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NYCT COMPRESSOR DOOR IMPROVEMENT

Prevost vehicles

DESCRIPTION

On the vehicles affected by this bulletin, the compressor door upper and lower hinges must be replaced to improve the door support.

A support plate must also be riveted to the door frame between the hinges to add structural rigidity and prevent stress cracks to the door assembly.

MODEL YEAR(S) AND VEHICLES INVOLVED

NOTICE TO SERVICE CENTERS <i>Verify vehicle eligibility by checking warranty bulletin status with SAP or via ONLINE WARRANTY SYSTEM available on Service / Warranty tab of Prevost website.</i>		
Model	VIN	Fleet Number
X3-45 Commuter Model Year : 2014 - 2016	The following individual vehicles: 2PCG33495<u>E</u>C73<u>5590</u>, 2PCG33498<u>E</u>C73<u>5602</u> and From 4RKG33497<u>F</u>973<u>7001</u> up to 4RKG33491<u>G</u>973<u>7299</u> incl.	From 2490 up to 2789, incl.
This bulletin does not necessarily apply to all the above-mentioned vehicles, some vehicles may have been modified before delivery. The owners of the vehicles affected by this bulletin will be advised by a letter indicating the Vehicle Identification Number (VIN) of each vehicle concerned.		

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MATERIAL NEEDED

To proceed with **Part 1** of this bulletin, order KIT **SP16-320A** which contains the following parts:

Part No.	Description	Qty
280504	Upper Hinge (door)	1
280549	Upper hinge (frame)	1
280610	Upper Hinge Spacer (frame)	1
5001833	Washer, Bellville SS 6.66x17.4x1.27	4
502622	Screw Cap Hex SS NSS M6 X 1.0 X 20	2
5000310	Screw Cap Hex SS NSS M6 X 1.0 X 40	2
284607	Door Hinge Bushing (upper & lower)	1

To proceed with **Part 2** of this bulletin, order KIT **SP16-320B** which contains the following parts:

Part No.	Description	Qty
280552	Lower Hinge (frame)	1
284607	Door Hinge Bushing (upper & lower)	1
502723	Nylon Flat Washer (lower door hinge)	1
5001851	Nut Hex SS M6-1.0	1
5001697	Screw Cap Hex SS NSS M6 X 1.0 X 16	2
5001833	Washer, Bellville SS 6.66x17.4x1.27	2
430406	Washer, Flat	3
502570	Lock Washer 6.1x11.8x1.6 SS	3
502686	Screw cap hex M6-1.0x30 SS blk	3

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To proceed with **Part 3** of this bulletin, order KIT **SP16-320C** which contains the following parts:

Part No.	Description	Qty
280607	Door Reinforcement Plate	1
504379	Reinforcement plate rivet, POP Dome SS 3/16" x 1/4"	4

NOTE

Material can be obtained through regular channels.

PROCEDURE



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.*

PART 1: UPPER HINGE REPLACEMENT

- 1) Fully open the vehicle compressor door (rear, curb side of vehicle Fig.1).

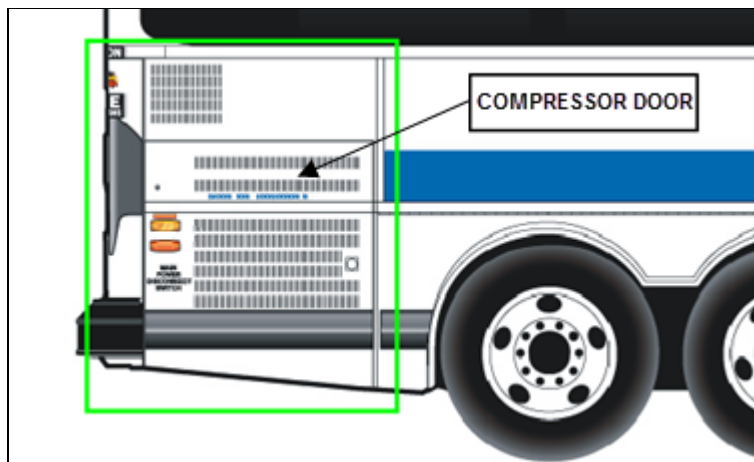


FIG.1 VEHICLE COMPRESSOR DOOR

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- 2) Support the door at its lower edge without applying upward pressure. A scissor jack (or equivalent lifting equipment) and a V shaped wood block are recommended (Fig.2).



FIG.2 SUPPORTING THE DOOR

- 3) Unscrew and remove both parts of the upper hinge (4X M6 bolts at frame and door). Discard all parts and hardware (Fig.3).



FIG.3 UPPER HINGE REMOVAL

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- 4) Install the new upper hinge (parts **280504**, **280549** & **280610** in kit Fig.4) making sure that:
- New M6 bolts and washers (**5000310** & **5001833**) are used at the upper (vehicle structure) mounting points (Fig.4).
 - New M6 bolts (**502622** & **5001833**) are used at the door mounting points (Fig.4).
 - A new plastic bushing **284607** is installed at the pivot point (Fig.5).
 - The door is fully supported by the *lower hinge* and not slightly lifted-up by the lift table so there is no gap between parts at the lower pivot point (Fig.6).
 - There is no gap between the upper and lower part at the pivot point of the upper hinge (Fig.7).
 - The four M6 bolts are torqued to **68 lb-in** (apply blue Loctite 242 or equivalent medium strength thread locker on all fastener threads (Fig.8)).

