

# **2 POWERWINCH**

## **WINDLASSES**

models

212 410 412 415 416

**Owners Manual** 

### CAUTION

READ OWNERS MANUAL BEFORE USE. THIS UNIT IS NOT DESIGNED FOR OVERHEAD LIFTING OR LIFTING HUMANS.

FOR SAFETY

WE RECOMMEND THE USE OF POWERWINCH ACCESSORIES AND REPLACEMENT PARTS...

Lubricate once a year, preferably in spring before start of boating season.

- · Remove case as follows:
  - 1. Pry loose capstan end seal with pointed instrument (Key #1)
  - 2. Remove nut under seal (Key #2). Pull capstan (Key #3):
  - 3. Loosen 9 screws (Key #10) fastening case to winch base (Key #11).
  - 4. Remove nut A-41 (Key #34) from toggle switch (Key #33). Push switch through to inside of case.
  - 5. Lift off case (Key #37).
- Grease all gears and all bearings with Molykote G. gear lubricant (Cat. #L-71).
- · Replace end seal on capstan,
- Recaulk base to case to prevent moisture from entering.

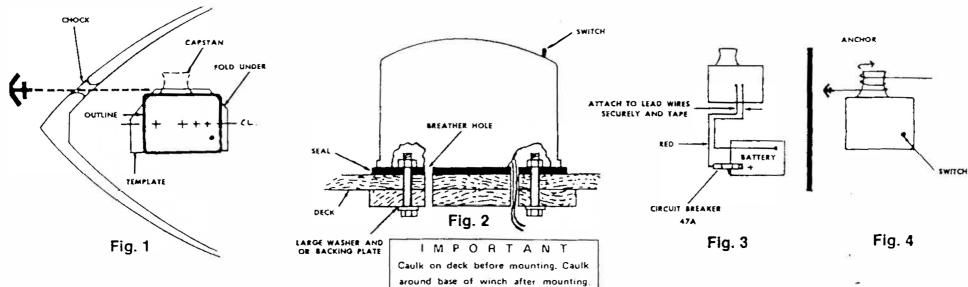
NOTE: Order Molykote G and other replacement parts through local marine dealer or directly from POWERWINCH DIVISION, SCOTT FETZER CO., 2268 Fairview Blvd, Fairview, Tennessee 37602.

NOTE: This unit, as shipped from factory, is completely watertight. Whenever removing cover for greasing, etc., refer to "Upkeep" instructions

**FOR SAFETY** 

WE RECOMMEND THE USE OF POWERWINCH ACCESSORIES AND

REPLACEMENT PARTS



N

LOCATE POSITION OF ANCHOR WINDLASS

Place windlass on deck. Line up capstan with chock (as shown). Pencil outline base, Remove unit. Measure centertine Fig. 1:

#### USE THIS INSTRUCTION SHEET AS TEMPLATE

Place this sheet on deck outline, which you've drawn. Place top edge, capstan side, in position. This gives you centerline for holes. Fasten template in position temporarily, using cellophane tape:

Before drilling, use center punch in each hole location on template (2 bolt holes, 1 wiring hole and 1 breather hole, as marked). Drill four 1/2" holes through the deck.

#### SECURING ANCHOR WINDLASS TO DECK **BACKING PLATE**

Remove temptate from deck. Using a caulking compound, caulk around the deck outline. Then around each of the four deck holes. Place Anchorwindlass in position on outline. Be sure lead wire is entirely through wiring hole.

Attach Anchorwindlass to deck using 3/8-16 bolts. (See Note 1) To determine length of bolt to be used - add thickness of deck plus 1". (Bolts must be 1" longer than total thickness - including backing plate, if one is required.) Insert bolts from below having placed thick washer in position as shown (Fig. 2). Tighten securely into position. After tightening unit Into position, caulk completely around base to assure a water-tight seal. For sharply curving decks, see Note 2.

