

SERVICE AND MAINTENANCE INSTRUCTIONS

Details of parts and construction for your BARKO HYDRAULIC LOADER are shown on the individual parts list. The exploded views are arranged in proper order for assembly and dis-assembly so that, in general, parts may be removed in the order shown.

Two lifting lugs are provided on the boom, one closest to boom pivot for raising entire loader assembly and one farthest out for boom and job assembly.

Instruction for servicing pump, motor, valves and filter are covered on separate pages.

It is of utmost importance that the entire hydraulic system be kept clean and free from dirt, grit, water, air or acids at all times. Periodic draining, cleaning and refilling with new oil is recommended to insure proper performance and service. All openings in the hydraulic circuit must be properly capped, if component units are removed. These units should also be capped or plugged to protect them from entry of foreign matter.

Service and clean the hydraulic system oil filters at each oil change. Quite often a new oil will have a lint like material, which when present in the oil will plug oil filters. For this reason, the filters should be checked during the first 25 hours of operation after any considerable amount of oil has been added to the hydraulic system.

Always drain hydraulic fluid system after working machine because the oil will be warm and will flow freely, which is needed to carry all the dirt and sludge with it.

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A - OPTIONS (IF APPLICABLE)

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LUBRICATION

CLUTCH - Apply small amount of lubricant to clutch throwout collar once a day.

POWER TAKE-OFFs - Apply small amount of lubricant to shaft bearings every 50 hours. Gun fittings below.

REDUCTIONS - Use universal gear lubricant, SAE 90 EP. Remove breather cap and fill to check plug on side. Change oil after first 5 hours and after each 6 months of operation.

CLUTCH ADJUSTMENT (OVERCENTER TYPE ONLY)

IMPORTANT- If clutch does not pull, heats, or operating lever jumps out, adjustment is required. To adjust clutch, remove hand hole plate, turn clutch until adjusting lock pin can be reached. Pull adjusting pin out and turn adjusting yoke to right or clockwise until operating lever requires a distinct pressure to engage. A new clutch requires several adjustments until friction discs are worn in.

COFFEYVILLE

FUNK MFG. CO.

KANSAS



OIL RECOMMENDATIONS FOR MOBILE HYDRAULIC SYSTEMS

The oil in a hydraulic system serves as the power transmission medium. It is also the system's lubricant and coolant. Selection of the proper oil is a requirement for satisfactory system performance and life.

Recommendations presented in this data sheet will assist in the selection of suitable oils for use with Sperry Vickers' products. Sperry Vickers does not publish a recommended oil list by brand name or supplier due to the extremely wide variety of oil types on the market.

In most cases, use of these recommendations will lead to selection of a suitable oil. However, due to the complex nature of oil formulation, the variety of oils available and peculiarities of individual hydraulic applications, there will be rare instances where an oil selected on the basis of these recommendations will yield unsatisfactory results. Sperry Vickers cannot be responsible for such exceptions. In this respect, the customer is encouraged to consult his Sperry Vickers representative when selecting an oil.

IMPORTANT FACTORS IN SELECTING AN OIL

1. **ADDITIVES** — Research has developed a number of additive agents which materially improve various characteristics of oil for hydraulic systems. These additives are selected to reduce wear, increase chemical stability, inhibit corrosion and depress the pour point.

Pump performance and reliability are directly affected by the anti-wear additive formulation contained in the oil. Oils providing a high level of anti-wear protection are recommended for optimum performance and long life.

2. **VISCOSITY** — Viscosity is the measure of fluidity. The oil selected must have proper viscosity to maintain an adequate lubricating film at system operating temperature.

In addition to dynamic lubricating properties, oil must have sufficient body to provide an adequate sealing effect between working parts of pumps, valves, cylinders and motors, but not enough to cause pump cavitation or sluggish valve action. Optimum operating viscosity of the oil should be between 16 cSt (80 SUS) and 40 cSt (180 SUS).

