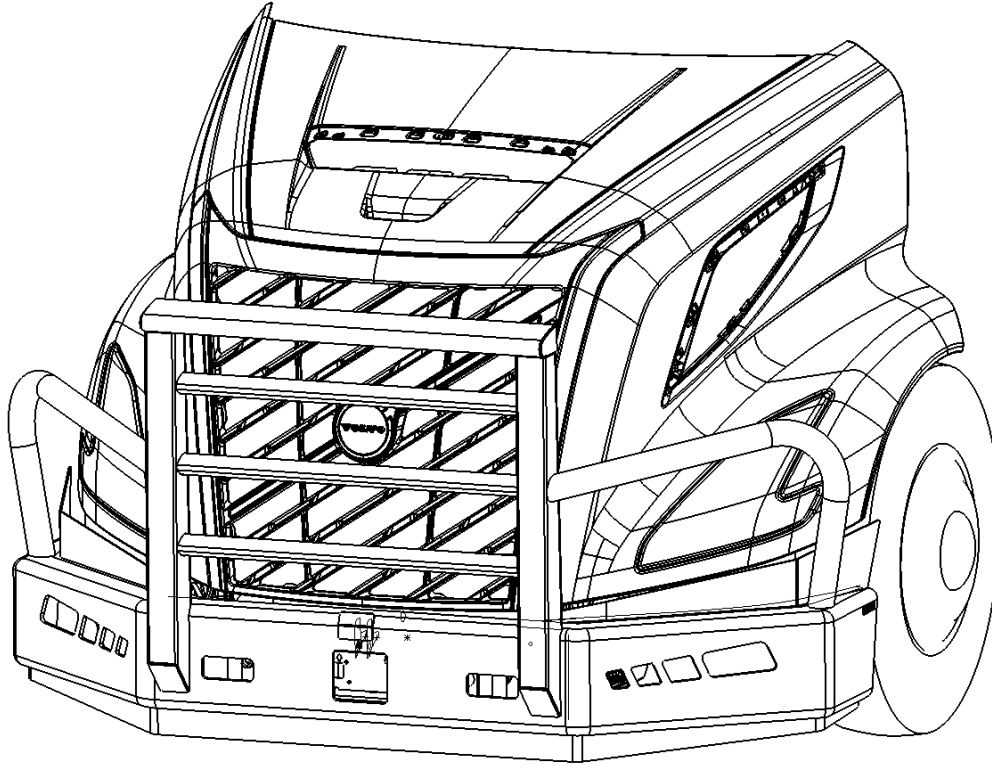


INSTALLATION GUIDE

MODEL NUMBER: 17299

TRUCK MODEL: 2024+ VOLVO VNL/VNR



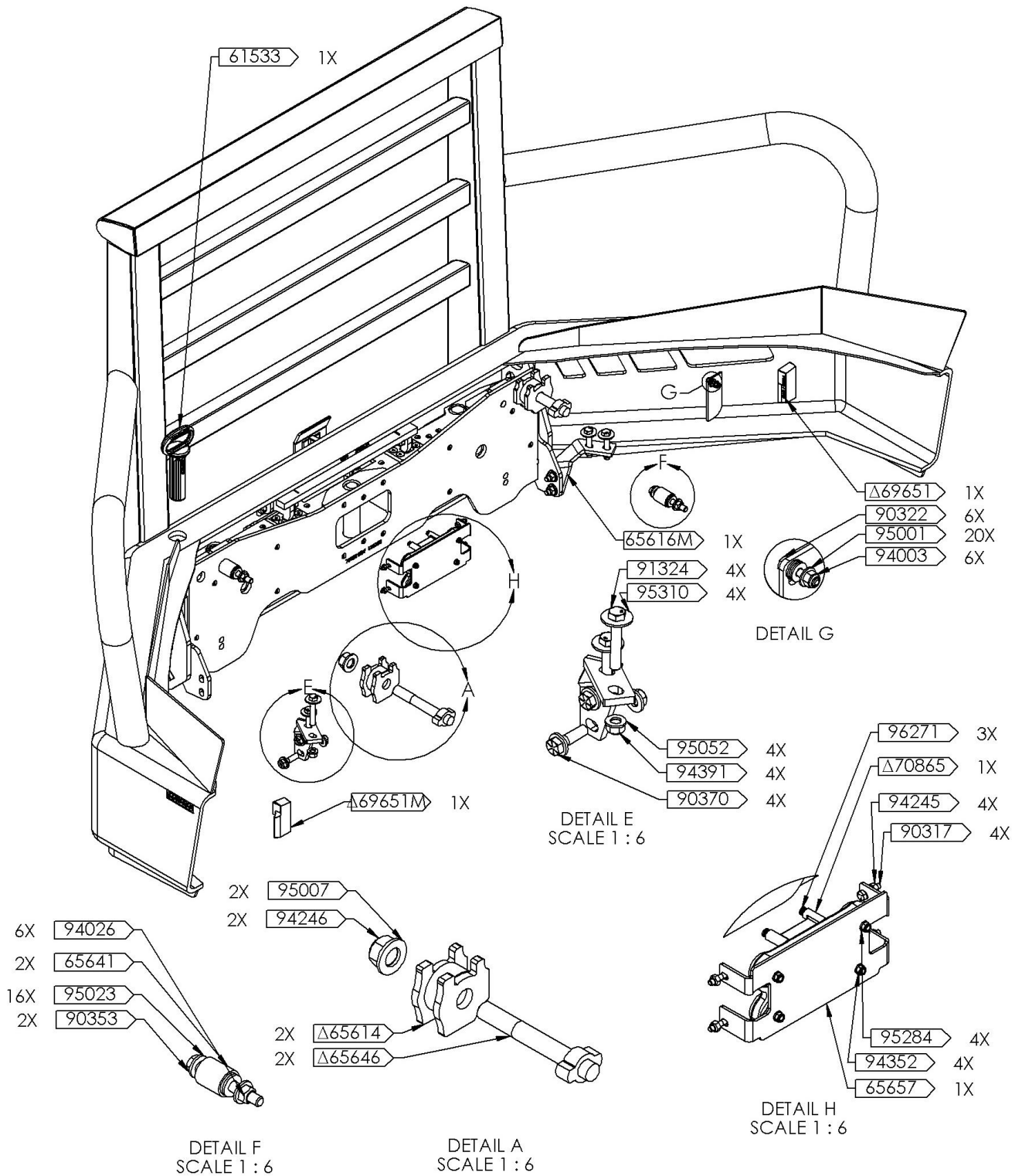
IMPORTANT INFORMATION

