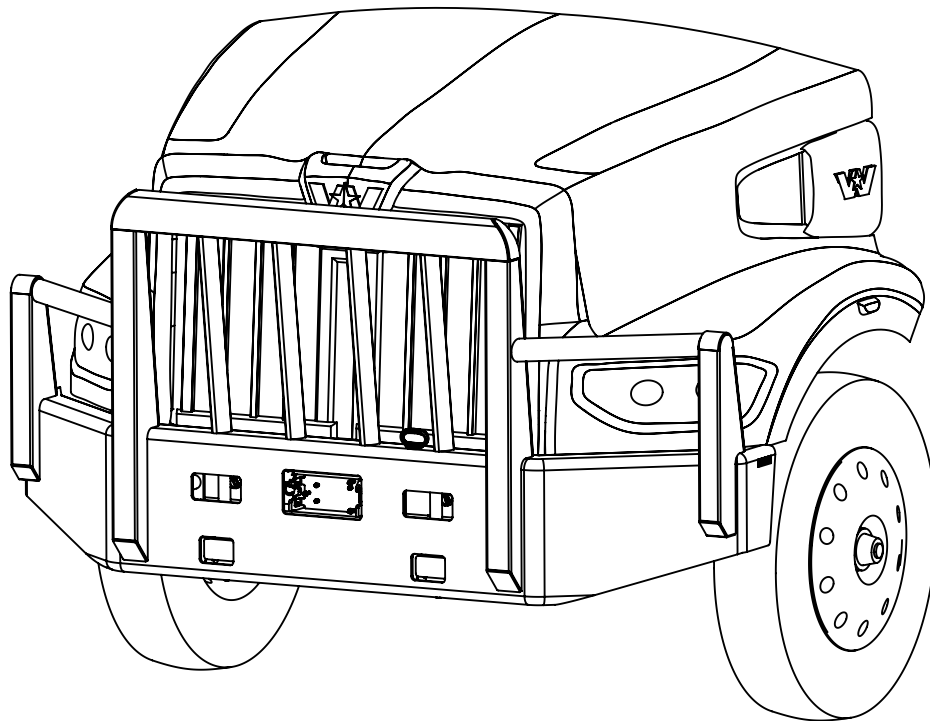




INSTALLATION GUIDE

MODEL NUMBER: 17284

TRUCK MODEL: 2021+ WESTERN STAR 49X SET BACK AXLE (TOW RECEIVERS)