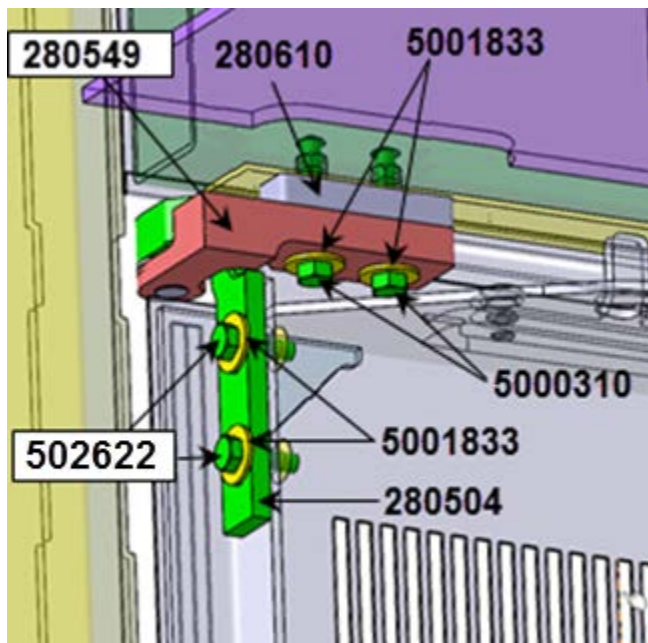


FIG.4 NEW UPPER HINGE

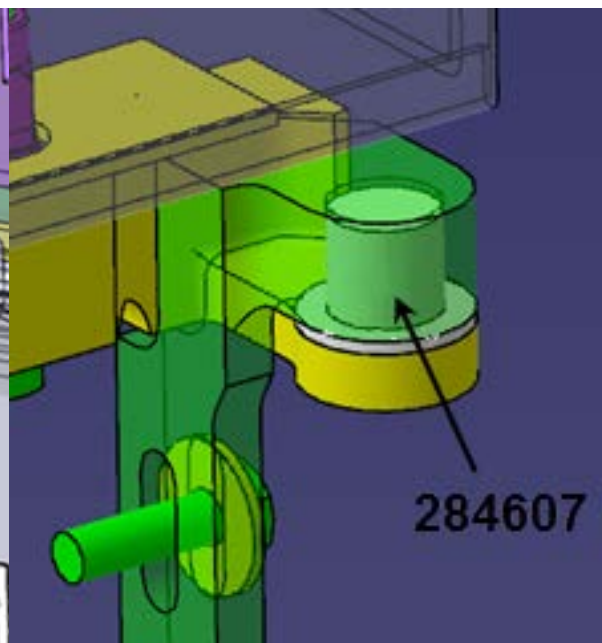


FIG.5 BUSHING

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FIG.6 LOWER HINGE SUPPORT

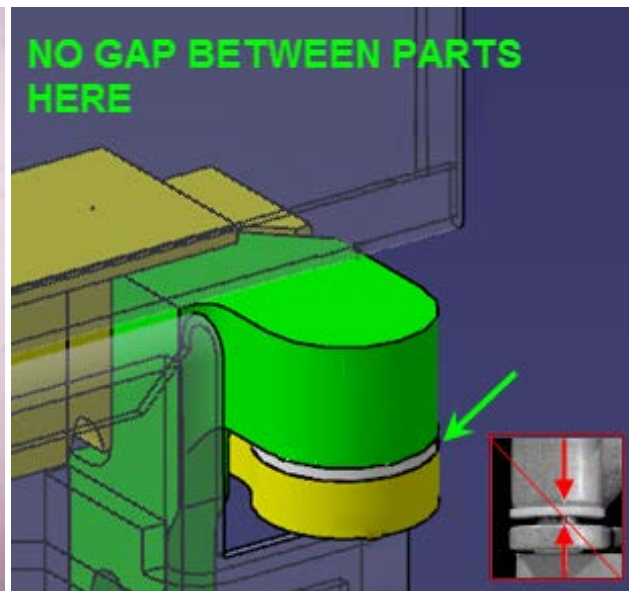


FIG.7 NO GAP - UPPER HINGE

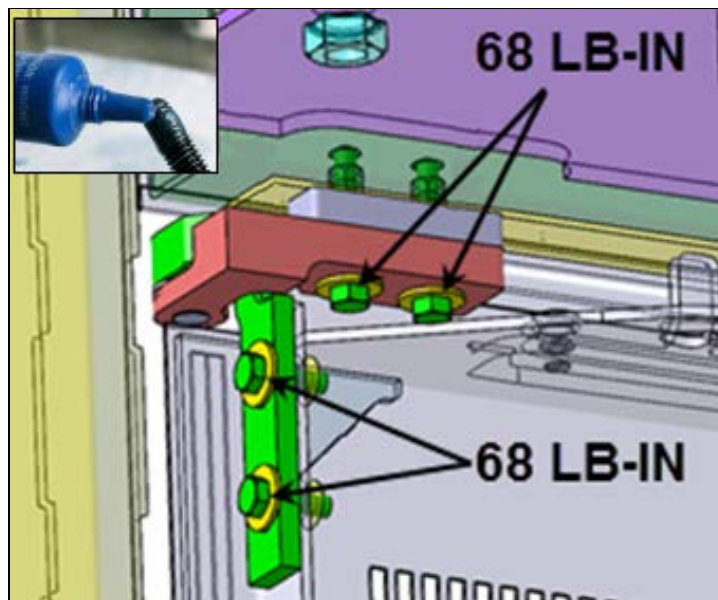


FIG.8 TIGHTENING TORQUE- UPPER HINGE

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PART 2: LOWER HINGE REPLACEMENT

- 1) Fully open the vehicle compressor door (rear, curb side of vehicle Fig.9).

