

WAR DEPARTMENT TECHNICAL MANUAL
TM 5-9005

PIPE LINE
EQUIPMENT SET

TO BE MOUNTED
ON ORDNANCE 2½-TON 6x6
TRUCK CHASSIS, ROEHLK



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TM 5-9005, Pipe Line Equipment Set, to be mounted on Ordnance
2½-Ton 6 x 6 Truck Chassis, Roehlk, is published for the information
and guidance of all concerned.

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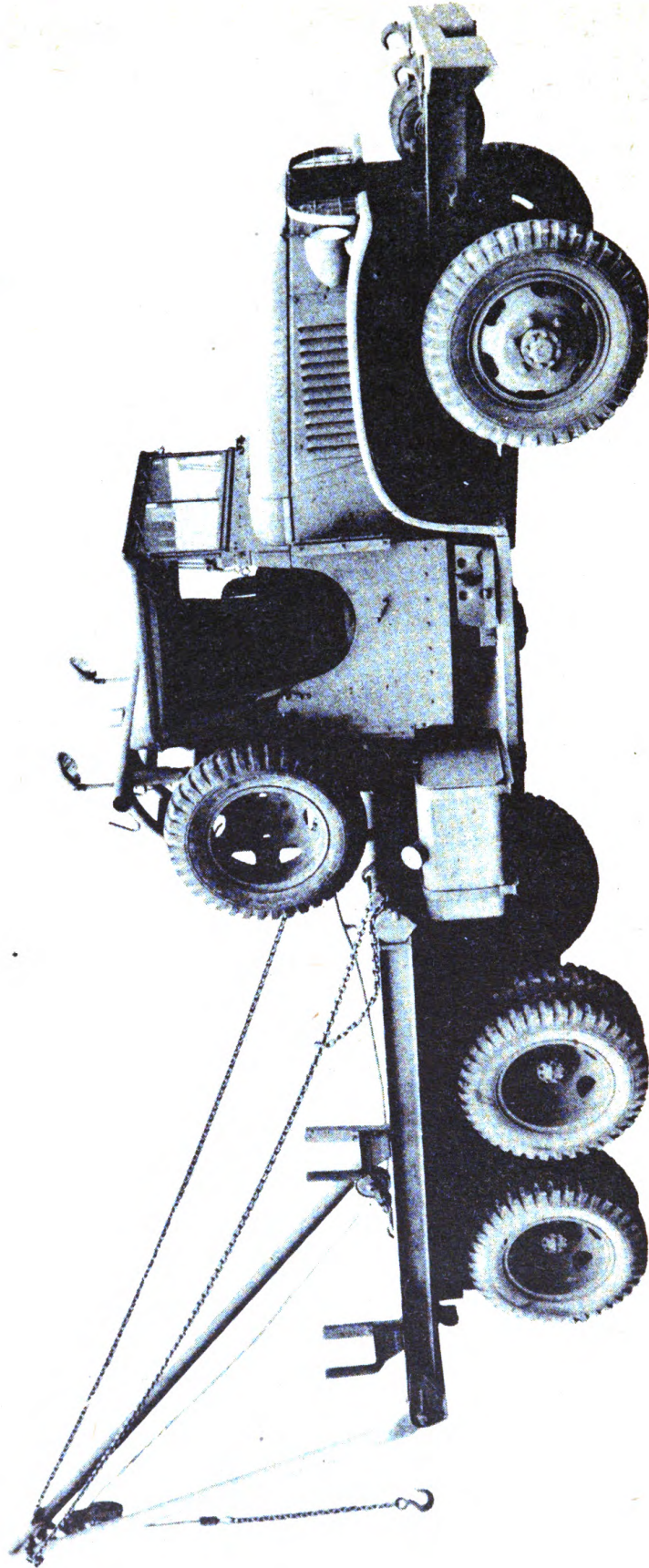
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**Figure 1—Body and Chassis Assembled
(Gin Poles and A-Frame in Position for Hoisting)**

PART I

INTRODUCTION

1. GENERAL INSTRUCTIONS.

a. **Operations Covered.**—This manual covers all operations necessary to unpack and assemble one utility (oil field type) body on a 2½ ton 6 x 6 GMC Truck. This body is packed in a single crate, complete with winch and all accessories, maintenance tools and spare parts. The equipment covered by this manual is designed for exclusive use on GMC Trucks. This equipment cannot be used or mounted on trucks of any manufacture other than GMC.

b. **Packing List.**—In the pack will be found a packing list itemizing in detail each part contained in the crate.

c. **Layout of Parts.**—It is important to separate parts for each sub unit and lay them out before beginning the assembly.

2. DESCRIPTION OF PACK.

The pack consists of one bed (platform), one winch, one cab protector (accessory rack), one "A" frame, two gin poles, one tool box and other miscellaneous small parts which are contained in wood boxes.

3. TOOLS AND EQUIPMENT FOR ASSEMBLY.

a. **Tools.**—Required tools for each unit will be found in the two wooden boxes. These will be useful in handling and assembling the bodies. Handles for the jacks and two pipe bars will be found in the front (pipe) cross member.

b. **Holsts.**—If a hoist or another winch truck is available for mounting the winch and platform, a great deal of heavy lifting will be avoided. After the first body is mounted, the gin poles may be raised, and this will be all the equipment necessary for handling parts for subsequent bodies.

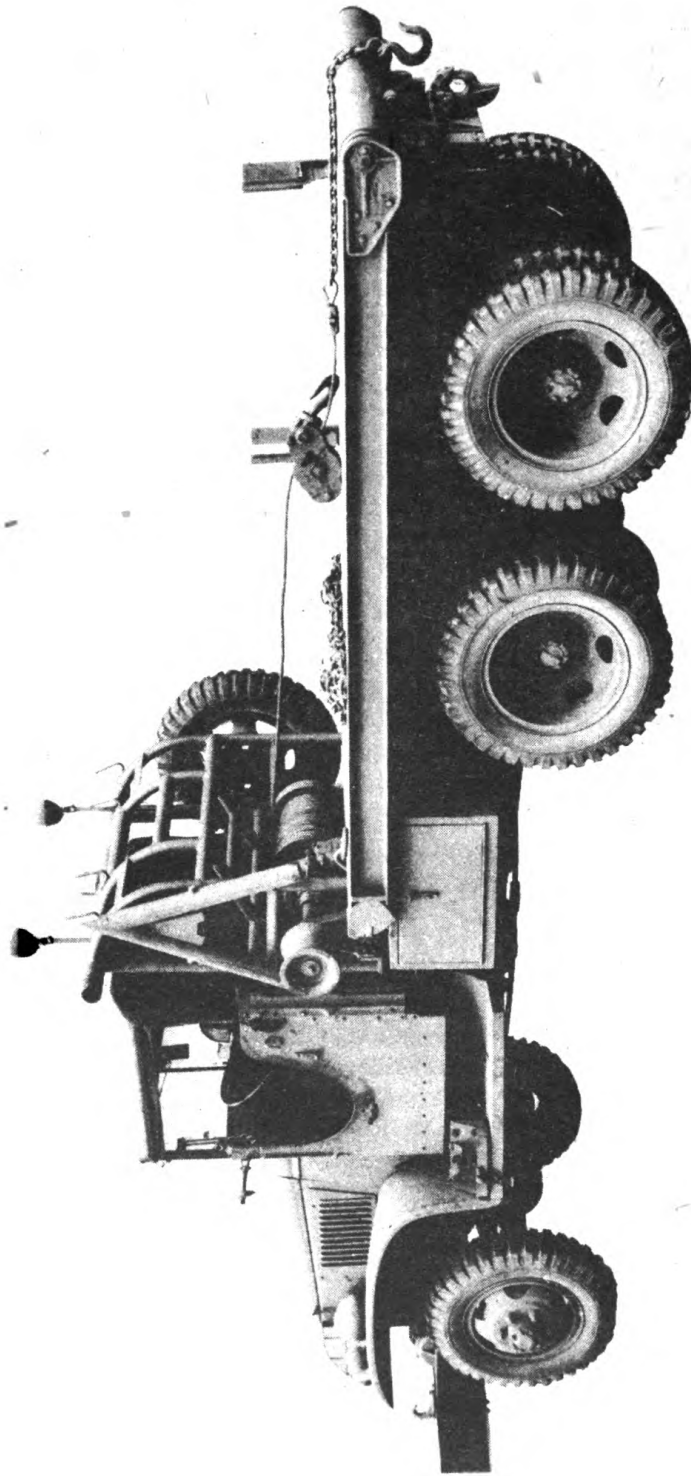


Figure 2 — Body and Chassis Assembled
(Gin Poles and A-Frame in Position for Carrying)

PART II

UNPACKING AND ASSEMBLY

1. UNPACK UNIT.

- a. Open Pack. Cut metal bands and remove top of crate.
- b. Remove ends of crate first and then the sides.
- c. Remove all hold-down bolts and blocking.
- d. Remove metal tool box, wooden main accessory box, and wooden parts box.
- e. Remove pipe bars and jack handles from front (pipe) cross member.
- f. Remove other miscellaneous items.
- g. Remove platform assembly.

2. REMOVE GAS TANK FROM TRUCK.

- a. Disconnect fittings and remove tank.
- b. Remove gas tank support channels.

