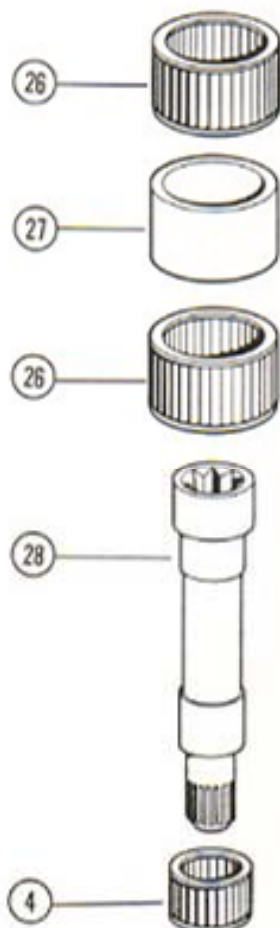
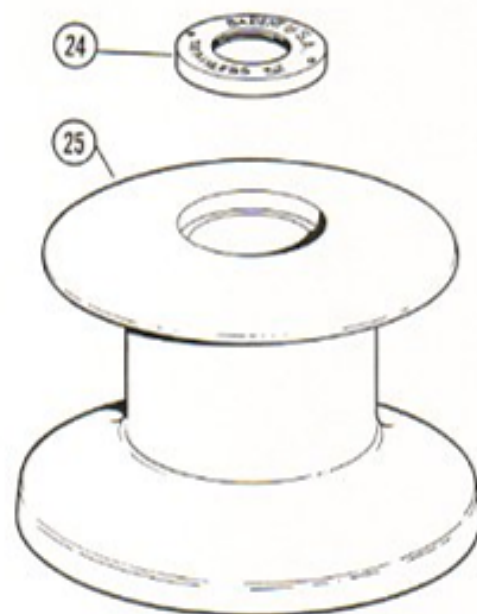
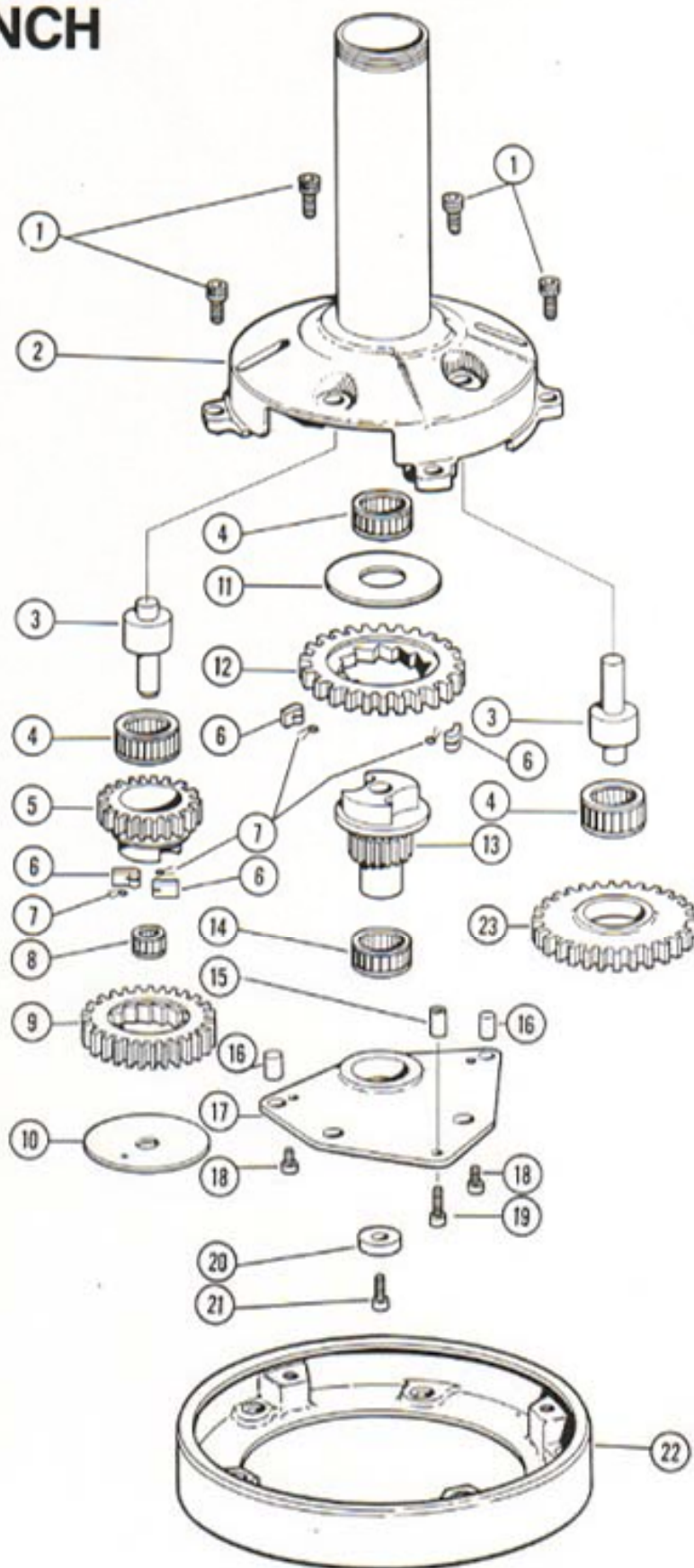


