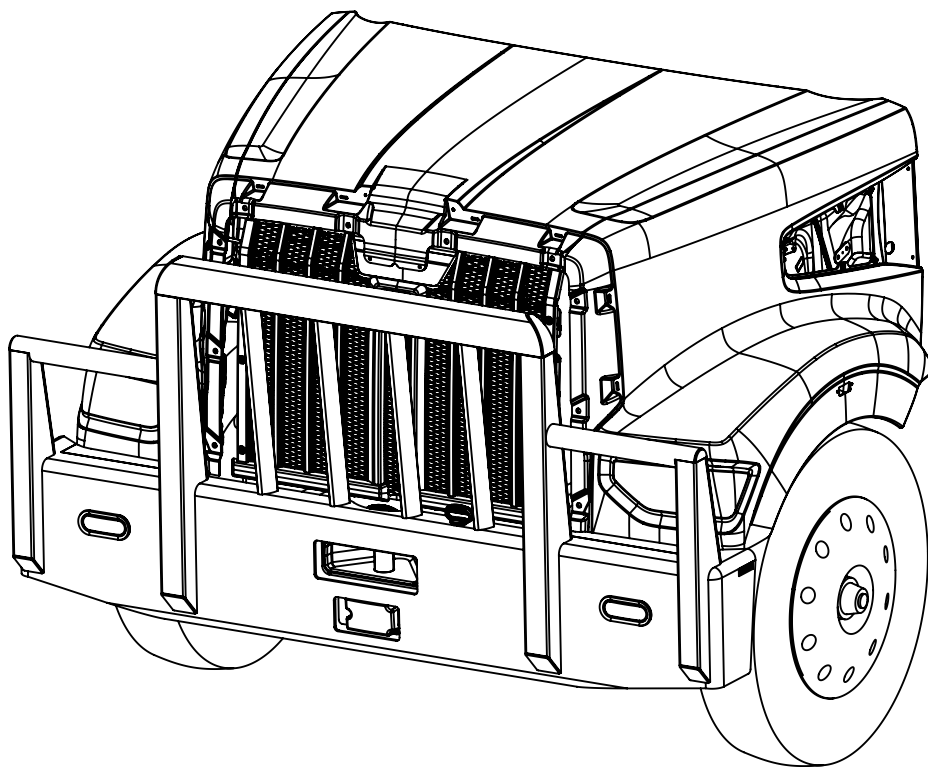




INSTALLATION GUIDE

MODEL NUMBER: 17305

TRUCK MODEL: 2021+ WESTERN STAR 49X SET FORWARD AXLE (LOGGER)



