



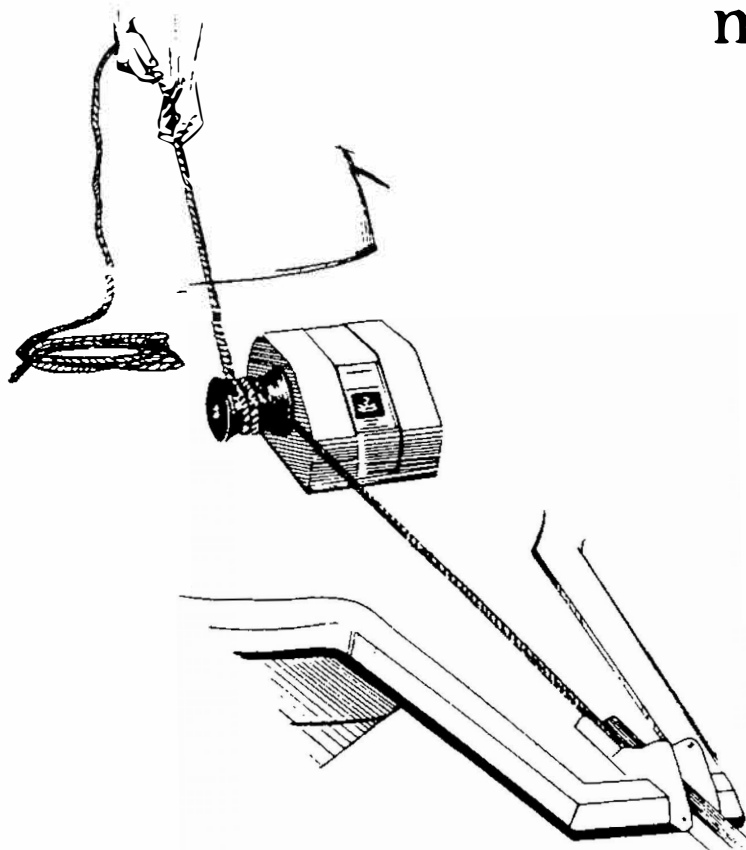
**OWNER'S MANUAL
WINDLASSES**

models

500

501

502



**READ ENTIRE INSTRUCTIONS BEFORE STARTING
INSTALLATION. FOLLOW ALL CAUTIONS, WARNINGS
AND NOTES TO PREVENT INJURY OR DAMAGE
TO WINDLASS OR BOAT.**

BE SAFE

- ALWAYS DISCONNECT THE WIRING FROM THE POWER SUPPLY WHEN ADJUSTING OR MAKING REPAIRS TO YOUR WINDLASS.
- READ YOUR OWNER'S MANUAL — ONLY LET PEOPLE WHO KNOW THE SAFETY RULES USE YOUR WINDLASS.
- ONLY LET ADULTS OPERATE YOUR WINDLASS. KEEP THE WINDLASS AREA FREE OF CHILDREN WHEN IN OPERATION.
- ALWAYS WIRE YOUR WINDLASS WITH THE CIRCUIT BREAKER. THIS IS YOUR ASSURANCE AGAINST OVERHEATING AND FIRE POTENTIAL.
- NEVER PUT YOUR FINGERS NEAR THE WILDCAT WHEN OPERATING.
- WHEN ANCHORING, BE SURE TO SECURE ANCHOR LINE TO A CLEAT.
- NEVER USE YOUR WINDLASS TO MOVE OR LIFT PEOPLE.

TOOLS

REQUIRED:

- Electric Drill
- 7/16" and 5/8" Electric Drill Woodbits
- Terminal Crimping Tool
- Adjustable Wrench

MATERIAL REQUIRED:

- 8-10 Butt connectors (2)
- 8-10 Ring terminals #8 Stud (3)
- 8-10 Ring terminals 5/16 Stud (1)

ADDITIONAL

ITEMS REQUIRED BUT NOT INCLUDED WITH WINDLASS:

- 3/16 Stainless steel bolts (2 required)
- Marine plywood or larger diameter washers

• Wiring Selection and Specification

Estimate wire length needed to run from the battery to the switch, and from the switch to the anchor -pro. The total wire length is defined as; battery to switch, switch to anchor-pro, plus the reverse direction. If the total wire length is less than 50 feet, use #10 AWG. If the total wire length is greater than 50 feet, use #8 AWG.