"Viscosity index" reflects the way viscosity changes with temperature. The smaller the viscosity change, the higher the viscosity index. The viscosity index of hydraulic system oil should not be less than 90. Multiple viscosity oils, such as SAE 10W-30, incorporate additives to improve viscosity index (polymer thickened). Oils of this type generally exhibit both a temporary and permanent decrease in viscosity due to oil shear encountered in the operating hydraulic system. The actual viscosity can, therefore, be far less in the operating hydraulic system than what is shown in normal oil data. Accordingly, when such oils are selected, it is necessary to use those with high shear stability to insure that viscosity remains within recommended limits while in service.

3. **CHEMICAL STABILITY** — Oxidative and thermal stability are essential characteristics of oils for Mobile hydraulic systems. The combination of base stocks and additives should be stable during the expected lifetime of the oil when exposed to the environment of these systems.

SUITABLE TYPES OF OIL

1. **CRANKCASE OIL** having letter designation SC, SD or SE per SAE Technical Report J183a. Note that one oil may meet one or more of these designations.
2. **ANTI-WEAR HYDRAULIC OIL** — There is no common designation for oils of this type. However, they are

produced by all major oil suppliers and provide the anti-wear qualities of the above designated crankcase oils.

3. **CERTAIN OTHER TYPES OF PETROLEUM OIL** are suitable if they meet the following provisions:

- A. Contain the type and content of anti-wear additives found in the above designated crankcase oils, or have passed pump tests similar to those used in developing anti-wear type hydraulic oils.
- B. Meet the viscosity recommendations shown in the following table.
- C. Have sufficient chemical stability for Mobile hydraulic system service.

OIL VISCOSITY RECOMMENDATIONS

HYDRAULIC SYSTEM OPERATING TEMPERATURE RANGE*	SAE VISCOSITY DESIGNATION
-10°F. to 130°F. (-23°C. to 54°C.)	5W 5W-20 5W-30
0°F. to 180°F. (-18°C. to 83°C.)	10W
0°F. to 210°F. (-18°C. to 99°C.)	10W-30
50°F. to 210°F. (10°C. to 99°C.)	20-20W

*Temperatures shown are cold (ambient) start-up to maximum operating. During cold start-up, avoid high-speed operation of hydraulic components until the system is warmed up to provide adequate lubrication.

ARTIC CONDITIONS represent a specialized field where extensive use is made of heating equipment before starting. If necessary, this and judicious use of the following recommendations should be used:

1. SAE 5W or 5W-20 oil.
2. Oils specially developed for use in arctic conditions; such as synthetic hydrocarbons, esters, or mixtures of the two.

Operating temperature should be closely monitored to avoid exceeding a temperature of 130°F. (54°C.) with any lightweight oil.

SPECIAL REQUIREMENTS

When special considerations indicate a need to depart from recommended oils or operating conditions, consult your Sperry Vickers representative.

CLEANLINESS

Thorough precautions should always be observed to insure the hydraulic system is clean:

- A. Clean (flush) entire system to remove paint, metal chips, welding shot, etc.
- B. Filter each change of oil to prevent introduction of contaminant into the system.
- C. Provide continuous oil filtration to remove sludge and products of wear and corrosion generated during the life of the system.
- D. Provide continuous protection of the system from entry of airborne contamination by sealing the system and/or by proper filtration of the air.
- E. During usage, proper oil filling and servicing of filters, breathers, reservoirs, etc., cannot be overemphasized.
- F. Thorough precautions should be taken, by proper system and reservoir design, to insure that aeration of the oil will be kept to a minimum.

SUBJECT: TURNTABLE BEARING SERVICE REQUIREMENTS

As noted in the Bearing Storage, Installation and Lubrication sheet included in each Parts Book, periodic servicing must be done to the turntable bearings to insure long bearing life. The turntable bearings must be greased approximately every 50 to 100 operating hours. It is necessary to distribute the grease around the race by injecting grease through any one fitting as the machine is rotated. Rotate at least two complete revolutions. Models equipped with two rows of fittings must be greased in both the upper and lower rows, following the above procedure.

Under extremely dusty or dirty conditions the bearings should be greased every 20 hours with sufficient grease to flush out all contaminated grease. See the Parts Book for recommended grease.

