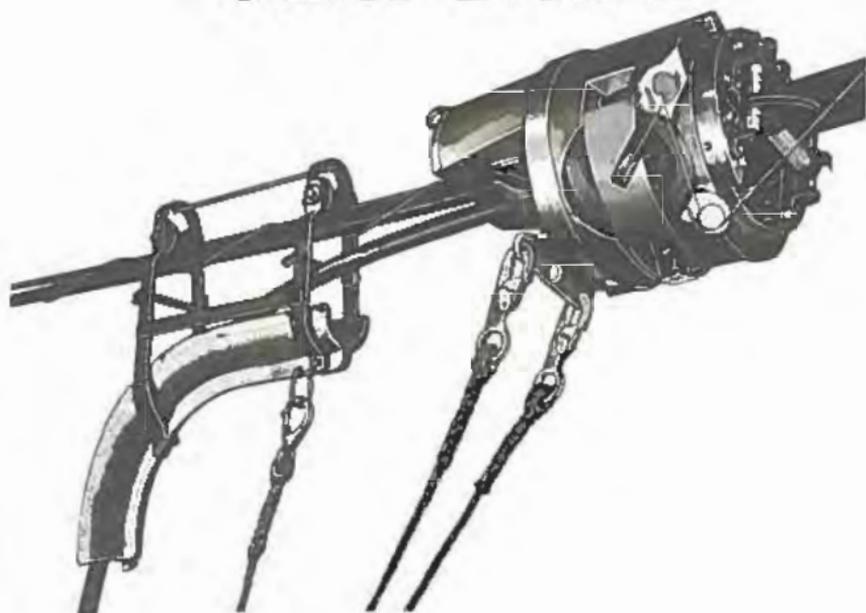


# **TYPE F CABLE LASHER**



**TYPE F CABLE LASHER — CATALOG No. 7992**



**GENERAL MACHINE PRODUCTS CO., INC.**

**OLD LINCOLN HIGHWAY AT TURNPIKE**

**TREVOSE, PENNA.**

## TYPE F CABLE LASHER

The F Cable Lasher is the last word in a sturdy, lightweight, entirely automatic cable lasher which will lash all cables up to 3 $\frac{1}{4}$ " in diameter. General Machine Products Company is proud to offer this new model for the discriminating user who insists on a precision tool with ease of operation. Three simple steps and only a few seconds prepare the machine for the run. One loading with two coils of .045" stainless steel lashing wire will last several hours. Lashing is smooth, tight and effortless; requiring a minimum of pulling load from the ground or parallel to the strand. A new tensioning device assures traction on strand far superior to any previous lashers.

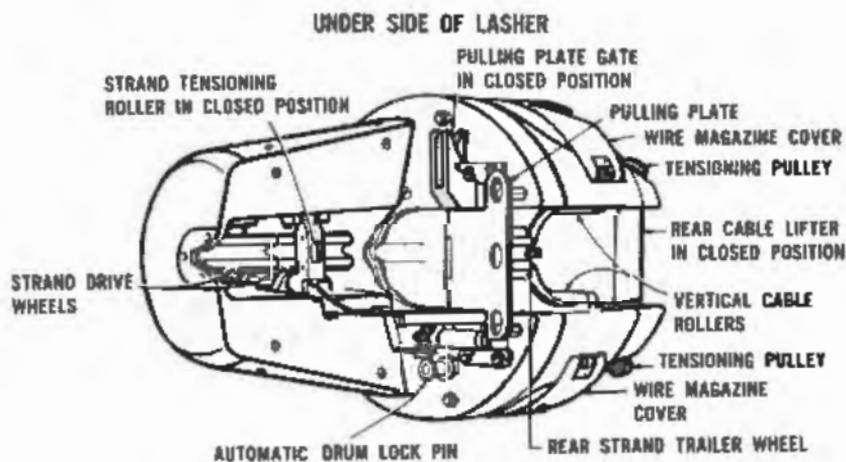
Automatic features include the fingertip-operated, all-range strand tensioning device; the self-registering drum lock; the two way brake to prevent back roll and the center-feed non-rotating wire coil.

Made of high-strength aluminum alloy casting, the lasher incorporates sealed-for-life precision ball bearings, steel bearing ring and a positive direct gear drive that never needs adjustment.

## GENERAL DESCRIPTION

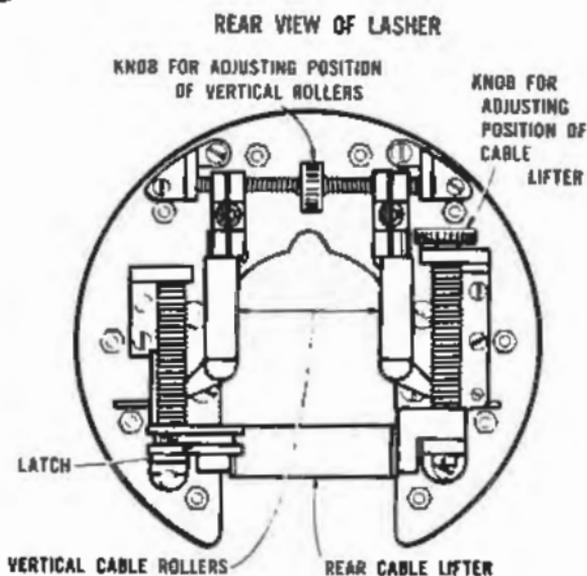
The F Cable Lasher is used for securing aerial cables up to 3 $\frac{1}{4}$ " in diameter to suspension strands from  $\frac{1}{4}$ " to  $\frac{1}{2}$ " in diameter. The "F" model lashes two or more cables to a single suspension strand provided that the total diameter of the cable assembly does not exceed 3 inches. Wherever extra strength is desired, double-feed lashing wires may be used. In this case, where the lashing wire is fed from both sides simultaneously, the distance between spiral lays will be approximately halved.

