

ENGINES (4-CYCLE)

Affected Models: 4Q78HU, 4Q78HUA, 4Q78HW, 8Q78HU, 8Q78HUA, 8Q78HUB, 8Q78HUC, 8Q78XU, 8Q78XUA, 8Q78XUB, 8Q78XUC, 8Q78XWA, 9Q78HU, 9Q78HUA, 9Q78HUB, 9Q78XU, 9Q78XUA

Affected Engine S/N Range: 200101-210501

Affected Part: 951-15360 Crankcase

Date: September 15, 2021 **Updated September 17, 2021 Destroy Previous Copies**

Subject: Q78 Twin Cylinder Engines Oil Filter Sealing Surface **FIX-AS-FAIL**

NOTE: These materials are prepared for use by trained technicians who are experienced in the service and repair of equipment of the kind described in this publication, and are not intended for use by untrained or inexperienced individuals. Such individuals should seek the assistance of an authorized service technician or dealer.

NOTE: Always wear eye protection while servicing equipment. Wear hearing protection when appropriate. Always work in a well ventilated area and follow all safety precautions when dealing with combustible materials.

NOTE: Left (LH) and Right (RH) sides are determined from the operator's position and facing in the forward direction.

Purpose: We have been made aware of the potential for a torn Oil Filter Gasket. The Crankcase has been found with a burr which can damage the oil filter seal. Testing has shown no leaking filters up to this point.

Action Required:

We have determined the Crankcase Cover should be replaced due to the Oil Filter being a regularly serviced part. Please follow the guidelines below to replace the Crankcase cover on all affected engines.

Service Procedure:

1. Park on a firm level surface. Set the Park Brake.
2. Prepare to remove the engine from the Chassis. Disconnect the Positive Battery Cable. Drain or vacuum the oil out.
3. Disconnect the Throttle/Choke Cable(s) and the Fuel line. Unplug the Wire harness. Remove and discard the PTO retaining bolt. Remove the PTO (electric or manual). Remove the Engine Mounting bolts 3/8-16 X 1.0 (710-04683C), Exhaust, etc. Remove Engine from Chassis and set on a firm level work table to face forward. See Figure 1.
4. Clean the exterior of the engine well. Reduce and eliminate dirt falling into the engine while disassembling.
5. Remove and retain the M6 x 55 Bolt (710-05234) holding the Dip Stick Tube in place. Remove and retain the Dip Stick Tube assembly. Inspect the O-Ring for tears or deformation.
6. Remove and retain 9 qty. M8 x 48 Case Bolts (710-06501) in order of appearance of Figure 2.



Figure 1

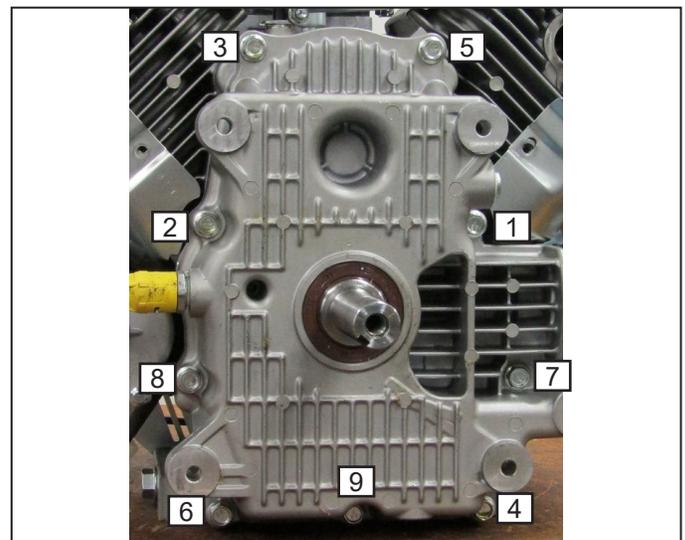


Figure 2

7. Pry the Crankcase cover from the engine block. Clean off old gasket material from the Crankcase. Inspect for and take note of the Oil Galley O-Ring. Is it broken/damaged as shown in Figure 3. as seen below? Order and replace the O-Ring. See Figure 3.

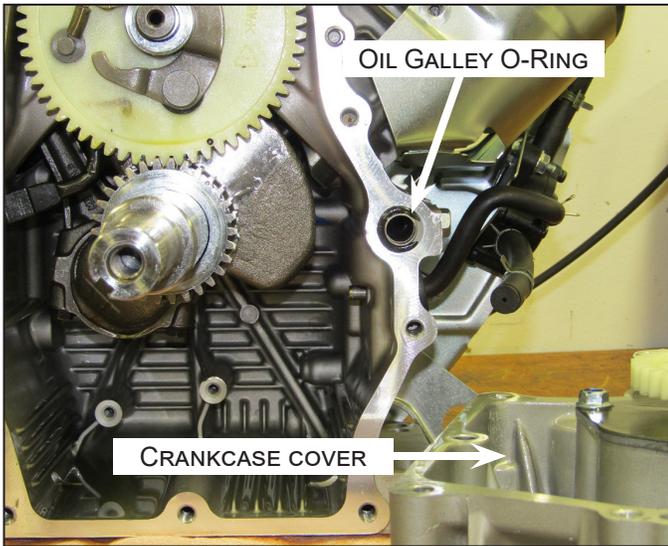


Figure 3

8. With the Cover on the bench, remove and retain the following: Oil Drain Adapter, 2 Engine Plugs, Oil Pump assembly; Which Includes: 3 retaining screws (710-05003), detent, spring, screen, and two Dowel Pins.
9. The remainder of the parts on the cover are not reusable, discard the following: Crankcase Cover, Oil Pump O-Ring, Governor Assembly, Oil Seal, Oil Filter Adapter, and lastly the Oil Filter.

