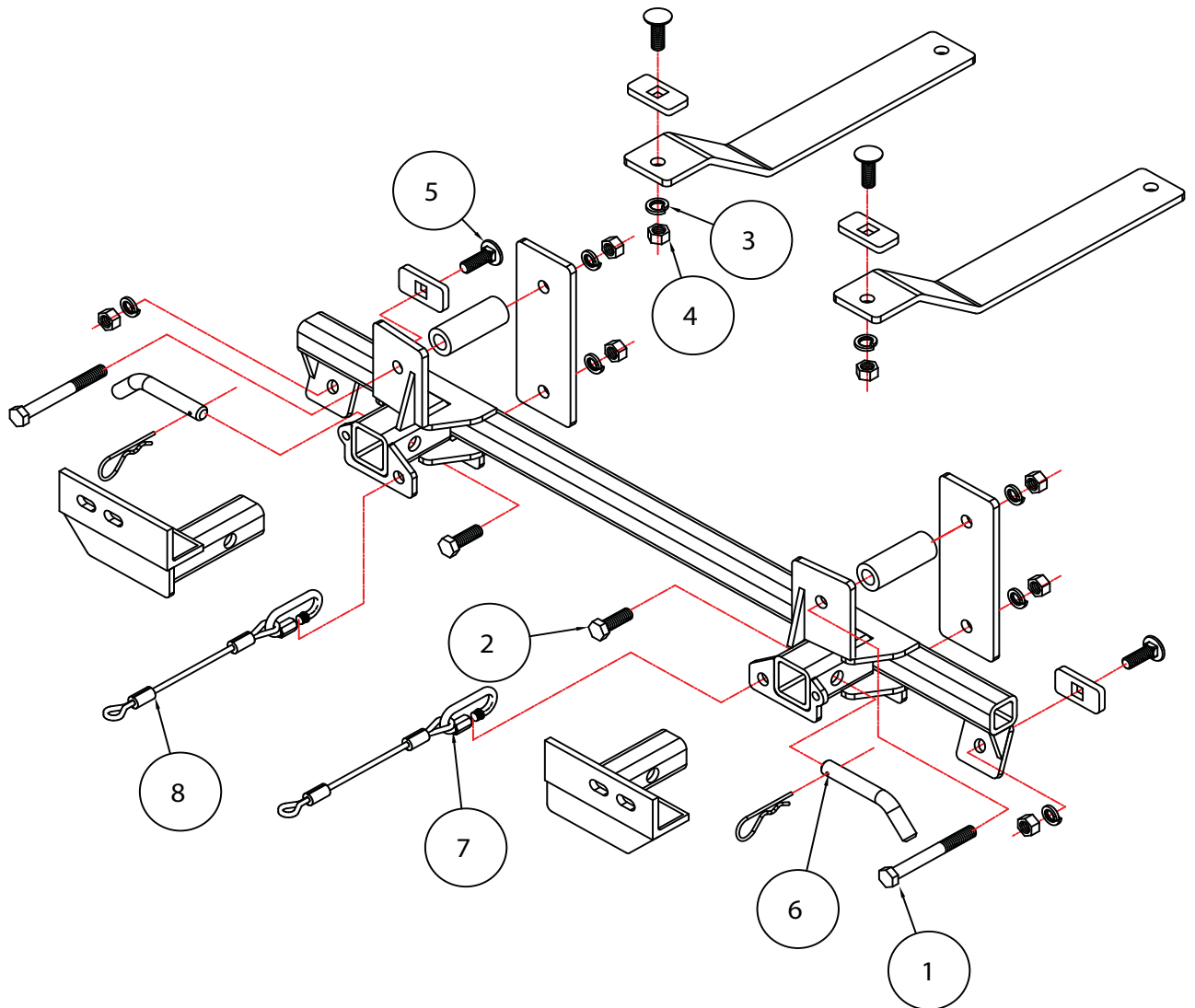




MOUNTING BRACKET KIT INSTALLATION INSTRUCTIONS

KIT# 916-1
04/15/14

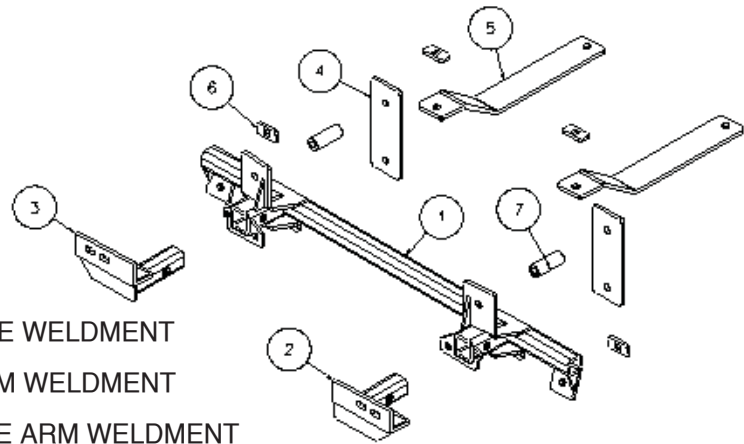


Item	Qty	Length	Width	Hardware	Part No.
1	2	4 1/2"	1/2"	BOLT	350106-00
2	2	1 1/2"	1/2"	BOLT	350095-00
3	8		1/2"	LOCK WASHER	350309-00
4	8		1/2"	NUT	350258-00
5	4	1 1/2"	1/2"	CARRIAGE BOLT	350362-00
6	2			DRAW PIN/ SPRING PIN	357035-00
7	2			CABLE CONNECTORS	200008-00
8	2	10"		CABLES	650646-10



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Item	Qty	Name	Material
1	1	C-000684	RECEIVER BRACE WELDMENT
2	1	C-000685	DRIVER SIDE ARM WELDMENT
3	1	C-000686	PASSENGER SIDE ARM WELDMENT
4	2	A-001163	REAR MOUNTING PLATE
5	2	B-000471	BRACE PLATE
6	4	A-000040	BACKING PLATE
7	2	A-001168	ROUND TUBE SPACER

IMPORTANT: All brackets **must** be assembled with all the bolts left loose for final adjustment and positioning (before tightening) unless otherwise instructed. All bolts **must** be torqued for proper strength. If more than one bolt is used per fastening point, the diagram may only show one.

- Use flat washers over all slotted holes
- Use lock washers on all fasteners

ROADMASTER Limited Warranty, including One-Year Conditional Warranty Text and Product Registration Card, in Carton.

WARNING

Failure to follow these instructions can result in property damage, personal injury or even death.

- Installation of most mounting brackets requires moderate mechanical aptitude and skills. We strongly recommend professional installation by an experienced installer.
- The installer must read the instructions and use all bolts and parts supplied. Failure to do so could result in loss of the towed vehicle.
- Use Loctite® Red on all bolts used for mounting this bracket.
- Every 3,000 miles, the owner must inspect the fasteners for proper torque, according to the bolt torque requirements chart on the last page of these instructions. The owner must also inspect all mounts and brackets for cracks or other signs of fatigue every 3,000 miles. Failure to do so could result in loss of the towed vehicle.
- The owner must check the vehicle manufacturer's instructions for the proper procedure(s) to prepare the vehicle for towing. Some vehicles must be equipped with a transmission lube pump, an axle disconnect, driveline disconnect or free-wheeling hubs before they can be towed. Failure to properly equip the vehicle will cause severe damage to the transmission.
- If running changes were made by the vehicle manufacturer after this bracket was designed, some bolts or other fasteners in the hardware pack may no longer be the correct size. It is the installer's responsibility to verify that the bracket is securely fastened to the vehicle and fitted with the correct hardware to account for these changes. Failure to securely fasten the bracket could result in loss of the towed vehicle.
- If the towed vehicle has been in an accident, it must be properly repaired before attaching the bracket. Do not install the bracket if any structural frame damage is found. Failure to repair the damage could result in the loss of the towed vehicle.