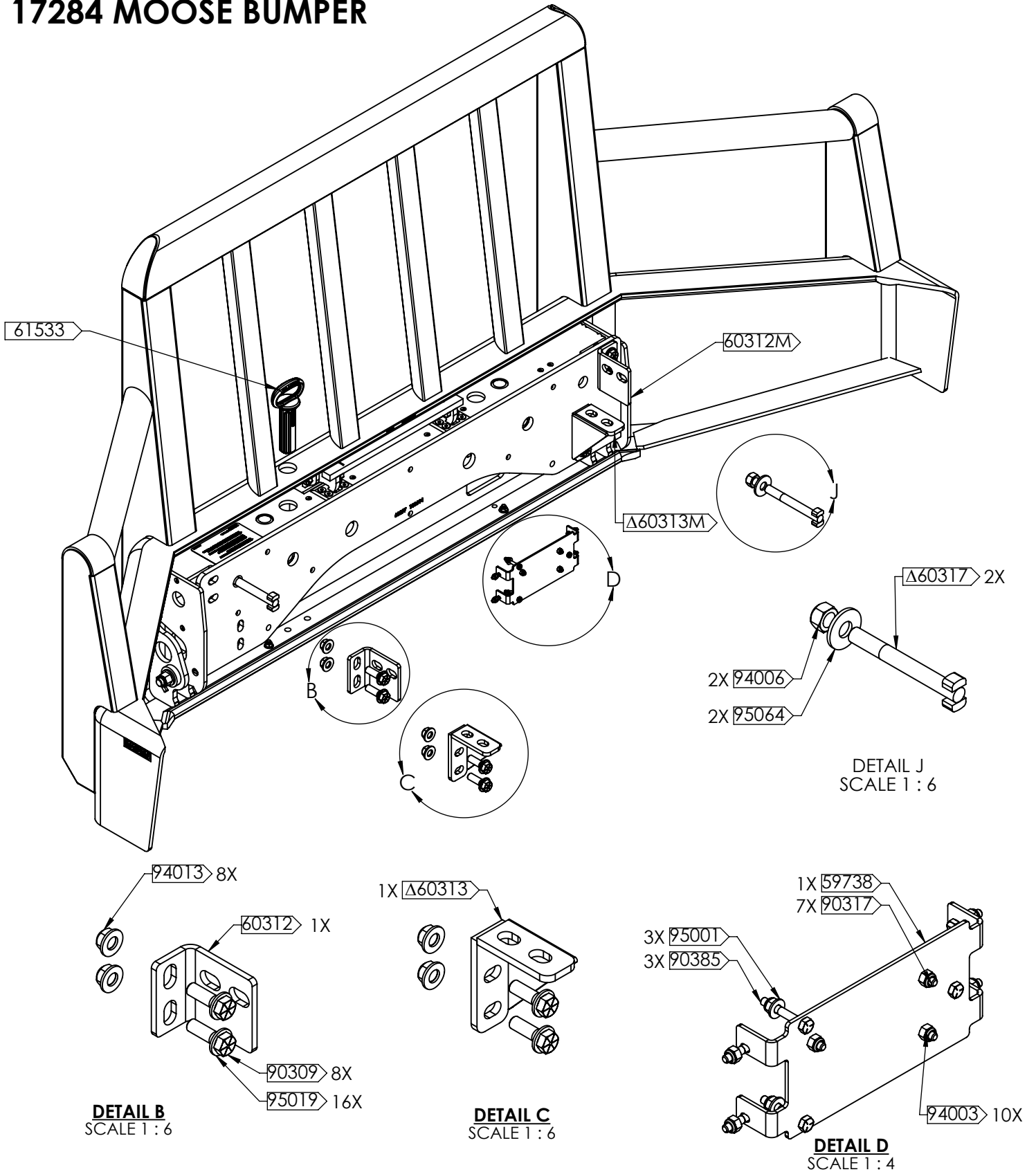
IMPORTANT INFORMATION

- 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.

17284 MOOSE BUMPER



SEE NEXT PAGE FOR LIST OF PARTS INCLUDED



ASSEMBLY KIT PARTS

ITEM#	DWG	DESCRIPTION	MAT'L	DIMENSIONS	WT. EA	STOCK #	QTY.
59738	PA	DAMILER RADAR BRACKET	5052-H32	SEE PA - 59738	.47	130462	1
60312	PA	MOUNT TAB	44W	SEE PA - 60312	1.9	130618	1
60312M	PA	MOUNT TAB - MIRROR	44W	SEE PA - 60312M	1.9	130619	1
60313	AA	MOUNT BRACKET WELDMET		SEE AA - 60313	2.5	130620	1
60313M	AA	MOUNT BRACKET WELDMET - MIRROR		SEE AA - 60313M	2.5	130621	1
60317	AA	TOW MOUNT ASSEMBLY		SEE AA - 60317	.96	130624	2
61533	PA	CAST LATCH PIN	65-45-12 CAST IRON	SEE PA - 61533	3.2	131243	1
90309		HEX CAPSCREW - PLATED	GR. 8	5/8" NC X 2"	.25	101976	8
90317		HEX CAPSCREW - PLATED	GR. 5	1/4" NC X 1"	.022	101551	7
90351		HEX CAPSCREW - PLATED	GR. 5	3/8" NC X 1 1/4"	.056	101656	2
90385		HEX HEAD BOLT - PLATED	GR. 5	1/4" NC X 1 3/4"	.033	101554	3
94003		NYLOC HEX NUT - PLATED	GR. 2	1/4" NC	.0097	101459	10
94006		STOVER NUT - PLATED	GR. C	3/4" NC	.12	101477	2
94013		STOVER NUT - PLATED	GR. C	5/8" NC	.063	101481	8
94016		STOVER NUT - PLATED	GR. C	3/8" NC	.013	101478	2
95001		FLAT WASHER - PLATED	GR. 2	1/4" DIA SAE	.0043	102157	3
95013		FLAT WASHER - PLATED	GR. 8	3/8" DIA SAE	.0069	102170	4
95019		FLAT WASHER - PLATED	GR. 8	5/8" DIA SAE	.035	102172	16
95064		FLAT WASHER - PLATED	GR 8	USS (W) 3/4" DIA	.13	130627	2