After the first 50 hours of operation, the bearing bolts must be retorqued and should be checked periodically after that to insure they remain tight.

NOTE: These specifications are applicable only to factory installed grade nine bolts with lubrication.
Effective as of July 1, 1978

<u>MODEL</u>	<u>TURNTABLE BOLT SIZE</u>	<u>TORQUE</u>
130	5/8"	175 FT. LBS.
160	5/8"	175 FT. LBS.
250	3/4"	310 FT. LBS.
350	7/8"	500 FT. LBS.
450	7/8"	500 FT. LBS.
550	1-1/4"	1500 FT. LBS.

IMPORTANT: FAILURE TO KEEP THE BOLTS TIGHT CAN LEAD TO
FATIGUE FAILURE OF BOLTS AND CONSEQUENTLY MACHINE
DAMAGE.

INTRODUCTION

Thank you for your purchase of the Barko Hydraulic loader, the loader that is constructed of the best quality materials and workmanship. Utilizing proper care and maintenance, the Barko Hydraulic loader will give you many years of service.

This new owner's manual contains a complete parts breakdown of the entire machine and is divided into sections for your convenience in locating any specific part you may be looking for.

It has been carefully organized to provide you, our customer or distributor, with a thorough knowledge of those various components of the machine, giving you the first-hand information needed to better know your machine.

