2008 ENGINE Engine Mechanical - 4.3L - Sierra & Silverado

2008 ENGINE

Engine Mechanical - 4.3L - Sierra & Silverado

SPECIFICATIONS

FASTENER TIGHTENING SPECIFICATIONS

	Specification	
Application	Metric	English
Accelerator Control Cable Bracket Nut to Stud	12 N.m	106 lb in
Accelerator Control Cable Bracket Nut to Throttle Body	9 N.m	80 lb in
Accelerator Control Cable Bracket Stud to Intake Manifold	6 N.m	53 lb in
Accelerator Control Cable Bracket Stud to Throttle Body	12 N.m	106 lb in
Air Cleaner Adapter Stud	8 N.m	71 lb in
Balance Shaft Driven Gear Bolt		
First Pass	20 N.m	15 lb ft
Final Pass	35 degrees	
Balance Shaft Retainer Bolt	12 N.m	106 lb in
Battery Cable Bracket Bolt to Oil Pan	12 N.m	106 lb in
Battery Negative Cable Bolt to Engine	25 N.m	18 lb ft
Battery Positive Cable Junction Block Bracket Bolt	25 N.m	18 lb ft
Belt Idler Pulley Bolt	50 N.m	37 lb ft
Camshaft Retainer Bolt	12 N.m	106 lb in
Camshaft Sensor Bolt	N.m	lb ft
Camshaft Sprocket Bolt	25 N.m	18 lb ft
Connecting Rod Bolt		
• First Pass	20 N.m	15 lb ft
• Final Pass	100 degrees	
Crankshaft Balancer Bolt	95 N.m	70 lb ft
Crankshaft Bearing Cap Bolt - Preferred Method		
• First Pass	20 N.m	15 lb ft
• Final Pass	73 degrees	

2008 ENGINE Engine Mechanical - 4.3L - Sierra & Silverado



<u>Fig. 268: Oil Pan</u> Courtesy of GENERAL MOTORS CORP.

16. Remove the oil pan.

ENGINE MOUNT BRACKET REPLACEMENT - LEFT SIDE

Removal Procedure



Fig. 39: Engine Mount Bracket (Left) Courtesy of GENERAL MOTORS CORP.

- 1. Remove the engine mount. Refer to Engine Mount Replacement Left Side.
- 2. Remove the engine mount bracket bolts.
- 3. Remove the engine mount bracket.

Installation Procedure

2008 ENGINE Engine Mechanical - 6.6L - Cab & Chassis Sierra, Cab & Chassis Silverado, Sierra & Silverado



Fig. 36: Engine Block, Crankshaft, Piston Components View Courtesy of GENERAL MOTORS CORP.

Callout	Component Name	
100	Engine Block	
101	Dowel Pin	
102	Engine Block Plug	
103	Engine Block Heater	
104	Engine Block Plug	
105	Crankshaft Bearing Cap Bolt	
106	Engine Block Plug	
107	Engine Block Plug	
108	Upper Crankshaft Bearings	
109	Upper Thrust Bearing	

2008 ENGINE Engine Mechanical - 6.6L - Cab & Chassis Sierra, Cab & Chassis Silverado, Sierra & Silverado



Fig. 251: View Of Oil Pump Drive Gear Courtesy of GENERAL MOTORS CORP.

IMPORTANT: The crankshaft reluctor and the oil pump drive gear are timed together at the factory. Do not remove the crankshaft reluctor from the oil pump drive gear.

- 9. Remove the oil pump drive gear and crankshaft reluctor.
 - Do not remove the crankshaft reluctor bolts.
 - Do not damage the reluctor teeth.

