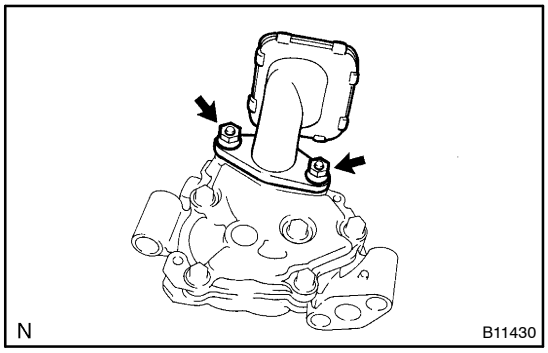
OIL PUMP ASSY (1AZ–FE/2AZ–FE)

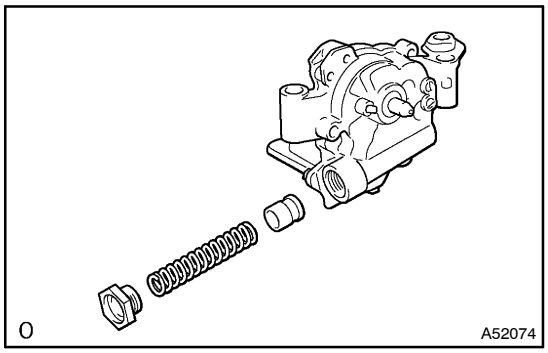
1705R–01

OVERHAUL

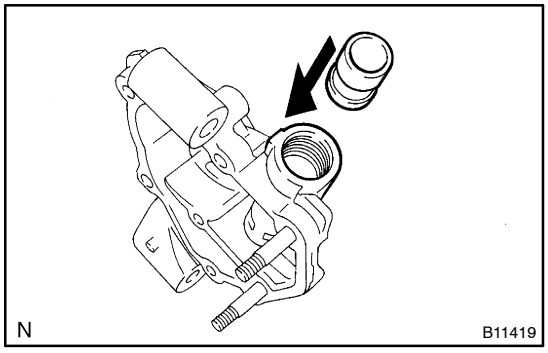


1. INSPECT OIL PUMP ASSY

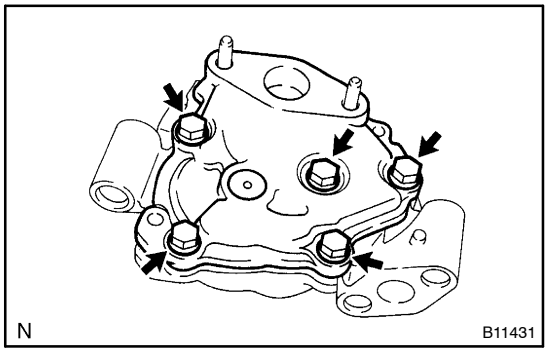
(a) Remove oil pump strainer.
  (1) Remove 2 nuts and oil pump strainer.



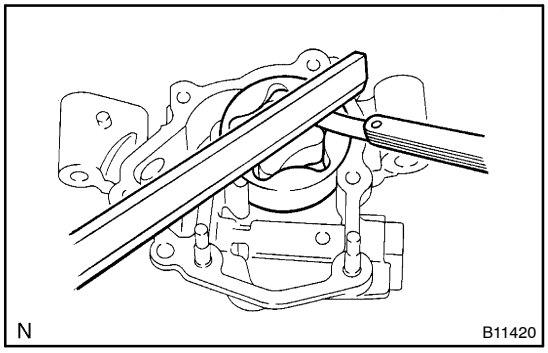
(b) Remove oil pump relief valve.
  (1) Using a socket wrench (27mm), remove the relief valve plug.
  (2) Remove the oil pump relief valve spring and oil pump relief valve.



(c) Inspect oil pump relief valve.
  (1) Coat the valve with engine oil and check that it falls smoothly into the valve hole by its own weight.

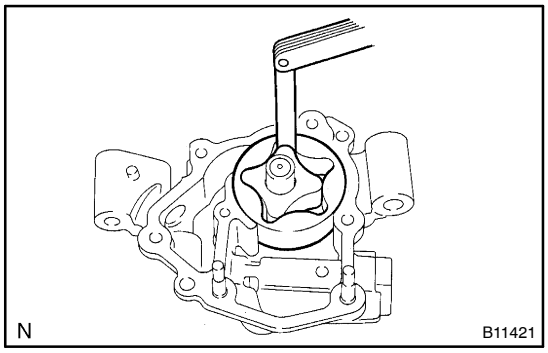


(d) Remove the oil pump cover.
  (1) Remove 5 bolts and oil pump body cover.



