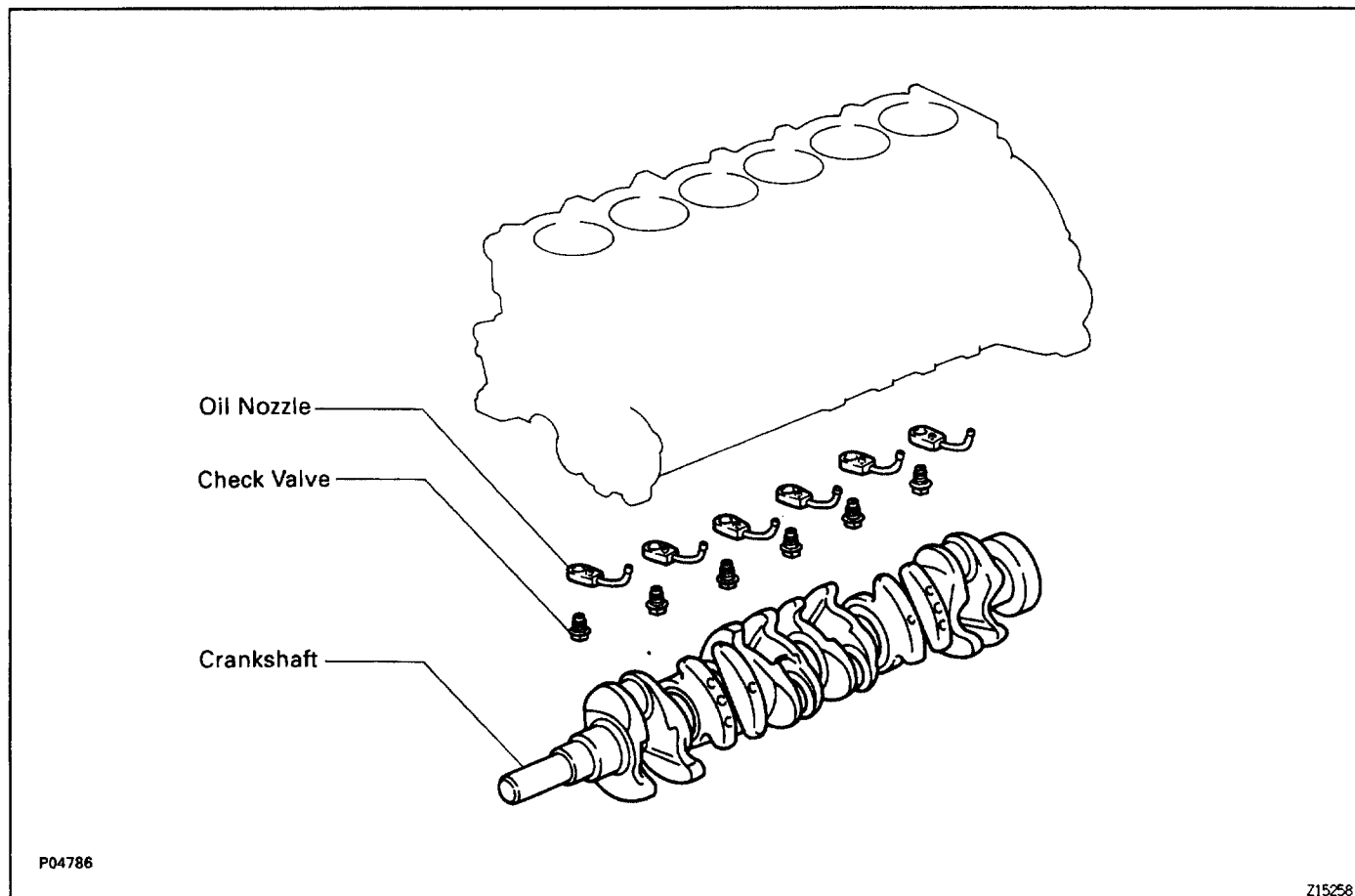


OIL NOZZLE COMPONENTS FOR REMOVAL AND INSTALLATION



OIL NOZZLES REMOVAL

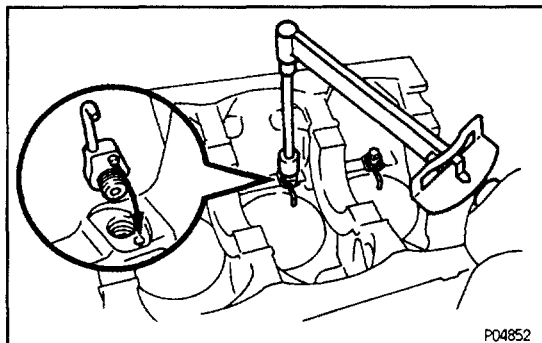
Installation is in the reverse order of removal.

