



INSTRUCTION TO SERVICE

ITS: 59066	
SECTION:	405 ARTIC JOINT.
WRITTEN BY:	Scott Geier
SUBJECT:	Inspect & if Necessary, Replace A/C Hose Assembly.

ITS-59066

THIS ITS DOCUMENT SHOULD BE RETAINED AND REFERED TO FOR FUTURE MAINTENANCE UNTIL THE NEW FLYER 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.

THIS DOCUMENT AND THE CONTENTS DISCUSSED HEREIN ARE THE CONFIDENTIAL AND PROPRIETARY INFORMATION OF NEW FLYER INDUSTRIES CANADA ULC AND NEW FLYER OF AMERICA INC. AND ARE DISCLOSED BY NEW FLYER IN CONFIDENCE. THIS DOCUMENT AND THE CONTENTS HEREIN ARE NOT TO BE DISCLOSED BY THE INTENDED RECIPIENT WITHOUT THE PRIOR WRITTEN AUTHORIZATION OF NEW FLYER. ANY UNAUTHOIZED DISCLOSURE, REPRODUCTION OR OTHER DISTRIBUTION OF THIS DOCUMENT OR INFORMATION IS STRICTLY PROHIBITED AND MAY RESULT IN ACTION BEING TAKEN AGAINST THE PARTY MAKING THE UNAUTHORIZED DISCLOSURE. THIS DOCUMENT AND ALL COPIES HEREOF MUST BE RETURNED TO NEW FLYER UPON REQUEST.

PROCEDURE:

Part A: Inspection of A/C Hose Manufacturing date code.

1. Turn the main battery disconnect switch to the "OFF" position.
2. Remove the false ceiling panel inside the articulated joint area of the bus.

NOTE: Refer to Section 7.3 of the Articulated Joint chapter in the Maintenance Manual for removal and install procedure.

