



Alpha Series Front Bumper Installation Manual

- 2003-2009 GM 4500-5500

Kelderman Alpha Series Front Bumper



Winch

Pre-Runner Bar Not Available

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Kit Numbers

- This installation manual covers the following front bumpers.

Kit Number	Description
KLM-400063003-002024200	GM 4500/5500 – Alpha Light – No Sensors

Introduction

- **Important**

It is important that the entire installation instructions be read thoroughly before proceeding with bumper installation.

- **Product Installer Responsibilities**

Installer is responsible for installing this product in accordance with Kelderman Mfg. Inc. specifications and installation instructions.

Installer is responsible for providing proper installation of vehicle components and attachments as well as required or necessary clearance for suspension components, axles, wheels, tires, and other vehicle components to ensure a safe and sound installation and operation of this product.

- **Product Owner Responsibilities**

Owner is solely responsible for pre-operation inspection, periodic inspections, maintenance, and use of the product as specified by Kelderman Mfg. Inc. Of particular importance is the re-torque of fasteners. This re-torque must be performed within 90 days or 1000 miles of this product being put into service.

- **Definition of Terms**

- **Warning:** Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.
- **Caution:** A potential hazardous situation may result in property damage.
- **Note:** Provide information or suggestions that help correctly perform a task.
- **Torque:** When italicized "*torque*" alerts the installer to tighten fasteners to a specified value.

Safety

- **Your Safety and the Safety of Others is Very Important.**
Read and understand all safety precautions and instructions before installing this product.

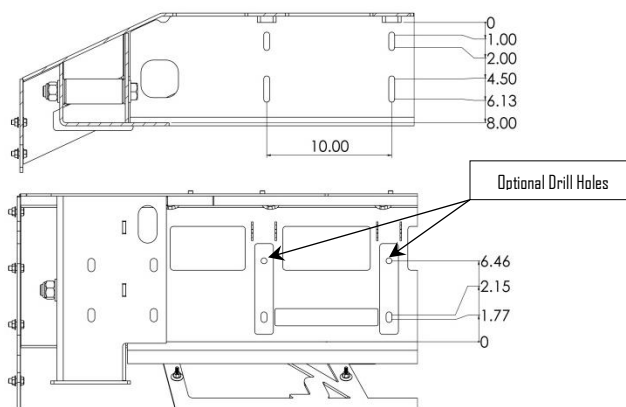
- **CAUTION: Trucks Equipped with Parking Sensors or Other Like Devices.**
Relocation of these devices will alter the field of view. It is the responsibility of the owner to understand how these changes affect the operation of these systems.

- **This Product is Intended for Off-Road Use**
All liability for installation and use rests with the owner.

- **WARNING: Careless Installation Can Result in Serious Injury or Property Damage**
 - Wear eye protection.
 - Disconnect the battery before doing any work on the vehicle.
 - Work on flat level ground.
 - Ensure truck is properly supported by jack stands. Never work under a vehicle supported only by hydraulic jacks.
 - Take precautions when lifting product. Due to the size and weight of this product three people are recommended for installation.
 - Never work directly under the product until it has been securely fastened to the vehicle.
 - Avoid sharp, hot, and moving components when routing electrical cables.
 - If drilling inspect both sides of the surface and remove/relocate any objects located in the way.
 - Ensure all bolts are properly tightened before driving.

Bumper Preparation

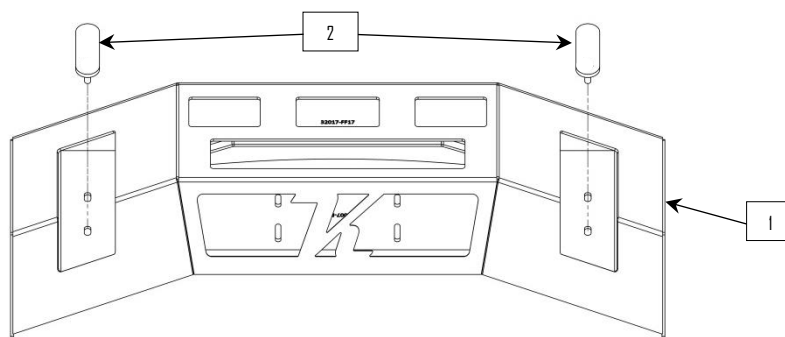
- Before painting open every box and locate all parts. There are several smaller bushing pieces, screens, and bolt tabs that are packaged separately inside the main box.
- **CAUTION:** Kelderman Mfg. Inc. cannot guarantee correct out of the box fitment across all winch brands and sizes. The installer is responsible for test fitting the winch into the bumper and making any required modifications before the bumper is sent to paint. See image below for the bolt pattern in the Kelderman bumper.
 - **NOTE:** When installing larger winches (16,500lb) the installer maybe required to drill two extra holes into the face of the bumper in order to properly mount the winch.