#### NOTE 1. BACKING PLATE

To assure greatest strength, a backing plate is recommended especially where deck has no king plank. A suitable backing plate can be made from 3/8" marine plywood. Be sure to allow extra length in determining bolts.

### NOTE 2. SHARPLY CURVING DECKS

If deck contour will not allow unit to sit flat, make a flat wood base with bottom side contoured to deck shape Caulk around base and deck to assure water-tight seat

WIRING

Short lead wire only is furnished with the Anchorwindlass. For 12 volt installations, use No. 6 wire, Length of wire needed will vary according to individual requirements-determined by distance between winch and battery. Connect wire securely to lead wires. Tape these connections securely. Run wires to terminals on battery. Connect one wire to circuit breaker (furnished) securely as shown. Then connect the buss bar end to the battery post. (See Fig. 3)

(For wiring the Model 410C refer to wiring diagram.)

#### **OPERATING THE ANCHOR WINDLASS**

Place anchor rope through bow chock and over top of capstan, close to case. Wrap tape around capstan counterclockwise (see Fig. 4). Three or four turns around capstan required depending on load.

Push switch "on." Maintain tension on rope Take off excess as rope turns off the capstan. To stop pull, simply release tension on rope and allow it to slip around on rotating capstan. Push switch "off,"

6%" CENTER DIST.

**BOLT HOLE** 

WIRING HOLE

**BOLT HOLE** 

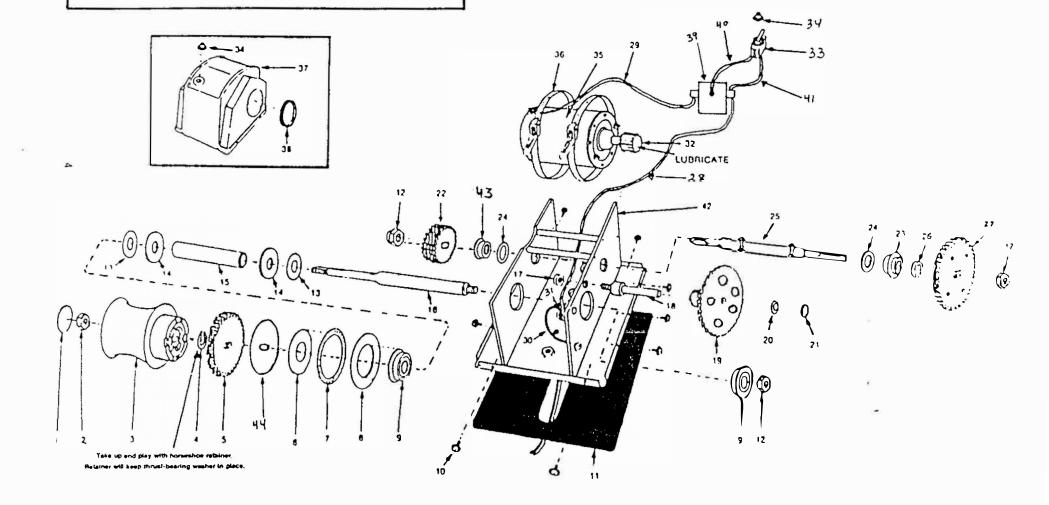
WITH

NOTE: FOR 110 WIRING, HOLE MUST BE 1

## THIS IS A PERMANENT MAGNETIC MOTOR AND IS POLARIZED FOR ROTATION.

Make sure your wiring connections conform to instructions. Reversing may cause motor gear to back off the threaded shaft, and/or possible damage to motor or wiring.

Model 212 TO MAINTAIN EFFICIENCY OF UNIT LUBRICATE CABLE OCCASIONALLY WITH WHITMORE'S WIRE ROPE SPRAY — LPS-3, OR SIMILAR PRODUCT.



