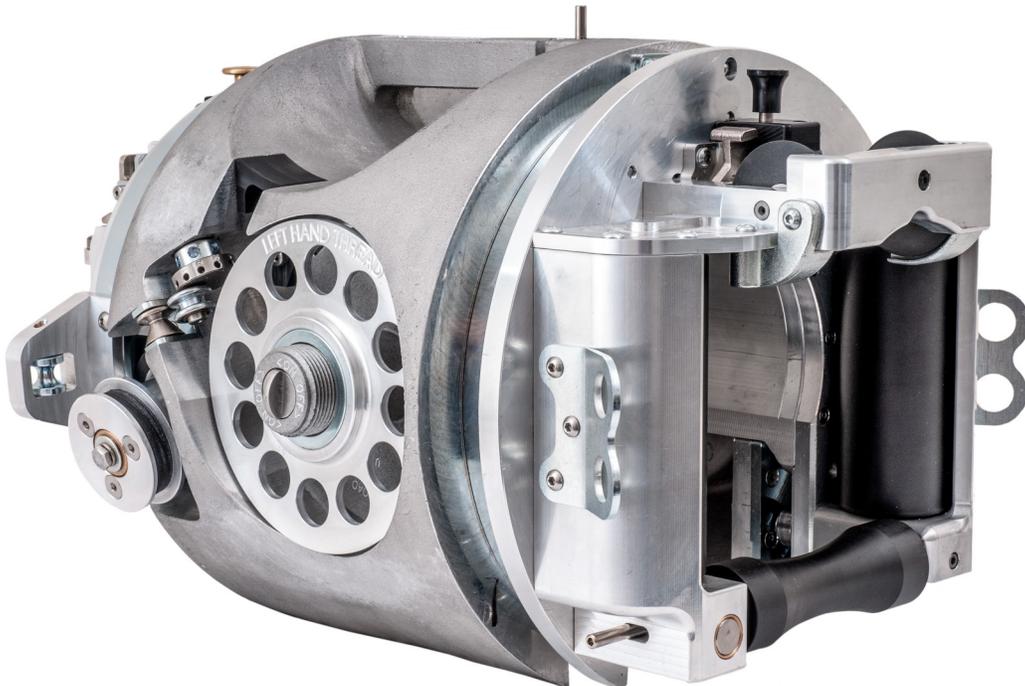




LARGE CAPACITY CABLE LASHER



Super G Cable Lasher

Operation and Maintenance

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GMP Limited Warranty can be found at <http://www.gmptools.com/warranty/>

Caution:

Do not pull the lasher backwards along the strand. Serious damage can occur to the front roller as it's designed to turn only in the forward direction when the lasher is pulled.

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1.0 General

This manual covers the care, operation and maintenance of your GMP Super G cable lasher, which you can use to lash cables up to 5.25 in. (133mm) dia. to suspension strand, or smaller cable sizes to an existing lashed cable and strand. The Super G has the capability to lash up to a 5.75 in. (146mm) bundle of any assortment of innerduct, fiber, copper and coaxial cables as well. The strand sizes range from .34 to .50 in. (8.73mm to 12.7mm) diameter, inclusive.

This machine is intended for use only by properly trained journeyed lines-people or other craftspeople under the direct supervision and responsibility of those individuals.

As such, this manual's scope is specifically limited to the machine's functions, and no attempt is made to describe the proper procedures for placing and lashing aerial cable plant.

We cannot be held liable for any direct or indirect consequences arising from use of this product by any individuals not already properly trained in its use.

The following conventions will be used in the manual:

Warnings - must be followed to avoid bodily injury.

Cautions - must be followed to avoid damage to equipment

Notes - contain important information and useful tips on the operation of your Super G lasher.

2.0 Precautions

2.1 Observe the following precautions when operating the Super G lasher.

Read all of the instructions and save them for later reference. Before beginning any cable work, first check the cable run you want to make in order to find out what local conditions might be while you are lashing. Among the factors you should look for are:

- vehicle and pedestrian safety
- conditions of poles, anchors, guys and strand
- proper bonding and grounding of strand and attachments
- obstructions such as trees, limbs, and drop wires
- clearances and separations on poles shared by other utilities
- clearances over roads, driveways, walkways and crossings

Protect your work site with advance signaling devices at strategic points to warn traffic and pedestrians of any obstructions in the area.

Check your Super G lasher first! Before using your machine, check to make sure it is in good repair, and all of the parts and mechanical assemblies are intact and in good working order. If your machine is not properly maintained, it might be unsafe to use and pose an unnecessary risk to both you and the property and personnel in your work area.

In case your Super G lasher ever needs attention, you should forward it to our Lasher Department so it can get a professional repair and/or over-haul. (In case you are concerned about downtime, you should know our Department is set up to give you the fastest possible turnaround.)

Use the proper safety equipment! Before working aloft, inspect all your climbing and safety equipment to make certain it is in good repair. And while you are aloft, ALWAYS wear a safety belt with a safety strap securely attached to help prevent you from falling. Ensure the rear vertical cable rollers are set to their widest opening before placing the lasher on the side of a bucket.

Also, you should always raise and lower the Super G lasher with a hand-line or a truck lift. Use the bridle assembly at pole transfers! When transferring your lasher around a pole or obstruction, use the bridle assembly as a tether to prevent damage to the machine in case it is dropped. Doing this lets you concentrate on your own safety rather than that of the machine.

