

A/C COMPRESSOR OIL CHECKING

1988 Toyota Celica

1988 A/C Compressor Refrigerant Oil Checking

Camry, Celica, Corolla, Cressida, Land Cruiser, MR2,
Pickup/4Runner, Supra, Van/Wagon

* PLEASE READ THIS FIRST *

CAUTION: When discharging air conditioning system, use only approved refrigerant recovery/recycling equipment. Make every attempt to avoid discharging refrigerant into the atmosphere.

ISOLATING COMPRESSOR

NOTE: Only compressors with stem-type service valves can be isolated.

1) Connect service gauge set to the compressor service valves and open compressor valves slightly (turn in clockwise). Start engine and operate air conditioning. Slowly turn compressor suction valve clockwise toward closed (front-seated) position.

2) When suction pressure is reduced to zero or less, turn off engine and compressor and quickly turn suction valve stem in to full front-seated position. Suction pressure should be slightly above zero. Turn discharge valve into front-seated position.

3) To check oil level, slowly open compressor crankcase plug to relieve any remaining pressure. After oil level is corrected, cap service gauge ports on both valves. Back-seat suction service valve to allow refrigerant to enter compressor. Open discharge valve halfway.

4) Loosen discharge service valve cap, allowing refrigerant pressure to force air out of compressor. Back-seat service valve and tighten cap. Compressor is now ready for operation.

REFRIGERANT OIL

Only new, pure, moisture-free refrigerant oil should be used in the air conditioning system. This oil is highly refined and dehydrated to a point where moisture content is less than 10 parts per million. The oil container must be tightly closed at all times when not in use, or moisture will be absorbed into the refrigerant oil from the air.

SERVICING PRECAUTIONS

DISCHARGING SYSTEM

CAUTION: When discharging air conditioning system, use only approved refrigerant recovery/recycling equipment. Make every attempt to avoid discharging refrigerant into the atmosphere.

If compressor has stem-type service valves, it can be isolated and removed without discharging entire system. Otherwise, discharge system completely using approved refrigerant recovery/recycling equipment before loosening any fittings.

DISCONNECTING LINES & FITTINGS

After system is discharged, carefully clean area around all

fittings to be opened. Always use 2 wrenches when tightening or loosening fittings to avoid twisting or distorting lines. Cap or plug all openings as soon as lines are removed. DO NOT remove caps until immediately before connections are made. This will keep entry of air and moisture to a minimum.

CONNECTING LINES AND FITTINGS

A new gasket or "O" ring should be used in all instances when connecting lines or fittings. Dip "O" ring in new refrigerant oil and ensure it is not twisted during installation. Always use 2 wrenches to prevent damage to lines and fittings.

PLACING SYSTEM IN OPERATION

After component service or replacement has been completed and all connections have been made, evacuate system thoroughly with a vacuum pump. Charge system with proper amount of refrigerant and perform a leak test. See REFRIGERANT OIL & R-12 CAPACITIES table in this article for system capacities. Be sure to check all fittings that have been opened. After system has been leak tested, make a system performance check.

NOTE: Air conditioning systems will not normally need addition of refrigerant oil unless definite oil loss has occurred due to ruptured lines, leaking compressor seals, compressor overhaul or component replacement.

NIPPONDENSO

10-CYLINDER

When inspecting system for oil loss, look for signs of leaking (shiny, wet spots on components or underside of hood). If oil leak is noted or component replacement is required, use the following procedure as indicated:

No Oil Leak

Discharge system using approved refrigerant recovery/recycling equipment and change components as necessary. Add refrigerant oil to components as necessary.

Oil Leak

1) Slowly discharge system using approved refrigerant recovery/recycling equipment. Repair or replace faulty components. If equipped with a drain plug, remove plug, drain and discard oil. If not equipped with a drain plug, remove compressor from vehicle and pour oil out suction and discharge ports.

2) Replace drain plug (if equipped). Add 1.5 ounces of new refrigerant oil through suction port. Use new gaskets or "O" rings when replacing suction and discharge lines.

Compressor Failure or System Contaminated

If either situation exists, discharge system using approved refrigerant recovery/recycling equipment and remove compressor, receiver-drier and expansion valve. Clean expansion valve screen. Flush entire system. Install new compressor and receiver-drier. New compressors contain correct amount of oil. If installing overhauled compressor, add 1.5 ounces of new refrigerant oil through suction port.

Application	(1) Oil Ounces	R-12 Ounces
Land Cruiser	3.4	23-27
Van		
Single Unit	2.0-3.4	21-27
Dual Unit	2.0-3.4	48-51
All Other Models	2.0-3.4	21-27

(1) - Total system capacity, unless otherwise noted.
