## 12. Engine Cooling System Trouble in General

## **A: INSPECTION**

Trouble	Possible cause	Corrective action
Overheating	a. Insufficient engine coolant	Replenish engine coolant, inspect for leakage, and repair it if necessary.
	b. Loose timing belt	Repair or replace timing belt tensioner.
	c. Oil on timing belt	Replace.
	d. Malfunction of thermostat	Replace.
	e. Malfunction of water pump	Replace.
	f. Clogged engine coolant passage	Clean.
	g. Improper ignition timing	Inspect and repair ignition control system. <ref. basic="" diagnostic="" en(h4so)(diag)-2,="" procedure,="" procedure.="" to=""> <ref. basic="" diagnostic="" en(h4dotc)(diag)-2,="" procedure,="" procedure.="" to=""></ref.></ref.>
	h. Clogged or leaking radiator	Clean, repair or replace.
	i. Engine oil mixed in engine coolant	Replace engine coolant.
	j. Air/fuel mixture ratio too lean	Inspect and repair the fuel injection system. <ref. basic="" diagnostic="" en(h4so)(diag)-2,="" procedure,="" procedure.="" to=""> <ref. basic="" diagnostic="" en(h4dotc)(diag)-2,="" procedure,="" procedure.="" to=""></ref.></ref.>
	k. Excessive back pressure in exhaust system	Clean or replace.
	I. Insufficient clearance between piston and cylinder	Adjust or replace.
	m. Slipping clutch	Correct or replace.
	n. Dragging brake	Adjust.
	o. Defective radiator fan	Inspect the radiator fan relay, engine coolant temperature sensor or fan motor and replace them.
Over-cooling	a. Ambient temperature extremely low	Partly cover radiator front area.
	b. Defective thermostat	Replace.
	a. Loosened or damaged connecting units on hoses	Correct or replace.
	b. Leakage from water pump	Replace.
Engine coolant leaks	c. Leakage from water pipe	Correct or replace.
	d. Leakage around cylinder head gasket	Retighten cylinder head bolts or replace gasket.
	e. Damaged or cracked cylinder head and crankcase	Correct or replace.
	f. Damaged or cracked thermostat case	Correct or replace.
	g. Leakage from radiator	Correct or replace.
Strange noise	a. Defective drive belt	Replace.
	b. Defective radiator fan	Replace.
	c. Defective water pump bearing	Replace water pump.
	d. Defective water pump mechanical seal	Replace water pump.

## **LUBRICATION**

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