

# SPECIFICATIONS

## GENERAL SPECIFICATIONS

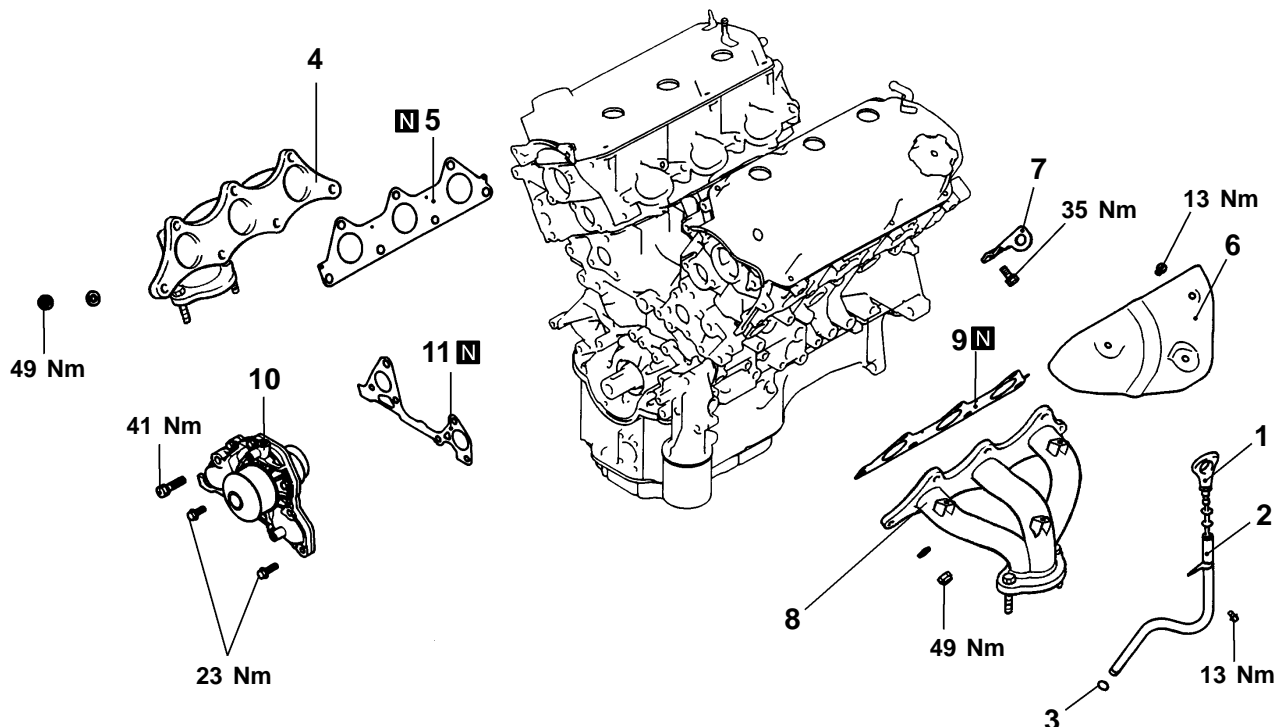
Descriptions			Specifications
Type			60° V, SOHC (per bank)
Number of cylinders			6
Combustion chamber			Pentroof type
Total displacement cc			3,497
Cylinder bore mm			93.0
Piston stroke mm			85.8
Valve timing	Intake valve	Opens (BTDC)	13°
		Closes (ABDC)	55°
	Exhaust valve	Opens (BBDC)	51°
		Closes (ATDC)	17°
Lubrication system			Pressure feed, full-flow filtration
Oil pump type			Trochoid type
Cooling system			Water-cooled forced circulation
Water pump type			Centrifugal impeller type
EGR type			Single type
Injector type and number			Electromagnetic, 6
Injector identification mark			CDH210
Throttle bore mm			65
Throttle position sensor			Variable resistor type
Closed throttle position switch			Movable contact type, within throttle position sensor

