

**S-TYPE**

DATE 07/00

S412-01

**SERVICE****TECHNICAL BULLETIN**

**A/C Compressor –  
Transferring Drive Clutch to new Compressor  
– Clearance Adjustment**

MODEL 2000 MY-ON  
S-TYPE  
VIN L00001-ON

**Issue:**

Air Conditioning Compressors are supplied without the Drive Clutch Assembly. The drive clutch assembly must be transferred to the new compressor. A clearance adjustment is necessary when the clutch is assembled on the compressor. This bulletin provides a listing of the shim part numbers and the procedure which is also in section 412-03 on JTIS 9.

**Action:**DISASSEMBLY

1. Discharge the refrigeration system and remove the compressor from the engine. Always plug the refrigerant suction and outlet ports and the disconnected pipes immediately, to contain the residual oil and to prevent the entry of moisture or dirt.
2. Install and tighten Special Tool 303-DO55 (Universal Strap Wrench) around the clutch plate.
3. Loosen the center clutch retaining nut. Remove the nut and the clutch plate.
4. Remove the shim from the shaft.
5. Remove the clutch pulley circlip.
6. Use Special Tool 303-D121 (Crankshaft Damper Remover), to pull the clutch pulley from the shaft.
7. Remove the retaining bolt and plate, allowing the sensor to be detached from its location on the compressor body.
8. Remove the clutch field coil retaining circlip.
9. Remove the clutch field coil assembly.

ASSEMBLY

1. Install the clutch field coil assembly to the compressor and install the retaining circlip.
2. Align the sensor to its location on the compressor body and install the retaining plate and bolt.

- Using Special Tool 412-109 if necessary, install the clutch pulley to the compressor shaft.

**NOTE:** The bearing of the clutch pulley should be a slip-install on the drive shaft, enabling the assembly to be pushed home by hand. If necessary, align the above tool with the bearing and shaft, and use light hammer blows to tap the bearing fully into position.

- Install the clutch pulley circlip.
- Install the shim (removed in step 4 above) on the shaft.
- Install the clutch, start the retaining nut, and finally tighten the nut, Use Special Tool 303-DO55 Strap Wrench to prevent the clutch plate from rotating.  
Torque Wrench Setting: 17 Nm (13 lb. ft.)
- Using feeler gauges, determine the air gap clearance between the rear face of the clutch plate and the pulley.  
Specified Clearance: 0.35 - 0.75 mm (0.010 - 0.030 inch).
- If the measured air gap is not within the above limits, remove the clutch plate and add or remove shims as necessary to obtain the specified clearance.
- Reinstall the compressor assembly to the engine.

**Note:** Install **new** O-rings, wetted with compressor lubricating oil, when reconnecting the refrigerant suction and outlet connections at the compressor. Do **not** return to the bottle any oil used in connection with moistening of the O-rings. Immediately reinstall the cap on the bottle, to reduce absorption of moisture from the atmosphere. Replacement compressors are supplied pre-filled with the correct quantity of oil.  
If an existing compressor is reinstalled, but oil is lost during the process of installing new clutch components, replace the amount of oil lost.

- Recharge the system with refrigerant.

## Parts Information:

<u>DESCRIPTION</u>	<u>PART NUMBER</u>	<u>QTY</u>
A/C Compressor - 3.0 L	XR8 2897	1
A/C Compressor - 4.0 L	XR8 1188	1
Compressor Clutch - 3.0 L	XR8 9203	1
Compressor Clutch - 4.0 L	XR8 9202	1
O-ring, suction and outlet connections	XR8 3790	2
Oil, compressor lubrication 100 ml pack	XR8 3680	1
Shim - 0.4mm	XR8 3786	
Shim - 0.5mm	XR8 1287	
Shim - 0.6mm	XR8 1288	
Shim - 0.7mm	XR8 1289	
Shim - 0.8mm	XR8 1290	
Shim - 0.9mm	XR8 1291	
Shim - 1.0 mm	XR8 1292	

## Warranty Information:

<u>FAULT CODE</u>	<u>R.O. NUMBER</u>	<u>DESCRIPTION</u>	<u>TIME ALLOWANCE</u>
JJ BB **	82.10.20	Air Con Compressor - Renew - 3.0 L	0.65 hrs.
		Air Con Compressor - Renew - 4.0 L	0.70 hrs.
	82.10.25	Clutch Field Coil - Renew - 3.0 L	0.65 hrs.
		Clutch Field Coil - Renew - 4.0 L	0.70 hrs.
	82.30.30	Discharge and recharge refrigerant system (additional to either above)	0.40 hrs.