APPROXIMATE WIRE LENGTH	INSULATION CLASS	WIRE GAUGE
Less than 50 ft.	80°C (176°F)	#10 AWG
Greater than 50 ft.	80°C (176°F)	#8 AWG

- 8 or 10 AWG butt connectors - match wire size
- 8 or 10 AWG ring terminals - match wire size

ITEMS UNPACKED

- | | |
|--|--|
| <ul style="list-style-type: none"> • Windlass Model 500, 501, or 502 • Deck Mount Footswitch and Cap • 40 Amp Circuit Breaker | <ul style="list-style-type: none"> • Warranty Card • Owner's Manual • Mounting Template (Inside Owner's Manual) |
|--|--|

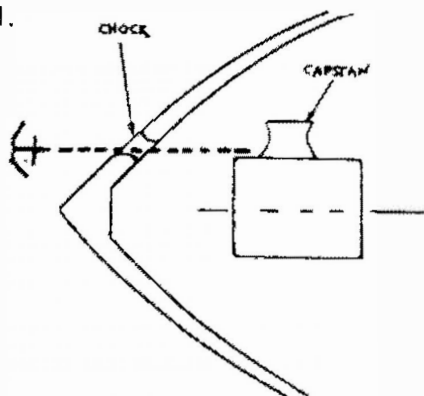
SECTION I

INSTALLATION/WIRING

INSTALLATION

- A. Be sure deck is clean and free of dirt and grit.
- B. Place template supplied (in owner's manual) in desired location on deck. Be sure the capstan side is properly positioned. (See Fig. 1.)
- C. Tape template in position to the deck.
- D. Place windlass on template and check location and alignment.
- E. Put windlass aside and mark centers of the holes on the template with a nail, punch or marker.
- F. Remove the template and drill the holes where marked on the deck. (Two 7/16" holes for mounting bolts and one 5/8" hole for motor leads.)
- G. Place windlass in position. Be sure lead wires are entirely through wiring hole (5/8"). Attach windlass to deck using 3/8-16 stainless steel bolts. To determine the length of the bolt to be used—add thickness of the deck plus 1-1/2". To assure greatest strength, a backing plate is recommended for reinforcement. (Marine plywood, large diameter washers, etc. under the deck.) Be sure to take into consideration the reinforcement thickness in determining bolt length.

Figure 1.

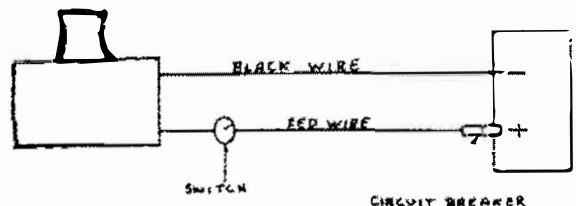


NOTE: We recommend that you mount model #502 on a platform (teak, mahogany, or fiberglass) 1" to 1-1/2" thick to provide more space for the stripper.

WIRING

- A. With windlass installed in place, spot a location for the footswitch installation. The switch is a pressure sensitive switch and should be mounted where you will be comfortable standing while using your windlass (usually on the stern side of your windlass). Avoid placing the switch in an area of heavy traffic.
- B. Drill a 5/8" hole at the chosen location. Install switch in place, screwing switch cap as far as it can go. Go below deck and tighten adjusting nut on switch.
- C. Attach the busbar (P78121) to one side of the circuit breaker (P78106) using one 10-32 whiz lock nut (P79701). Connect circuit breaker to the positive (+) side of the battery (See Figure 2).

Figure 2.



- D. Measure and cut enough red and black wire (not supplied) to connect windlass to battery.
- E. Attach ring terminal to one end of RED WIRE. Connect this end to the circuit breaker on positive end of the battery. Attach ring terminal to the other end of red wire and connect to one of the screw terminals of the footswitch.