INSTALLATION PROCEDURE

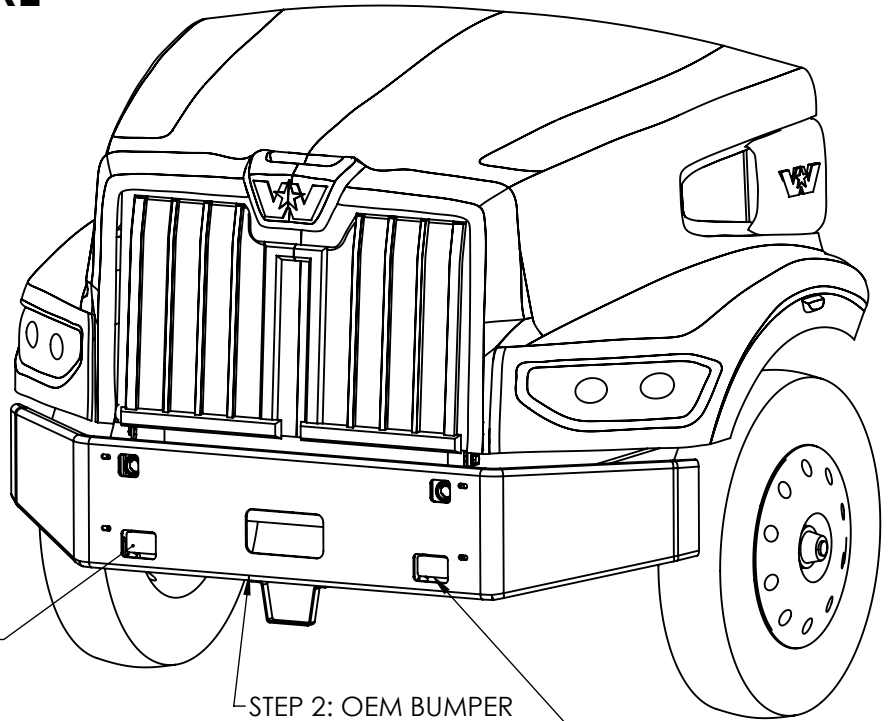
1. UNINSTALL THE DRIVING LIGHTS FROM THE OEM BUMPER. KEEP THE HARDWARE FOR LATER INSTALLATION.

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

STEP 1: PASSENGER SIDE DRIVING LIGHT

STEP 2: OEM BUMPER

STEP 1: DRIVER SIDE DRIVING LIGHT



3. UNINSTALL THE PASSENGER AND DRIVER SIDE TRUCK BRACKETS. THE HARDWARE ATTACHING THESE BRACKETS WILL BE REUSED TO INSTALL THE BUMPER.

4. REMOVE THE BOLTS AND WASHERS ON THE UNDERSIDE OF THE TRUCK AS SEEN IN THE FIGURE BELOW. KEEP THIS HARDWARE FOR INSTALLATION OF THE BUMPER.