- 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.

17299 MOOSE GUARD



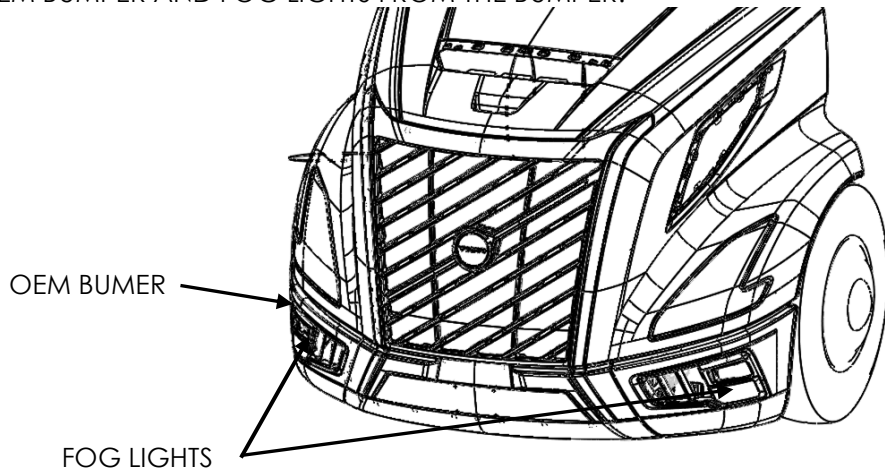
SEE NEXT PAGE FOR LIST OF PARTS INCLUDED