WIRING (Continued)

- F. Connect the red wire from the windlass to the other terminal of the footswitch.
- G. Using a ring terminal, attach one end of the **BLACK WIRE** to the negative (-) side of the battery. Attach the other end of the black wire to the black wire coming from the windlass.
- H. Your windlass is now ready for operation. Test by stepping on the footswitch.

- D. To stop pull, simply step off footswitch or release tension on line to allow it to slip on rotating capstan.

CAUTION

MODELS 500, 501, 502 ARE POWER UP UNITS ONLY AND ARE NOT DESIGNED FOR REVERSED POWER DIRECTION.

TROUBLESHOOTING

- A. If your windlass fails to respond when you step on the switch:
 1. Check wire connections, be sure they are tight.
 2. Check circuit breaker (40 amp only).
 3. Check switch; using bypass. If the unit responds replace the switch.
- B. If the chain is jamming in the wildcat: (Model 502 ONLY)
 1. Be sure the chain is an Acco® (Model 502 only) 5/16" proof coil. Any other type will jam in the gypsy.
 2. Raise unit using 1/2" platform to provide more space for the stripper.
 3. Loosen the deck bolts from the rope locker area to unlock the chain from the wildcat.
 4. The imprinted marking "5/16 PC Cover" located inside the knuckle of the wildcat should rest against the cover.
- C. If you have any other problems with your windlass:
 1. Take the unit to a Powerwinch service center. Call 1-800-793-4793 for the closest service center.
 2. Put the unit in a box and ship to Powerwinch. We will repair the unit at no charge for the first two years and ship the unit back.

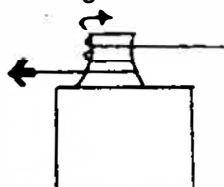
OPERATION

- A. Place anchor line through the bow chock and over the top of the capstan.
- B. Beginning close to the cover, wrap line around capstan counter clockwise (see Fig. 3). Depending on the load, you should make three or four wraps around the capstan.

CAUTION: KEEP HANDS AND FEET CLEAR OF CAPSTAN WHEN OPERATING.

- C. Pull on line to create a little tension, then step on the footswitch to start the windlass. Tail off line as it comes off the capstan.

Figure 3



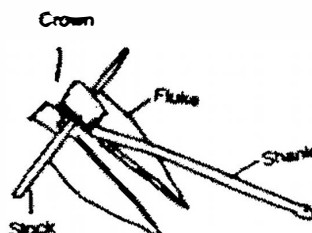
SECTION II

HOW TO ANCHOR

ANCHORING TECHNIQUES

- A. Techniques for anchoring vary depending on a number of variables—the size and type of anchor and boat, whether the boat is of light or heavy draft, protection afforded by the anchorage, and the amount of sea running. The guidelines below are general, and a skipper should experiment to determine the best procedure for his application.
1. Select a location where there is a good holding bottom (mixtures of mud and clay or sandy mud make excellent holding bottom: Firm sand is good if your anchor will bite deeply into it; Loose sand is bad), protection against the wind, and water of suitable depth. Refer to visible landmarks to aid you later in determining whether you are holding or dragging.
 2. Approach the location slowly, the approach made into the wind or current (whichever is stronger). Keep in mind a possible swing or current changes, and remember that nearby boats may swing to a longer scope than you allow.
 3. When lowering the anchor all "way" should be off (boat at a standstill). Drop the anchor and allow the boat to drift with the wind or current (or reverse engines at idle if necessary) while the rode pays out slowly so that it does not foul the anchor stock or flukes.

Figure 4



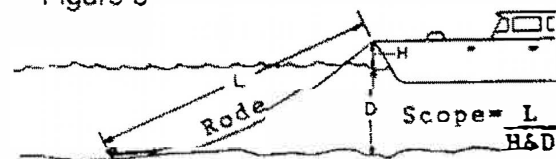
Typical Lightweight Anchor

4. When the predetermined scope¹ has been payed out, snub the line. The anchor will probably get a quick bite into the bottom. After the anchor is set, rode can be payed out or taken in to the proper length for the anchorage being used and the prevailing and expected weather conditions. Regardless of anchor type, a backdown load in excess of any anticipated loads should be applied after full scope has been payed out—especially if the boat is to be left unattended. Consideration must be given to other craft.
5. When ready to weigh anchor approach the anchor at slow speed, taking in line as you approach—until the rode is in the vertical position. The anchor should break free easily. If the anchor is deeply embedded, run the boat forward with the rode vertical to break the anchor out. If you are anchoring in an area where you suspect stumps or rocky bottom, it is advisable to tie a small trip-line to the crown of the anchor.

