INSTALLATION MANUAL

REF NO.	BT97058
DATE	Jan. 8, 1998

SUBJECT: INTRODUCING IMPROVED COMPRESSOR FOR AIR CONDITIONER ON DUMP TRUCK

PURPOSE: To introduce an improved air compressor for use with the air conditioners (using the new refrigerant) on dump trucks.

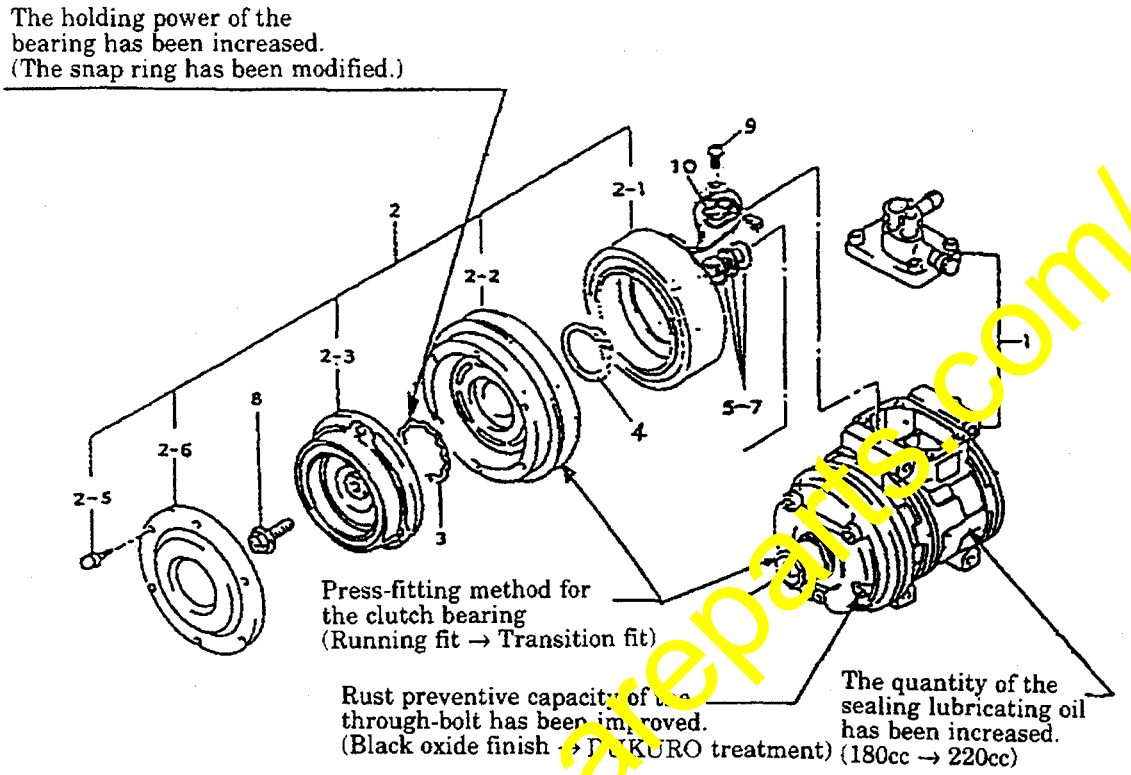
APPLICATION: HD325-6 Dump Trucks, Serial Nos. 5267 thru 5679
HD405-6 Dump Trucks, Serial Nos. 1001 thru 1054
HD465-5 Dump Trucks, Serial Nos. 4192 thru 4625
HD605-5 Dump Trucks, Serial Nos. 1001 thru 1012
HD785-3 Dump Trucks, Serial Nos. 2269 thru •
HD985-3 Dump Trucks, Serial Nos. 1002 thru •

DESCRIPTION:

1. Introduction
   This Service News will introduce an improved air compressor featuring increased holding power of the clutch bearing inner race and enhanced lubrication performance.
   This Service News will also describe the servicing methods for air conditioners. Follow these procedures when making inspections of the air conditioners and, at the same time, teach your customers to observe them.

2. Contents of the modification

e. Air compressor (Denso)



	Part No.	Part Name	Q'ty	Remarks
	425-07-2118	Air compressor assembly	1	
	(20Y-979-3110)	(Air compressor assembly)	(1)	
1	ND447200-1741 (ND447200-0240)	•Air compressor assembly (•Air compressor assembly)	1 (1)	
2	ND447300-7300 (ND447300-1440)	•Clutch assembly, Magnet (•Clutch assembly, Magnet)	1 (1)	
2-1	ND047310-7240 (ND047310-7240)	••Stator, Magnet clutch (••Stator, Magnet clutch)	1 (1)	
2-2	ND047350-9500 (ND047350-7130)	••Rotor, Magnet clutch (••Rotor, Magnet clutch)	1 (1)	
2-3	ND447410-0021 (ND447410-0020)	••Hub S/A, Clutch (••Hub S/A, Clutch)	1 (1)	
2-5	ND949047-2950 (ND949047-2950)	••Bolt, w/washer (••Bolt, w/washer)	6 (6)	
2-6	ND047372-0660 (ND047372-0660)	••Cover, Dust (••Cover, Dust)	1 (1)	
3	ND949070-1360 (ND949070-0831)	•Ring, Snap (•Ring, Snap)	1 (1)	
4	ND949070-0640 (ND949070-0640)	•Ring, Snap (•Ring, Snap)	1 (1)	
5	ND949013-7480 (ND949013-7480)	•Washer, Plate, SK (t=0.1) (•Washer, Plate, SK (t=0.1))	1 (1)	
6	ND949013-7500 (ND949013-7500)	•Washer, Plate, SK (t=0.3) (•Washer, Plate, SK (t=0.3))	1 (1)	
7	ND949013-7510 (ND949013-7510)	•Washer, Plate, SK (t=0.5) (•Washer, Plate, SK (t=0.5))	1 (1)	
8	ND949048-0430 (ND949048-0430)	•Bolt, Washer based (•Bolt, Washer based)	1 (1)	
9	ND91310-05081 (ND91310-05081)	•Screw w/washer (•Screw w/washer)	1 (1)	
10	ND146691-4470 (ND146691-4470)	•Clamp (•Clamp)	1 (1)	