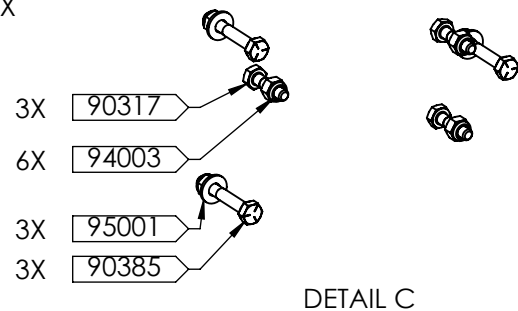
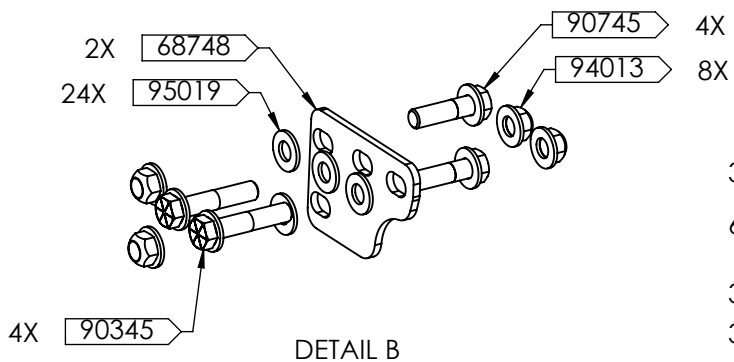
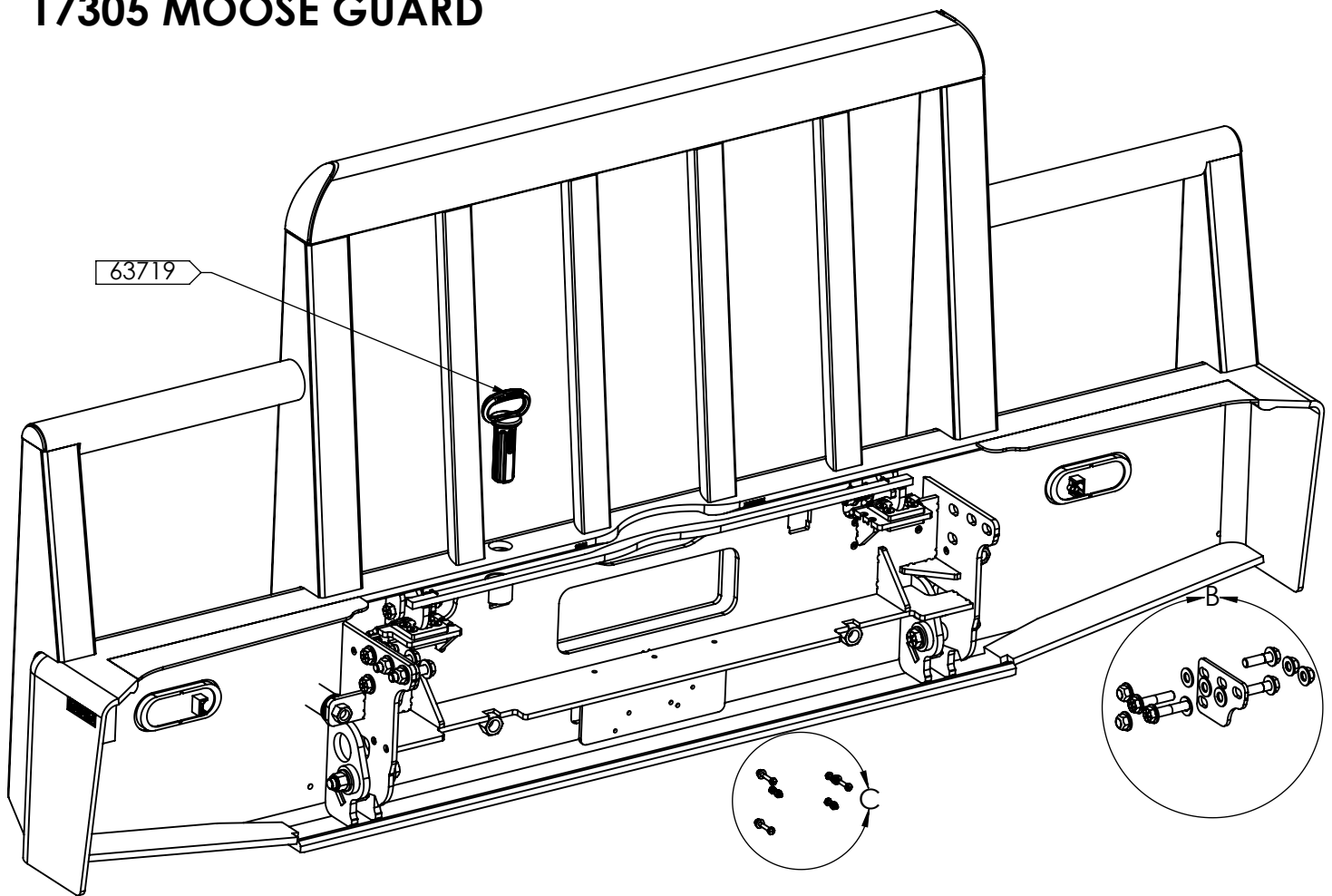
IMPORTANT INFORMATION

- THIS GUIDE IS ONLY APPLICABLE TO PRODUCTS AND TRUCK MODELS SPECIFIED.
- THE CORRECT SIZE AND GRADE OF HARDWARE SPECIFIED IN THIS GUIDE MUST BE USED.
- CHECK ALL MOUNTING POINTS AFTER THE FIRST 5000KM'S IN SERVICE AND PERIODICALLY THERE AFTER. RE-TORQUE IF NECESSARY.
- RECOMMENDED ADDING THREADLOCKER (LOCTITE BLUE 242) TO ALL THREADS BEFORE INSTALLING.
- ALL MAGNUM PRODUCTS MUST BE INSTALLED ACCORDING TO THIS INSTALLATION GUIDE. ANY DEVIATIONS MAY RESULT IN VOID OF WARRANTY.
- ANY ALTERATIONS TO THE PRODUCT MAY RESULT IN VOID OF WARRANTY.