DEFINITIONS

- A. ANCHOR RODE—the line connecting an anchor to a vessel.
- B. SCOPE¹—the ratio of the LENGTH of anchor rode to the vertical DISTANCE from the bow chocks to the bottom (depth of water plus the height of the bow chocks above water).
- C. BOW CHOCKS—fittings, usually on the rail of a vessel near its stem, having jaws that serve as fairleads for anchor rodes and other line.

Figure 5

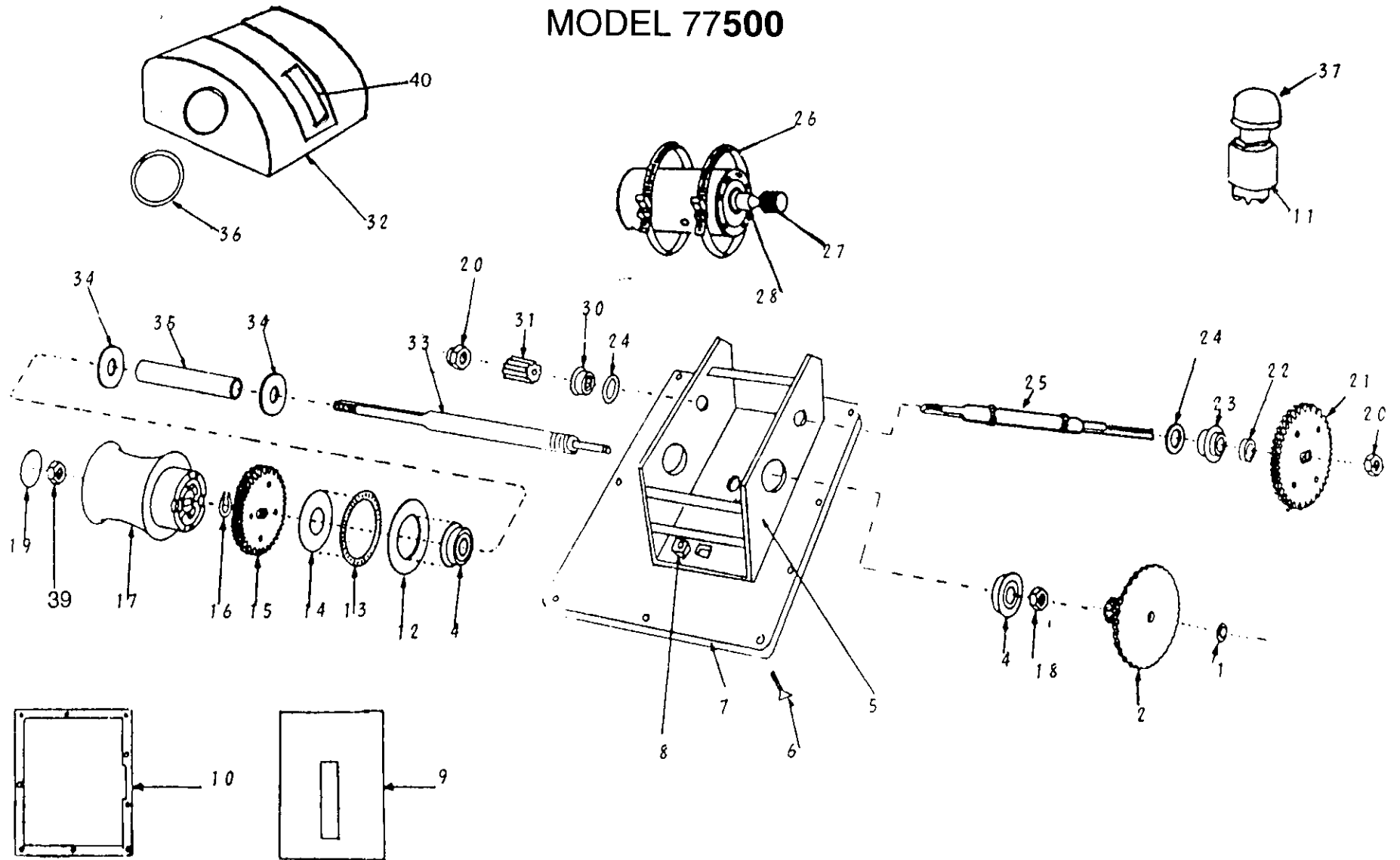


SECTION III

EXPLODED PARTS DRAWING

MODEL 77500

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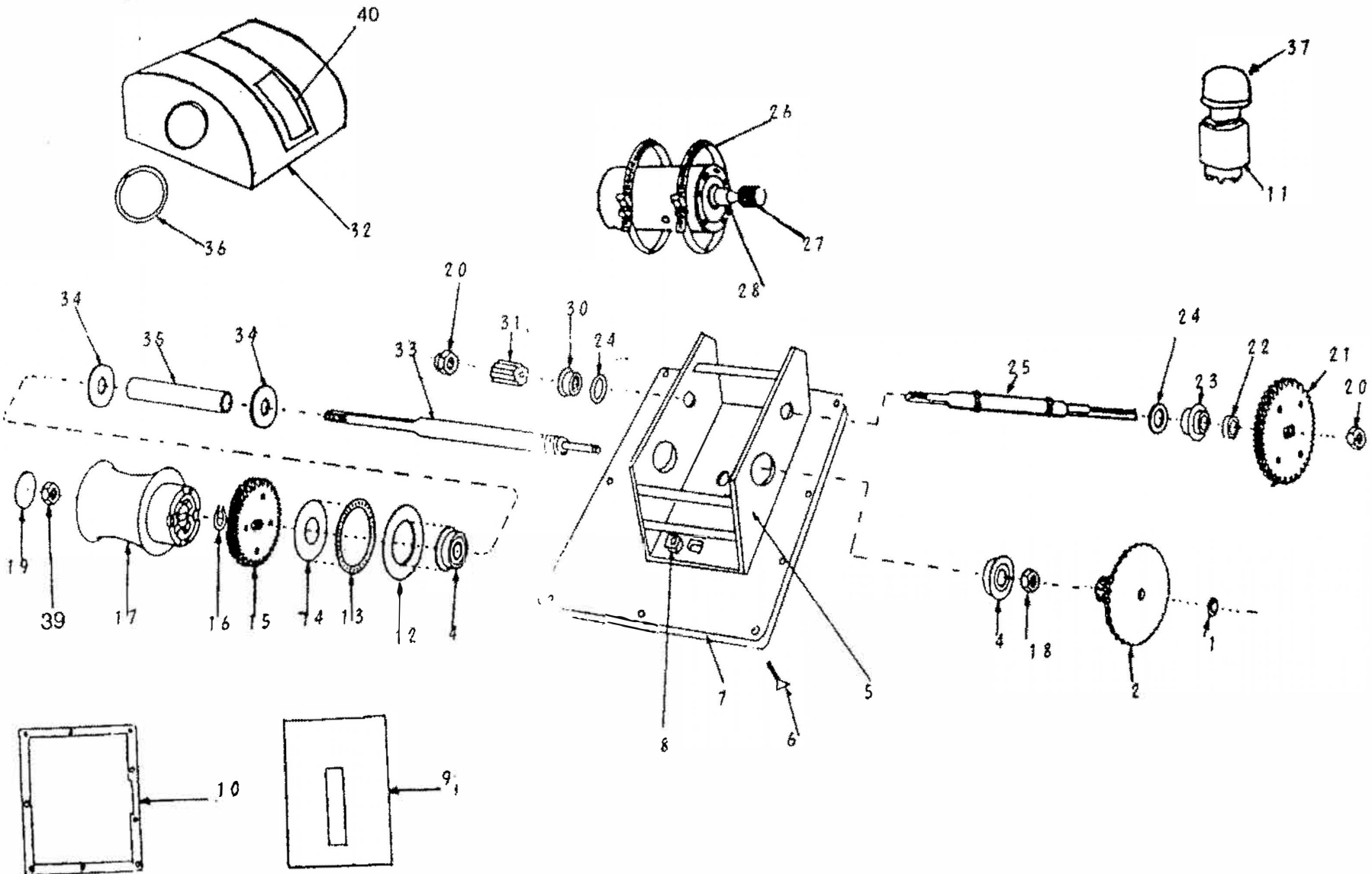