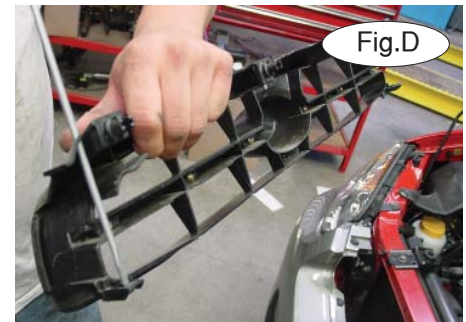
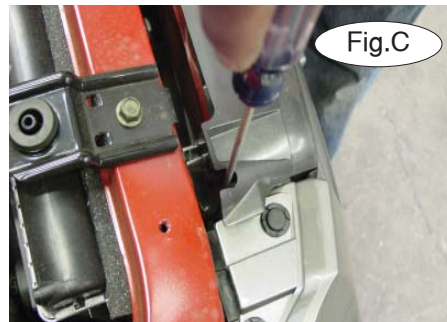
- Roadmaster manufactures many styles of brackets. If your bracket has removable arms, they must be removed before driving the vehicle, unless the arms can be pinned or padlocked in place. If not secured, the arms could vibrate out, resulting in non-warranty damage or personal injury.
- Some motorhome chassis have such a tight turning radius that you can damage your motorhome, towed vehicle, tow bar or bracket while turning sharply. Before getting on the road, test your turning radius in an empty parking lot. Turning too sharply could result in non-warranty damage to towing system, motorhome and/or towed vehicle.
- Do not back up with the towed vehicle attached or non-warranty damage will occur to your towing system, motorhome and/or towed vehicle.
- The safety cables must connect the towing vehicle to the towed vehicle frame to frame, with the cables crossed, with enough slack for sharp turns. Refer to the cable instructions for proper routing. Failure to leave enough slack in the safety cables, or failure to connect the safety cables frame to frame, will result in the loss of the towed vehicle.
- This bracket is designed for use with ROADMASTER tow bars and ROADMASTER adaptors only. Using this bracket with other brands, without an approved ROADMASTER adaptor, may result in non-warranty damage or injury.
- Do not use this document for custom fabrication, as it may not show all parts or structural components. Custom fabrication or an attempt to copy this bracket design could result in loss of the towed vehicle.
- Upon final installation, the installer must inspect the bracket to ensure adequate clearance, particularly around hoses, air conditioner lines, radiators, etc., or non-warranty damage to the towed vehicle will result.
- This bracket is only warranted for the original installation. Installing a used bracket on another vehicle is not recommended and will void the warranty.



MOUNTING BRACKET KIT INSTALLATION INSTRUCTIONS

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1. This bracket kit is one of our XL series, which is designed to be partly removable. The kit consists of a main receiver brace, two side braces, front braces and a hardware pack. The main receiver brace mounts below the bumper core behind the front bumper fascia. The side braces install behind the fascia to the sides of the receiver brace, then back to the front tie down loops on each side. The front braces install in the receiver braces (Fig.A). Layout the kit, according to the illustration. This will give you a visual idea of how the kit installs and also confirm that the kit components are present and accounted for.



2. **Important:** please use all supplied bolts and parts and read all instructions carefully before beginning this installation. The majority of questions you may have can be answered within the text, and proper installation will ensure safe and secure travel. Now, begin the installation. Start by removing the grille. Use a screwdriver to depress four built-in catches on the top of the grille and one in each bottom corner. Then, lift out and set aside (Fig.B,C,D).

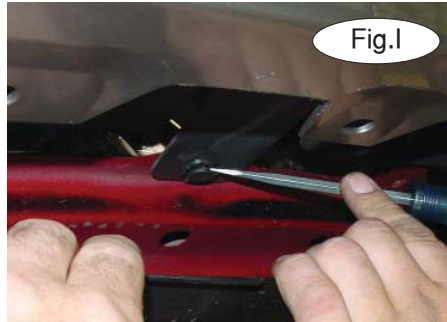
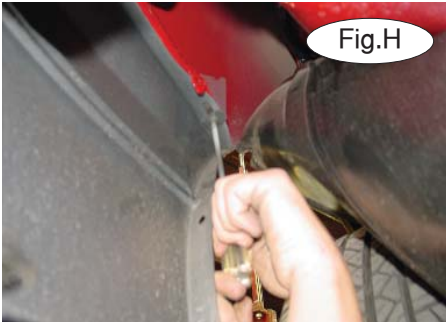


3. Remove nine plastic fasteners from the top of the fascia (Fig.E).
4. Remove a lower plastic fastener in each fender well (Fig.F) then two more underneath each splash panel (Fig.G).

