MODEL 28 2-SPEED WINCH

MANUFACTURED AFTER MAY 1, 1983

MAINTENANCE & SERVICE INFORMATION

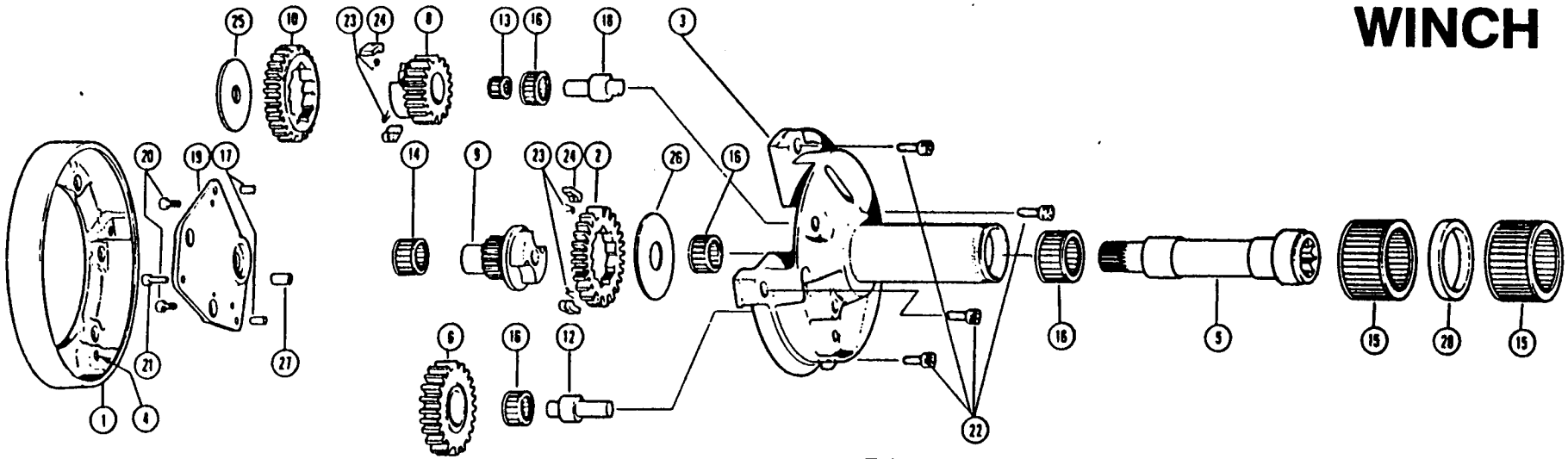
Quality Winches and Fine Yacht Gear

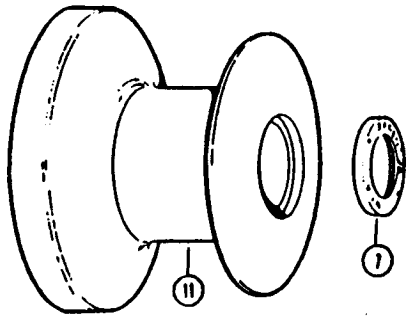
BARIENT

BARIENT INC., 3641 HAVEN AVENUE,
MENLO PARK, C A. 94025, U.S.A.
(415) 367 9924. TELEX NO. 345559

MAINTENANCE & SERVICE INFORMATION

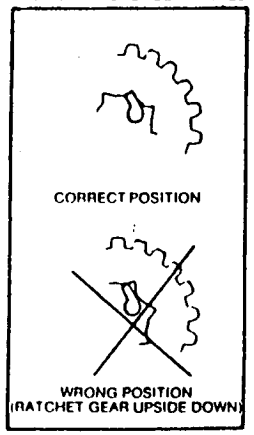
MODEL 28 2-SPEED WINCH



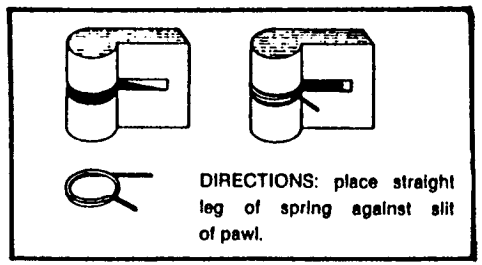


	1st	2nd
GEAR RATIO	2.5:1	7.4:1
POWER RATIO	12.5:1	37:1
DRUM DIA.	102mm	4"
MAXIMUM DIA.	203mm	8"
HEIGHT	197mm	7¾"

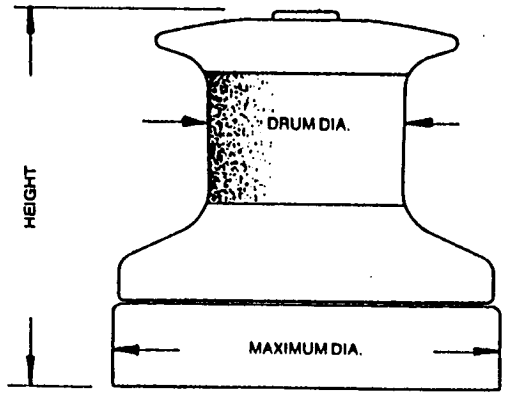
VIEW OF RATCHET GEAR PAWLS

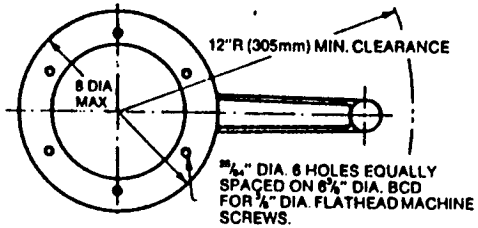


PLACEMENT OF SPRING AGAINST PAWL



DIRECTIONS: place straight leg of spring against slit of pawl.





