

Frigidaire compressor

**Tightening Torques in kpm**

	<b>with</b> Cu-seal	<b>without</b> Cu-seal
Suction hose to pipeline	6.0 ± 0.5	7.0 ± 0.5
Pressure hose to pipeline	4.5 ± 0.5	5.5 ± 0.5
Pipeline to refrigerant compressor	1.7	

**Oil Capacity in Lits.**

New refrigerant compressor	approx. 0.3
Removed refrigerant compressor with air-conditioning system flushed with R 11	0.3
Removed refrigerant compressor with air-conditioning system not flushed	0.2

**Special Tool**

Pressure test plate	109 589 00 25 00
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**Note**

The refrigerant compressor can be removed and installed only together with mounting bracket. If the compressor is removed as the result of leaks on compressor or on system, the oil level in the compressor must be adjusted by adding additional oil, but add only max. 0.2 lits. of fresh refrigeration oil.

If the refrigerant compressor is reconditioned, drain all the refrigeration oil from compressor. But then fill in only max. 0.2 lits. of refrigeration oil. If the system is flushed with R 11 refrigerant, fill 0.3 lits. of refrigeration oil into compressor.

When loosening or tightening hose or pipe connections, be sure to apply counterhold with another open end wrench.

**Removal**

- 1 Cover front fender.
- 2 Drain air-conditioning system (83.0–850).

**3** Remove radiator (Service Manual Engines 20.1–420).

**4** Unscrew belt tensioning roller (12) on mounting bracket of refrigerant compressor (3) and remove V-belt (15) (Fig. 1).

**5** Unscrew discharge and suction hose from pipeline (16).

**6** Unscrew hex. screw (20) on mounting bracket of pressure oil pump.

**7** Unscrew hex. screw (17) and remove pipeline (16) from refrigerant compressor, watching out for sealing rings (Fig. 2).

**8** Screw pressure test plate to refrigerant compressor with available fastening members (17) (83.0–900).

**9** Unscrew two hex. screws (5) from supporting angle bracket (4) (Fig. 3).



# 83.1 Removal and Installation of Refrigerant Compressor

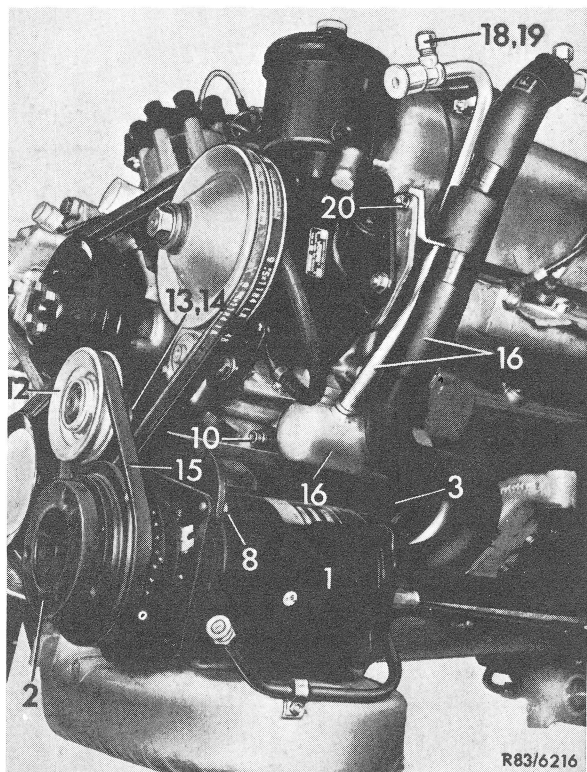


Figure 1  
Layout of refrigerant compressor

- |                                |   |
|--------------------------------|---|
| 1 Refrigerant compressor       | 14 Compensating washer                              |
| 2 Electromagnetic clutch       | 15 V-belt   |
| 3 Mounting bracket             | 16 Pipeline   |
| 8 Hex. screw with washer       | 18 Valve insert                                     |
| 10 Hexagon socket screw        | 19 Cap  |
| 12 Belt tensioning roller      | 20 Hex. screw with washer, lock washer and hex. nut |
| 13 Hex. screw with lock washer |   |

