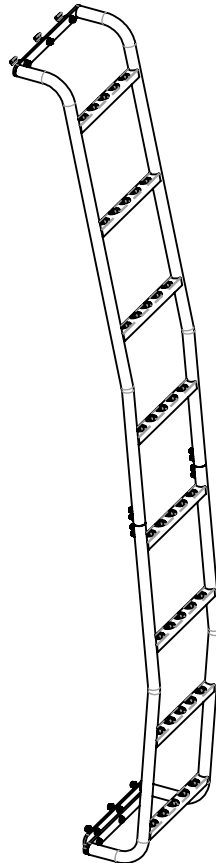




MERCEDES SPRINTER HSLD LADDER INSTALLATION INSTRUCTIONS



REVISION 1
9/7/2023

WARNING

- Ladders are dangerous and should only be used with appropriate training.
- Incorrect use of ladders can result in injury or death.
- The persons that purchase and now own the Unaka Transit ladder are responsible for putting together and enforcing an appropriate safety procedure that outlines how the ladder is used, what fall protection is required, what other personal protective equipment is required, and who has access to the ladder.
- The Unaka Sprinter ladder is a service ladder used to help access the roof of the van in order to help clean or work on solar panels. If frequent roof access is required or access to other parts of the van roof not safely accessible using this ladder in the location it is installed, additional ladders or methods of access should be used.
- Fall Protection: Accessing the roof of your van will put you at extreme risk to potential falls which can result in injury or death. Appropriate fall protection should be used when accessing your van roof.
- For general use situations, OSHA requires that fall protection be provided at elevations of four feet in general industry workplaces.
- The list below outlines a few times when the ladder should not be used. These should be included in addition to any rules documented and put in place by the owner of the ladder:
 - Without appropriate fall protection and personal protective equipment
 - During storms
 - When wet from any source
 - Under the influence of drugs or alcohol
 - While the van is in motion

ADDITIONAL NOTES

- Ladders: All ladders are extremely dangerous if used improperly. The installation of the Sprinter Ladder requires the use of a separate ladder. Anyone using any ladder should follow the manufactures guidelines with respect to proper usage.
- Initial Loose Fit: Due to manufacturing tolerances of the Sprinter vans and these ladders, some hardware may need to be left loose initially to make installing the hardware easier. This is generally noted but, in some cases, other hardware may need to be loosened up so that all hardware can be installed, then tightened up.

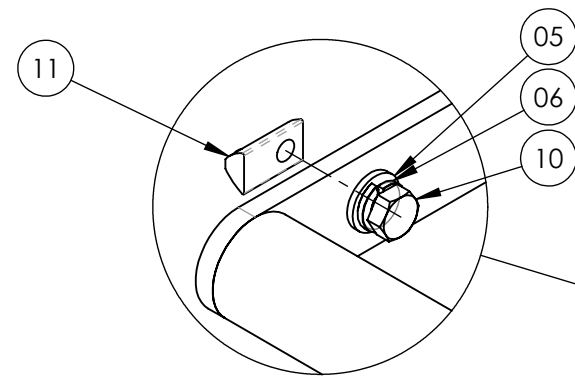
PREVENTATIVE MAITENANCE

- Even though we do not expect any of the hardware to come loose, we recommend checking your ladder hardware from time to time to minimize the chance of something coming loose over time. using the appropriate tools, perform re-tightening of the hardare over the following intervals:
 - Initial check after 4-7 days of moderate driving
 - Follow-up check one month after moderate driving
 - Routine checks every 3-4 months of moderate driving
 - Anytime after driving on harsh gravel or bumpy roads

REQUIRED TOOLS

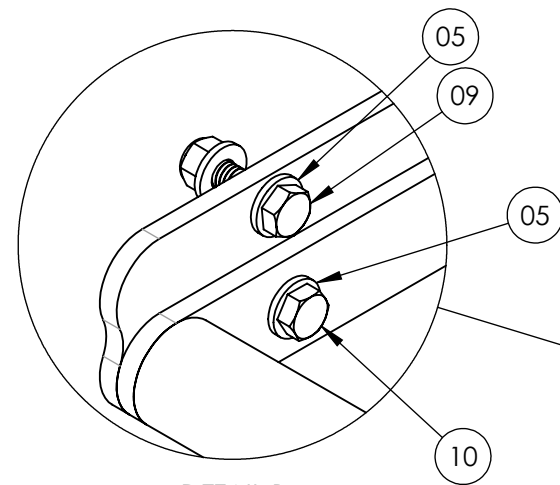
- A separate ladder
- Standard set of box wrenches
- Standard socket set
- Hand Drill, with 1/8" Drill Bit, and a 9/32 or 5/16" bit
- Metal file and or sandpaper (for cleaning holes in rib after drilling)
- Primer and paint (to protect holes after drilling)
- Torque Wrench
- Loctite 242 Threadlocker (Blue)