ASSEMBLY KIT PARTS

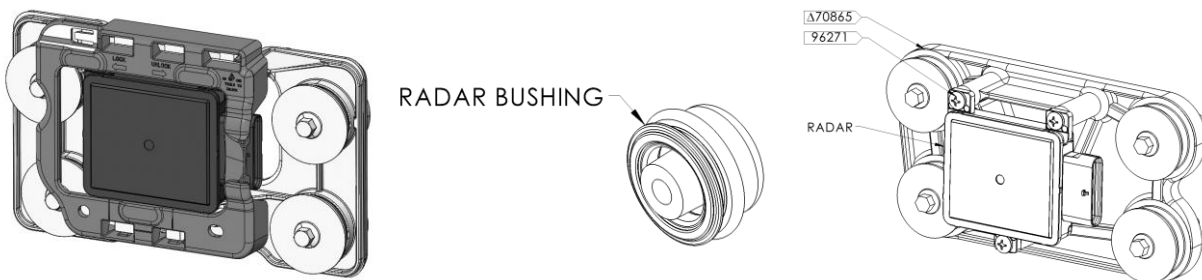
ITEM#	DESCRIPTION	MAT'L	DIMENSIONS	STOCK #	QTY.
61533	CAST LATCH PIN	65-45-12 CAST IRON	SEE PA - 61533	131243	1
65614	TOW RECEIVER SPACER WELDMENT		SEE AA - 65614	132243	2
65616	MOUNT BRACKET	44W	SEEPB- 65616	132245	1
65616M	MOUNT BRACKET - MIRROR	44W	SEE PB - 65616M	132246	1
65641	SPACER PIPE	A-53	SEE PA - 65641	132254	2
65646	TOW MOUNT ASSY		SEE AA - 65646	132257	2
65657	BENDIX RADAR MOUNTING BRACKET	5052- H32	SEE PA - 65657	132262	1
69651	BACK VENT COVER ASSEMBLY	PET	SEE AA - 69651	133314	1
69651M	BACK VENT COVER ASSEMBLY - MIRROR	PET	SEE AA - 69651M	133315	1
70865	RADAR VNR BRACKET ADAPTER	PET	SEE AA - 70865	133721	1
90317	HEX CAPSCREW - PLATED	GR. 5	1/4" NC X 1"	101551	4
90322	HEX HEAD BOLT - PLATED	GR. 5	1/4" NC X 1 1/4"	101553	6
90353	HEX HEAD BOLT - PLATED	GR. 8	1/2" NC X 4"	101774	2
90370	HEX HEAD BOLT - PLATED	GR. 8	1/2" NC X 1 3/4"	101763	4
91324	HEX CAPSCREW - PLATED	10.9	M12 X 1.75 X 70	132354	4
94003	NYLOC HEX NUT - PLATED	GR. 2	1/4" NC	101459	6
94026	STOVER NUT - PLATED	GR. C	1/2" NC	101475	6
94245	STOVER NUT - PLATED	GR. C	1/4 NC	101476	4
94246	STOVER NUT - PLATED	GR. C	7/8 NC	101480	2
94352	NYLOC HEX NUT - PLATED	CL 8	M6 X 1	129691	4
94391	ALL METAL LOCK NUT - PLATED (STOVER)	CL 10	M12 X 1.75	110572	4
95001	FLAT WASHER - PLATED	GR. 2	1/4" DIA SAE	102157	20
95007	FLAT WASHER - PLATED	GR. 8	7/8" DIA SAE	102173	2
95023	FLAT WASHER - PLATED	GR. 8	1/2" DIA SAE	102167	16
95052	FLAT WASHER - PLATED	DIN 125A EQ GR2	M12	108503	4
95284	FLAT WASHER - PLATED	STEEL	M6 DIN 125	126216	4
95310	FLAT WASHER - PLATED	DIN 125A EQ GR2	M12	132355	4
96271	MACHINE SCREW - SS	304 SS	M5 X 16	133748	3