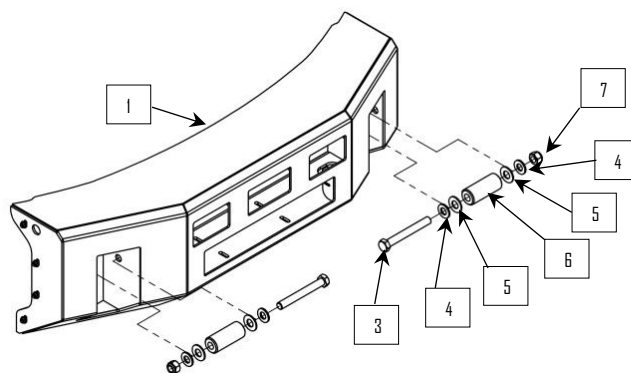
- **CAUTION:** Kelderman Mfg. Inc. cannot guarantee correct out of the box fitment across all light brands and sizes. The installer is responsible for test fitting all lights into the bumper and making any required modifications before the bumper is sent to paint. This bumper has been designed to utilize the following Rigid Industries lights.
 - Rigid Industries E-Series 6 Inch Light (End Cap)
- **Tow Hook Pocket Painting**
 - If a heavily textured thick coating is being applied, take note that buildup does not hinder the installation of the tow hooks. Each bumper is supplied with four rubber washers to let tow hooks rotate without damaging the paint. If thick coatings are applied, installation of hooks may only allow for the use of one or no rubber washers.

Bumper Assembly

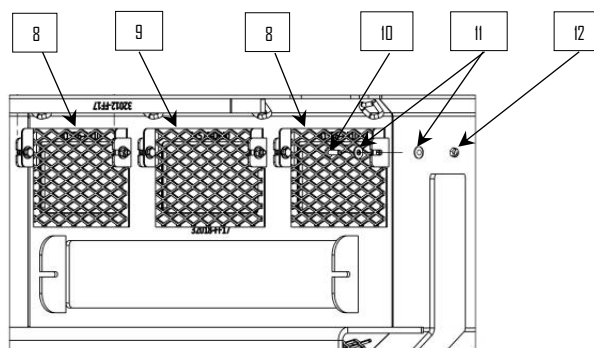
- On a clean flat non-scratching surface place the bumper center section (1) face down.
- Insert bumper mount bolting tabs (2) thru each pocket in the center section. Use tape or zip ties to temporarily hold in place.



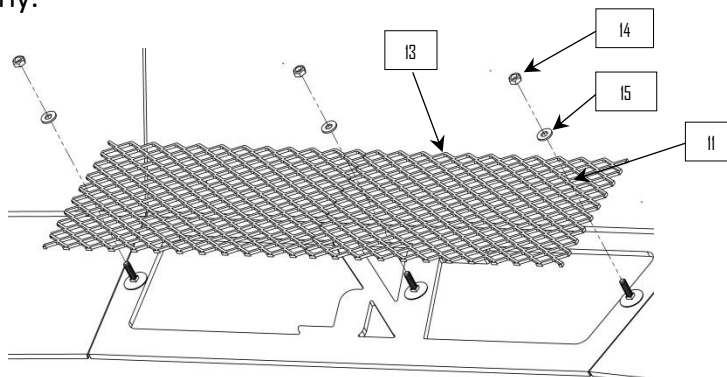
- Install the tow hooks (6) into the pockets using the provided 7/8" hardware. Tow hooks (6) and rubber washers (5) go inside the pocket. Tighten the 7/8" nut (7) to the point where the tow hook will still spin but not freely.