SAFETY INFORMATION

- PROPER PERSONAL PROTECTIVE EQUIPMENT MUST BE WORN WHEN INSTALLING THIS PRODUCT.
- SOME PARTS OF THIS PRODUCT MAY BE HEAVY OR AWKWARD TO HANDLE. USE CAUTION WHEN HANDLING.

17305 MOOSE GUARD



SEE NEXT PAGE FOR LIST OF PARTS INCLUDED

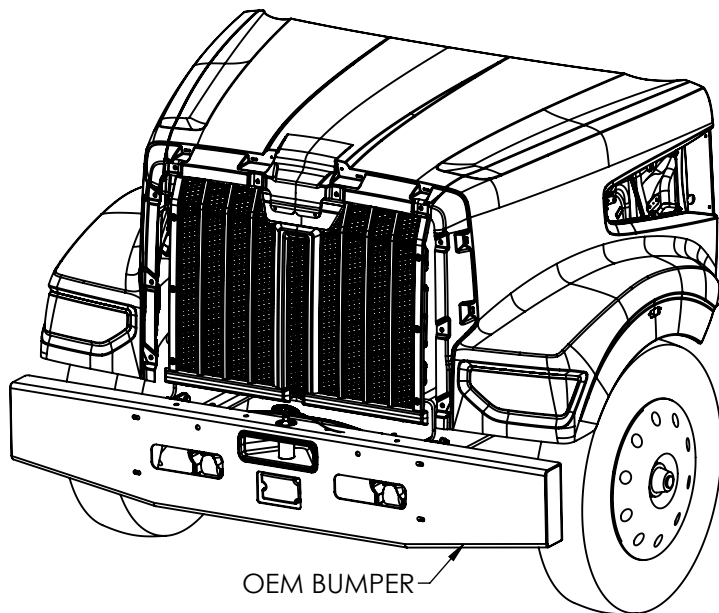


ASSEMBLY KIT PARTS

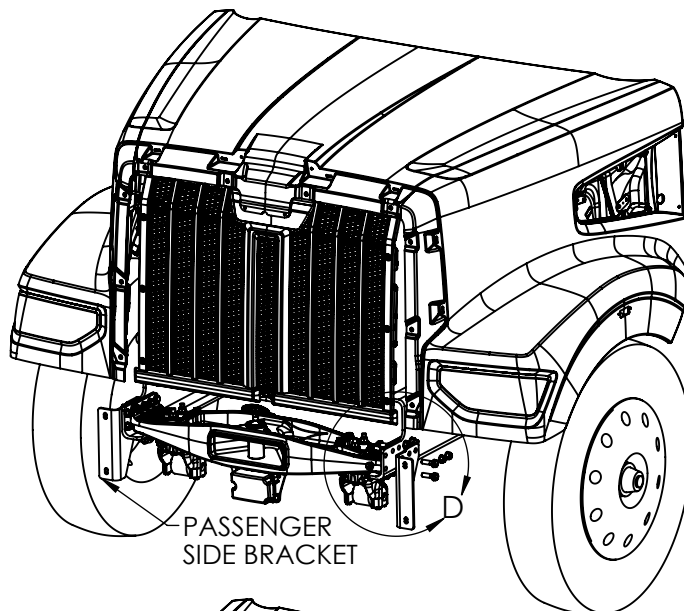
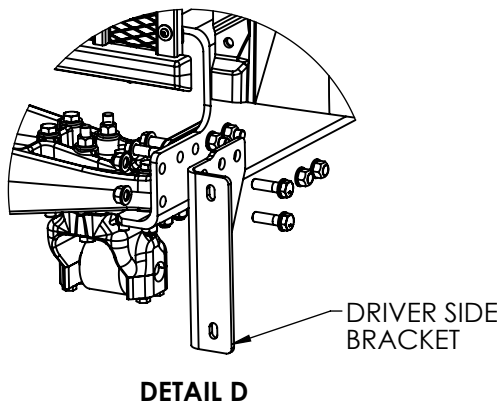
ITEM#	DWG	DESCRIPTION	MAT'L	DIMENSIONS	WT. EA	STOCK #	QTY.
63719	PA	SHORT CAST LATCH PIN (4-1/2 IN)	65-45-12 CAST IRON	SEE PA - 63719	2.8	131663	1
68748	PA	SIDE SPACER	44W	SEE PA - 68748	1.2	133171	2
90317		HEX CAPSCREW - PLATED	GR. 5	1/4" NC X 1"	.022	101551	3
90345		HEX HEAD BOLT - PLATED	GR. 8	5/8" NC X 3"	.34	101980	4
90385		HEX HEAD BOLT - PLATED	GR. 5	1/4" NC X 1 3/4"	.033	101554	3
90745		HEX CAPSCREW - PLATED	GR. 8	5/8" NC X 2 1/4"	.28	101978	4
94003		NYLOC HEX NUT - PLATED	GR. 2	1/4" NC	.0097	101459	6
94013		STOVER NUT - PLATED	GR. C	5/8" NC	.063	101481	8
95001		FLAT WASHER - PLATED	GR. 2	1/4" DIA SAE	.0043	102157	3
95019		FLAT WASHER - PLATED	GR. 8	5/8" DIA SAE	.035	102172	24