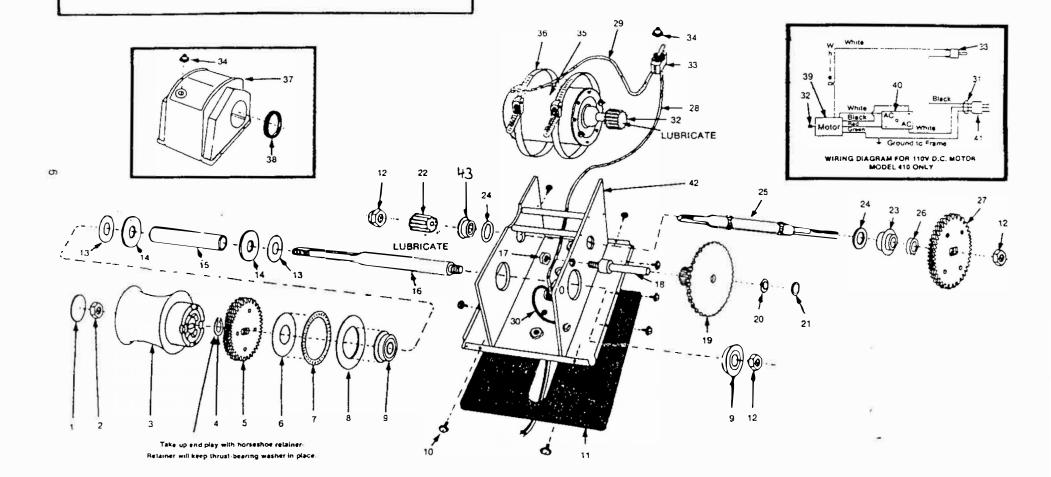
### **REPAIR PARTS LIST 212**

KEY NO.	ID NO.	DESCRIPTION	QTY. USED
1	75900	Capstan seal	1
2	79715	5/8-18 nut	1
3	73701	Capstan	i
4	79047	Retainer	1
<del>4</del> 5	71729	Gear, front shaft drive assy.	1
5 6	71615	Thrust bearing washer	1
a <b>7</b>	71616	Thrust bearing	1
8	71614	Thrust bearing washer	1
9	71605	Bearing	1 2 9 1 3 2 2
10	79587	10-32 x 1/2 self-tapping ss screws	9
11	75902	Flat deck seal	1
12	79712	Nut, ½-20	3
13	71823	Spacing washer	2
14	71822	Spacing washer	
15	71827	Spacer tube	1
16	71205	Main shaft	732
17	79713	Nut, 1/2-20 thin	1
18	71103	1st gear shaft	1
19	71758	Powder metal gear assy.	1
20	71613	Thrust race .060	1
21	79852	Ring retainer	1
22	71708	Idler gear	1
23	71607	Bearing	1
24	71820	Spacing washer	2
25	71306	Rear shaft	1 2 2
26	71837	Ring spacer	1
27	71703	Drive gear	1
<b>2</b> 8	78043	Wire, 10 ga red 20"	1
29	78044	Wire 10 ga red 51/2"	1
30	78045	Wire 10 ga black 20"	1
31	78114	Bushing	1
32	71725	Motor gear	1
33	<b>7813</b> 8	Toggle switch	1
34	79718	Sealed nut	1
<b>3</b> 5	<b>72</b> 002	Motor 12 volts	1
36	72203	Motor strap	2
37	74004	Cover	1
38	75901	Capstan seal	1
39	78118	Solenoid	1
40	78003	Jumper wire	1
41	78016	Jumper wire	1
42	70136	Frame	1
43	71608	Bearing	1
44	71617	Washer	1

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Model 412 410 TO MAINTAIN EFFICIENCY OF UNIT LUBRICATE CABLE OCCASIONALLY WITH WHITMORE'S WIRE ROPE SPRAY — LPS-3, OR SIMILAR PRODUCT.



