

# **SNO-WAY**®

**SNOW & ICE CONTROL EQUIPMENT**

## **ASSEMBLY & INSTALLATION INSTRUCTIONS**

**SUBFRAME 99101240  
AND  
VEHICLE CENTER MEMBER 99100891**

**TO FIT  
2017 & LATER FORD F250-F550 4X4**

**NOTE: 2021 & LATER F250-F550 4X4, MAY NEED VEHICLE CENTER MEMBER 99101476 & SPACER KIT 96118343. SEE INSTALLATION INSTRUCTIONS FOR DETAILS.**

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1. **THINK SAFETY, ALWAYS WEAR SAFETY GLASSES WHEN PERFORMING THE OPERATIONS PRESCRIBED IN THESE INSTRUCTIONS**
2. **READ ALL INSTRUCTIONS CAREFULLY BEFORE ATTEMPTING INSTALLATION**
3. **BEFORE BEGINNING WORK MAKE SURE TO SET PARKING BRAKE AND CHOCK WHEELS**



### **MINIMUM VEHICLE RECOMMENDATIONS**

Heavy Duty Alternator  
Heavy Duty Battery

### **ASSEMBLY TOOLS NEEDED**

Drill Bits	17/32"
Impact Sockets	7/16" – 1-3/8" 10mm – 18mm
Wrenches	7/16" – 1-3/8" 10mm – 18mm
Torque Wrench	
Rat Tail Pry Bar	

*NOTE: On some vehicles it may be necessary to use a form of load booster to decrease the vehicle's front suspension sag with the snow plow in place. This can be accomplished with the use of supplementary air bags, booster springs, or similar load boosting devices. Since there are different load boosting devices available, it will up to the customer/end user to decide and purchase the product to suit the application, and not the responsibility of Sno-Way International, Inc.*

### **INSTALLATION NOTES**

1. **Unless otherwise specified, mount all Vehicle Mount Kit Components to vehicle before tightening any hardware.**
2. It is recommended that LOCTITE®, or similar thread locking product, be used on ALL mounting hardware (i.e. Nuts, Cap Screws, Bolts, etc.).
3. Vehicle should be parked on a level surface with a normal vehicle load on the FRONT suspension.
4. Items in parentheses ( ) refer to quantity required for this step. Items in parentheses with a pound sign (#) indicate the part number as found in the parts list on the last page of this document.  
Example: (10) Washer, Lock, 1/2" (#8).
5. It maybe necessary to relocate license plate holder. Check state and local laws for placement, if needed.

## MOUNTING INSTRUCTIONS

1. Remove the air dam and bumper from the vehicle. Retain fasteners for installation later.
2. Remove the blocker beams located on each side of the frame rail. (See Figure 1 and Figure 2.) Retain blocker beam and hardware for future re-installation if the plow mount is removed.

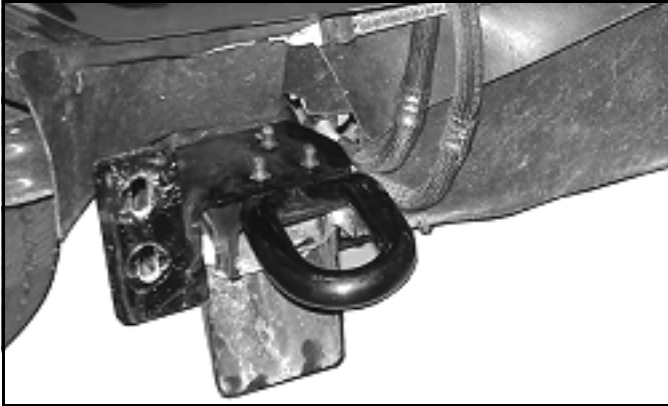


Figure 1



Figure 2

3. Unmount the sway bar from the frame (See Figure 3). Completely remove the sway bar fasteners and bolt clips from the keyholes in the truck frame. Retain the hardware for future re-installation if the plow mount is removed.