⅝" DIA. 6 HOLES EQUALLY SPACED ON 6⅝" DIA. BCD FOR ⅜" DIA. FLATHEAD MACHINE SCREWS.

MOUNTING INSTRUCTIONS:

1. Using a Barient drum nut tool or deck plate key remove the drum nut (7) from the top of drum (11) and remove the drum. CAUTION: Drum bearings sometime stick to the drum and may be dropped.
2. Remove the four capscrews (22) in gear box (3).
3. Keeping the gear box assy. completed, remove it from base (1).
   NOTE: The mainshaft (5) may fall out when turning the gearbox assy. over — be careful not to drop.
4. Bolt the base (1) to flat and smooth surface drilled to take six flathead machine screws 3/8" dia. (10mm) on 6 3/8" (162mm) bolt circle dia. (Use base (1) as a template.)
   Be sure adequate reinforcement is provided to take the loads produced by the winch. DO NOT block the drain channels in the base (1) with bedding compound.
5. To re-assemble winch — reverse dismantling procedure.

TO LUBRICATE & DISASSEMBLE:

1. As step 1, 2 and 3 above.
2. Remove the drum bearings (15) and the bearing spacer (28).
3. Carefully turn the gear box assy. on side, making sure the main shaft (5) does not fall out (the drum can be used as a holder-stand for inverted gear box).
4. Remove the three screws (20 & 21) from gear box cover (19) and remove the cover. (It may be necessary to gently lift the cover off with a screwdriver.)
5. Remove the spacer (27) beneath the cover screw (21), the center pinion bearing (14) and thrust washer (25).
6. Lift out the final drive pinion (8) in assembly with its ratchet gear (10), ratchet pawls (24), springs (23). Keep this assembly together until you are ready to clean it then reassemble it immediately. This avoids confusion in the assembly procedure.
7. Remove the two bearings (13 & 16).
8. Remove the idler gear (6) and its bearing (16).
9. Lift up the center ratchet gear (2). Removing it in assembly with the center pinion (9), pawls (24) and springs (23). Keep this assembly together until it can be cleaned and reassembled.
10. Remove the thrust washer (26), the mainshaft (5) and its upper and lower bearings (16). The two gear spindles (18); (12) are pressed into the housing and should not be removed unless they are damaged.
11. Clean all parts in petroleum solvent. Replace any parts showing damage or excessive wear. During the assembly procedure, all gears and bearings should be liberally greased with Barient — Barlube.
    The ratchet pawls should be lubricated with machine oil only — NEVER grease the pawls and springs.
12. Assemble winch in reverse order to that shown above.

TOOL REQUIRED:

1/4" & 3/16" Allen key; Barient drum nut tool or deck plate key.

LUBRICANT: Non detergent Machine Oil (SAE 30); Barient Barlube.

INSPECTION & LUBRICATION:

Quarterly lubrication is recommended. Inspect more frequently in a racing season. Monthly cleaning and lubrication of the aluminium drum winches is advisable.

Item	Part No.	Description	Qty
1	11746	Base — Aluminium	1
Alt.	11701	Base — Stainless Steel	1
Alt.	28-002C	Base — Chrome	1
Alt.	28-002B	Base — Bronze	1
2	28155	Centre Ratchet Gear	1
3	11702	Gearbox Housing	1
4	01-086	Helicoil 5/16" unc — For Alum. base only	4
5	28-006	Mainshaft	1
6	11708	Idler Gear	1
7	11747	Drum Nut	1
8	11705	Final Drum Drive Pinion	1
9	28-012	Center Pinion	1
10	11707	Ratchet Gear — Final Drive	1
11	11704S	Drum — Stainless Steel	1
Alt.	11726A	Drum — Aluminium	1
Alt.	11726C	Drum — Chrome	1
Alt.	11726B	Drum — Bronze	1
12	11211-2	Gear Spindle	1
13	00401	Bearing	1
14	00404	Bearing	1
15	00422	Drum Bearing	2
16	00403	Bearing	4
17	11218	Dowel Pin	2
18	11211	Gear Spindle	1
19	11703	Gearbox Cover	1
20	01-205	Cap Screw 1/4" unc x 5/8"	2
21	01-206	Cap Screw 1/4" unc x 1 1/4"	1
22	01-266	Cap Screw 5/16" unc x 1"	4
23	00209	Pawl Spring	4
24	00330	Ratchet Pal	4
25	00323	Thrust Washer — Final Drive	1
26	00322	Thrust Washer — Mainshaft	1
27	11217	Spacer	1
28	27-133	Bearing Spacer	1