The lasher consists essentially of a rotatable drum and a carriage which also provides the mounting for the driving mechanism, cable lifters, cable and strand rollers, an automatic ratchet-type brake, and a pulling attachment. The two magazines of the rotatable drum accommodate a 1200 ft. coil of .045" wire each. Two sets of pulleys serve to guide and tension the wire in the lashing operation.



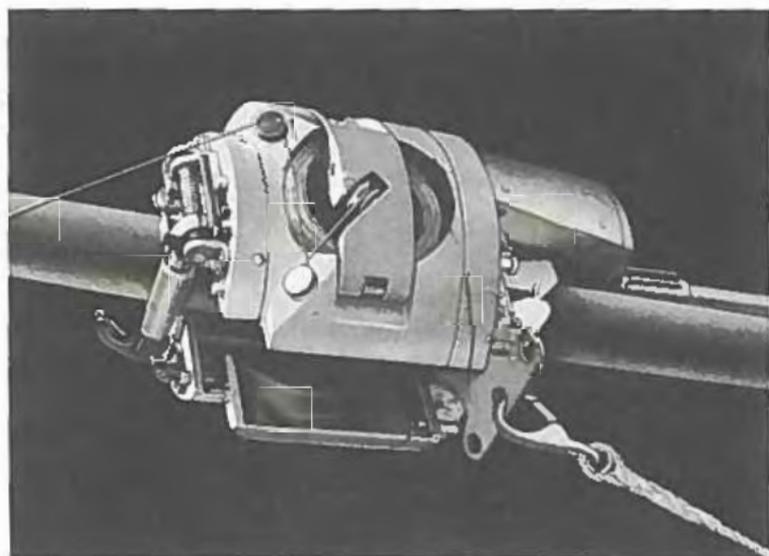
Maximum traction is provided by forcing the strand into the groove of the two rubber drive wheels by means of a tensioning device actuated through a system of levers. This feature provides uniform traction regardless of the angle between the pulling line and the strand.

Parts are made of heat treated, high-strength aluminum, bronze, and cadmium plated steel. The lasher employs sealed-for-life ball bearings on all vital shafts as well as on the rotatable drum. Other moving parts are mounted in Oilite bushings.



Two rubber drive wheels are mounted in the forward part of the carriage and are geared directly to the rotatable drum. A small trailer wheel supports the rear end of the lasher on the strand.

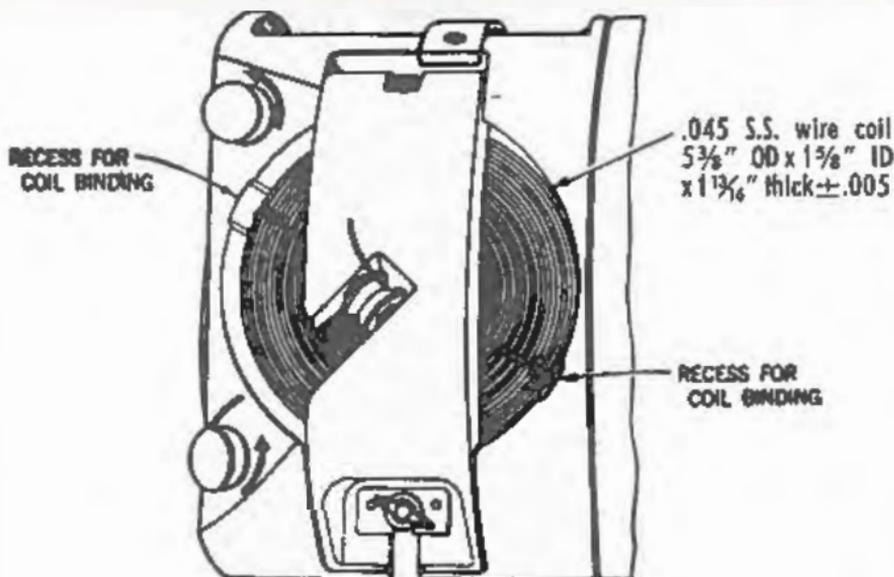
Two vertical adjustable rollers (spring mounted to prevent jamming) center the cable in the opening of the machine. The rear cable lifter roller is adjustable vertically to accommodate cables of various diameters and is held in the open position by a spring catch.



The front pulling plate gate automatically latches in the open position and locks the rotatable drum, when the cable opening in the carriage and the drum are aligned. When the pulling plate gate is closed the drum is free to revolve in the forward direction only.

The F Cable Lasher weighs approximately 43 lbs. without lashing wire. The carrying case weighs approximately 32 lbs.