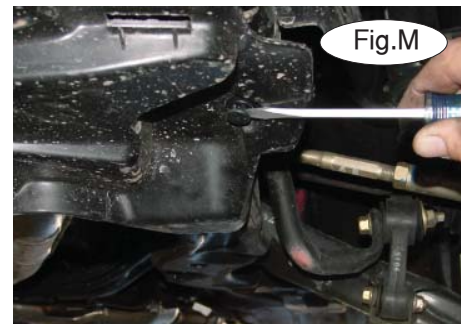


MOUNTING BRACKET KIT INSTALLATION INSTRUCTIONS

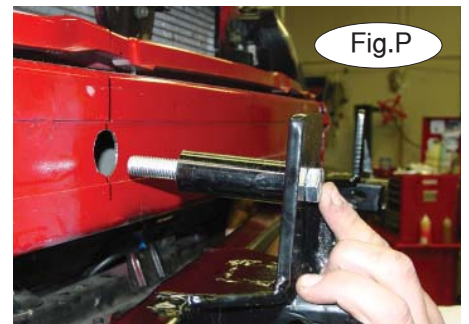
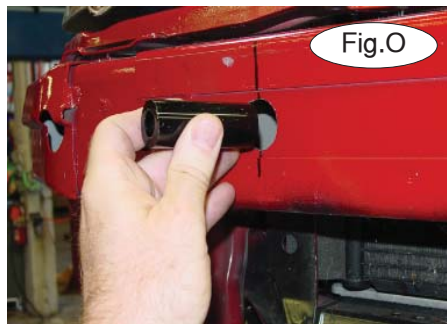
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5. Remove the fascia/fender junction fastener on each side (Phillips head) (Fig.H) then one center fastener (Fig.I) and a Phillips head screw.
6. Remove an additional plastic fastener near the driving lights on each side (Fig.J) then disconnect the driving lights.



7. Pull the sides of the fascia out and forward to remove, and then set aside (Fig.K). Now, remove the foam shock absorption (Fig.L).
8. Remove three bottom gravel guard fasteners (12mm head); one on each side and one in the middle (Fig.M).



9. Remove four more plastic fasteners in the bottom splash panel and then set the gravel guard aside (Fig.N).
10. Locate two large holes on each side in the front of the bumper core. Enlarge the passenger side forwardmost hole so that a tube spacer can be inserted into the front of the bumper core (Fig.O).
11. Using two of the supplied $\frac{1}{2}$ " x $4\frac{1}{2}$ " bolts, two $2\frac{5}{8}$ " tube spacers, two $\frac{1}{4}$ " x 3" x 8" rear mounting plates, lock washers and nuts, insert the bolts in the brace mounting holes and one spacer on the passenger side as shown (Fig.P). Hold the main receiver brace under and in front of the bumper core (Fig.Q) with the bolts and one spacer in the front holes of the bumper core. Insert the driver side spacer in the back of the bumper core over the driver side bolt. Install the rear mounting plates on the bolts behind the bumper core (Fig.R) and finish with the $\frac{1}{2}$ " lock washers and nuts (Fig.S).



MOUNTING BRACKET KIT INSTALLATION INSTRUCTIONS

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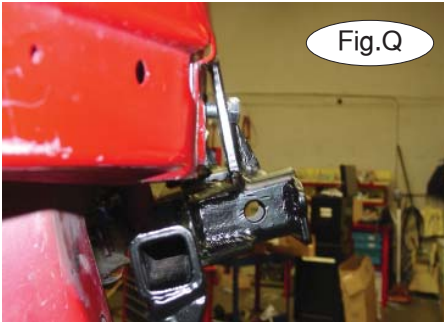