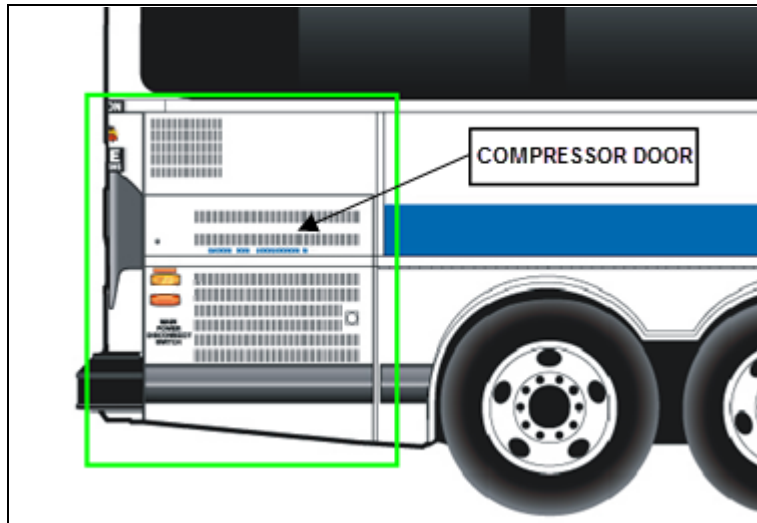


FIG.9 VEHICLE COMPRESSOR DOOR

- 2) Support the door at its lower edge without applying upward pressure. A scissor jack (or equivalent lifting equipment) and a V shaped wood block are recommended (Fig.10).



FIG.10 SUPPORTING THE DOOR

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- 3) Unscrew and remove *both parts* of the lower hinge (4X M6 bolts Fig.11)



FIG.11 LOWER HINGE BOLTS

- 4) Discard the *lower* (vehicle structure) part of the lower hinge and replace it with the new **280552** part supplied with the kit (reuse the door part of the hinge but discard hardware Fig.12).

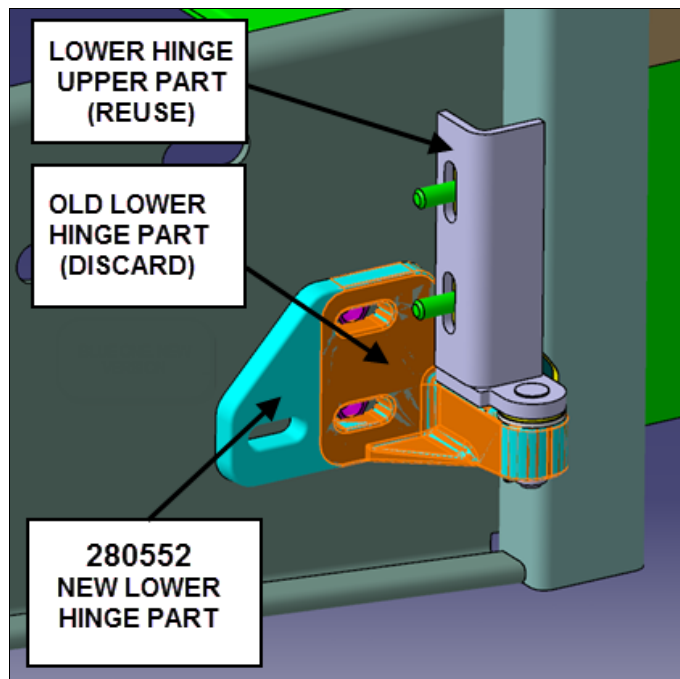


FIG.12 NEW VS OLD LOWER HINGE PARTS

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5) Reinstall the lower hinge (with new lower part) making sure that:

- New plastic bushing **284607** and washer **502723** are installed at the pivot point (Fig.13).
- Door is fully supported by the *top hinge*, not the lift table (no gap at the pivot point) (Fig.14).
- New M6 bolts and washers (**5001697** & **5001833**) are used at the door mounting points (Fig.15).
- New M6 bolts, locks & washers (**502686**, **502570** & **430406**) are used at the vehicle structure point (Fig.15).
- All four lower hinge bolts (vehicle *and* door frame) are torqued to **68 lb-in** (apply blue Loctite 242 or equivalent medium strength thread locker on all fastener threads (Fig.16)).

