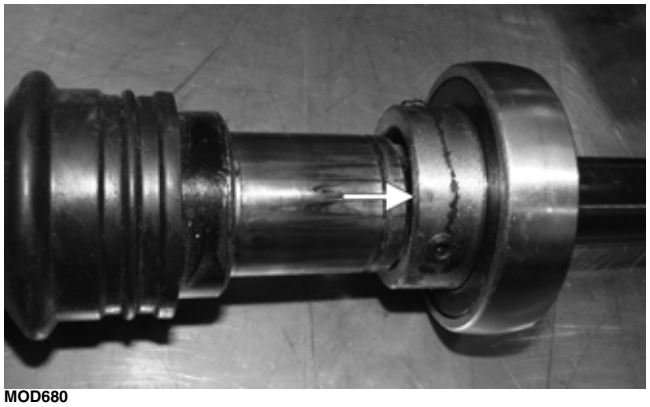

MOD362A

7. Remove the snap ring near the carrier bearing; then loosen the two set screws; then remove the carrier bearing.

■NOTE: It may be necessary to lightly tap the carrier bearing with a rubber mallet to aid in removing it.


MOD678

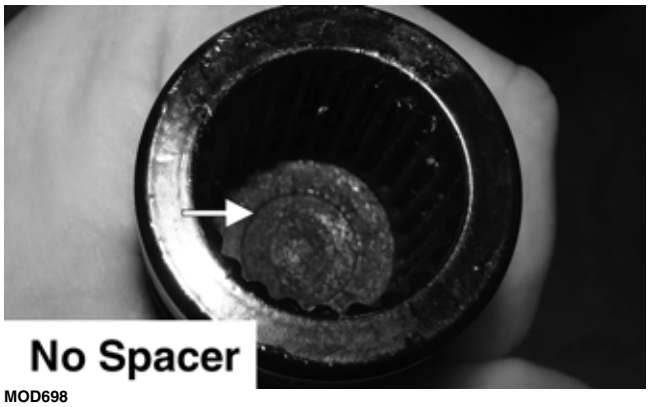

MOD679


MOD680

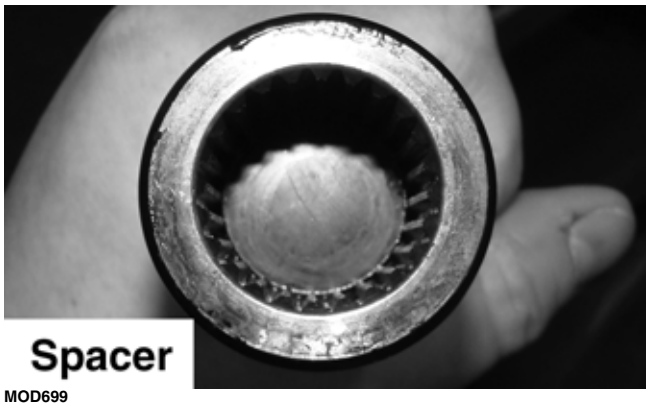
INSTALLING

■NOTE: The carrier bearing is intended to be a "slip fit" assembly. It is very important that the surface is free of nicks and rust. It may be necessary to lightly scrub unpainted surfaces with emery cloth to ensure a smooth surface.

■NOTE: Prior to installing the carrier bearing and front driveshaft assembly, verify the spacer is in the front driveshaft. This can be accomplished by looking for machining marks. If the machining marks are visible, the spacer is not there.