2008 RESTRAINTS Supplemental Inflatable Restraints - Cab & Chassis Sierra, Cab & Chassis Silverado, Sierra & Silverado

Circuit	Short to Ground	High Resistance	Open	Short to Voltage	Signal Performance
Seat Belt Pretensioner - Driver - Low Control	B0015 02	B0015 0E	B0015 0D	B0015 04	B0015 01
Seat Belt Pretensioner - Driver - High Control	B0015 02	B0015 0E	B0015 0D	B0015 04	B0015 01
Left Front Roof Rail Module Low Control	B0016 02	B0016 0E	B0016 0D	B0016 04	B0016 01
Left Front Roof Rail Module High Control	B0016 02	B0016 0E	B0016 0D	B0016 04	B0016 01
I/P Module - Stage 1 - Low Control	B0019 02	B0019 0E	B0019 0D	B0019 04	B0019 01
I/P Module - Stage 1 - High Control	B0019 02	B0019 0E	B0019 0D	B0019 04	B0019 01
I/P Module - Stage 2 - Low Control	B0020 02	B0020 0E	B0020 0D	B0020 04	B0020 01
I/P Module - Stage 2 - High Control	B0020 02	B0020 0E	B0020 0D	B0020 04	B0020 01
Seat Belt Pretensioner - Passenger - Low Control	B0022 02	B0022 0E	B0022 0D	B0022 04	B0022 01
Seat Belt Pretensioner - Passenger - High Control	B0022 02	B0022 0E	B0022 0D	B0022 04	B0022 01
Right Front Roof Rail Module Low Control	B0023 02	B0023 0E	B0023 0D	B0023 04	B0023 01
Right Front Roof Rail Module High Control	B0023 02	B0023 0E	B0023 0D	B0023 04	B0023 01

Circuit/System Description

During a side or frontal crash of sufficient force the inflatable restraint sensing and diagnostic module (SDM) will allow current to flow through the deployment loop in order to deploy the air bag module. There are 2 shorting bars used within the module connector which will short together both high and low circuits, when the connector is disconnected. This will prevent unwanted deployment of the inflator module during servicing.

Conditions for Running the DTC

Ignition voltage is between 9-16 volts.

	2008 Chevrolet Silverado 1500		
	2008 TRANSMISSION Automatic Transmission -	6L50/6L80/6L90 - Cab & Chassis Sierra, Cab & Chassis Silver Sierra & Silverado	ado,
I		Bolt M6 x 14.5	
I	2	NOTE:	
	2	Refer to <u>Fastener Notice</u> .	
		Tighten: 12 N.m (106 lb in).	
I		NEW Fluid Filter Seal Assembly	
	3	Special Tools	
I	5	• DT 47848 Seal Installer. See Special	
		<u>Tools</u> .	
		• J 42183 Driver Handle. See <u>Special Tools</u> .	
I	4	NEW Fluid Filter Assembly	

TRANSMISSION FLUID PAN INSTALLATION (6L80)



Fig. 196: Transmission Fluid Pan Installation (6L80) Courtesy of GENERAL MOTORS CORP.

Callout	Component Name

2008 TRANSMISSION Automatic Transmission - Allison - Cab & Chassis Sierra, Cab & Chassis Silverado, Sierra & Silverado



Fig. 89: Removing Torque Converter Seal Using J 24171-A Courtesy of GENERAL MOTORS CORP.

- 1. Remove the torque converter from the transmission. Refer to <u>Torque Converter</u> <u>Replacement</u>.
- 2. Obtain **J 24171-A** and install the tip (3) with a 90 degree hook onto the end of the slide-hammer (1).
- 3. Position the 90 degree hook behind the rear face of the seal outer case (2). Remove the torque converter seal using the slide-hammer.
- 4. Inspect the seal bore for scratches. Remove any scratches in the seal bore using crocus cloth.

2008 TRANSMISSION Automatic Transmission - Allison - Cab & Chassis Sierra, Cab & Chassis Silverado, Sierra & Silverado

IMPORTANT: Clutch plate movement can cause notching on the external splines of the input internal ring gear.

- 1. Inspect the external splines of the input internal ring gear (1) for notching.
- 2. Replace the ring gear if detectable notching has occurred.

MAIN SHAFT CLEANING AND INSPECTION



Fig. 355: Inspection Areas On Main Shaft Courtesy of GENERAL MOTORS CORP.

2008 TRANSMISSION Automatic Transmission - 4L60-E/4L65-E/4L70-E - Cab & Chassis Sierra, Cab & Chassis Silverado, Sierra & Silverado

- J 43911 Selector Shaft Seal Remover. See <u>Special Tools</u>.
- J 43909 Selector Shaft Seal Installer. See <u>Special Tools</u>.

