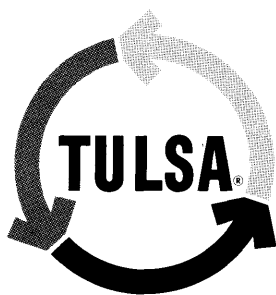
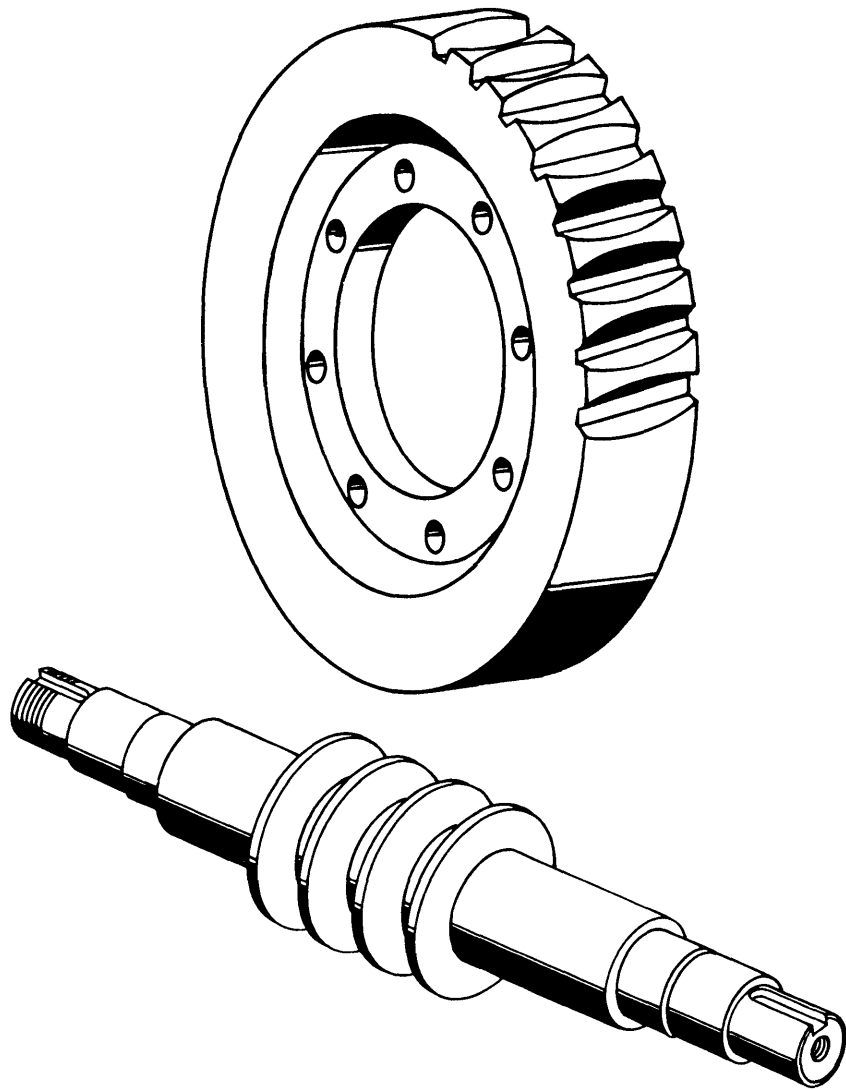


# ***Service Parts Information***

## ***1000 & 1200 SERIES WINCHES***



***Tulsa Winch***

## Table of Contents

I. Introduction .....	3
II. Warranty Information .....	3
III. Winch Operation .....	3
IV. Warning! .....	3
V. Winch Mounting .....	3
VI. Cable Installation .....	3
VII. Adjusting the Oil-Cooled Brake .....	4
VIII. Servicing the Oil-Cooled Brake .....	4
IX. Re-assembling and Checking the Brake .....	4
X. Instructions for Checking the Assembly Arrangement and Setting of the Worm Brake .....	5
XI. Hydraulic Systems .....	5
XII. Normal Hydraulic Circuit for Use on Hydraulic Winch .....	6
XIII. Trouble Shooting Tips .....	6
XIV. Disassembly of a Tulsa Winch Model 1000/1200 Winch .....	7
XV. Assembly of a Tulsa Winch Model 1000/1200 Winch .....	7
XVI. Winch Parts Assembly Drawing for 1000/1200 .....	8
XVII. Parts List for Model 1000/1200 .....	9
XVIII. Assembly/Disassembly of Utility Extension for Model 1000/1200 .....	9
XVIX. Utility Shaft Extension Parts List & Drawing .....	10
XX. Installation Dimensions & Performance Data .....	11
XXI. Model Code .....	12
XXII. Limited Warranty .....	12

# TULSA WINCH MODELS 1000 & 1200

## I. INTRODUCTION:

PLEASE READ THIS MANUAL CAREFULLY.

This manual contains useful ideas in obtaining the most efficient operation from your Tulsa Winch and safety procedures that should be followed before and while operating your winch.

## II. WARRANTY INFORMATION:

Tulsa winches are designed and built to exacting specifications. Great care and skill go into every winch we make. If the need should arise, warranty assistance can be obtained by contacting your nearest Tulsa Winch sales/service representative.

## III. WINCH OPERATION:

The best way to get acquainted with your winch is to make test runs before you actually use it. Remember, you hear your winch, as well as see it operate. Get to recognize the sounds of a light steady pull, a heavy pull, and sounds caused by the load jerking or shifting. Gain confidence in operating your winch and it will soon become second nature with you.

The uneven spooling of cable, while pulling a load, is not a problem unless there is too much cable piled up on one end of the winch. If this happens, reverse the winch to relieve the load and move your point of contact closer to the center of the vehicle. After the job is over unspool and rewind the cable evenly on the winch drum.

Check the oil level of the winch every month. Replace oil every 6 months, or earlier if necessary, depending on the usage of the winch. Use 3 pints of a SAE 140 multipurpose gear lube. Under adverse environmental conditions an SAE 250 or SAE 90 gear lube may be required; consult Tulsa Winch for proper selection. If the oil is contaminated with metallic particles, inspect the winch for the cause of the wear. It should be noted that a certain amount of bronze will be present in the oil when it is checked. This is not abnormal to the operation of a worm gear winch.

Inspect the cable frequently. If the cable becomes frayed with broken strands, replace it immediately.

The reverse draft clutch provides free spooling and clutch engagement with the cable drum. With the clutch disengaged the cable can be freespoiled off the drum. For winching in the load the clutch jaws must be fully engaged with the jaws in the winch drum. Should you have a problem keeping the clutch properly engaged, the clutch area should be inspected for excessive wear. This will only occur if the jaws on any part of the clutch engagement have been excessively worn due to improper winch operation. Replace the worn parts immediately.

TO ENGAGE THE CLUTCH, simply move the clutch handle to the position marked "IN", vertical position or 12-o'clock. This position indicates the clutch has been fully engaged. Failure to engage the clutch in this manner could result in excessive wear on parts of the clutch. To achieve proper engagement, the jaws on both the winch drum and clutch must be

aligned. This alignment is achieved by rotation of the winch drum in either direction. At this point it should be easy to engage and disengage the reverse draft clutch.

