



INSTRUCTION TO SERVICE

ITS60814		September 15, 2023
SECTION:	549-Heating & Air Conditioning System	
WRITTEN BY:	Aditya Gadepalli	
SUBJECT:	Single Grove to Double Grove AC Belt Rework	
ISSUE:	AC belts on legacy D coaches equipped with ISX engine are failing prematurely.	
SUMMARY:	Rework the coach to have double grove crank shaft and compressor clutch to replace the single grove AC belt with double grove belt.	

ITS60814

Ref. NHTSA Recall No.	Ref. Transport Canada Recall No.
Not Applicable	Not Applicable

THIS ITS DOCUMENT SHOULD BE RETAINED AND REFERRED TO FOR FUTURE MAINTENANCE UNTIL THE PARTS AND/OR SERVICE MANUAL IS UPDATED TO REFLECT WORK DONE AS A RESULT OF THIS DOCUMENT. ENSURE THAT THIS DOCUMENT IS AVAILABLE FOR PARTS AND MAINTENANCE STAFF GOING FORWARD.

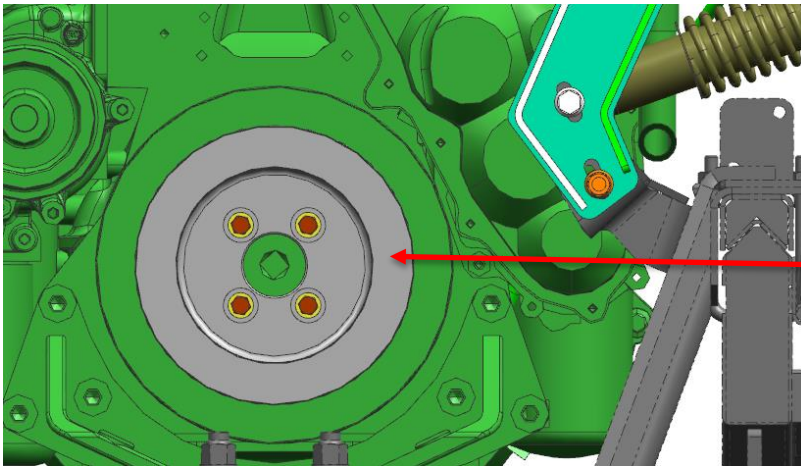
PROCEDURE:

1. Set park brake and chock wheels.
2. Turn the main battery disconnect switch to the "OFF" position.
3. Remove and discard the AC belt. Remove and save the alternator belt.



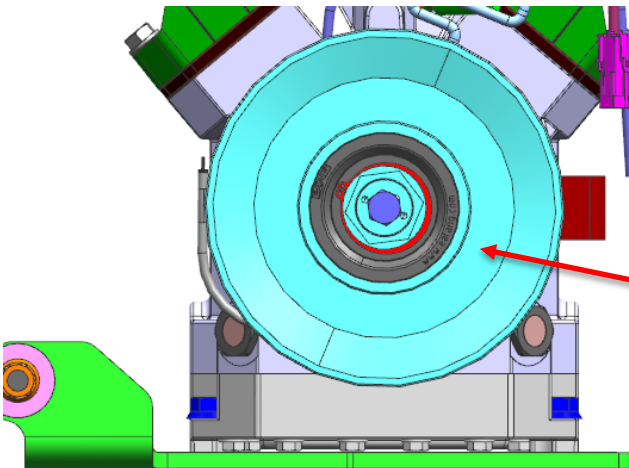
Remove and discard the belt

4. Remove and discard the crank shaft pulley. Save the bolts.



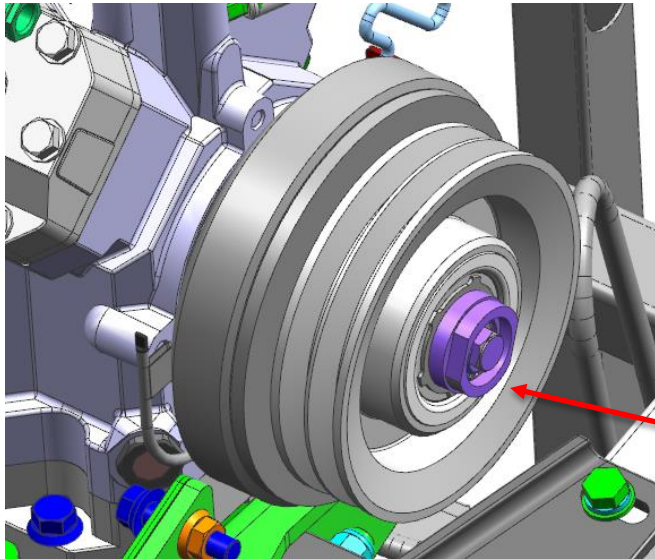
Remove and discard the crank pulley. Save hardware.