3. MOUNT WINCH ON CHASSIS.

Winch and accessory rack are shipped bolted together and can be mounted together if hoist or sufficient men are available. If not, disassemble and mount separately. In preparation for shipment, one end of the brake band on the winch hand brake has been loosened, the drum coated with rust preventative No. 673, and then wrapped in paper. Remove paper from drum, and remove rust preventative (which is black) from drum with rag soaked in dry cleaning solvent. Draw down the loose end of the brake band and then proceed with the winch mounting. A pair of high mounting brackets are included in the tool box pack. The leading edge of the high winch mounting brackets should be placed on the chassis frame $3\frac{5}{8}$ " from the center of the rear hole in the chassis where the cab supporting cross member is bolted to the chassis frame. A lip projecting from the high mounting bracket rests on the chassis and automatically sets the bracket at the correct height. These brackets are drilled to bolt to the chassis frame and in the winch base angle. The chassis frame must be drilled in the field to match the holes in the brackets. After these brackets are bolted securely in place, the winch is set on top, with the sprocket to the front, and bolted in place with four (4) bolts supplied with the mounting brackets. Winch should be set loosely and checked for alignment and tightened after PTO is in place.

4. MOUNT ACCESSORY RACK.

Accessory rack is mounted on the winch base angle with bolts provided. Install two spot-lights (packed in wooden parts box) in the brackets provided on the accessory rack. Install wiring harness. The wire from the spotlight should be given 8 or 10 turns to allow ample play for the spotlight, and then dropped through the front post of the accessory rack and run to the starter pole or other convenient hot wire. Ample wire and loom are included in the pack for this purpose. The con-

trol switch is on the spotlight and the hot wire is the only one to install as the spotlight grounds itself.

5. INSTALL POWER TAKEOFF (P. T. O.)

The P. T. O. (packed in wood box) is to be mounted on the left side of the transmission. Drain oil from transmission case in clean receptacle, first placing a piece of fine mesh screen over the receptacle, in order to safeguard any parts of foreign matter entering the oil. When transmission is drained, cover the container and set aside to replace in the transmission case later. Remove six cap screws which attach the cover to the side power takeoff opening and with a clean rag, wipe the face of the power takeoff opening clean. Place the power takeoff in position on the opening, discard the bolts, gaskets, and plate, using the gaskets supplied for the purpose and attach with the studs included with the power takeoff. Especially observe that no interference is holding the power takeoff away from the face of the transmission case. Then tighten all studs evenly and securely. After the power takeoff has been rigidly fixed to the case, but before the lubricant is replaced in the transmission case, by means of the crank, turn the engine over two or three times to determine whether there is any locking effect due to the application of the takeoff. To test for proper takeoff application, turn on the ignition switch and start the engine, allowing it to run at a moderate rate of speed. A new takeoff will cause a slight gear hum, which in a short time disappears. If found to be as just described, the power takeoff installation is usually "OK". If, however, a gear growl occurs, it is necessary to insert one additional $\frac{1}{32}$ " gasket between the power takeoff and the transmission case. To accomplish this, proceed as indicated in the former instruction. The addition of one gasket is rarely necessary, but occasionally is required. The truck should not be released with the gear growl, since this is an indication of gears meshing too closely and will result in heat and deterioration of the gear teeth and damage to the bearings, in both the transmission and power takeoff. In case of rattle, it indicates that the gears do not fully mesh. In this case, the extra gaskets will have to be removed until takeoff runs quietly. Having determined that the engine turns freely, replace the lubricant in the case and add two pounds of lubricant to bring the same up to the proper level, remembering that the space in the power takeoff makes it necessary to add an additional quantity of lubricant. Use only a lubricant recommended by the chassis manufacturer in the transmission. The same lubricant will be found entirely satisfactory for the power takeoff. The power takeoff shift lever is installed above the power takeoff control shaft, and provides two speeds forward and one reverse. The shift lever is mounted on the box angle attached to the chassis frame. A nut and washer should be placed on each side of the lever on the mounting bolt so the lever can be moved forward and backward. The lower end of the lever is connected to the power takeoff with link provided.

6. INSTALL WINCH CONTROL LEVERS.

The center of this pair of levers will be located 6 inches in front of the cab seat apron. Holes are already drilled in the control lever bracket and corresponding holes must be drilled in the chassis. It will be necessary to cut out a portion of the cab frame in order to mount the levers

outside the chassis frame. Set the assembly in place and center punch the chassis frame for three $\frac{1}{8}$ " holes for bolting the assembly in place.

7. INSTALL HANGER ASSEMBLY, DRIVE SHAFT AND UNIVERSAL JOINT.

Mount bearing block assembly under winch base angle by means of bolts supplied for this purpose. Install universal joints and drive shaft. The larger universal joint is installed at the rear and the smaller at the power takeoff end of the drive shaft. In case the chain does not fit properly, whole or half links may be added or removed from the chain. If a finer adjustment is needed, shims may be placed under the bearing block hanger assembly.

8. HOOK UP CONTROL RODS.

Put hand brake lever in off position and clutch lever in out position. Cut and thread control rods the right length.

9. RE-LOCATE THE EXHAUST MUFFLER.

To make room for the drive shaft, it will be necessary to move the exhaust muffler. Install as near to bottom of frame as possible. It will not be necessary to cut exhaust pipe.

10. INSTALL CHASSIS FRAME COVER.

Place chassis frame cover on frame cross members. This sheet should be spaced equally from each side to allow room for U bolts.

11. MOUNT PLATFORM ASSEMBLY.

Place the platform assembly on chassis frame cover so that the end of platform subsills (wood) projects four inches beyond end of chassis frame and bolt in place, using 8 U-bolts with drilled clips on bottom of frame and in slots in body longitudinal sills. Place wood blocks in chassis channel with U-bolts before tightening U-bolts.

12. RELOCATE GAS TANK.

Install gas tank brackets (part No. 5091-4-12) using 4 holes in chassis and hanger channels, which will allow room for winch mounting bracket. Torch cut front hanger channel where cab interferes. Torch cut rear hanger channel where truss bracket interferes. Reinstall gas tank as far forward in its cradle as the winch frame will allow. Gas line can be reshaped without cutting.

13. PLACING EQUIPMENT.

Equipment may be carried as follows:

- a. Gin poles may be carried under platform on top of chassis frame cover, between subsills, in bracket with clamp lock.
- b. "A" frame may be hung point up in the accessory rack, in place provided.
- c. Two pipe bars and two jack handles may be carried in the 6 inch pipe (front cross member).
- d. All other miscellaneous items may be carried in the tool box or hung in the accessory rack.

14. MOUNT TAIL LIGHT BRACKETS AND LIGHTS.

The tail light brackets will be mounted to the lower flange of the rear channel cross member with bolts placed in the holes already drilled

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in the tail light brackets. The truck cable plugs will reach the lights located in this position without additional wiring.

15. SPOOLING THE CABLE.

This may be done by attaching the loose end of the cable to the spool by inserting the end of the cable in the slotted hole in the flange of the drum and securing it with the U-clamp. Unroll all of the cable in a line extending from the back of the truck. Hitch on to some fixed object with the "hook" and cable. Release the emergency brake on the truck and start the winch spooling forward. Dragging the truck backward in this manner will usually put enough pull on the cable to make it wind smoothly.

16. MOUNT TOOL BOX.

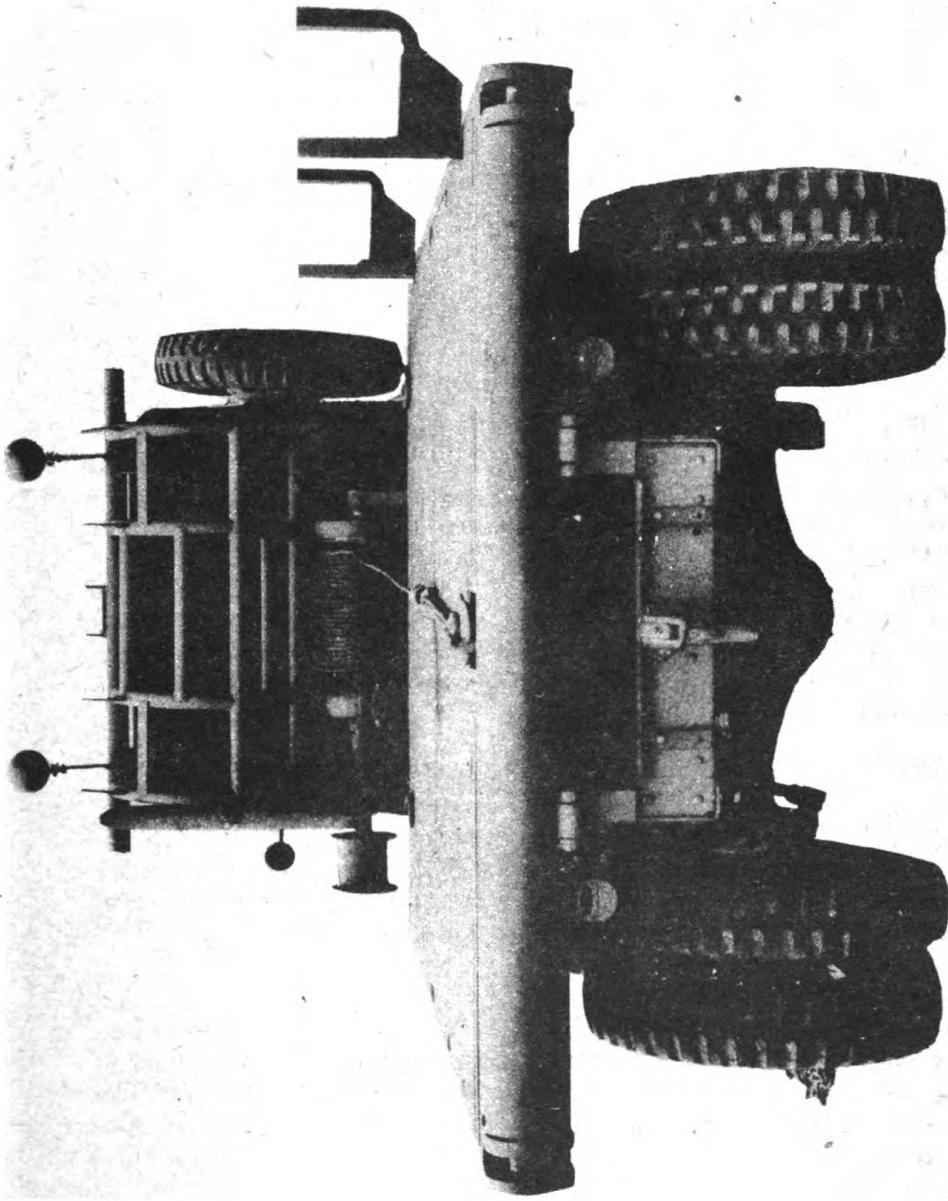
Hang tool box on extreme left forward corner of platform assembly and fasten to tool box brackets with bolts provided.