INSTALLATION PROCEDURE

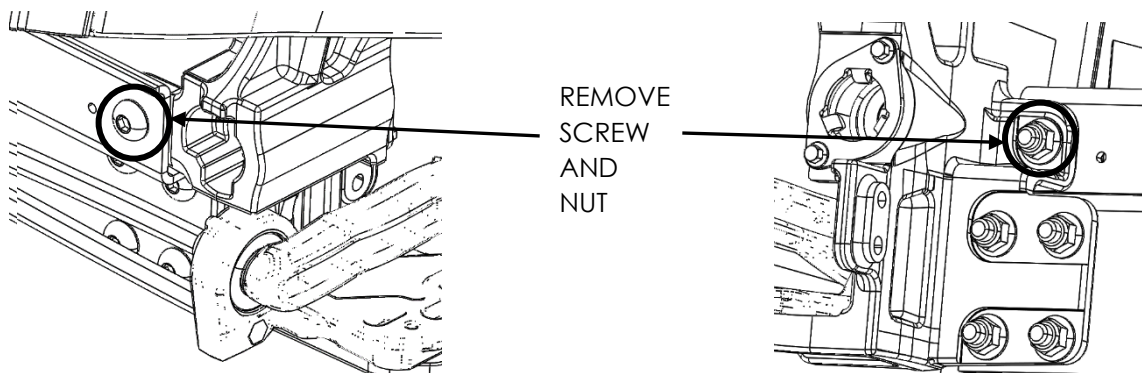
1. UNINSTALL THE OEM BUMPER AND FOG LIGHTS FROM THE BUMPER.



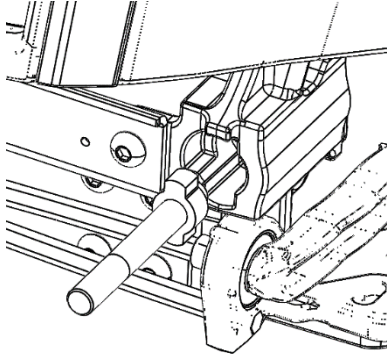
2. RADAR REMOVAL AND REINSTALLATION
IF THE TRUCK IS EQUIPPED WITH A RADAR SYSTEM, IT MUST BE REMOVED PRIOR INSTALLING THE GUARD.
- **VOLVO VNL:** THE ORIGINAL RADAR BRACKET AND HARDWARE CAN BE REUSED.
- **VOLVO VNR:** THE RADAR BUSHINGS MUST BE REMOVED FROM THE ORIGINAL RADAR BRACKET AND INSTALLED ONTO THE 70865 BRACKET. THE RADAR CAN THEN BE ATTACHED TO THIS BRACKET USING 96271 SCREWS.



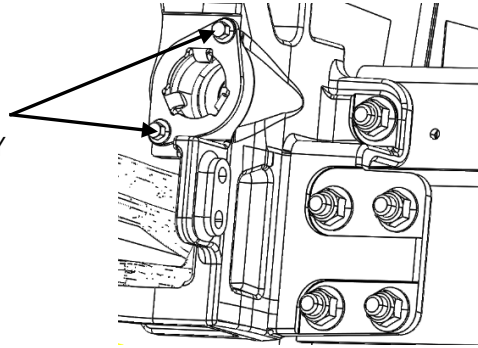
3. REMOVE THE FOLLOWING SCREW AND NUT FROM BOTH SIDES OF THE TRUCK.



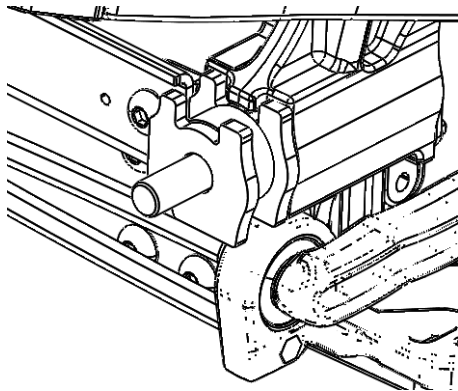
4. INSERT THE TOW MOUNT ASSEMBLY (65646) INTO THE RECEIVER AS SHOWN IN THE FIGURE BELOW. PUSH THE TOW MOUNT ASSEMBLY TOWARDS THE BACK OF THE TOW RECEIVER TO COMPRESS THE SPRING. TURN THE TOW MOUNT ASSEMBLY A QUARTER TURN AND LET THE SPRING LOCK THE TOW MOUNT INTO THE TOW RECEIVER. REPEAT FOR OTHER SIDE OF TRUCK. IF THE TOW MOUNT ASSEMBLY IS TOO DIFFICULT TO INSTALL THE BOLTS HOLDING THE SPRING IN PLACE CAN BE LOOSENED TO REDUCE THE COMPRESSION ON THE SPRING. THESE BOLTS ARE FOUND ON THE BACK OF THE TOW RECEIVER.