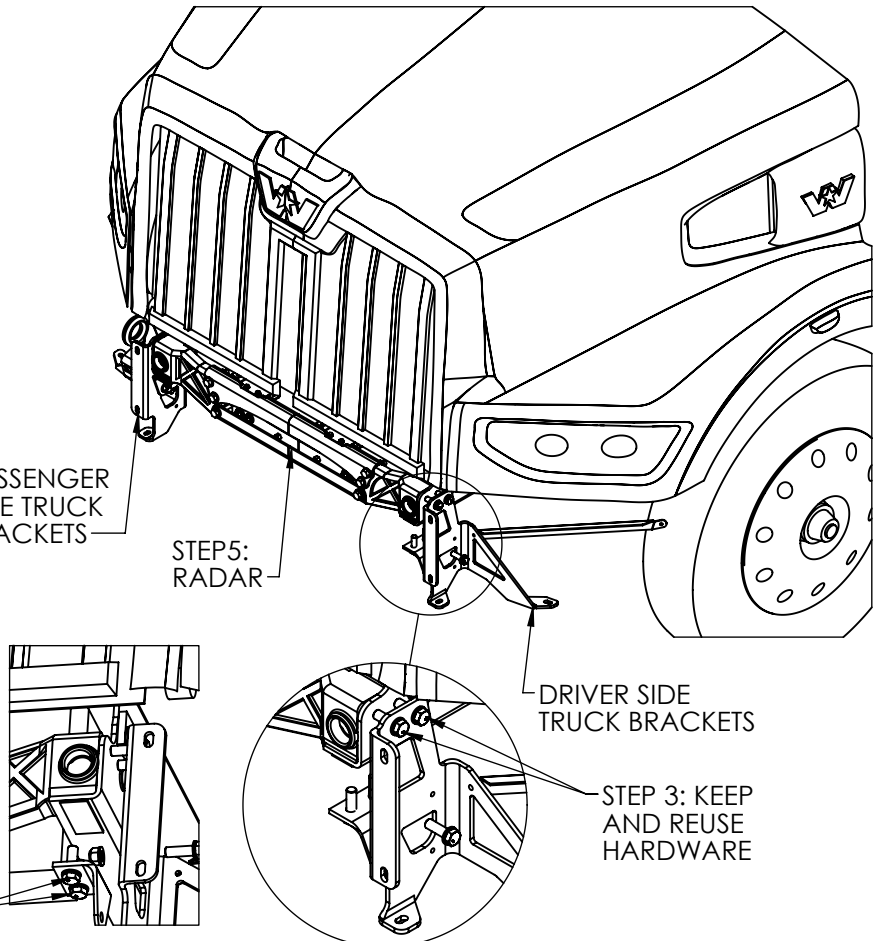
PASSENGER SIDE TRUCK BRACKETS

STEP 5: RADAR

DRIVER SIDE TRUCK BRACKETS

STEP 3: KEEP AND REUSE HARDWARE

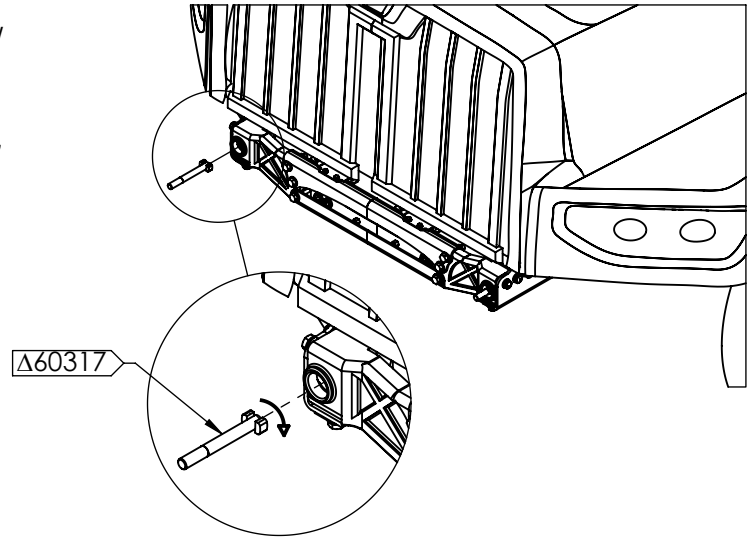
STEP 4: KEEP AND REUSE HARDWARE



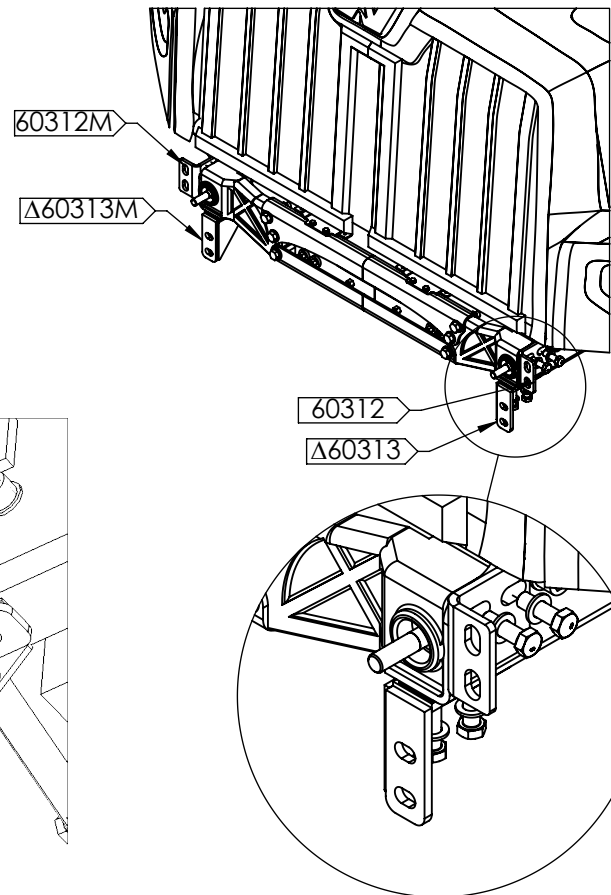


INSTALLATION PROCEDURE

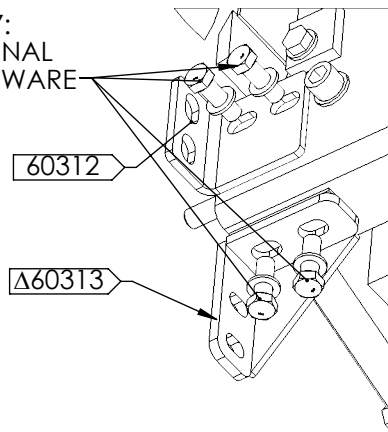
6. INSTALL THE TOW MOUNTS $\Delta 60317$ IN BOTH TOW RECEIVERS BY INERSTING IT IN THE OREINTATION SHOWN ON THE RIGHT. PUSH IT AGAINST THE SPRING IN THE BACK OF THE TOW RECEIVER AND TURN IT 90 DEGREES TO LOCK IT IN PLACE.