The reverse draft clutch is held in position by both the reverse draft angle of the clutch jaws and the over-center action of the clutch lever. This design provides a mechanical lock that assures the winch will operate properly when the clutch is shifted into the "IN" position.

TO DISENGAGE THE CLUTCH, grasp the clutch handle and push down to the "OUT" position. The clutch will be fully disengaged when the handle is at the 2-o'clock position. DO NOT ATTEMPT TO DISENGAGE WITH A LOAD ON THE WINCH.

## IV. WARNING!

- DO NOT USE THE WINCH TO LIFT, SUPPORT, OR OTHERWISE TRANSPORT PEOPLE.
- A MINIMUM OF 5 WRAPS OF CABLE MUST BE AROUND THE DRUM BARREL TO LIFT OR HOLD THE RATED LOAD. THE CABLE CLAMP IS NOT DESIGNED TO HOLD THE RATED LOAD OF THE WINCH.
- STAY OUT FROM UNDER AND AWAY FROM RAISED LOADS.
- STAND CLEAR OF CABLE WHILE PULLING. DO NOT TRY TO GUIDE CABLE.
- DO NOT DISENGAGE THE CLUTCH UNDER LOAD.
- THE CLUTCH MUST BE TOTALLY ENGAGED BEFORE STARTING THE WINCHING OPERATION.
- DO NOT EXCEED THE MAXIMUM LINEPULL RATINGS FOR WINCH.
- WINCHES NOT EQUIPPED WITH AUTOMATIC WORM BRAKES MUST NEVER BE USED TO LIFT LOADS.

## V. WINCH MOUNTING:

It is most important that this winch be mounted securely so that the major sections (gearbox end, winch drum and clutch end) are properly aligned

All standard Tulsa winches are furnished with recommended mounting angles. The angle size for the 1000/1200 winch is  $\frac{3}{8}$ "x3"x2 $\frac{1}{2}$ ".

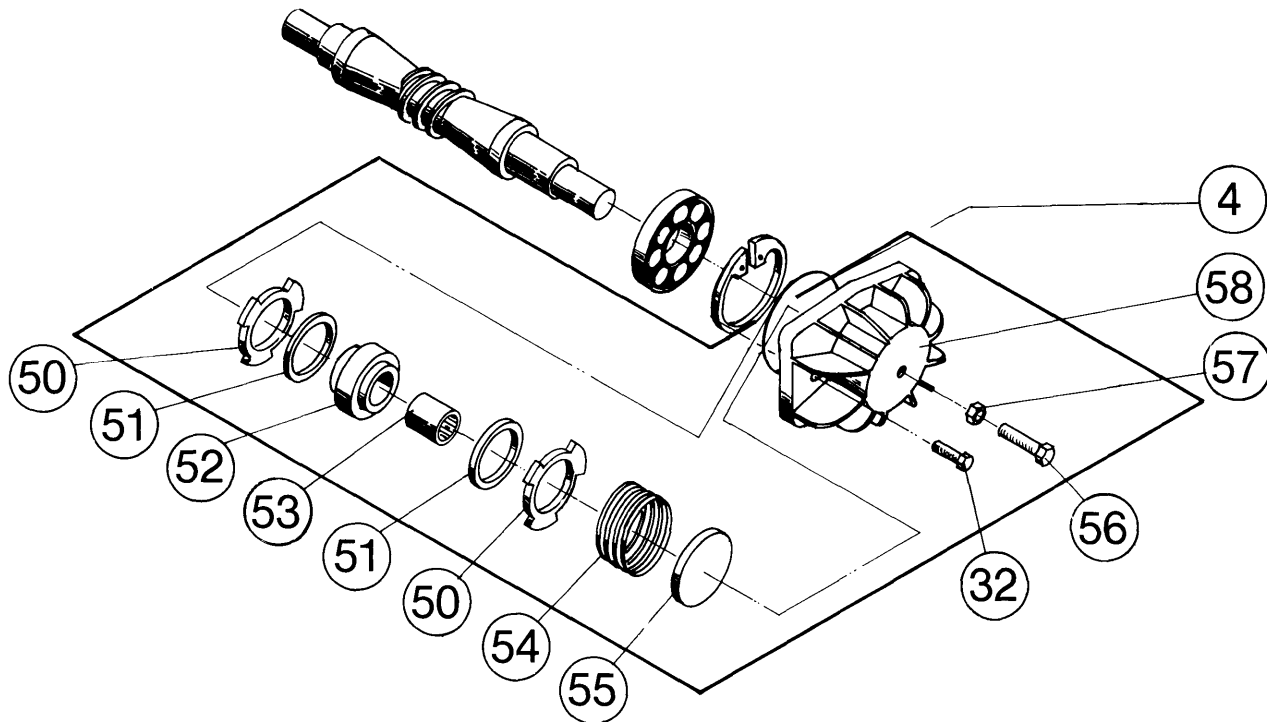
## VI. CABLE INSTALLATION:

1. Unwind the cable by rolling it out along the ground to prevent kinking. Securely wrap the cable end, opposite hook, with tape to prevent fraying.
2. Insert the cable end, opposite hook end, into the hole in drum (16). Secure the cable to the drum using the setscrew (18) furnished with the winch. Tighten the setscrew securely.
3. Carefully run the winch in the "reel-in" direction, keeping tension on the end of the cable, spooling all the cable onto the cable drum. Take care to form neatly wrapped layers.

4. A winch, like any other machinery, must be "broken in" if it is to perform properly. DO NOT overspeed the winch during initial cable installation. Run the

winch at no more than one-half rated load and speed for the first thirty minutes.

## VII. ADJUSTING THE OIL-COOLED BRAKE:



**OIL-COOLED BRAKE PARTS**

The oil-cooled, fully adjustable, automatic brake operates with all parts submerged in the gearbox lubricant. This brake utilizes a one way cam clutch (53) allowing free spooling in the in-haul position and engagement in the payout direction. When the brake wears to the point that the load begins to drift, simply adjust as follows:

1. Loosen locknut (57) in adjusting screw (56).
2. Tighten the brake by turning adjusting screw (56) clockwise. CAUTION: A slight adjustment is all that is usually required. over-tightening can cause over heating or pre-mature wear on brake parts. Tighten locknut (57) after the adjustment is completed.

If the brake does not respond to adjustment, replacement of stator plate (50), friction discs (51) or spring (54) may be required. The brake should only be adjusted to hold the required load of the winch. Just as described in the adjustment procedure, tightening the brake adjustment more than needed can cause overheating and premature wear on the above mentioned parts.

## VIII. SERVICING THE OIL-COOLED BRAKE:

1. Remove the pipe plug (31) from the bottom of the gearbox housing.
2. Back off locknut (57) and adjusting screw (56) two or more turns to loosen brake.
3. Remove capscrews (32) from gearbox housing (23).