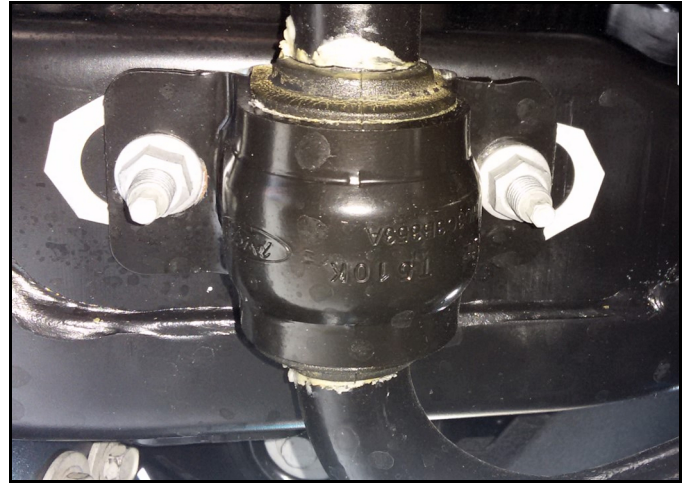


Figure 3

4. Place (1) 7/16" Flat Washer (#6) over the threads of (1) 7/16" Handle Bolt Weldment (#5). Secure the washer against the head of the bolt using a rubber band tightly wound around the bolt up against the washer. This will prevent the washer from falling off the bolt as item #5 is inserted into the truck frame. Repeat this 3 more times.

5. Slide the handle of a 7/16" Handle Bolt Weldment (#5) through the driver side front sway bar mount keyhole, so the handle is pointed to the front of the truck (See Figure 4). Stick the head of the bolt and washer into the keyhole so just the threads stick down from the frame.

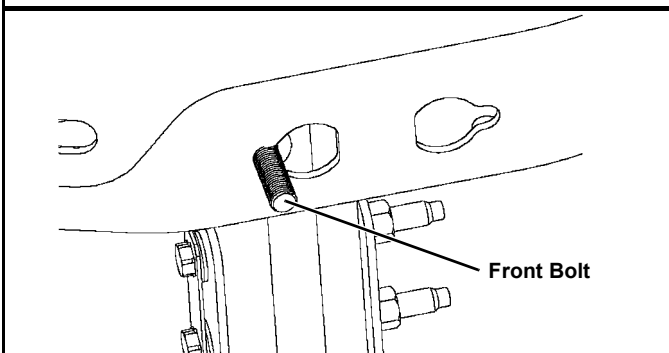
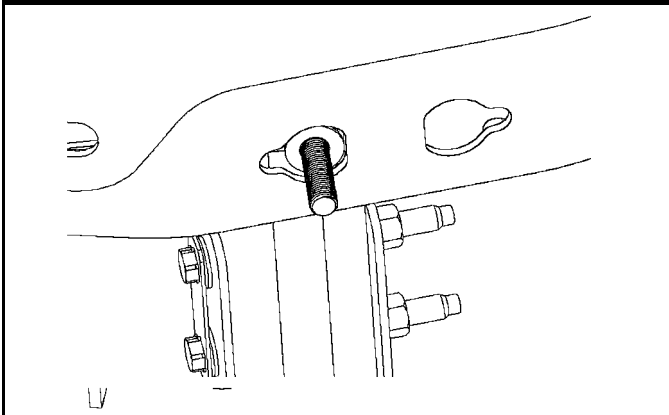
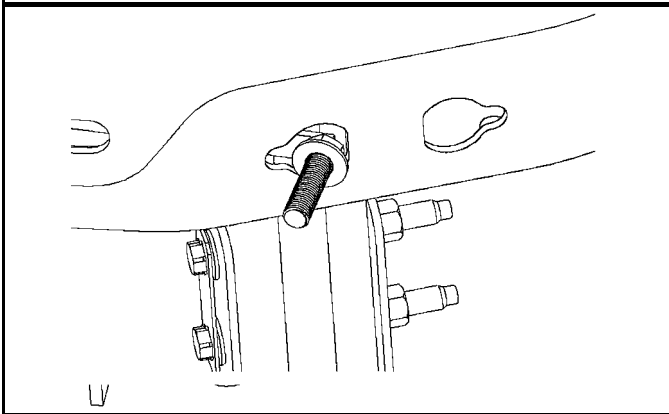
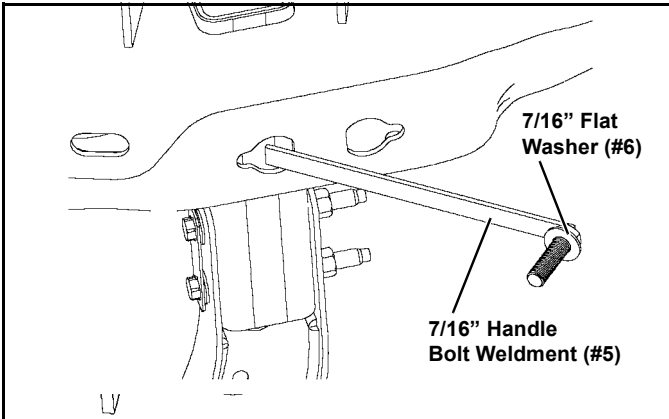