7. INSTALL THE SUPPLIED MOUNT BRACKETS 60312 & $\Delta 60313$ ON THE DRIVER SIDE. INSTALL $60312M$ & $\Delta 60313M$ ON THE PASSENGER SIDE. SECURE THEM USING THE ORIGINAL HARDWARE.

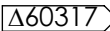


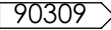
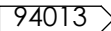
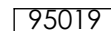
STEP 7:
ORIGINAL
HARDWARE



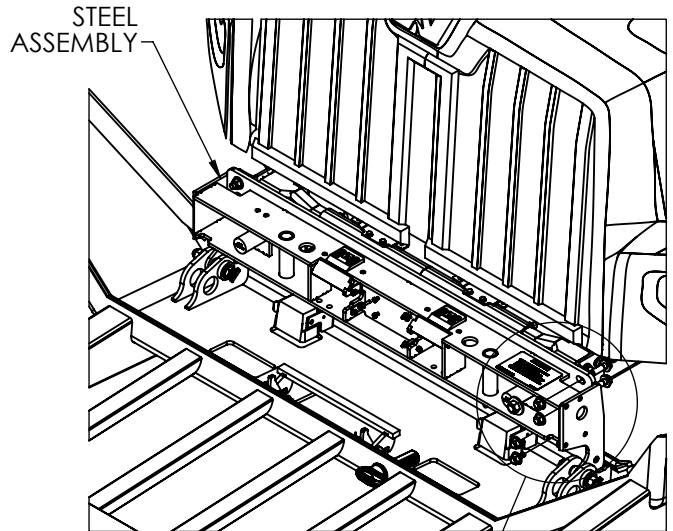


INSTALLATION PROCEDURE

8. ATTACH THE BUMPER TO THE MOUNT BRACKETS USING THE SUPPLIED HARDWARE (THE TOW MOUNT ASSEMBLY  SHOULD GO THROUGH HOLE IN THE BACK OF THE STEEL ASSEMBLY):

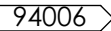
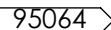
- 8 X  BOLTS
- 8 X  NUTS
- 16 X  WASHERS