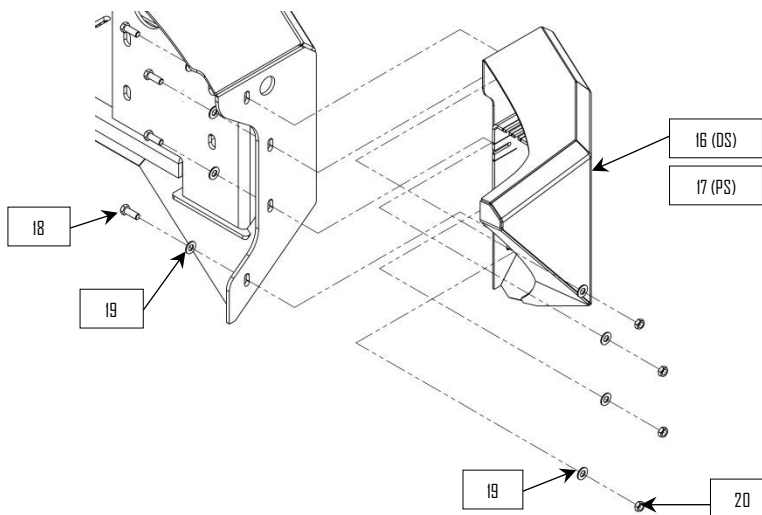
- Bolt the three upper screens (8 & 9) into the center section.



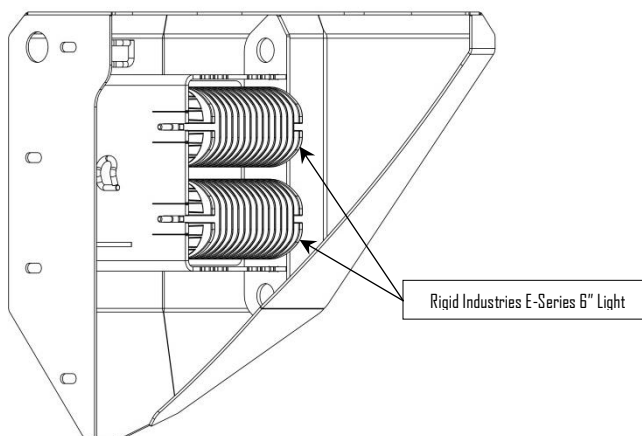
- Place the lower screen (13) over the studs and fasten in place with flat washer (11) lock washer (15) and nut (14). **NOTE:** Screen may need to be flipped or rotated to align properly.



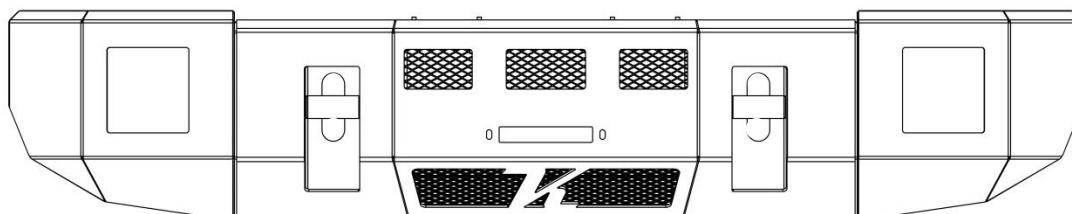
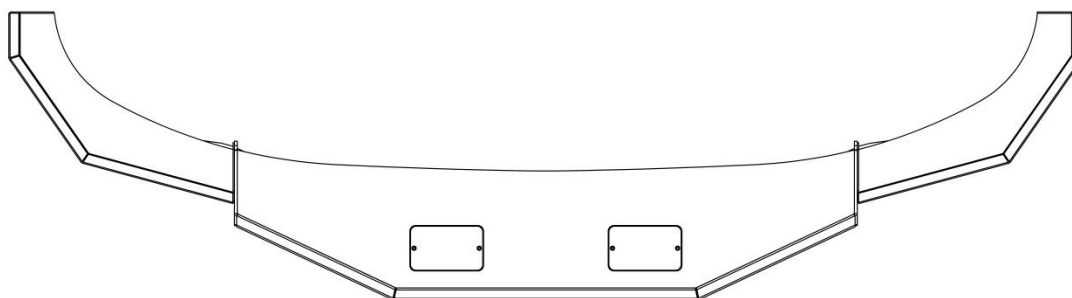
- Winch Bumpers
 - Install winch according to winch manufacture’s specifications. When installing large winches two extra holes may need to be drilled into the face of the bumper. **NOTE:** Use the internal spacer plates as a drill guide. (See Bumper Preparation Section)
- Bolt the end caps onto the center section using the supplied hardware. Re-positioning may be required after bumper is installed onto truck. **NOTE:** While positioning use masking tape to protect painted surfaces that come into contact.