4. Remove brake housing (58), o-ring (4), thrust washer (55), and spring (54) from gearbox housing (23).
5. Remove the stator plates (50), friction discs (51), and brake hub (52) and cam clutch (53) assembly from the worm (38). Make sure you note the direction of rotation of the cam clutch assembly when it is removed. It must be installed in the same direction of rotation during re-assembly.
6. Inspect parts as follows:
  - A. Inspect friction discs (51) for uneven or excessive wear.
  - B. Inspect the flat, surfaces of brake hub (52), stator plates (51), & thrust washer (55) for warpage or other damage and replace if necessary.
  - C. Inspect spring (54) for wear and discoloration and replace if necessary.
  - D. Cam clutch (53) should be free of all debris and have a full complement of rollers. If it needs replacement, a new cam clutch should be carefully pressed into the hub.

## IX. RE-ASSEMBLING AND CHECKING THE BRAKE:

1. With brake housing (58) face up, insert thrust washer (55) and spring (54) into brake housing (58).
2. Making sure that the ears of stator plate (50) fit in the slots of brake housing (58), insert it on top of spring (54) in brake housing (58).

3. Place cam clutch (53) and brake hub (52) sub-assembly on top of the friction disc (51) in brake housing (58).
4. Place the second friction disc (51) and the second stator plate (50) on brake hub (52) in brake housing (58). Making sure the ears of the second stator plate (50) fit in the slots of brake housing (58).
5. Place o-ring (4) on brake housing (58).
6. Place complete brake sub-assembly on gearbox housing (23) by inserting cam clutch (53) on worm (38) and securing to gearbox housing (23) with two capscrews (32).
7. Install pipe plug (31) into gearbox housing (23) and add 3 pints of SAE 140 gearbox lubricant.
8. Tighten adjusting screw (56) until tension is felt from spring (54). Refer to instructions in section VII on "Adjusting the Oil-Cooled Brake" and set brake to hold the required load.

**X. INSTRUCTIONS FOR CHECKING THE ASSEMBLY ARRANGEMENT AND SETTING OF THE WORM BRAKE:**

1. When the worm brake is assembled, the brake must be set with the cam clutch (53) inserted in the proper attitude to allow engagement of the brake in the payout direction only. The winch model determines the direction the cam clutch (53) should be installed. The model number is found on winch tag (34) attached to the top gearbox housing (23).

**EXAMPLE #1: (H-1200-SLRF0-01)**

The LRFO arrangement is configured as follows, all viewed from the rear of the truck: (NOTE: Cam Clutch toward "worm end").

- L=Left Hand Worm
- R=Gearbox is on the right side of the winch drum.
- F=Input located to front of truck.
- O=Cable to spool over the drum.

**EXAMPLE #2. (H-1200-SRLRU-01)**

The RLRU arrangement is configured as follows, all viewed from the rear of the truck: (NOTE: Cam Clutch toward "brake end").

- R=Right Hand Worm
- L=Gearbox is on the right side of the winch drum.
- R=Input located to rear of truck.
- U=Cable to spool under the drum.

- |  |   |
|--|---|
| Install Cam Clutch (53)<br>W/lettering toward<br>"brake end" on the<br>following assemblies. | Install Cam Clutch (53)<br>W/lettering toward<br>"worm end" on the<br>following assemblies. |
| RRRU RLFO RRFO   | RRRO RLFU RRFU  |
| RLRU LRFU LLRO   | LLRO LRFO LLRU  |
| LRRO LLFU  | LRRU LLFO   |

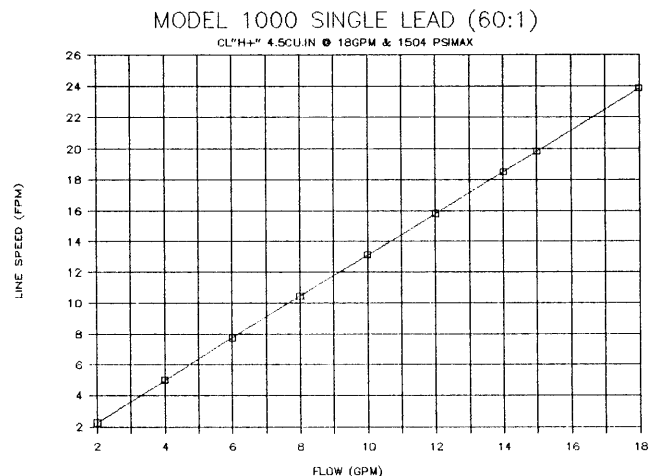
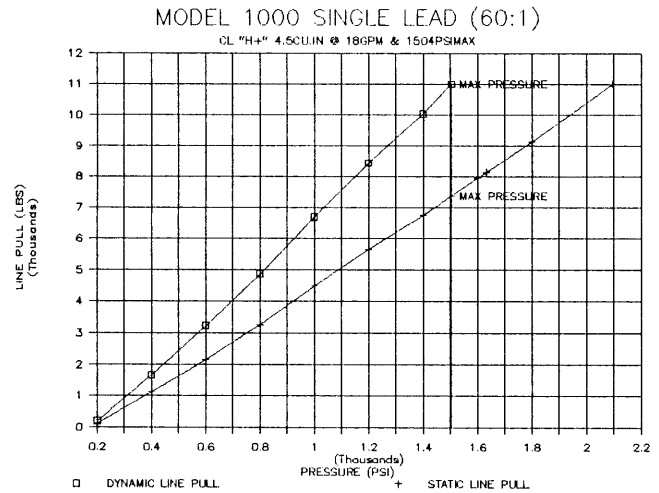
2. If the winch is not used in the configuration designated by the model codes, the brake setting must be checked. Damage to the brake could occur should the winch be used with the brake being applied in the wrong direction. Should assistance be required with regard to the above information,

please contact your nearest Tulsa Winch sales/-service representative, prior to running your winch.

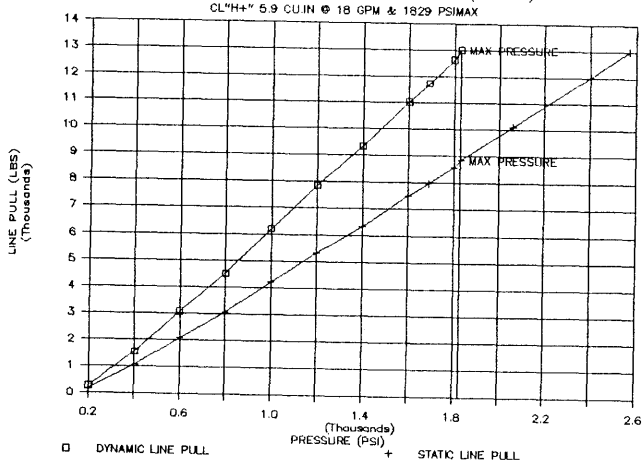
**XI. HYDRAULIC SYSTEMS:**

Refer to the performance charts below, to properly match your hydraulic system to the H-1000 and H-1200 series winch performance. The charts consist of:

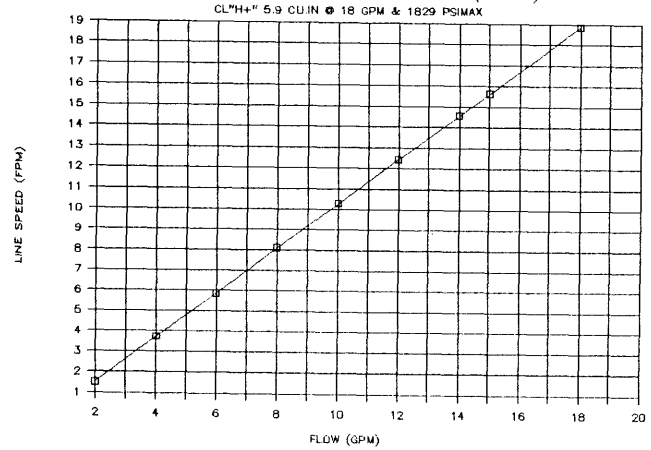
- Linespeed (FPM) 1st Layer @ various flows (GPM).
- Linepull (Lbs.) 1st Layer @ various pressures (PSI).
- Hydraulic pressure requirements for both static and dynamic winch performance. (Standard winch ratings are based on dynamic performance. (Standard winch ratings are based on dynamic performance of the winch.) Consult Tulsa Winch Engineering if normal winch performance would be designed around the static information provided.



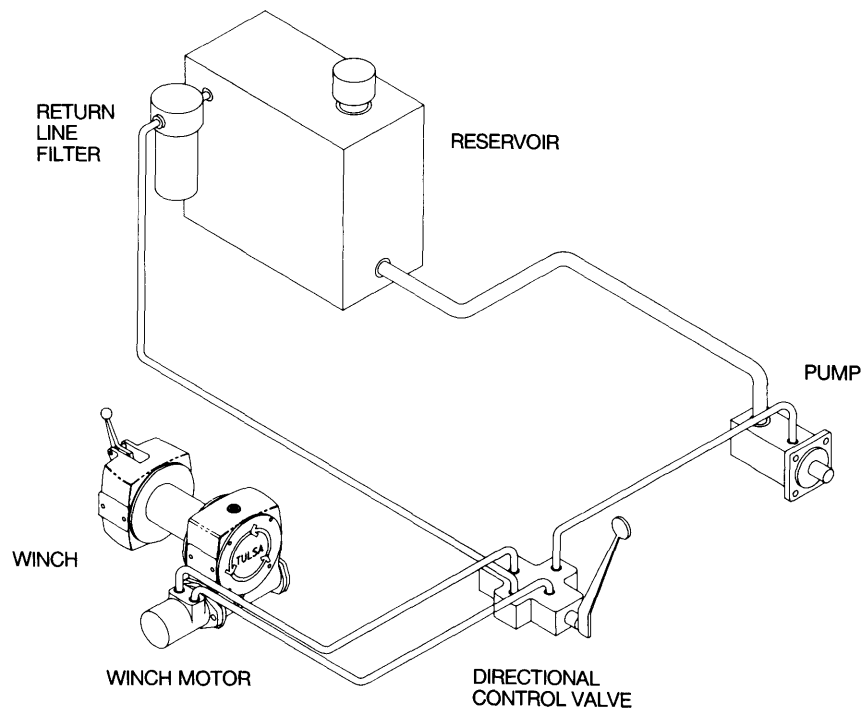
### MODEL 1200 SINGLE LEAD (42:1)



### MODEL 1200 SINGLE LEAD (42:1)



## XII. NORMAL HYDRAULIC CIRCUIT FOR USE ON HYDRAULIC WINCH:



## XIII. TROUBLE SHOOTING TIPS:

CONDITION	POSSIBLE CAUSE	CORRECTION
CLUTCH HANDLE WON'T LATCH.	<ol style="list-style-type: none"> <li>1. Clutch jaws not aligned.</li> <li>2. Damaged yoke or linkage.</li> </ol>	<ol style="list-style-type: none"> <li>1. Align jaws by rotating the drum.</li> <li>2. Replace yoke or clutch parts.</li> </ol>
OIL LEAKS FROM HOUSING.	<ol style="list-style-type: none"> <li>1. Seal damaged or worn.</li> <li>2. Too much gearbox oil.</li> </ol>	<ol style="list-style-type: none"> <li>1. Replace seal.</li> <li>2. Drain excess oil from gearbox.</li> </ol>
LOAD DRIFTS DOWN.	<ol style="list-style-type: none"> <li>1. Oil-cooled brake is out of adjustment.</li> <li>2. Oil-cooled brake has become worn.</li> </ol>	<ol style="list-style-type: none"> <li>1. Adjust brake until load does not drift.</li> <li>2. Replace parts as required.</li> </ol>
WINCH RUNS TOO SLOW.	<ol style="list-style-type: none"> <li>1. Low flow rate.</li> <li>2. Hydraulic motor worn out.</li> </ol>	<ol style="list-style-type: none"> <li>1. Check flow rate. Refer to hydraulic flow chart, page 6.</li> <li>2. Replace motor.</li> </ol>
CABLE DRUM WILL NOT FREE SPOOL.	<ol style="list-style-type: none"> <li>1. Winch is not mounted squarely.</li> <li>2. Clutch has not been disengaged.</li> </ol>	<ol style="list-style-type: none"> <li>1. Check mounting. Refer to page 2.</li> <li>2. Disengage clutch.</li> </ol>
CABLE "BIRDNESTS" WHEN CLUTCH IS DISENGAGED.	<ol style="list-style-type: none"> <li>1. Drag brake disc (19) are worn.</li> </ol>	<ol style="list-style-type: none"> <li>1. Replace discs.</li> </ol>
HYDRAULIC FLUID LEAKS FROM THE GEARBOX.	<ol style="list-style-type: none"> <li>1. Damaged motor shaft seal.</li> </ol>	<ol style="list-style-type: none"> <li>1. Replace seal.</li> </ol>
WINCH WON'T PICK UP HEAVY LOADS.	<ol style="list-style-type: none"> <li>1. Too much cable on the drum.</li> <li>2. System pressure too low.</li> </ol>	<ol style="list-style-type: none"> <li>1. Use a snatch block or remove some cable from the winch.</li> <li>2. Correct the hydraulic system pressure, page 6.</li> </ol>