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

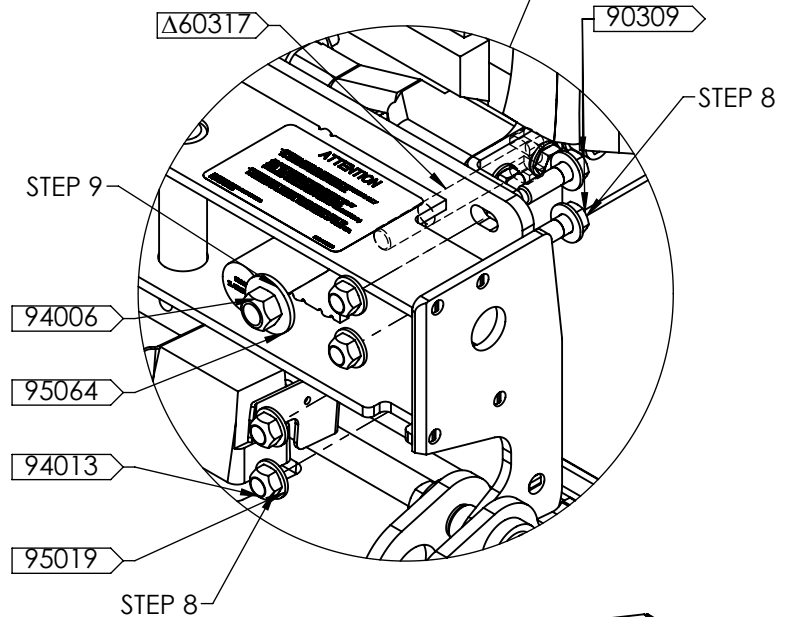


9. SECURE THE TOW MOUNT ASSEMBLIES

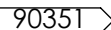
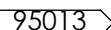
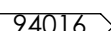
 WITH THE FOLLOWING HARDWARE:

- 2 X  NUTS
- 2 X  WASHERS

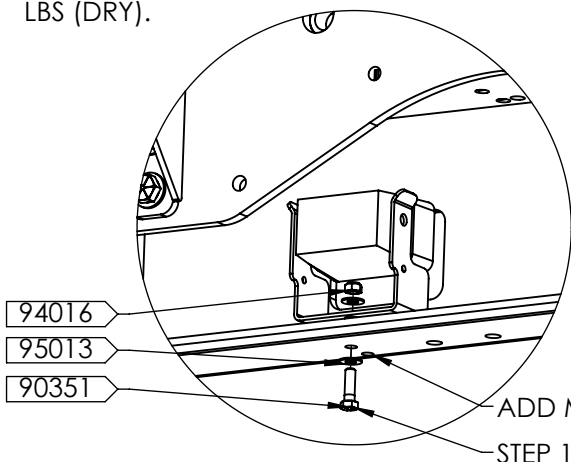
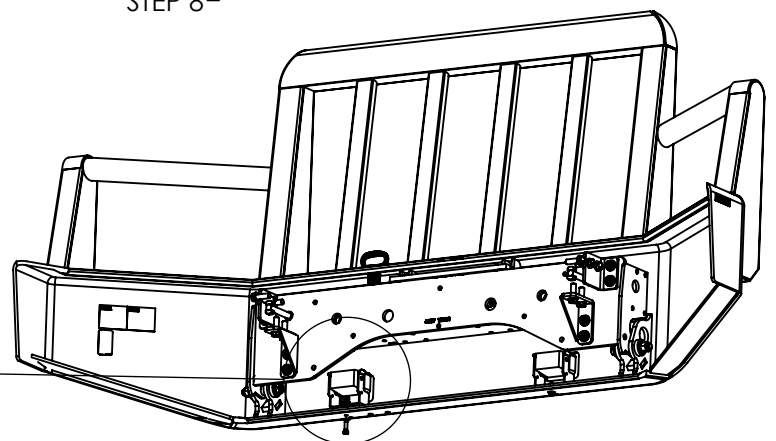
TORQUE TO 200 FT-LBS (LUBRICATED) / 260 FT-LBS (DRY).



10. INSTALL THE DRIVING LIGHTS ON BOTH SIDES OF THE BUMPER. USING THE SUPPLIED HARDWARE AND ORIGINAL M10 HARDWARE:

- 2 X  HEX BOLTS
- 4 X  WASHERS
- 2 X  NUTS

TORQUE TO 35 FT-LBS (LUBRICATED) / 45 FT-LBS (DRY).





