



## Troubleshooting

Trouble Symptom		Probable Cause		Remedy
Coolant leakage	• From the bleed hole of the water pump	Visually check	• Check leaks after about 10 minutes of warming up.	• If coolant still leaks, replace the water pump.
	• From gaskets or bolts		• Check the tightening of the water pump mounting bolts.	• If leakage stops, reuse the water pump. (Do not replace the pump with a new one.)
	• From outer surface of water pump		• Check damage of gaskets or inflow of dust. • Check the material for any cracks of the water pump.	• Retighten the mounting bolts. • Replace the gasket and clean dust off. • Material defect. If any cracks are found, replace the water pump.
Noise	• From bearings • From mechanical seals • Impeller interference	Inspection with a stethoscope	• After starting the engine, check noise with a stethoscope.	• If there is no noise, reuse the water pump (do not replace it). • If there is any noise from the water pump, remove the drive belt and recheck.
		Inspection after removing the drive belt.	• After removing the water pump and the drive belt, check noise again.	• If there is noise, reuse the water pump. Check other drive line parts. • If there is no noise, replace the water pump with a new one.
		Inspection after removing the water pump	• After removing the water pump and the drive belt, check noise again.	• If there is any interference between them, replace the water pump with a new one.
Overheating	• Damaged impeller • Loose impeller	Loose impeller	• Corroded impeller wing	• Check engine coolant. • Poor coolant quality / Maintenance check
			• Impeller separated from the shaft	• Replace the water pump.