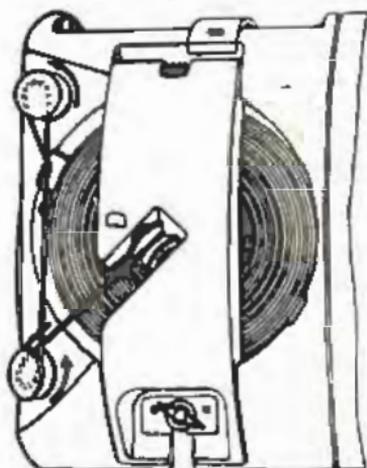
## OPERATION



### Placing Wire in Lasher

1. Remove lasher from case.
2. Cut and remove cotton binding holding the looped end of the wire at center (inside end) of coil.
3. Cut and remove opposite bindings. *Do not cut the other two bindings.*
4. Pull out looped end of wire until first turn is tight against binding, and cut off loop. Pull-out about one foot of wire from inside of coil. Feeding end should emerge from top side of coil.
5. Cut off loop on outside end of lashing wire to prevent snarling.
6. If coils are installed aloft, see that strand-tensioning roller is engaged under strand, rear cable lifter closed, pulling plate gate open and rotating drum locked.
7. Loosen wing nut on cover latch and open latch. Cover will open automatically.
8. Place coil in magazine. Top side of coil should be toward open side of magazine. Position coil with the two coil bindings in recesses. Feed the free (inside) end of wire from center of coil through throat in cover over grooved pulley in hinged cover of magazine.
9. Close cover, latch, and tighten wing nut until cover contacts coil lightly.

LEFT SIDE



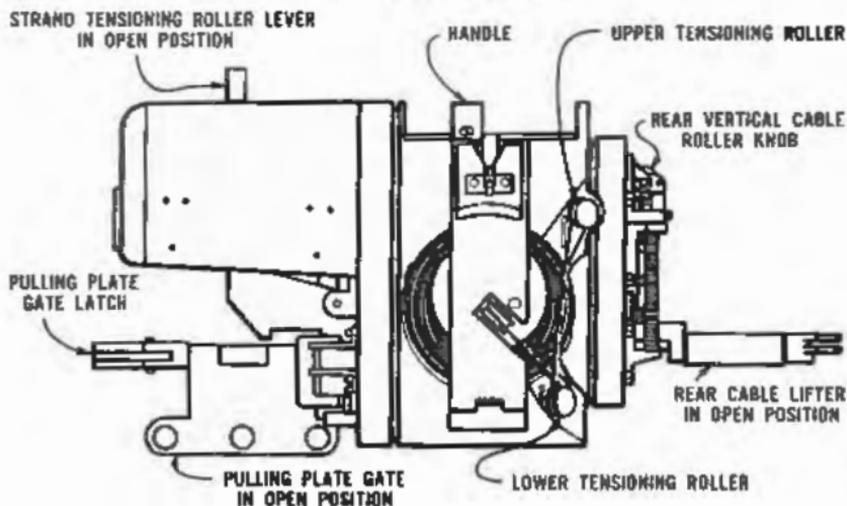
FRONT OF LASHER →

**10.** Cut the two remaining bindings and remove them.  
**11.** Tighten wing nut as far as it will go by hand. *Do not use pliers.*

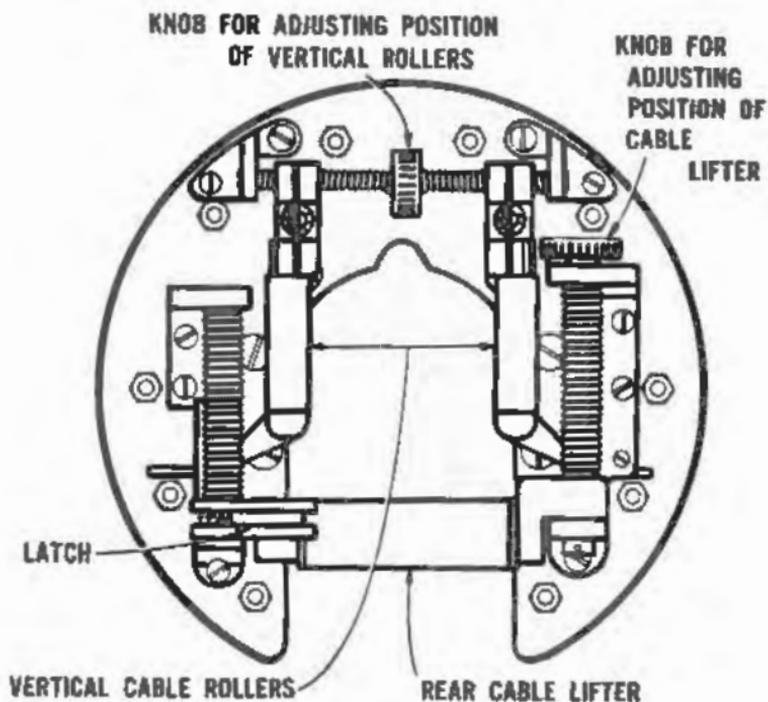
**12.** Thread lashing wire around snubbing pulleys in the direction of indicating arrows and wind free end of lashing wire several times around pulleys to keep loose ends from dangling.

**13.** Pulling plate gate in front of lasher should be left open and drum in the locked position as removed from lasher case.

RIGHT SIDE OF LASHER



## REAR VIEW OF LASHER



**14.** Open rear cable lifter, adjust it to lowest position and close it.

**15.** Adjust rear vertical rollers to widest opening.

**16.** Strand-tensioning roller should be in open position, swung against side of aluminum housing. This is done by pressing down on lever projecting up through top of cover of gear unit and turning it clockwise so that lever is in crosswise position.