MODEL 500

KEY #	PART #	DESCRIPTION	QTY. USED
1	79852	Split Ring Retainer	1
2	71758	Powdered Metal Gear Assembly	1
4	71604	Bearing Nucor 33061	2
5	70147	Frame	1
6	79527	10-24 x 1/2 Pan Head Screw	9
7	75304	Base Plate	1
8	79711	3/8-16 Retaining Unit	2
9	75908	Deck Gasket	1
10	75907	Base Gasket	1
11	78176	Footswitch	1
12	71641	2.0 ID x 2.75 OD Thrust Bearing Washer	1
13	71622	Thrust Bearing NTA 3244	1
14	71642	.975 ID x 2.0 OD Washer	1
15	71729	Gear 45T	4
16	79047	Horseshoe Retainer	1
17	73715	Capstan	1
18	79715	5/8-18 Nut	1
19	75790	Capstan End Seal	1
20	79712	1/2-20 Nut	2
21	P71785	Drive Gear	1
22	71832	Rear Shaft Roller	1
23	71607	F-300 Bearing	1
24	71822	.060 x .515 x .875 Washer	2
25	71306	Rear Shaft	1
26	72204	Motor Strap	3
27	71725	Motor Gear 20T R.H.	1
28	72002	Motor	1
30	71608	DF-2342 Bearing	1
31	71708	Idler Gear	4
32	74181	Aluminum Cover	1
33	71006	Main Shaft	1
34	79966	1.250 x .628 x .190 Washer	2
35	71827	Main Shaft Tube Spacer	1
36	75901	Capstan Seal	1
37	78177	Footswitch Cap	1
39	79969	5/8-18 Brass Nut	1
40	P70334	Model ID Decal 500	1