INSTALLATION PROCEDURE

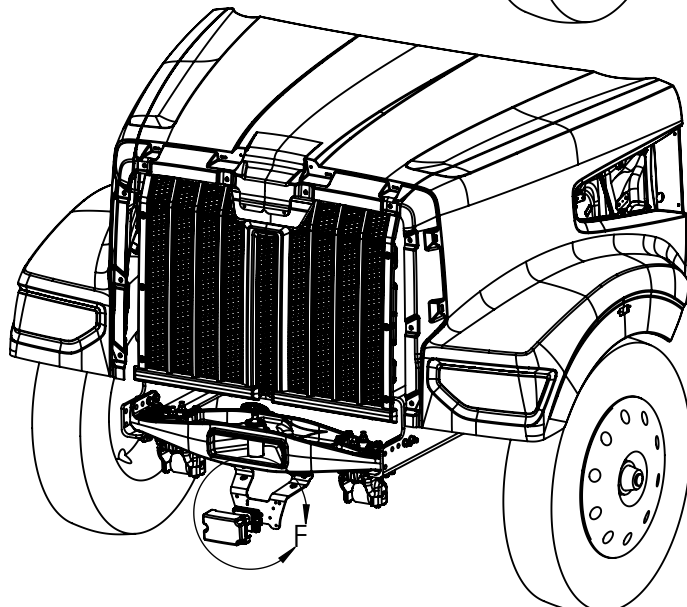
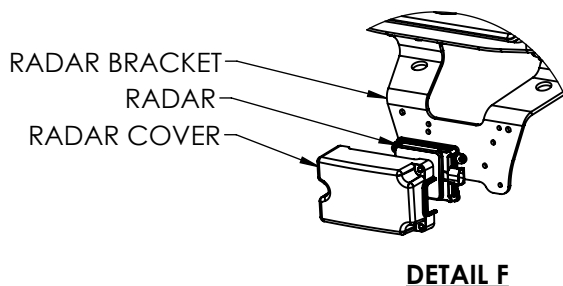
1. UNINSTALL THE OEM BUMPER BY REMOVING THE FOUR BOLTS LOCATED ON THE FRONT OF THE BUMPER.



2. UNINSTALL THE PASSENGER SIDE TRUCK BRACKET AND DRIVER SIDE TRUCK BRACKET.

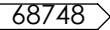


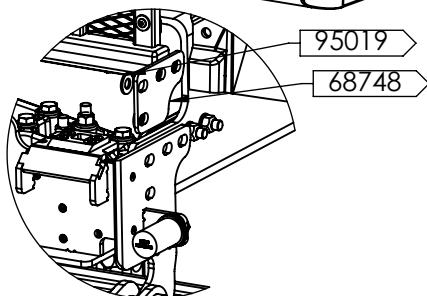
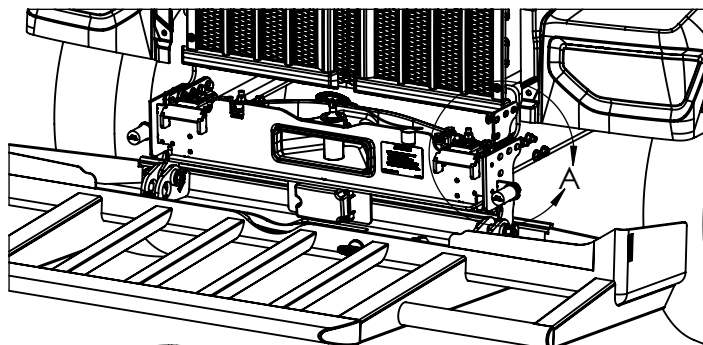
3. UNINSTALL THE RADAR, RADAR COVER AND RADAR BRACKET FROM TRUCK. KEEP THE RADAR AND COVER FOR LATER INSTALLATION ON THE MOOSE GUARD.