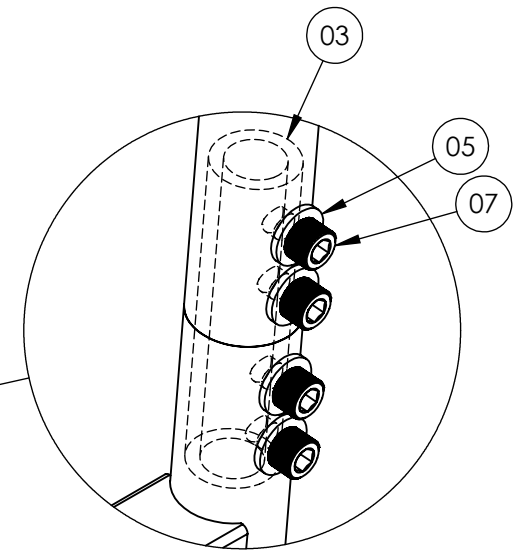
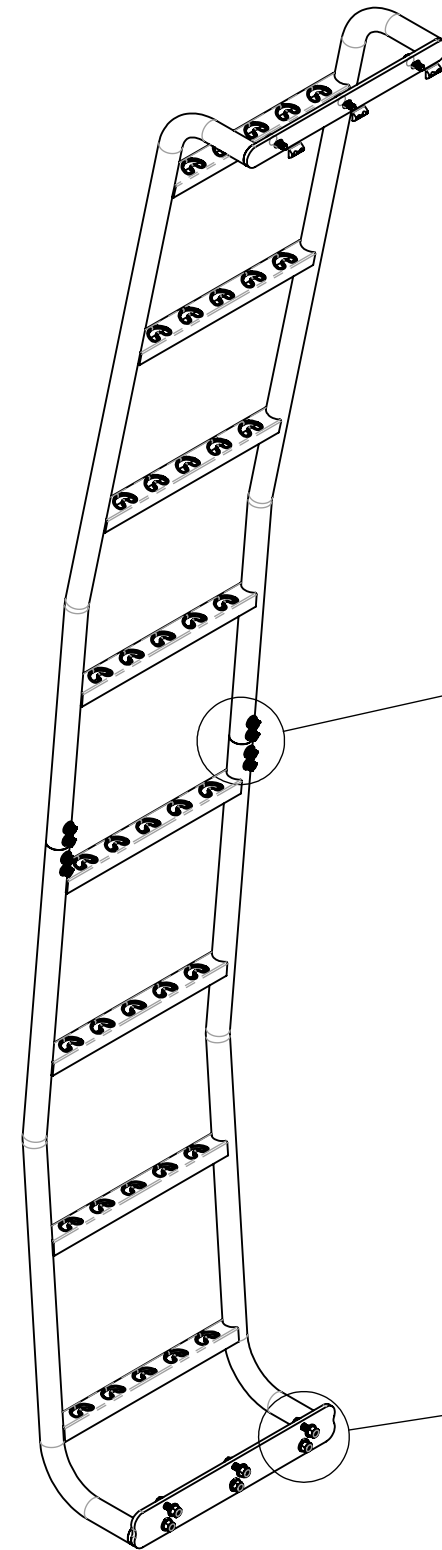
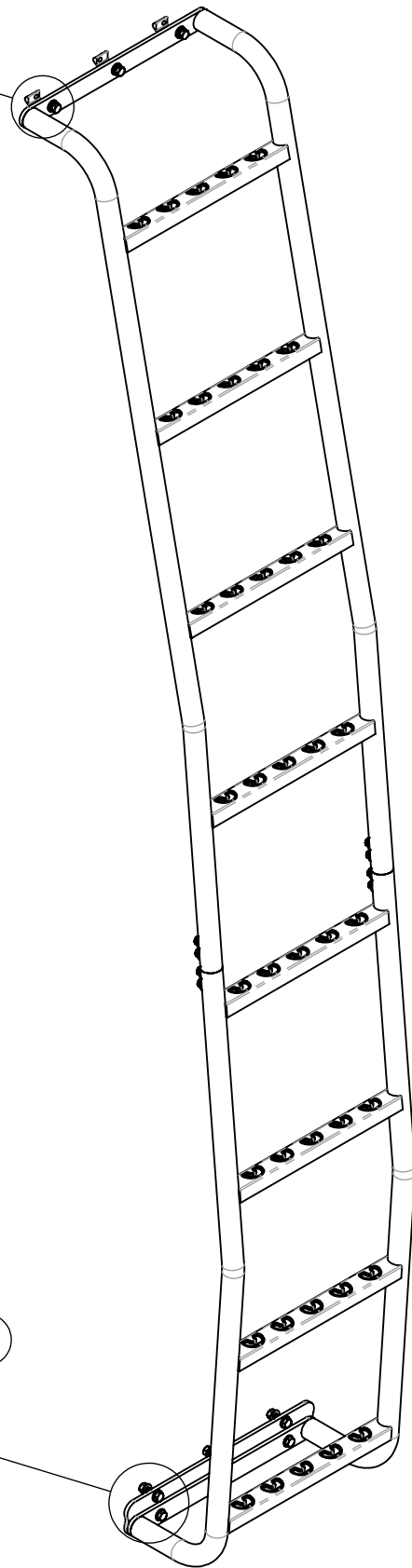