5. Remove and discard the compressor clutch. Save the hardware.



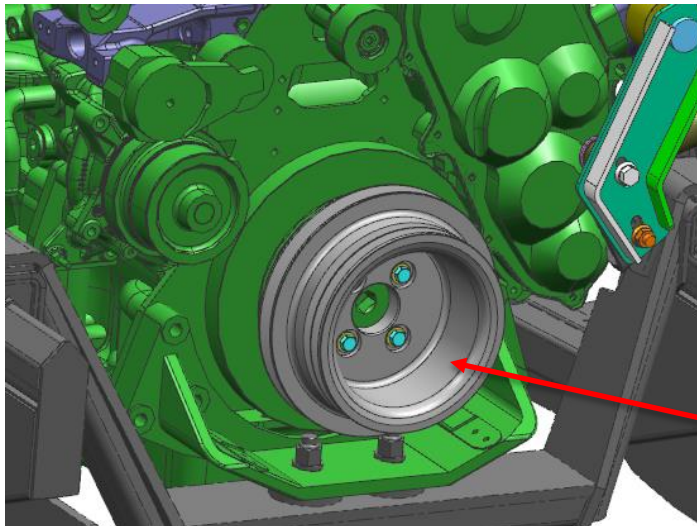
Remove and discard the compressor clutch. Save hardware.

6. Install new clutch, MCI P/N: 08-04-1160, using existing hardware and torque to 63 Ft-Lbs.



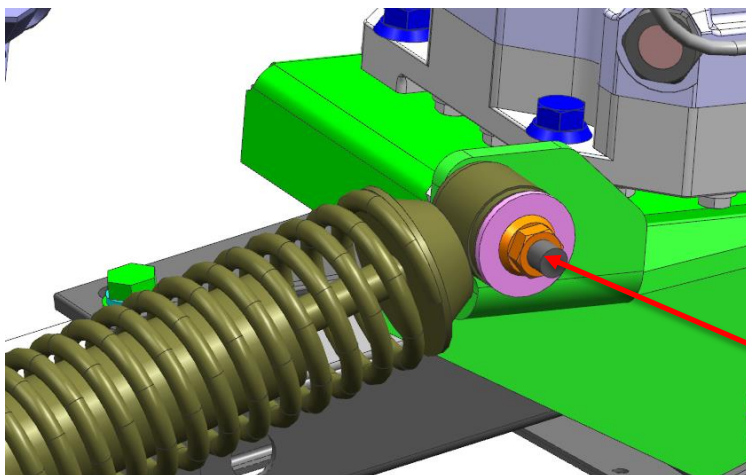
Install new compressor clutch, 08-04-1160 using existing hardware.

7. Install new crank shaft pulley, MCI P/N: 08-04-1186, using existing hardware. Torque the bolts to 72-78 Ft-Lbs.



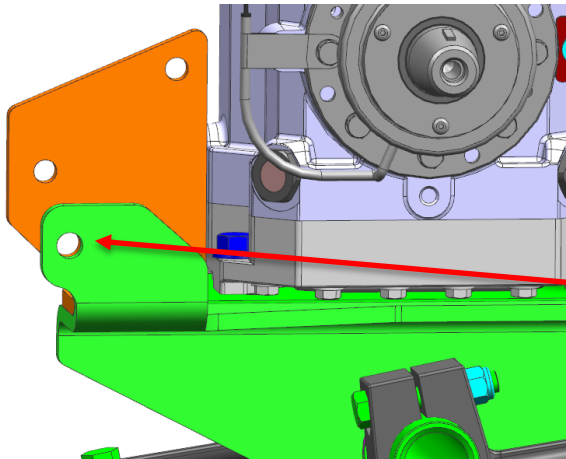
Install new crank pulley, 08-04-1186 using existing hardware.