17. MOUNT CABLE DEFLECTOR.

Remove permanently the two bumpers on each side of the pintle hook on the rear of the chassis frame. The cable deflector is mounted on the rear cross member of the chassis frame and located as follows: Center the cable deflector on the rear cross member of the chassis frame, with the rod projecting $\frac{1}{2}$ " over the top of the rear cross member. Drill 4 holes in the rear cross member to match those in the cable deflector and bolt on with bolts provided.

18. MOUNT TRUSS ROD ASSEMBLY.

Assemble truss rods with coupling loose. Mount small bracket flush behind front spring hanger and mount large bracket in front of rear tandem frame bracket. Install clevis pins through truss rods and rear brackets. Cast steel brackets shall be spaced uniform with shape of truss rod. All holes for brackets must be drilled in chassis frame. Torch cut rear truss brackets to allow for rivet heads. Draw coupling tight.



**Figure 3 — Rear View Body and Chassis Assembled
(Gin Poles and A-Frame in Position for Carrying)**

PART III

OPERATION, MAINTENANCE AND LUBRICATION OF WINCH AND ACCESSORIES

Section I

OPERATION

1. GENERAL PRINCIPLES.

The P.T.O. furnished with the winch has 2 speeds forward and one reverse. To operate the winch, release the winch brake lever, place the truck transmission in neutral, disengage the truck clutch, move the P.T.O. shift lever to the desired position and engage the truck clutch.

2. SETTING UP GIN POLES FOR HOISTING.

This operation is easily done by placing the "A" frame and gin poles on the ground behind the truck. Telescope one end of the gin poles over the "A" frame legs. Then hook the other ends on the tail board roller shaft. Place a snatch block on the winch cable and hook this and the ends of 2 guy chains in the cross member of the "A" frame. Hook the end of the winch cable in the pull ring in the floor of the body. With the winch in slow speed, raise the gin poles to the desired height. Hitch the guy chains in the slots in front end of the side channels. With winch in reverse, slack off the cable on body.

3. HOISTING.

With the gin poles set up, remove the hook from the floor ring. An additional snatch block must be placed on the line and hooked in the floor ring. This will prevent any possibility of overbalancing the poles. Attach line to load to be hoisted. In lowering the load it must never be dropped by releasing the clutch and slipping the brake.

4. PULLING.

Pulling may be over the deck or under the body. The direction of pull may be transferred from the rear of the truck on to some fixed object at a distance from the truck, by use of one or more snatch blocks. The initial direction of pull should always be approximately at right angles to the drum shaft.

Section II

MAINTENANCE

1. BRADEN AUTOMATIC SAFETY BRAKE.

The Braden Safety Brake is a drum and band type brake. This brake is properly adjusted on a new winch to prevent the lowering of

a load, within the capacity of the winch, while the clutch is disengaged during the changing of speeds in the P.T.O. When the band becomes sufficiently worn to allow a load to lower slowly during this operation, adjustment must be made. Remove the Safety Brake housing cover. The adjusting nuts are located on the adjustment screw, which is welded to the brake band. Tighten these nuts until the band fits the drum snugly. Lock the nuts together. Do not adjust the brake tight enough to prevent the winch being run backward. If this occurs loosen the adjusting screw until tension is relieved somewhat. Relock the adjusting nuts.

2. MANUALLY CONTROLLED SAFETY BRAKE.

The manually controlled safety brake is of the same general principal as the automatic brake except that the adjustable mechanism is operated from a hand control lever. For normal loading and pulling service this lever should be completely released. For heavy loading, unloading and hoisting, a reasonable tension can be set by giving the lever a few notches. The correct slot for the job can be determined by the operation from the FEEL for any tendency to slack off would require another notch on the lever.

3. SERVICE ON THE WORM GEAR.

The worm gear assembly requires no service or adjustment unless extreme overloads have been applied, which have resulted in the destruction of the true shape of the worm gear teeth. A destroyed worm gear tooth, even though it may not be broken, gives the operator warning by slipping of the worm brake, which is clearly designed to withstand full winch loads if the worm gear is normal. After the worm brake has been serviced in accordance with the foregoing instructions and after being placed in service slipping is still evident, inspect the worm gear teeth by removing the worm gear housing cover. If the tooth form has been destroyed the teeth will plainly appear to be leaning in one direction. The destruction of the tooth will be plainly evident to experienced men. Dismantle the worm gear assembly, thoroughly clean the housing, inspect the worm gear drive flange, and replace damaged parts.

4. THE CAPSTAN OR NIGGERHEAD.

The capstan head is frequently employed in connection with Manila rope of suitable sizes. The capstan is designed for Manila rope only, and the use of wire rope on the capstan is not recommended. Avoid, if possible, the use of wire rope which may, if not properly spooled, bend the cable drum shaft. In emergency it may be expedient to resort to the use of the capstan with wire rope, but it is recommended that its use be confined to emergency only. When using the capstan head, always run the winch in *forward* speed, otherwise the automatic brake may overheat. For this operation, the end of the winch line should be fastened to the drum and the jaw clutch engaged. This allows the drum to turn with the drum shaft and saves wear on the drum shaft bushing.

5. SERVICING.

The Power Take Off Box connection to transmission, universal joints, and hanger bearing and sprockets shall be checked to see that they are secure every 10 days of operation.

Section III LUBRICATION

1. GENERAL.

See lubrication Chart in Technical Manual supplied with chassis.

2. WORM GEAR.

Check grease in winch worm gear case before using (See Fig. 5, Fill Plug, Part No. 50). Filling of the worm gear housing to the proper level assures lubrication of the worm gear set and the worm gear bearing, including that part of the cable drum shaft within the worm gear housing. (See Fig. 5, Level Plug, Part No. 64 on side of Gear Box for proper grease level). Use GO-Lubricant. Gear universal, and gear case level should be checked every 64 hours of operation.

3. ALEMITE FITTINGS.

Other points to be lubricated by means of alemite fittings are:

- (a) 2 Universal Joints (Fig. 6, Part No. 12, Use CG grease every 8 hours of operation).
- (b) Tail board roller, both ends.
- (c) Cable drum bearings to be lubricated at points 49 and 43 of Fig. 5. Lubricate every 8 hours of operation with CG Grease.
- (d) 2 Shaft support bearings.
- (e) 2 Front roller bearings.

