

MODEL 30 & 32 2 SPEED SELF TAILING WINCH

MAINTENANCE & SERVICE INFORMATION

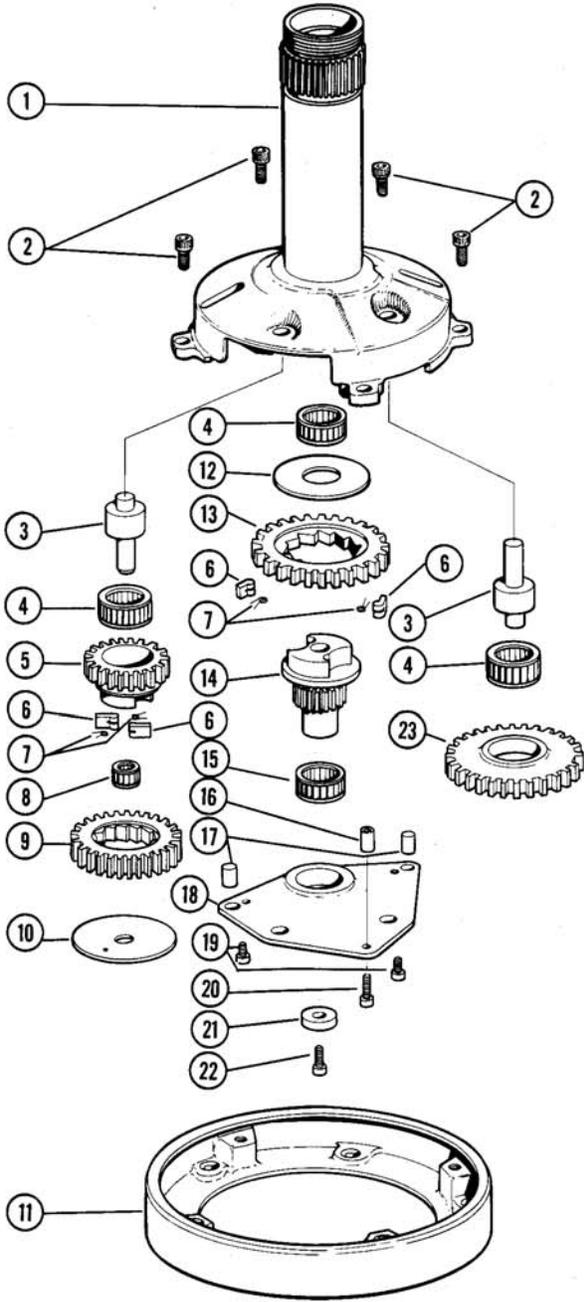
Quality Winches and Fine Yacht Gear

 **NARCO BARIENT**

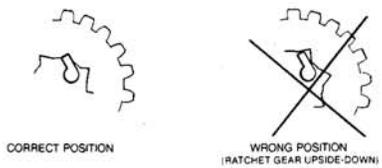
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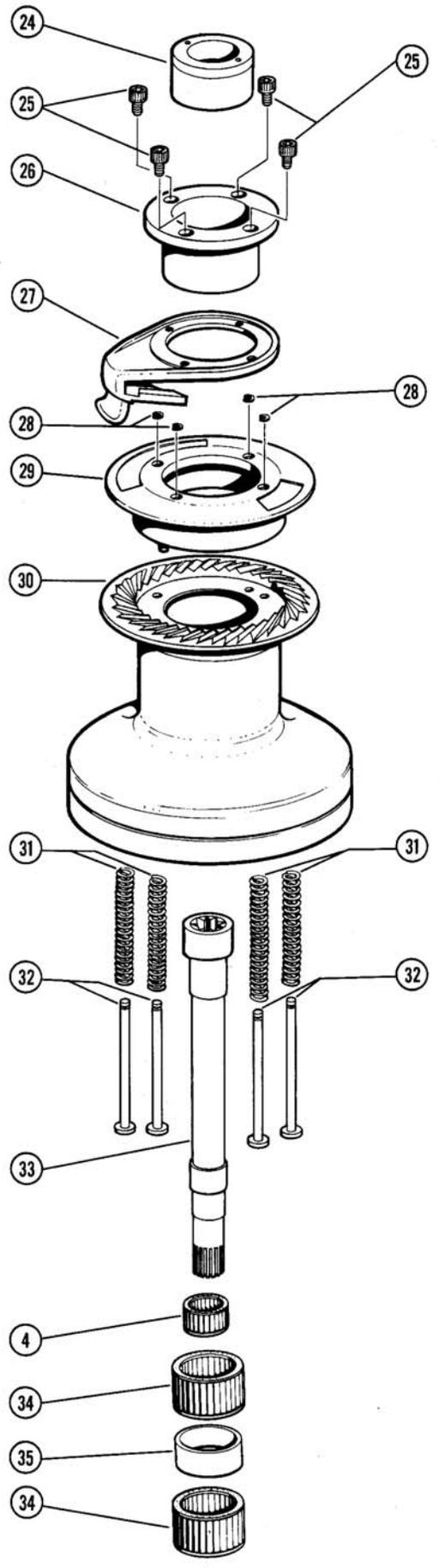


