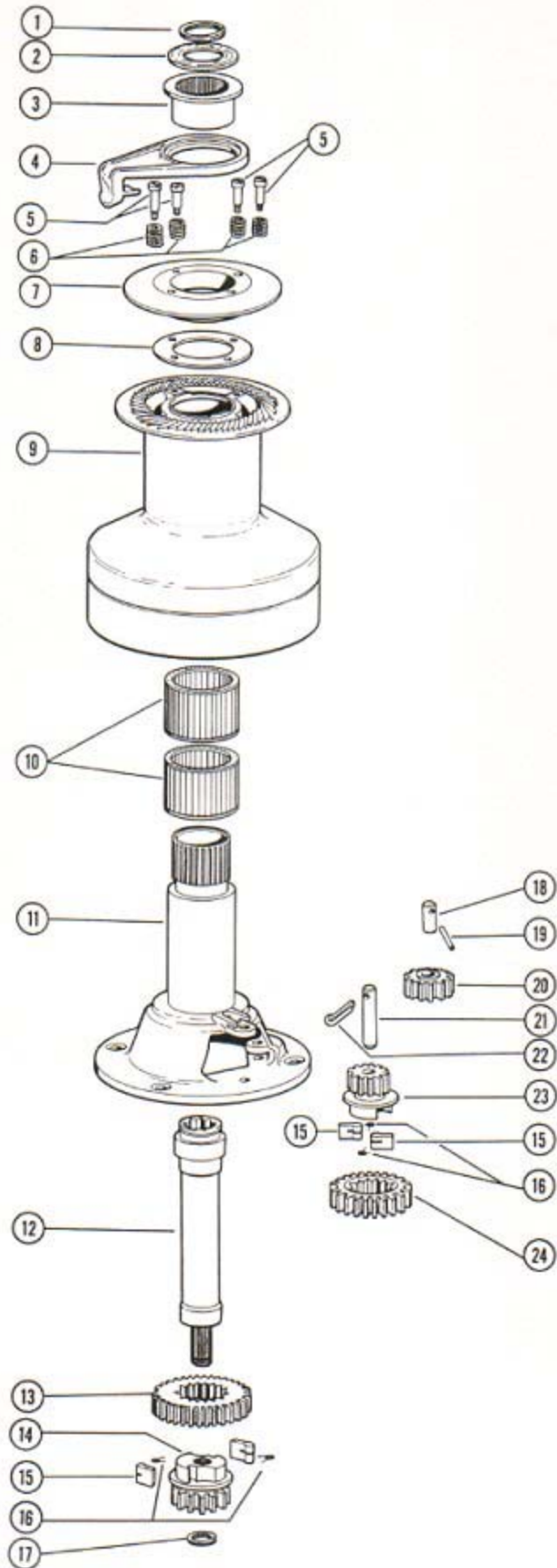
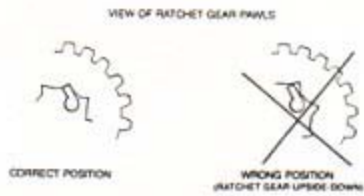


# MODEL 27 2-SPEED SELF TAILING WINCH

**Winches Built After Jan. 1, 1979**

- 1
- 25
- 26
- 27
- 28



Item No.	Part No.	Description	Qty.
1	A-01045-125	Snap ring	1
2	B-14655	Top washer	1
3	B-24026	Anchor sleeve	1
4	C-27015	Line lifter	1
5	B-27016	Shoulder screw	4
6	B-27017	Spring	4
7	C-27014	Clamp ring	1
8	B-27013	Screw stop plate	1
9	D-27002	Drum (aluminum)	1
Alt.	D-27003	Drum (chrome)	1
10	00422	Bearing — drum	2
11	D-27001	Housing	1
12	C-27004	Mainshaft	1
13	C-27010	Ratchet gear — input	1
14	C-27009	Pinion — mainshaft	1
15	B-00330	Pawl	4
16	B-00209	Spring — pawl	4
17	A-01045-59	Snap ring	1
18	B-27012	Shaft — idler gear	1