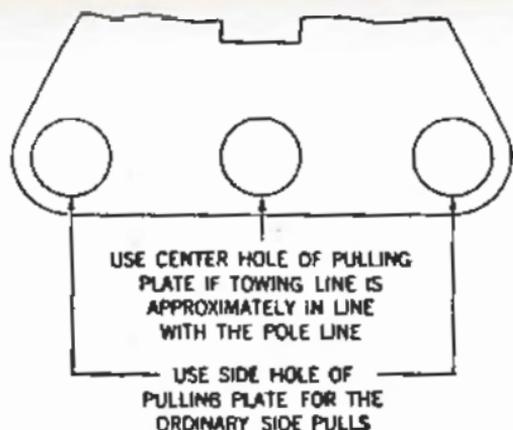
### *Placing Lasher on Strand*

**17.** Raise lasher by means of hand-line attached to handle.

**18.** Open rear cable lifter to spring lock and place lasher on strand.

**19.** Engage strand-tensioning roller by pressing lever all the way down and turning it counterclockwise, allowing it to rise. When roller is in engaged position, the end of its supporting casting is caught in the grooved hanger on inside of aluminum casting of gear housing.

**20.** Raise cable to strand (by hand), close rear cable lifter and let cable rest on roller. Estimate amount roller should be raised to elevate cable to within  $\frac{1}{4}$ " of strand. Lift cable slightly (by hand), open cable lifter, lower cable clear of opening and turn adjusting knob on top of threaded post until lifter is raised the desired amount. Raise cable (by hand) and close lifter. Then adjust position of vertical rollers to contact sides of cable loosely. These adjustments need not be changed as long as the same diameter cable is being lashed.



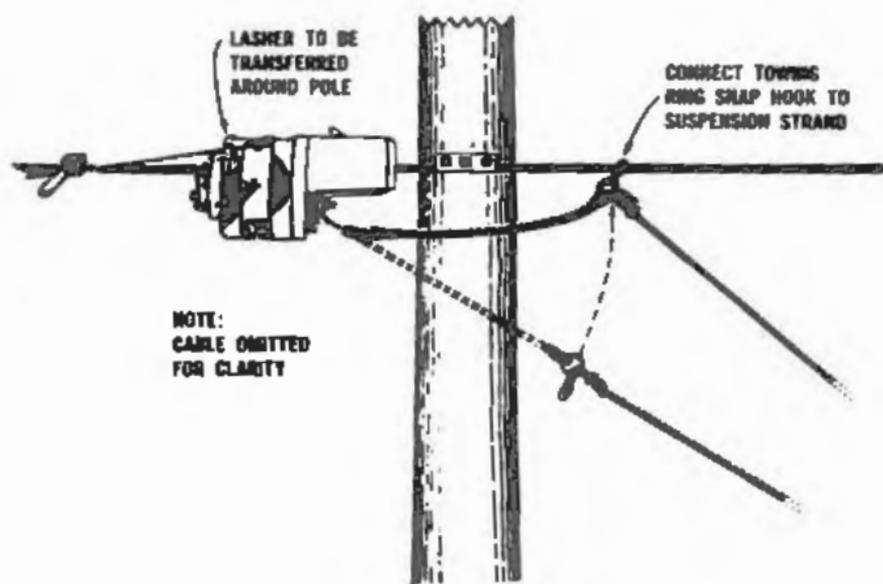
Towing rope may be attached to one of three holes in pulling plate. Choice of attaching holes depends on the side angle of the towing line to eliminate trees and other obstructions.

The automatic brake operates when the lasher stops and tension is removed from the towing line, and released when towing is resumed. It is not necessary to maintain tension in the towing line when the lasher is not in motion.

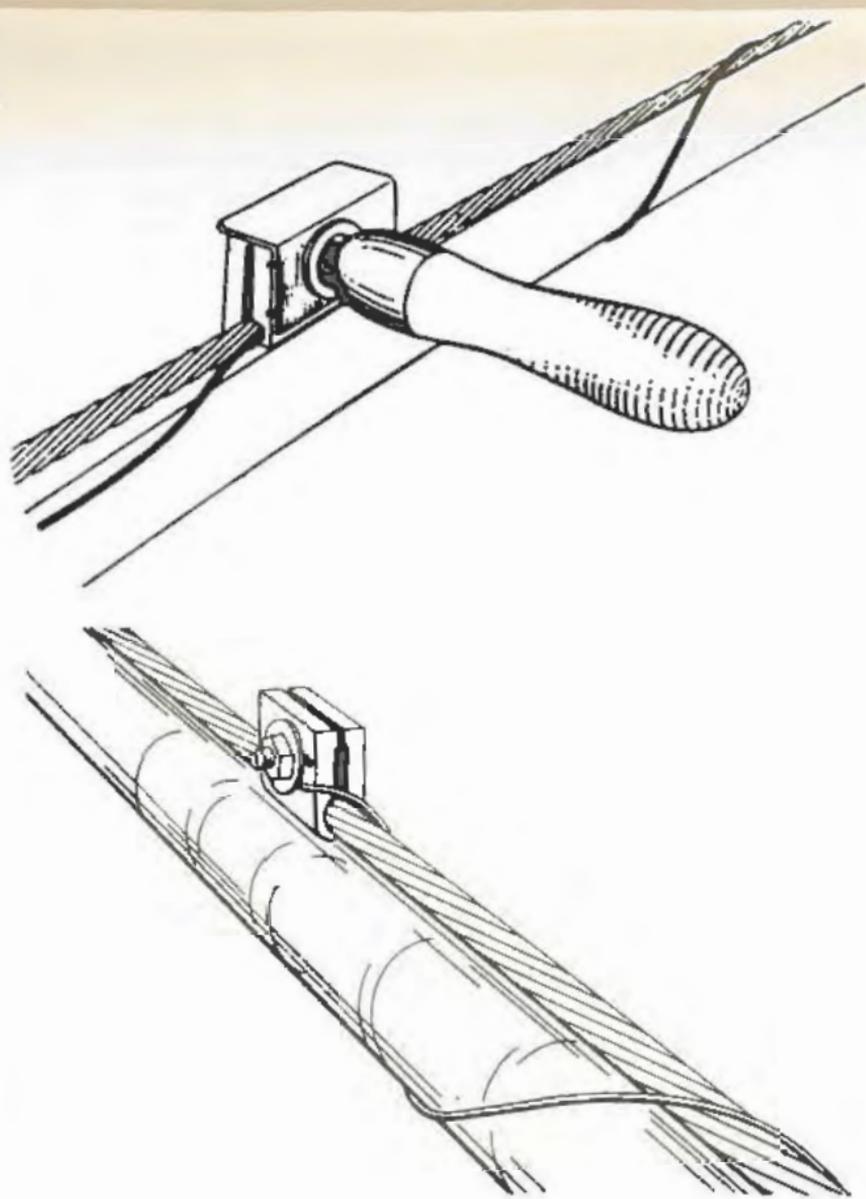
To move the lasher backwards first clamp the lashing wire to the strand. If the lasher is within reach, release the brake by pushing against the pulling plate. If it is not within reach, and the towing line is attached to the pulling plate, release the brake by pulling back on the towing line. When the towing line is attached to one of the pulling eyes, a separate line attached to the pulling plate may be used to release the brake.