### REPAIR PARTS LIST 412 & 410

KEY NO.	ID NO.	DESCRIPTION	QTY. USED
1	75900	Capstan seal	1
	<b>7</b> 9715	5/8-18 nut	1
2 3	73701	Capstan	1
4	79047	Retainer	1
5	71760	Gear, front shaft drive assy.	1
5 6	71615	Thrust bearing washer	1
7	71616	Thrust bearing	1
8	71614	Thrust bearing washer	1
9	71605	Bearing	2
10	79587	10-32 x ½ self tapping ss screws	9
11	75902	Flat deck seal	9 1 3 2 2
12	79712	1/2-20 nut	3
13	71823	Spacing washer	2
14	71822	Spacing washer	2
15	71827	Front shaft spacer tube	1
16	71205	Main shaft	i
17	79713	½-20 thin nut	i
18	71103	1st gear shaft	1
19	71758	Powder metal gear assy.	1
20	71613	.060 thrust race	1
21	79852	Split ring retainer	1
22	71704		
23	71704	Pinion gear	1
	71820	Bearing	1
24 25	71306	Spacing washer	2 2
		Rear shaft	2
26 27	71837	½ x ¼ x ¾ ring spacer	1
	71703	Drive gear	1
28	78043	Wire, 10 ga red 20"	1
29	78044	Wire 10 ga red 51/2"	1
30	78045	Wire 10 ga black 20"	1
31	78114	Strain relief bushing	1
32	71728	16 T motor gear	1
33 ::	78138	Toggle switch	× 1
34	79718	Sealed nut	1
35	72002	Motor 12 volts	1
36	72203	Motor strap	2
37	<b>7</b> 4004	Cover	1
38	75901	Capstan seal	1
39	72010	Motor (110 volts 410 only)	1
40	78115	Bridge rectifier (410 only)	1
41	78019	16 ga, 3 cond. wire w/plug (410 only)	1
42	70136	Frame	1
43	71608	Bearing	1
N.S.*	79543	10-32 x 1 screw	i
N.S.*	79009	10-32 nut	1
	70178	Base Pan NLA	

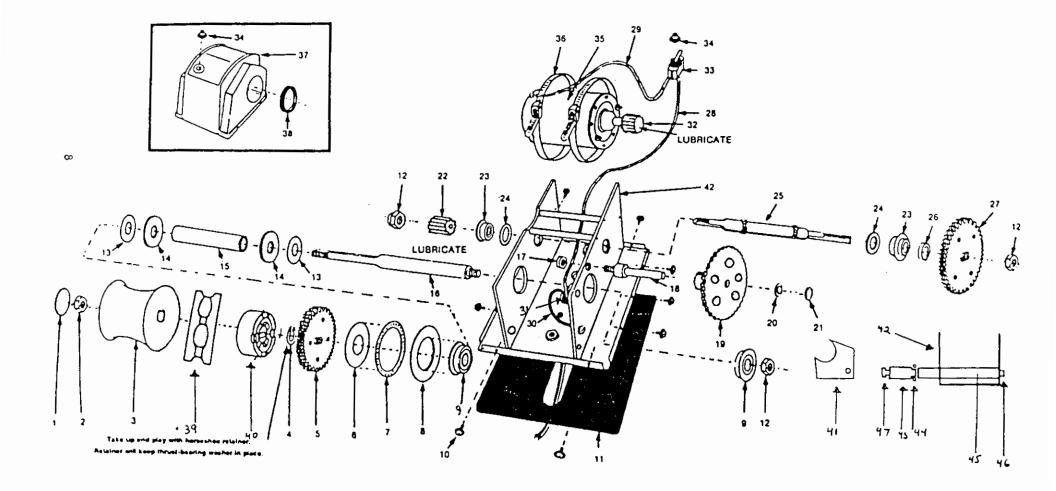
<sup>\*</sup> not shown

TO MAINTAIN EFFICIENCY OF UNIT LUBRICATE CABLE OCCASIONALLY WITH WHITMORE'S WIRE ROPE SPRAY — LPS-3, OR SIMILAR PRODUCT.