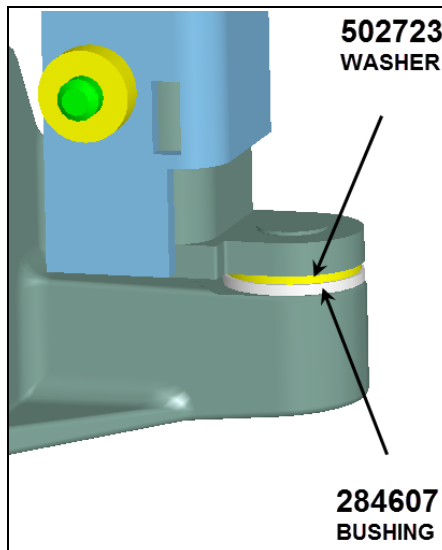


FIG.13 WASHER & BUSHING POSITION

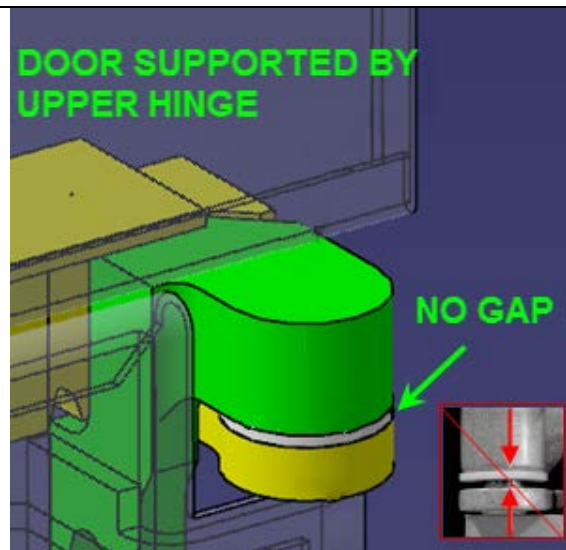


FIG.14 UPPER SUPPORT- NO GAP

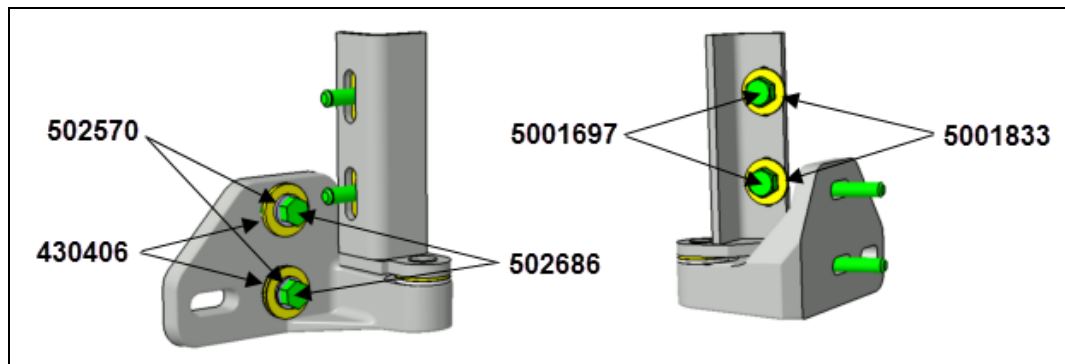


FIG.15 NEW HARDWARE TO BE INSTALLED - LOWER HINGE

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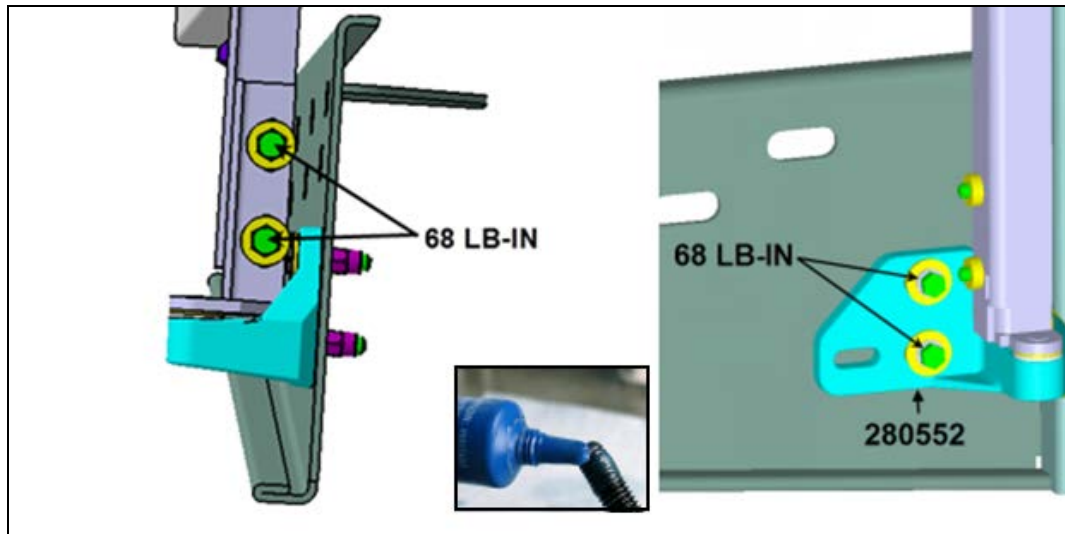


FIG.16 LOWER HINGE TIGHTENING TORQUE

- 6) Remove door support installed at step 2 and open and close the door several times to make sure it is working properly, check door top and side adjustments. There should be an even (parallel) gap of at least 0.080" (2mm) at the top of the door and a 0.177" +/- 0.060" (4.5 +/- 1.5 mm) gap between the door and the vehicle rear fender (Fig.17).

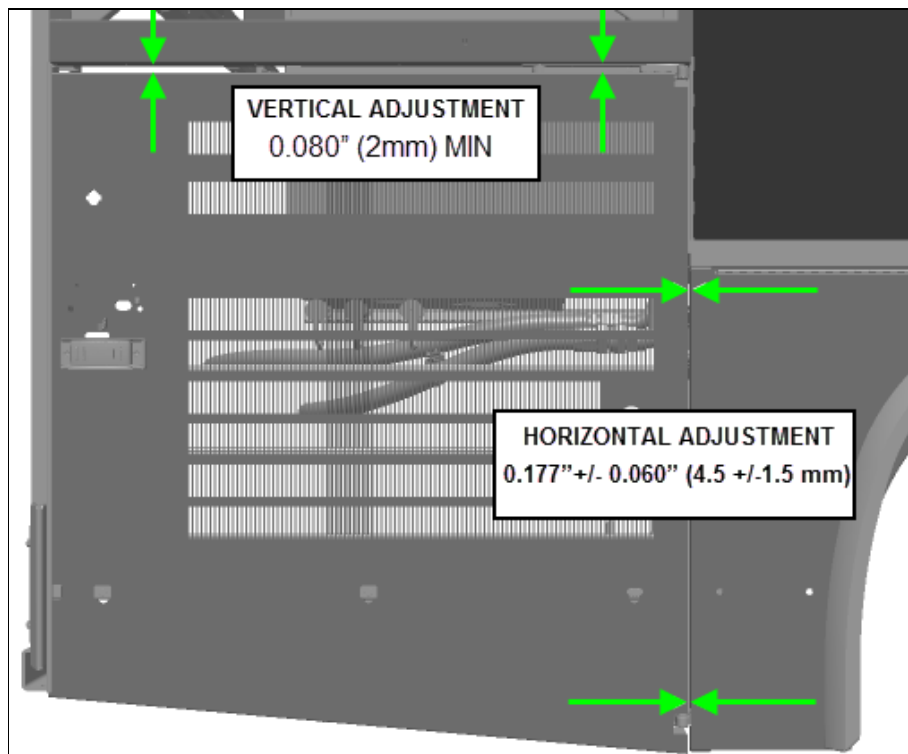


FIG.17 COMPRESSOR DOOR HORIZONTAL & VERTICAL GAPS

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NOTE

If gap is out of spec the compressor door may be adjusted for proper fit by untightening hinge bolts:

- *Loosen the bolts holding the hinge to the vehicle structure to shift the door horizontally LEFT or RIGHT.*
- *Loosen the bolts holding the hinge to the door frame to shift the door vertically UP or DOWN.*

- 7) With the door gaps correctly adjusted, re-apply blue, *medium strength thread locker* on the loosened bolts (one at the time – do not disturb adjustment), re-torque fasteners to the specified torque (**68 lb-in**) and apply a stripe of tamper proof indicator paint (torque seal) to all bolt heads (upper and lower hinges) (Fig.18).

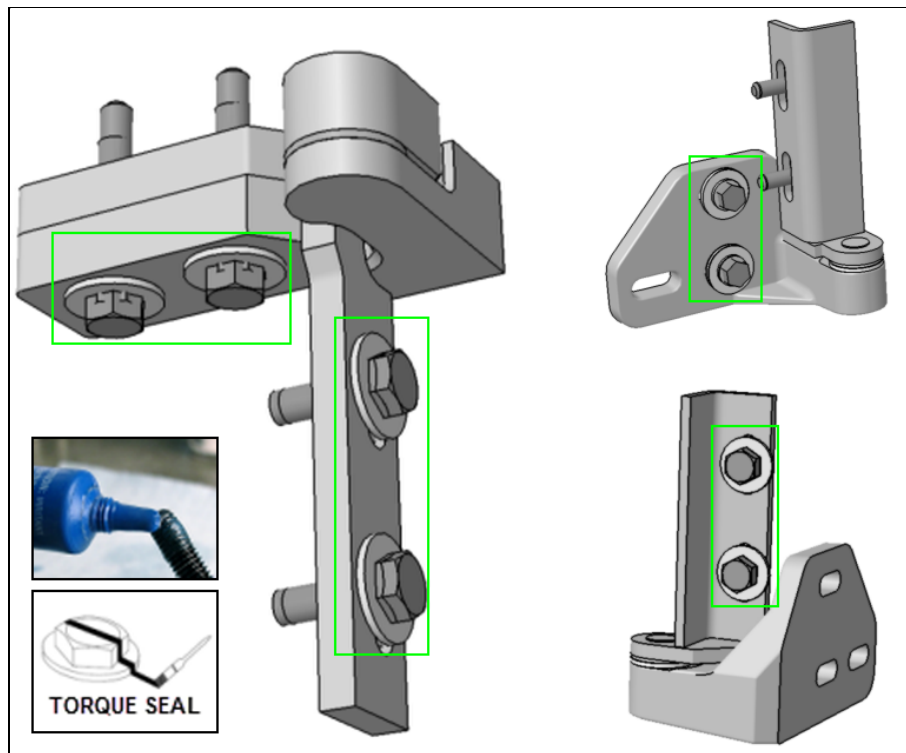


FIG.18 RE-APPLY THREAD LOCKER AS NECESSARY AND APPLY TORQUE STRIPE

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- 8) Drill a 1/4" hole in the middle of the lower hinge 3rd slot (Fig.19).

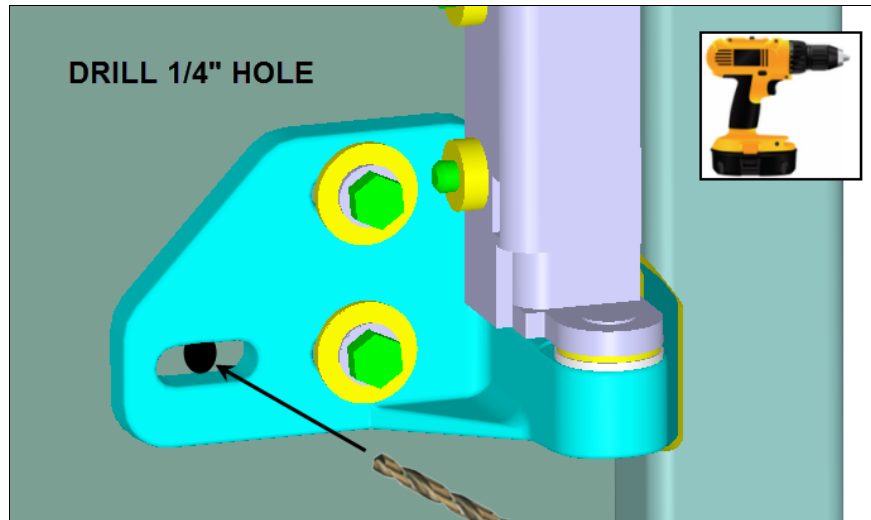


FIG.19 LOWER HINGE 3rd BOLT HOLE

- 9) Install the supplied bolt **502686**, nut **500851**, washer **430406** and lock washer **502570** in the previously drilled hole, Apply medium strength threadlocker and torque to **68 lb-in.** Apply a stripe of tamper proof indicator paint (torque seal) to the bolt head (Fig.20).