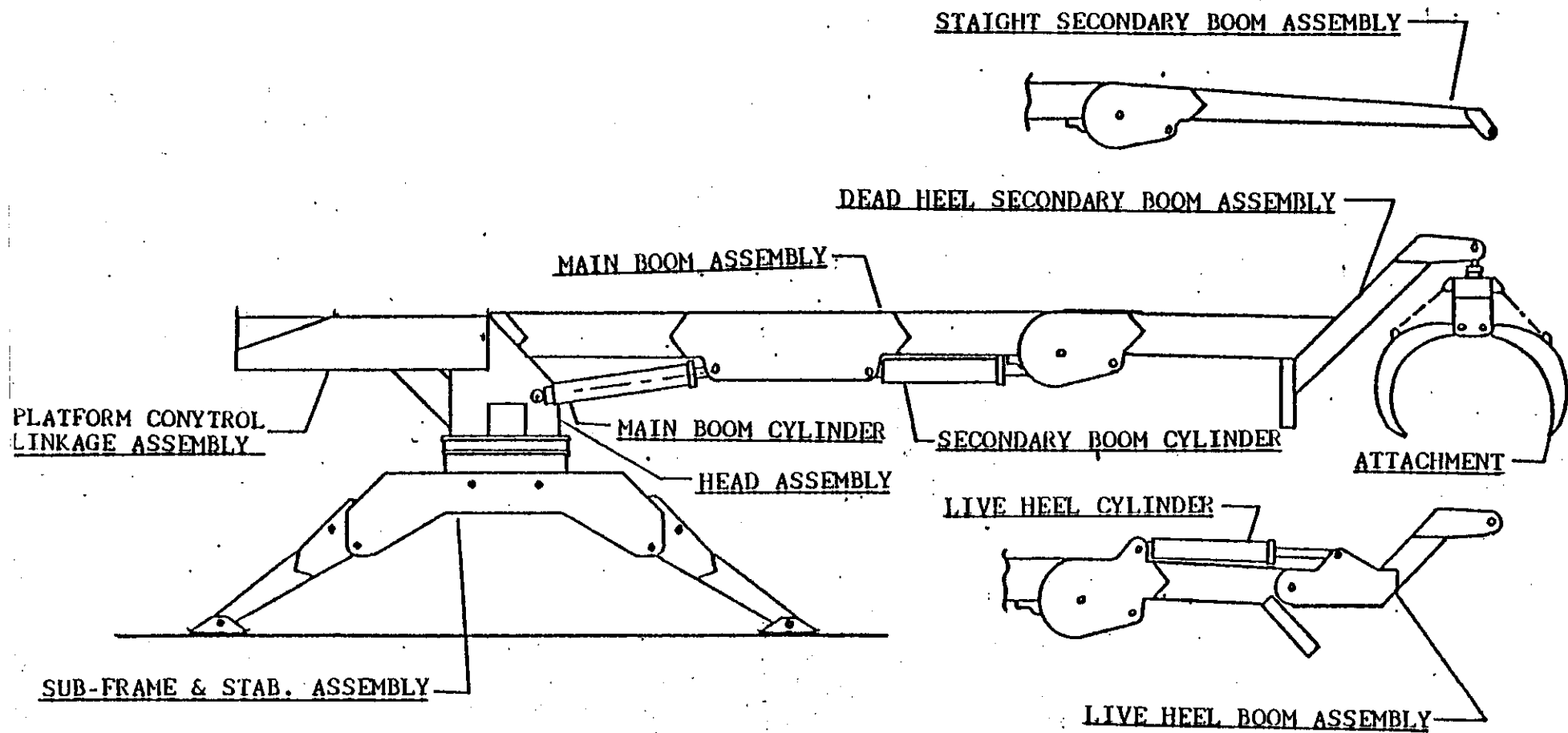
ORDERING INSTRUCTIONS - PARTS

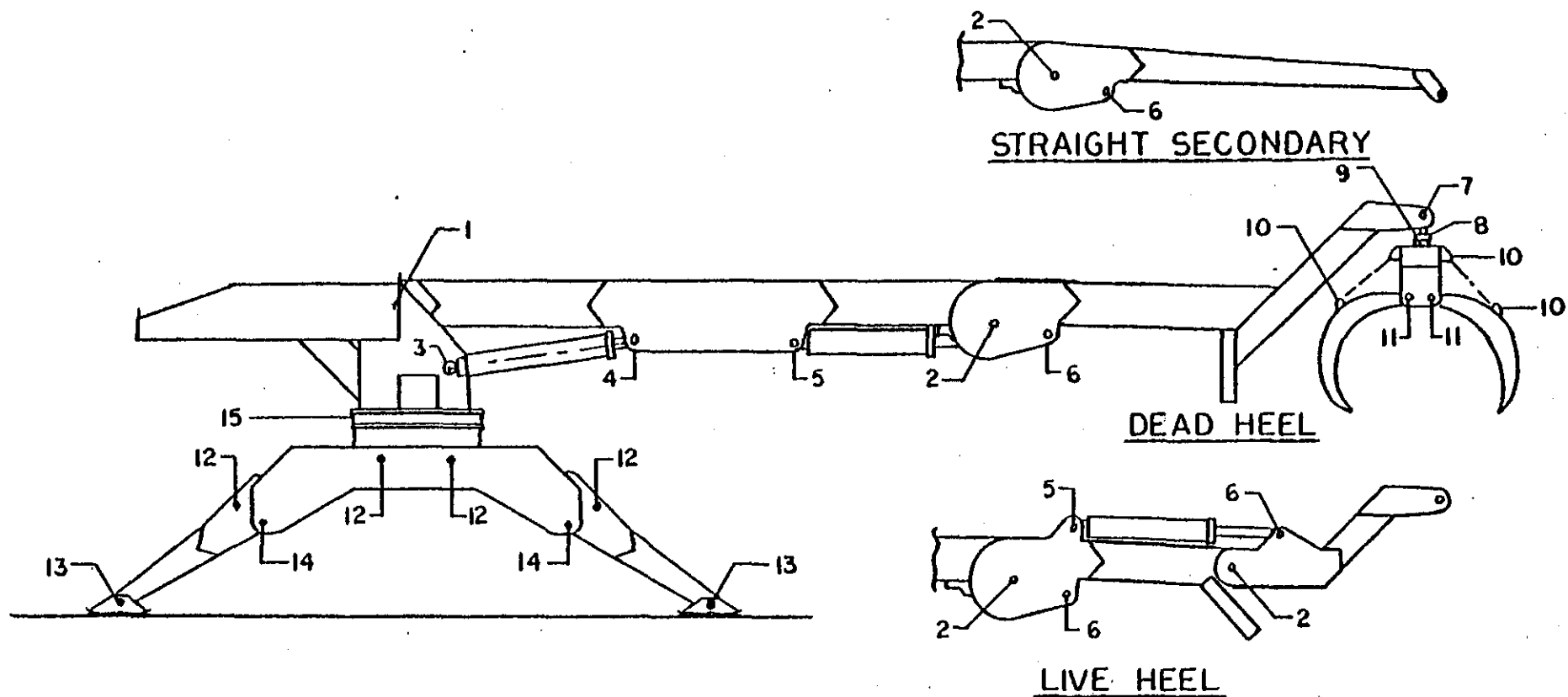
All parts for your BARKO HYDRAULIC LOADER may be ordered from your nearest authorized distributor or from the factory, if your area is served directly by the factory. This includes all hydraulic parts for valves, cylinders, pumps, motors, hose and fittings, in addition to the mechanical and structural parts of the loader.