If a splice in the span occurs less than ten feet from a pole or strand crossover, it is not advisable to lash this short section of cable. Lashed cable supports should be used instead.

## Transferring Lasher around Pole



- 21.** Pull out sufficient lashing wire for terminating and clamp lashing wire to strand at least one foot behind lasher.
- 22.** Close pulling plate gate and attach towing link snap hook with line to pulling plate.



- 23.** Before transferring around pole, temporarily terminate lashing wire near pole with lashing wire clamping tool, pull out sufficient wire for final terminating and cut off.
- 24.** Open pulling plate gate all the way.
- 25.** Move lasher forward or backward along strand until drum locks which aligns openings.
- 26.** Connect towing ring snap hook to suspension strand in next span and open rear cable lifter.

27. Press down strand-tension roller lever and turn it clockwise to disengage it from strand.
28. Raise lasher from strand and transfer to strand in next span.
29. Disconnect towing ring snap hook and proceed as instructed in Step 19

## **INSTRUCTIONS FOR DUAL LASHING**

The #7992 F Lasher (or a D lasher equipped with the parts of the B and C lasher kits) are arranged for lashing an initial cable to strand in accordance with present standard practices. To put them into condition for lashing a second cable to an existing lashed cable, the following steps should be taken:

1. Remove two screws in the hold down lever and disassemble the forward part of the lever.
2. Loosen the set screw in the strand roller knob and disassemble the knob and strand roller assembly.
3. Remove two screws holding the strand roller stop and disassemble the stop.
4. Put disassembled parts in lasher case for safekeeping. Reassembly of the above parts restores the lashers to the condition for lashing an initial cable.

When lashing the second cable underneath the first, the rear vertical rollers should be adjusted to give a total sidewise clearance between these rollers and the larger cable of about  $\frac{1}{4}$ " , thus keeping the second cable below the first. The rear horizontal roller should be adjusted to give about  $\frac{1}{8}$ " clearance between the first and second cables.

When towing the lasher, it should be located approximately 6 feet behind the guide if the latter is used. In all cases, attach the tow rope from the truck to the ring on the bridle. The lasher bridle is intended to be used in conjunction with the top towing eyes to provide a safe means of transferring the lasher around the pole.