MODEL 28 2-SPEED SELF TAILING WINCH

MANUFACTURED AFTER MAY 1, 1983

MAINTENANCE & SERVICE INFORMATION

Quality Winches and Fine Yacht Gear

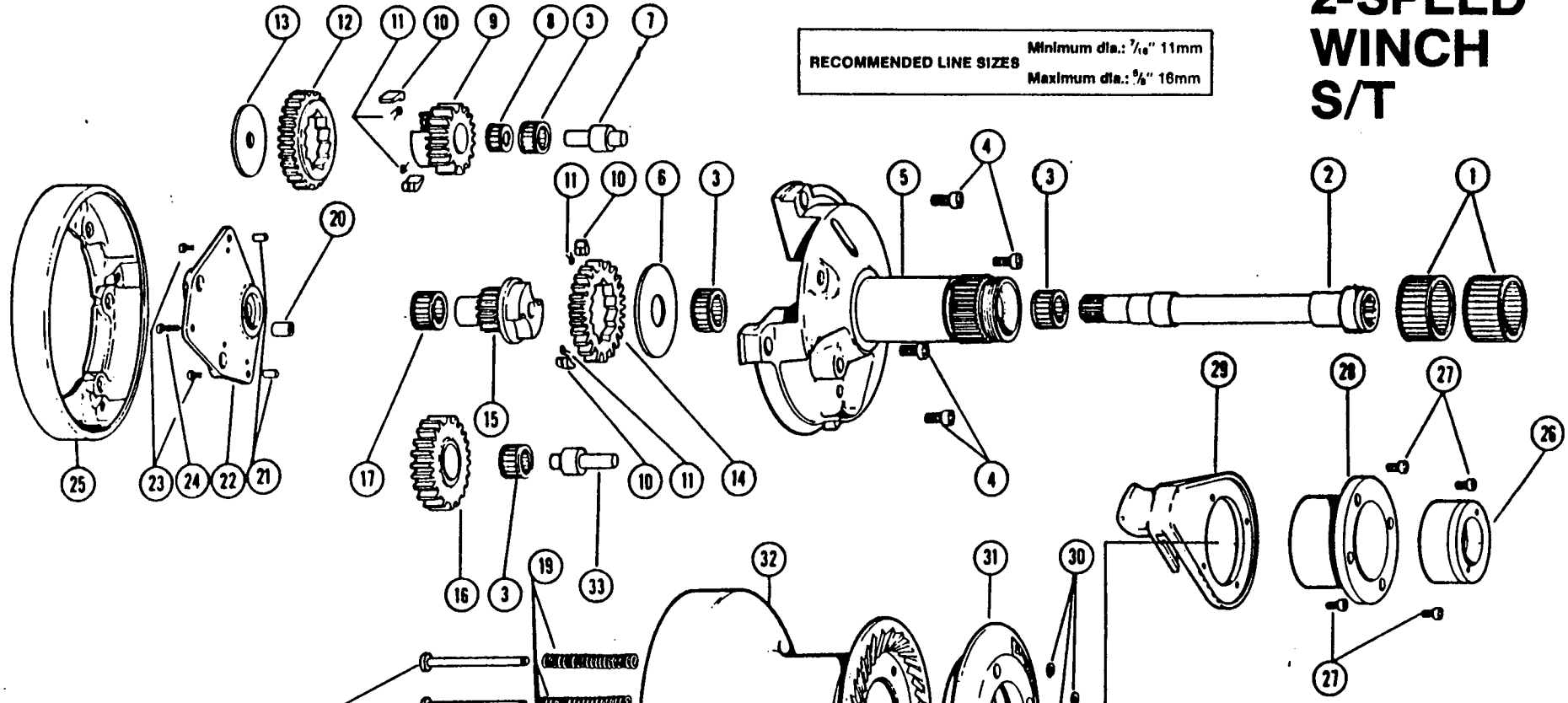
REPRODUCED AT GOVERNMENT

BARIENT

BARIENT INC., 3641 HAVEN AVENUE,
MENLO PARK, C A. 94025, U.S.A.
(415) 367 9924. TELEX NO. 345559

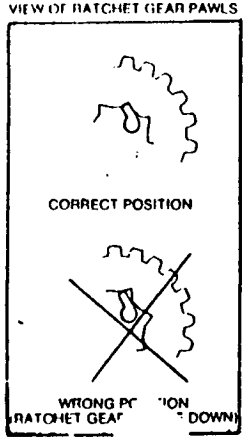
MAINTENANCE & SERVICE INFORMATION

MODEL 28 2-SPEED WINCH S/T

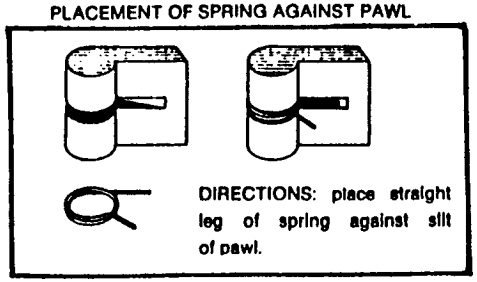


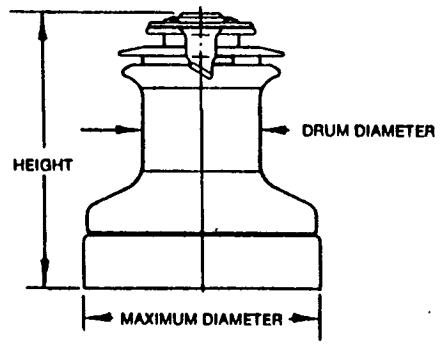
	1st	2nd
GEAR RATIO	2.5:1	7.4:1
POWER RATIO	12.5:1	37.7:1
DRUM DIA.	102mm	4"
MAXIMUM DIA.	203mm	8"
HEIGHT	230mm	9 1/16"

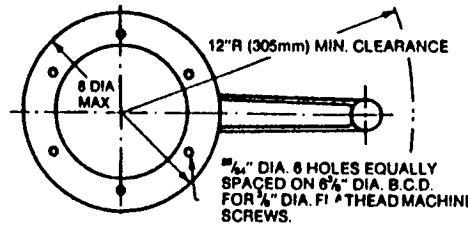
VIEW OF RATCHET GEAR PAWLS



PLACEMENT OF SPRING AGAINST PAWL







REPRODUCED AT GOVERNMENT EXPENSE

MOUNTING INSTRUCTIONS:

1. Using a suitable drum nut tool or deck plate key remove the drum nut (26) in the line lifter (29) & (28).
2. Lift the drum assembly and the line lifter together from the gearbox assembly (5). CAUTION: The drum bearings (1) may come off with drum — be careful not to let them fall out.
3. Remove the four capscrews (4), holding the gearbox assembly to the base (25). Keeping the gearbox assembly completed remove it from base (25). NOTE: The mainshaft (5) may fall out when turning the gearbox assy. over — be careful not to drop.
4. Bolt the base (25) to flat and smooth surface drilled to take six flathead bolts 3/8" (10mm) dia. on 7 3/4" (197mm) bolts circle dia. (Use base (25) as a template.) Be sure adequate reinforcement is provided to take the loads produced by the winch. DO NOT block the drain channels in the base (25) with bedding (sealing) compound.
5. To re-assemble winch — reverse dismantling procedure. Be sure the line lifter is orientated towards the winch cranker's position (see fig. 1).