## MODEL #27 TWO-SPEED SELF-TAILING DISASSEMBLY PROCEDURE

- Using a small screwdriver, remove the snap ring (1) and the washer (2) at the top of the winch. On winches built after January 1, 1979, remove the snap ring (26) which is exposed after removing the cover plate (25). NOTE: If it is not necessary to disassemble the self-tailing mechanism, the drum assembly with the line lifter in place can be lifted off. (Proceed with Step 4.)
- Using a soft hammer, tap the line lifter (4) in a counter-clockwise direction to unscrew it from the anchor sleeve (3) (left hand thread) and remove both parts.
- Remove the four shoulder screws (5) in the clamp ring (7) and remove the springs (6), the clamp ring (7) and the screw stop plate (8).
- Lift off the drum (9). CAUTION: The drum bearings (10) sometimes stick to the drum and are dropped. Remove the drum bearings (10).
- Partially remove the cotter pin (22) in the pinion shaft (21). Rotate the shaft 90° and pry up under the cotter pin to remove the shaft.
- Remove the final drive pinion (23) in assembly with its ratchet gear (24), pawls (15) and springs (16). Keep this assembly together until it can be cleaned and reassembled. This avoids confusion in the assembly process.
- Further disassembly of the winch requires that it be removed from the deck. If this is not required, lubricate the mainshaft and remaining gears with light oil and reassemble starting at Step 16.
- Remove the snap ring (17) and remove the mainshaft (12).
- Lift out the assembly of the mainshaft pinion (14), its ratchet gear (13), pawls (15) and springs (16). Again, keep this assembly together until it can be cleaned and reassembled.
- Removal of the idler gear (20) is sometimes difficult and usually not required. Lubricate the gear shaft with light oil. If removal is required, tap out the roll pin (19) and push the idler shaft (18) out from inside the housing (11).
- Remove the ratchet gears from their pawl gears. Hold the ends of the pawl springs when removing the pawls, to stop them from being lost. Clean the parts, lubricate with light oil and reassemble. Note the proper pawl positions on the inset detail drawing.
- Clean all the remaining parts, including the inside of the drum, in mineral spirits (fuel oil or the equivalent). During the assembly procedure, all gears and bearings should be liberally greased with Barient Barlube. The pawls should be lubricated with light machine oil only—never grease.

Item No.	Part No.	Description	Qty.
19	A-01075-16	Roll pin	1
20	C-27011	Idler gear	1
21	B-25509	Shaft—final drive gear	1
22	A-01077-06	Cotter pin	1
23	C-27007	Final drive pinion	1
24	C-27008	Ratchet gear—final drive	1
25	B-14655	Top washer	1
26	A-01045-175	Snap ring	1
27	C-14653	Anchor sleeve	1
28	C-27021	Line lifter	1

## REASSEMBLY

13. Install the mainshaft (12) in the gear housing (11).
14. Install the mainshaft pinion (14) assembled with its pawls, springs and ratchet gear (15, 16 & 13). Install the snap ring (17).
15. Install the idler gear (20), its shaft (18) and roll pin (19).
16. Install the final drive pinion (23) assembled with its pawls, springs and ratchet gear (15, 16 & 24). Install the pinion shaft (21) and its cotter pin (22).
17. Mount the housing on deck.
18. Install the drum bearings (10) (liberally greased) and the drum (9) on the housing.
19. Place the screw stop plate (8) and the clamp ring (7) on top of the drum (align its holes with those in the drum). Install the four shoulder screws with their springs and **tighten securely**.
20. Place the line lifter (4) on the drum assembly with the lifting tab between the clamp ring and drum. Install the sleeve (13) through the lifter onto the splines on the housing.
21. Rotate the lifter clockwise to screw it onto the sleeve. Tighten it by tapping with a soft hammer. The desired lifter orientation can now be achieved by lifting the drum assembly up until the anchor spline disengages; then, rotate the lifter to the desired position. Install the snap ring (26) (if used), the cover plate and the snap ring (1).
22. Check the winch for proper operation. The drum should rotate freely but only in the clockwise direction. When cranking, low gear is clockwise, high is counter-clockwise.