

# MODEL 18 2-SPEED WINCH

## MAINTENANCE & SERVICE INFORMATION

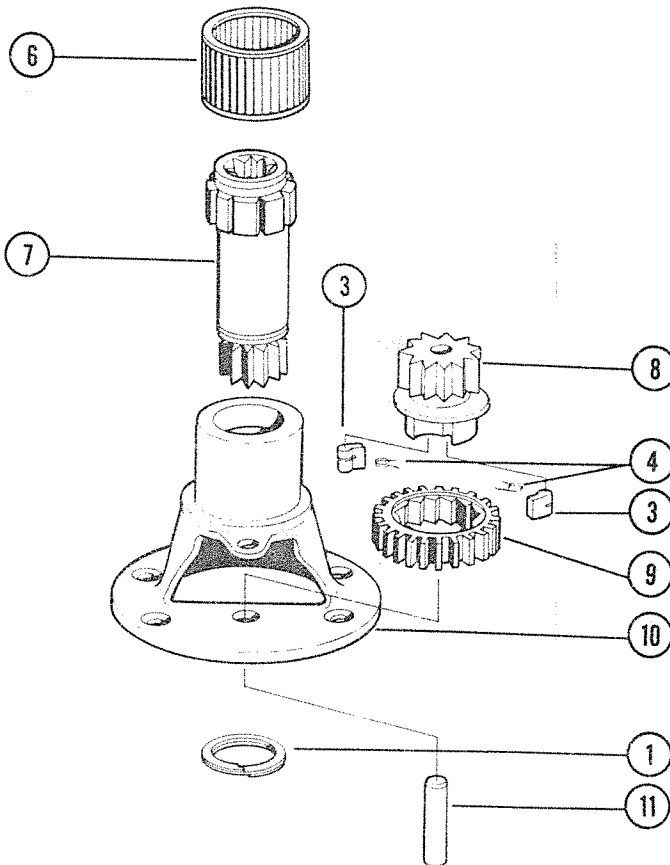
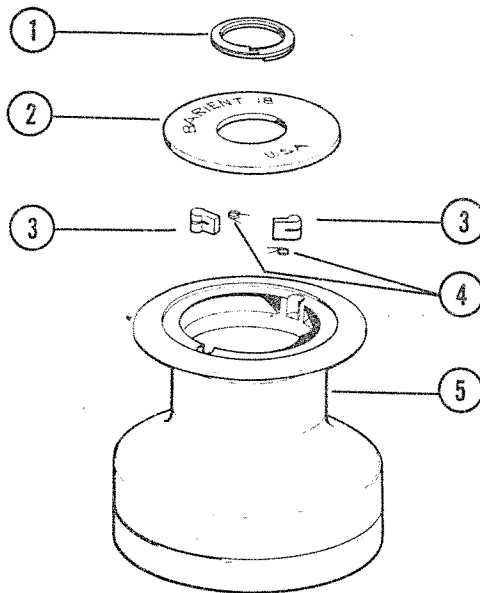
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*Quality Winches and Fine Yacht Gear*

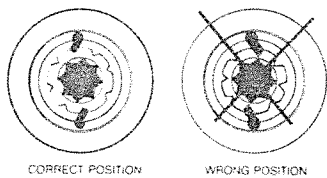
**BARIENT**

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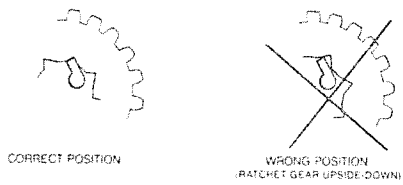
# MODEL 18 2-SPEED WINCH



TOP VIEW OF DRUM SHOWING PAWLS



VIEW OF RATCHET GEAR PAWLS



Item No.	Part No.	Description	Qty.
1	RSN-125-S	Snap ring	2
2	B-01810	Cover plate	1
3	B-00330	Pawl	4
4	B-00209	Pawl spring	4
5	D-01802	Drum (aluminum)	1
Alt.	D-01803	Drum (ch. pltd. bronze)	1
6	00422	Bearing	1
7	C-01804	Mainshaft	1
8	C-01807	Final drive pinion	1
9	C-01808	Ratchet gear	1
10	D-01801	Base	1
11	B-01809	Final drive gear shaft	1

## MODEL #18 2-SPEED WINCH COMPLETE DISASSEMBLY PROCEDURE

Before dis-assembling the winch, spread out a clean cloth or some newspapers to place the parts on. Then:

1. Remove the snap ring (1) at the top of the drum using a small screwdriver (use a spiral motion).
2. Lift off the drum (5) with the cover plate (2) still in place. CAUTION: The drum bearings sometime stick to the drum and may be dropped.
3. Remove the cover plate (2) and the pawls (3) and springs (4) from the drum. NOTE: Squeeze the ends of the pawl springs while removing the pawls from the housing to prevent the springs from being lost.
4. Remove the drum bearing (6) and the mounting screws holding the winch to the deck or mast.
5. Inspect the winch to determine if further dis-assembly is required. If not, the moving parts can be lubricated with light machine oil and the winch re-assembled.
6. Using a long, flat-nosed punch, drive the gear shaft (1) down out of the base (10). NOTE: An access hole is provided at the upper shaft end for this purpose.
7. Remove the ratchet gear (9) and pinion (8) assembly from the base.
8. Remove the ratchet gear (9), the pawls (3) and their springs (4) from the pinion (8).
9. Working with a small screwdriver, through the window in the base, lift up the end of the snap ring (1) and spiral it off the mainshaft (7). This operation is somewhat difficult. The mainshaft may be lubricated in place with light oil if desired.
10. Remove the mainshaft (7).
11. Clean all parts with mineral spirits (fuel oil or equivalent). Lubricate the gears and bearings with Barient Barlube. Oil the pawl pockets with light machine oil only—never grease.

### RE-ASSEMBLY

12. Install the mainshaft (7) into the base (10). Using two screwdrivers, start the end of the snap ring (1) into the groove in the mainshaft, then spiral it completely into place.
13. Assemble the pawls (3) and springs (4) into the pinion (8). Put the ratchet gear over the pawls, being sure the counter-bore in the face of the ratchet gear is toward the pinion.
14. Locate the assembled pinion—ratchet gear into the window in the base and tap the pin (11) thru the assembly until its end is flush with the housing's mounting surface. Lubricate the pawls and their pockets with light machine oil.
15. Mount the winch in its required position. NOTE: Always be sure the surface to which the winch is bolted is flat and smooth.
16. Install the drum bearing (6) on the base (10). Grease the bearing thoroughly.
17. Install the remaining set of pawls and springs (lubricated) into their pockets in the drum (5). Their direction should be so as to allow the mainshaft (7) to rotate counter-clockwise but not clockwise.
18. While holding the pawls away from the center of the drum, install the drum onto the base (10).
19. Install the drum cover plate (2) and its retaining snap ring (1).
20. Check the operation of the winch. The drum should rotate freely only in the clockwise direction. High gear is engaged with clockwise crank rotation, low with counter-clockwise.

## 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 9/32" drill. Be sure adequate reinforcement is provided to take the loads produced by the winch.
4. Mount the winch using 1/4" stainless or bronze flat head machine screws with nuts and washers.
5. Reassemble the drum.

## DISASSEMBLY TOOLS REQUIRED

Small screwdriver  
Flat nose punch  
Light hammer

## MONTHLY MAINTENANCE

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

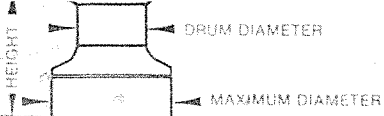
1. Remove the drum using the disassembly procedure, Steps 1 through 3.
2. Insert a handle and rotate the mainshaft in both directions (also in high range for 3-speed winches). If winch does not operate freely, continue with the *complete disassembly procedure*.
3. If winch does operate freely, remove 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.

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## 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.*

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# BARIENT

## STANDARD MODEL 10-P



DRUM DIAMETER	67 mm	2 5/8"
MAXIMUM DIAMETER	102 mm	4 1/32"
HEIGHT	94 mm	3 11/16"
WEIGHT		
Aluminum	.8 kg	1.7 lbs
Chrome	1.7 kg	3.75 lbs

	1st	2nd
GEAR RATIO	1/1	—
POWER RATIO	7.6/1	—

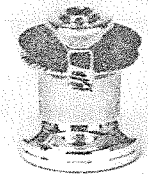
## STANDARD MODEL 10



DRUM DIAMETER	67 mm	2 5/8"
MAXIMUM DIAMETER	102 mm	4 1/32"
HEIGHT	94 mm	3 11/16"
WEIGHT		
Aluminum	1.7 kg	3.75 lbs
Chrome	2.5 kg	5.5 lbs

	1st	2nd
GEAR RATIO	1/1	—
POWER RATIO	7.6/1	—

## SELF-TAILING MODEL 10-ST



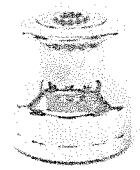
DRUM DIAMETER	71 mm	2 13/16"
MAXIMUM DIAMETER	111 mm	4 3/8"
HEIGHT	132 mm	5 3/16"
WEIGHT		
Aluminum	2.6 kg	5.75 lbs
Chrome	8.5 kg	3.9 lbs

Accommodates Line Sizes: (8 mm to 13 mm) 5/16" to 1/2"

MODEL 10ST CAN BE USED IN LIEU OF 10P OR 10

	1st	2nd
GEAR RATIO	1/1	—
POWER RATIO	7/1	—

## MODEL 18



DRUM DIAMETER	65 mm	2 9/16"
MAXIMUM DIAMETER	121 mm	4 3/4"
HEIGHT	121 mm	4 25/32"
WEIGHT		
Aluminum	2.72 kg	6.0 lbs
Chrome	3.9 kg	8.5 lbs