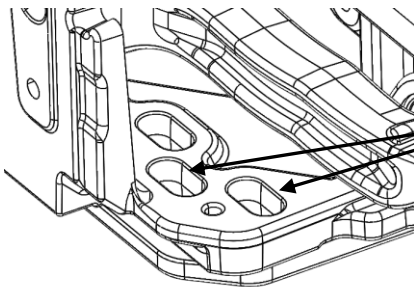
LOOSEN
SCREWS IF
NECESSARY



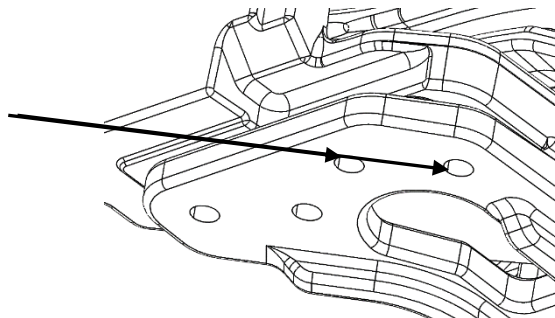
5. INSERT THE TOW RECEIVER SPACER WELDMENT (65614) OVER THE TOW MOUNT ASSEMBLY (65646) UNTIL IT CONTACTS THE FRONT FACE OF THE TOW RECEIVER. REPEAT FOR OTHER SIDE OF TRUCK.



6. REMOVE THE TWO BOLTS IN THE LOCATIONS SHOWN BELOW ON BOTH SIDES OF THE TRUCK. KEEP THE OTHER TWO BOLTS IN PLACE.

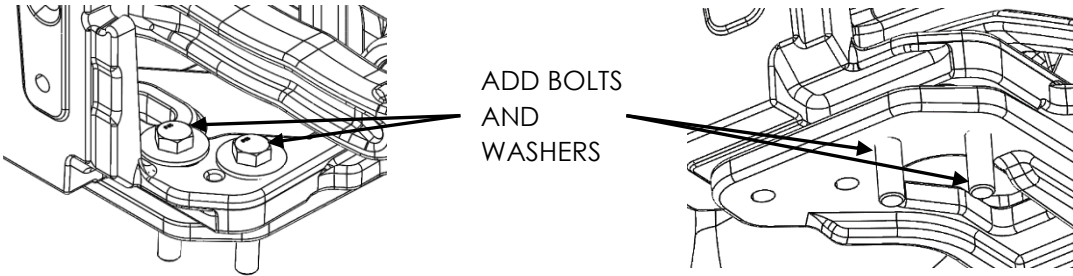


REMOVE
BOLTS



7. REPLACE THE REMOVED BOLTS WITH THE SUPPLIED HARDWARE (TORQUE TO THE FACTORY SPECIFICATIONS):

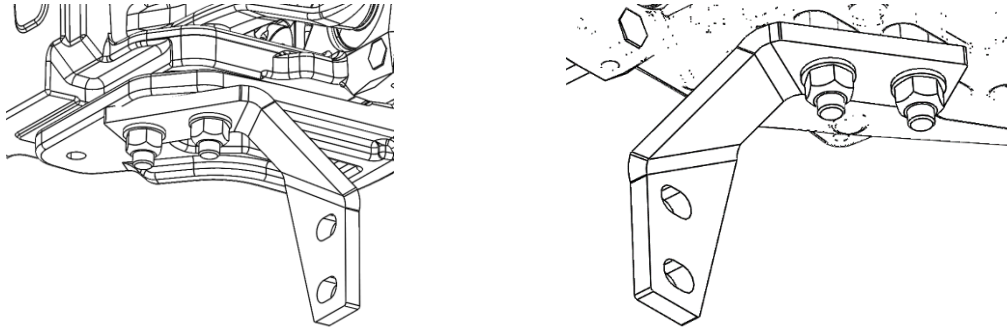
- 4 X (M12 X 1.75 X 70 GR.10.9 HEX BOLTS)
- 4 X (M12 FENDER WASHER)