When ordering parts, please specify the following information:

1. PART NUMBER - Specify Barko part number as given in your Owner's manual., Do not take numbers from castings, etc.
2. QUANTITY - of each part ordered.
3. NAME OF PART - Use proper description or title given in the Owner's Manual.
4. RIGHT OR LEFT HAND - if applicable, right or left hand is your right or left when operating the loader from the normal operators seat position behind the boom.
5. MODEL & SERIAL NUMBERS - IMPORTANT!!! Model & Serial numbers are found on the title page of the Owner's Manual and on the identification plate attached to the loader frame.
6. SHIPPING INSTRUCTIONS - Specify definite shipping instructions such as Bus, Air Frt., Air Express, Parcel Post or Truck. When no instructions are given, parts will be shipped Best Way i. e., shipping method will be determined by shipping cost, nature of the part and urgency of the repair.
7. RETURN ADDRESS - When ordering parts, always include a return address where part should be sent.
8. RETURN PARTS - New parts returned by distributor or customer to the factory will have a 15% handling charge subtracted from the amount of the part unless parts were sent by mistake from the factory.
9. SHORTAGE - On all parts shipments & packing kits, if any parts are missing (other than parts marked Backordered) call the factory immediately.
10. WARRANTY - Warranty parts must be returned by prepaid freight or by Barko truck.

GENERAL ASSEMBLY





LUBRICATION DIAGRAM

LUBRICATION CHART

<u>REFERENCE NO.</u>	<u>LUBRICATION POINT</u>	<u>TYPE OF LUBRICANT</u>	<u>INTERVAL</u>
1	Main Boom Pivot	Item I to I4 use a multi-purpose grease. Apply with pressure gun until grease is visible at ends of bushings.	15 hours or twice weekly - (minimum)
2	Jib Knuckle Pivot	"	"
3	Main Lift Cylinder	"	"
4	Main Lift Cylinder	"	"
5	Secondary Boom Cyl	"	"
6	Secondary Boom Cyl	"	"
7	Grapple Hanger	"	8 hours or each day
8	Grapple Hanger	"	"
9	Grapple Head	"	"
10	Grapple Cylinder	"	"
11	Grapple Arms	"	"
12	Stabilizer Cylinder	"	15 hours or twice weekly - (minimum)
13	Stabilizer Legs	"	"
14	Stabilizer Legs	"	"
15	Bearings	For a general lub- rication use a lith- ium base grease with E.P. additives and rust inhibitors. Above 32°F - #2 grease: below 32°F - #1 grease.	24 hours, or twice weekly
	Hydraulic pump (not shown)	See service manual in parts book	15 hours, or twice weekly - (minimum)
	Control handle pivot pins (not shown) located under floor of cab	Multi-purpose grease	Weekly
	Control handle link- age (not shown) loc- ated under floor of cab	S.A.E. #30 oil	24 hours or twice weekly
	Auxiliary power supply	See service manual in parts book	

FOLLOWING, IS A LIST OF WRENCHES THAT CAN BE PURCHASED
FROM BARKO. FOR USE ON YOUR BARKO LOADER.