	1st	2nd
GEAR RATIO	1/1	2.44/1
POWER RATIO	7.8/1	19/1

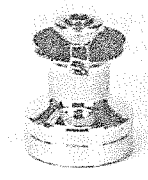
## MODEL 21



DRUM DIAMETER	68 mm	2 11/16"
MAXIMUM DIAMETER	149 mm	5 1/2"
HEIGHT	138 mm	5 7/16"
WEIGHT		
Aluminum	3.2 kg	7.0 lbs
Chrome	5.0 kg	11.0 lbs
Stainless Steel	5.2 kg	11.5 lbs

	1st	2nd
GEAR RATIO	1/1	4.0/1
POWER RATIO	7.5/1	29.5/1

## MODEL 19-ST



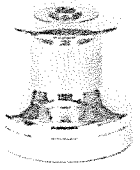
DRUM DIAMETER	73 mm	2 7/8"
MAXIMUM DIAMETER	130 mm	5 1/8"
HEIGHT	173 mm	6 13/32"
WEIGHT		
Aluminum	4.4 kg	9.75 lbs
Chrome	5.9 kg	13 lbs

Accommodates Line Sizes: (8 mm to 13 mm) 5/16" to 1/2"

MODEL 19ST CAN BE USED IN LIEU OF 18 or 21

	1st	2nd
GEAR RATIO	1.88/1	4.14/1
POWER RATIO	13.1/1	28.8/1

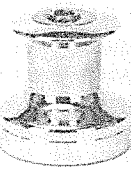
## MODEL 22



DRUM DIAMETER	79 mm	3 1/8"
MAXIMUM DIAMETER	146 mm	5 3/4"
HEIGHT	152 mm	6"
WEIGHT		
Aluminum	4.0 kg	8.75 lbs
Chrome	6.6 kg	14.6 lbs
Stainless Steel	6.8 kg	15.0 lbs

	1st	2nd
GEAR RATIO	1/1	5.2/1
POWER RATIO	6.4/1	33.4/1

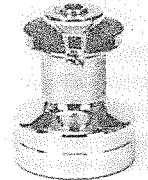
## MODEL 24



DRUM DIAMETER	76 mm	3 1/8"
MAXIMUM DIAMETER	146 mm	5 3/4"
HEIGHT	152 mm	6"
WEIGHT		
Aluminum	4.0 kg	8.75 lbs
Chrome	6.6 kg	14.6 lbs
Stainless Steel	6.8 kg	15.0 lbs

	1st	2nd
GEAR RATIO	1/1	6.4/1
POWER RATIO	6.4/1	41.2/1

## MODEL 23-ST



DRUM DIAMETER	76 mm	3"
MAXIMUM DIAMETER	146 mm	5 3/4"
HEIGHT	191 mm	7 17/32"
WEIGHT		
Aluminum	5.7 kg	12.5 lbs
Chrome	7.9 kg	17.5 lbs

Accommodates Line Sizes: (10 mm to 13 mm) 3/8" to 1/2"

MODEL 23ST CAN BE USED IN LIEU OF 22 OR 24

	1st	2nd
GEAR RATIO	1.5/1	6.5/1
POWER RATIO	10.0/1	43.5/1

*New Available March 1981*

## MODEL 25



DRUM DIAMETER	89 mm	3 1/2"
MAXIMUM DIAMETER	172 mm	6 3/4"
HEIGHT	164 mm	6 15/32"
WEIGHT		
Aluminum	5.3 kg	11.75 lbs
Chrome	7.7 kg	17 lbs

	1st	2nd
GEAR RATIO	1/1	7.75/1
POWER RATIO	5.7/1	44.3/1

## MODEL 26



DRUM DIAMETER	95 mm	3 3/4"
MAXIMUM DIAMETER	178 mm	7"
HEIGHT	178 mm	7"
WEIGHT		
Aluminum	6.4 kg	14.0 lbs
Stainless Steel	9.3 kg	20.5 lbs

	1st	2nd
GEAR RATIO	1/1	6.9/1
POWER RATIO	5.3/1	37/1

## MODEL 27-ST



DRUM DIAMETER	89 mm	3 1/2"
MAXIMUM DIAMETER	171 mm	6 3/4"
HEIGHT	198 mm	7 13/16"
WEIGHT		
Aluminum	7.6 kg	16.75 lbs
Chrome	10 kg	22.2 lbs

Accommodates Line Sizes: (10 mm to 14 mm) 3/8" to 9/16"

MODEL 27ST CAN BE USED IN LIEU OF 25 OR 26

	1st	2nd
GEAR RATIO	1.9/1	8.0/1
POWER RATIO	10.8/1	45.7/1

*21500*

*S10 11500*

*43500*