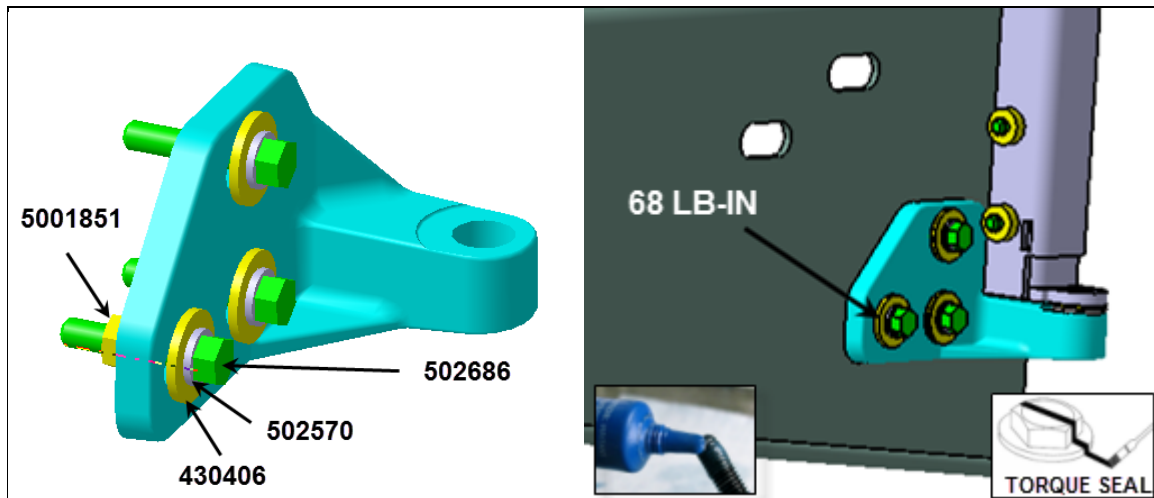


FIG.20 LOWER HINGE BOLT INSTALLATION & TIGHTENING TORQUE

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PART 3: DOOR REINFORCMENT PLATE INSTALATION

- 1) Remove the door support arm (unscrew from vehicle structure side) and move the arm out of the way (Fig.21).

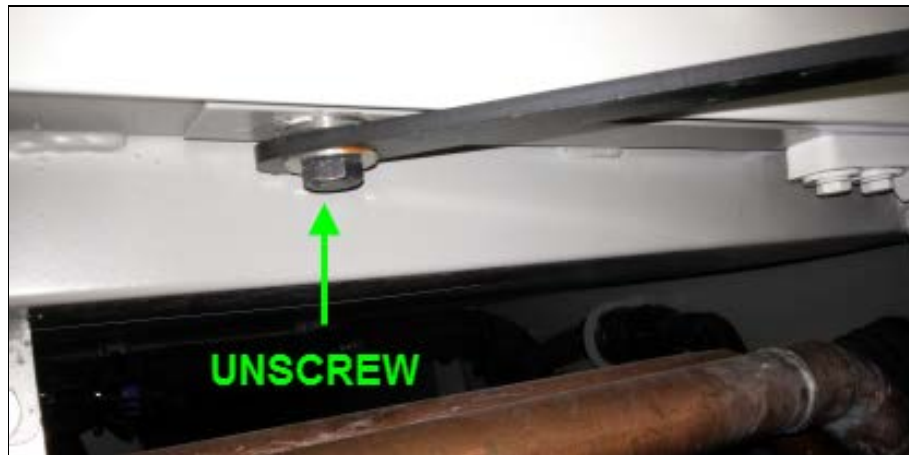


FIG.21 SUPPORT ARM REMOVAL

- 2) Open the compressor door at least 135deg to access the door frame section between the two hinges (Fig.22).

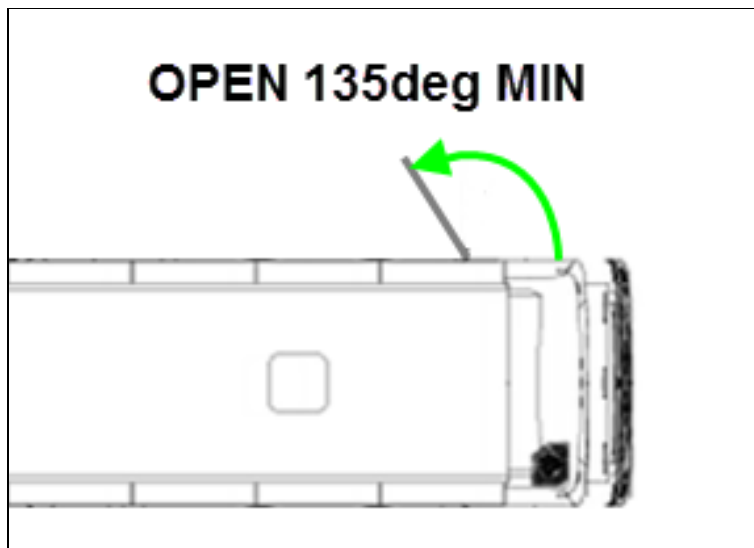


FIG.22 MIN DOOR OPENING

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- 3) Locate the tab holding the electric cable pass through (mid-part of door frame Fig.23).