#### **XIV. DISASSEMBLY OF A TULSA MODEL 1000/1200 WINCH:**

1. To drain the oil from gearbox housing (23), remove pipe plug (31).
2. Remove the frame angles (33) from gearbox housing (23) and end bracket (6) by removing eight capscrews (39).
3. For a hydraulic driven winch, remove the hydraulic motor (48) from gearbox housing (23) by unscrewing two capscrews (32).
4. Check gasket (46) and o-ring (4) and replace if required.
5. For a mechanical driven winch, remove the key (43) from worm (38). Then remove end cap (45) with seal (44) from worm (38) and gearbox housing (23). Inspect seal (44) and replace if necessary. Care should be taken in removal of the end cap from the gearbox housing so as not to damage the seal.
6. For a winch with the oil-cooled brake, remove the brake subassembly from gearbox housing (23) by unscrewing two capscrews (32) from brake housing (58) and gearbox housing (23). NOTE: See "Servicing the Oil-Cooled Brake" Section VII, Page 4, for detailed service instructions for the oil-cooled brake.
7. For a winch without a brake, remove end cap (41) and o-ring (4) from gearbox housing (23) by unscrewing two capscrews (32). Inspect o-ring (4) and replace if required.
8. With the winch resting on the gearbox end, remove the end bracket sub-assembly by pulling straight up on end bracket (6). NOTE: The clutch (13) will slide off the output shaft (17) as this sub-assembly is removed.
9. Check bushing (1) in the end bracket (6) for signs of wear. Replace, if necessary, by pressing the old bushing from the end bracket (6) and pressing a new bushing into place.
10. Check yoke (9) for wear and replace if required by unscrewing capscrow (10), locknut (11) and lockwasher (12) from Yoke (9) and shifter rod (8).
11. Check clutch (13) for wear and replace if required.
12. Remove the keys (14) from output shaft (17), check for wear and replace if required.
13. Remove the out side thrust collar (15) from output shaft (17). Check for excessive wear and replace of necessary.
14. Remove the three drag brake discs (19) and springs (20) from gearbox housing (23). Inspect for wear and replace if required.
15. Remove drum (16) from output shaft (17) by pulling straight up on the drum flange. Check the drum bores for wear and replace the drum if they show signs of excessive wear.
16. Remove inside thrust collar (21) from output shaft (17). Check for excessive wear and replace if necessary.
17. With output shaft (17) in the horizontal position, remove cover (26) and o-ring (30) from gearbox housing (23) by unscrewing eight capscrews (27). Check o-ring (30) and replace if required. Also check cover bushing (29) and replace if required by pulling the old bushing out and pressing a new one in cover (26).

18. Remove thrust washer (28) from output shaft (17). Check for excessive wear and replace if necessary.
19. Remove snap ring (25) from output shaft (17).
20. Remove output shaft (17) from bronze gear (24) and gearbox housing (23) by pulling the output shaft out of the gearbox in the direction of the removed end bracket.
21. Remove the bronze gear (24) from gearbox housing (23) through the opening in gearbox housing provided by the removal of cover (26) The bronze gear must be tilted up and out of the housing to clear the threads of worm (38).
22. Remove worm (38) and bearings (36) from gearbox housing (23) by removing snap ring (37) from gearbox housing (23) and pulling the worm out of the gearbox with the bearings attached. Inspect worm, bearings and snap rings and replace if necessary.
23. Inspect gearbox bushing (1), seal (2) & replace if necessary by pressing them out of gearbox housing (23) and pressing new parts into position. It is recommended that seal (2) be replaced if bushing (1) is changed.

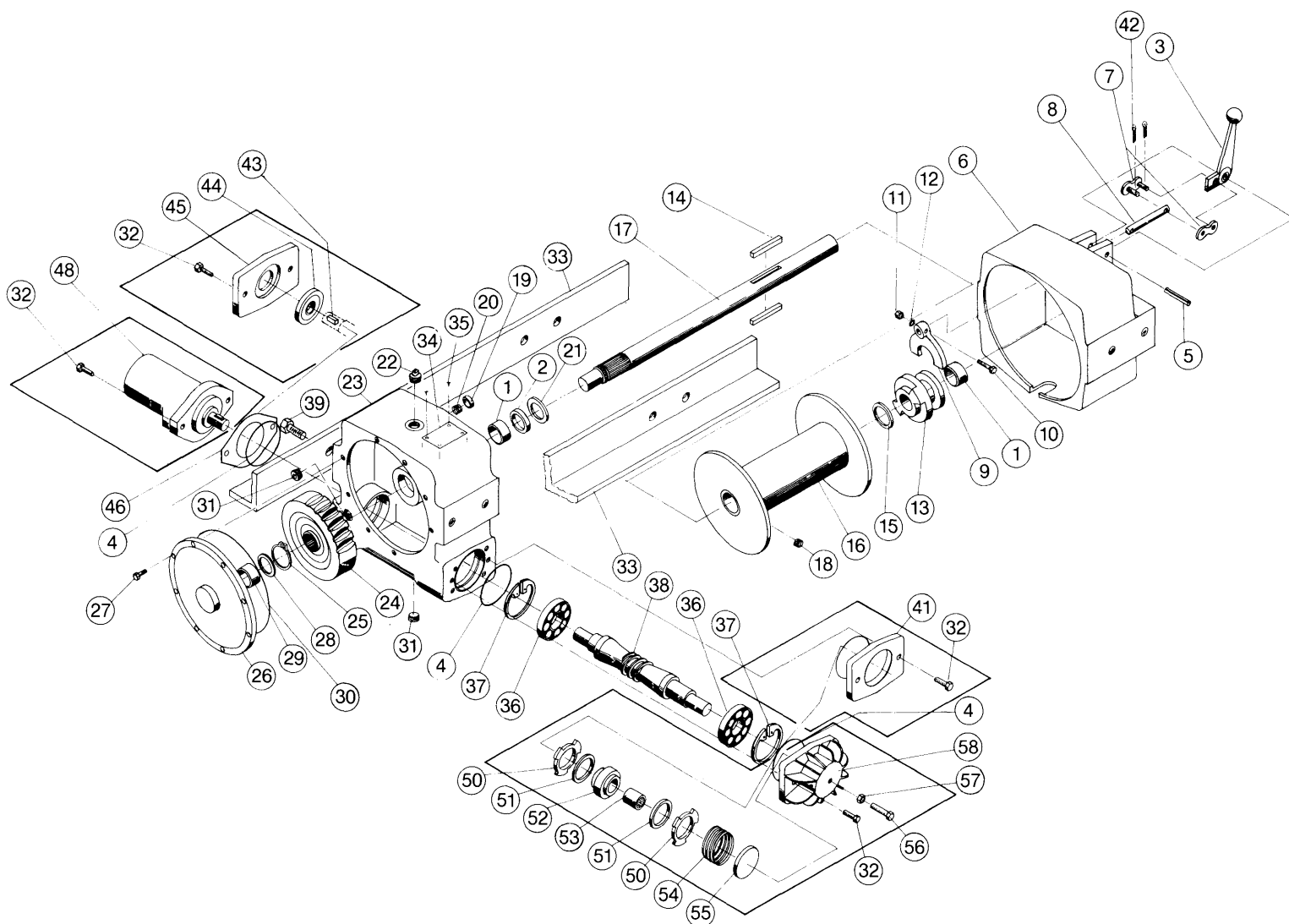
#### **XV. ASSEMBLY OF A TULSA WINCH MODEL 1000/1200 WINCH:**