### Model 415

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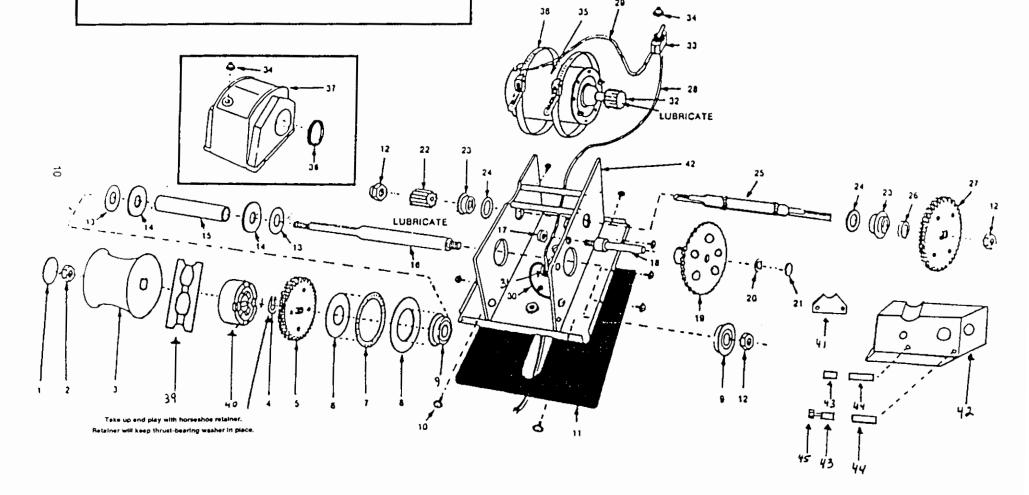
## **REPAIR PARTS LIST 415**

KEY NO.	1D NO.	DESCRIPTION	QTY. USED
1	75900	Capstan seal	1
2	79715	5/8-18 nut	1
3	73702	Capstan	1
4	79047	Retainer	1
5	<b>717</b> 31	Gear, Front shaft drive assembly	4
6	71615	1-¾ ID x 3 OD thrust bearing washer	1
7	71616	Thrust bearing	1
8	71614	2" ID x 3¾" OD thrust bearing washer	1
9	71605	Bearing	2 9
10	79587	10-32 x 1/2 self tapping SS screws	9
11	75902	Flat deck seal	1 3 2
12	79712	1/2·20 nut	3
13	71823	% x .030 spacing washer	2
14	71822	.060 x .515 x .875 spacing washer	2
15	71827	Front shaft spacer tube	1
16	71305	Main shaft	1
17	79713	1/2-20 thin nut	1
18	71103	1st gear shaft	1
19	71758	Powder metal gear assembly	1
20	71613	.060 thrust race	1
21	79852	Split ring retainer	1
22	71704	Pinion gear	1
23	71608	Bearing	1
24	71820	% x .125 spacing washer	2 2
25	71306	Rear shaft	2
26	71837	1/2 x 1/4 x 3/4 ring spacer	1
27	71703	Drive gear	1
28	78043	Wire, 10 ga red 20"	1
29	78044	Wire 10 ga red 51/2"	1
30	78045	Wire 10 ga black 20"	1
31	78114	Strain relief bushing	1
32	71725	20T 9/16 RH motor gear	1
33	78138	Toggle switch	1
34	79718	Sealed nut	1
35	72002	Motor 12 volts	1
36	72203	Motor strap	2
37	74004	Cover	1
38	75901	Capstan seal	1
39	73723	5/16 wildcat	1
40	73705	Spacer	1
41	73726	Chain stripper	1
42	70107	Frame	1
43	73725	Outside striper spacer	1
44	79516	"O" ring	1
45	73724	Ext. Bar stripper	1
46	79606	5/16-18-34 stainless screw	1
47	79515	5/16-18 x 2 stainless screw	1
48	71607	Bearing	1

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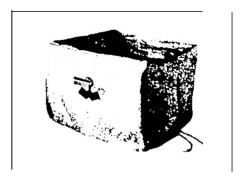