TO LUBRICATE & DISASSEMBLE:

1. As step 1, 2 and 3 above.
2. Remove the line lifter (29), the anchor sleeve (28) and the bearings (1) with spacer (33). NOTE: If it is not necessary to disassemble self-tailing mechanism proceed to step 5.
3. Remove four capscrews (27) from anchor sleeve (28) and line lifter (29), separate them.
4. It is usually not necessary to remove the clamp ring (31) from the drum. If this is required push the spring guides (18) up from the inside of the drum to allow removal of the lock rings (30).
5. Carefully turn the gearbox assembly on side, making sure the main shaft (2) does not, fall out. The drum can be used as a holder-stand for inverted gearbox assembly, (insert the stem of the gearbox HSG. into the top of the drum).
6. Remove the three 1/4" capscrews (23) and (24) from gearbox cover (22) and remove the cover. (It may be necessary to gently lift the cover off with a screwdriver).
7. Remove the spacer (20) beneath the cover screw (24), the center pinion bearing (17) and thrust washer (13).
8. Lift out the final drive pinion (9) in assembly with its ratchet gear (12), ratchet pawls (10) and springs (11). NOTE: Keep this assembly together until you are ready to clean it, then re-assemble it immediately. This avoids confusion in the assembly procedure.
9. Remove the two bearings (3) and (8).
10. Remove the idler gear (16) and its bearing (3).
11. Lift up the center ratchet gear (14) — removing it in assembly with the center pinion (15), the pawls (10) and springs (11). Keep this assembly together until it can be cleaned and reassembled.
12. Remove the thrust washer (6), the main shaft (2) and its upper and lower bearings (3). The two gear spindles (9), (34) are pressed into the housing and should not be removed unless they are damaged.
13. Clean all parts in petroleum solvent. Replace any parts showing damage or excessive wear. During the assembly procedure, all gears and bearings should be liberally greased with Barient — Barlube.
14. Assemble winch in reverse order to that shown above.

TOOL REQUIRED:
1/4" and 3/16" Allen key; Barient drum nut tool or deck plate key.

LUBRICANT: Non detergent Machine Oil (SAE 30); Barient Barlube.

INSPECTION & LUBRICATION:
Quarterly lubrication is recommended. Inspect more frequently in a racing season. Monthly cleaning and lubrication of the aluminium drum winches is advisable.

Item	Part No.	Description	Qty
1	00422	Drum Bearing	2
2	28-406	Mainshaft	1
3	00403	Bearing	4
4	01-266	Capscrew 5/16" unc x 1" L.G.	4
5	11768	Gearbox Housing	1
6	00322	Thrust Washer — Mainshaft	1
7	11211	Gear Spindle	1
8	00401	Bearing	1
9	11705	Final Drive Pinion	1
10	00330	Ratchet Pawl	4
11	00209	Pawl Spring	4
12	11707	Ratchet Gear — Final Drive	1
13	00323	Thrust Washer — Final Drive	1
14	28155	Center Ratchet Gear	1
15	28-012	Center Pinion	1
16	11708	Idler Gear	1
17	00404	Bearing	1
18	28021	Spring Guide	4
19	28008	Clamp Spring	4
20	11217	Spacer	1
21	11218	Dowel Pin	2
22	11703	Gearbox Cover	1
23	01-205	Capscrew 1/4" unc x 5/8" L.G.	2
24	01-206	Capscrew 1/4" unc x 1 1/4"	1
25	11746	Base Aluminium	1
26	28037	Drum Nut	1
27	01-265	Capscrew 1/4" unc x 3/8" L.G.	4
28	28025	Anchor Sleeve	1
29	28216	Line Lifter	1
30	28020	Spring Guide Lock	4
31	28016	Clamping Ring	1
32	28215S	Drum — Stainless Steel	1
Alt.	28214C	Drum — Chrome	1
Alt.	28213A	Drum — Aluminium	1
Alt.	28214B	Drum — Bronze	1
33	11211-2	Gear Spindle	1

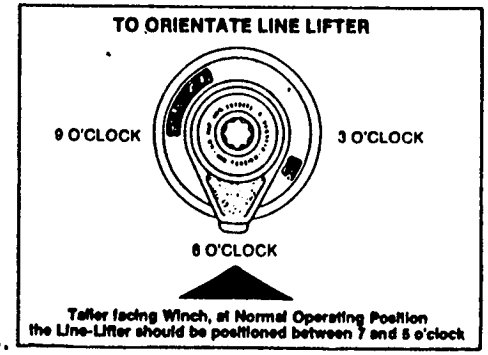


Fig. 1.