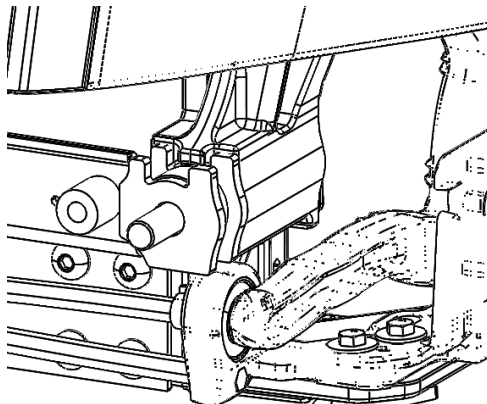
8. ATTACH THE MOUNT BRACKET (65616) TO THE DRIVER SIDE OF THE TRUCK AND MOUNT BRACKET MIRROR (65616M) TO THE PASSENGER SIDE OF THE TRUCK. SECURE THE BRACKETS USING THE FOLLOWING HARDWARE:

- 4 X (M12 X 1.75 CL10 STOVER NUT)
- 4 X (M12 FLAT WASHER 8.8)

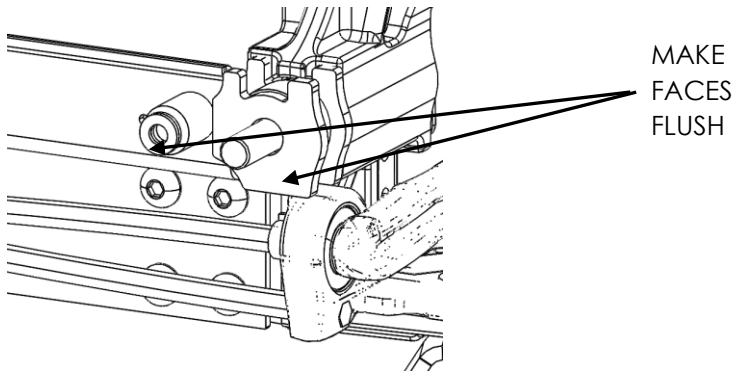
KEEP HARDWARE LOOSE UNTIL STEP #11 IS COMPLETED.



9. POSITION THE SPACER PIPE (65641) IN FRONT OF THE FRAME WHERE THE SCREWS WERE REMOVED IN STEP 3.

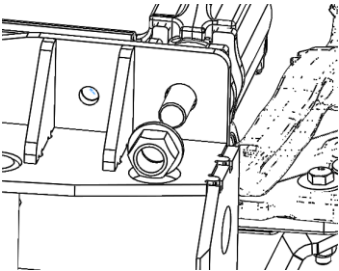


10. ADD ADDITIONAL WASHERS IN FRONT OF THE SPACERS AS REQUIRED. TWO ADDITIONAL 1/2" WASHERS ARE PROVIDED FOR EACH SIDE OF THE TRUCK TO ENSURE PROPER CONTACT TO THE MOOSE GUARD. THE TWO FACES IN THE IMAGE BELOW SHOULD BE FLUSH WITH ONE ANOTHER.



11. SECURE THE TOW MOUNT ASSEMBLY WITH THE FOLLOWING HARDWARE:

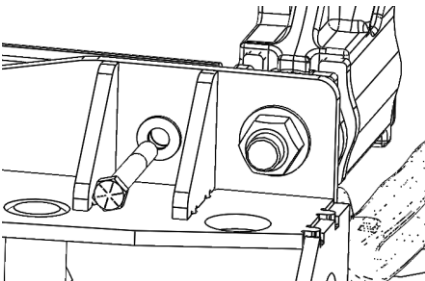
- 2 X (7/8" NC GR.C STOVER NUTS)
- 2 X (7/8" GR.8 WASHERS)



TORQUE TO 160 FT-LBS (LUBRICATED) / 210 FT-LBS (DRY). REPEAT FOR OTHER SIDE OF TRUCK.

12. ATTACH THE GUARD USING THE FOLLOWING HARDWARE THROUGH THE SPACER PIPE:

- 2 X (1/2" NC GR.C NUTS)
- 2 X (1/2" GR.8 WASHERS)
- 2 X (1/2" X 4" GR.8 HEX BOLT)

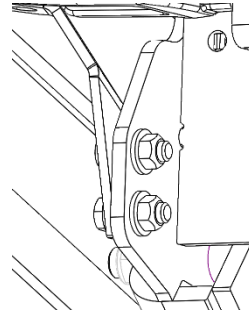
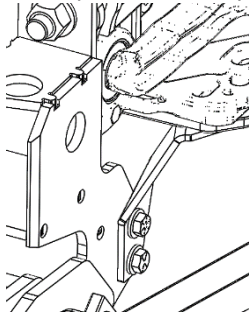


TORQUE TO 53 FT-LBS (LUBRICATED) / 107 FT-LBS (DRY). REPEAT FOR OTHER SIDE OF TRUCK.