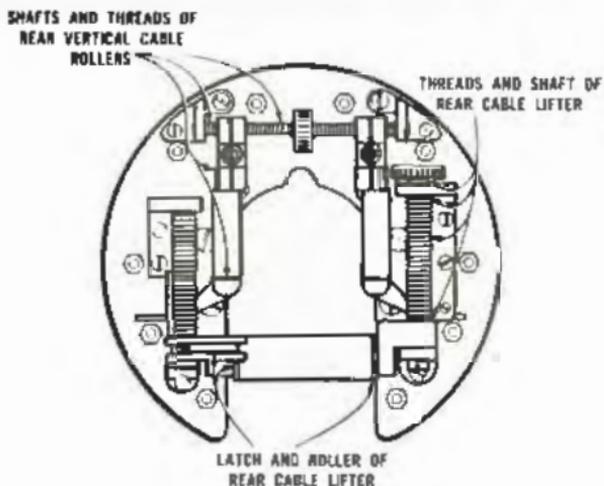
## Placing Lasher into Carrying Case



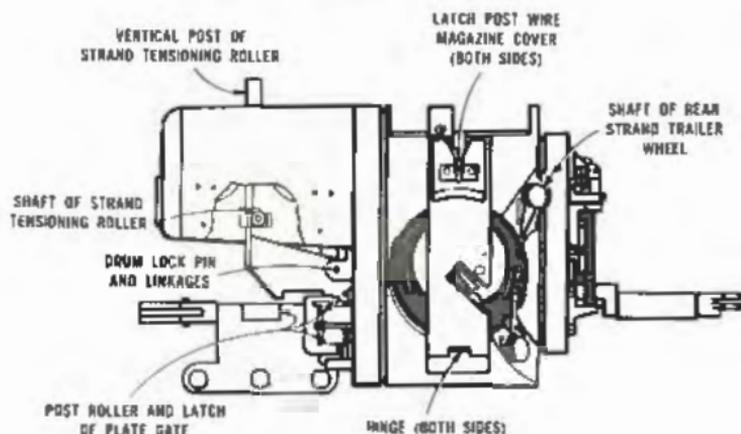
Pulling plate gate should be all the way open and the drum in the locked position before placing the lasher into its case. *Keep the lasher in the carrying case at all times when not in use.*

# LUBRICATION OF LASHER

LUBRICATION CHART



LUBRICATION CHART



When lasher is in actual use, the following parts require *daily* lubrication with SAE 10 or 20 Automotive engine oil:

Shaft and vertical post of strand tensioning roller.

The following parts require *weekly* lubrication with SAE 10 or 20 Automotive engine oil.

- (a) Shafts and threads of rear vertical cable rollers.
- (b) Threads, shaft, latch and roller of rear cable lifter.
- (c) Post, roller and latch of pulling plate gate.
- (d) Drum lock pin and linkage pivot pins.
- (e) Latch post and hinge of wire magazine cover.

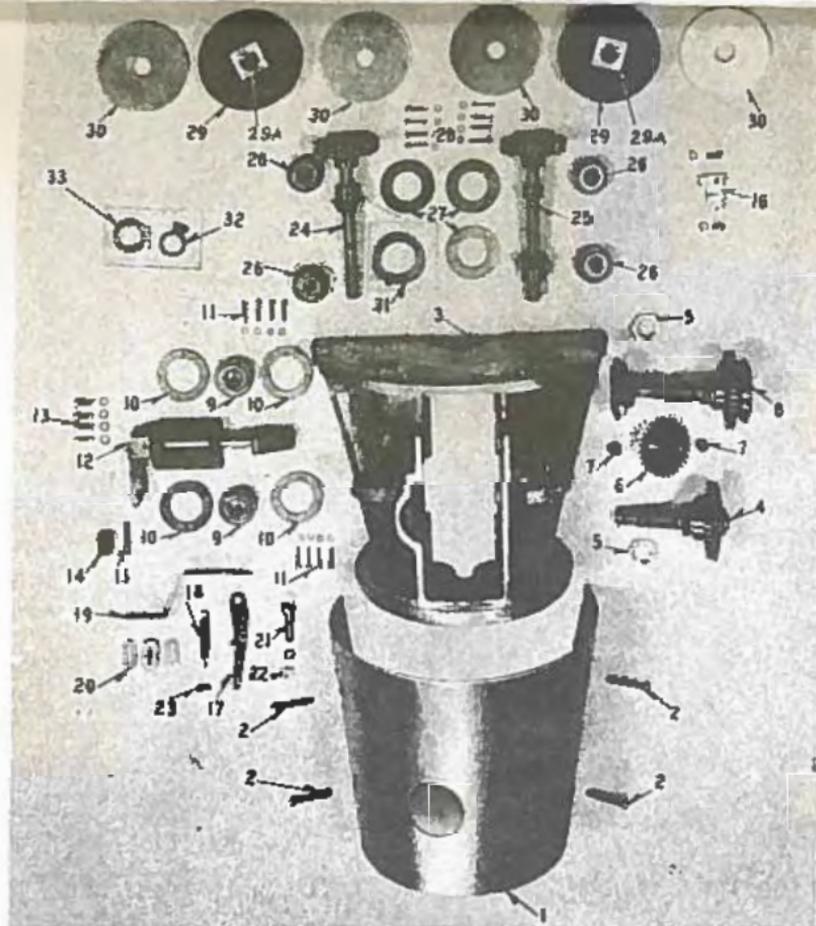
## **REPLACEMENT PARTS AND REPAIRS**

From time to time it may be necessary to make field repairs; the following list of parts will prove helpful in ordering what you need. However, we strongly recommend that, with the exception of vertical cable roller assembly, strand roller, and strand roller shaft replacements, all other repairs be performed at our complete repair facility in Trevose, Pa. Simply return the lasher in its case to

