Warning

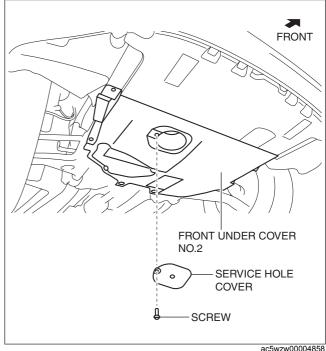
- · Hot engines and engine oil can cause severe burns. Turn off the engine and wait until it and the engine oil have cooled.
- A vehicle that is lifted but not securely supported on safety stands is dangerous. It can slip or fall. causing death or serious injury. Never work around or under a lifted vehicle if it is not securely supported on safety stands.
- Continuous exposure to USED engine oil has caused skin cancer in laboratory mice. Protect your skin by washing with soap and water immediately after working with engine oil.

Caution

- If engine oil is spilled on the exhaust system, wipe it off completely. If you fail to wipe the spilled engine oil, it will produce fumes because of the heat.
- Be careful not to scratch the seal surface as it could result in engine oil leakage.

Note

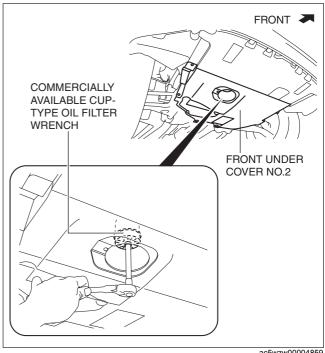
- If the seal surface on the cylinder block side is scratched, replace it while referring to engine workshop manual.
- 1. Remove the service hole cover (installed to front under cover No.2) used to remove the oil filter.



2. Remove the oil filter using an oil filter wrench.

Note

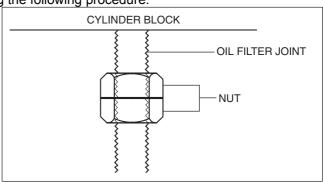
- If a cup-type oil filter wrench is used, select a size from the following:
- Nominal diameter: 75 mm {2.953 in} (15 sided), or nominal diameter: 76 mm {2.992 in} (15 sided).
- If there is excessive play between the cup-type oil filter wrench and the oil filter, insert a thin cloth between them. An adjustable oil filter wrench can also be used.



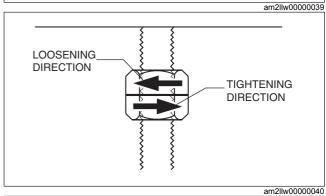
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3. If the oil filter joint is loose, tighten the oil filter joint using the following procedure:

(1) Install two nuts of appropriate size (parallel pipe thread 3/4 - 16 UNF screw) to the oil filter joint.



(2) Using a wrench, apply force in the directions of the arrows shown in the figure and lock the nuts.



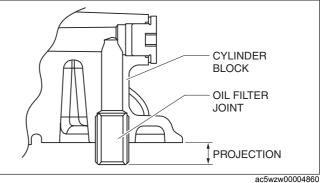
(3) Using a wrench, apply force in the tightening direction to the outside nut and install the oil filter joint. Verify the projection of the installed oil filter joint.

Tightening torque 30-40 N·m {3.1-4.0 kgf·m, 23-29 ft·lbf}

Oil filter joint projection

11.4—15.9 mm {0.449—0.625 in}

- (4) Remove the 2 nuts installed in Step (1) of the procedure.
- 4. Use a clean rag to wipe off the mounting surface.
- 5. Apply clean engine oil to the O-ring of a new oil filter.



6. Tighten the oil filter using a cup-type oil filter wrench and according to the instruction on the package or side of the oil filter.

Tightening torque (reference value)

15—20 N·m {1.6—2.0 kgf·m, 12—14 ft·lbf}

- If there is excessive play between the cup-type oil filter wrench and the oil filter, insert a thin cloth between them.
- 7. Start the engine and confirm that there is no oil leakage.
 - If there is oil leakage, repair or replace the applicable part.
- 8. Inspect the oil level. (See ENGINE OIL LEVEL INSPECTION [SKYACTIV-D 2.2].)
- 9. Install the service hole cover.