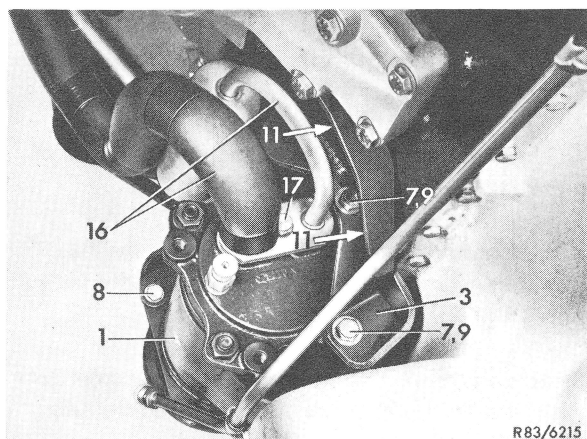


Figure 2  
Layout of refrigerant compressor

- |                          |                                |
|--------------------------|--------------------------------|
| 1 Refrigerant compressor | 9 Spacer ring                  |
| 3 Mounting bracket       | 11 Hex. screw                  |
| 7 Hex. screw with washer | 16 Pipeline                    |
| 8 Hex. screw with washer | 17 Hex. screw with lock washer |

**10** Unscrew two hex. screws (11) on mounting bracket (3) rear, and two screws (10) on engine face (Fig. 1 to 3).

**11** Pull electric plug connection from compressor.

**12** Remove V-belt for pressure oil pump (Service Manual Engines 13.1–340).

**13** Remove refrigerant compressor in forward direction.

**14** Unscrew refrigerant compressor from mounting bracket (3) by unscrewing four hex. screws (7 and 8) (Fig. 1 to 3).

**15** If the pipeline (16) must be removed, turn pipeline by 180° and remove in downward direction.

## Installation

**16** Adjust oil level in refrigerant compressor (refer to note on page 515/1 or 83.0–870).

**17** Screw refrigerant compressor (1) to mounting bracket (3) with parts item 7 to 9 (item 7 and 8 are inch screws).

**18** Install pipeline (16).

**19** Install refrigerant compressor with mounting bracket and screw to cylinder crankcase or to support-

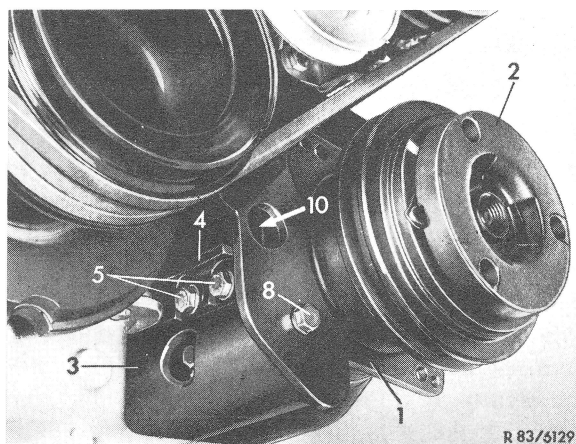


Figure 3  
Layout of refrigerant compressor

- |                            |                         |
|----------------------------|-------------------------|
| 1 Refrigerant compressor   | 5 Hex. screw and washer |
| 2 Electromagnetic clutch   | 8 Hex. screw and washer |
| 3 Mounting bracket         | 10 Screw                |
| 4 Supporting angle bracket |                         |

ing angle bracket (4) with parts item 5, 10 and 11 (Fig. 1 to 3).

**20** Provide O-rings on refrigerant compressor with refrigeration oil and replace, if required. Then screw pipeline (16) to refrigerant compressor by means of hex. screw (17) (Fig. 2).

**21** Mount V-belt for pressure oil pump and tension (Service Manual Engines 13.1–340).

**22** Screw pipeline (16) with parts item 20 to mounting bracket for pressure oil pump (Fig. 1).

**23** Screw tensioning roller (12) to mounting bracket (3), mount V-belt (15) and tension (Fig. 1 as well as Service Manual Engines 13.1–340).

**Note:** Check alignment of pulley – compressor in relation to pulley – crankshaft and tensioning roller and adjust, if required, by means of compensating washers (14) between tensioning roller and mounting bracket (Fig. 1).

**24** Attach electric double plug to refrigerant compressor.

**25** Install radiator (Service Manual Engines 20.1–420).

**26** Connect discharge and suction hose to pipeline (16) (83.1–510, Fig. 3).

**27** Evacuate air-conditioning system and fill with fresh refrigerant (83.0–830 and 840).

**28** Run engine and check cooling system for leaks.

**29** Check air-conditioning system for performance (83.1–510).