Figure 4

6. Slide the handle of a 7/16" Handle Bolt Weldment through the driver side rear sway bar mount keyhole, so the handle is pointed to the front of the truck (See Figure 4). Stick the head of the bolt and washer into the keyhole so just the threads stick down from the frame.

7. Repeat steps 5 & 6 for the passenger side frame rail.

8. Align the top holes of the Rear Weldments (#4) with the holes in both sway bar brackets. (See Figure 5 for orientation.) Align the Rear Weldments (#4) and sway bar brackets with bolt threads from the (4) 7/16" Handle Bolt Weldments (#5) sticking out of the truck frame. At the same time, on both sides, place the combination of Rear Weldments (#4) and sway bar bracket up against the truck frame rails by sliding over the (4) Handle Bolt Weldments.

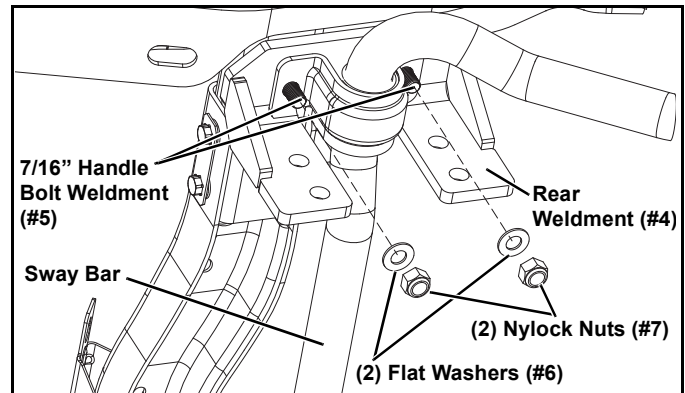


Figure 5

9. Loosely secure the sway bar and Rear Weldments (#4) in place with (4) 7/16" Flat Washers (#6) and (4) 7/16"-20 Nylock Nuts (#7).

10. Align the Driver Side Front Weldment (#2) with the holes in the side of the driver side frame rail and the slot on the bottom of the truck frame (See Figure 6). Loosely secure with (3) 1/2"-13 x 1-1/2" Cap Screws (#8), (3) 1/2" Flat Washers (#9), and (3) 1/2"-13 Nylock Nuts (#10).