- Install the lights into each end cap.

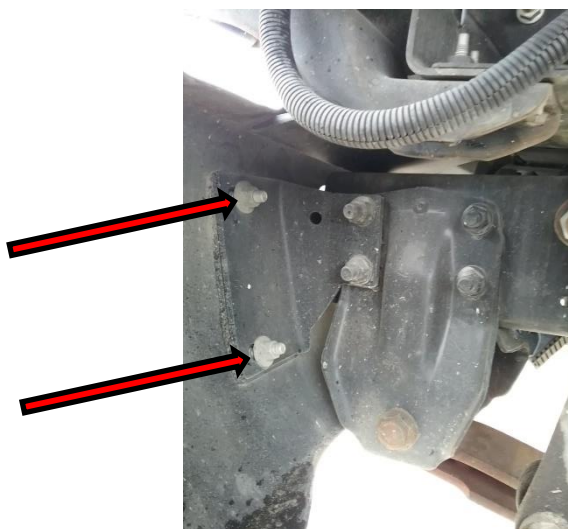


- Install horizontally two Rigid Industries 6 inch E-Series light (*or similar light*) into each end cap using the hardware supplied with the light.
 - **NOTE:** The light mounting ears will deform and draw up to the light as they are tightened.
- Zip tie wiring to the tie downs welded inside the bumper.
- The bumper is now ready for installation.

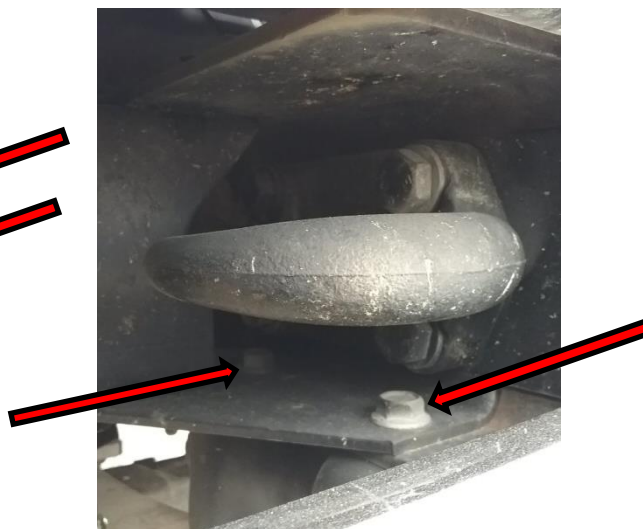
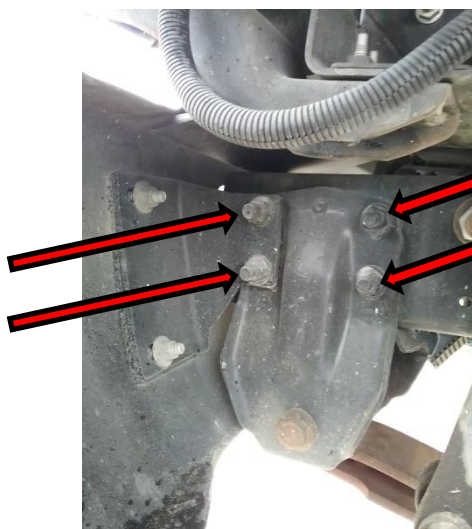