Avoid abuse or rough handling of the Super G lashers and never drop your lasher.

Keep your lasher in its protective case when not in use.

Protect your lasher from unnecessary exposure to dirt, grit and any other foreign matter.

Avoid placing the Super G on the ground whenever possible.

3.0 Description

3.1 General

The following features make your Super G lasher an outstanding value:

- parallel pull capability
- lightweight
- big bundle capacity
- constant tension in the lashing wire
- rotation section rotates in a single direction

Look at your Super G lasher for a moment. You will see it consists of a rotating section supported on a stationary carriage. The strand and cable pass through this stationary carriage during the lashing operation.

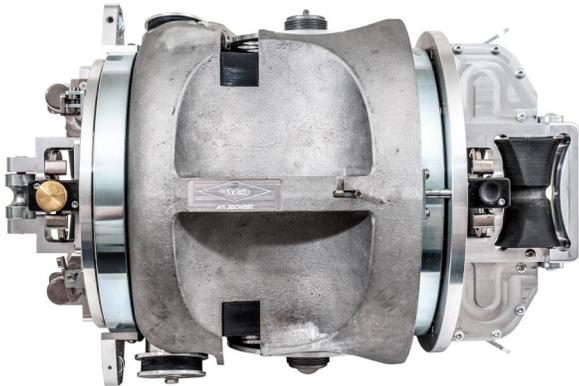


Figure 1

As you look at the carriage you will see it has cable and strand rollers, front and rear gates, towing bracket and an anti-back roll strand roller on the front.

The components are made from a variety of materials, each selected to provide specific properties. Some of the materials are heat-treated carbon and tool steel, stainless steel, aluminum alloys, as well as engineered polymers. There are ball bearings or needle bearings on the drive shafts and rotating sections. Sintered metal bearings are used on other moving parts.

The machine weighs approximately 58 lbs. (26.3kgs.) without wire and provides an outstanding strength/weight ratio while providing an exceptionally long service life.

Note: Please see figures 22, 23, 24, and 25 on page 18 and 19

3.2 Cable capacities

You can use the Super G to lash a single cable of almost any type, including telephone and fiberoptic cables up to 5.25 in. (133mm) in diameter. The Super G has the capability to lash up to a 5.75 in. (146mm) bundle of any assortment of innerduct, fiber, copper and coaxial cables as well. The strand sizes range from .34 to .50 inch diameter or 8.73mm through 12.7mm.



Figure 2

3.3 Lashing wire

The Super G lasher has two magazines for loading lashing wire in the machine. Each Super G lasher also comes with 2 spare magazines lashing wire can be loaded with lashing wire while lashing cable. Each magazine can hold a 5.38 in. (137mm) dia. by 1.81 in. (46mm) high wire coil. You should use annealed stainless steel wire. Wax-coated wire is not a requirement, however, oiled wire is not recommended.

P/N	Alloy	Dia.	Ft. Coil	Mtr. Coil	Wt. Coil
71516	430	.061	650	198.1	7.5 lbs
71531	430	.065	650	198.1	7.5 lbs.
71532	430	.065	450	137.2	5.3 lbs.
71540	316	.061	650	198.1	7.5 lbs.
71541	316	.065	450	137.2	5.3 lbs.
71530	430	.045	1200	365.8	6.5 lbs.
71533	302	.045	1200	365.8	6.5 lbs.
71534	316	.045	1200	365.8	6.5 lbs.
71542	304	.045	1200	365.8	6.5 lbs.

Compatible wire offered by GMP

Your lasher is designed to use two wires simultaneously (also known as “double lashing”). Like other GMP lashing machines, the balance of the Super G is not affected by the amount of wire loaded in either magazine.

Each magazine has two rollers for guiding and tensioning wire during lashing. The wire tension is developed by the routing of lashing wire and not the tension on the spool. The wire coils mount on a reel attached to the rotating drum. There is a non-adjustable tension on the reel to prevent overspinning. The lashing wire exits the tensioning rollers and enters the drive mechanism.

3.4 Drive mechanism

The Super G is driven by the lashing wire exiting the machine so the lasher can be pulled from any direction. The lashing wire rotates drive wheels that rotate the lasher.

3.5 Adjustable rear gate and cable lifter

The rear gate is adjustable by pressing on thumb tabs to lower the rear roller assembly. Raising the rear roller assembly by lifting the roller assembly. It is not necessary to press the thumb tabs to raise the rear roller assembly. The rear roller assembly is easy and fast to use and the locking tabs provides a positive lock to keep the rear rollers in place. To open the rear gate, push the latch and the rear gate rotates and locks to its open position. To close the rear gate press the latch and the rear gate swings closed and locks in the closed position.

3.6 Front gate

The front of the Super G is designed to provide the maximum in cable protection. There are 4 rollers to help prevent cable damage regardless of cable orientation. The top roller has a one-way clutch that ensure the lasher only moves in the forward direction, providing anti-rollback capability. The bottom roller pivots out of the way for easy cable installation into the lashing machine, and locks positively in place for the cable lashing operation. There are two sets of towing eyes for the Super G for pulling in any direction. The top set of holes is most suited for parallel pulling and normal operation and the bottom set is most suited for situations requiring more sideward or downward pull.