13. ATTACH THE GUARD TO THE MOUNT BRACKETS (65616 & 65616M) USING THE FOLLOWING HARDWARE:

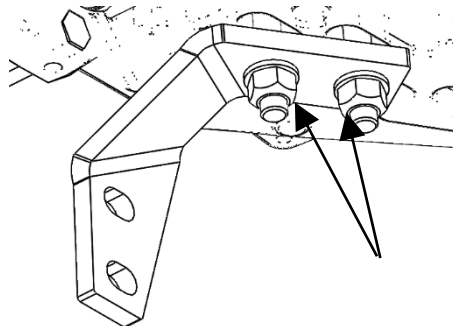
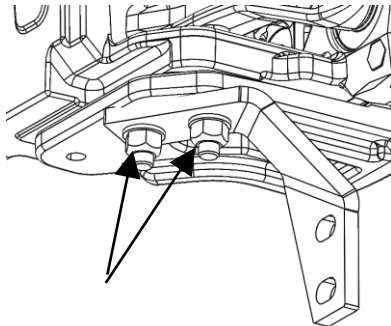
- 4 X (1/2" NC X 1 3/4" GR.8 HEX BOLTS)
- 4 X (1/2" NC GR.C STOVER NUTS)
- 8 X (1/2" GR.8 WASHERS)

TORQUE TO 53 FT-LBS (LUBRICATED) / 107 FT-LBS (DRY). REPEAT FOR OTHER SIDE OF TRUCK.



ADDITIONALLY, THE UPPER HARDWARE OF MOUNT BRACKETS 65616 & 65616M MUST BE NOW TORQUED TO 35 FT-LBS (LUBRICATED) / 50 FT-LBS (DRY)

- 4 X (M12 X 1.75 CL10 STOVER NUT)
- 4 X (M12 FLAT WASHER 8.8)

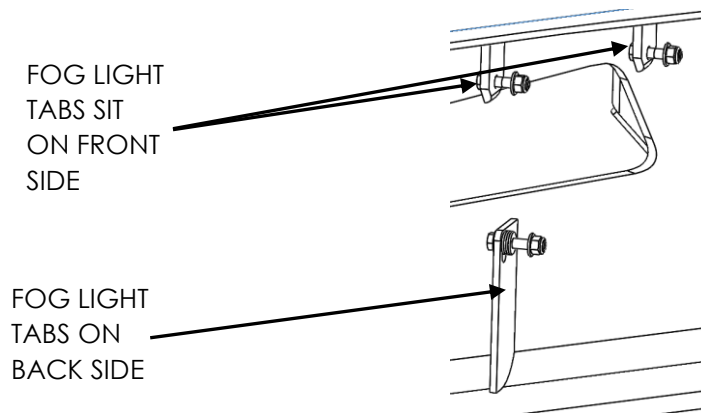


14. ATTACH THE FOG LIGHTS TO THE GUARD WITH THE FOLLOWING HARDWARE:

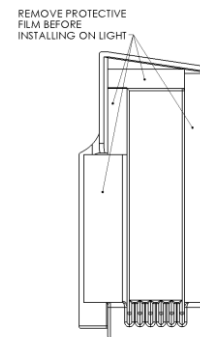
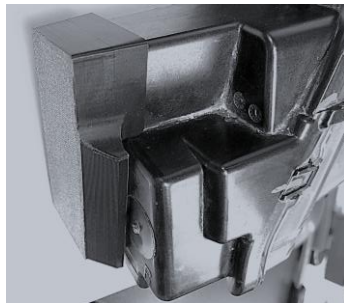
- 6 X (1/4" NC X 1 1/4" GR.5 HEX BOLTS)
- 6 X (1/4" NC GR.2 NYLOC NUTS)
- 20 X (1/4" GR.2 WASHERS)

ADDITIONAL WASHERS ARE PROVIDED FOR THE BOTTOM MOUNT TAB SO THAT THE FOG LIGHT POSITION CAN BE ADJUSTED.