Removal Procedure



Fig. 122: Sliding Seal Remover Tool Over Selector Shaft Courtesy of GENERAL MOTORS CORP.

- 1. Remove the park/neutral position (PNP) switch. Refer to <u>Park/Neutral Position Switch</u> <u>Replacement</u>.
- Ensure that the jackscrew for J 43911 is backed off and will not interfere with installation of the removal tool. See <u>Special Tools</u>. Slide the seal remover tool over the selector shaft (2) with the threaded end of the tool towards the seal.
- 3. Rotate the removal tool so that the threads on the end of the tool engage the steel shell (1) of

GENERAL INFORMATION Trouble Shooting - Basic Procedures

Accelerator pump defective	Repair or replace pump
	see FUEL SYSTEMS
Secondary throttles not closed	Inspect lockout
	adjustment, see FUEL
	SYSTEMS
Sag or Stall After Warmup	
Defective choke control switch	Replace choke control
	switch, see FUEL
	SYSTEMS
Defective accelerator pump	Replace pump, see FUEL
	SYSTEMS
Float level incorrect (too low)	Adjust float level, see
	FUEL SYSTEMS
Backfiring & Black Smoke	
Plugged heat crossover system	Remove restriction

BASIC WARM ENGINE DRIVEABILITY SYMPTOMS TROUBLE SHOOTING CHART

CONDITION & POSSIBLE CAUSE	CORRECTION
Hesitation With Small Amount of Gas Pedal Movement	
Vacuum leak	Inspect vacuum lines
Accelerator pump weak or inoperable	Replace pump, see FUEL SYSTEMS
Float level setting too low	Reset float level, see,FUEL SYSTEMS
Metering rods sticking or binding	Inspect and/or replace rods, see FUEL SYSTEMS
Carburetor idle or transfer system plugged	Inspect system and remove restriction
Frozen or binding heated air inlet	Inspect heated air door for binding
Hesitation With Heavy Gas Pedal Movement	
Defective accelerator pump	Replace pump, see FUEL SYSTEMS
Metering rod carrier sticking or binding	Remove restriction
Large vacuum leak	Inspect vacuum system and

2008 BRAKES Disc Brakes - Cab & Chassis Sierra, Cab & Chassis Silverado, Sierra & Silverado

caliper guide pin bushings.

REAR DISC BRAKE HARDWARE REPLACEMENT (JD9)



Fig. 40: View Of Rear Disc Brake Hardware Courtesy of GENERAL MOTORS CORP.

Callout

Component Name

CAUTION:

Refer to Brake Dust Caution .

NOTE:

Support the brake caliper with heavy mechanic wire, or equivalent, whenever it is separated from its mount and the hydraulic flexible brake hose is still connected. Failure to support the caliper in this manner will cause the flexible brake hose to bear the weight of the caliper, which may cause damage to the brake hose and in turn may cause a brake fluid leak.

Preliminary Procedures

1. Raise and support the vehicle. Refer to Lifting and Jacking the Vehicle .

2008 ENGINE Engine Exhaust - Cab & Chassis Sierra, Cab & Chassis Silverado, Sierra & Silverado

NOTE: Refer to <u>Fastener Notice</u>.

Rotate the oil level indicator tube into position and install the oil level indicator tube bolt (2).

Tighten: Tighten the bolt to 21 N.m (15 lb ft).



Fig. 51: View Of Exhaust Manifold & Gasket Courtesy of GENERAL MOTORS CORP.

2008 ENGINE Engine Mechanical - 4.8L, 5.3L, 6.0L, 6.2L, or 7.0L - Cab & Chassis Sierra, Cab & Chassis Silverado, Sierra & Silverado

6. Remove the CMP actuator (235) and timing chain (208).



Fig. 29: View Of Proper CMP Actuator Removal

2008 TRANSMISSION Manual Transmission - Tremec 5-Speed (TZ0)



Fig. 104: Gear Train Cup Courtesy of GENERAL MOTORS CORP.

2. Using a screwdriver, remove the gear train cup.