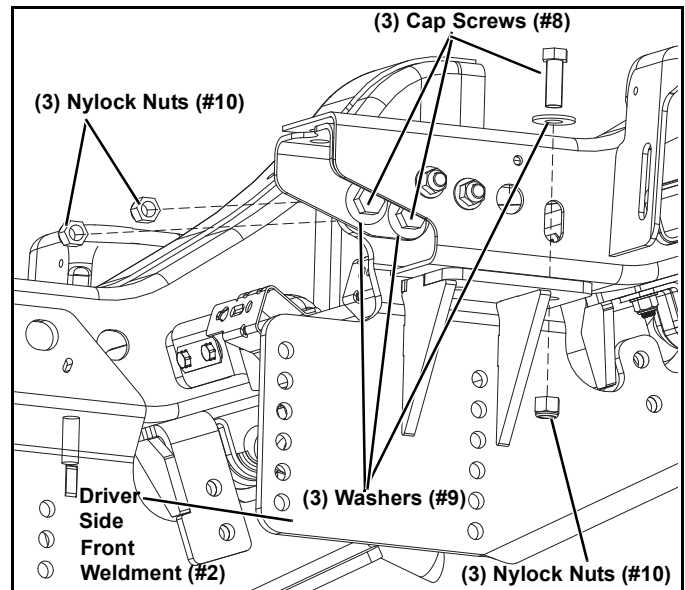


Figure 6

11. Clamp the Front Weldment, DS (#2) tight against the side and bottom of the truck frame. Use the hole in item #2 that is against the bottom of the truck frame, near the front, as a template. Center punch and drill a 1/4" pilot hole, then drill to 17/32" (See Figure 7). In that hole, loosely secure a 1/2"-13 x 1-1/2" Cap Screw (#8) with (1) 1/2" Flat Washer (#9), and (1) 1/2"-13 Nylock Nut (#10). (See Figure 8).

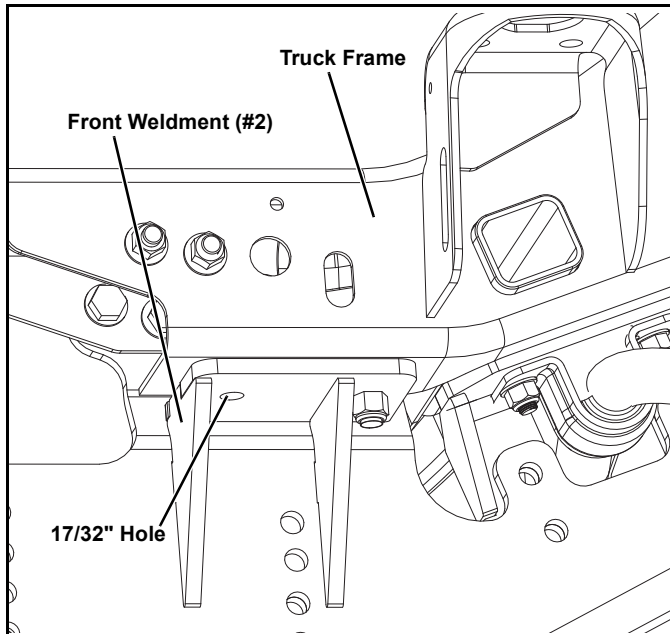


Figure 7

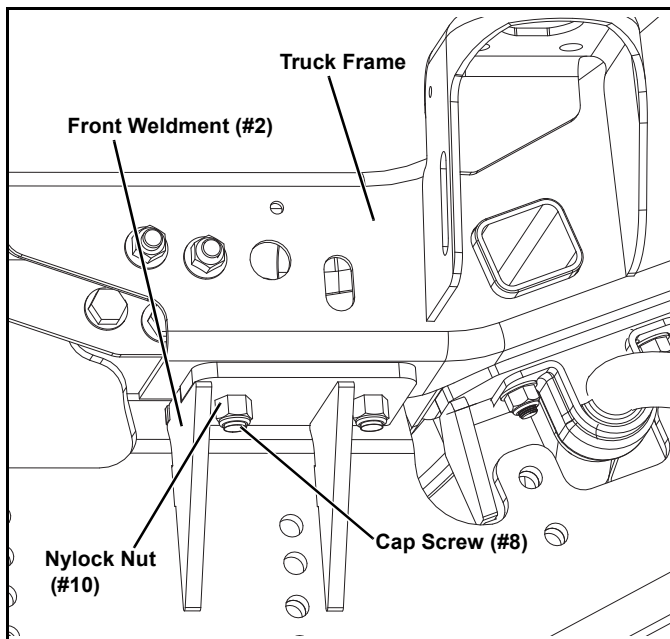


Figure 8

12. Repeat steps 10 & 11 for the Passenger Side Front Weldment (#3).

13. Use (8) 1/2"-13 x 1-1/2" Cap Screws (#8) and (8) 1/2"-13 Nylock Nuts (#10) to loosely secure Front Weldments (#2 & 3) to the Rear Weldments (#4). (See Figure 9).

