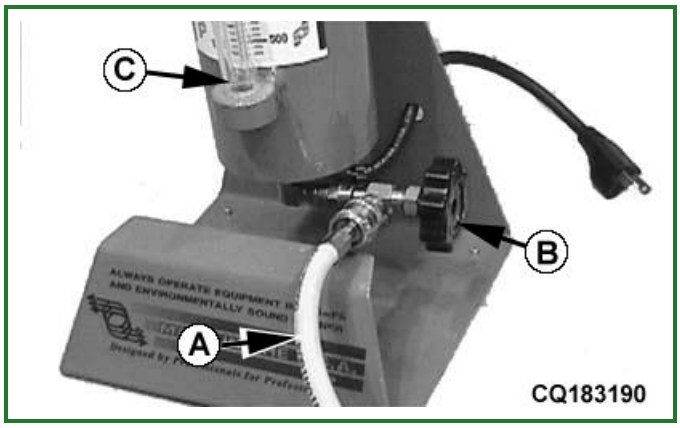
Charging Air Conditioning System (With Loading Cylinder)



CQ183190-UN: Charging Air Conditioning System

LEGEND:
A - Yellow hose
B - High pressure valve
C - Cylinder scale

> **⚠ CAUTION:**
>
> ***To avoid damage to compressor when charging refrigerant on high pressure side of system, tractor engine MUST BE shut off.***

1. Once cylinder has necessary amount of R134a, turn on heater and let cylinder internal pressure reach 125 psi;

   > **⚠ CAUTION:**
   >
   > ***Pressure in gas cylinder should not exceed 140 psi.***

2. Ensure that all valves are closed (gauges and charging cylinder).
3. Connect yellow hose from gauge set to high pressure valve of charging cylinder (B);
   IMPORTANT:

   A system designed to operate with R134a MUST NEVER be charged with R12.

4. Open high pressure valves (B) of charging cylinder and gauge set (red) respectively.

   > *NOTE:*
   >
   > *System vacuum will absorb R134a into system.*

5. Charge air conditioning system with 1475 g of R134a. Quantity is determined by difference in levels on graduated scale of charging cylinder and controlled by closing high pressure valve of charging cylinder.

   Example:
   Value indicated on scale — 2000 g.
   Necessary quantity of refrigerant — 1475 g.
   Difference: 2000 — 1475 = 525g.

6. Close low pressure valve on gauge set (red);
7. Switch on tractor and leave in slow idle for approximately 3 minutes (to allow oil to circulate in compressor) with thermostat and fan on maximum setting (leave heater switched off). Then increase

engine speed to 2000 rpm and maintain this speed. At this speed wait until high and low pressure gauges stabilize and then take a reading, checking to see if reading value is within range of values indicated in pressure chart. After taking the reading maintain tractor in slow idle.

-: Temperature x pressure chart

T. environment	*High pressure*	*Low pressure*
°C	*PSI*	*PSI*
11 to 15	80 to 100	3 to 9
16 to 21	80 to 130	6 to 15
22 to 26	100 to 170	9 to 18
27 to 32	120 to 190	12 to 23
33 to 38	130 to 210	15 to 29
39 to 43	190 to 260	18 to 30
44 to 49	215 to 305	25 to 35

8. Disconnect high pressure hose (red) from tractor air conditioning system. Open both (high and low pressure) valves on gauges. Observe low and high pressure gauges until there is a reduction in pressure readings, then close both valves on gauge set.

   NOTE:

   Pressure reduction occurs because the system causes remaining R134a gas to be sucked out of blue, red and yellow hoses through blue hose.

9. To finish off, disconnect blue hose from air conditioning system.

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