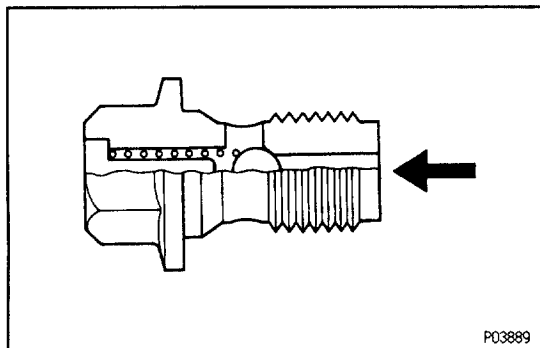
1. **REMOVE CYLINDER HEAD**
(See cylinder head removal in Engine Mechanical)
2. **REMOVE TIMING CHAIN AND GEARS**
(See timing chain removal in Engine Mechanical)
3. **REMOVE CRANKSHAFT**
(See cylinder block disassembly in Engine Mechanical)
2. **REMOVE OIL NOZZLES**

Remove the 6 check valves and oil nozzles.

Torque: 25 N·m (250 kgf·cm, 18 ft·lbf)

INSTALLATION HINT: Align the pin of the nozzle with the pin hole of the cylinder block.





OIL NOZZLES COMPONENTS INSPECTION

1. INSPECT CHECK VALVES

Push the valve with a wooden stick to check if it is stuck.

If stuck, replace the check valve.

2. INSPECT OIL NOZZLES

Check the oil nozzles for damage or clogging.

If necessary, replace the oil nozzle.

SERVICE SPECIFICATIONS

SERVICE DATA

Oil pressure		at idle speed at 3,000 rpm	29 kPa (0.3 kgf/cm ² , 4.3 psi) or more 245 – 490 kPa (2.5–5.0 kgf/cm ² , 36 – 71 psi)
Oil pump	Body clearance	STD	0.100 – 0.170 mm (0.0039 – 0.0067 in.)
		Maximum	0.30 mm (0.0118 in.)
	Side clearance	STD	0.030 – 0.090 mm (0.0012 – 0.0035 in.)
		Maximum	0.15 mm (0.0059 in.)
Tip clearance	STD		0.030 – 0.160 mm (0.0012 – 0.0063 in.)
	Maximum		0.25 mm (0.0098 in.)

TORQUE SPECIFICATIONS

Part tightened		N·m	kgf·cm	ft·lbf
Oil pan x Drain plug		25	250	18
Oil pump x Relief valve plug		49	500	36
Drive belt idler pulley x Oil pump		43	440	32
Oil strainer x No.1 oil pan		20	200	14
Baffle plate x No.1 oil pan		9.0	90	78 in·lbf
No.1 oil pan x Cylinder block	14 mm head bolt	44	440	32
	12 mm head bolt	20	200	14
No.1 oil pan x Oil pump (Timing chain cover)		20	200	14
No.2 oil pan x No.1 oil pan	Bolt	7.8	80	69 in·lbf
	Nut	8.8	90	78 in·lbf
No.1 oil pan x Transmission housing		72	730	53
Oil level sensor x No.1 oil pan		5.4	55	48 in·lbf
Water pump x Cylinder block		21	210	15
Radiator pipe x No.1 oil pan		21	210	15
A/C compressor bracket x No.1 oil pan		37	375	27
A/C compressor bracket x Cylinder block		37	375	27
A/C compressor x A/C compressor bracket		25	250	18
Oil cooler cover x Relief valve plug		49	500	36
Oil cooler x Oil cooler cover		17	170	12
Oil cooler cover x Cylinder block		21	210	15
No.1 exhaust manifold x Cylinder head		39	400	29
No.1 exhaust manifold x Heat insulator		19	195	14
Front exhaust pipe x Exhaust manifold		63	630	46
No.1 support bracket x Transmission housing		24	240	17