

ENGINE COOLING

GENERAL DESCRIPTION

More efficient cooling of the 1955 engine has been accomplished by increasing the water pump capacity through the use of wider impeller blades and larger passages in the pump. In addition, restrictions in the cylinder block water passages have been removed to reduce the possibility of

hot spots around the cylinders and combustion chambers.

Refer to the Engine Cooling Section of the 1954 Shop Manual for service information concerning the cooling system on 1955 Cadillac cars which is not covered in this supplement.

SERVICE INFORMATION

(1) Removal and Installation of Radiator Assembly

a. Removal

1. Drain cooling system and loosen upper and lower radiator hoses.
2. On Air Conditioner equipped cars, remove condenser assembly.
3. Remove six screws (also four spacer screws on Air Conditioner equipped cars) which hold radiator to support.
4. Remove radiator assembly with hoses.

b. Installation

1. Place radiator assembly in position against support and install six radiator to support mounting screws. On Air Conditioner equipped cars, install spacers between radiator and support before installing screws.
2. Check space between rear face of radiator core and front edge of the fan blade assembly. This should be 1/2 to 1 inch and is important for efficient fan operation.
3. On Air Conditioner equipped cars, install condenser.
4. Tighten upper and lower radiator hoses and fill cooling system.

(2) Removal and Installation of Water Pump

a. Removal

1. Drain cooling system.
2. Remove power steering pump drive belt.
3. Remove generator drive belt. On Air Conditioner equipped cars, remove second drive belt.
4. Remove upper and lower radiator hoses and heater hoses from water pump.
5. Remove power steering pump and bracket and place to one side.

6. Remove six water pump flange to cylinder block screws and remove water pump with gaskets. On Air Conditioner equipped cars, the following steps must be performed:

- a. Remove two screws which secure compressor mounting bracket to right upper and lower water pump flanges.
- b. Loosen compressor support to cylinder block screw and move support away from water pump.
- c. Remove four screws which hold pump flanges to cylinder block and remove water pump with gaskets.

b. Installation

1. Brush gasket cement on water pump inlet and outlet flange surfaces and place new gaskets in position on pump.
2. Place pump in position against cylinder head and block and install six screws in pump flanges. On Air Conditioner equipped cars, the following steps must be performed:
 - a. Place pump in position against cylinder head and block and install four screws which hold pump flanges.
 - b. Install compressor support to cylinder block screw.
 - c. Install two screws which secure compressor mounting bracket to right upper and lower water pump flanges.
3. Install power steering pump and bracket.
4. Install upper and lower radiator hoses and heater hoses to water pump.
5. Install generator drive belt. On Air Conditioner equipped cars, install the second drive belt.
6. Install power steering pump drive belt.
7. Fill cooling system.

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SPECIFICATIONS

Subject and Remarks	All Series	Subject and Remarks	All Series
FAN		Hose, thermostat housing to radiator (top) --	
Belt --		Diameter, inside	1-3/4"
Length-pitch circumference	57"	Length --	
Width . . . . .	.380"	Standard	9-3/8"
Type	Wedge	Air Conditioner equipped cars	10-5/8"
Distance from fan hub to end of fan shaft . . . . .	.3255" Mean	Type	Molded
Drive Ratio --		Hose, radiator to water pump --	
Standard . . . . .	.95-1.0	Diameter, inside	1-3/4"
Air Conditioner Cars	1.1 to 1.0	Length --	
Number of Blades --		Standard	8-7/16"
62,60S, Standard . . . . .	.4	Air Conditioner equipped cars	9-1/4"
Air Conditioner Cars . . . . .	.4	Type	Molded
75 and 86 Comm'l . . . . .	.4	WATER PUMP	
RADIATOR		Clearance between impeller and pump body	
Area of core, in sq. in.	359.93		.005"-.010"
Capacity of system (with heater) 62,60S,86	20-1/4	THERMOSTAT	
Capacity of system (with heater) 75	22-3/4	Type	Dole
Capacity of system (without heater)	18	Standard --	
Radiator core make	Harrison	Starts to open.	163°F to 168°F
Radiator core center constant (all) . . . . .	.222"	Fully open.	188°F
Tube spacing . . . . .	.550"	High Opening --	
Radiator cap pressure	12 to 15 lbs.	Starts to open.	177 F to 182°F
		Fully open.	202°F

TORQUE TIGHTNESS

Location	Size	Ft. Lbs. Min.	Ft. Lbs. Max.
Hose clamp	Special	15	20
Radiator anchorage nut	5/8-18	70	80
Thermostat housing	5/16-18	15	18
Water pump to crankcase	3/8-16	25	29
Water pump to cylinder head	3/8-16	25	29
Water pump cover to body	1/4-20	10	12

OTHER NOTES AND REFERENCES