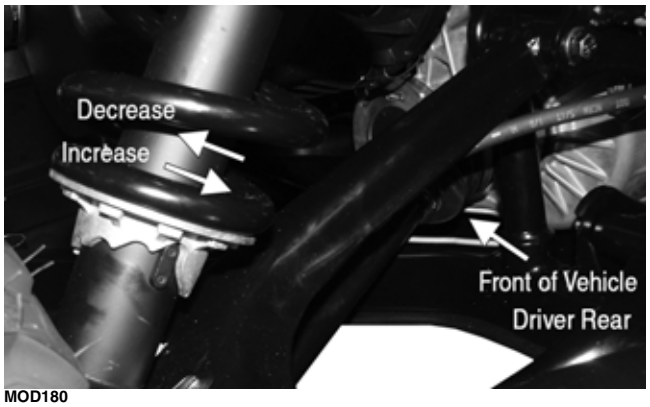


MOD698

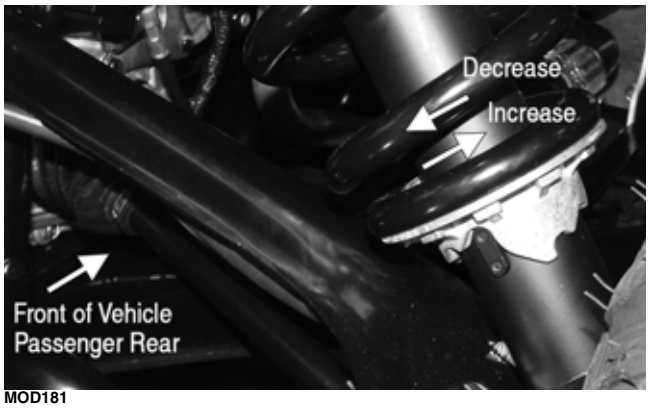


MOD699

1. Slide the carrier bearing onto the shaft with the set screw away from the longer end of the driveshaft. Do not tighten the set screws at this time.



MOD180



MOD181

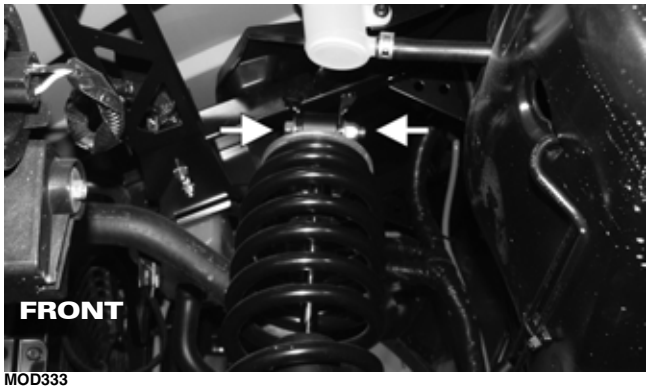
REMOVING SHOCK

1. Secure the vehicle on a support stand to elevate the wheels and to release load on the suspension.

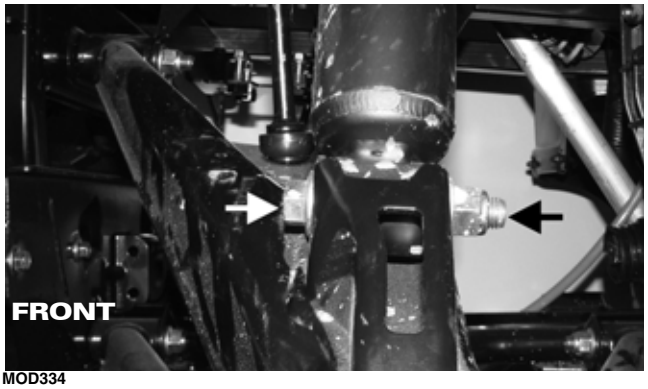
⚠ WARNING

Make sure the vehicle is solidly supported on the support stand to avoid injury.

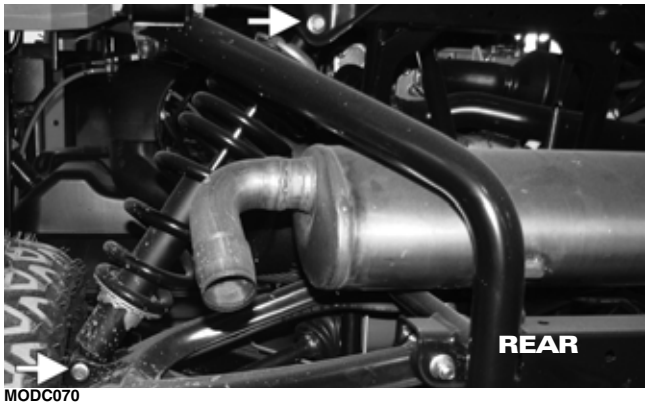
2. Remove the upper and lower mounting cap screws and lock nuts. Discard the lock nuts.



MOD333



MOD334



MODC070

REMOVING SPRING

1. Remove the shock; then use a suitable spring compressor, compress the spring and remove the retainer ring.

2. Carefully release the spring pressure and remove the spring. Account for the spring retainer.

⚠ WARNING

Shock absorber springs are under high compression loads. Do not attempt to remove springs without an adequate spring compressor. Severe injury could result.

INSTALLING SPRING

1. Use a suitable spring compressor, compress the spring and install the retainer ring.

2. Carefully release the spring pressure and remove the suitable spring compressor tool.

⚠ WARNING

Shock absorber springs are under high compression loads. Do not attempt to install springs without an adequate spring compressor. Severe injury could result.

CLEANING AND INSPECTING

1. Clean all shock absorber components in parts-cleaning solvent.

2. Inspect each shock rod for nicks, pits, rust, bends, and oily residue.

3. Inspect all springs, spring retainers, shock rods, sleeves, bushings, shock bodies, and eyelets for cracks, leaks, and bends.