PART NUMBER

TOOL

27000

FOR USE WHEN REPLACING SPOOL
SEALS IN 25P VALVES

042200

WRENCH - 1 1/2" BOLT

042201

WRENCH - 2" BOLT

042202

WRENCH - 2 1/2" BOLT

042203

WRENCH - 3 1/2" BOLT

WARRANTY

Barko Hydraulic Loader

Barko Hydraulics Warranty to Dealers and/or original purchasers of hydraulic loaders and parts thereof manufactured by Barko Hydraulics is:

- A. Hydraulic loaders and parts manufactured by Barko Hydraulics will conform to the designation or description under which they are sold.
- B. Hydraulic loaders and parts manufactured by Barko Hydraulics shall be delivered free from all security interests, liens and other encumbrances, good title shall be conveyed, and transfer rightful.
- C. Hydraulic loaders manufactured by Barko Hydraulics will be free from defects in materials and workmanship for a period of three (3) months or five hundred (500) hours of operation from first day in service, whichever occurs first, provided first day of service is not later than sixty (60) days from delivery to dealer and/or original purchaser,
 - a. unless Barko Hydraulics extends the period in which such first day of service is to occur, and Barko Hydraulics or dealer certifies such extended period for warranty to commence.
- D. Replacement parts manufactured by Barko Hydraulics will be free from defects in material and workmanship for a period of three (3) months or five hundred (500) hours of operation from first day in service, whichever occurs first, provided first day of service is not later than one hundred twenty (120) days from delivery to Dealer and/or original purchaser, and installation of repair parts is made by authorized Dealer.
- E. Barko Hydraulics liability under this Warranty or otherwise shall be limited to providing a replacement part for any non-conforming part, not including freight, special charges or cost of installation, or in the alternative, at Barko Hydraulics' sole option, the cost of repairs (excluding travel) during normal working hours to that non-conforming part.

Proof of any defect in any hydraulic loader or replacement part must be submitted to designated Dealer of Barko Hydraulics' factory within ten (10) days from the date on which the defect was originally discovered.

Barko Hydraulics makes no warranty with respect to parts supplied to it by other manufacturers; these components shall be subject to the warranties of their respective manufacturers.