PART IV

GROUP ASSEMBLIES

AND

PARTS LISTS

Section I

UTILITY BODY

UTILITY BODY

Part No.	Description.	No. Reqd.
5091-2-2	COVER, Chassis Frame.....	1
5091-2-3	PLATE, Reinforcing.....	1
5091-3-A	RACK, Accessory.....	1
5091-3-17	BRACKET, Spotlight.....	2
5091-3-18	SLEEVE, Spotlight Shaft.....	2
5091-3-19	SHAFT, Spotlight.....	2
5091-3-20	SPOTLIGHT.....	2
5091-4-1	CHANNEL, Floor Support.....	1
5091-4-2	ANGLE, Swivel Box (Rear).....	1
5091-4-3	PLATE, Cover.....	1
5091-4-4	ANGLE, Swivel Box.....	1
5091-4-5	ANGLE, Swivel Box.....	1
5091-4-6	BOLT, Eye.....	1
5091-4-7	BRACE, Bracket.....	1
5091-4-8	PLATE, Floor (Rear).....	2
5091-4-9	POCKET, Stake.....	8
5091-4-10	PLATE, Floor (Front).....	1
5091-4-11	RING, Swivel.....	1
5091-4-12	BRACKET, Gas Tank.....	2
5091-4-13	NUT, 7/8" high Hex.....	1
5091-5-1	SANDBOARD, Upper.....	1
5091-5-2	SANDBOARD, Lower.....	1
5091-5-3	BEARING, King Pin.....	1
5091-5-4	BRACKET, Outer Roller.....	2
5091-5-5	BRACKET, Inner Roller.....	2
5091-5-6	HOOK, Grab.....	2
5091-5-7	SHAFT, Roller.....	4
5091-5-8	ROLLER.....	4
5091-5-9	SHAFT, Tailboard Roller.....	2
5091-5-11	REFLECTOR, Red.....	2
5091-6-1	BRACKET, Tailboard Roller.....	1
5091-6-2	BRACKET, Tailboard Roller.....	1
5091-6-3	BEARING, Tailboard Roller.....	2
5091-6-4	ROLLER, Tailboard.....	1
5091-6-5	SPACER.....	2
5091-6-6	WASHER, Shaft.....	2
5091-6-7	PLATE, Filler.....	2
5091-6-8	FITTING, Zerk Grease.....	4
5091-7-1	CHANNEL, Tailboard.....	1
5091-7-2	SILL, Front Cross.....	1
5091-7-3	CLIP, Ring.....	2
5091-7-4	RING.....	2
5091-7-A	PLATE, Cover (Front Sill).....	2
5091-7-11	CHANNEL, Side Rail.....	2
5091-7-12	CROSS MEMBER.....	5
5091-7-13	CAP, Subsill.....	2
5091-7-14	SUBSILL.....	2
5091-7-15	SUPPORT, Lower Sandboard.....	2

UTILITY BODY—Continued

Part No.	Description.	No. Reqd.
5091-7-16	BOLT, Flat Head Machine $\frac{1}{2}$ "x2 $\frac{1}{2}$ "	16
5091-7-17	BOLT, Flat Head Machine, $\frac{5}{16}$ "x2 $\frac{1}{2}$ "	43
5091-7-18	SUPPORT, Cable Deflector	2
5091-8-A	ASSEMBLY, Front Roller	1
5091-8-5	PLATE, U Bolt	8
5091-8-6	U BOLT	8
5091-8-7	CLIP, Spring	2
5091-8-8	SUPPORT, Rear Pan	1
5091-9-4	ROLLER, Load	5
5091-9-7	CHAIN, Tie	4
5091-9-8	CHAIN, Tie	2
5091-9-9	COMPARTMENT, Tool	1
5091-9-10	SUPPORT, Tool Compartment Angle	1
5091-9-11	SUPPORT, Tool Compartment	1
5091-9-12	ANGLE, Floor Support	6
5091-9-13	BRACKET, High Winch Mounting	2
5091-9-14	ANGLE, Floor Support	1
5091-9-15	ANGLE, Floor Support	2
5091-9-16	CABLE, Winch	1
5091-9-20	LOCK, Hasp	1
5091-10-2	A-FRAME	1
5091-10-3	POLE, Gin	1
5091-10-4	POLE, Gin	1
5091-10-6	EXTENSION, Subsill	2
5091-10-7	DEFLECTOR, Cable	1
5091-10-8	HOLDER, Gin Pole	2
5091-11-A	RACK, Pipe	2
5091-11-6	BLOCK, Filler	8
5091-11-7	SUPPORT, Mounting Bracket Angle	2
5091-12-1	HANGER, Rear Truss Left	1
5091-12-2	HANGER, Rear Truss Right	1
5091-12-3	HANGER, Front Truss Left	1
5091-12-4	HANGER, Front Truss Right	1
5091-12-5	BRACKET, Large Truss	4
5091-12-6	BRACKET, Small Truss	4
5091-12-7	ROD, Truss	4
5091-12-8	PIN, Clevis	4
5091-12-9	COUPLING, Truss Rod	2
5091-12-10	PIN, Cotter 1"x $\frac{1}{8}$ "	4
5091-12-11	NUT, Jam 1" (Right Hand)	2
5091-12-13	NUT, Jam 1" (Left Hand)	2
5091-12-14	SCREW, Cap S.A.E. $\frac{1}{2}$ "x1 $\frac{1}{4}$ "	8
5091-12-15	SCREW, Cap S.A.E. $\frac{1}{2}$ "x1 $\frac{1}{2}$ "	66
5091-12-16	SCREW, Cap S.A.E. $\frac{1}{2}$ "x1 $\frac{3}{4}$ "	36
5091-12-17	SCREW, Cap S.A.E. $\frac{5}{8}$ "x2"	8
5091-12-18	SCREW, Cap U.S.S. $\frac{3}{4}$ "x2"	2
5091-12-19	SCREW, Cap S.A.E. $\frac{3}{4}$ "x2"	4
5091-12-20	BOLT, Flat Head Stove $\frac{1}{4}$ "x1"	4

UTILITY BODY—Continued

Part No.	Description.	No. Reqd.
5091-12-21	BOLT, Machine $\frac{1}{2}$ "x $1\frac{1}{4}$ "	6
5091-12-22	BOLT, Carriage $\frac{3}{8}$ "x $2\frac{1}{2}$ "	6
5091-12-23	BOLT, Carriage $\frac{3}{8}$ "x $3\frac{1}{2}$ "	16
5091-12-24	NUT, Hex. S.A.E. $\frac{1}{2}$ "	110
5091-12-25	NUT, Hex. S.A.E. $\frac{5}{8}$ "	8
5091-12-26	NUT, Hex. U.S.S. $\frac{3}{4}$ "	2
5091-12-27	NUT, Hex. S.A.E. $\frac{3}{4}$ "	4
5091-12-28	NUT, Square U.S.S. $\frac{5}{8}$ "	16
5091-12-29	WASHER, Lock $\frac{1}{2}$ "	110
5091-12-30	WASHER, Lock $\frac{5}{8}$ "	8
5091-12-31	WASHER, Lock $\frac{3}{4}$ "	4
5091-12-32	SCREW, Flat Head PK No. 14x $2\frac{1}{2}$ "	135
5091-12-33	BOLT, Carriage $\frac{5}{16}$ "x1"	3
5091-12-34	WASHER, Lock $\frac{5}{16}$ "	3
5091-12-35	SCREW, Cap S.A.E. $\frac{3}{8}$ "x $2\frac{1}{2}$ "	8
5091-12-36	NUT, Hex. S.A.E. $\frac{3}{8}$ "	8
5091-12-37	WASHER, Lock $\frac{3}{8}$ "	8
5091-12-39	WASHER, Lock $\frac{3}{16}$ "	4
5091-12-40	SCREW, Cap S.A.E. $\frac{3}{8}$ "x $\frac{3}{4}$ "	2
5091-12-41	BOLT, Carriage $\frac{1}{4}$ "x $3\frac{1}{2}$ "	4

FIRST ECHELON PARTS, TOOLS AND ACCESSORIES

5091-9-3	BAR, Pipe	2
5091-9-6	JACK, Ratchet Type	2
16108	HAMMER	1
5091-10-5	BLOCK, Snatch	2
5091-9-5	BINDER, Load	4
20X225	LINKS, Half	6
20X2	LINKS, Full	6
2408 $\frac{1}{2}$ E	HOOK, Grab	2
16442	SHUTS, Cold	6