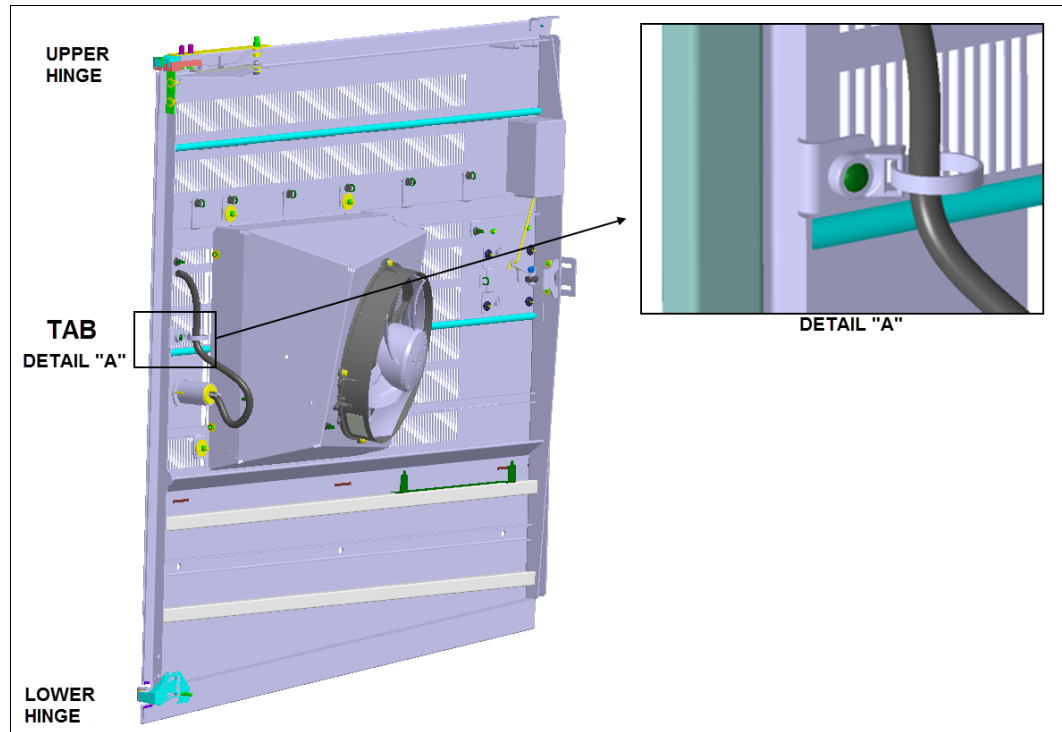


FIG.23 DOOR FRAME PART TO ADD REINFORCEMENT

- 4) Position the **280607** door reinforcement plate 2nd hole from the top at 1/2" from the door frame tab upper edge and *flush with the edge* of the frame (Fig.24).

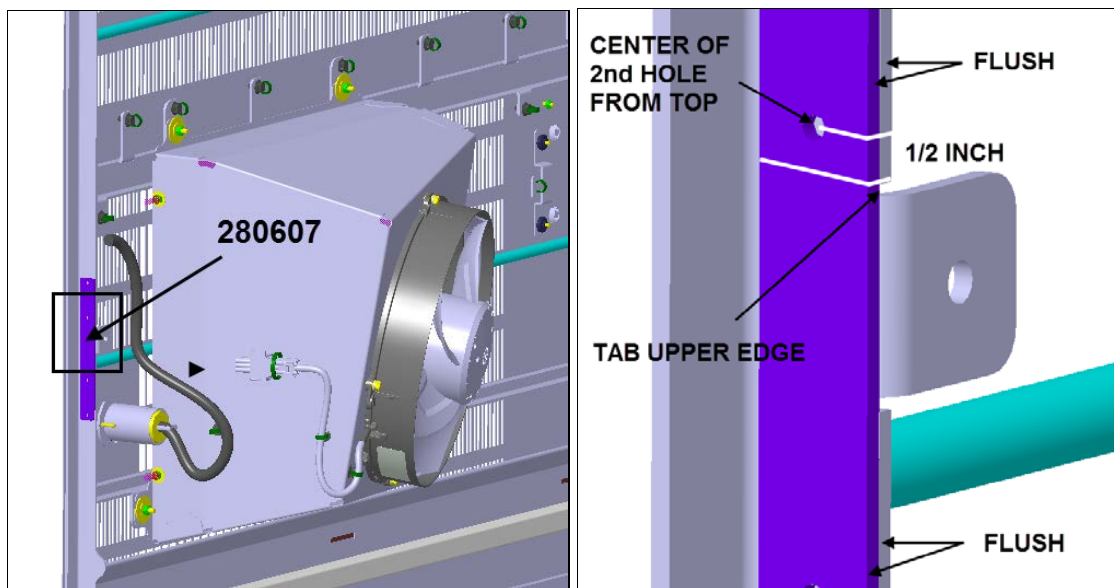


FIG.24 REINFORCEMENT PLATE POSITION

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- 5) Hold the plate in position using lock pliers or c-clamps (Fig.25).

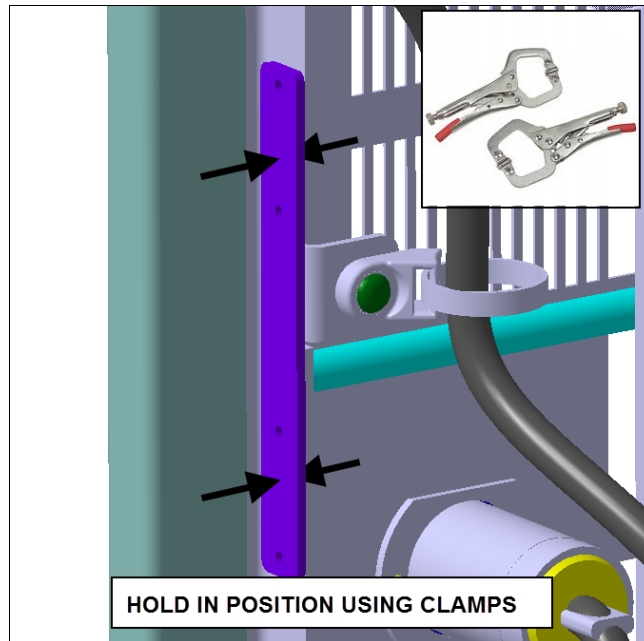


FIG.25 HOLDING PLATE IN POSITION

- 6) Use the 4 plate *pilot holes* as a guide and drill through the door frame and the plate holes with a #11 (0.191") drill bit and an electric hand drill (Fig.26).