3. Locate hose P/N 435213 See figure 1.

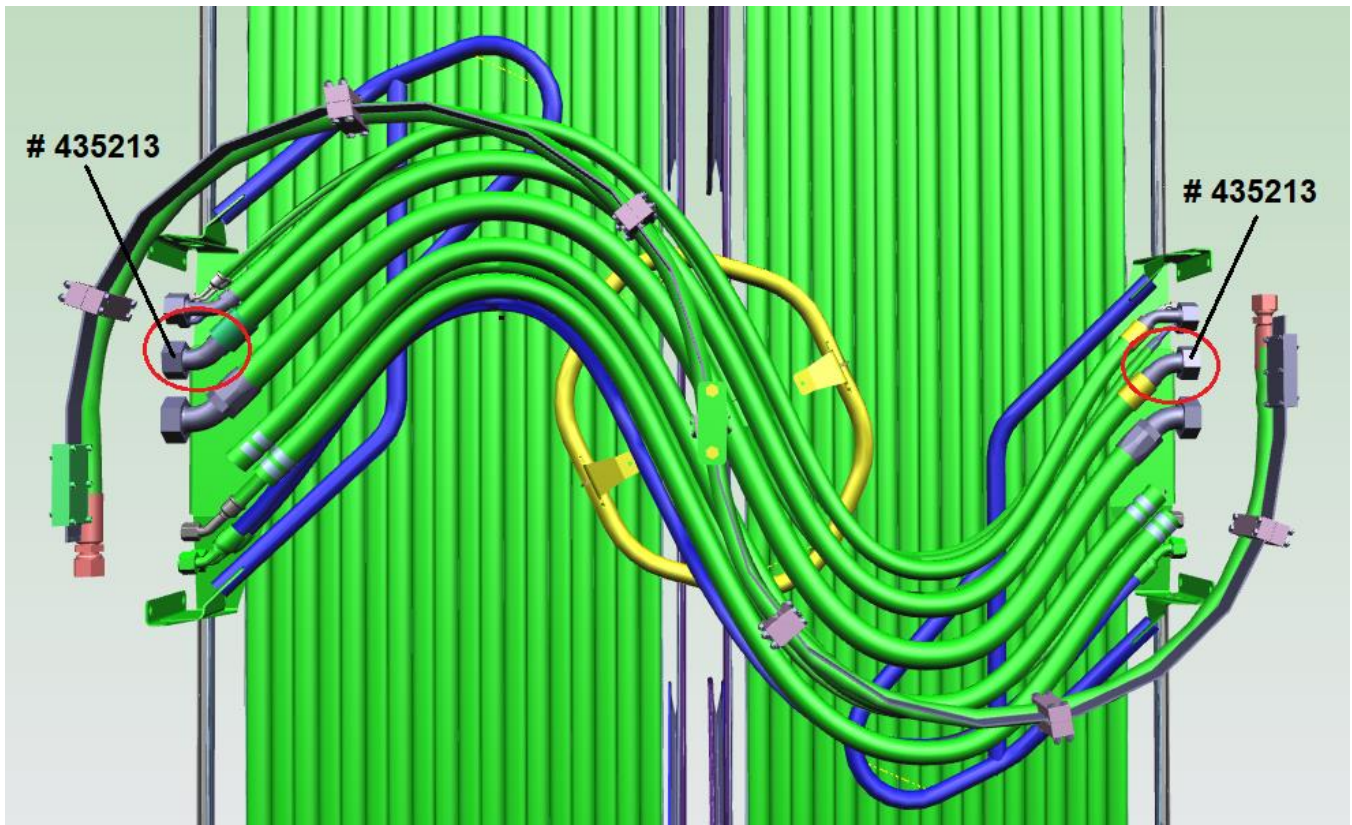


Figure 1: AC hose location reference

4. Inspect the hose manufacturing date located on the hose.
5. If the hose manufacturing date are not within 07/23/2020 and 09/08/2020, reinstall the false ceiling panel inside the bus.

NOTE: Refer to Section 7.3 of the Articulated Joint chapter in the Maintenance Manual for removal and installation procedure.

6. If the hose manufacturing date is between 07/23/2020 and 09/08/2020, the hose must be replaced. See “Part B” below for instructions for removal and installing the AC hose.



Figure 2: Hose manufacturing date location reference.

Part B: Replacement of the A/C Hoses assembly # 435213.

⚠ WARNING: Evacuate the A/C lines prior to disconnecting from the bulkhead connectors. Refer to the Thermo King Maintenance Manual for procedure. Observe all safety precautions and environmental regulations.

7. Locate the center clamp that secures the center point of the hoses in the articulated joint. Mark all the hoses at the point where they pass through the clamp at the forward edge to facilitate re-assembly later.
8. Remove the bulkhead covers to access the copper lines behind the bulkheads. Use a backup wrench on the nuts on the copper lines to prevent damage due to twisting when the hoses are being removed.
9. Disconnect the AC hose (NF P/N 435213). at the front and rear bulkheads of the articulated joint.
10. Locate the orings inside both front and rear connectors at the bulkheads. Replace the -20 O-ring (NF P/N 010629).
11. Remove the bolts that secure the two halves of the center clamp and loosen the center bolt so the two hoses can be removed. See figure 3.

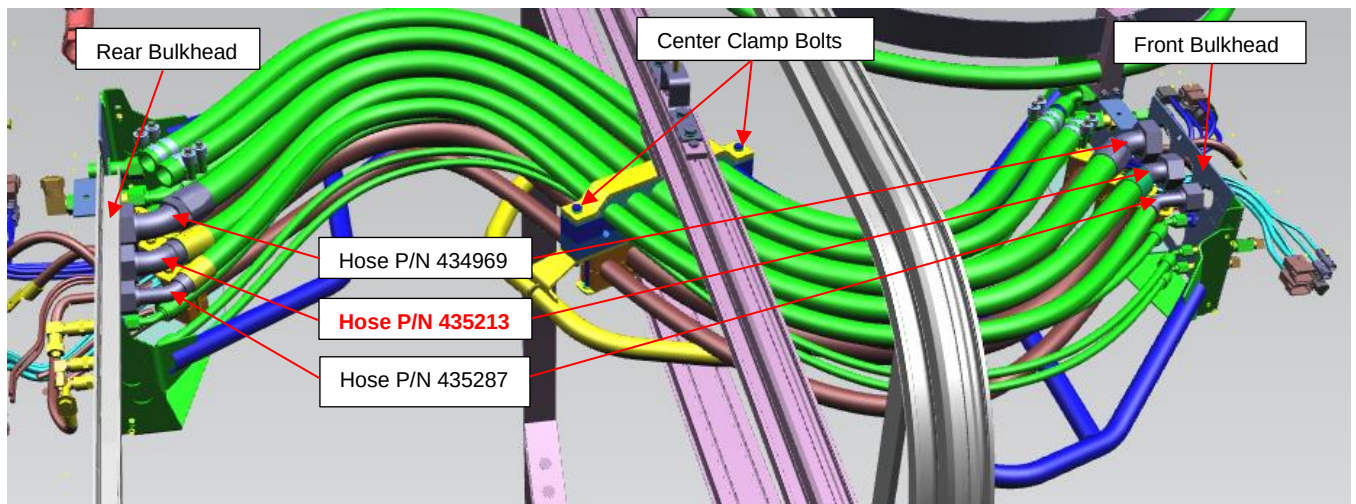


Figure 3: Artic Joint Hoses Viewed from Above.

12. Install the new replacement AC hose (NF P/N 435213) in their respective positions in the center clamp, aligning the marks with the forward edge of the center clamp. Reinstall the center clamp end bolt but leave the bolts loose. See figure 4.