DETAIL D

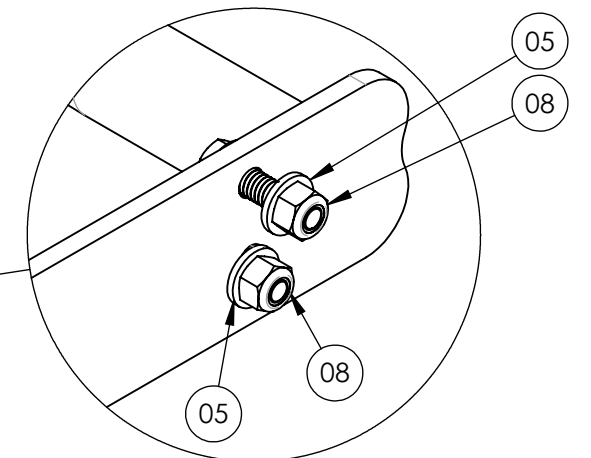
ITEM NO.	QTY.	PART NUMBER	DESCRIPTION
01	1	---	SPRINTER LADDER UPPER HALF
02	1	---	SPRINTER LADDER LOWER HALF
03	2	---	SPRINTER LADDER CONNECTOR
04	1	---	SPRINTER PINCH WELD PLATE
05	23	92141A030-BO	STAINLESS WASHER - 5/16in x OD 0.75in
06	3	92146A030	STAINLESS SPLIT LOCK WASHER - 5/16in
07	8	92196A337	STAINLESS SHCS - 5/16-24 L=5/8in
08	6	91831A030	STAINLESS LOCKNUT - 5/16-18
09	3	92240A584	STAINLESS HEX SCREW - 5/16-18 L=1.25in
10	6	92240A583-BO	STAINLESS HEX SCREW - 5/16-18 L=1in
11	3	13021	ROLL IN T-NUT, 5/16-18 THREAD



DETAIL B



DETAIL C

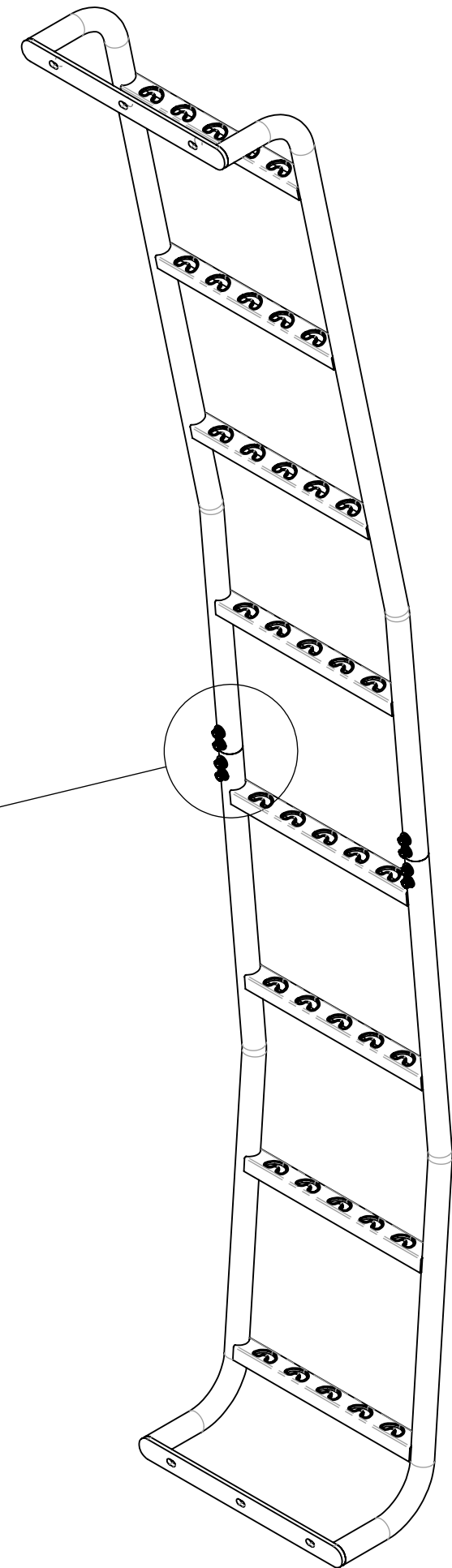
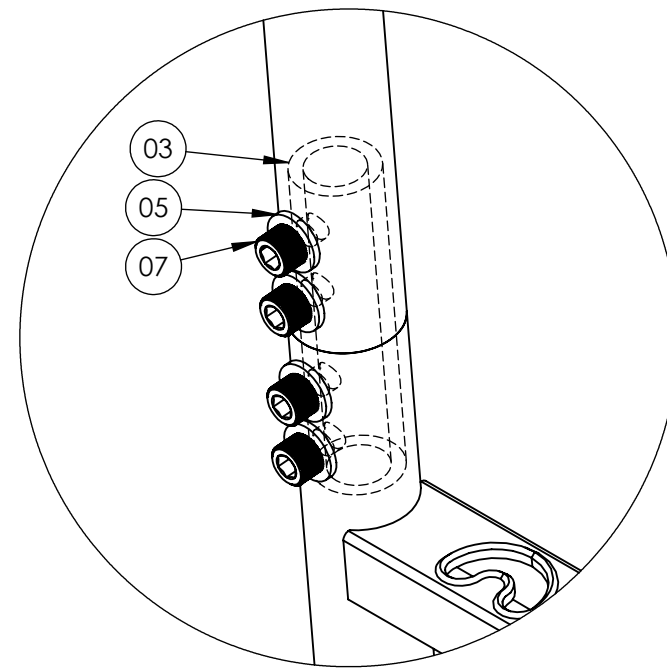