Fig.Q



Fig.R

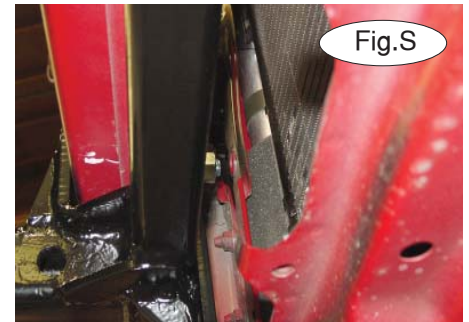


Fig.S



Fig.T

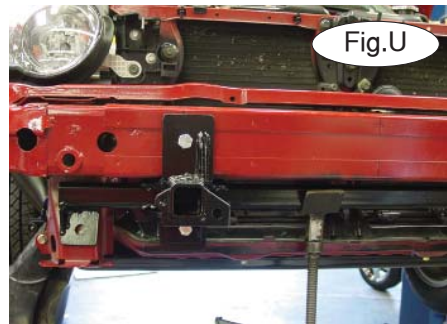


Fig.U

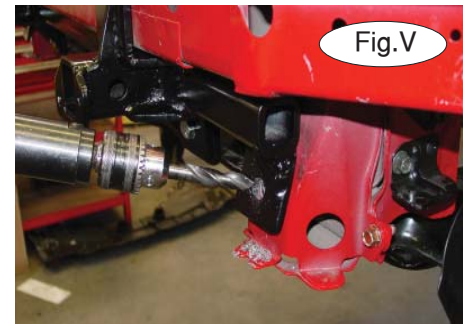


Fig.V

12. Bolt through the bottom of the rear mounting plates with $\frac{1}{2}$ " x $1\frac{1}{2}$ " bolts, lock washers and nuts (Fig.T).
13. Push or clamp the receiver brace firmly to the bottom of the bumper core and then tighten all the bolts installed in steps 11 and 12 to the bolt torque requirements found on the last page of these instructions (Fig.U).
14. Using the receiver brace as a drill template, drill a $17/32$ " hole in the front of the frame on each side (Fig.V).

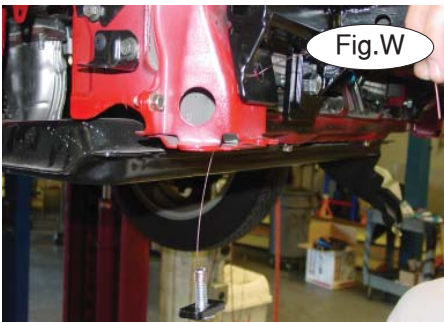


Fig.W



Fig.X

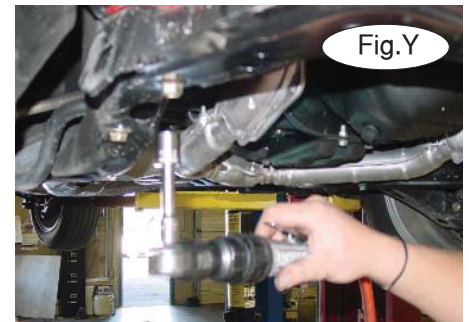


Fig.Y

15. Using two of the supplied $\frac{1}{2}$ " x $1\frac{1}{2}$ " carriage bolts, 1" x 2" backing plates, $\frac{1}{2}$ " lock washers and nuts, fishwire the carriage bolts and backing plates into the drilled holes through access holes in the bottom of the frame (Fig.W). Finish by tightening the bolts to the bolt torque requirements found at the end of these instructions. *Note:* if the hole doesn't exist in the bottom of the frame, use the large access hole in the side of the frame instead.
16. On each side, use one of the $\frac{1}{2}$ " x $1\frac{1}{2}$ " carriage bolts and 1" x 2" backing plates and place them through the hole in the bottom of the frame rail (Fig.X). *Note:* due to manufacturing variances, the hole in the bottom of the frame rail may not exist. If this is the case, use the forwardmost pre-existing hole in the lower brace plate (installed in steps 17-19) as a template for drilling the hole into the frame.
17. Support the lower front subframe (Fig.X) then, working on one side at a time, remove a subframe bolt (Fig.Y).



MOUNTING BRACKET KIT INSTALLATION INSTRUCTIONS

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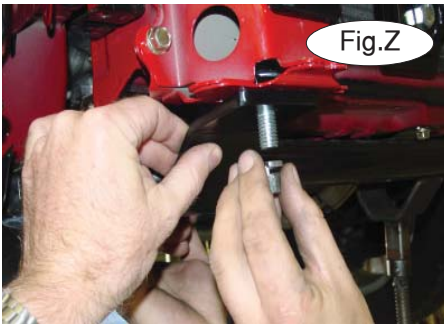


Fig.Z



Fig.AA



Fig.BB

18. Place the front of the brace plate over the bolt you installed in step 16 and then finish with a 1/2" lock washer and nut (Fig.Z).
19. Apply Loctite® Red on all nuts and bolts, as well as the subframe bolt (Fig.AA) then reinstall and torque both bolts to the bolt torque requirements found at the end of these instructions (Fig.BB).