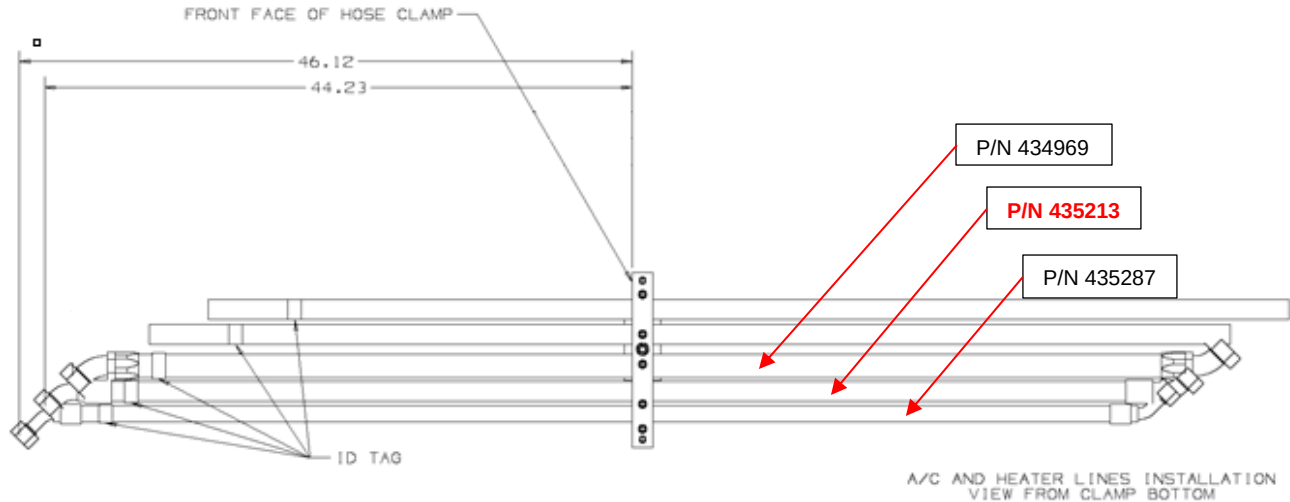


Figure 4: Locations to mark A/C hose reference.

13. At the forward bulkhead, reconnect the hoses to their respective connection points. Note that there are alignment marks on the bulkhead for orienting hose P/N 435213. See figure 5.

NOTE: The alignment marks for hose P/N 435213 are 10 deg upward from horizontal. It is important that the hose fittings are oriented correctly to prevent binding and interference of hoses which may result in damage due to pulling and chaffing when the artic joint moves through its range of motion.

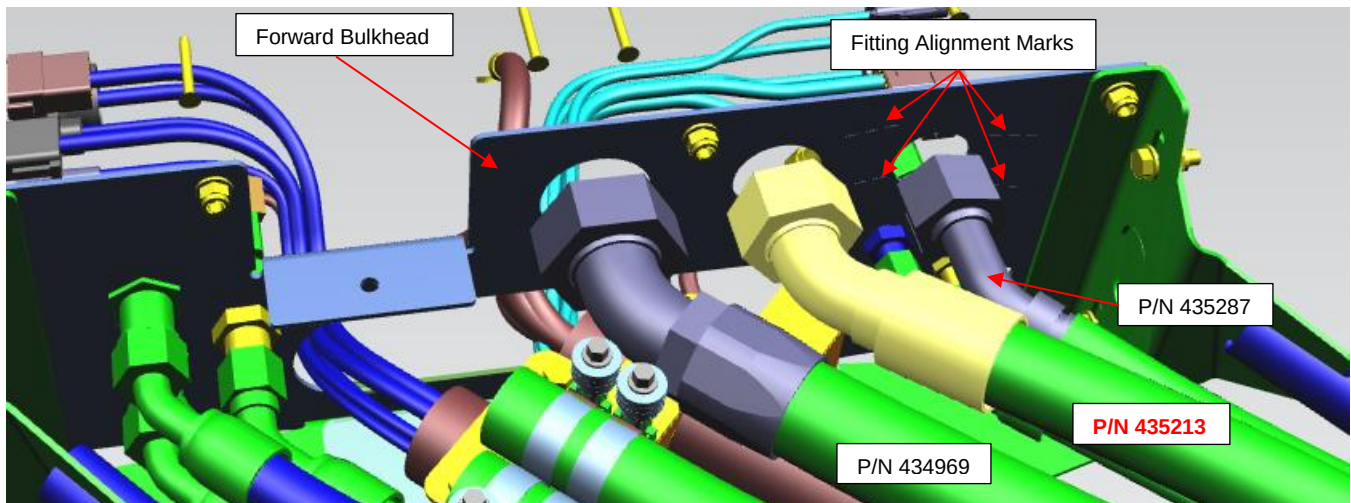


Figure 5: A/C hose & alignment marks at forward bulkhead reference.