3.7 Bridle assembly

The Super G lasher is supplied with a bridle assembly that resists rot. The 5 foot long rope assembly is equipped with a forged snap hook at each end and a floating forged steel ring between the snap hooks for the attachment of a suitable towing line. The bridle assembly also provides a safe and easy method to tether the Super G while moving it around a pole or obstruction.

4.0 Operating instructions

4.1 General

As mentioned at the beginning of this manual, you should never operate a lasher unless you've been properly trained in advance or are being directed by a properly trained linesperson who is responsible for your work. However, you should find this section of the book helpful in outlining the correct sequence of steps to take in using your Super G lasher.

4.2 Preparing a lashing wire coil

The first step in any lashing operation is to prepare the lashing wire coil. *Note: It is important that the lashing wire is loaded properly to ensure proper lasher operation.*



Figure 3

1. If the lashing wire is wrapped with wire ties, rotate the head of the wire tie attached to the looped end of the lashing wire to the center of the coil (see figure 3). This will facilitate the cutting of the wire tie in a later step and help ensure that the complete wire tie is removed.

2. **Do not cut all of the cable ties!** Leave the cable tie attached to the looped end of the lashing wire, and cut the remaining 3 cable ties on the lashing wire coil. (see figure 4)

3. Cut the looped end of the wire on the inside diameter of the wire coil. This step will help in the loading of the coil onto the hub and subsequent steps. (see figure 5)



figure 4



figure 5

4.4 Install the prepared wire coil on the reel and lasher

1. To install the wire onto the wire reel away from the lasher, remove the entire lashing wire reel by turning the thumb screw clockwise until the entire reel can be removed from the lasher. Place the wire reel holder on a flat surface and remove the cover by turning the cover clockwise. Slide the lashing wire coil over the hub and onto the reel making sure that it spools out as shown by the arrow. (fig. 1,2 and 3)



Figure 1



Figure 2

2. Install the wire reel cover and thread completely onto the reel until snug against the wire coil. It is important to ensure that the reel cover is tight against the wire coil to prevent the lashing wire from “snagging” on itself. (fig. 4)



Figure 3



Figure 4

3. Install the loaded wire reel into the lasher by sliding the reel onto the wire reel shaft. Turn the thumb-screw counter-clockwise until tight. Do not over tighten the thumbscrew.
4. Hold on to the looped end of the coil. Cut and remove the remaining cable tie and then continue to snug the reel cover against the wire coil ensuring a tight fit. The reel brake can be depressed into cutout on rear flange to hold the reel stationary as you tighten the reel cover. (fig. 5)

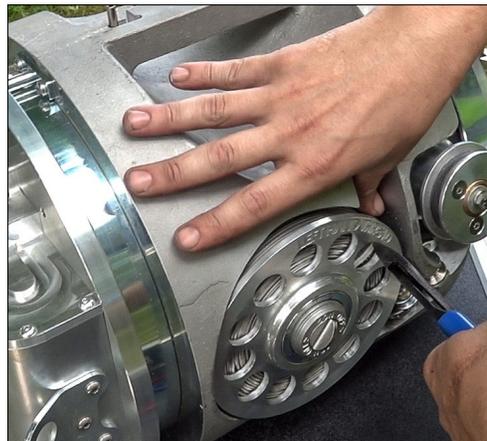


Figure 5

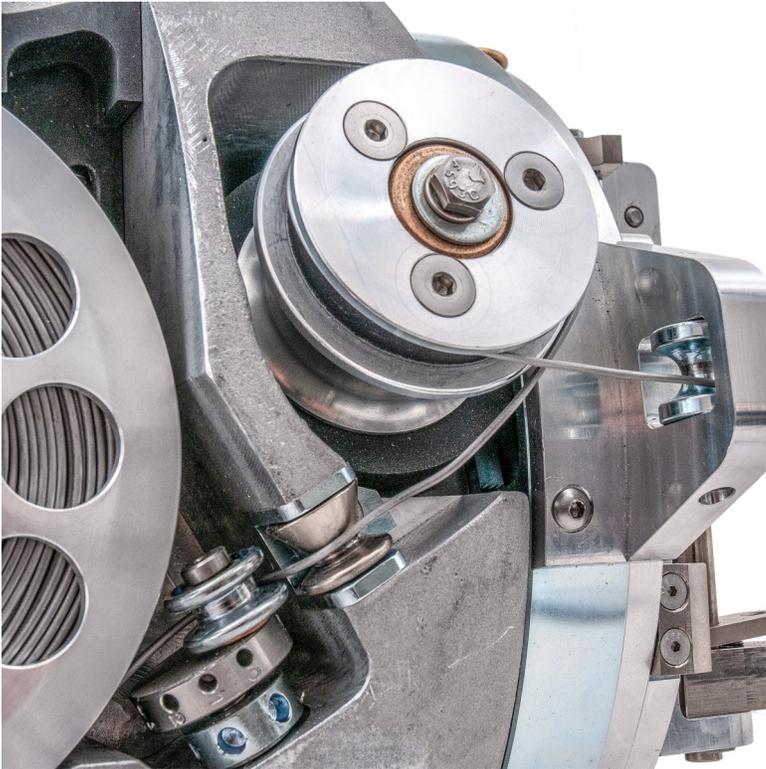


Figure 6

5. Make certain that the head or knot on the cable tie is not pulled through the coil and that the entire cable tie is removed, because portions of the cable tie may cause snagging of the lashing wire. (fig. 6)