INSTALLATION PROCEDURE

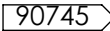
6. POSITION THE STEEL ASSEMBLY OF THE MOOSE GUARD OVER THE TRUCK FRAME. ALIGN THE HOLES IN THE FRAME WHERE THE OEM BRACKETS WERE REMOVED WITH THE SLOTS IN THE STEEL ASSEMBLY.

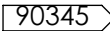
7. ADD THE  SPACER ON BOTH SIDES OF THE TRUCK BETWEEN THE STEEL ASSEMBLY AND THE TRUCK FRAME. EIGHT ADDITIONAL  WASHERS ARE PROVIDED IF THERE IS MORE OF A GAP THEN THE SPACER CAN FILL.



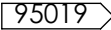
DETAIL A

8. ATTACH THE GUARD TO THE TRUCK USING THE SUPPLIED HARDWARE:

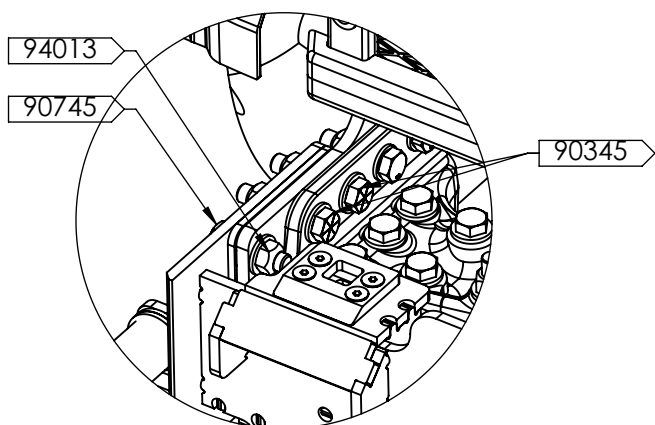
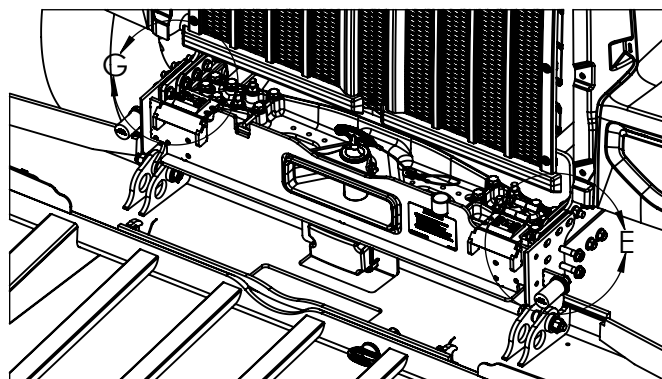
4 X  BOLTS

4 X  BOLTS

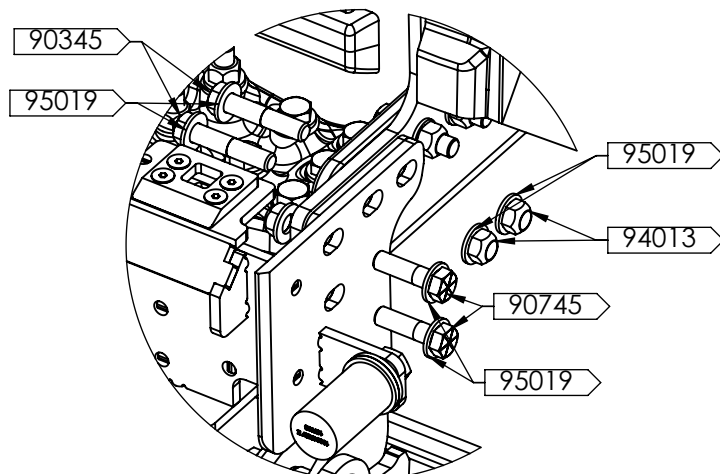
8 X  NUTS

16 X  WASHERS

TORQUE TO 160 FT-LBS (LUBRICATED) / 210 FT-LBS (DRY).