DETAIL A

STEP 1

ASSEMBLE THE UPPER/LOWER LADDER HALVES

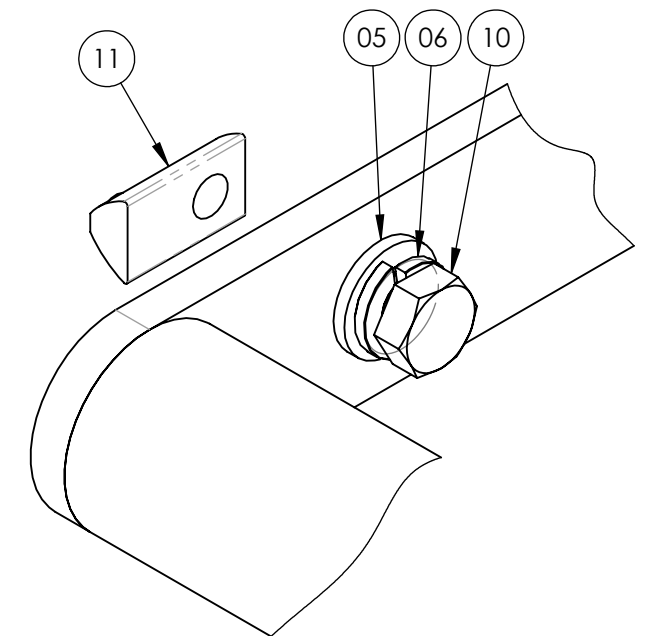
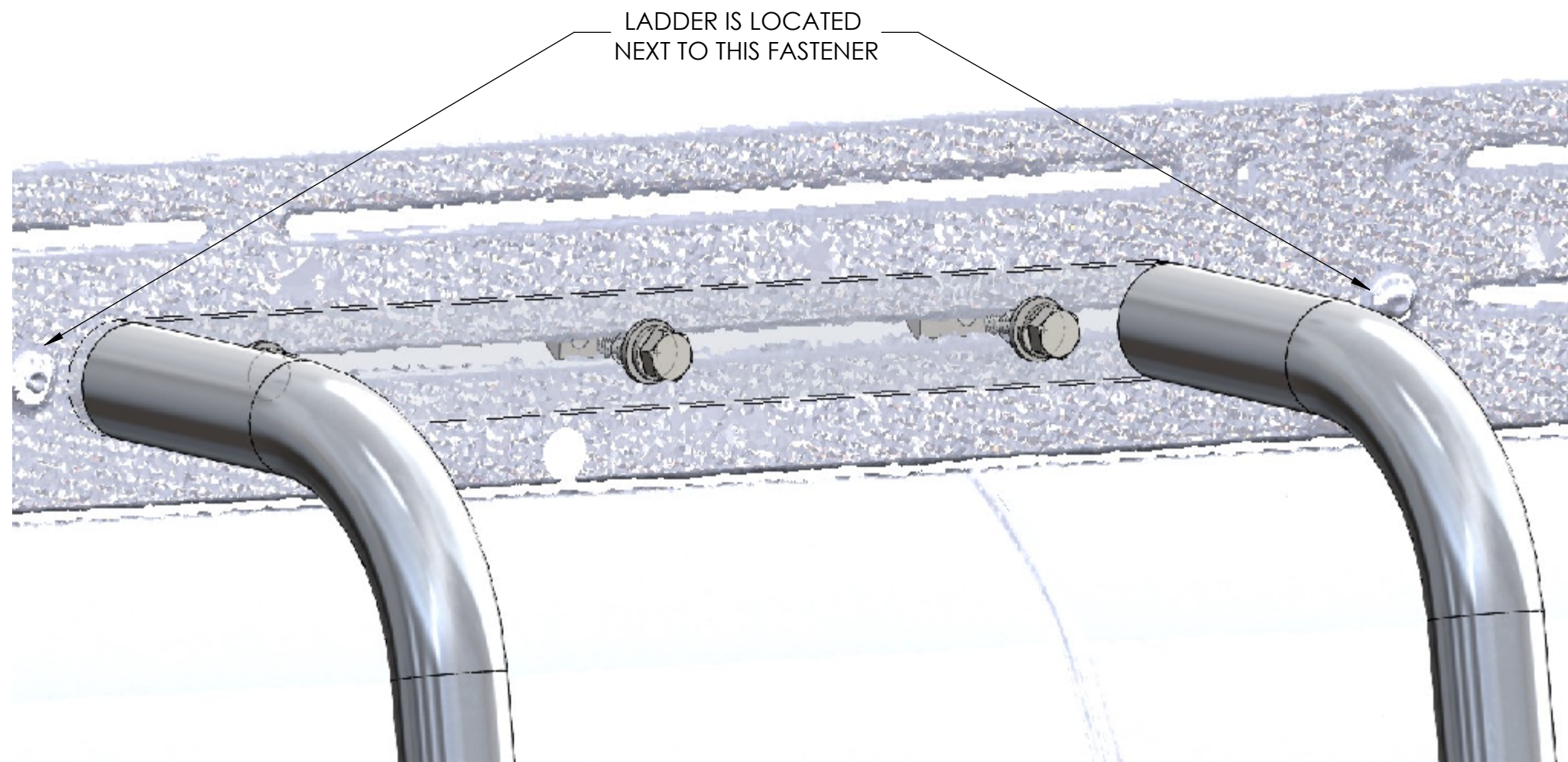
- VERY CAREFULLY HOLD AND INSERT EACH CONNECTOR TUBE INTO THE UPPER LADDER TUBES
- SECURE THE CONNECTOR TUBES USING THE SUPPLIED HARDWARE
- TIGHTEN HARDWARE HAND TIGHT UNTIL THE END OF THE INSTALL
- ASSEMBLE THE LOWER HALF ON TO THE CONNECTORS
- SECURE THE CONNECTOR TUBES USING THE SUPPLIED HARDWARE
- TIGHTEN HARDWARE HAND TIGHT UNTIL THE END OF THE INSTALL