NOTE: Oil Screen is tapered. Reinstall narrow end down.

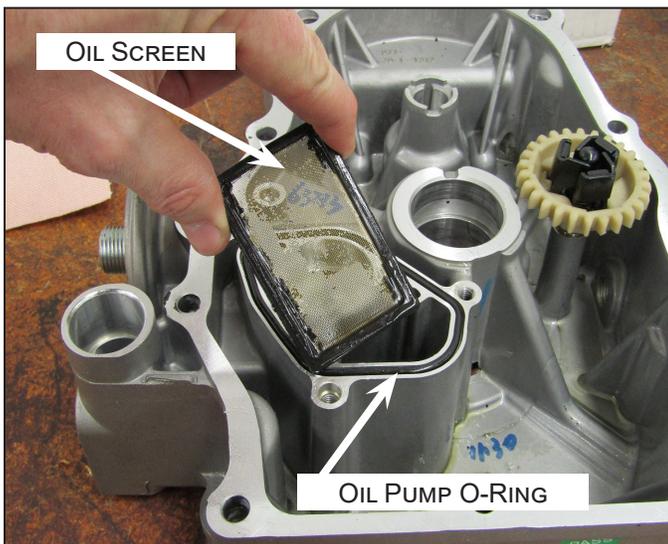


Figure 4

10. Locate and thoroughly clean the new Crankcase Cover. Install Oil Pump with a new O-Ring, the old has been compressed. Install the Pipe Plugs, Oil Drain Valve a new Crankshaft Seal, and retained parts. See Figure 5.

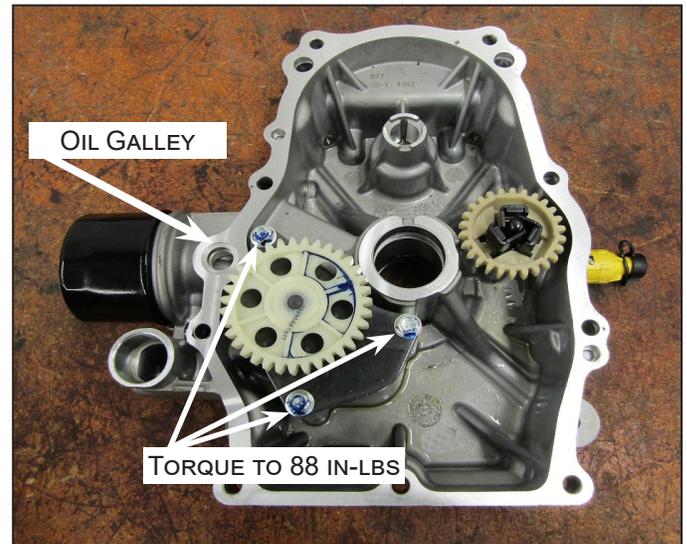


Figure 5

11. Place a new gasket on the crankcase cover, let the alignment dowels hold the gasket in place.
 12. Using a seal protector, slide the crankcase cover on to the crank shaft.
 13. Gently rock the crank case cover while rotating the crankshaft until it seats fully against the cylinder block.
 14. Install the crankcase cover bolts and tighten to a torque of 80 - 106 in-lbs (9 - 12 Nm). Install the Oil Dip Stick Tube. Install a new Oil Filter.
 15. The recommended oil for MTD engines is an SAE 10W-30 oil with an SM API rating or better. The oil capacity for all of the Q78 series engines is 61 - 68 fl.oz. (1.8 - 2.0 liters).
- NOTE: Use the torque pattern shown on Page 1 Figure 2 and tighten the cover bolts.**
16. Reinstall engine in reverse order of removal. Torque Mounting bolts to 35-45 ft-lbs.
 17. Fill with oil, start, and check for leaks.
 18. Test all safety and operating features are in working order prior to returning to service.

Keep these Parts in mind with this Service.

951-11644 Engine Plug 3/8 NPT

951-15360 Crankcase

951-04887 Crankcase gasket

937-05190 Oil seal

951-15589 O-Ring 13.2 x 2.65

921-04916 Oil pump gasket

951-05449 Oil pump

951-15383 Oil filter screen

710-05003 Oil Pump bolt M6-1 x 18 GR 8

921-04936 Exhaust gasket(s)

951-10517A Drain valve

710-04683C Engine mount bolt

951-05589 Governor Gear

PTO retainer bolt varies by model. See Chassis IPL.

Warranty: FIX-AS-FAIL (Normal warranty terms apply). Indicate Service Advisory **CC-1103A** and **951-15360** as the original failed part on the claim. Repair time allowance is **1.5 hours**.

*Mandatory>>>>*When completing the warranty claim, select the drop down text shown below for the following claim fields:

Group Code: New Service Parts

Fail Code: Burrs.

Work Performed: (Type in) Replace **951-15360** Engine Crankcase

SERVICE MANAGER	PARTS MANAGER	SALES MANAGER	SERVICE TECH.	SERVICE TECH.

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