Fig.CC



Fig.DD



Fig.EE

20. Repeat steps 17 through 19 for the remaining side.
21. Mark and cut the shock absorption foam to clear the upper mounts (Fig.CC).
22. Trial fit the fascia and mark the center rib and sides of the lower opening then trim to fit as shown (Fig.DD,EE).
23. Reinstall the foam and fascia reversing steps 2 through 7 (Fig.FF,GG).
24. Trim the front of the fender well splash panels to fit around the braces (Fig.HH,II). Also, trim the center gravel guard as needed to fit.



Fig.FF

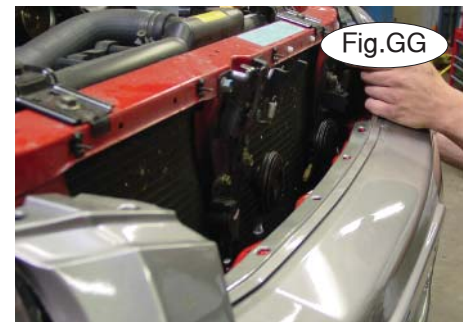


Fig.GG



Fig.HH

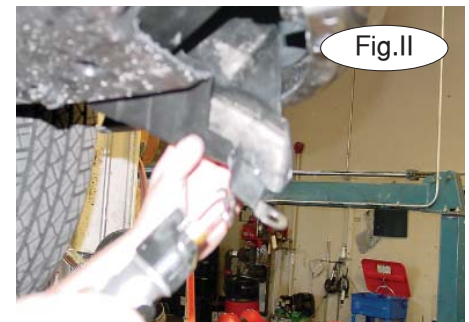


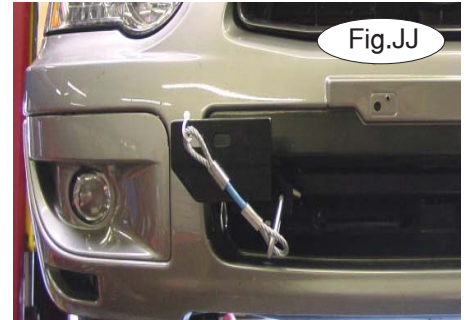
Fig.II



MOUNTING BRACKET KIT INSTALLATION INSTRUCTIONS

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25. Insert the front braces in the receiver braces and secure using 5/8" draw pins and 1/8" spring pins (Fig.JJ).
26. Install the tow bar according to the manufacturer's instructions.
27. Attach one end of the 8" safety cables to the receiver braces with the included cable connectors. Attach the other end of the cables to the tow vehicle's safety cables and the tow bar.



BOLT TORQUE REQUIREMENTS

Note: The torque values represented below are intended as general guidelines. Torque requirements for specific applications may vary. Roadmaster does not warrant this information to be accurate for all applications and disclaims all liability for any claims or damages which may result from its use.

STANDARD BOLTS

Thread Size	Grade	Torque
5/16.....	5.....	13 ft./lb.
3/8.....	5.....	23 ft./lb.
7/16.....	5.....	37 ft./lb.
1/2.....	5.....	56 ft./lb.
5/8.....	5.....	150 ft./lb.

METRIC BOLTS

Thread Size	Grade	Plated / Unplated
8mm-1.0	8.8	20 ft./lb. 18 ft./lb.
8mm-1.25	8.8	19 ft./lb. 18 ft./lb.
10mm-1.25	8.8	38 ft./lb. 36 ft./lb.
10mm-1.5	8.8	37 ft./lb. 35 ft./lb.

METRIC BOLTS

Thread Size	Grade	Plated / Unplated
12mm-1.25	8.8	70 ft./lb. 65 ft./lb.
12mm-1.5	8.8	66 ft./lb. 61 ft./lb.
12mm-1.75	8.8	65 ft./lb. 60 ft./lb.
14mm-2.0	8.8	104 ft./lb. 97 ft./lb.