STEP 2

INSTALL LADDER ON TO HSLD PLATE

- LINE UP THE TOP OF THE LADDER BETWEEN THE HSLD PLATE FASTENERS SHOWN BELOW, JUST IN FRONT OF THE REAR TIRE
- INSTALL ROLL-IN T-NUTS TO WHERE THE UPPER LADDER HALF WILL BE LOCATED
- INSTALL 3x ITEM 05 WASHER / 3x ITEM 06 LOCK WASHER / 3x ITEM 10 SCREWS TO SECURE UPPER LADDER HALF TO HSLD PLATE
- APPLY BLUE LOCTITE 242 TO THE HEX SCREWS.
- TIGHTEN HEX SCREWS HAND TIGHT AT THIS TIME

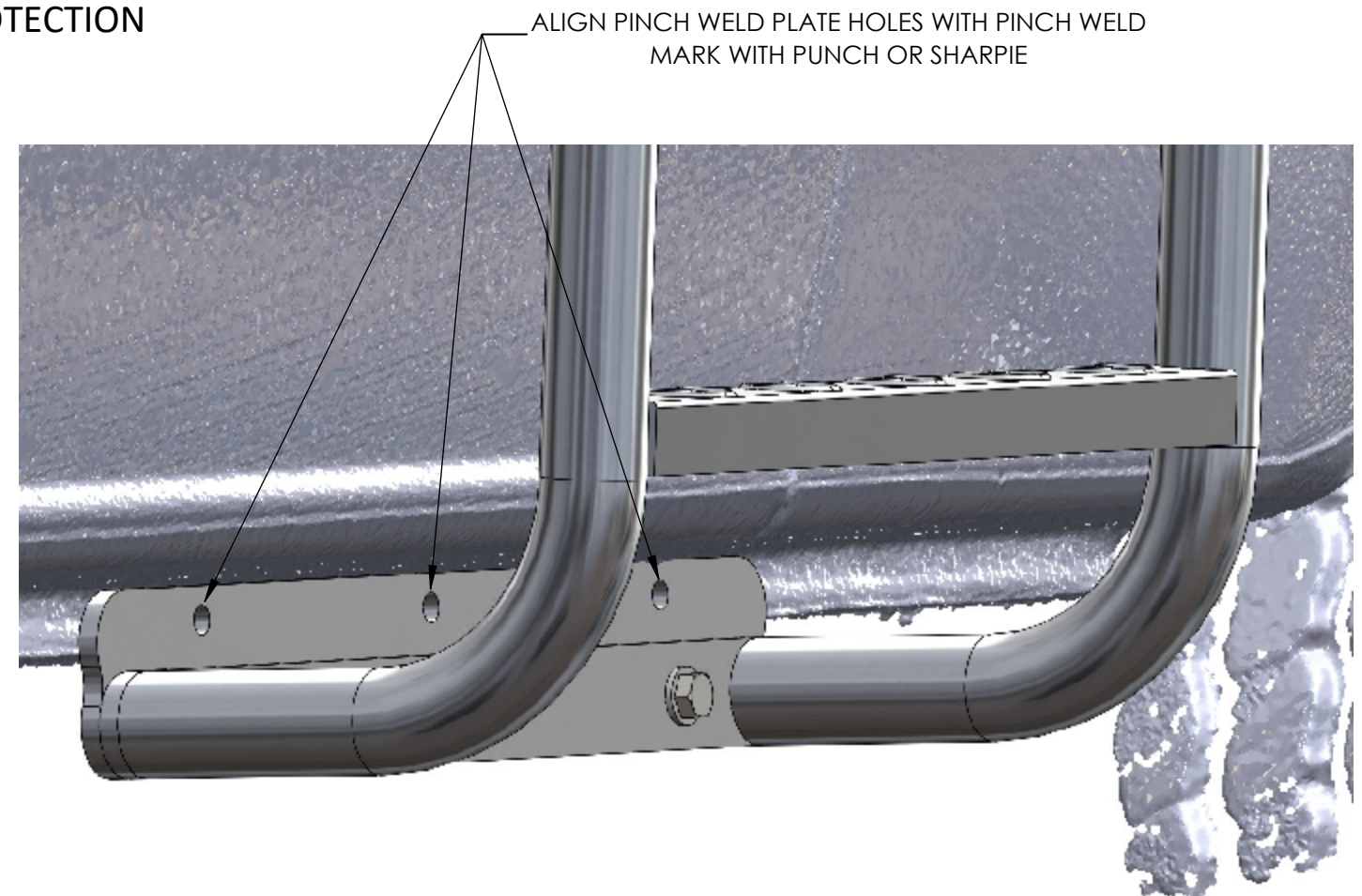
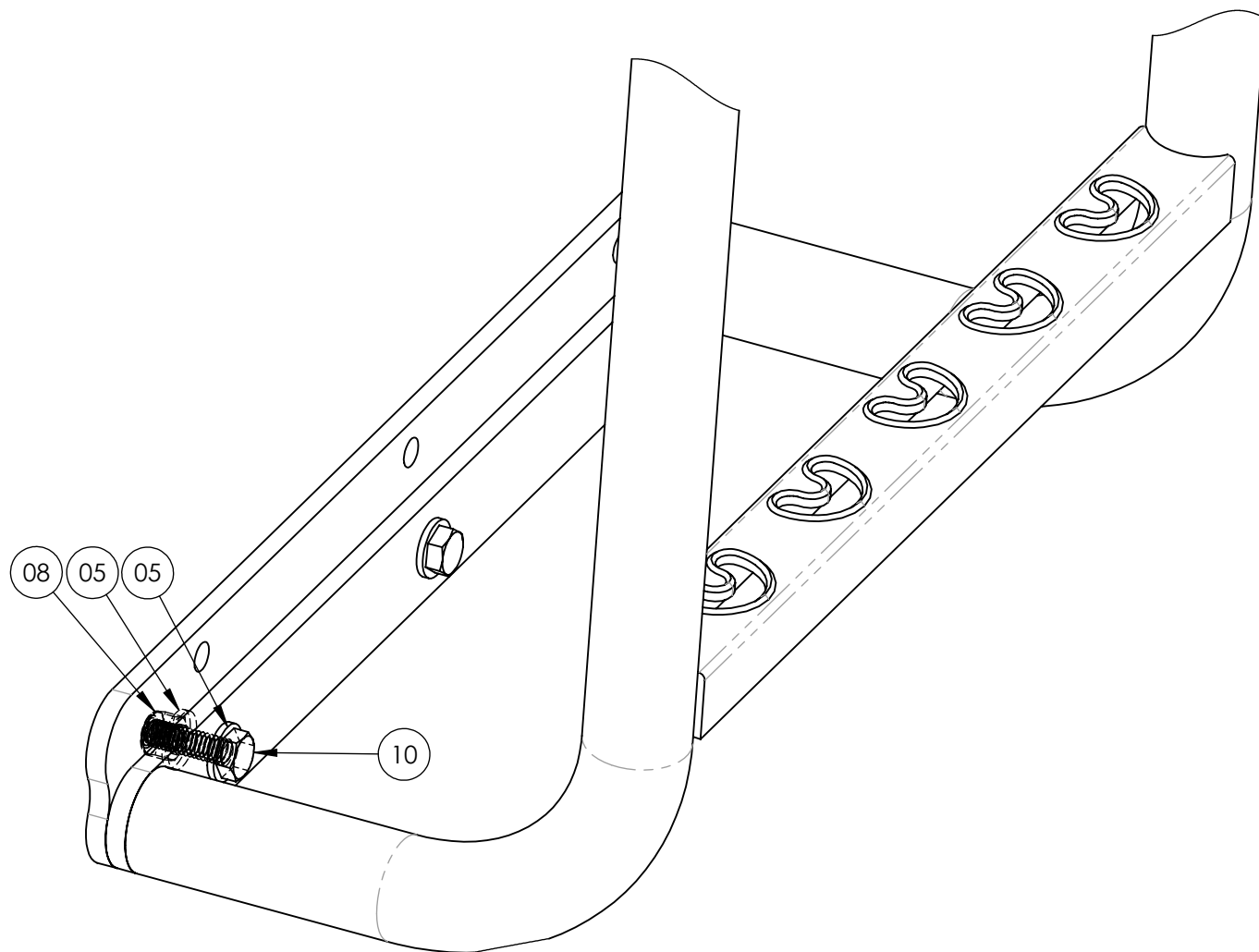