DETAIL G



DETAIL E

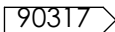


INSTALLATION PROCEDURE

NOTE:

RADAR MUST BE ALIGNED AND RE-CALIBRATED AFTER GUARD INSTALLATION. ALIGNMENT AND CALIBRATION CAN ONLY BE DONE BY AUTHORIZED PERSONNEL.

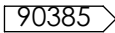
9. INSTALL THE RADAR ON THE RADAR PLATE USING THE FOLLOWING HARDWARE:

3 X  BOLTS

3 X  NUTS

TORQUE TO 6 FT-LBS (LUBRICATED) / 8 FT-LBS (DRY).

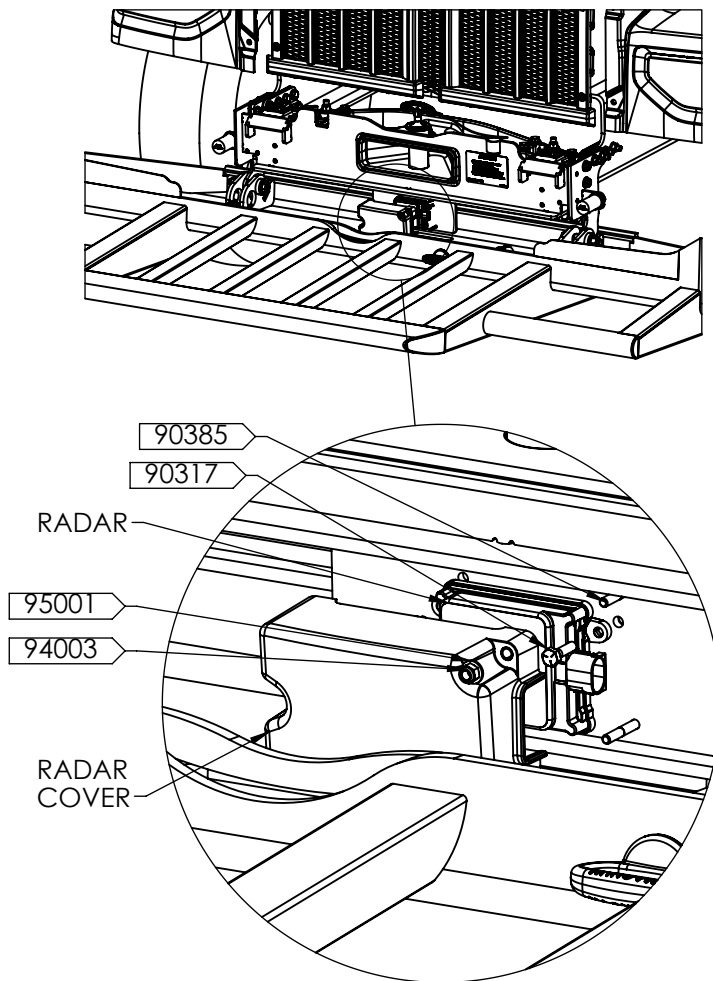
10. INSTALL THE RADAR COVER ON THE RADAR PLATE USING THE FOLLOWING HARDWARE:

3 X  BOLTS

3 X  NUTS

3 X  WASHERS

TORQUE TO 6 FT-LBS (LUBRICATED) / 8 FT-LBS (DRY).



DETAIL H

CLOSE THE GUARD WITH CARE AND:

A. REVIEW FOR ANY INTERFERENCES THAT MIGHT OCCUR.

B. CHECK FOR ANY UNWANTED RATTLES OR MOVEMENTS OF THE GUARD.

IF YOU HAVE ANY QUESTIONS OR CONCERNS PLEASE REACH OUT TO US.

IF EVERYTHING LOOKS GOOD, THE INSTALL IS COMPLETE, AND PLEASE REMEMBER TO CHECK FOR RATTLES AND UNWANTED MOVEMENTS PERIODICALLY. IF LATCH REQUIRES ADJUSTMENTS, INSTRUCTIONS CAN BE FOUND ON OUR WEBSITE (<https://magnumtrailer.com/resources/moose-bumper-maintenance-service-instructions/>).

THANK YOU FOR CHOOSING MAGNUM.