SECTION II

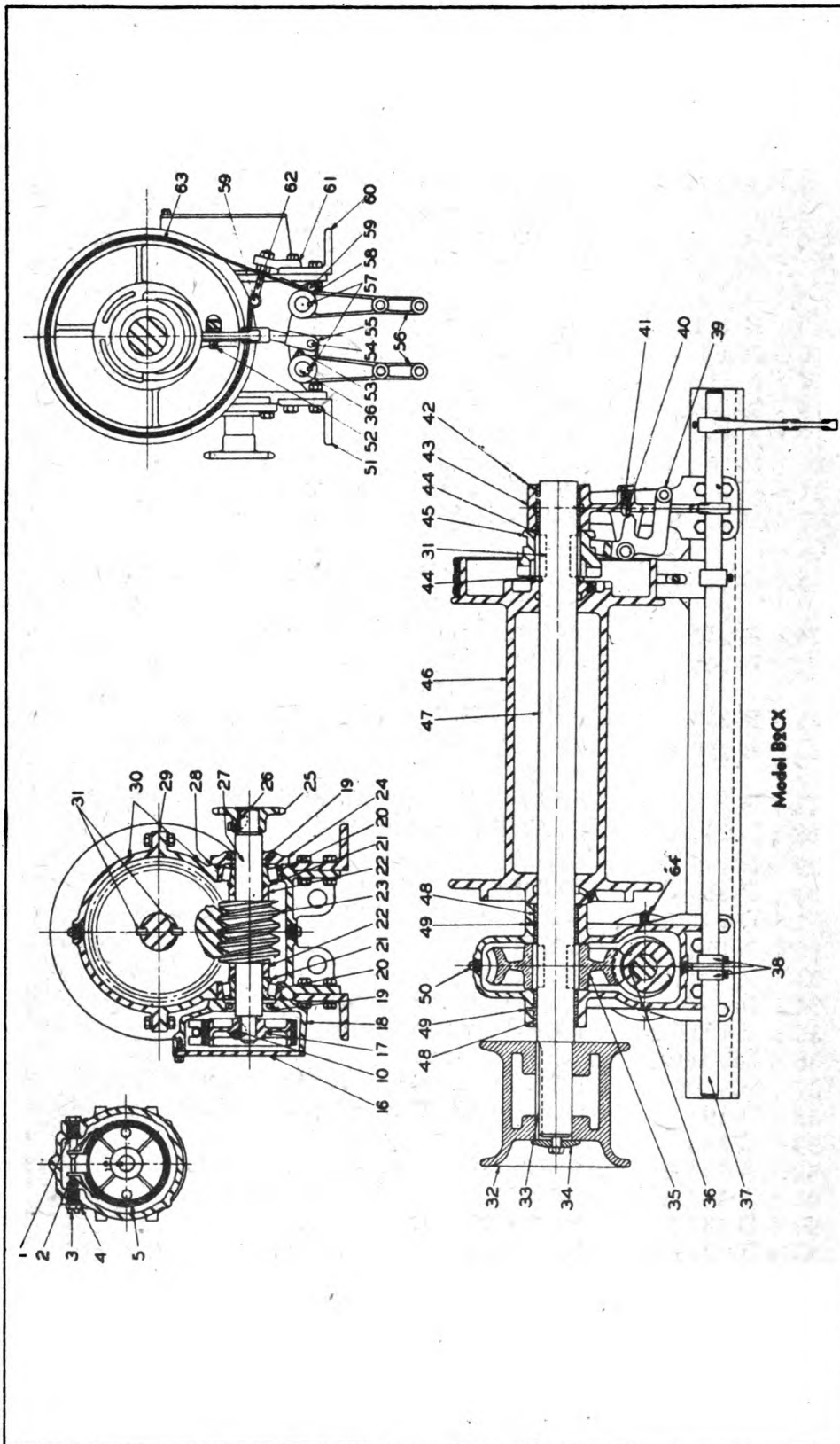


Figure 5 — Winch Assembly

WINCH GROUP

(See Figure 5)

Item No.	Part No.	Description	No. Reqd.
1	20-555	ANCHOR, Adjustable worm brake	1
2	20-556	SPRING, Adjustable worm brake	1
3	20-557	SCREW, Adjustable worm brake adjg.	1
4	20-558	NUT, Adjustable worm brake lock	1
5	20-652-O	BAND ASSEMBLY, Adj. worm brake.	1
	20-553	LINING, with 6-20-553R Rivets	1
10	B-118A	KEY, Worm brake drum	1
16	20-650	COVER, Adjustable worm brake	1
17	A-551	DRUM, Adjustable worm brake	1
18	SA-648	HOUSING, Adjustable worm brake	1
19	A-249	SEAL, Worm grease	2
20	B-103-B	CUP, Worm thrust bearing	2
21	A-103-A	CONE, Worm thrust bearing	2
22	B-102-S	SPACER, Worm bearing	2
23	BO-102 L	WORM AND SHAFT ASSEMBLY (Adjustable brake)	1
24	B-249	RETAINER, Worm bearing	1
	B-1038	SHIMS, Adjusting (Worm bearing) — Use as necessary	
25	B-218	SPROCKET, Worm (1¼" bore)	1
26	B-218-A	KEY, Worm sprocket (1¼" bore sproc- ket)	1
27	B-102	SHAFT, Worm (Adjustable worm brake)	1
28	B-149-G	GASKET, Retainer	2
29	B-144-G	GASKET, Worm housing cover	2
30	B-534-O	HOUSING AND COVER, Worm	1
31	B-241-A	GEAR AND CLUTCH KEYS; Worm	4
32	B-160	CAPSTAN	1
33	30-160-A	KEY, Capstan	2
34	20-245	WASHER, Retaining (Capstan)	2
35	B-101RorL	GEAR, Worm (right or left)	1
36	LA-100A	KEY, Worm	1
37	B3-190	CONTROL SHAFT, Brake and clutch.	2
38	B-194	COLLARS, Thrust (control shaft)	4
39	C-143	YOKE, Clutch shifter	1
40	A-143-A	PLUNGER, Lock (Shifter yoke)	1
41	A-143-S	SPRING, Lock (Shifter yoke)	1
42	B-133-B	BUSHING, Bearing leg	1
43	B3-333-O	LEG, Bearing — with bushing	1
	B-233-O	LEG, Bearing — with bushing	1
44	B3-139	RING, Retainer (Cable drum)	2
45	B-241	CLUTCH, Sliding	1
46	B4-235	CABLE DRUM	1
47	B2XE-336	SHAFT, Cable drum	1
48	B-134-B	BUSHING, Worm housing	2

WINCH GROUP—Continued

(See Figure 5)

Item No.	Part No.	Description	No. Reqd.
49	20-134-D	DOWELL, Worm housing bushing	2
50	20-E116-H	PLUG, Worm housing cover venter	1
51	B2-146-F	ANGLE, Winch base	1
52	B3-143-B	PIN, Pivot, Shifter yoke	1
53	20-274	LEVER, Control shaft (short)	1
54	81-176	PIN, Double clevis	2
55	B-177	CLEVIS, Double	1
56	81-292-L	LEVER, Control shaft (long)	2
57	20-192A	KEY, Lever (Control shaft)	4
58	C-196	LEVER, Brake band	1
59	B4-130	PIN, Brake band	2
60	B2-146-R	ANGLE, Winch base (Rear)	1
61	C-231-B	BRACKET, Link (Brake band)	1
62	B-231-L	LINK, Brake band	1
63	C-131-O	BRAKE BAND ASSEMBLY	1
	C-131	BRAKE BAND ONLY	1
	C-129	LINING, Brake band (ONLY)	1
	20-129-A	RIVET, Brake band lining	18
64		PLUG, Level	1

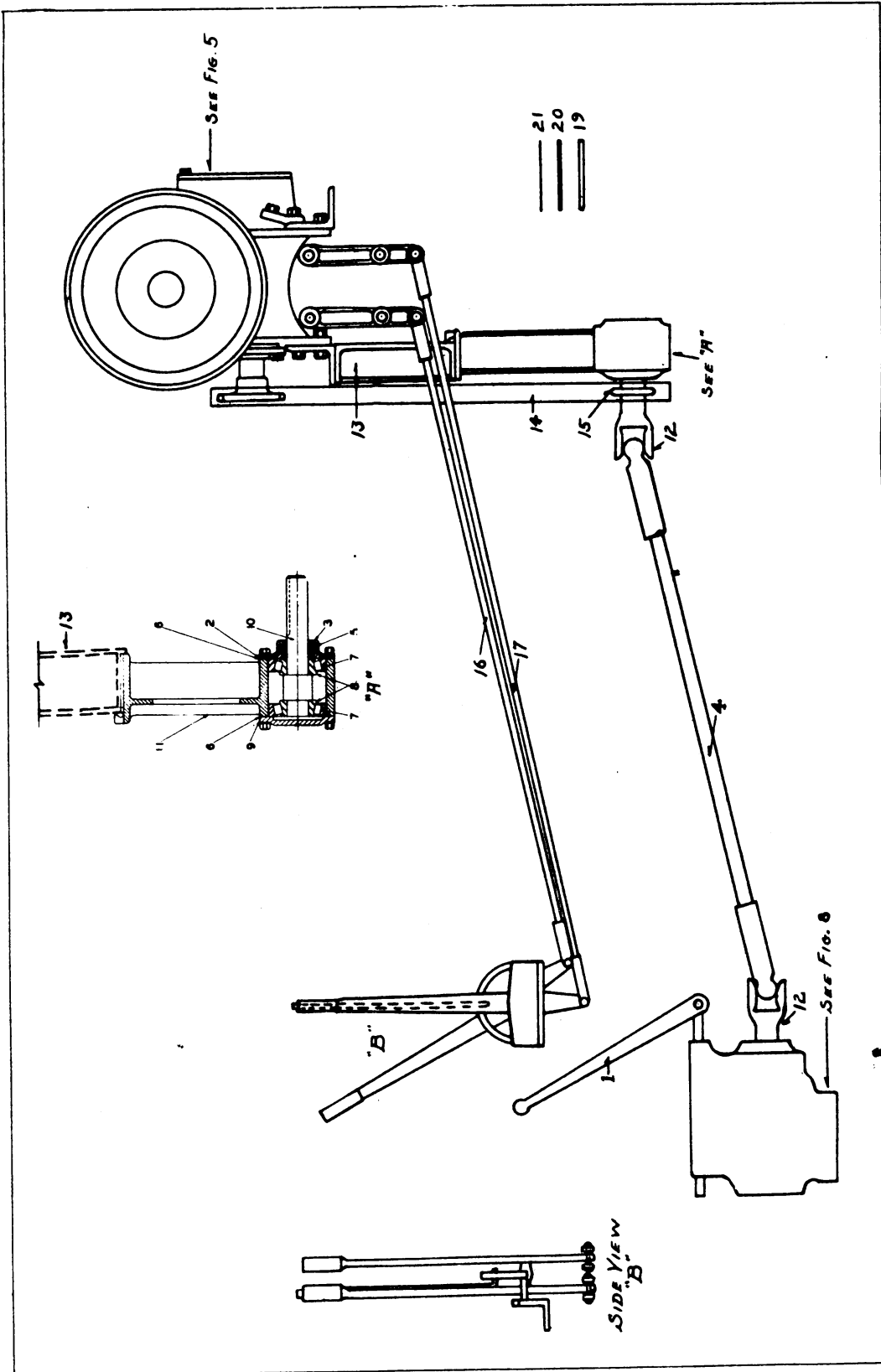


Figure 6 — Drive Parts

DRIVE PARTS

(See Figure 6)