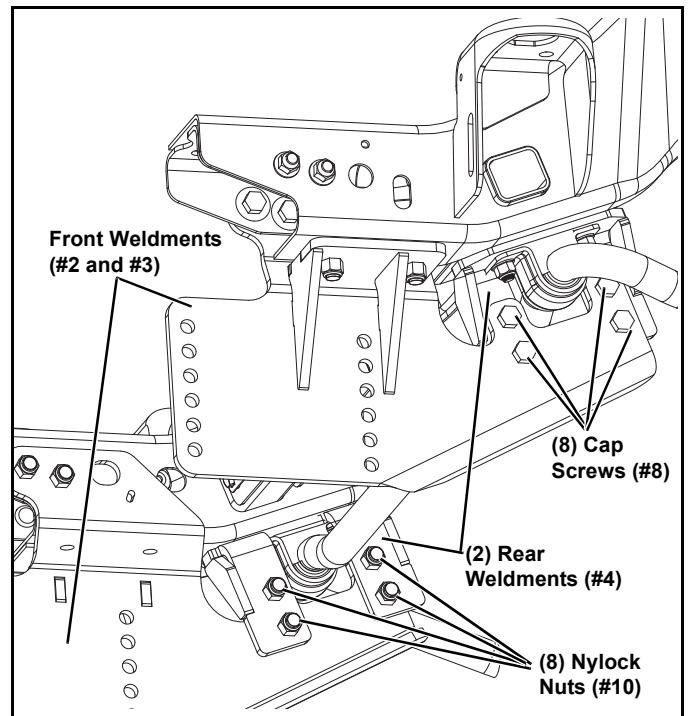


Figure 9

14. Attach the Vehicle Center Member (#1) to the Front Weldments, DS (#2) and PS (#3). Secure using (8) 1/2"-13 x 1-1/2" Cap Screws (#8), (2) 1/2" Lock Washers (#11) in the threaded holes and (6) 1/2"-13 Nylock Nuts (#10).

**NOTE:** In the rare case the Vehicle Center Member does not fit between the Front Weldments, DS (#2) and PS (#3), see TSB 22-04-26A for details.

15. Skip step 15 if the Center Member fits. The 99101476 (#13) will replace the 99100891 (#1). Use the 1/4" and 3/8" Spacer Plates (#15 & 16) to take up any excess space between the Center Member (#13) and Front Weldments, DS (#2) and PS (#3). The (8) 1/2"-13 x 2" Cap Screws (#17) are only used if the 3/8" Spacer Plates (#15) are used (See Figure 10).