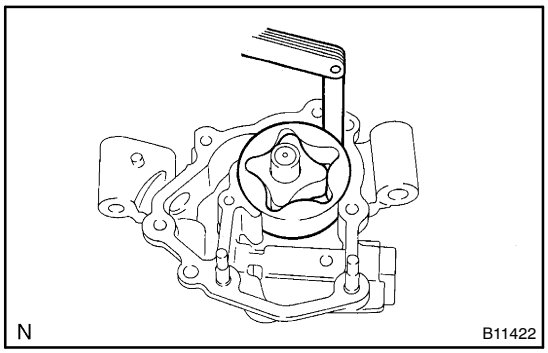
(e) Inspect rotor side clearance.
(1) Using a feeler gauge and precision straight edge, measure the clearance between the rotors and precision straight edge.

Standard side clearance:
0.030–0.085 mm (0.0012–0.0033 in.)
Maximum side clearance:
0.16 mm (0.0063 in.)



(f) Inspect rotor tip clearance.
(1) Using a feeler gauge, measure the clearance between the drive and driven rotor tips.

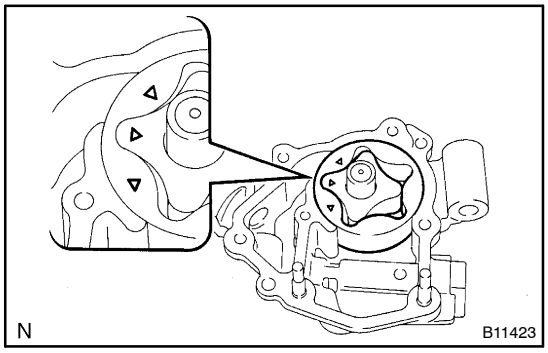
Standard tip clearance:
0.080–0.160 mm (0.0031–0.0063 in.)
Maximum tip clearance:
0.35 mm (0.0138 in.)



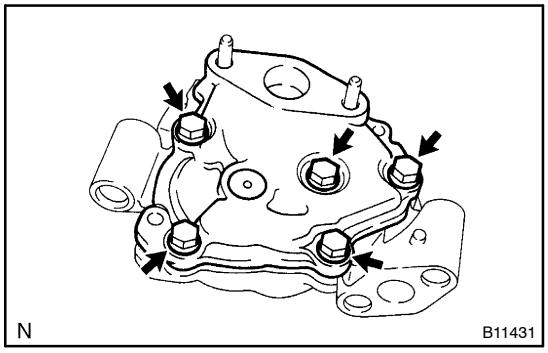
(g) Inspect rotor body clearance.
(1) Using a feeler gauge, measure the clearance between the driven rotor and body.

Standard body clearance:
0.100–0.170 mm (0.00394–0.00669 in.)
Maximum body clearance:
0.325 mm (0.01280 in.)

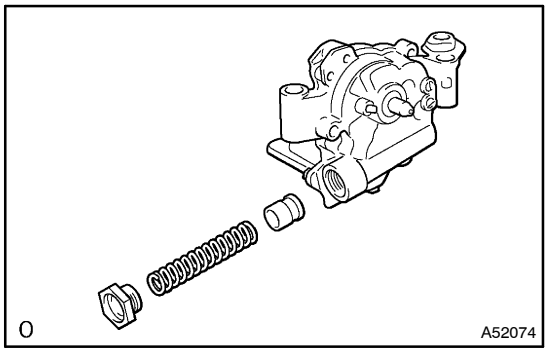
(h) Remove the oil pump rotor set.



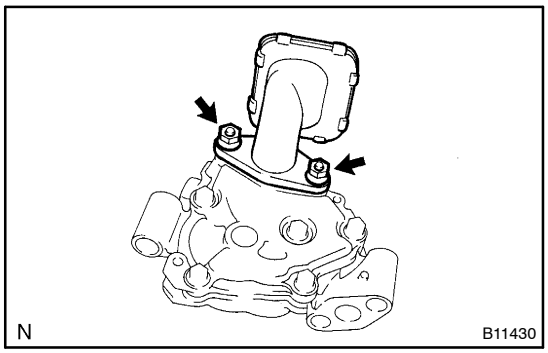
(i) Install the oil pump rotor set.
(1) Coat the drive rotor and driven rotors with engine oil.
(2) Place the drive and driven rotors into pump body with the marks facing the pump body cover side.



(j) Install oil pump cover.
(1) Install the pump body cover with 5 bolts.
Torque: 8.8 N·m (90 kgf·cm, 78 in.·lbf)



(k) Install oil pump relief valve.
(1) Coat the oil pump relief valve with engine oil.
(2) Insert the relief valve and spring into the pump body hole.
(3) Using a socket wrench (27mm), install the relief valve plug.



(l) Install oil pump strainer.
(1) Place a new gasket on the oil pump.
(2) Install the oil pump strainer with 2 nuts.
Torque: 8.8 N·m (90 kgf·cm, 78 in.·lbf)