



**PREVOST**

# MAINTENANCE INFORMATION

**MI18-21**

DATE :	May 2018	SECTION : 22 HVAC
SUBJECT :	<b>BITZER A/C COMPRESSOR OIL CHANGE INTERVALS</b>	

## ***IMPORTANT NOTICE***

*This modification is recommended by Prevost to increase your vehicle's performance. Note that no reimbursement will be awarded for carrying out this modification.*

## **APPLICATION**

Model	VIN	
ALL VEHICLES EQUIPPED WITH THE BITZER A/C COMPRESSOR		

## **DESCRIPTION**

Change the Bitzer A/C compressor oil according to the following maintenance schedule extract. At the same time, clean the oil filter/strainer and the magnetic drain plug.

<b>BITZER COMPRESSOR MAINTENANCE SCHEDULE</b>	
DESCRIPTION	INTERVAL
Drain the shaft seal oil collection tube	1 month
Check the oil color and the oil level, top up as needed. Change the oil if it is dark	12 months
Change the oil, clean the filter/strainer and the magnetic drain plug	36 months

For complete information on Bitzer A/C compressor maintenance, installation, torque chart, approved oils, refer to the following Bitzer manuals found on your Technical Publications USB flash drive and on the Prevost Technical Publications web site.

- ***Bitzer kw-540-1 Maintenance Instruction***
- ***Bitzer kb-540-3 Operating Instructions***
- ***Bitzer kw-541-2 Exchanging Shaft Seal***
- ***Bitzer kw-555-3 Tightening Torques***
- ***Bitzer kt-510-5 Tech Info oils***



## DANGER

Park vehicle safely, apply parking brake, stop engine. Prior to working on the vehicle, set the ignition switch to the OFF position and trip the main circuit breakers equipped with a trip button. On Commuter type vehicles, set the battery master switch (master cut-out) to the OFF position.

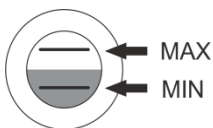
## SHAFT SEAL OIL COLLECTION TUBE DRAIN

The shaft seal oil collection tube (*figure 1*) collects oil which seeps past the shaft seal. Remove the tube plug and drain the oil into a container for disposal. Put the cap back on the tube and place the tube into the clip bracket.



FIGURE 1: SHAFT SEAL OIL COLLECTION TUBE

## OIL COLOR AND LEVEL CHECK

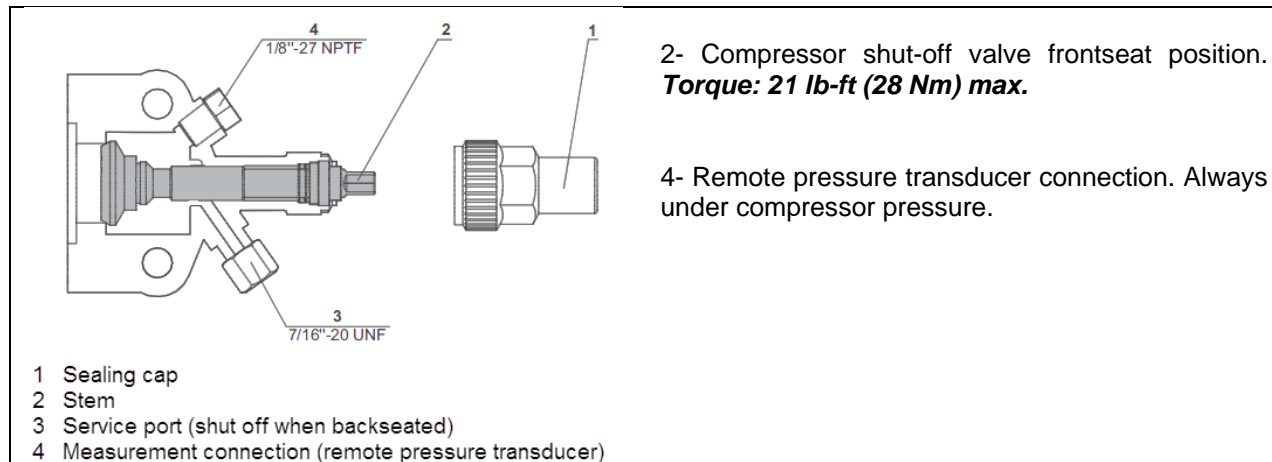
1. Run the compressor for at least 15 minutes.
2. Check the oil level **during operation**. Oil level should be between  $\frac{1}{4}$  and  $\frac{3}{4}$  of sight glass height. 
3. Check for discoloration of the oil. It should be clear and light in color. Dark, cloudy and contaminated oil **must be changed. Diagnose the problem.**

*The oil level is expected to remain the same over time except if there is a loss of refrigerant. Adding oil must be done by taking the same precautions as when changing oil in order not to introduce the moisture content of the ambient air in the air conditioning system.*