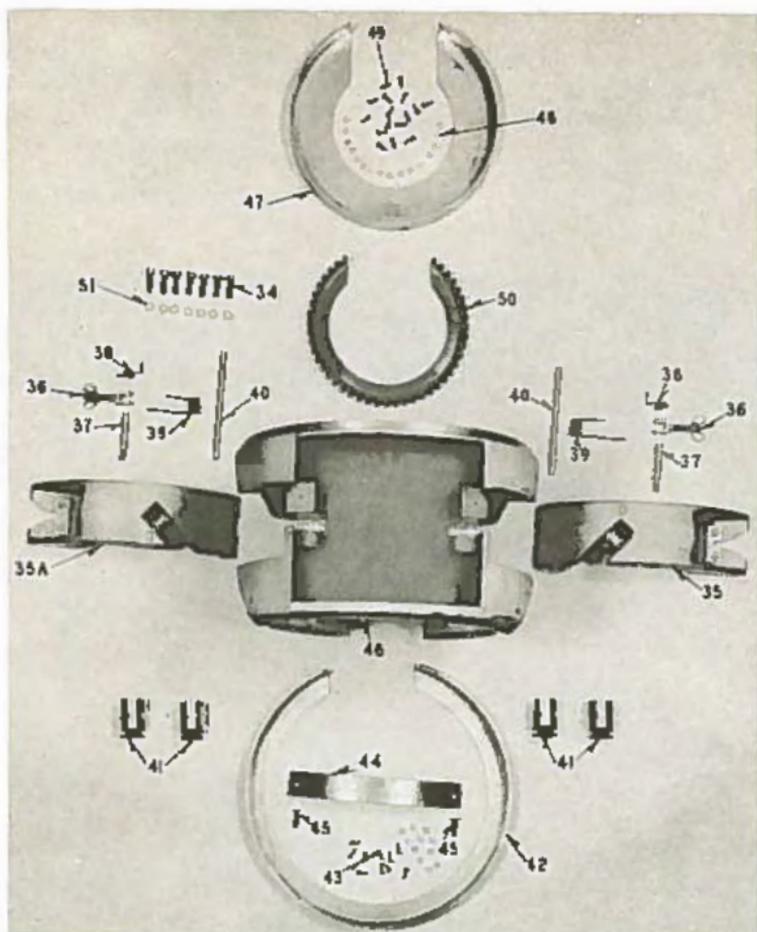
General Machine Products Co. Inc.  
Old Lincoln Hwy. at Pennsylvania Trpke.  
Trevose, Pa.

with return address instructions.

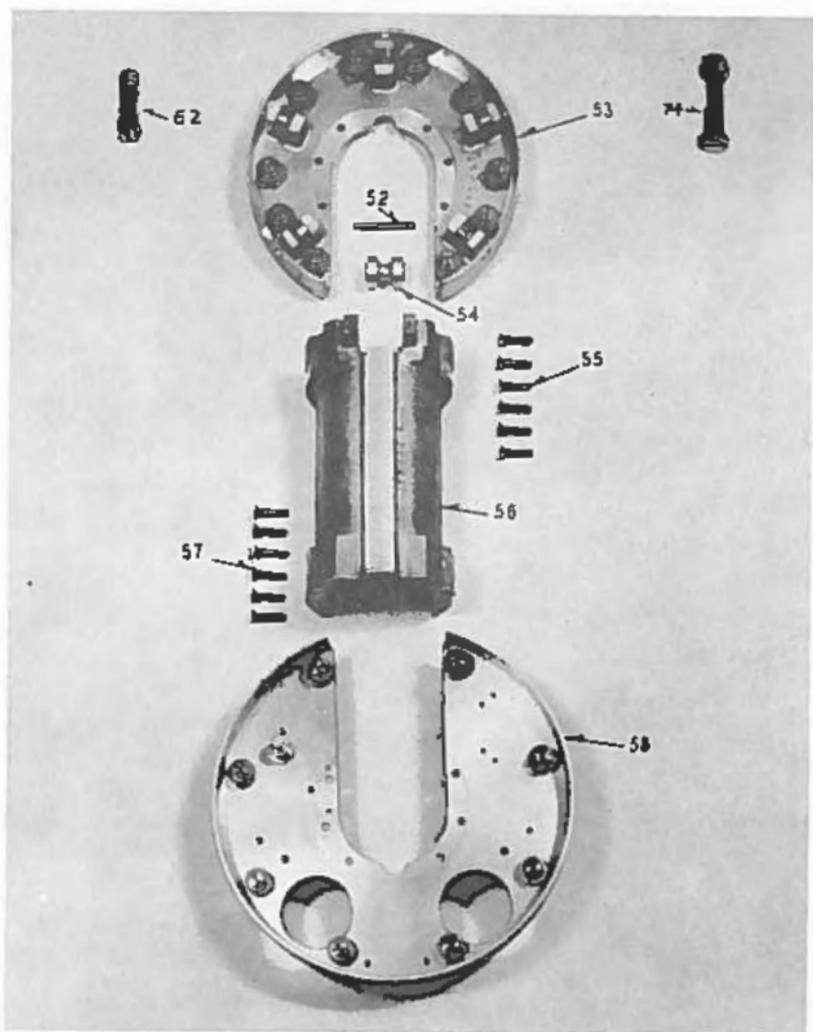
Most repairs can be completed within forty-eight hours.