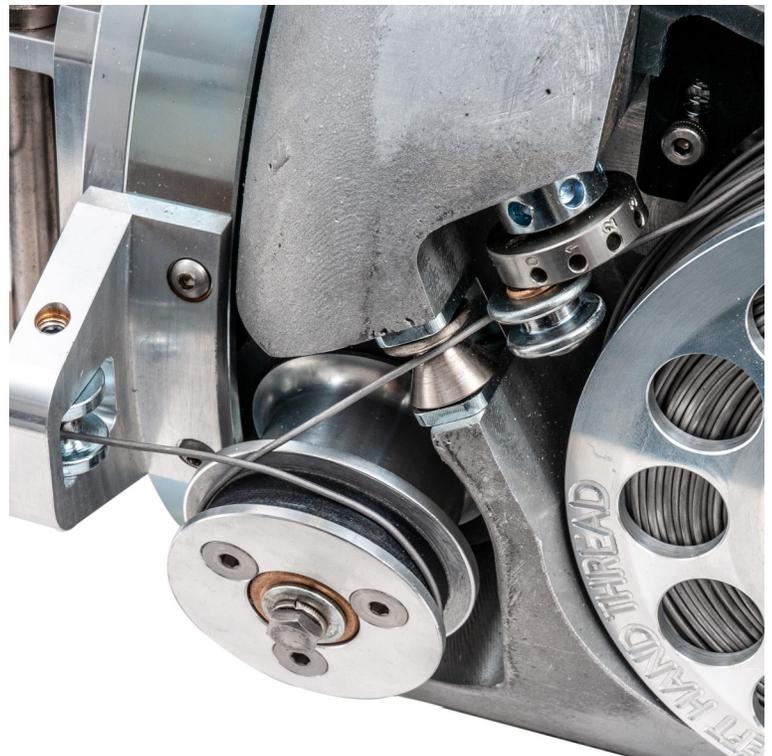
Note: As a check for proper cover tightness, at least 1 full thread on the hub should be exposed after the wire reel cover has been installed and tightened.

4.5 Routing the wire for proper operation



1. Once the lashing wire is loaded onto the Super G lasher, it is time to route the wire through the machine for proper operation. Pull enough wire off the reel to make the termination of the wire to the strand. Pass the wire under the tension adjustment roller then over the guide roller.

2. Wrap the wire around the drive roller in a counter clockwise direction then pass the wire through the extension roller. If more wire is needed unwrap the wire from the drive roller and pull additional wire off the reel then rewrap the wire around the driver roller. Ensure that the wire exits the roller over the wire that enters the roller.



4.6 Lashing to bare suspension strand

Lowering rear rollers to their lowest position



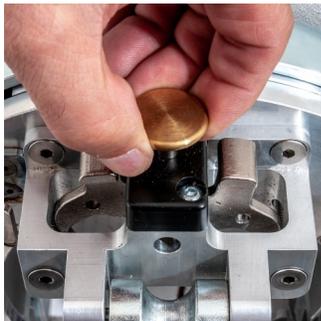
Figure 1

1. Check the lashing wire coils to ensure there is enough lashing wire for the span, if the lashing wire wasn't loaded recently. Lower the rear rollers to their lowest position by pressing on the release tabs and slide the rollers down to their lowest position. (fig. 1)
2. Open the rear gate assembly by pressing the latch release. Swing the gate open and latch it in the open position. (fig. 2)
3. Open both the front and rear strand locks by pulling up on the release knob. There should be an audible "click" when the locks travel from the locked position to the open position. (fig. 3)
4. Open the front gate by pushing the release lever towards the front of the lashing machine. The roller on the front gate will pivot 180 degrees and out of the way. (fig. 4)
5. Attach a handline to the lasher handle and raise the lasher to the strand. Attach one of the lasher bridle snap hooks to one of the lasher towing eyes. Attach the other snap hook to the strand to serve as a tether.