MODEL 77501

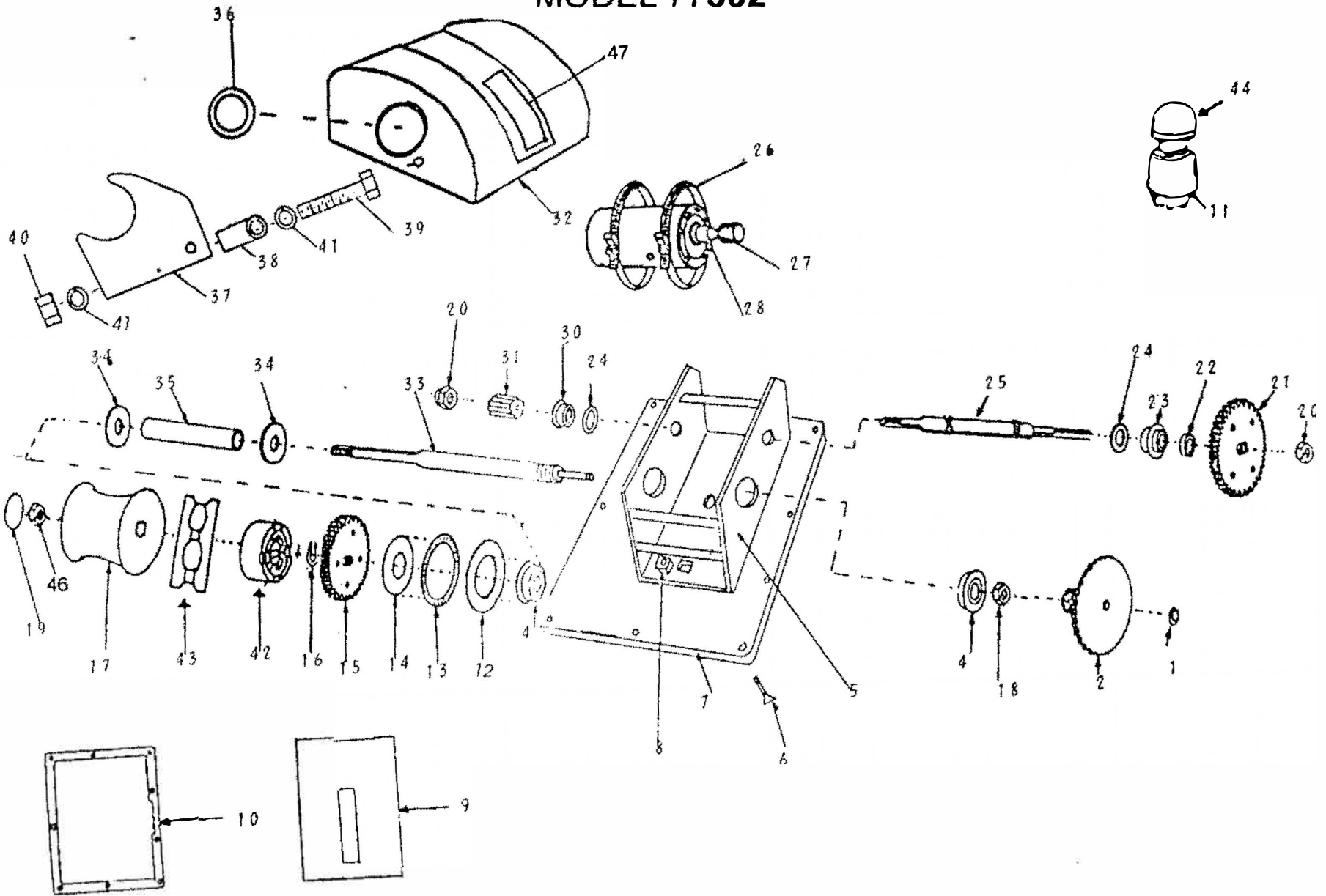
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MODEL 501

KEY #	PART #	DESCRIPTION	QTY. USED
1	79852	Split Ring Terminal	1
2	71758	Powdered Metal Gear Assembly	1
4	71604	Bearing Nucor 33061	2
5	70147	Frame	1
6	79527	10-24 x 1/2 Pan Head Screw	9
7	75304	Base Plate	1
8	79711	3/8-16 Retaining Nut	2
9	75908	Deck Gasket	1
10	75907	Base Gasket	1
11	78176	Footswitch	1
12	71641	2.0 ID x 2.75 OD Thrust Bearing Washer	1
13	71622	Thrust Bearing NTA 3244	1
14	71642	.975 ID x 2.0 OD Washer	1
15	P71715	1/2 x 5/8 Gear - Hard	4
16	79047	Horseshoe Retainer	1
17	73715	Capstan	1
18	79715	5/8-18 Nut	1
19	75790	Capstan End Seal	1
20	79712	1/2-20 Nut	2
21	71703	Drive Gear	1
22	71832	Rear Shaft Spacer	1
23	71607	F-300 Bearing	1
24	71822	.060 x .515 x .875 Washer	2
25	71304	Rear Shaft	1
26	72203	Motor Strap	2
27	71769	Motor Gear 16T R.H.	1
28	72002	Motor	1
30	71608	DF-2342 Bearing	1
31	71704	Pinion Gear	1
32	74181	Aluminum Cover	1
33	71006	Main Shaft	1
34	79966	1.250 x .628 x .190 Washer	2
35	71827	Main Shaft Tube Spacer	1
36	75901	Capstan Seal	1
37	78177	Footswitch Cap	1
39	79969	5/8-18 Brass Nut	1
40	P70343	Model ID Decal 501	1