Bumper Removal

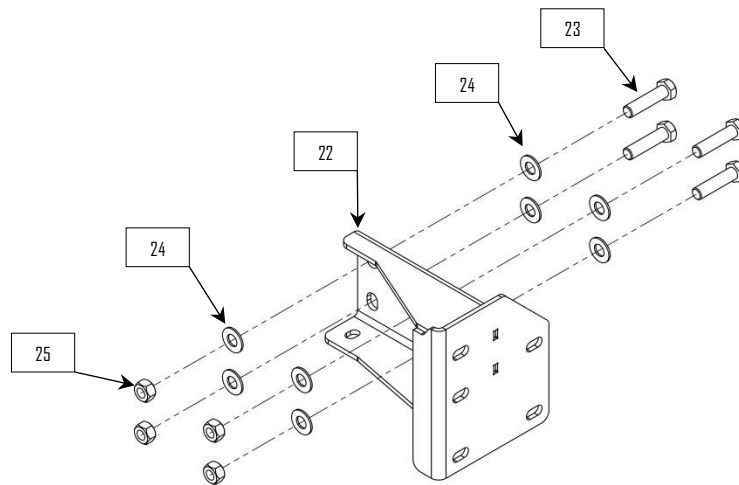
- 1: Disconnect the wiring to any lights, sensors, or other accessories mounted to the stock bumper.
- 2: With the bumper supported, remove the bolts from each side that fasten the bumper to the bracket. The bumper can now be removed.



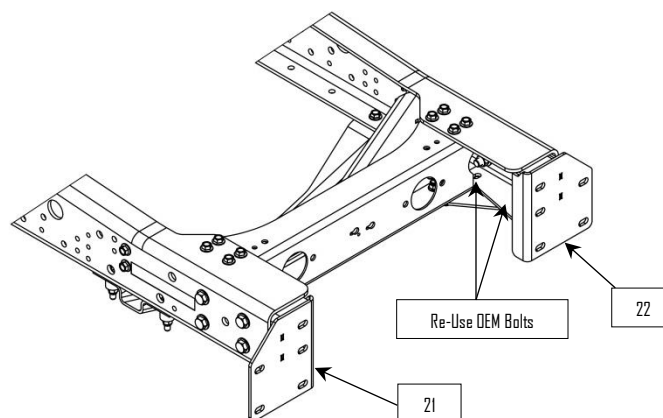
- 3: Lift the frame of the truck enough to take the weight off the front leaf spring. Leave the front tires on the ground to support the axle. Place a floor jack under the front leaf spring hanger. Remove the two bolts from the bottom of the bracket (these will be reused) and the four bolts from the side of the bracket. Use the floor jack to keep the hanger bracket in place. **WARNING:** Do not remove bolts while spring is loaded.



- 4: Remove the factory tow hooks and bumper bracket, they will not be re-used.



5: Install bumper frame brackets (21 & 22). Bolt the frame brackets thru the frame and leaf spring hanger using the 5/8" bolts (23) flat washers (24) and lock nuts (25). Reuse the bolts from Step 3 to fasten thru the frame bottom flange.

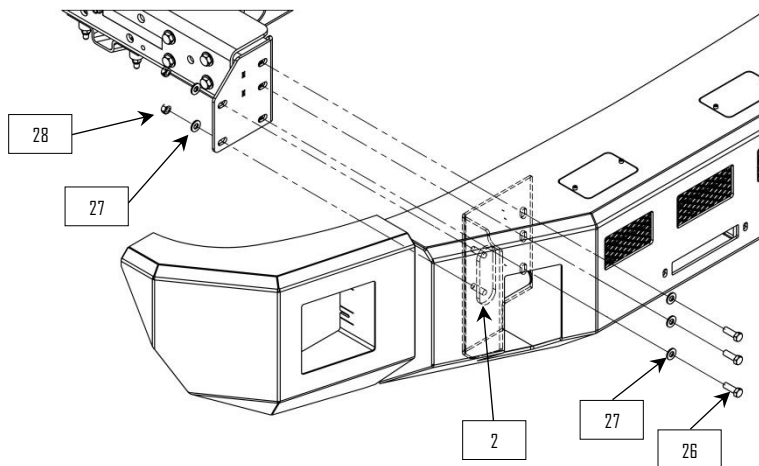


6: Torque all six bolts in each spring hanger bracket to the specifications listed below.