Opening rear gate assembly

Figure 2



Open both the front and rear strand locks



Figure 3

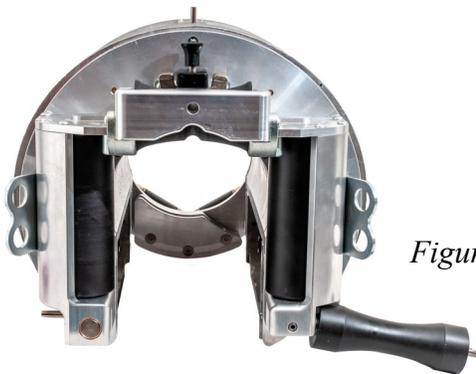


Figure 4

Open the front gate

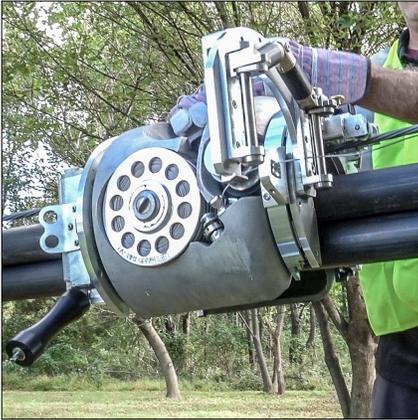


Figure 5

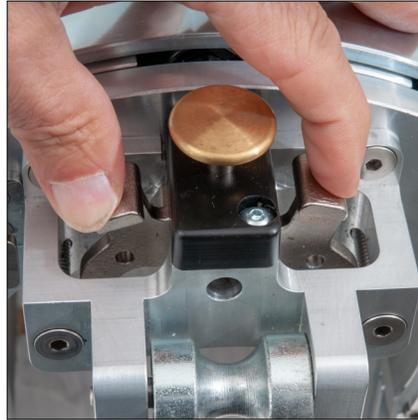


Figure 6



Figure 7



Figure 8



Figure 9



Figure 10



Figure 11

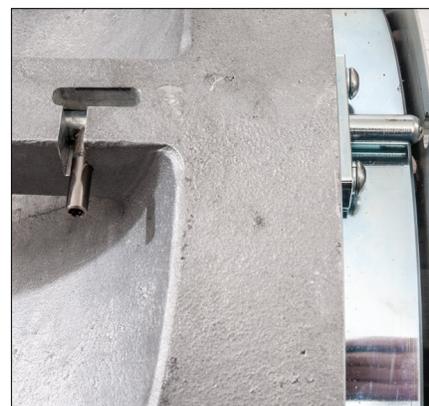


Figure 12

6. Place the lasher on the strand and ensure that the strand is centered in the grooves of both of the front and rear rollers. (fig. 5)
7. Close the front and rear strand locks by depressing simultaneously on both hooks until audibly and visibly locked. The lasher is now secured to the strand. (fig. 6)
8. Using the proper cable raising procedure for your application, lift the cable or cables up to the strand, close the front gate and let the cable(s) rest on the horizontal roller. (fig. 7)
9. Close the rear gate by pressing on the release latch and swing the gate closed until it locks in its closed position. (fig. 8)
10. Adjust the rollers on the rear gate by raising the rollers so the rollers barely touch the cable(s). It is not necessary to press on the tabs in order to raise the rear rollers. This step will have to be done every time the bundle size changes. (fig. 9)
11. Now the final steps. Secure the lashing wire to the strand by using a GMP D or E lashing wire clamp. (fig. 10)

Attach the bridle assembly to the towing eyes on the Super G lasher. (fig. 11)

Unlock the rotating drum by pulling back on the release pin and swing the pin over so it locks in the unlocked position and you are ready to lash. (fig. 12)

See section 4.8 for more information on terminating lashing wire.

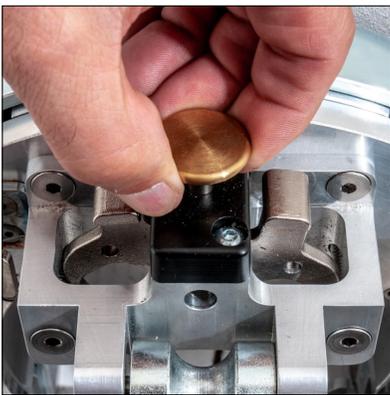
4.7 Over-lashing procedure

Here is the proper way to overlash onto existing cable installations using the Super G lasher:

1. Check the lashing wire coils to ensure there is enough lashing wire for the span.
2. Lower the rear gate to its lowest position by fully depressing the thumb latches and sliding the rollers down. Ensure that the rear gate is open and the drum is locked in position.
3. Open both the front and rear strand locks by pulling up on the release knob. There should be an audible “click” when the strand locks travel from the locked position to the open position. ***The strand locks aren't used in the over-lashing procedure and must remain in the open position.***
4. Open the front gate by actuating the release lever towards the front of the lashing machine. The roller on the front gate should pivot 180 degrees and out of the way.
5. Attach a handline to the lasher handle and raise the lasher to the strand.
6. Attach one of the snap hooks on the lasher bridle to one of the towing eyes. Attach the other snap hook around the strand and existing cables to serve as a tether.
7. Place the lasher on the strand and ensure that the strand is centered in the grooves of both of the front and rear rollers.
8. Using the proper cable raising procedure for your application, lift up to the strand the cable or cables you want to lash, close the front gate and let the cable(s) rest on the horizontal roller.
9. Raise the rear cable lifter by pushing up on the bottom of the lifter that contacts the shaft. The thumb latches don't have to be activated to raise the cable lifter.

See section 4.6 for more information on terminating lashing wire.

Now the final steps. Unwrap the lashing wire on the drive roller and pull some lashing wire from the lasher. Rewrap the lashing wire around the drive roller and secure the lashing wire to the strand by using a GMP D or E lashing wire clamp. Attach the bridle assembly to the towing eyes on the Super G lasher and you are ready to lash.



The strand locks aren't used in the over-lashing procedure and must remain in the open position.

4.8 Lashing wire termination

4.8.1 General

A common cause of lashing wire failure is improper termination. The following steps outline the suggested method for proper lashing wire termination.

1. Lashing wire termination should be accomplished and cable supports installed as soon as practical after the cable is placed.
2. Measurement marks made in making terminations should be made on the strand rather than on the cable sheath. Avoid scoring the cable sheath with the lashing wire end when terminating lashing wire.
3. Cable guards should be used to prevent abrasion of the cable sheath where the separation is less than 1/2 inch between the cable and suspension clamps.

While the D lashing wire grip and D and E lashing wire clamps may be used on strand sizes up to and including 7/16 in (11mm) (16M) or larger, the discussion on lashing wire termination will only cover the strand sizes of .38 to .50 in. diameter (10mm to 12.7mm) (10M to 25M), the only strand sizes compatible with the Super G lasher.