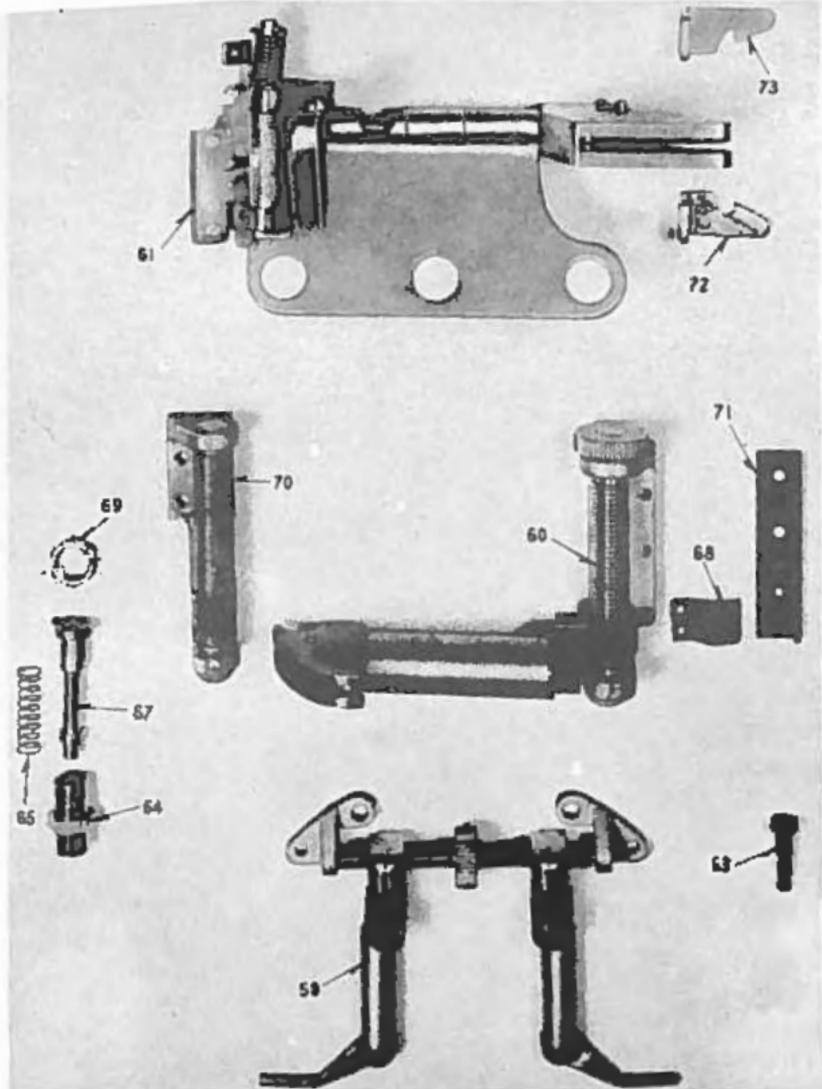
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|--|--|
| 1 Gear Housing Cover   | 16 Guide for strand tensioning roller in locked position   |
| 2 Gear Housing Cover screws  | 17 Ratchet pawl on brake                                   |
| 3 Gear Housing   | 18 Ratchet pawl spring                                     |
| 4 Front Strand wheel assembly (shaft, spur gear with 88013 bearing)              | 19 Brake release lever                                     |
| 5 Nut to clamp strand wheel  | 20 Brake release lever seal                                |
| 6 Strand drive shaft idler gear  | 21 Ratchet pawl shoulder bolt                              |
| 7 Idler gear oilite bearings   | 22 Shoulder Bolt nut                                       |
| 8 Rear strand wheel assembly (axle, bevel gears ratchet gear with 88013 bearing) | 23 Ratchet pawl spring screw                               |
| 9 88013 Ball bearings  | 24 Left hand pinion shaft (with pinion gear, bevel gear)   |
| 10 Bearing retainer rings  | 25 Right hand pinion shaft (with spacer, gear, bevel gear) |
| 11 Bearing retainer ring screws  | 26 88500 Ball Bearings                                     |
| 12 Strand tensioning roller assembly (lock & release)                            | 27 88500 Ball Bearing retaining ring                       |
| 13 Strand tensioning roller assembly screws                                      | 28 Retaining ring screw                                    |
| 14 Strand tensioning roller  | 29 Strand Drive Wheel                                      |
| 15 Strand tensioning roller axle   | 29A Strand Drive Wheel square nut                          |
|  | 30 Strand Drive Wheel clamping washers                     |
|  | 31 Retaining ring with stop pin                            |
|  | 32 Automatic ratchet release                               |
|  | 33 Automatic ratchet release collar                        |



- 34 Ring gear screws
- 35 Wire coil door (sometimes called magazine cover) right side
- 35A Wire coil door (sometimes called magazine cover) left side
- 36 Wire coil door Thumb screw catch
- 37 Hinge Pin for Thumb screw catch
- 38 Thumb screw spring for automatic safety lock
- 39 Automatic Door release spring
- 40 Wire coil door hinge pin
- 41 Snubbing lashing wire pulley (tensioning pulley)
- 42 Front Bearing ring
- 43 Front Bearing ring screws
- 44 Handle
- 45 Handle screws
- 46 Rotating drum casting
- 47 Rear bearing ring
- 48 Lock washer for rear bearing ring screw
- 49 Rear bearing ring screws
- 50 Ring gear
- 51 Ring gear screw lockwasher



- 52 Strand Roller Axle
- 53 Rear Plate Assembly with 88038 bearings
- 54 Strand Roller
- 55 Spacer Casting Screws
- 56 Spacer Casting
- 57 Spacer Casting Screws
- 58 Front Plate Assembly with 88038 bearings
- 62 Plain Stud for Ball Bearing on rear plate
- 74 Eccentric stud with elastic stop nut for ball bearing on rear and front plate



- 59 Vertical Cable Roller Assembly
- 60 Rear Cable Lifter Assembly
- 61 Front Cable Lifter Assembly with Tow Plate
- 63 Ratchet & Brake Release Stud
- 64 Locking Bolt retainer
- 65 Locking Bolt spring
- 67 Locking Bolt
- 68 Spring Catch for open position on rear cable lifter
- 69 Locking bolt retainer nut
- 70 Rear cable lifter assembly lock
- 71 Spring catch holder for rear cable lifter
- 72 Front Cable lifter assembly lock (left)
- 73 Front Cable lifter assembly lock (right)