STEP 3

A: INSTALL PINCH WELD PLATE ON TO BOTTOM OF LADDER FOR PINCH WELD DRILLING

B: PINCH WELD DRILLING

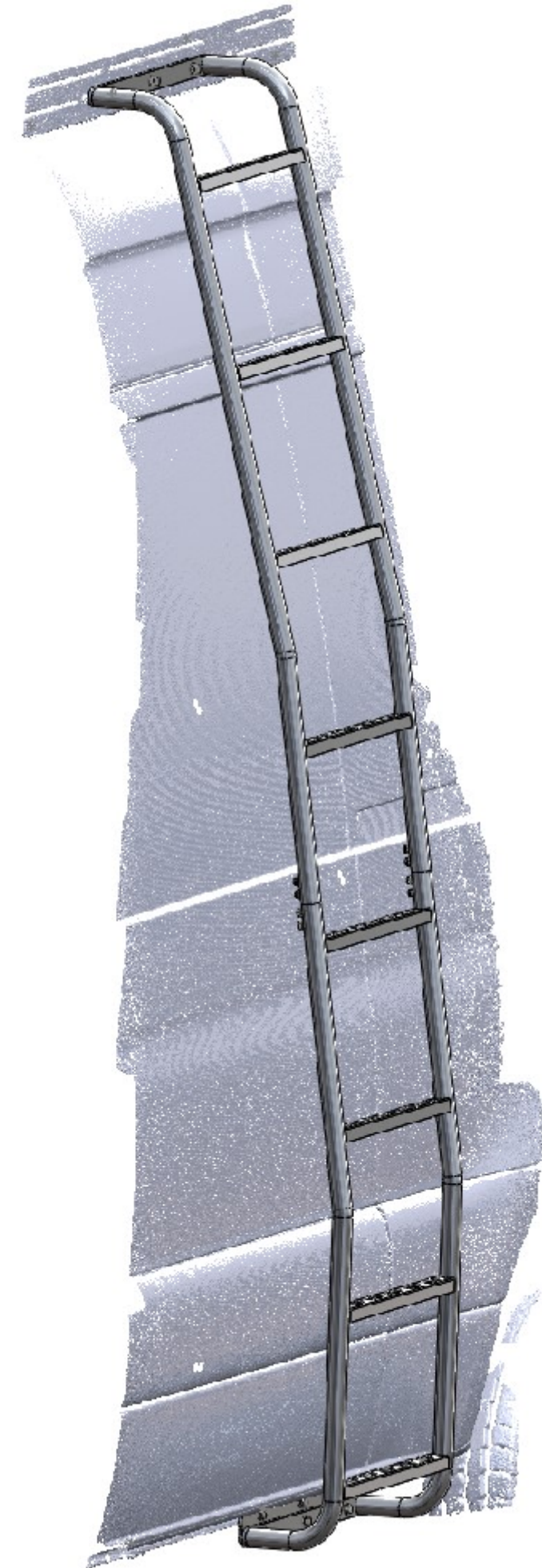
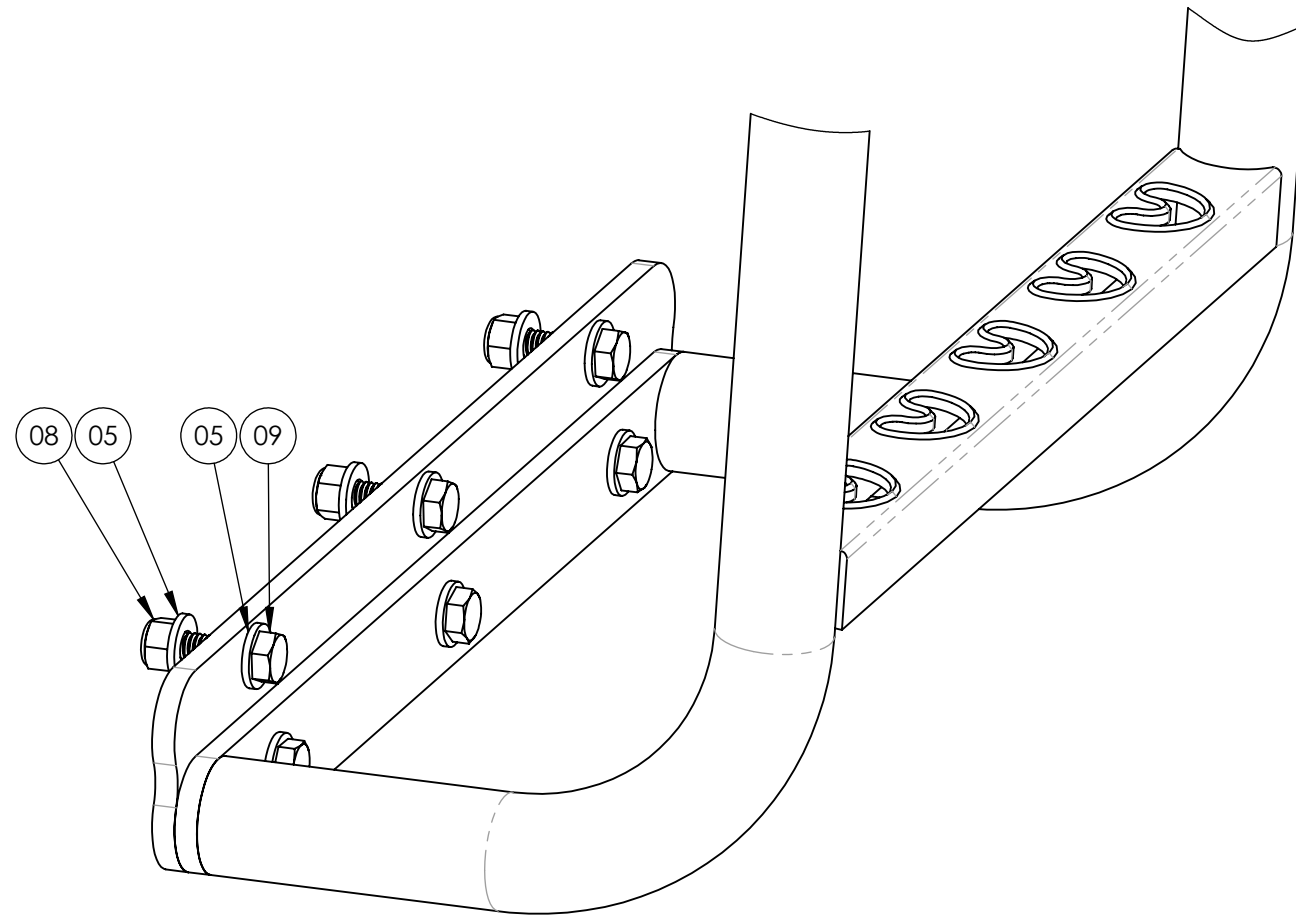
- ASSEMBLE THE PINCH WELD PLATE TO THE BOTTOM OF THE LADDER USING THE SUPPLIED HARDWARE
- LEAVE HARDWARE HAND TIGHT AT THIS TIME
- LINE THE LADDER AND PLATE SO THAT THE PINCH WELD PLATE HOLES MEET THE PINCH WELD
- WHEN MARKING FOR HOLE DRILLING, MAKE SURE LADDER IS TIGHT ON THE HSLD RACK AND PERPENDICULAR TO THE GROUND
- AFTER MARKING HOLES, REMOVE LADDER FROM THE VAN OR REMOVE LOWER HALF FROM UPPER HALF (TO HAVE ROOM TO DRILL HOLES)
- DRILL 1/8IN PILOT HOLES
- DRILL 3/8IN HOLES
- CLEAN HOLES OF ANY SHARP EDGES AND BURRS
- PAINT HOLES WITH ANY SPRAY PRIMER/PAINTE LIKE RUSTOLEUM FOR RUST PROTECTION



STEP 4

FINAL INSTALL OF LADDER ON TO THE VAN

- WITH HOLES CLEAN AND PAINTED, INSTALL THE LADDER ASSEMBLY BACK ON TO THE VAN
- ATTACH TO HSLD PLATE FIRST
- LINE UP BOTTOM OF LADDER/PINCH WELD PLATE WITH NEW HOLES IN PINCH WELD
- INSTALL SUPPLIED HARDWARE FOR THE PINCH WELD CONNECTION
- TIGHTEN ALL HARDWARE FULLY ONCE ALL HARDWARE AT EVERY JOINT IS INSTALLED BY HAND
- RECOMMENDED TORQUE FOR ALL FASTENERS IS 20 LB-FT
- ENJOY YOUR NEW LADDER!



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