# MODEL 30 & 32 2 SPEED WINCH



VIEW OF RATCHET GEAR PAWLS



CORRECT POSITION



WRONG POSITION  
(RATCHET GEAR UPSIDE DOWN)

Item Number	Part Number		Description	Quantity
	Model 30	Model 32		
1	$\frac{3}{8}$ -16NCx $\frac{3}{4}$	$\frac{3}{8}$ -16NCx $\frac{3}{4}$	Capscrew—Housing	4
2	11202	11202	Gear Housing	1
3	11211	11211	Gear Spindle	2
4	00425	00425	Needle bearing	4
5	11205	11248	Final Drive pinion	1
6	00330	00330	Pawl	4
7	00209	00209	Pawl spring	4
8	00401	00401	Needle bearing	1
9	11207	11250	Final ratchet gear	1
10	00322	00322	Thrust washer	1
11	00321	00321	Thrust washer	1
12	11208	11208	Center ratchet gear	1
13	11206	11249	Center pinion gear	1
14	00404	00404	Needle bearing	1
15	11217	11217	Cover spacer	1
16	11218	11218	Dowel pin	2
17	11203	11203	Gear cover	1
18	$\frac{1}{4}$ -20NCx $\frac{5}{8}$	$\frac{1}{4}$ -20NCx $\frac{5}{8}$	Cap screw—cover	2
19	$\frac{1}{4}$ -20NCx1 $\frac{1}{4}$	$\frac{1}{4}$ -20NCx1 $\frac{1}{4}$	Cap screw—cover	1

## MODEL 30 & 32 2-SPEED DISASSEMBLY PROCEDURE

- 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.
- Remove the drum retaining nut (24) using a universal deck plate key.
- Remove the drum (25). NOTE: the drum bearing (26) may come off with the drum—be careful not to let them fall out.
- Remove the drum bearings (26) and the bearing spacer (27).
- Remove the four  $\frac{3}{8}$ " Allen screws (1) holding the gear housing (2) 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.
- Carefully turn the gear housing assembly upside down so it stands on the drum bearing stem.
- To assist in further disassembly, the drum can be used as a holder for the inverted gear housing. Insert the stem of the gear housing into the top of the drum.
- Remove the three  $\frac{1}{4}$ " Allen screws (18 & 19) using a  $\frac{3}{16}$ " Allen wrench and carefully remove the gear cover (17). It may be necessary to gently pry the cover off with a screwdriver.
- Remove the spacer (15) beneath the center cover screw (19), the lower bearing on the center shaft pinion (14) and the thrust washer (10) on the final drive pinion (5).
- 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.
- Remove the two roller bearings (4 & 8) exposed by the removal of the gear assembly.
- Remove the idler gear (23) and its bearing (4).
- Lift up the housing (2) and insert a crank handle in the mainshaft socket to stop it from turning. Remove the center shaft pinion retaining screw (21) and the washer (20).
- Lift up on the center ratchet gear (12) removing it in assembly with the pinion (13) and their pawls and springs (6 & 7). Keep these together until they can be cleaned and reassembled.
- Remove the mainshaft thrust washer (11) the mainshaft (28) and its upper and lower bearings (4). The two gear spindles (3) are pressed into the housing and should not be removed unless they are damaged.
- 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

17. Install the mainshaft (28) and its upper bearing (4) in the gear housing (1). Install the mainshaft's lower bearing (4) and the thrust washer (11).
18. Install the center shaft pinion (13) assembled with its ratchet gear (12) 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, be sure the pawl springs are assembled with the straight spring leg against the pawl.)
19. Install the center shaft pinion retaining screw (21) with its washer (20).
20. Install the idler gear (23) and its bearing (4).
21. Install the two roller 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) and thrust washer (10). Again, be sure the ratchet gear is installed with the same face toward the pinion as when it was removed.
22. Install the gear cover (17) being sure to put the spacer (15) between it and the housing. Install and tighten the three cover retaining screws (18 & 19).
23. Turn the assembly over and install it into the base. Use the four  $\frac{3}{8}$ " Allen screws (1) to secure it.
24. Install the two drum bearings (26), liberally greased, onto the gear housing and then install the drum (25).
25. Install the drum nut (24) and tighten.