8. Remove and save the hardware securing the spring tensioner to the compressor bed.



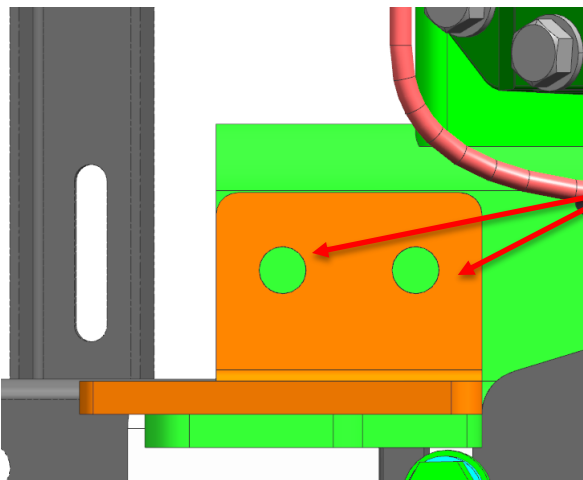
Remove and save the hardware securing spring tensioner

9. Place the new adapter bracket, MCI P/N: 1047272, on the compressor base as shown ensuring the bottom hole in the bracket matches the hole in compressor base.



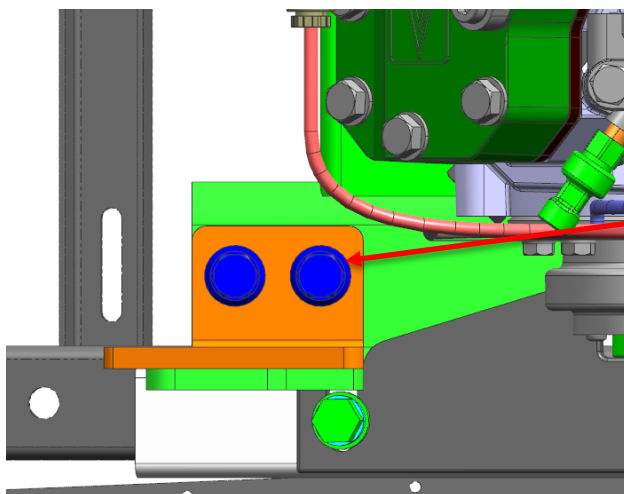
Place new adapter bracket such that the hole in the compressor base aligns

10. Mark the two holes on the bottom flange of the bracket and match drill on the compressor base using 37/32 drill bit.



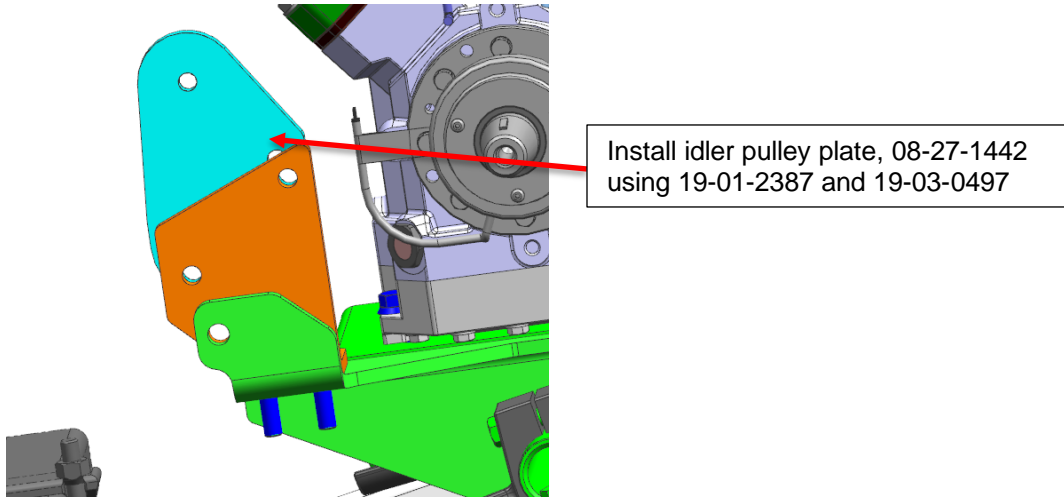
Match drill two holes using 37/32 drill bit

11. Install the adapter bracket, MCI P/N: 1047272, to the compressor base using bolts, MCI P/N: 19-01-2387, and nuts, MCI P/N: 19-03-0497. Torque to 80-90 Ft-Lbs.