**SERVICE SPECIFICATIONS**

Items			Standard value	Limit
Rocker arms and camshaft				
Camshaft	Cam height mm	Intake	37.71	37.61
		Exhaust	37.14	37.04
Camshaft	Journal diameter mm		44.93 – 44.94	–
Cylinder head and valve				
Valve	Thickness of valve head (margin) mm	Intake	1.0	0.5
		Exhaust	1.2	0.7
	Stem diameter mm	Intake	6.0	–
		Exhaust	6.0	–
	Stem to guide clearance mm	Intake	0.02–0.05	0.10
		Exhaust	0.04–0.07	0.15
Valve face angle			45°–45.5°	–
Valve spring	Free height mm		51.0	50.0
	Load/installed height N/mm		267/44.2	–
	Out of squareness		2° or less	Max. 4°
Valve seat	Valve contact width mm		0.9–1.3	–
Valve guide	Inner diameter mm		6.0	–
	Outer diameter mm		11.0	–

# EXHAUST MANIFOLD AND WATER PUMP

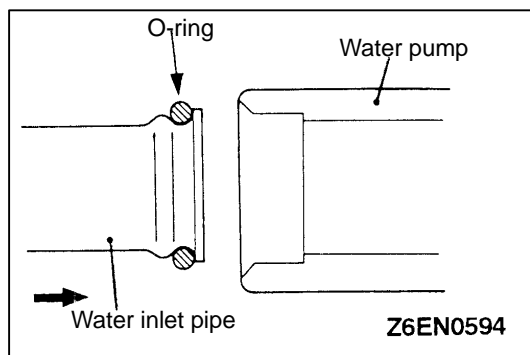
## REMOVAL AND INSTALLATION

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### Removal steps

1. Oil level gauge
2. Oil level gauge guide
3. O-ring
4. Exhaust manifold, rear
- ▶B◀ 5. Exhaust manifold gasket, rear
6. Heat protector, front
7. Engine lift bracket
8. Exhaust manifold, front
- ▶B◀ 9. Exhaust manifold gasket, front
- ▶A◀ 10. Water pump
11. Water pump gasket



## INSTALLATION SERVICE POINTS

### ►A◄ O-RING AND WATER PIPE INSTALLATION

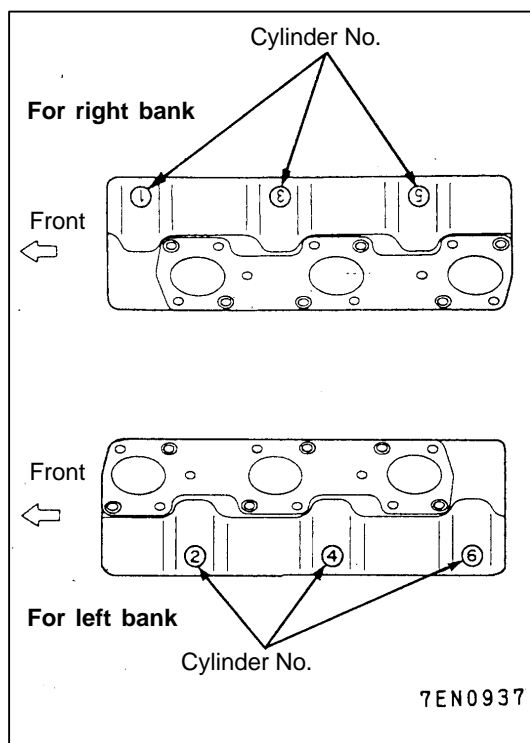
1. Wet the O-ring (with water) to facilitate assembly.

#### Caution

Keep the O-ring free of oil or grease.

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### ►B◄ EXHAUST MANIFOLD GASKET INSTALLATION

1. Install gaskets with cylinder number 1, 3 and 5 embossed on their top side to the right bank and install those with cylinder number 2, 4 and 6 to the left bank.