MODEL 32 2-SPEED SELF TAILING WINCH

MANUFACTURED AFTER MAY 1, 1983

MAINTENANCE & SERVICE INFORMATION

Quality Winches and Fine Yacht Gear

NSN
REPRODUCED AT GOVERNMENT

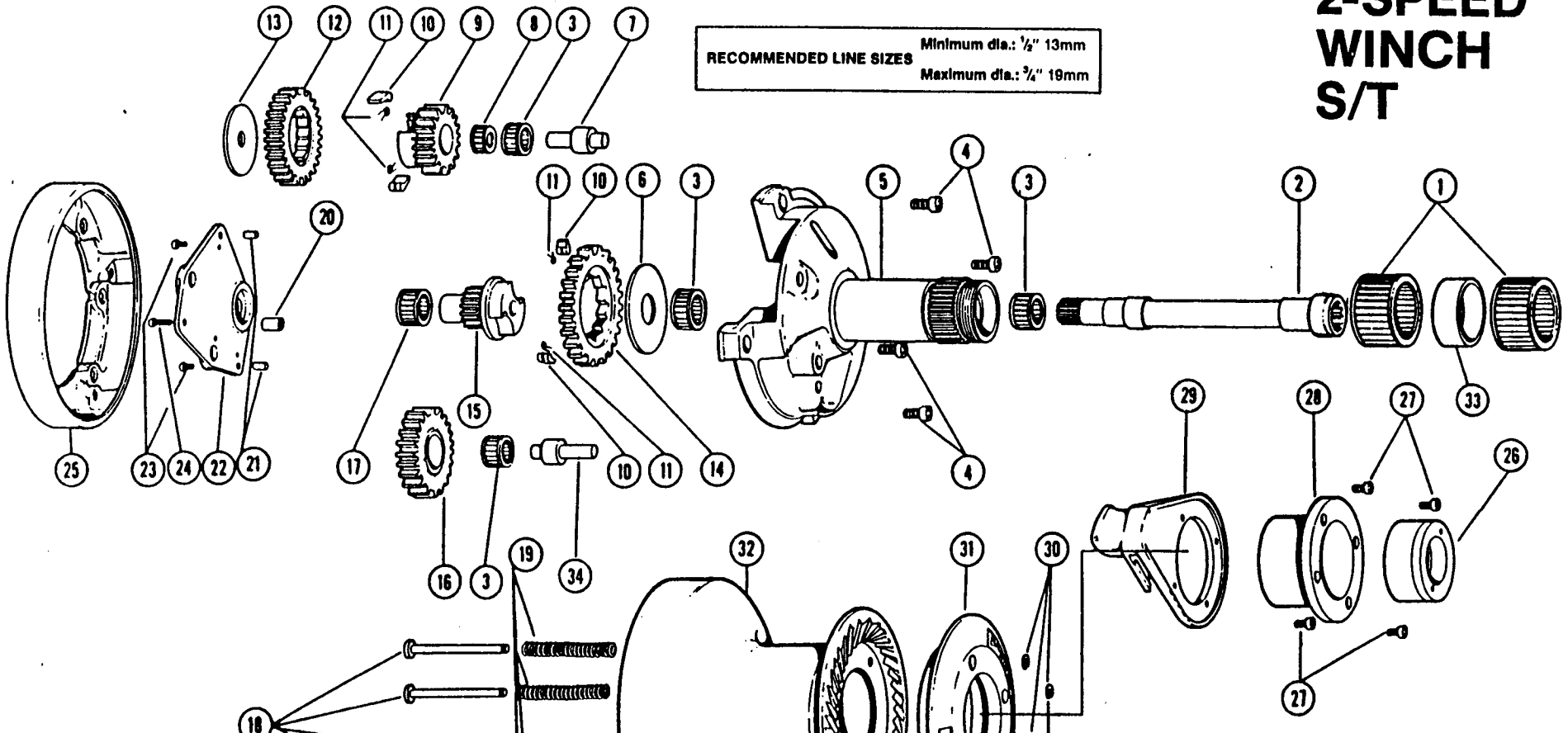
BARIENT

BARIENT INC., 3641 HAVEN AVENUE,
MENLO PARK, C A. 94025, U.S.A.
(415) 367 9924, TELEX NO. 345559

PRODUCED AT GOVERNMENT EXPENSE

MAINTENANCE & SERVICE INFORMATION

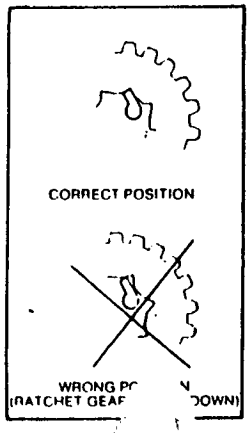
MODEL 32 2-SPEED WINCH S/T



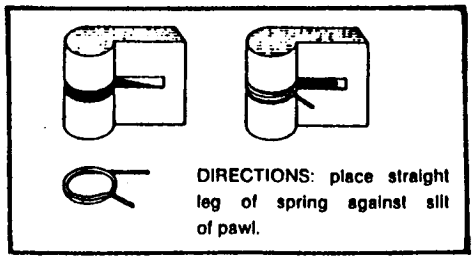
RECOMMENDED LINE SIZES	Minimum dia.: 1/2" 13mm Maximum dia.: 3/4" 19mm

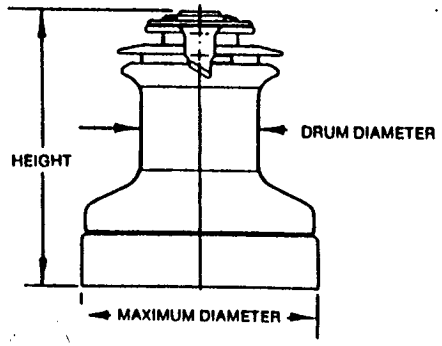
	1st	2nd
GEAR RATIO	2.4:1	11:1
POWER RATIO	10.2:1	47:1
DRUM DIA.	119mm	4 3/4"
MAXIMUM DIA.	241mm	9 1/2"
HEIGHT	254mm	10"