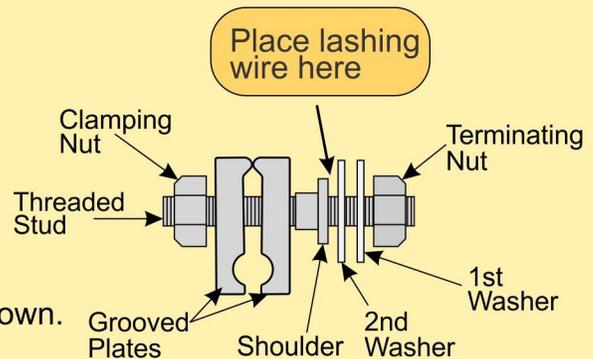
4.8.2 Lashing wire termination

Secure the lashing wire to the strand with a lashing wire grip before cutting or otherwise releasing tension in the lashing wire. The lashing wire grip should be placed far enough from where the supports, spacers and lashing wire clamps are to be installed to avoid having to move the grip.



LASHING WIRE CLAMP INSTALLATION

1. Orient groove of clamp plates over strand as shown.
2. Cross lashing wire over top of strand 2 wraps following the lay of the strand. Thread it between stud collar and first washer. Then wrap 1/2 turn around stud. **Do not wrap lashing wire 360° around stud and avoid pinching lashing wire which may cause premature failure**
3. Tighten nut.
4. Tuck free end of lashing wire into clamp to prevent injury
5. If over-lashing, repeat steps 2 and 3 except place second lashing wire between two flat washers



Caution

Failure to terminate lashing wire properly will result in premature failure.

4.9 Moving your lasher around a pole

When you need to move your Super G lasher around a pole or other obstruction, follow these steps.

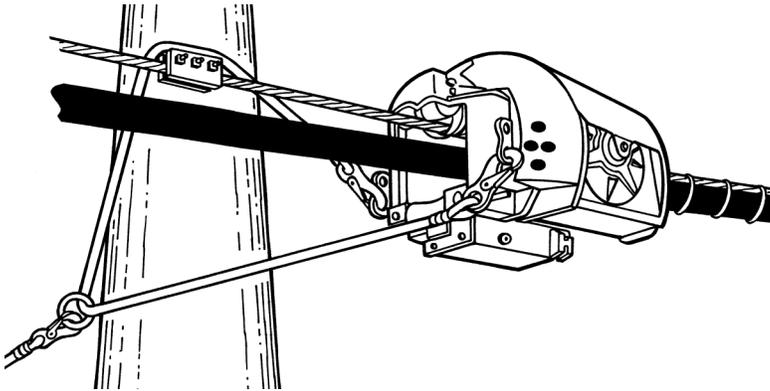


Figure 18

Warning: While aloft, ALWAYS wear a safety belt with a safety strap securely attached to help prevent you from falling.

Caution: Ensure the rear vertical cable rollers are set to their widest opening before placing the lasher on the side of a bucket.

1. Before doing anything, make sure you are working from a secure perch where you can safely move your Super G lasher without overreaching. This is extremely important.

See section 4.8 for more information on terminating lashing wire.

2. Clamp the lashing wire to the strand.
3. To pull a length of lashing wire from the Super G lasher without rotating the drum, unwrap the lashing wire around the drive roller and pull out enough lashing wire from your machine so you can terminate it with a clamp then rewrap the lashing wire around the drive roller to continue lashing past the obstruction.
4. Attach one of the lasher bridle snap hooks to a lasher towing eye on the front of the machine.
5. Now pass the bridle under the strand, past the obstruction and attach the other snap hook to another lasher pulling eye.
6. Open the front gate by actuating the release lever towards the front of the lashing machine. The roller on the front gate will pivot 180 degrees and out of the way.
7. Open the rear gate making sure it is fully open in the latched position.
8. Open both the front and rear strand locks by pulling up on the release knob. There should be an audible “click” when the locks travel from the locked position to the open position.
9. Carefully lift the lasher off the strand and move it over to the strand on the other side of the obstruction. If you accidentally drop the lasher while making this transfer, the bridle assembly will keep the lasher from falling to the ground.

4.9A Removing the lasher from the strand

The procedure for taking your lasher off the strand is basically the same as for moving it around a pole, except that you should also:

1. attach a secured handline to the lasher handle;
2. disconnect the lasher bridle only after completing step 1; and
3. carefully lower the lasher to the ground.

5.0 Troubleshooting

5.1 General

Most problems you encounter while operating your Super G lasher have simple solutions. Read through the section to find your problems, then follow the recommended steps. If you can't solve the problem, then call the factory.

Problem: The lasher won't rotate.

Is the lock released?

If not, release the lock and swing the lock to the unlock position. (See page 11, figure 9)

Is the lashing wire routed properly? (See page 9)

If not, reroute the wire properly.

Is the lashing wire snagged on a pulley?

If so, free wire and reroute the wire.

Is the lashing wire pulled through itself?

If so, remove wire until the wire reel is straightened out again.

Is the lashing wire of proper dimension? Is it .045 in. (1 mm) diameter or .065 in. (1.7 mm) diameter or is it larger?

If the wire diameter is incorrect, use the correct wire size.