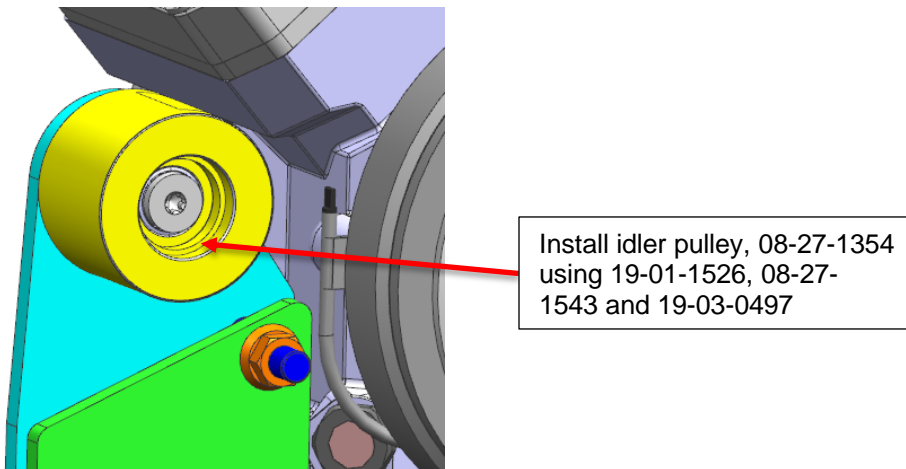


Install bracket using 19-01-2387 and 19-03-0497

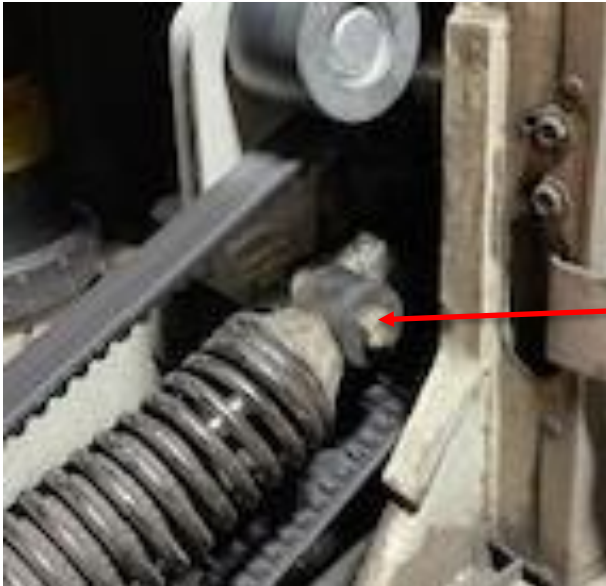
12. Install idler pulley plate, MCI P/N: 08-27-1442, to the adapter bracket using bolts, MCI P/N: 19-01-2387, and nuts, MCI P/N: 19-03-0497. Torque to 80-90 Ft-Lbs.



13. Install idler pulley, MCI P/N: 08-27-1354, using bolt, MCI P/N: 19-01-1526, spacer, MCI P/N: 08-27-1543, and nut, MCI P/N: 19-03-0497. Torque the bolt to 25-35 Ft-Lbs.



14. Re-install the spring tensioner to the compressor base, using existing hardware. Torque the nut to 80-90 Ft-Lbs.



Re-install spring tensioner using existing hardware

☞ **NOTE:** Ensure the belt is centered on top and bottom idlers. If not, move the bottom idler in the slots of the bracket and install shims 08-27-1421 between the adapter bracket and idler plate and re-torque the hardware.



LABOUR ESTIMATE				
	Operation	Number of Technician(s)	Hours	Labor Time T X HR
1	Single Grove to Double Grove AC Belt Rework	1	1	1

PARTS REQUIRED					
Item	Part Number	Description	Qty. per Coach	Units	Notes
1	08-04-1160	Clutch-A/C Compressor, Bitzer	1	EA	
3	08-04-1186	Pulley-Crank ISX Efan	1	EA	
3	08-27-1442	Plate-Idler Pulley	1	EA	
4	08-27-1354	Pulley-Idler/Tensioner	1	EA	
5	08-27-1542	Belt-A/C CMPRSR,5VX,Matched Set	1	EA	
6	19-01-2387	Screw-Hex Cap,1/2-13,FLG,2.0LNG	4	EA	
7	19-03-0497	Nut-Lock Flanged,1/2-13,GR G, Yellow Zinc	4	EA	
8	19-01-1526	Screw, Cap, 1/2-13 x 3 Inch	1	EA	
9	1047272	Bracket-Idler Mount AC Belt	1	EA	

SPECIAL TOOLS REQUIRED					
Item	Part Number	Description	Qty.	Units	Notes
1	08-27-1421	Shim	4		