Item No.	Part No.	Description	No. Reqd.
1	A-400	LEVER ASSEMBLY, Control	1
2	A-L117-A	RETAINER PLATE, Hanger Bearing . .	1
3	A-L117-B	RETAINER FELT, Hanger bearing . . .	1
4	B-L-402-O	DRIVE, Shaft	1
5	A-L117-F	FELT, Hanger bearing	1
6	B-L315-G	GASKET, Hanger bearing	2
7	B-L305-B	CUP, Hanger bearing	2
8	A-L105-A	CONES, Hanger bearing	2
9	B-L418	COVER, Hanger bearing	1
10	A-L103	SHAFT, Hanger bearing (Single end) . .	1
11	CA-L115	LONG CAGE, Hanger bearing	1
12	6857-85-F	JOINT, Universal (ASA)	2
13	A-500	ADAPTER, Hanger bearing	1
14	A-600	CHAIN 57" Long, w/offset link	1
15	A-700	SPROCKET, 2/set screw	1
16	A-750	ROD 54", Control	1
17	A-750	ROD 54", Control	1
19	A-760	SHIMS, Bearing — Use as necessary	
20	A-761	SHIMS, Bearing — Use as necessary	
21	A-762	SHIMS, Bearing — Use as necessary	
Fig. B		CAB CONTROL ASSEMBLY	1

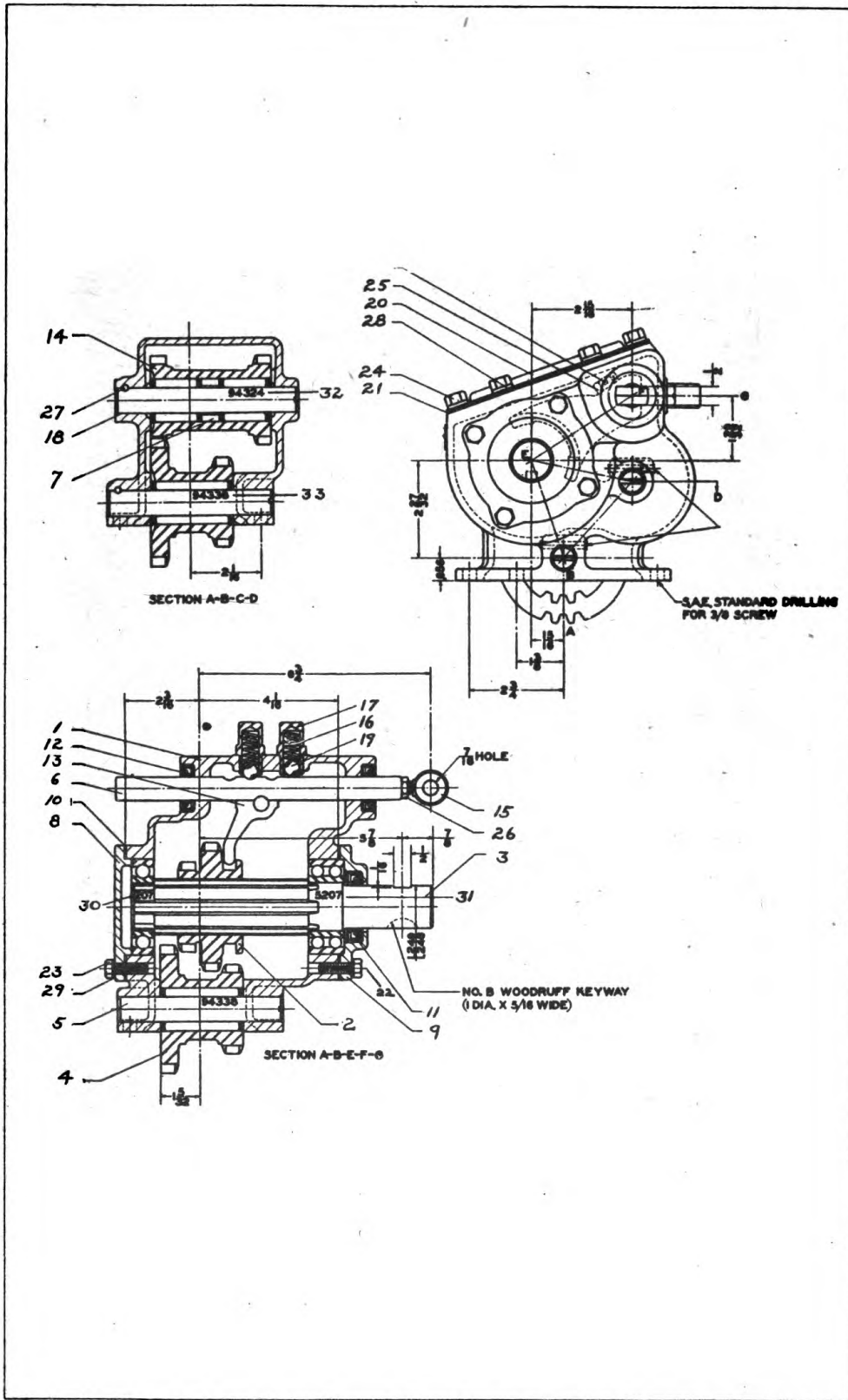


Figure 8 — Power Take Off

POWER TAKEOFF

(See Figure 8)

Item No.	Part No.	Description	No. Reqd.
1	1-P-35	CASE	1
2	2-P-71	GEAR "X", Sliding drive (15-21 tooth)	1
3	3-P-53	DRIVE SHAFT, 1 $\frac{1}{4}$ " Round	1
4	5-P-76	GEAR "Y", Intermediate (15-21 tooth)	1
5	9-P-13	GEAR SHAFT, Intermediate	1
6	11-P-16	ROD, Shift Fork	1
7	14-P-7	SPACER, Bearing, Reverse Gear	1
8	21-P-16	CAP, Shaft Bearing (Closed End)	1
9	21-P-17	CAP, Shaft Bearing (Open End)	1
10	22-P-11	GASKET, Shaft Bearing Cap	2
11	28-P-3	SEAL, Oil (Shaft Bearing Cap)	1
12	28-P-4	SEAL, Oil (Shift Fork Rod)	2
13	32-P-8	FORK, Shift	1
14	33-P-22	GEAR "Z", Reverse Gear (15-15 Tooth)	1
15	36-P-1	EYE, Shift Rod	1
16	37-P-1	SPRING, Shift Rod Poppet	2
17	38-P-1	RETAINER, Shift Rod Poppet Spring	2
18	39-P-3	GEAR SHAFT, Reverse	1
19	50-80-4	POPPET, Shift Rod	2
20	50-267-2	COVER, Case	1
21	50-324-1	GASKET, Case Cover	1
22	7-D	CAP SCREW, Shaft Bearing (Front)	4
23	8-D	CAP SCREW, Shaft Bearing (Rear)	4
24	502-D	SCREW, Case Cover	6
25	699-D	SCREW, Shift Fork	1
26	134-J	NUT, Shift Rod Eye	1
27	78-SP	PIN, Reverse and Intermediate Gear Shaft	2
28	1-W	LOCK WASHER, Case Cover Screw	6
29	3-W	LOCK WASHER, Shaft Bearing Cap Screw (Rear)	4
30	207	BEARING, Shaft (Front)	1
31	5207	BEARING, Shaft (Rear)	1
32	94324	BEARING, Reverse Gear	2
33	94338	BEARING, Intermediate Gear	1