1. Install bushing (1) and seal (2) into gearbox housing (23) by pressing into position. Care must be taken to protect both parts from being damage or early wear and leakage may occur.
2. With both bearings (36) pressed into position on worm (38), install into gearbox housing (23) and secure with snap rings (37) on each end of gearbox housing (23).
3. Place bronze gear (24) into gearbox housing (23) positioning it on worm (38).
4. Carefully insert output shaft (17) thru seal (2), bushing (1), gearbox housing (23) and bronze gear (24). Care must be taken to make sure the seal (2) is not damaged with the splines on the output shaft.
5. Secure bronze gear (24) on output shaft (17) with snap ring (25).
6. Place thrust spacer (28) on output shaft (17) allowing it to rest on the surface of bronze gear (24).
7. Place o-ring (30) on cover (26) and lubricate with grease.
8. With bushing (29) in cover (26), secure to gearbox housing (23) with eight capscrews (27). Tighten capscrews (27). Do not over tighten or possible damage to the threads in gearbox housing (23) may occur.
9. Install inside thrust washer (21) on output shaft (17) allowing it to rest on the surface of gearbox housing (23).
10. Install three springs (20) and drag brake discs (19) into the pockets of gearbox housing (23).
11. Grease output shaft (17) and slide drum (16) into position with drum flange contacting drag brake discs (19).
12. Install outside thrust washer (15) on output shaft (17) allowing it to rest on the surface of drum (16).
13. Install keys (14) in output shaft (17).
14. With all clutch parts on end bracket (6), place clutch (13) in yoke (9) and slide onto output shaft (17). Aligning keyways in clutch (13) with keys (14),

- slide end bracket (6) on the output shaft (17) until clutch (13) is against the outside thrust washer (15.)
- Secure the frames (33) to gearbox housing (23) and end bracket (6) with capscrews (39).
  - If the winch is equipped with an oil-cooled brake, install the brake as detailed in "Servicing the Oil-Cooled Brake" Section VIII, Page 4 of this manual.
  - If the winch is equipped without a brake, install o-ring (4) and end cap (41) to gearbox housing (23) with capscrews (32).

- For a hydraulic driven winch, secure hydraulic motor (48), o-ring (4) and gasket (46) to gearbox housing (23) with capscrews (32).
- For a mechanical driven winch, secure end cap (45) with seal (44), gasket (46) and o-ring (4) onto worm (38) and gearbox housing (23) with capscrews (32). Care should be taken as not to damage the seal (44).
- For a mechanical driven winch, install key (43) into worm (38).

## XVI. WINCH PARTS ASSEMBLY DRAWING FOR 1000/1200





**XVII. PARTS LIST FOR MODEL 1000/1200**

ITEM #	QTY./ UNIT	PART #	DESCRIPTION
1	2	27886	Bushing
2	1	27337	Seal
3	1	40052	Clutch Handle
4	2	32566	O-ring
5	1	27801	Roll Pin
6	1	40020	End Bracket
7	1	22389	Chain Link
8	1	40051	Shifter Rod
9	1	40050	Yoke
10	1	27870	Capscrew
11	1	26432	Locknut
12	1	20421	Lockwasher
13	1	40044	Clutch
14	2	25762	Key
15	1	40108	Thrust Collar
16	1	40064	Winch Drum
17	1	40045	Output Shaft
18	1	20515	Set Screw
19	3	25692	Drag Brake Disk
20	3	25774	Spring
21	1	27335	Thrust Collar
22	1	27504	Breather
23	1	40022	Gearbox Housing
24	1	27340	Bronze Gear (1000)
	1	40100	Bronze Gear (1200)
25	1	23862	Snap Ring
26	1	23590	Cover
27	8	28990	Capscrew
28	1	25890	Thrust Washer
30	1	23574	Cover Bushing

ITEM #	QTY./ UNIT	PART #	DESCRIPTION
31	2	32220	Pipe Plug
32	8	28060	Capscrew
33	2	40041	Frame
34	1	21184	Winch Tag
35	2	21775	Driver Rivet
36	2	20732	Bearing
37	2	31442	Snap Ring
38	1	40038	Worm (1000)
	1	40102	Worm (1200)
39	4	29421	Capscrew
40	—	—	Omit
41	1	40042	End Cap
42	1	32220	Pin
43	1	20105	Key
44	1	20232	Seal
45	1	40082	End Cap
46	1	40174	Gasket
47	—	—	Omit
48	1	As Req'd	Hydraulic Motor
49	—	—	Omit
50	2	40075	Friction Disk
51	2	40076	Stator Disk
52	1	40074	Brake Hub
53	1	40006	Cam Clutch
54	1	40077	Spring
55	1	20904	Thrust Washer
56	1	13529	Adjusting Screw
57	1	20521	Locknut
58	1	40069	Brake Housing

**XVIII. ASSEMBLY/DISASSEMBLY OF UTILITY EXTENSION FOR MODEL 1000/1200**

**A. DISASSEMBLY OF A TULSA MODEL 1000/1200 W/UTILITY SHAFT EXTENSION:**

1. The utility shaft (69) can be removed from the winch assembly by removing screw (59) from the utility coupler (62) and utility shaft (69) and pulling straight out on the utility shaft.
2. Inspect bushings (68) for wear. If bushing does not need replaced proceed to the assembly procedure step 2.
3. If bushings (68) need replaced remove utility end bracket (66) from frames (71) by removing capscrews (67), nuts (64) and lockwashers (65).