14. At the rearward bulkhead, reconnect the hoses to their respective connection points. Note that there are alignment marks on the bulkhead for orienting hose P/N 435213. Figure 6.

NOTE: The alignment marks for hose P/N 435213 are 10 deg downward from horizontal. It is important that the hose fittings are oriented correctly to prevent binding and interference of hoses which may result in damage due to pulling and chaffing when the artic joint moves through its range of motion.

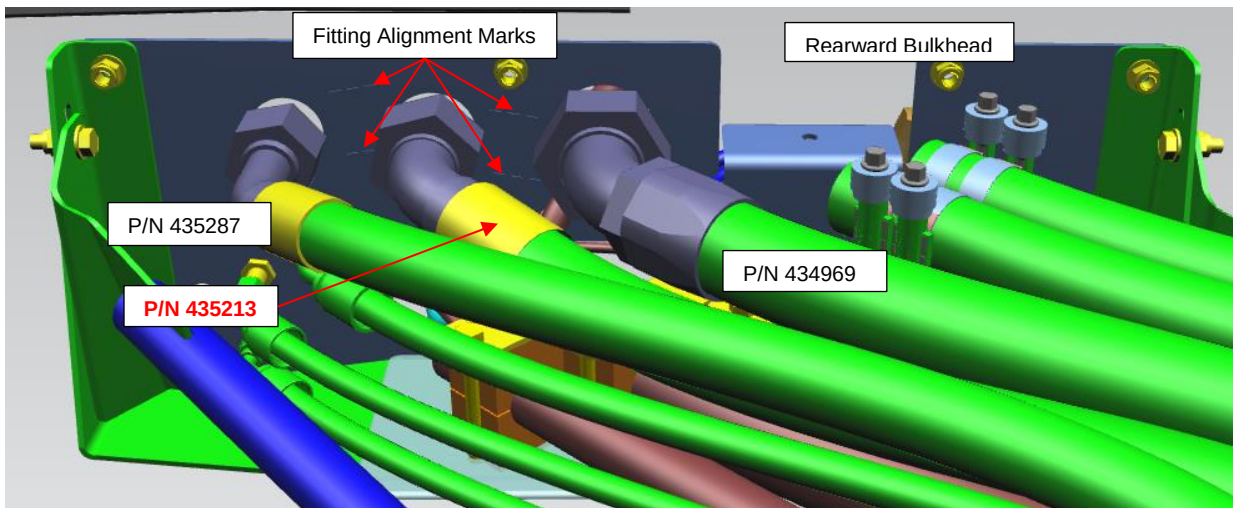


Figure 6: A/C Hoses & Alignment Marks at Rearward Bulkhead.

15. Use a backup wrench on the nuts on the copper lines to prevent damage due to twisting when the hose. Torque the hose fitting nuts to 125 – 140 FT-LBS.

NOTE: When torqueing the hose fittings, insure the hose fittings do not rotate and remain aligned with the marks on the bulkheads.

16. After installation, cover exposed connections with Butyl Cork Tape (NF P/N 022973).
17. Ensure that all the hoses are correctly positioned at the center clamps using the alignment marks applied previously then torque the bolts on the ends of the center clamp to 15 ft-lb (20 Nm).
18. Replace the dehydrator (drier) unit with a new unit (NF P/N 6316018). The Dehydrator is located in the ceiling at the forward end of the front carriage ahead of the condenser. There is an access hatch in the ceiling adjacent to the SDS box. Refer to Thermo King Maintenance Manual for procedure.
19. Recharge A/C system. Refer to Thermo King Maintenance Manual for procedure.
20. Re-install the false ceiling inside the articulated joint area of the bus.

NOTE: Refer to Section 7.3 of the Articulated Joint chapter in the Maintenance Manual for removal and installation procedure.

21. Remove all tools and debris and return the bus to service condition.
22. Turn the main battery disconnect switch to the “ON” position.

LABOUR ESTIMATE

	Operation	Men	Hours	Labour Time M X HR
1	Inspect AC hose assembly manufactory date	1	1.5	1.5
2	Replace AC hose assembly	1	4.0	4.0

Total HRS. 5.5

PARTS REQUIRED

Item	Part Number	Description	Qty. per Coach	Units	Notes
1	435213	ASSY – HOSE REFRI - STAR – 16 FL86.77	1	EA	If Necessary
2	022973	TAPE BUTYL - CORK	2.5	FT	If Necessary
3	6316018	DEHYDRATOR	1	EA	If Necessary
4	010629	O-RING 20	2	EA	If Necessary

SPECIAL TOOLS REQUIRED

Item	Part Number	Description	Qty. per Coach	Units	Notes
1	N/A	A/C Refrigerant Recharging Equipment			