RADAR INSTALLATION PROCEDURE

NOTE:

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

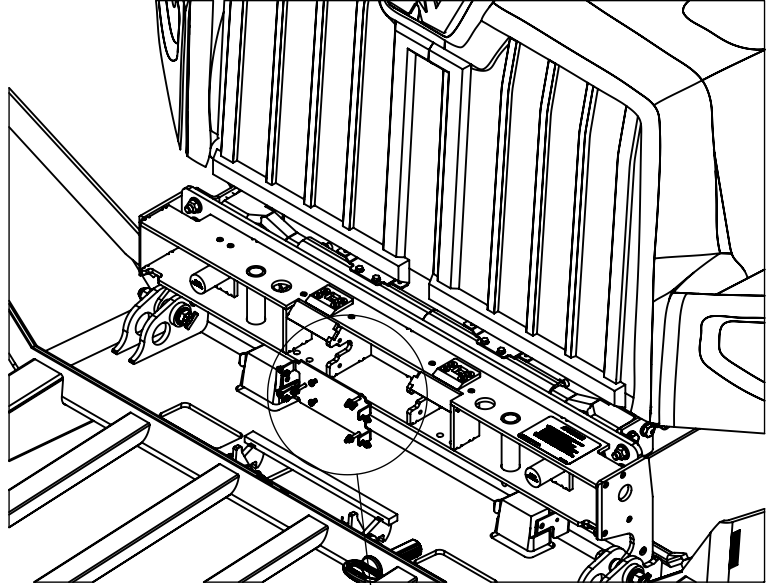
11. INSTALL THE RADAR ON THE RADAR PLATE

59738 USING:

3X 90317 BOLTS

3X 94003 NUTS

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



12. INSTALL THE RADAR COVER ON THE 59738

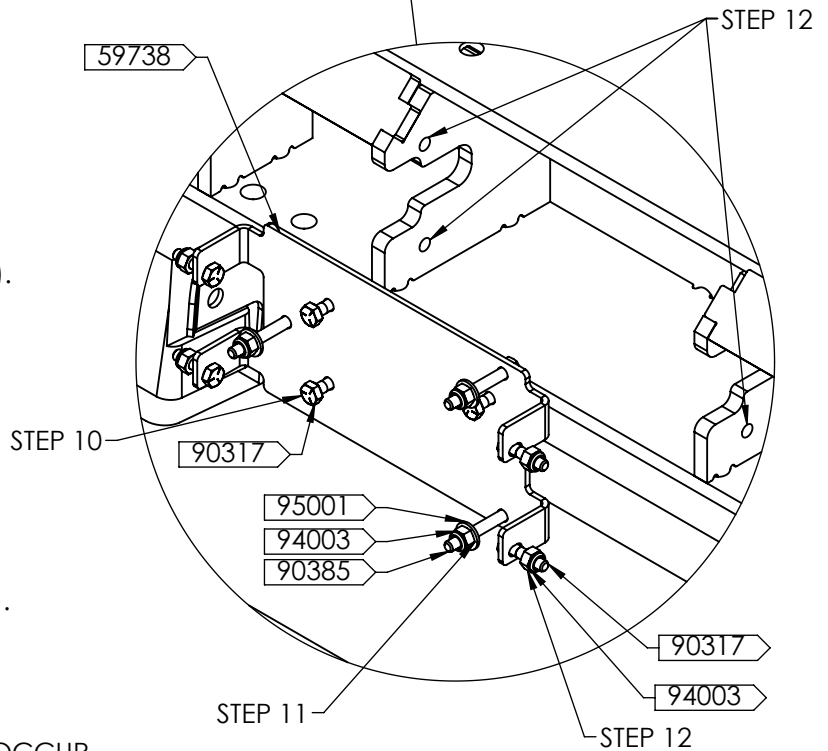
RADAR PLATE USING:

3X 90385 BOLTS

3X 94003 NUTS

3X 95001 WASHERS

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



13. INSTALL THE RADAR PLATE WITH THE RADAR INTO THE BUMPER USING:

4X 90317 BOLTS

4X 94003 NUTS

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

14. CLOSE THE BUMPER WITH CARE AND:

A. REVIEW FOR ANY INTERFERENCES THAT MIGHT OCCUR.

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

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

IF EVERYTHING LOOKS GOOD, THE INSTALL IS COMPLETE. 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.