4. Press old bushings (68) out of utility end bracket (66) and press in new bushings.

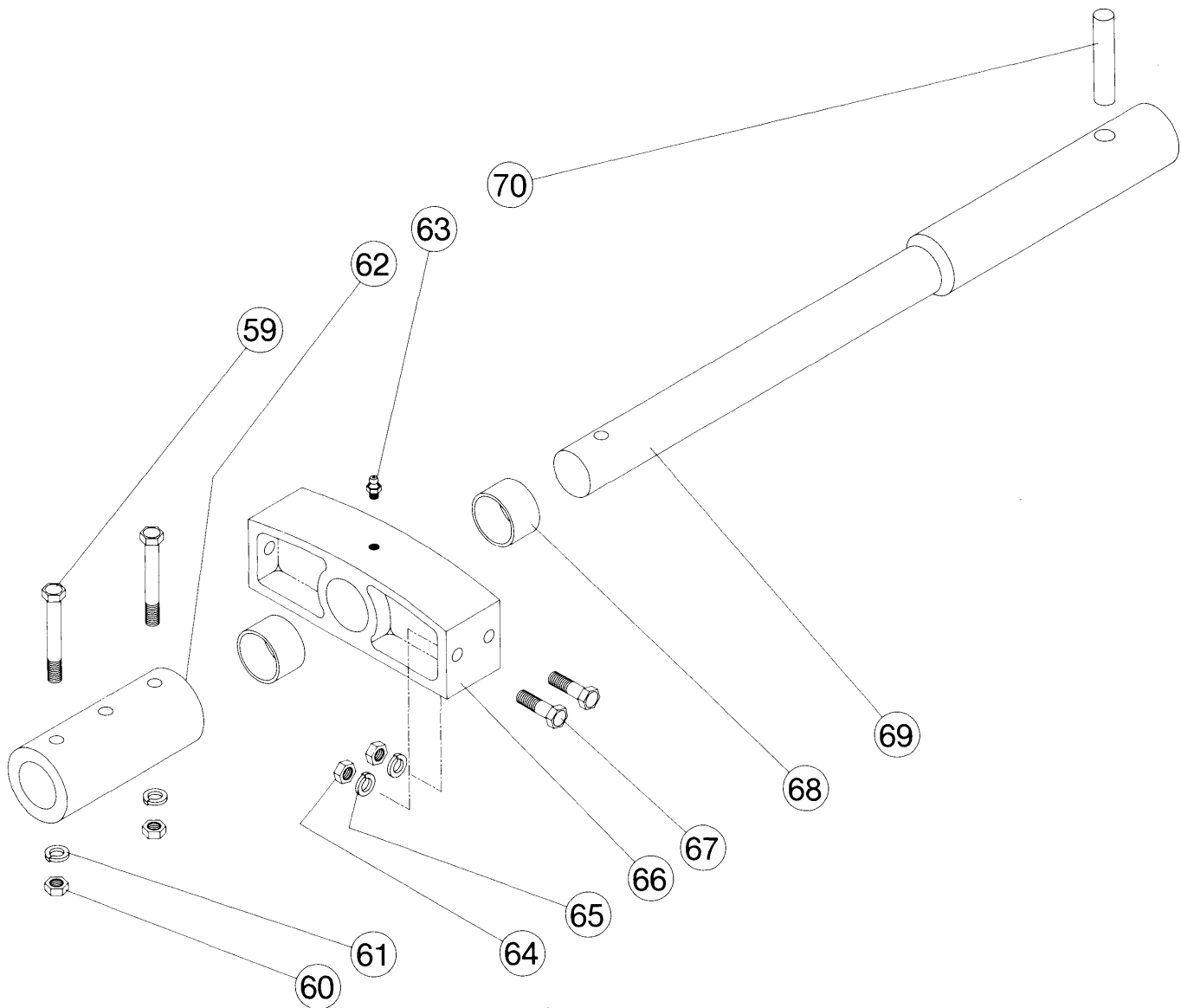
**B. ASSEMBLY OF A TULSA MODEL 1000/1200 W/UTILITY SHAFT EXTENSION:**

1. Install utility end bracket (66) between winch frames (71) with capscrews (67), nuts (64) and lockwashers (64.)
2. Insert utility shaft (69) through bushings (68) in utility end bracket (66) into utility coupler (62).
3. Connect utility shaft (69) onto utility coupler (62) with capscrew (59), lockwasher (61) and nut (60).

**XVIX. UTILITY SHAFT EXTENSION PARTS LIST & DRAWING:**

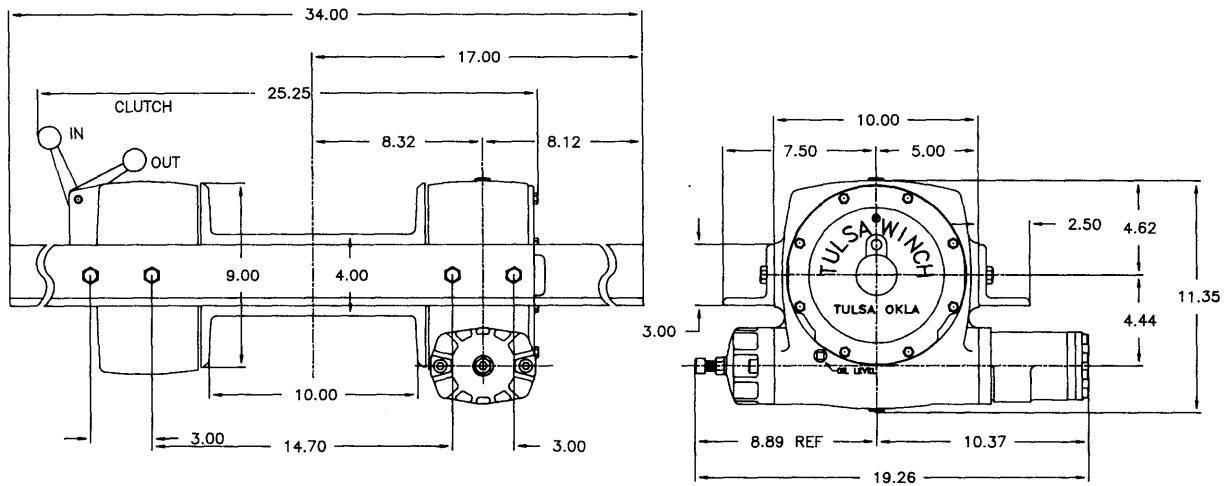
ITEM #	QTY./ UNIT	PART #	DESCRIPTION
59	2	25753	Screw
60	2	20267	Nut
61	2	20508	Lockwasher
62	1	40205	Utility Coupler
63	1	—	Grease Zerk
64	4	20521	Nut
65	4	20518	Lockwasher
66	1	40219	Utility End Bracket
67	4	28060	Capscrews

ITEM #	QTY./ UNIT	PART #	DESCRIPTION
68	2	27866	Bushing
69	1	40204	Utility Shaft
70	1	10582	Pin
71	2	40207	Frame (Not Shown) Replaces Item #33 on Standard Winch
72	1	40217	Winch Shaft (Not Shown) Replaces Item #17 on Standard Winch