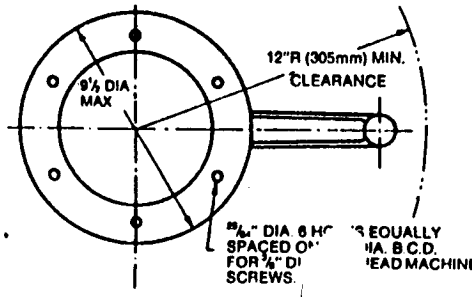
VIEW OF RATCHET GEAR PAWLS



PLACEMENT OF SPRING AGAINST PAWL







REPRODUCED AT GOVERNMENT EXPENSE

MOUNTING INSTRUCTIONS:

1. Using a Barient drum nut tool or deck plate key remove the drum nut (26) in the line lifter (29) & (28).
2. Lift the drum assembly and the line lifter together from the gearbox assembly (5). CAUTION: The drum bearings (1) may come off with drum — be careful not to let them fall out.
3. Remove the four capscrews (4), holding the gearbox assembly to the base (25). Keeping the gearbox assembly completed remove it from base (25). NOTE: The mainshaft (2) may fall out when turning the gearbox assy. over — be careful not to drop.
4. Bolt the base (25) to a flat and smooth surface drilled to take six flathead bolts 3/8" (10mm) dia. on 7 3/4" (197mm) bolts circle dia. (Use base (25) as a template.) Be sure adequate reinforcement is provided to take the loads produced by the winch. DO NOT Block the drain channels in the base (25) with bedding (sealing) compound.
5. To re-assemble winch — reverse dismantling procedure. Be sure the line lifter is orientated towards the winch cranker's position (see fig. 1.).

TO LUBRICATE & DISASSEMBLE:

1. As steps 1, 2 and 3 above.
2. Remove the line lifter (29), the anchor sleeve (28) and the bearings (1) with spacer (33). NOTE: If it is not necessary to disassemble self-tailing mechanism proceed to step 5.
3. Remove four capscrews (27) from anchor sleeve (28) and line lifter (29), separate them.
4. It is usually not necessary to remove the clamp ring (31) from the drum. If this is required push the spring guides (18) up from the inside of the drum to allow removal of the lock rings (30).
5. Carefully turn the gearbox assembly on side, making sure the main shaft (2) does not fall out. The drum can be used as a holder-stand for inverted gearbox assembly, (insert the stem of the gearbox housing into the top of the drum).
6. Remove the three 1/4" capscrews (23) and (24) from gearbox cover (22) and remove the cover. (It may be necessary to gently lift the cover off with a screwdriver.)
7. Remove the spacer (20) beneath the cover screw (24), the center pinion bearing (17) and thrust washer (13).
8. Lift out the final drive pinion (9) in assembly with its ratchet gear (12), ratchet pawls (10) and springs (11). NOTE: Keep this assembly together until you are ready to clean it, then re-assemble it immediately. This avoids confusion in the assembly procedure.
9. Remove the two bearings (3) and (8).
10. Remove the idler gear (16) and its bearing (3).
11. Lift up the center ratchet gear (14) — removing it in assembly with the center pinion (15), the pawls (10) and springs (11). Keep this assembly together until it can be cleaned and re-assembled.
12. Remove the thrust washer (6), the main shaft (2) and its upper and lower bearings (3). The two gear spindles (7), (34) are pressed into the housing and should not be removed unless they are damaged.
13. Clean all parts in petroleum solvent. Replace any parts showing damage or excessive wear. During the assembly procedure, all gears and bearings should be liberally greased with Barient — Barlube.
14. Assemble winch in reverse order to that shown above.

TOOL REQUIRED: 5/16" and 3/16" Allen Key; Barient drum nut tool or deck plate key.

LUBRICANT: Non-detergent Machine Oil (SAE 30); Barient Barlube.

INSPECTION & LUBRICATION:

Quarterly lubrication is recommended. Inspect more frequently in a racing season. Monthly cleaning and lubrication of the aluminium drum winches is advisable.

Item	Part No.	Description	Qty
1	00422	Drum Bearing	2
2	32-406	Mainshaft	1
3	00403	Bearing	4
4	01-267	Capscrew 3/8" unc x 3/4" L.G.	4
5	32567	Gearbox Housing	1
6	00322	Thrust Washer — Mainshaft	1
7	11211	Gear Spindle	1
8	00401	Bearing	1
9	11248	Final Drive Pinion	1
10	00330	Ratchet Pawl	4
11	00209	Pawl Spring	4
12	11250	Ratchet Gear — Final Drive	1
13	00323	Thrust Washer — Final Drive	1
14	11208	Center Ratchet Gear	1
15	32-012	Center Pinion	1
16	11251	Idler Gear	1
17	00404	Bearing	1
18	28021	Spring Guide	4
19	28008	Clamp Spring	4
20	11217	Spacer	1
21	11218	Dowel Pin	2
22	11203	Gearbox Cover	1
23	01-205	Capscrew 1/4" unc x 5/8" L.G.	2
24	01-206	Capscrew 1/4" unc x 1 1/4" L.G.	1
25	32534	Base Aluminium	1
26	28037	Drum Nut	1
27	01-265	Capscrew 1/4" unc x 3/8" L.G.	4
28	28025	Anchor Sleeve	1
29	32721	Line Lifter	1
30	28020	Spring Guide Lock	4
31	32577	Clamping Ring	1
32	32719S	Drum — Stainless Steel	1
Alt.	32722C	Drum — Chrome	1
Alt.	32722A	Drum — Aluminium	1
Alt.	32722B	Drum — Bronze	1
33	11215	Bearing Spacer	1
34	11211-2	Gear Spindle	1

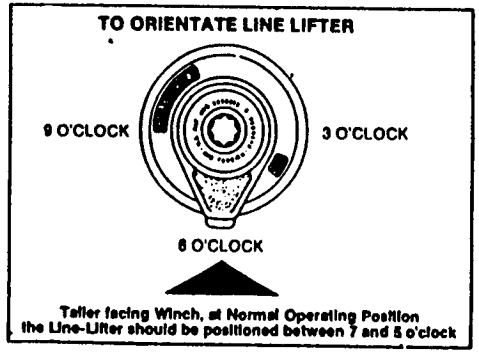


Fig. 1.