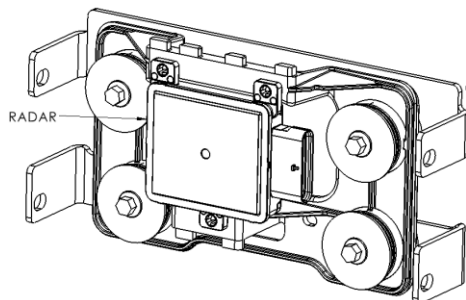
TORQUE TO 6 FT-LBS (LUBRICATED) / 8 FT-LBS (DRY). REPEAT FOR OTHER SIDE OF TRUCK.



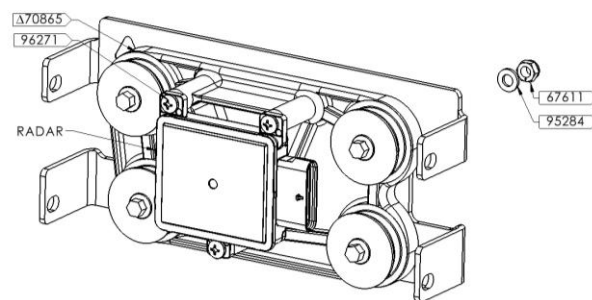
15. ATTACH THE VENT COVERS TO THE BACK SIDE OF THE FOG LIGHTS BY REMOVING THE PROTECTIVE FILM ON THE DOUBLE-SIDED TAPE PRESSING THE COVER FIRMLY ONTO THE FOG LIGHT. PART 69651 SHOULD BE INSTALLED ON THE PASSENGER SIDE LIGHT, AND PART 69651M ON THE DRIVER SIDE LIGHT. BEFORE APPLYING THE COVERS, CLEAN THE DESIGNATED AREA ON THE LAMP BODY IF NECESSARY.



16. ATTACH THE RADAR TO THE RADAR BRACKET USING THE ORIGINAL HARDWARE, AND SUPPLIED NUTS AND WASHERS (TORQUE TO FACTORY SPECIFICATIONS):
- 4 X (M6 X 1.0 NYLOC NUT)
 - 4 X (M6 FLAST WASHER)



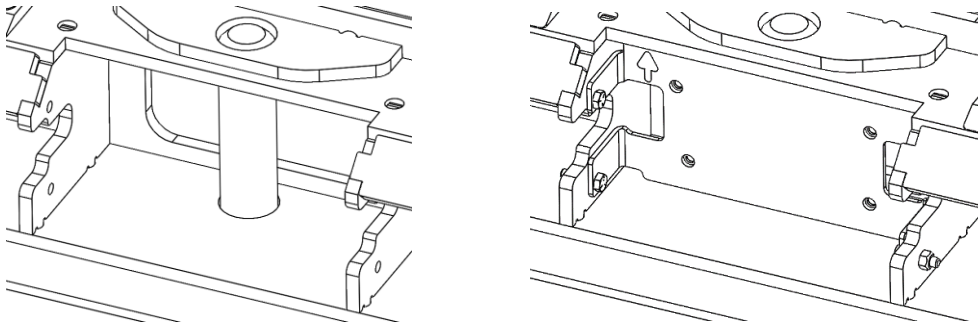
VOLVO VNL



VOLVO VNR

17. SECURE THE RADAR PLATE ASSEMBLY TO THE GUARD USING THE FOLLOWING HARDWARE:

- 4 X (1/4" NC X 1" GR.5 HEX BOLT)
- 4 X (1/4" NC GR.C STOVER NUT)



TORQUE TO 6 FT-LBS (LUBRICATED) / 8 FT-LBS (DRY). REPEAT THE PROCEDURE ON THE OTHER SIDE OF TRUCK. IF THE VEHICLE IS NOT EQUIPED WITH RADAR, THE RADAR PLATE MAY BE REMOVED TO ALLOW ACCESS TO THE CENTER TOW BAR.

18. CLOSE THE BUMPER TO COMPLETE THE INSTALL. THANK YOU FOR CHOOSING MAGNUM.

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