### **REPAIR PARTS LIST 416**

1 75900 Capstan seal 1 2 79715 5/8-18 nut 1 3 73702 Capstan 1 4 79047 Retainer 1 5 71731 Gear, front shaft drive assy. 1 6 71615 Thrust bearing washer 1 7 71616 Thrust bearing washer 1 8 71614 Thrust bearing washer 1 9 71605 Bearing 2 10 79587 10-32 screws 9 11 75902 Flat deck seal 1 12 79712 ½-20 nut 3 13 71823 Spacing washer 2 14 71822 Spacing washer 2 15 71827 Front shaft spacer tube 1 16 71305 Main shaft 1 17 79713 ½-20 thin nut 1 18 71103 1st gear shaft 1 19 71758 Powder metal gear assy. 1 20 71613 .060 race thrust 1 21 79852 Spit ring retainer 1 22 71704 Pinion gear 1 23 71608 Bearing 1 24 71820 ½ x \ 1 x \ 3 \ 4 x \ 1 4 \ 3 \ 182 25 71306 Rear shaft 2 26 71306 Rear shaft 2 27 71703 Drive gear 1 28 78044 Wire 10 ga red 20" 1 29 78044 Wire 10 ga red 20" 1 30 78045 Wire 10 ga red 5½" 1 31 78114 Strain relief bushing 1 32 71725 20T motor gear 1 33 78138 Toggle switch 1 34 79718 Sealed nut 1 35 72002 Motor 12 volts 1 36 72203 Motor strap 2 37 74015 Cover 1 38 75001 Capstan seal 1 39 73704 Wildeat 1 30 Tissign spacer 1 31 78114 Strain relief bushing 1 32 71725 20T motor gear 1 33 78138 Toggle switch 1 34 79718 Sealed nut 1 35 72002 Motor 12 volts 1 36 72203 Motor strap 2 37 74015 Cover 1 38 75001 Capstan seal 1 39 73704 Wildeat 1 30 71831 Outside stripper spacer 2 44 71830 Inside stripper spacer 2 45 79864 W-20 x 1 W SS screw 2	KEY NO.	ID NO.	DESCRIPTION	QTY. USED
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7	6		Thrust bearing washer	1
10	7			
9 71605 Bearing 2 10 79587 10:32 screws 9 11 75902 Flat deck seal 1 12 79712 ½:20 nut 3 13 71823 Spacing washer 2 14 71822 Spacing washer 2 15 71827 Front shaft spacer tube 1 16 71305 Main shaft 1 17 79713 ½:20 thin nut 1 18 71103 1st gear shaft 1 19 71758 Powder metal gear assy. 1 20 71613 .060 race thrust 1 21 79852 Split ring retainer 1 22 71704 Pinion gear 1 23 71608 Bearing 1 24 71820 % x x .125 spacing washer 2 25 71306 Rear shaft 2 26 71837 ½ x ¼ x ¾ ring spacer 1 27 71703 Drive gear 1 28 78043 Wire, 10 ga red 20" 1 29 78044 Wire 10 ga red 5½" 1 30 78045 Wire 10 ga palosk 20" 1 31 78114 Strain relief bushing 1 32 71725 20T motor gear 1 33 78138 Toggle switch 1 34 79718 Sealed nut 1 35 72002 Motor 12 volts 1 36 72003 Motor strap 2 37 74015 Cover 1 38 75901 Capstan seal 1 39 73704 ¼ wildcat 1 30 73705 Spacer 1 41 75001 Chain stripper spacer 2 44 71830 Inside stripper spacer 2 45 79064 ¼-20 x 1 ½ S S screw 2	8		Thrust bearing washer	1
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Anchor Davit Model A-66 Aluminum unit designed for 412, 415, 416 and 612 wind-tasses. Handles and holds snug any size or weight fluke type anchor. 30° long, 4-1/2" wide.



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To prolong the life of your winch cable, use Whitmore's Wire Rope Spray cable lubricant.



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When sending your unit to the nearest repair center, give your name, address, and any pertinent information on your winch problem. Please pack carefully so as to avoid damage in shipment.



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