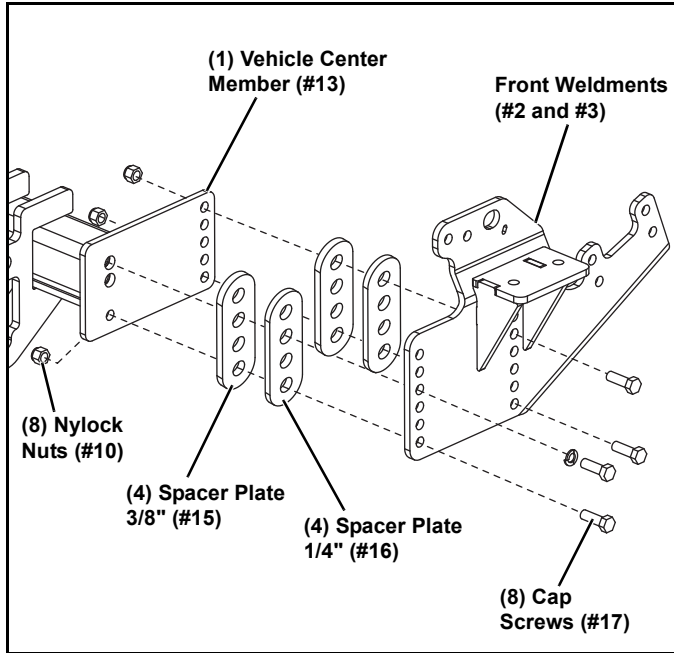


Figure 10

16. Reattach the bumper with the original hardware. The lower fascia can either be completely removed or cut where the vehicle mount kit stick outs past it.

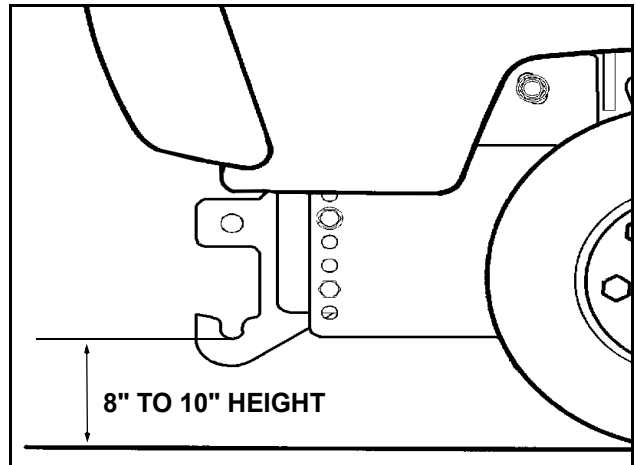


Figure 11

**IMPORTANT:** Height from the center of the lower Plow Mounting holes on the Vehicle Mount Kit to the ground should be between 8" and 10" to ensure proper operation.

**TORQUE SPECIFICATIONS FOR STANDARD MACHINE HARDWARE**

Bolt Size	GR.2 Dry	GR.5 Dry	GR.8 Dry	Metric Size	GR.8.8 Dry
1/4"	66*	9	12	M8	17
5/16"	11	17	25	M10	35
3/8"	20	30	45	M12	60
7/16"	32	50	70	M14	95
1/2"	50	75	110	M16	155
9/16"	70	110	150		
5/8"	100	150	220		
3/4"	175	260	380		
7/8"	170	430	600		
1"	250	640	900		