MODEL 36 & 736 2-SPEED WINCH

(Made after July, 1980)

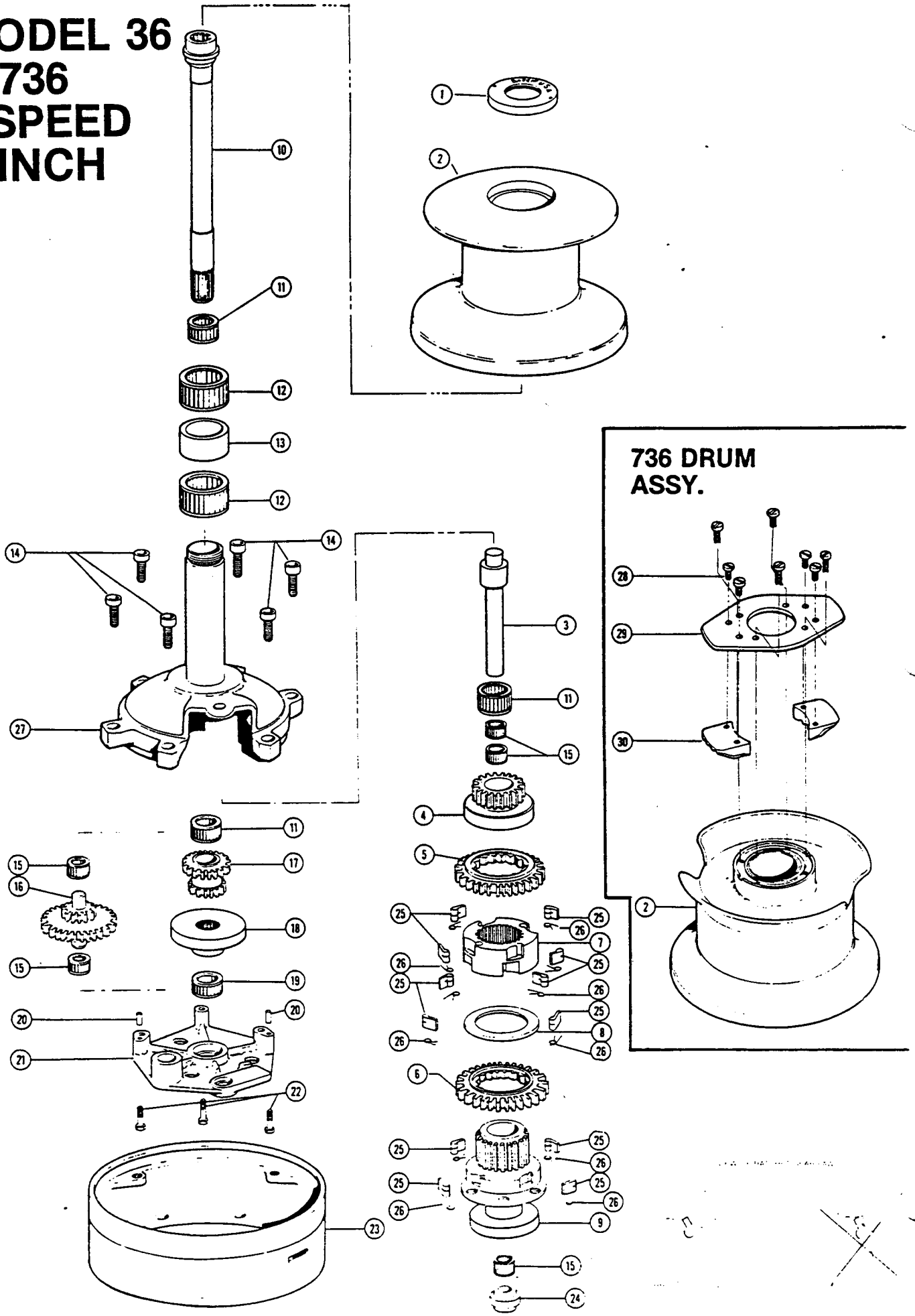
MAINTENANCE & SERVICE INFORMATION

Quality Winches and Fine Yacht Gear

BARIENT

4065 Campbell Avenue, Menlo Park, CA 94025
(415) 321-4961, TELEX 345559
For Sales and Service calls, outside
of California, call TOLL FREE 800-272-8946

MODEL 36 & 736 2-SPEED WINCH



Item No.	Part No. Model 36	Part No. Model 736	Description	Qty.
1	B-35893	B-35903	Drum Nut	1
2	D-11161	—	Drum—Aluminum	1
Alt.	D-11103	—	Drum-Stainless	1
Alt.	—	D-35687	Drum—Aluminum (Stainless Sleeve)	1
3	B-35739	B-35739	Final Drive Shaft	1
4	C-35943	C-35943	Final Drive Pinion	1
5	C-35946	C-35946	High Speed Ratchet Gear (28 Teeth)	1
6	C-35947	C-35947	Low Speed Ratchet Gear (30 Teeth)	1
7	C-35894	C-35894	Ratchet Hub	1
8	C-35895	C-35895	Ratchet Hub Washer	1
9	C-36027	C-36027	Pawl Carrier	1
10	C-35738	C-35738	Mainshaft	1
11	B-00403	B-00403	Roller Bearing	4
12	C-00422	C-00422	Roller Bearing	2
13	B-35748	B-35748	Bearing Spacer	1
14	A-01110-16	A-01110-16	Socket Head Cap Screws	6
15	B-00426	B-00426	Roller Bearing	4
16	X-35977	X-35977	3rd Speed Idler Gear Assembly	1
17	C-35940	C-35940	Center Pinion	1
18	C-36028	C-36028	Mainshaft Gear Support	1
19	B-00405	B-00405	Bearing	1
20	B-11218	B-11218	Dowel Pin	2
21	C-35724	C-35724	Gear Cover	1
22	A-01091-24	A-01091-24	Hex Head Cap Screws	3
23	X-35978	X-35978	Base Assembly	1
24	B-36026	B-36026	Ratchet Hub Support	1
25	B-00330	B-00330	Pawl	12
26	B-00209	B-00209	Pawl Spring	12
27	D-35798	D-35798	Gear Housing	1
28	—	A-01092-12	Cap Screw	8
29	—	B-35575	Cover	1
30	—	X-35961	Cleat Assembly	2