**XX. INSTALLATION DIMENSIONS & PERFORMANCE DATA**

**A. MODEL 1000/1200 INSTALLATION DIMENSIONS**

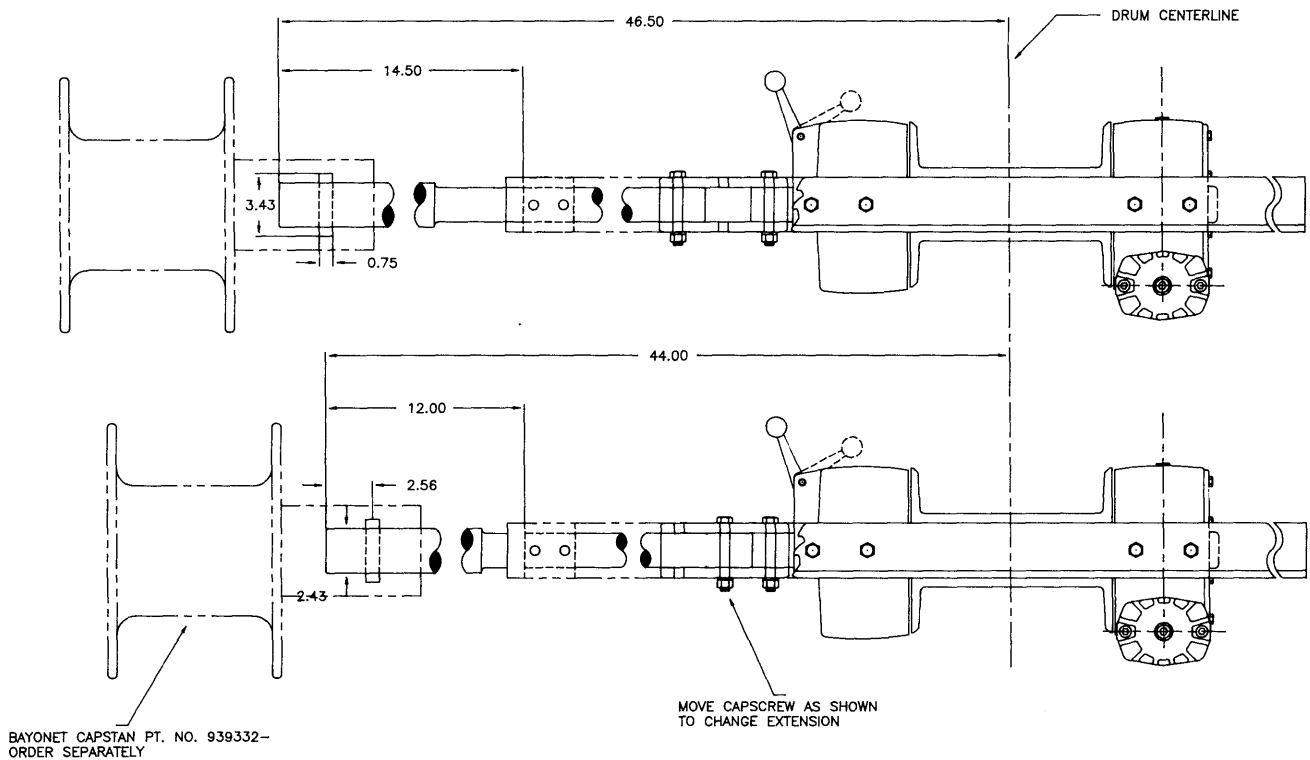


**B. MODEL 1000/1200 WINCH PERFORMANCE DATA**

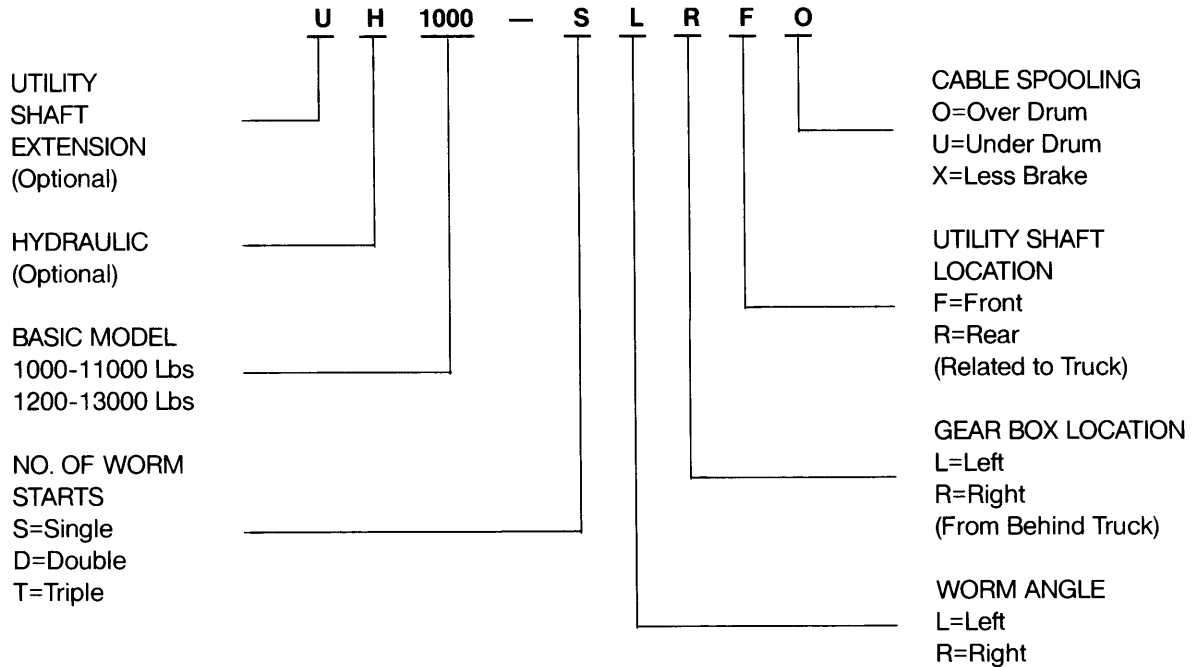
MODEL	CABLE SIZE	LINEPULL CABLE CAPACITY	CABLE LAYER					
			1	2	3	4	5	6
1000	7/16		11000	9188	7888	6910	6148	5537
			24	55	91	131	176	226

MODEL	CABLE SIZE	LINEPULL CABLE CAPACITY	CABLE LAYER				
			1	2	3	4	5
1200	1/2		13000	10640	9003	7803	6885
			21	50	83	120	163

**C. MODEL 1000/1200 INSTALLATION DIMENSIONS W/UTILITY SHAFT EXTENSIONS**



**XXI. MODEL CODE**



**XXII. LIMITED WARRANTY**

**LIMITED WARRANTY**

Tulsa Winch expressly warrants its products against defects in material and workmanship under normal and ordinary use and service for a period of One (1) year from the date of purchase from Tulsa Winch or any authorized distributor of Tulsa Winch products. This warranty is not applicable to product failure due to improper operation or usage, misapplication, or employment for other than normal and ordinary purposes.

**BUYER'S SOLE AND EXCLUSIVE REMEDY IN THE EVENT OF A DEFECT IS EXPRESSLY LIMITED TO THE REPAIR OR REPLACEMENT OF THE PRODUCT, OR THE REFUND OF THE PURCHASE PRICE, AT THE SOLE ELECTION OF TULSA WINCH.** Written notice and explanation of the circumstance of any claim that a product has proved defective in material or workmanship should be given promptly by the Buyer to Tulsa Winch. Tulsa Winch requires proof of date of purchase and reserves the right to inspect any product claimed to be defective under this warranty.

**EXCEPT AS SPECIFICALLY PROVIDED FOR IN THIS MANUFACTURER'S LIMITED WARRANTY, THERE ARE NO OTHER WARRANTIES EXPRESS OR IMPLIED INCLUDING BUT NOT LIMITED TO ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR USE. IN NO EVENT SHALL TULSA WINCH BE LIABLE FOR LOSS OF PROFITS, INDIRECT, INCIDENTAL, SPECIAL, CONSEQUENTIAL OR OTHER SIMILAR DAMAGES ARISING OUT OF ANY BREACH OF THIS AGREEMENT, OBLIGATIONS UNDER THE AGREEMENT, NEGLIGENCE OR STRICT LIABILITY. TULSA WINCH MAKES NO WARRANTY, EXPRESS OR IMPLIED, FOR A MINIMUM LENGTH OF SERVICE OR USE OF ANY TULSA WINCH PRODUCT. TULSA WINCH SHALL HAVE NO OBLIGATION TO REPAIR OR REPLACE ITEMS WHICH BY THEIR NATURE ARE EXPENDABLE.**



**Tulsa Winch**

P.O. Box 471617  
Tulsa, Okla. 74147-1617  
918-663-5744  
Fax: 918 -627-3221