PART VI

NUMERICAL PARTS & PRICE LIST

UTILITY BODY

Part No.	Description.	No. Req.	Page	Weight Lbs.	List Price
5091-2-2	COVER, Chassis frame	1	11	60	18.00
5091-2-3	PLATE, Reinforcing	1	11	2.5	2.00
5091-3-A	RACK, Accessory	1	11	235	130.00
5091-3-17	BRACKET, Spotlight	2	11	1	2.80
5091-3-18	SLEEVE, Spotlight shaft	2	11	1	.75
5091-3-19	SHAFT, Spotlight	2	11	4	12.10
5091-3-20	SPOTLIGHT	2	11	4	6.40
5091-4-1	CHANNEL, Floor support	1	11	15	1.90
5091-4-2	ANGLE, Swivel box (rear)	1	11	1	.70
5091-4-3	PLATE, Cover	1	11	2	.90
5091-4-4	ANGLE, Swivel box	1	11	1	.75
5091-4-5	ANGLE, Swivel box	1	11	1	.75
5091-4-6	BOLT, Eye	1	11	2.5	.90
5091-4-7	BRACE, Bracket	1	11	8	3.80
5091-4-8	PLATE, Floor (rear)	2	11	12	6.30
5091-4-9	POCKET, Stake	8	11	2	.40
5091-4-10	PLATE, Floor (front)	1	11	15	10.60
5091-4-11	RING, Swivel	1	11	1.5	2.30
5091-4-12	BRACKET, Gas tank	2	11	2	3.60
5091-4-13	NUT, $\frac{1}{8}$ " High hex.	1	11	.2	.20
5091-5-1	SANDBOARD, Upper	1	11	48	9.80
5091-5-2	SANDBOARD, Lower	1	11	31	5.50
5091-5-3	BEARING, King pin	1	11	6	3.20
5091-5-4	BRACKET, Outer roller	2	11	11	8.40
5091-5-5	BRACKET, Inner roller	2	11	8	7.80
5091-5-6	HOOK, Grab	2	11	5	2.40
5091-5-7	SHAFT, Roller	4	11	2	2.70
5091-5-8	ROLLER	4	11	2	4.00
5091-5-9	SHAFT, Tailboard roller	2	11	7	5.40
5091-5-11	REFLECTOR, Red	2	11	.2	.45
5091-6-1	BRACKET, Tailboard roller	1	11	37	21.80
5091-6-2	BRACKET, Tailboard roller	1	11	37	21.80
5091-6-3	BEARING, Tailboard roller	2	11	26	10.70
5091-6-4	ROLLER, Tailboard	1	11	205	48.00
5091-6-5	SPACER	2	11	.2	.45
5091-6-6	WASHER, Shaft	2	11	.1	.50
5091-6-7	PLATE, Filler	2	11	4	2.40
5091-6-8	FITTING, Zerk Grease	4	11	.1	.20
5091-7-1	CHANNEL, Tailboard	1	11	108	18.80
5091-7-2	SILL, Front cross	1	11	154	18.00
5091-7-3	CLIP, Ring	2	11	1	1.20
5091-7-4	RING	2	11	2.5	2.30
5091-7-A	PLATE, Cover (front sill)	2	11	2	14.00
5091-7-11	CHANNEL, Side rail	2	11	79	12.30
5091-7-12	CROSS MEMBER	5	11	40	12.10
5091-7-13	CAP, Subsill	2	11	46	11.90
5091-7-14	SUBSILL	2	11	140	10.20
5091-7-15	SUPPORT, Lower sandboard	2	11	7	1.60
5091-7-16	BOLT, Flat head machine $\frac{1}{2}$ x $2\frac{1}{2}$ "	16	11	13 C.*	5.40 C.*
5091-7-17	BOLT, Flat head machine $\frac{5}{8}$ x $2\frac{1}{2}$ "	43	11	7 C.	2.10 C.
5091-7-18	SUPPORT, Cable deflector	2	11	10	1.10
5091-8-A	ASSEMBLY, Front roller	1	11	44	28.20
5091-8-5	PLATE, U Bolt	8	11	1	1.00
5091-8-6	U BOLT	8	11	5	3.00

*Note:—C = per hundred

UTILITY BODY—Continued

Part No.	Description.	No. Req.	Page	Weight Lbs.	List Price
5091-8-7	CLIP, Spring	2	11	.2	7.50
5091-8-8	SUPPORT, Rear pan	1	11	2	.90
5091-9-4	ROLLER, Load	5	11	11	1.10
5091-9-7	CHAIN, Tie	4	11	44	11.40
5091-9-8	CHAIN, Tie	2	11	55	13.40
5091-9-9	COMPARTMENT, Tool	1	11	65	50.00
5091-9-10	SUPPORT, Tool compartment angle	1	11	6	1.10
5091-9-11	SUPPORT, Tool compartment	1	11	11	1.20
5091-9-12	ANGLE, Floor support	6	11	.5	.30
5091-9-13	BRACKET, High winch mounting	2	11	30	20.00
5091-9-14	ANGLE, Floor support	1	11	18	2.40
5091-9-15	ANGLE, Floor support	2	11	8	1.60
5091-9-16	CABLE, Winch	1	11	209	62.00
5091-9-20	LOCK, Hasp	1	11	.5	.60
5091-10-2	A-FRAME	1	11	50	23.80
5091-10-3	POLE, Gin	1	11	81	22.00
5091-10-4	POLE, Gin	1	11	81	22.00
5091-10-6	EXTENSION, Subeill	2	11	2	1.40
5091-10-7	DEFLECTOR, Cable	1	11	2	.70
5091-10-8	HOLDER, Gin pole	2	11	1	.95
5091-11-A	RACK, Pipe	2	11	14	12.00
5091-11-6	BLOCK, Filler	8	11	.5	1.20
5091-11-7	SUPPORT, Mounting bracket angle	2	11	2.5	.40
5091-12-1	HANGER, Rear truss left	1	11	9	9.00
5091-12-2	HANGER, Rear truss right	1	11	9	9.00
5091-12-3	HANGER, Front truss left	1	11	6	8.00
5091-12-4	HANGER, Front truss right	1	11	6	8.00
5091-12-5	BRACKET, Large truss	4	11	8	2.90
5091-12-6	BRACKET, Small truss	4	11	6	2.30
5091-12-7	ROD, truss	4	11	13	2.50
5091-12-8	PIN, Clevis	4	11	.2	.40
5091-12-9	COUPLING, Truss rod	2	11	3	2.50
5091-12-10	PIN, Cotter 1x1/8"	4	11	7 M.*	1.30 M.*
5091-12-11	NUT, Jam 1" (right hand)	2	11	44 C.	15.00 C.
5091-12-13	NUT, Jam 1" (left hand)	2	11	44 C.	15.00 C.
5091-12-14	SCREW, Cap S.A.E. 1/2"x1 1/4"	8	11	10 C.	5.50 C.
5091-12-15	SCREW, Cap S.A.E. 1/2"x1 1/2"	66	11	13 C.	5.90 C.
5091-12-16	SCREW, Cap S.A.E. 1/2"x1 3/4"	36	11	14 C.	6.30 C.
5091-12-17	SCREW, Cap S.A.E. 5/8"x2"	8	11	25 C.	11.00 C.
5091-12-18	SCREW, Cap U.S.S. 3/4"x2"	2	11	35 C.	15.70 C.
5091-12-19	SCREW, Cap S.A.E. 3/4"x2"	4	11	35 C.	15.70 C.
5091-12-20	BOLT, Flat head stove 1/4"x1"	4	11	3 C.	1.40 C.
5091-12-21	BOLT, Machine 1/2"x1 1/4"	6	11	16 C.	5.00 C.
5091-12-22	BOLT, Carriage 3/8"x2 1/2"	6	11	13 C.	2.90 C.
5091-12-23	BOLT, Carriage 3/8"x3 1/2"	16	11	16 C.	3.50 C.
5091-12-24	NUT, Hex S.A.E. 1/2"	110	11	3 C.	1.65 C.
5091-12-25	NUT, Hex S.A.E. 5/8"	8	11	9 C.	3.70 C.
5091-12-26	NUT, Hex U.S.S. 3/4"	2	11	19 C.	5.00 C.
5091-12-27	NUT, Hex S.A.E. 3/4"	4	11	19 C.	5.00 C.
5091-12-28	NUT, Square U.S.S. 5/8"	16	11	9 C.	3.60 C.
5091-12-29	WASHER, Lock 1/2"	110	11	13 M.	5.30 M.
5091-12-30	WASHER, Lock 5/8"	8	11	31 M.	10.40 M.
5091-12-31	WASHER, Lock 3/4"	4	11	39 M.	20.70 M.
5091-12-32	SCREW, Flat head PK No. 14x2 1/2"	135	11	41 Gr.	1.60 Gr.
5091-12-33	BOLT, Carriage 3/8"x1"	3	11	47 C.	1.70 C.
5091-12-34	WASHER, Lock 5/8"	3	11	16 M.	1.90 M.
5091-12-35	SCREW, Cap S.A.E. 3/8"x2 1/2"	8	11	9 C.	3.90 C.
5091-12-36	NUT, Hex S.A.E. 3/8"	8	11	16 C.	.95 C.

*Note:—C = per hundred M = per thousand Gr = per gross

UTILITY BODY—Continued

Part No.	Description.	No. Req.	Page	Weight Lbs.	List Price
5091-12-37	WASHER, Lock $\frac{3}{8}$ "	8	11	16 M.*	3.75 M.*
5091-12-39	WASHER, Lock $\frac{3}{8}$ "	4	11	10 M.	1.70 M.
5091-12-40	SCREW, Cap S.A.E. $\frac{3}{8}$ "x $\frac{3}{4}$ "	2	11	3 C.	2.10 C.
5091-12-41	BOLT, Carriage $\frac{1}{4}$ "x $3\frac{1}{2}$ "	4	11	6 C.	1.85 C.