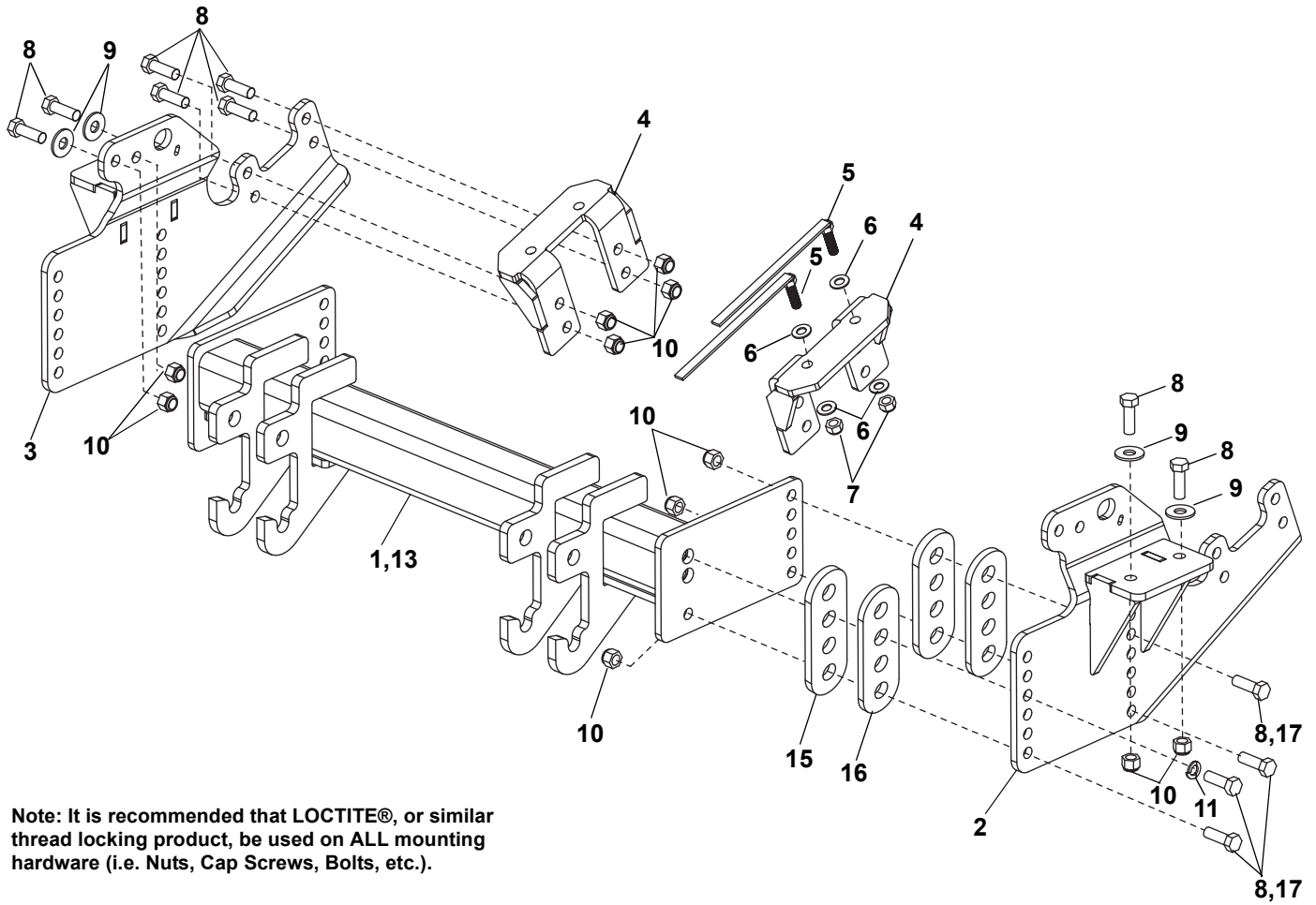
Note: These torque values are to be used for all hardware. Unless otherwise specified, all torque values must meet this specification.

Note: All torque values are in Ft.-Lbs unless otherwise stated

Note: \*In-Lbs

**REMEMBER** After 5 to 10 hours of snowplow usage, re-torque all Cap Screws!

# PARTS LIST



Note: It is recommended that LOCTITE®, or similar thread locking product, be used on ALL mounting hardware (i.e. Nuts, Cap Screws, Bolts, etc.).

ITEM	PART NO.	DESCRIPTION	QTY.
1	99100891	Vehicle Center Member .....	1
2		Weldment, Front, DS .....	1
3		Weldment, Front, PS.....	1
4		Weldment, Rear .....	2
5		Handle Bolt Weldment, 7/16" .....	4
6		Washer, Flat, 7/16".....	8
7		Nut, Nylock, 7/16"-20 .....	4
8		Cap Screw, Hex Head, 1/2"-13 x 1-1/2" .....	24
9		Washer, Flat, 1/2".....	8
10		Nut, Nylock, 1/2"-13 .....	22
11		Washer, Lock, 1/2" .....	2
12	96116314	Kit, HDWE (Includes items 5-11) (Not Shown) .....	1
		<b>Ignore below items if step 15 was skipped</b>	
13	99101476	Vehicle Center Member .....	1
14	96118343	Kit, Spacer (Includes items 15-17) (Not Included with VMK 99101240) .....	1
15		Plate, Spacer 3/8" .....	4
16		Plate, Spacer 1/4" .....	4
17		Cap Screw, Hex Head, 1/2"-13 x 2" .....	8

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