MODEL 77502



MODEL 502

KEY #	PART #	DESCRIPTION	QTY. USED
1	79852	Split Ring Retainer	1
2	71758	Powdered Metal Gear Assembly	1
4	71604	Bearing Nucor 33061	2
5	70147	Frame	1
6	79527	10-24 Flat Head Screw	9
7	75304	Base Plate	1
8	79711	3/8-16 Retaining Unit	2
9	75908	Deck Gasket	1
10	75907	Base Gasket	1
11	78176	Footswitch	1
12	71641	2.0 ID × 2.75 OD Thrust Bearing Washer	1
13	71622	Thrust Bearing NTA 3244	1
14	71642	.975 ID × 2.0 OD Washer	1
15	P71715	1/2 × 5/8 Gear - Hard	4
16	79047	Horseshoe Retainer	1
17	73702	Capstan	1
18	79715	5/8-18 Nut	1
19	75790	Capstan End Seal	1
20	79712	1/2-20 Nut	2
21	71703	Drive Gear	1
22	71832	Rear Shaft Spacer	1
23	71607	F-300 Bearing	1
24	71822	.060 × .515 × .875 Washer	2
25	71304	Rear Shaft	1
26	72203	Motor Strap	3
27	71769	Motor Gear 16T R.H.	1
28	72002	Motor	1
30	71608	DF-2342 Bearing	1
31	71704	Pinion Gear	1
32	74187	Aluminum Cover	1
33	71005	Main Shaft	1
34	79966	1.250 × .628 × .190 Washer	2
35	71827	Main Shaft Tube Spacer	1
36	75901	Capstan Seal	1
37	73726	Chain Stripper	1
38	73729	Chain Stripper Spacer	1
39	79972	3/8-16 × 2 SS Screw	1
40	79973	3/8-16 SS Nut	1
41	79809	3/8 Lock Washer	2
42	71841	Aluminum Spacer	1
43	73723	Wildcat 5/16 P.C.	1
44	78177	Footswitch Cap	1
46	79969	5/8-18 Brass Nut	1
47	P70339	Model ID Decal 502	1

SECTION V

WARRANTY

LIMITED WARRANTY

- A. This Limited Warranty is given by the Powerwinch Division of the Scott Fetzer Company (the "Company").
- B. This Limited Warranty is received by the Original Purchaser (the "Purchaser") of a Powerwinch Windlass (the "Product"). This Warranty is not transferable.
- C. Responsibilities of the Company under this Warranty:
1. Repair or replace (at the discretion of the Company) parts to be found by the Company to be defective within a two-year period from date of purchase.
 2. Company will pay freight back to the Purchaser of any windlass received for legitimate Warranty repair.
- D. Responsibilities of the Purchaser under this Warranty:
1. Complete (fully and accurately) and return to the Company the Warranty card included in the box. Otherwise Purchaser will have to show dated proof of purchase to qualify for service under provisions of coverage.
 2. Promptly notify the Seller or Company of any claim hereunder.
 3. At the option of the Company, return the product to Powerwinch for inspection. Authorization must be given prior to any product returned. Call the Company at 1-800-793-4793, or write at 2268 Fairview Blvd., Fairview, TN 37062, for authorization and complete instructions on how to return the product directly to the Company.
 4. Use reasonable care in maintenance, operation, use and storage of the product in accordance with the instructions contained in the owner's manual.
5. Have Warranty work performed by a dealer or representative approved by Powerwinch.
 6. Except as provided in C. 2, transportation charges are the responsibilities of the Purchaser.
- E. This Limited Warranty covers:
1. Defects in workmanship or materials.
 2. Any component sold or manufactured by the Company.
 3. Any defect found to result from original assembly.
- F. Not covered under this Limited Warranty.
1. Any failure that results from improper installation of the product.
 2. Any failure that results from accident, Purchaser's abuse, neglect, modification, improper maintenance, or failure to operate and use the Product in accordance with the instructions provided in the Owner's Manual supplied with the Product.
 3. Implied Limited Warranties, including those of merchantability and fitness for particular purpose, are limited to two years from date of purchase. Liability for indirect or consequential damages for any and all Warranties is excluded. Some states do not allow limitation of incidental or consequential damages, so the above limitations may not apply to you.
 4. Any component not sold or manufactured by the Company.

THIS WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS, AND YOU MAY ALSO HAVE OTHER RIGHTS, WHICH WOULD VARY FROM STATE TO STATE.

Powerwinch reserves the right to alter specifications on any product without notice.