MODEL #36 2-SPEED DISASSEMBLY PROCEDURE

1. Before starting the disassembly, spread out some newspaper 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 (1) using a universal deck plate key.
3. Remove the drum. NOTE: The drum bearings (12) may come off with the drum—be careful not to let them fall out.
4. Remove the drum bearings (12) and the bearing spacer (13).
5. Remove the six 3/8" Allen screws (14) holding the gear housing (27) 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.
6. Turn the gear housing assembly upside-down, being careful not to let the mainshaft (10) drop out. 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.
7. Remove the three 1/4" cap screws (22) using a 7/16" wrench and carefully remove the gear cover (21). It may be necessary to tap the cover with a soft hammer to remove it.
8. Remove the mainshaft gear support (18) and its bearing (19). Also remove the ratchet hub support (24).
9. Remove the idle gear assembly (16) and its upper and lower bearings (15).
10. Remove the complete stack of gears on the final drive shaft (3), part numbers (4) through (8). NOTE: Keep this assembly together until you are ready to clean it. The details for disassembly start at step number (15).
11. Remove the two bearings (11 and 15) exposed by removal of the final drive gear stack, also remove the bearing (15) in the bottom of the ratchet hub support (24).
12. Remove the center pinion (17).
13. Lifting the housing (27), remove the mainshaft (10) and its upper and lower bearings (11).
14. The final drive shaft (3) is pressed into the gear housing (27), and should only be removed if damaged.
15. Remove the final drive pinion (4) and its pawls and springs (25) and (26). NOTE: When removing the pawls, squeeze the spring ends together while sliding the pawl from its pocket. If this is not done, the pawl spring can shoot out and be lost.
16. Remove high speed ratchet gear (5) and the ratchet hub (7), which can be removed by lifting it off the splines of the pawl carrier (9). NOTE: Be sure to note which side of the gear is up, so that it may be reinstalled correctly.
17. Remove the ratchet hub washer (8), and the low speed ratchet gear (6), from the pawl carrier (9).
18. Remove the pawls and their springs (25 and 26) from the ratchet hub (7) and the pawl carrier (9).
19. 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 pawls as they must be allowed to move freely in their pockets.

REASSEMBLY

20. Install the pawls and their springs (25 and 26) into the ratchet hub (7) and the pawl carrier (9). Lubricate each pawl with light oil.
21. Install the low speed ratchet gear (6) (30 teeth) onto the pawl carrier (9), then install the ratchet hub washer (8).
22. Install the high speed gear (5) (28 teeth) onto the ratchet hub (7), then slide the gear and hub onto the pawl carrier (9)
23. Install the final drive pinion (4) onto the remaining set of pawls on the ratchet hub (7).
24. Install bearing (15) into bottom of pawl carrier (9).
25. Install the mainshaft (10) with its upper and lower bearings (11) (greased) into the gear housing (27). The drum nut (1) can be installed to hold it in place.
26. Install the center pinion (17) onto the mainshaft (10).
27. Install the two bearings (11 and 15) onto the final drive shaft (3), then install the complete stack of gears sub-assembled in steps (20) through 24).
28. Install the idler gear (16) with its upper and lower bearings (15).
29. Install the mainshaft gear support (18) and its bearing (19), also install the ratchet hub support (28).
30. Install gear cover (21) and its three screws (22). Tighten securely.
31. Turn the assembly over and install it into the base. Use the six 3/8" Allen screws to secure it. Install the two drum bearings (12) (liberally greased) with the spacer (13) between them onto the gear housing, then install the drum.
32. Install the drum nut and tighten.

MOUNTING INSTRUCTIONS

1. Remove the drum per the disassembly instructions.
2. Remove the gear housing assembly from the base by removing the six ⅜" Allen screws.
3. Locate the winch base in the desired location. NOTE: Be sure the area is smooth and flat.
4. Locate the mounting hole locations and drill the required holes using a 17/32" drill. Be sure adequate reinforcement is provided to take the loads produced by the winch.
5. Mount the case using ½" stainless or bronze flat head machine screws with nuts and flat washers. NOTE: Do not block the drain grooves in the base with bedding compound.
6. Reassemble the winch.

DISASSEMBLY TOOLS REQUIRED

Allen wrench 5/16"
Small screwdriver
Universal deck plate key
7/16" wrench

MONTHLY MAINTENANCE

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

Winches should be flushed with fresh water after use in a salt water environment. Chrome and stainless drums should be polished with a good chrome cleaner. Aluminum drums should be kept covered when not in use, to protect against fading of the black anodizing. However, vinyl or rubber covers which do not allow the moisture in the winch to dry should not be used.

The following maintenance should be carried out twice a season:

1. Remove the drum using the disassembly procedure, Steps 1, 2 and 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 install.
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