Problem: The lashing wire is too tight or too loose.

Is the tensioning roller set at the correct position?

If not, move the roller to the correct position.

Problem: The rotation section needs to be rotated in the opposite direction to clear a jam or remove a foreign object from the lasher.

The rotation section of the lasher can be manually rotated in the opposite direction. The rotation section can be rotated bi-directionally.

6.0 Maintenance

6.1 General

It is easy to care for the Super G and keep it in good operating condition, but to make sure it stays in adjustment and operates properly, always follow these simple precautions:

Never drop your lasher or expose it to any kind of abuse.

Keep your lasher in its protective case when not in use.

Protect your lasher from unnecessary exposure to dirt, grit and any other foreign matter.

Avoid placing the Super G on the ground whenever possible.

6.2 Preventative maintenance

Lubricate the following points with a white lithium grease on a periodic basis:

- rear vertical roller shaft
- vertical rollers
- front gate roller shaft
- front gate spring
- rear gate roller shaft
- needle bearings
- strand lock shaft and springs

Caution: If your Super G lasher doesn't rotate freely, have it repaired at the GMP facility.

6.3 Maintenance notes

The front and rear gates should swing freely without binding and securely latch when closed. Likewise, the spring on the front and rear gates should keep them open unless intentionally closed. The towing bracket is designed to be an integral part of the safety of the Super G lasher when it is being transferred. So, inspect the towing bracket for cracks or other degradation. Check the screws to ensure their tightness. Check the bridle assembly for wear or rope strand breakage. Verify proper functioning of the forged snap hooks. Check the loose ring to make sure it isn't bent or damaged. The tensioning rollers should rotate freely without binding. The screws and nuts on your lasher should be checked periodically for tightness. Check all of the rollers for signs of abnormal wear.

6.4 Scheduled maintenance

The Super G should be returned to the factory every 10-12 months for an inspection and "tune-up."

7.0 Options and other miscellaneous information

7.1 General

The Super G lasher has been designed to minimize the snag and catch points and therefore requires no optional halo.

7.2 GMP Lashing Accessories



D Lashing Wire Grip
08605



D Lashing Wire Clamp
07886



E Lashing Wire Grip
81460



Extra Wire Spools
36332



Lashing Wire

P/N	Alloy	Dia.	Ft. Coil	Mtr. Coil	Wt. Coil
71516	430	.061	650	198.1	7.5 lbs.
71531	430	.065	650	198.1	7.5 lbs.
71532	430	.065	450	137.2	5.3 lbs.
71540	316	.061	650	198.1	7.5 lbs.
71541	316	.065	450	137.2	5.3 lbs.
71530	430	.045	1200	365.8	6.5 lbs.
71533	302	.045	1200	365.8	6.5 lbs.
71534	316	.045	1200	365.8	6.5 lbs.
71542	304	.045	1200	365.8	6.5 lbs.



Poly Tow Rope
70190



Towing Bridle Assy
05817



Can Wrench
74134



B Ratchet Wrench
07511



Heavy Duty Cable Dolly
70697



Cable Block Pusher
70431

7.3 Other available GMP products

Did you know that GMP is the world's oldest and largest supplier of aerial tools and accessories? In fact, our selection and quality have always been second to none. We helped invent many of the aerial tools you use everyday, including aerial lashers like the C2, J2 and Apollo, and a broad line of cable blocks and rollers. And it doesn't stop there. We provide tools and accessories for almost every cabling function: aerial, underground, even in-building. Chances are, if you are looking for a tool, we have it, and many more like it as well. Contact us for our catalog that lists our complete selection of over 800 products. Questions? Comments? Call us! Fax us! E-mail us at Info@GMPtools.com
Also, visit our web site at <http://www.GMPtools.com>