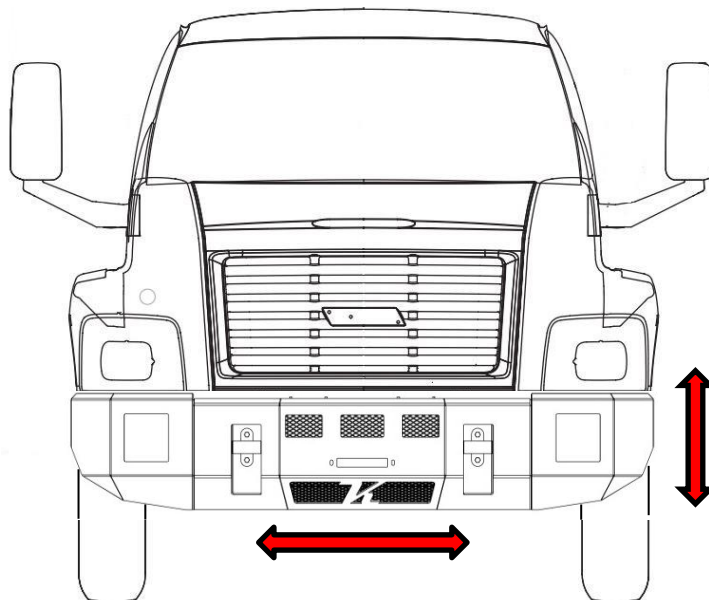
7: The truck can now be set back on the ground.

Bumper Installation

- Use the studs of the bumper mount bolting tabs (2) to position the bumper on the frame brackets (21 & 22). Use washer (27) and nut (28) to fasten the bumper to the mount.



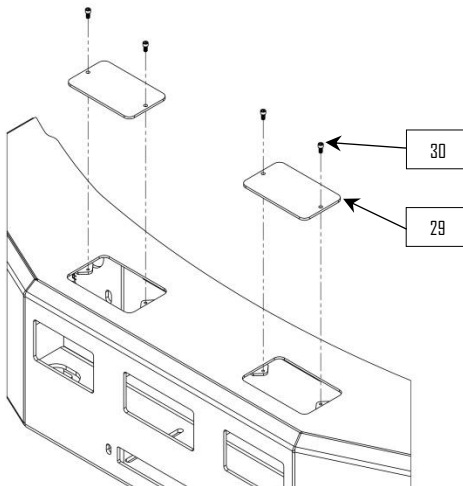
- Insert the remaining $\frac{1}{2}$ " hardware thru the bumper and bracket.
- Align the bumper on the truck and tighten the mounting hardware. **NOTE:** The end caps can be re-adjusted at this point if required. **CAUTION:** Open the hood slowly and ensure you have proper clearance between the hood and bumper when the hood is open.



- Torque all fasteners according to the chart below.

Bolt Size	Dry Torque
1/4"-20	70 <i>in-lb</i>
3/8"-16	30 <i>ft-lb</i>
1/2"-20	120 <i>ft-lb</i>
9/16"-18	170 <i>ft-lb</i>
5/8"-18	240 <i>ft-lb</i>
7/8"-9	430 <i>ft-lb</i>
M12-1.75	60 <i>ft-lb</i>

- Finish wiring accessories.
- Winch bumpers, install winch access covers (29) using bolts (30).



Parts Key

Item Number	Part Number	Description
1	32152	Center Section - Winch
2	31760	Bumper Mount Bolting Tab
3	12644	Bolt: 7/8"-9 X 7.00"
4	13010	Flat Washer: 7/8"
5	80043	Rubber Washer: 1" ID X 2" OD
6	31552	Tow Hook
7	13110	Lock Nut: 7/8"-9
8	31577	Outer Screen
9	31579	Inner Screen
10	12108	Bolt: 1/4"-20 X 3/4"
11	13000	Flat Washer: 1/4"
12	13100	Lock Nut: 1/4"-20
13	31565	Lower Screen
14	13140	Nut: 1/4"-20
15	13042	Lock Washer: 1/4"
16	32167	End Cap (DS)
17	32168	End Cap (PS)
18	12210	Bolt: 3/8"-24 X 1-1/4"
19	13002	Flat Washer: 3/8"
20	13102	Lock Nut: 3/8"-24
21	32162	Bumper Frame Mount (PS)
22	32161	Bumper Frame Mount (DS)
23	12415	Bolt: 5/8"-18 X 2-1/2"
24	13006	Flat Washer: 5/8"
25	13126	Lock Nut: 5/8"-18
26	12007	Bolt: 1/2"-20 X 1-1/2"
27	13004	Flat Washer: 1/2"
28	13124	Lock Nut: 1/2"-20
29	31820	Winch Access Cover
30	13503	Socket Head Screw: 1/4"-20 X 1/2"

Notes

Contact Information

- Kelderman Manufacturing appreciates your business. We strive to meet the needs of our customers by providing the highest quality products. If you have any questions concerning our products please call or email us at the following:

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