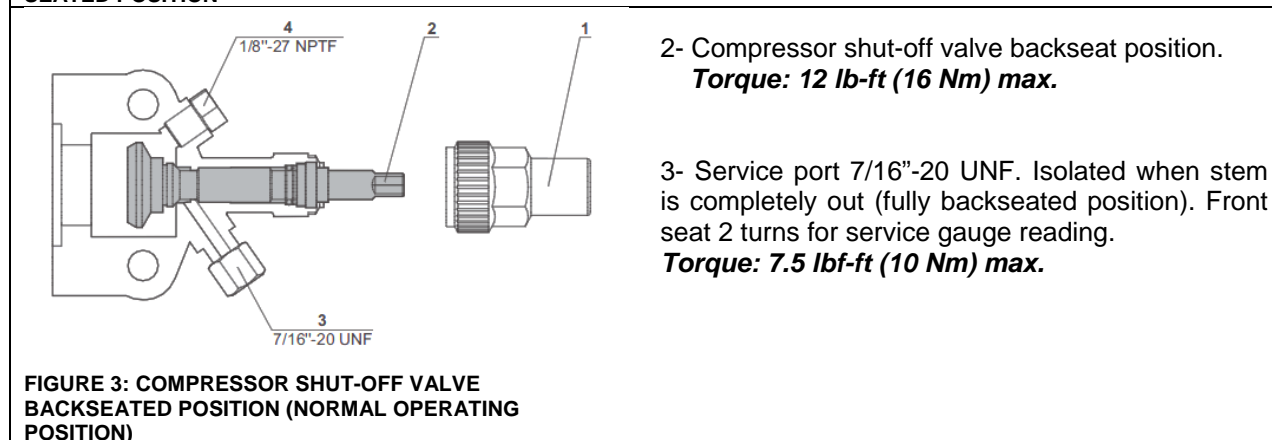
## COMPRESSOR OIL CHANGE

1. Check the oil level first and note down.
2. Connect the refrigerant recovery station to the service connections of the shut-off valves.
3. Isolate the compressor from the system. To do so, frontseat the compressor shut-off valves (*Respect the prescribed torques. Refer to figure 2 & figure 3 for proper torque values*).
4. Extract the refrigerant using the recovery station until ambient pressure is reached. Take note of the quantity removed.

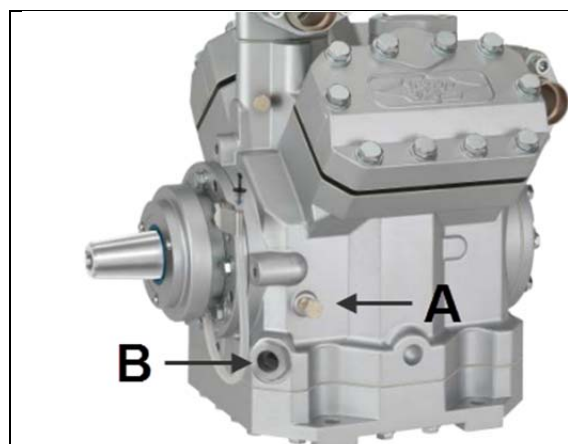
5. Remove the magnetic drain plug (figure 5).



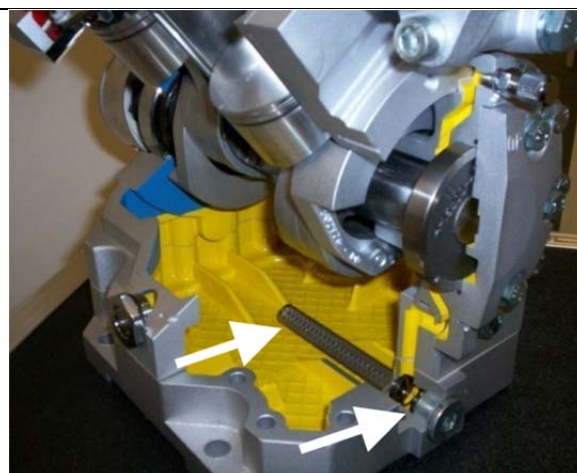
**FIGURE 2: COMPRESSOR SHUT-OFF VALVE IN FRONT SEATED POSITION**



**FIGURE 3: COMPRESSOR SHUT-OFF VALVE BACKSEATED POSITION (NORMAL OPERATING POSITION)**



**FIGURE 4**  
A: OIL FILL PLUG (torque 15-17 lb-ft (20-23 Nm))  
B: SIGHT GLASS



**FIGURE 5: CUTAWAY VIEW SHOWING OIL FILTER/STRAINER AND MAGNETIC DRAIN PLUG. Torque 37-52 lb-ft (50-71 Nm)**

6. Drain the oil into a container. Measure the quantity of oil removed.

7. Extract and clean the oil filter/strainer. Reinstall once done.
8. Clean the magnetic drain plug and reinstall (*refer to figure 5 for torque value*).
9. Through the oil filling port, add the same amount of fresh oil. More oil should be added if the oil level was too low when checked at the beginning (*refer to figure 4 for oil filling port plug torque value*).
10. Evacuate the compressor to 500 microns.
11. Charge the system with new refrigerant. Charge with the same quantity as recovered previously.

#### Bitzer A/C compressor – oil specification

Oil type : Polyolester ISO68 for R134a

Such as :

- Bitzer BSE55 (POE)
- Castrol Icematic SW 68
- Mobil EAL Arctic 68
- Shell S4 FR-F 68, Clavus R68

For more details on oils, see Bitzer kt-510-5 Tech Info Oils available on the Prevost Technical Publications web site.

## PARTS / WASTE DISPOSAL

Discard according to applicable environmental regulations (Municipal/State[Prov.]/ Federal)

Access all our Service Bulletins on <http://techpub.prevostcar.com/en/>  
Or scan the QR-Code with your smart phone

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