VIEW OF RATCHET GEAR PAWLS



CORRECT POSITION

WRONG POSITION
(RATCHET GEAR UPSIDE-DOWN)



Item Number	Part Number		Description	Quantity
	Model 30	Model 32		
1	32567	32567	Gear housing	1
2	3/8-16NCx3/4	3/8-16NCx3/4	Cap screw—housing	4
3	11211	11211	Gear spindle	2
4	00425	00425	Needle bearing	4
5	11205	11248	Final drive gear	1
6	00330	00330	Pawl	4
7	00209	00209	Pawl spring	4
8	00401	00401	Needle bearing	1
9	11207	11250	Ratchet gear—final	1
10	00321	00321	Thrust washer	1
11	32534	32534	Base—aluminum	1
Alt.	11201	11201	Base—stainless steel	1
12	00322	00322	Thrust washer	1
13	11208	11208	Ratchet gear—center	1
14	11206	11249	Center pinion gear	1
15	00404	00404	Needle bearing	1
16	11217	11217	Spacer	1
17	11218	11218	Dowel pin	2
18	11203	11203	Gear cover	1

MODEL 30 & 32 2-SPEED SELF TAILING DISASSEMBLY PROCEDURE

1. Before starting the disassembly, spread out some newspapers or a clean cloth. Place the parts on it for their protection as well as the deck's protection.
2. Remove the drum retaining nut (24) using a universal deck plate key. NOTE: If the self tailing mechanism is not to be serviced, the drum with the line lifter in place (parts 25 through 32) may be lifted off at this point. Be careful not to drop the drum bearings. Disassembly may be continued at Step 6.
3. Remove the four 1/4" Allen head screws (25) from the anchor sleeve (26) using a 3/16" Allen wrench. Remove the sleeve and the line lifter (27).
4. Remove the drum assembly. NOTE: The drum bearings (34) may come off with the drum—be careful not to let them fall out.
5. It is usually not necessary to remove the clamp ring (29) from the drum. If this is required, push the spring guide (32) up from the inside of the drum to allow removal of the lock rings (28). A small arbor press is helpful for this operation.
6. Remove the drum bearings (34).
7. Remove the four 3/8" Allen screws (2) holding the gear housing (1) to the base and lift the housing out of the base. It may be necessary to tap the gear housing with a soft hammer to release it from the base.
8. Carefully turn the gear housing assembly upside down so it stands on the drum bearing stem.
9. To assist in further disassembly, the drum can be used as a holder for inverted gear housing. Insert the stem of the gear housing into the top of the drum.
10. Remove the three 1/4" Allen screws (19 & 20) using a 3/16" Allen wrench and carefully remove the gear cover. It may be necessary to gently pry the cover off with a screwdriver.
11. Remove the spacer (16) beneath the center cover screw (20) on the lower bearing on the center shaft pinion (15) and the thrust washer (10) on the final drive pinion (5).
12. Lift out the final drive pinion (5) in assembly with its ratchet gear (9), pawls (6) and springs (7). NOTE: Keep this assembly together until you are ready to clean it. Then reassemble it immediately. This avoids confusion in the assembly procedure. NOTE: When removing the pawls from their holders, squeeze the spring ends together while sliding the pawl from its socket. If this is not done, the pawl spring can shoot out and be lost.
13. Remove the two needle bearings (4 & 8) exposed by the removal of the gear assembly.
14. Remove the idler gear (23) and its bearing (4).
15. Lift up the housing (1) and insert a crank handle in the mainshaft socket to stop it from turning. Remove the center shaft pinion retaining screw (22) and the washer (21).