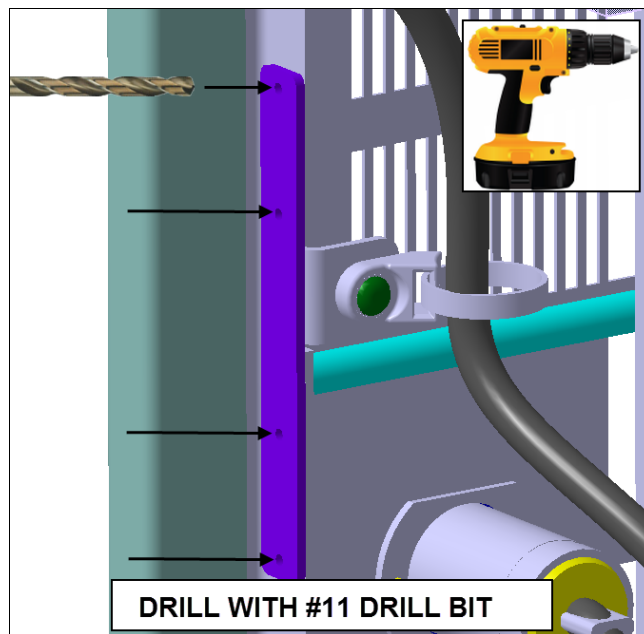


FIG.26 DRILLING PLATE & DOOR FRAME

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- 7) Using the 4 supplied **504379** 3/16" POP rivets and suitable hand riveter (POP rivet gun); rivet the plate to the door frame (Fig.27).

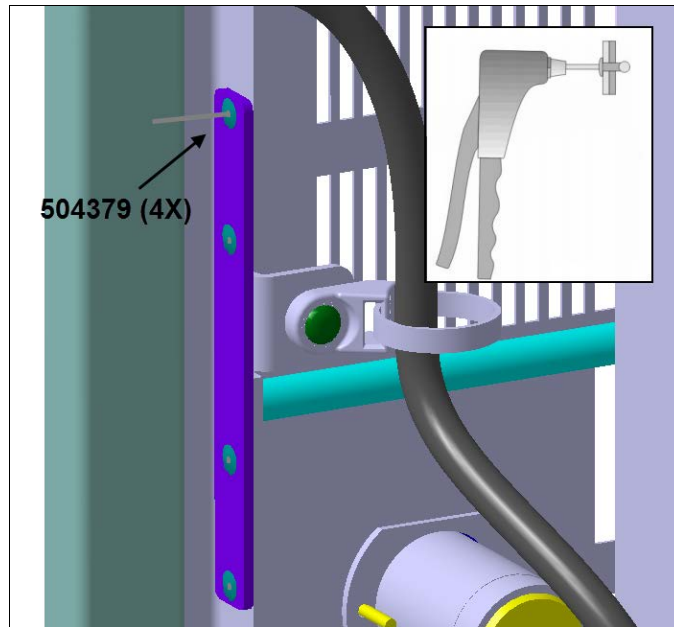


FIG.27 RIVETING THE PLATE

- 8) Reinstall the door support arm following hardware stacking order in Fig.28 below. Apply medium strength thread locker (blue Loctite 243 or equivalent) to the bolt threads and tighten just enough to feel a *slight* resistance between washers and arm when moving (no specific torque value applies here, arm movement must remain smooth).

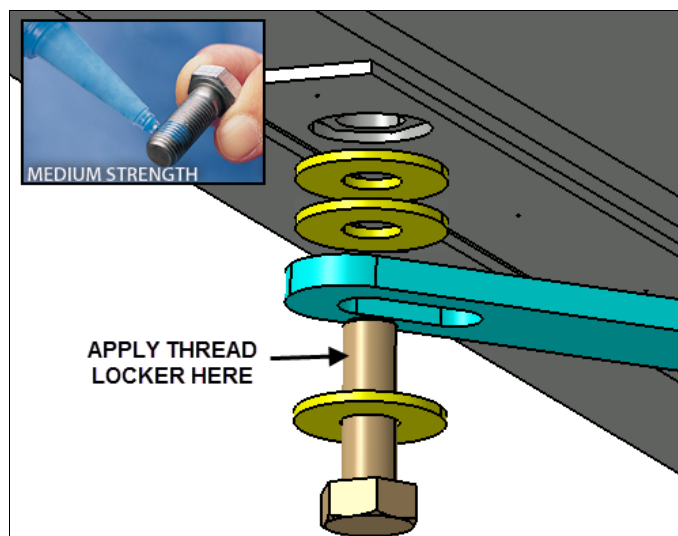


FIG.28 SUPPORT ARM HARDWARE STACKING ORDER

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- 9) Reset main circuit breakers and set the battery master switch (master cut-out) to the ON position.

PARTS / WASTE DISPOSAL

Return replaced parts to Prevost with A.F.A. for full reimbursement.
Discard waste according to applicable environmental regulations (Municipal/State[Prov.]/ Federal)

ESTIMATED TIME

The time required to perform this special bulletin is approximately one (1.0) hours.

OTHER

VBC Bulletin	N/A
Fail Code	18.05
Defect Code	09
Syst. Cond	B
Causal Part	288945

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