*Note:— M = Per thousand C = per hundred

FIRST ECHELON PARTS, TOOLS AND ACCESSORIES

5091-9-3	BAR, Pipe	2	11	20	6.00
5091-9-6	JACK, Ratchet type	2	11	75	32.00
16108	HAMMER	1	11	2.5	2.00
5091-10-5	BLOCK, Snatch	2	11	50	30.00
5091-9-5	BINDER, Load	4	11	10	3.00
20X225	LINKS, Half	6	11	.1	.75
20X2	LINKS, Full	6	11	.2	.50
2408 $\frac{1}{2}$ E	HOOK, Grab	2	11	5	.35
16442	SHUTS, Cold	6	11	.2	.10

WINCH, CONTROLS, DRIVE, POWER TAKE-OFF

Item No.	Part No.	Description	No. Req.	Page	Weight Lbs.	List Price
31	5207	BEARING, shaft (rear)	1	21	1.	8.10
12	6857-85-F	JOINT, universal (ASA)	2	19	3.	7.50
32	94324	BEARING, reverse gear	2	21	.5	.85
33	94338	BEARING, intermediate gear	1	21	.5	.95
21	A-103A	CONE, worm thrust bearing	2	16	.4	6.10
40	A-143A	PLUNGER, lock (shifter yoke)	1	17	.1	.25
41	A-143S	SPRING, lock (shifter yoke)	1	17	.1	.15
19	A-249A	SEAL, worm grease	2	16	.5	1.50
1	A-400	LEVER ASSEMBLY, control	1	19	4.	1.50
13	A-500	ADAPTER, hanger bearing	1	19	7.	5.25
17	A-551	DRUM, adjustable worm brake	1	16	7.	7.50
14	A-600	CHAIN 5'6" long, w/offset link	1	19	8.	13.75
15	A-700	SPROCKET, 2/set screw	1	19	1.5	4.00
16	A-750	ROD 54", control	1	19	4.	1.00
17	A-750	ROD 54", control	1	19	4.	1.00
19	A-760	SHIMS, bearing — use as necessary		19	.1	.35
20	A-761	SHIMS, bearing — use as necessary		19	.1	.45
21	A-762	SHIMS, bearing — use as necessary		19	.1	.55
10	A-L103	SHAFT, hanger bearing (single end)	1	19	2.	4.50
3	A-L105-A	CONES, hanger bearing	2	19	.2	3.22
	A-L117-A	RETAINER PLATE, hanger bearing	1	19	.5	.75
3	A-L117-B	RETAINER FELT, hanger bearing	1	19	.1	.75
5	A-L117-F	FELT, hanger bearing	1	19	.1	.10

WINCH, CONTROLS, DRIVE, POWER TAKE-OFF—Continued

Item No.	Part No.	Description	No. Req.	Page	Weight Lbs.	List Price
35	B-101RorL	GEAR, worm (right or left).....	1	17	20.	25.00
27	B-102	SHAFT, worm (adjustable worm brake).....	1	16	12.	10.50
23	B102L	WORM AND SHAFT ASSEM-BLY (adjustable brake).....	1	16	22.	30.00
22	B-102-S	SPACER, worm bearing.....	2	16	1.	1.50
20	B-103-B	CUP, worm thrust bearing.....	2	16	.2	3.90
10	B-118-A	KEY, worm brake drum.....	1	16	.1	.10
42	B-133-B	BUSHING, bearing leg.....	1	17	.5	3.00
48	B-134-B	BUSHING, worm housing.....	2	17	.5	3.50
29	B-144-G	GASKET, worm housing cover..	2	16	.5	.35
28	B-149-G	GASKET, retainer.....	2	16	.1	.15
32	B-160	CAPSTAN.....	1	16	30.	10.00
55	B-177	CLEVIS, double.....	1	17	.5	1.00
38	B-194	COLLARS, thrust (control shaft)	4	17	.5	.40
25	B-218	SPROCKET, worm (1¼" bore)	1	16	5.	6.50
26	B-218-A	KEY, worm sprocket (1¼" bore sprocket).....	1	16	.1	.10
62	B-231-L	LINK, brake band.....	1	17	.5	1.00
43	B-2330	LEG, bearing — with bushing..	1	17	25.	21.50
45	B-241	CLUTCH, sliding.....	1	17	10.	10.50
31	B-241-A	GEAR AND CLUTCH KEYS, worm.....	4	16	.1	.75
24	B-249	RETAINER, worm bearing.....	1	16	3.	3.75
30	B-5340	HOUSING AND COVER, worm	1	16	120.	70.00
1	1-P-35	CASE.....	1	21	16.	19.80
28	1-W	LOCK WASHER, case cover screw.....	6	21	.1	.02
2	2-P-71	GEAR "X", sliding drive (15-21 tooth).....	1	21	3.	12.80
4	B-L-402-O	DRIVE, shaft.....	1	19	12.	3.00
3	3-P-53	DRIVE, shaft (1¼" round).....	1	21	12.	17.50
29	3-W	LOCK WASHER, shaft bearing cap screw (rear).....	4	21	.1	.02
4	5-P-76	GEAR "Y", intermediate (15-21 tooth).....	1	21	3.	14.10
22	7-D	CAP SCREW, shaft bearing (front).....	4	21	.1	.10
23	8-D	CAP SCREW, shaft bearing (rear).....	4	21	.1	.10
5	9-P-13	GEAR SHAFT, intermediate...	1	21	.5	1.30
6	11-P-16	ROD, shift fork.....	1	21	2.	3.80
7	14-P-7	SPACER, bearing (reverse gear)	1	21	.8	.35
50	20-E116H	PLUG, worm housing cover vented.....	1	17	.2	.15
63	20-129A	RIVET, brake band lining.....	18	17	4.	.05
49	20-134D	DOWELL, worm housing bushing.....	2	17	.1	.04
57	20-192A	KEY, lever (control shaft).....	4	17	.1	.10
34	20-245	WASHER, retaining (capstan)..	2	17	.1	.40

WINCH, CONTROLS, DRIVE, POWER TAKE-OFF—Continued

Item No.	Part No.	Description	No. Req.	Page	Weight Lbs.	List Price
53	20-274	LEVER, control shaft (short) . . .	1	17	.5	1.50
5	20-553	LINING, with 6 — 20-553R rivets	1	16	1.	.75
1	20-555	ANCHOR, adjustable worm brake	1	16	.5	2.25
2	20-556	SPRING, adjustable worm brake	1	16	.1	.20
3	20-557	SCREW, adjustable worm brake adjusting	1	16	.3	.90
4	20-558	NUT, lock — adjustable worm brake	1	16	.1	.10
16	20-650	COVER, adjustable worm brake	1	16	3.	2.00
5	20-652-0	BAND ASSEMBLY, adjustable worm brake	1	16	5.	2.50
8	21-P-16	CAP, shaft bearing (closed end) . .	1	21	1.	1.80
9	21-P-17	CAP, shaft bearing (open end) . . .	1	21	1.	1.50
10	22-P-11	GASKET, shaft bearing cap	2	21	.1	.03
11	28-P-3	SEAL, oil (shaft bearing cap)	1	21	.5	.90
12	28-P-4	SEAL, oil (shift rod)	2	21	.5	.50
33	30-160-A	KEY, capstan	2	16	.1	.15
13	32-P-8	FORK, shift	1	21	1.	7.80
14	33-P-22	GEAR "Z", reverse gear (15-15 tooth)	1	21	3.	12.80
15	36-P-1	EYE, shift rod	1	21	.2	.45
16	37-P-1	SPRING, shift rod poppet	2	21	.1	.10
17	38-P-1	RETAINER, shift rod poppet spring	2	21	.1	.20
18	39-P-3	GEAR SHAFT, reverse	1	21	1.	1.40
19	50-80-4	POPPET, shift rod	2	21	.1	.10
20	50-267-2	COVER, case	1	21	.5	.25
21	50-324-1	GASKET, case cover	1	21	.2	.08
27	78-SP	PIN, reverse and intermediate gear shaft	2	21	.1	.03
56	81-292L	LEVER, control shaft (long)	2	17	2.	2.25
54	81-176	PIN, double clevis	2	17	.3	.15
26	134-J	NUT, shift rod eye	1	21	.1	.05
30	207	BEARING, shaft (front)	1	21	.7	3.50
24	502-D	SCREW, case cover	6	21	.1	.05
25	699-D	SCREW, shift fork	1	21	.1	.20
24	B-1038	SHIMS, adjusting (worm bearing) use as necessary		16	.1	.05
51	B2-146-F	ANGLE, winch base	1	17	55.	5.50
60	B2-146-R	ANGLE, winch base (rear)	1	17	55.	5.50
47	B2XE-336	SHAFT, cable drum	1	17	85.	25.00
44	B3-139	RING, retaining (cable drum)	2	17	1.	1.25
52	B3-143-B	PIN, pivot (shifter yoke)	1	17	.2	.15
37	B3-190	CONTROL SHAFT, brake and clutch	2	17	12.	3.95
43	B3-333-0	Leg, bearing — with bushing	1	17	25.	21.50
59	B4-130	PIN, brake band	2	17	.2	.25

WINCH, CONTROLS, DRIVE, POWER TAKE-OFF—Continued

Item No.	Part No.	Description	No. Req.	Page	Weight - Lbs.	List Price
46	B4-235	CABLE DRUM	1	17	125.	52.50
7	B-L305-B	CUP, hanger bearing	2	19	.3	1.76
6	B-L315-G	GASKET, hanger bearing	2	19	.1	.10
9	B-L418	COVER, hanger bearing	1	19	.5	2.00
23	BO-102 R or L-0	WORM AND SHAFT ASSEM- BLY (oil type brake)	1	16		30.00
63	C-129	LINING, brake band (only)	1	17		1.75
63	C-131	BRAKE BAND ONLY	1	17		4.00
63	C-131-0	BRAKE BAND ASSEMBLY	1	17	4.	5.50
39	C-143	YOKE, clutch shifter	1	17	.1	3.50
58	C-196	LEVER, brake band	1	17	.5	1.50
61	C-231-B	BRACKET, link (brake band)	1	17	.5	1.00
11	CA-L115	LONG CAGE, hanger bearing	1	19	6.	10.00
36	LA-100-A	KEY, worm	1	17	.1	.20
18	SA-648	HOUSING, adjustable worm brake	1	16	10.	10.50
Fig.B		CAB CONTROL ASSEMBLY	1	19	14.	12.54