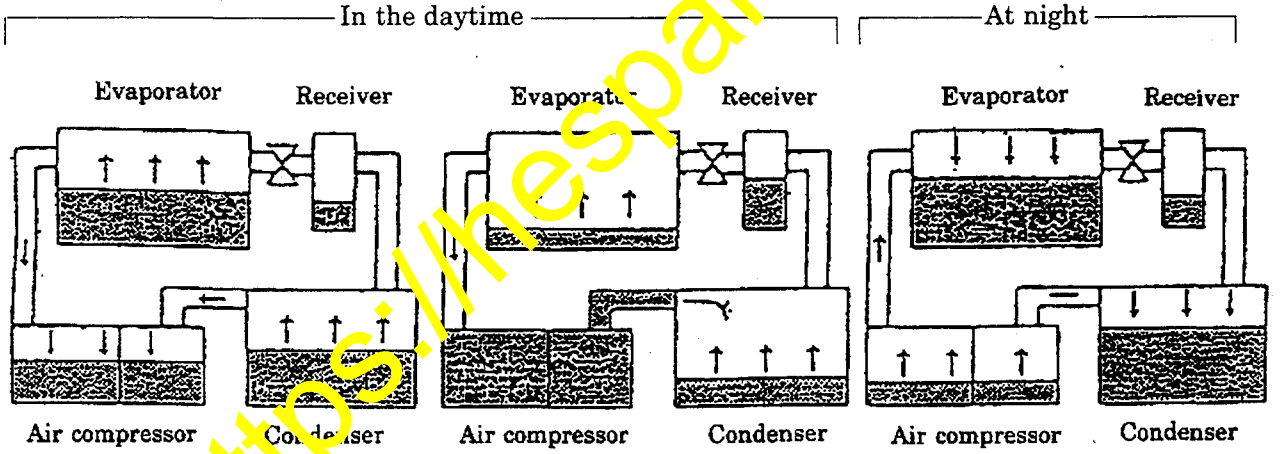
3. How to handle and how to maintain air conditioners

<1> When the vehicle has been stored at a standstill for a long period of time, or when the air conditioner has not been used for a long time, (more than a month), before resuming normal operation of the air conditioner, perform the following running-in:

Warm-up the cab compartment temperature to 10°C or more under "Idling" run of the engine before running-in the air conditioner under the MAX cooling shift for at least 5 minutes.
The above running-in works to prevent occurrence of seizure inside the air compressor which otherwise can occur owing to shortage of lubricating oil inside the air compressor which occurs under the following conditions.

Lubricating oil inside the air compressor decreases while the vehicle is being stored at a standstill for a long period of time or when the air conditioner is not used for a long time. (The lubricating oil shifts to other components)

- When the atmospheric temperature varies, a temperature difference occurs among respective function parts of the air conditioner.
  ↓ .... (This trend becomes more prominent under sunlight.)
- The refrigerant evaporates in equipment and parts whose temperature is higher and it condenses in equipment whose temperature is lower and the following phenomena will appear repetitively.



Temperature rise of the air compressor, whose heat capacity is high, is slower than with other equipment and the refrigerant evaporated in the evaporator and condenser condenses in the air compressor.

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Liquefied refrigerant which has condensed inside the air compressor soon fills and exceeds the capacity to over-flow outside the air compressor together with lubricating oil.

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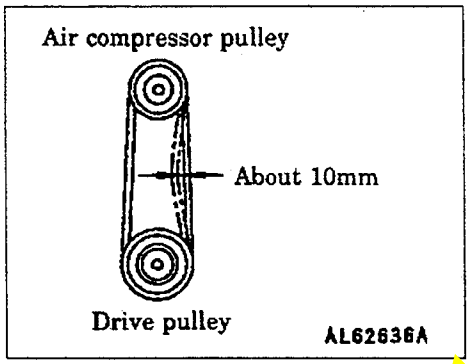
Temperature drop of the air compressor, whose heat capacity is high, is slower and the temperature of the air compressor remains higher than the temperature of other equipment and the refrigerant evaporates in the air compressor and condenses in the evaporator and condenser.

When the aforesaid cycles are repeated, lubricating oil storage inside the air compressor gradually decreases.

2. Belt tension of the V-belt for the air compressor

• Inspection

Depress the center point between the air compressor pulley and the drive pulley by the thumb (at a force of about 6kg) and if the flexure of the belt is about 10mm, the belt tension is normal.



When the V-belt is replaced with a new belt, initial stage elongation occurs and perform belt tension adjustment once again after 2 to 3 days of operation.

(For more details of inspection procedures and adjustment procedures, refer to the Section for "Servicing every 250 hours" in the Chapter for "Inspection and Maintenance" in the Operation and Maintenance Manual.)