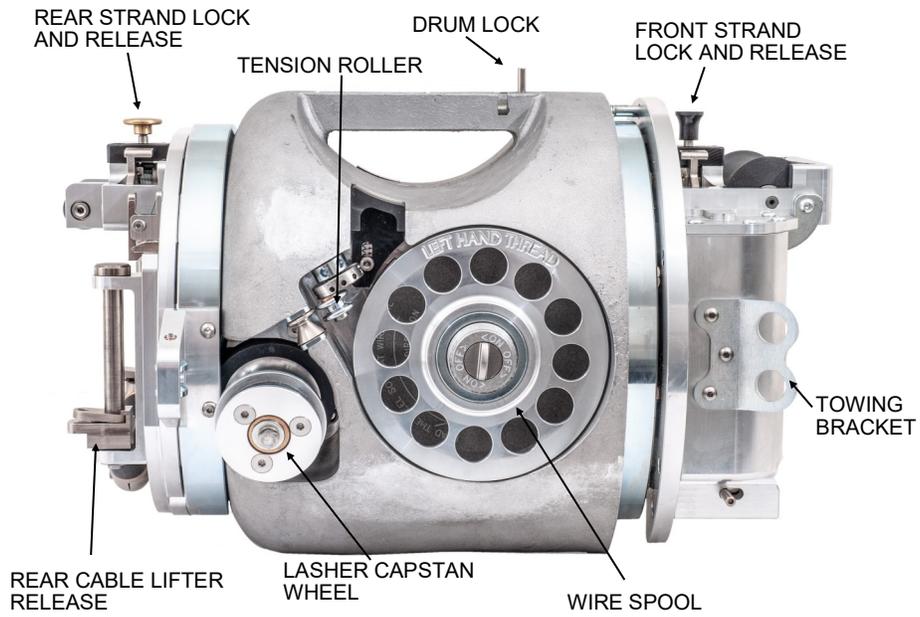


Fig. 22, Side View

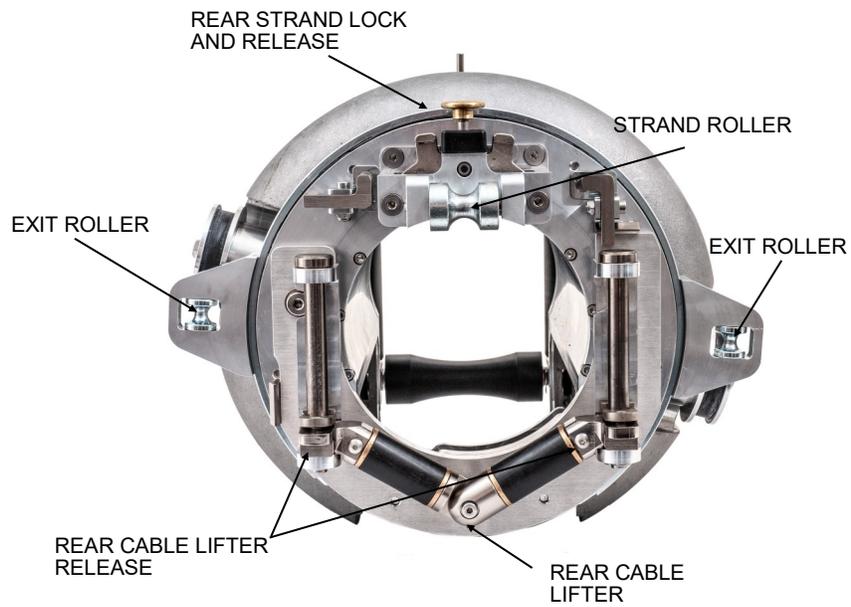


Fig. 23, Rear View

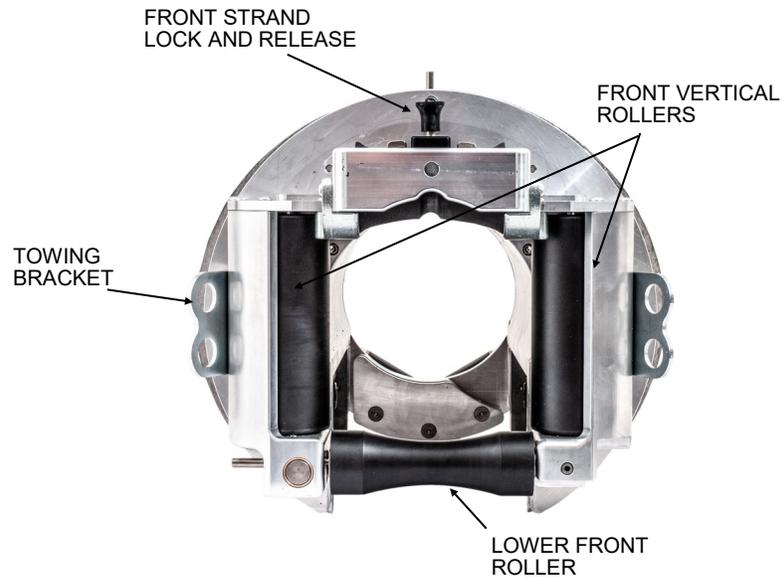


Fig. 24, Front View

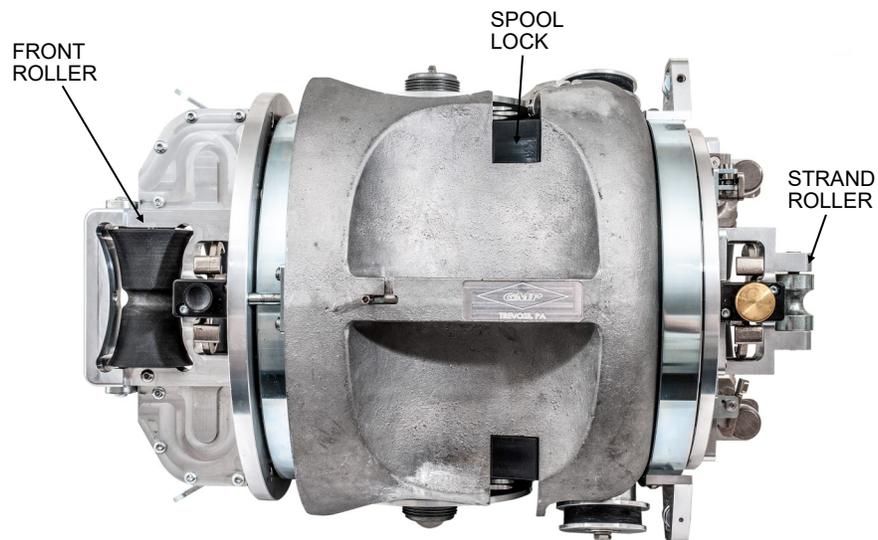


Fig. 25, Top View

8.0 Repair/Replacement parts list

If the need for repair parts should arise please contact the factory for genuine GMP replacement parts.



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