Item Number	Part Number		Description	Quantity
	Model 30	Model 32		
19	1/4-20NCx5/8	1/4-20NCx5/8	Cap screw—cover	2
20	1/4-20NCx1 1/4	1/4-20NCx1 1/4	Cap screw—cover	1
21	11216	11216	Washer	1
22	1/4-20NCx3/4	1/4-20NCx3/4	Cap screw—mainshaft	1
23	11209	11251	Idler gear	1
24	32644	32646	Drum nut—aluminum	1
Alt.	32643	32645	Drum nut—stainless steel	1
25	1/4-20NCx3/8	1/4-20NCx3/8	Cap screw—anchor sleeve	4
26	28025	28025	Anchor sleeve	1
27	32580	32580	Line lifter	1
28	28020	28020	Lock spring guide	4
29	32577	32577	Clamp ring	1
30	32585	32585	Drum—aluminum	1
Alt.	32576	32576	Drum—stainless steel	1
31	28008	28008	Spring	4
32	28021	28021	Spring guide	4
33	32578	32578	Mainshaft	1
34	00422	00422	Drum bearing	2
35	11215	11215	Bearing spacer	1

16. Lift up on the center ratchet gear (13) removing it in assembly with the pinion (14) and their pawls and springs (6 & 7). Keep these together until they can be cleaned and reassembled.
17. Remove the mainshaft thrust washer (12) the mainshaft (33) and its upper and lower bearings (4). The two gear spindles (7) are pressed into the housing and should not be removed unless they are damaged.
18. Wash all parts in petroleum solvent (fuel oil or equivalent) including the inside of the drum. Replace any pieces showing damage or excessive wear. During the assembly process, all gears and bearings should be liberally greased using Barient Barlube. The pawls and their pockets should be lubricated with light machine oil. (NOTE: Never use grease on the pawls as they must be allowed to move freely in their pockets.)

REASSEMBLY

19. Install the mainshaft (33) and its upper bearing (4) in the gear housing (1). Install the mainshaft's lower bearing (4) and the thrust washer (12).
20. Install the center shaft pinion (14) assembled with its ratchet gear (13) and pawls and springs (6 & 7). NOTE: Be sure the ratchet gear is assembled with the same side facing the gear as when it was removed. (See inset drawing.) Also the pawl springs always are assembled with the straight leg toward the pawl.
21. Install the center shaft pinion retaining screw (22) with its washer (21).
22. Install the idler gear (23) and its bearing (4).
23. Install the two needle bearings (4 & 8) on the final drive pinion spindle and install the assembly of the final drive pinion (5), the ratchet gear (9) and the pawls and springs (6 & 7). Again, be sure the ratchet gear is installed with the same face toward the pinion as when it was removed.
24. Install the gear cover (18) being sure to put the spacer (16) between it and the housing. Install and tighten the three cover retaining screws (19 & 20).
25. Turn the assembly over and install it into the base. Use the four 3/8" Allen screws (2) to secure it.
26. Install the two drum bearings (34) liberally greased, onto the gear housing and then install the drum assembly.
27. Place the line lifter (27) onto the drum with the lifting portion in the self tailer groove.
28. Insert the anchor sleeve (26) over the mainshaft and secure it to the line lifter with the four 1/4" Allen screws. The drum assembly can now be lifted up to allow the line lifter to be oriented toward the cranker's position.
29. Install the drum nut (24) and tighten.

MOUNTING INSTRUCTIONS

1. Remove the drum per the disassembly instructions.
2. Locate the winch base in the desired location. NOTE: Be sure the area is smooth and flat.
3. Locate the mounting hole locations and drill the required holes using a 13/32" drill. Be sure adequate reinforcement is provided to take the loads produced by the winch.
4. Mount the winch using 3/8" stainless or bronze flat head machine screws with nuts and flat washers.
5. Reassemble the drum. NOTE: Be sure to orient the line lifter toward the cranker's position.

DISASSEMBLY TOOLS REQUIRED

Universal Deck Plate Key
3/16 and 5/16 Allen wrenches

MONTHLY MAINTENANCE

Periodic maintenance is recommended to insure the proper operation of your Barient product.

1. Remove the drum using the disassembly procedure (Step 2).
2. Insert a handle and rotate the mainshaft in both directions (also in high range for 3-speed winches). If winch does not operate freely, continue with the *complete disassembly procedure*.
3. If winch does operate freely, remove the drum bearings.
4. Clean the bearing spindle and housing of the winch of any dirt or salt deposits.
5. Lubricate the mainshaft and the pawls with light machine oil (see exploded drawing for pawl locations). Crank the winch while lubricating to be sure the oil is worked into the pawl areas and along the length of the mainshaft.
6. Grease the bearings with Barlube and reinstall.
7. Reinstall the drum per the proper reassembly procedure.

LIMITED WARRANTY

Barient Company warrants each piece of equipment to be free from defects in materials and workmanship. Any part which proves to be defective in the normal use of the equipment will be replaced without charge. This Warranty does not apply to damage resulting from accident, neglect, or misuse, including repairs or alterations made by firms other than Barient Company.