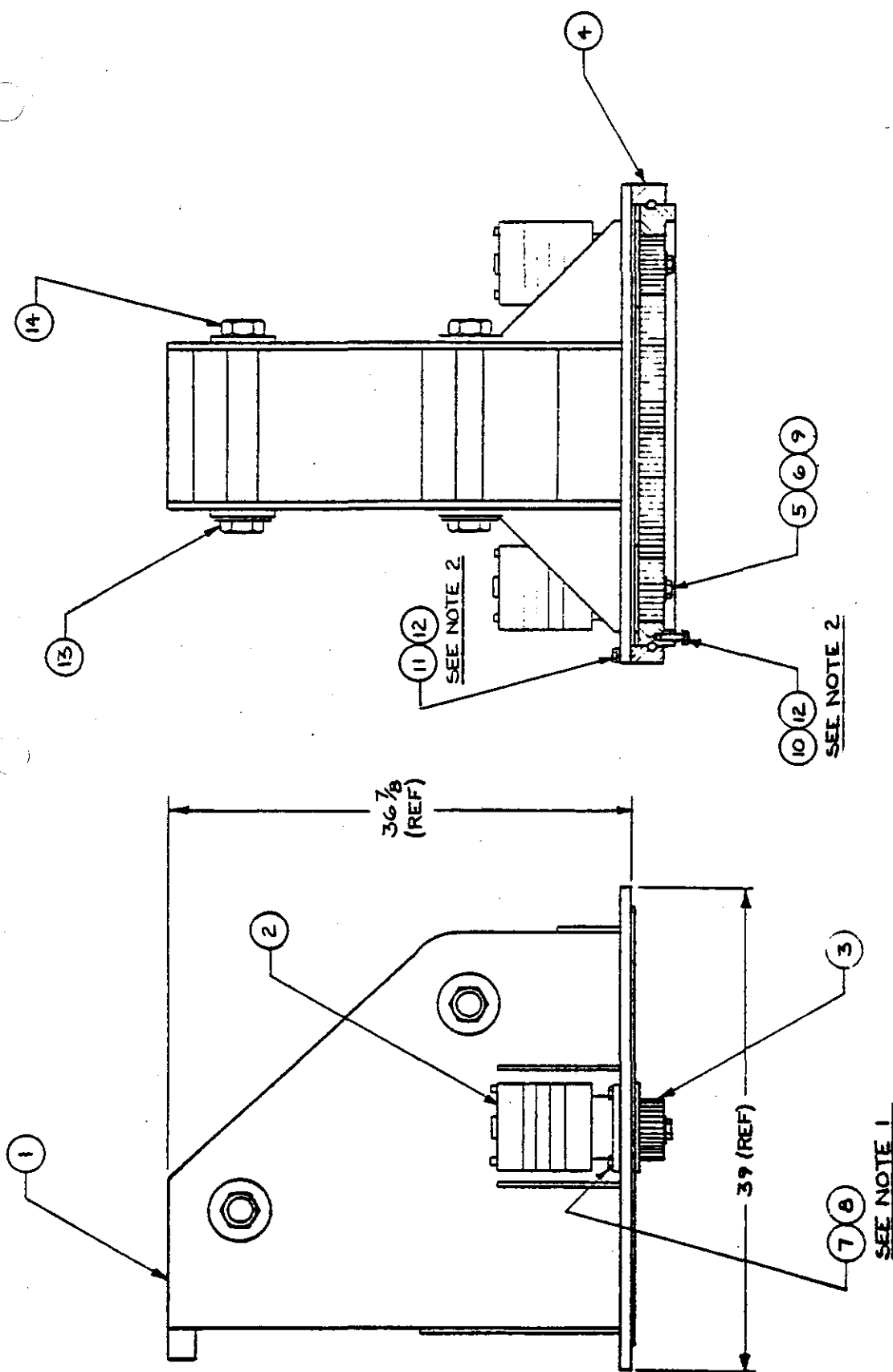
This warranty does not extend to any of the following:

1. Defects, damage or deterioration due to normal use, wear and tear, exposure, storage or corrosion. Normal use ordinarily effects hoses, seals and packings, work surfaces and the like.
2. Normal maintenance service or the replacement or repair of parts required to be replaced or repaired in the course of normal maintenance service. Normal maintenance ordinarily includes replacement of filters, seals and the like.
3. Defects, damage or deterioration due to failure to properly maintain equipment or parts, including but not limited to inspections or maintenance not in accordance with manuals, schedules or good practice.
4. Damage or defects caused by abuse of the equipment or parts by overloading, misapplication, improper operation or use, installation of unapproved accessories or unauthorized alterations.
5. Damage or defects resulting from repairs of equipment or parts in an unauthorized manner or the installation of components other than Barko Hydraulics or authorized parts.

The liability of Barko Hydraulics, except as to Paragraphs A and B above, arising out of supplying hydraulic loaders or replacement parts therefor, or their use, whether premised on warranties, contract, negligence or otherwise, shall not in any case exceed the cost of correcting the defects in the hydraulic loaders or replacement parts therefor as herein provided, and upon expiration of the applicable warranty period herein all such liability shall terminate.

Barko Hydraulics shall in no event be liable for any incidental, consequential, or special damages or for any expenses or delays caused by defective material or workmanship, and no allowance will be made for repairs, replacements or alterations without Barko Hydraulics prior written approval. The foregoing shall constitute the sale and exclusive remedy of Dealer and Buyer on the sale and exclusive liability of Barko Hydraulics.

The warranties stated herein are in lieu of all other warranties whether written or oral, statutory, express or implied, including any warranty of merchantability or fitness for purpose.



NOTES:

1. TORQUE ITEM- 7 TO 160 FT. LBS LUBRICATED WITH ANTI-SEIZE COMPOUND
2. TORQUE ITEM-10,11 TO 310 FT. LBS LUBRICATED WITH ANTI-SEIZE COMPOUND

HEAD ASSEMBLY

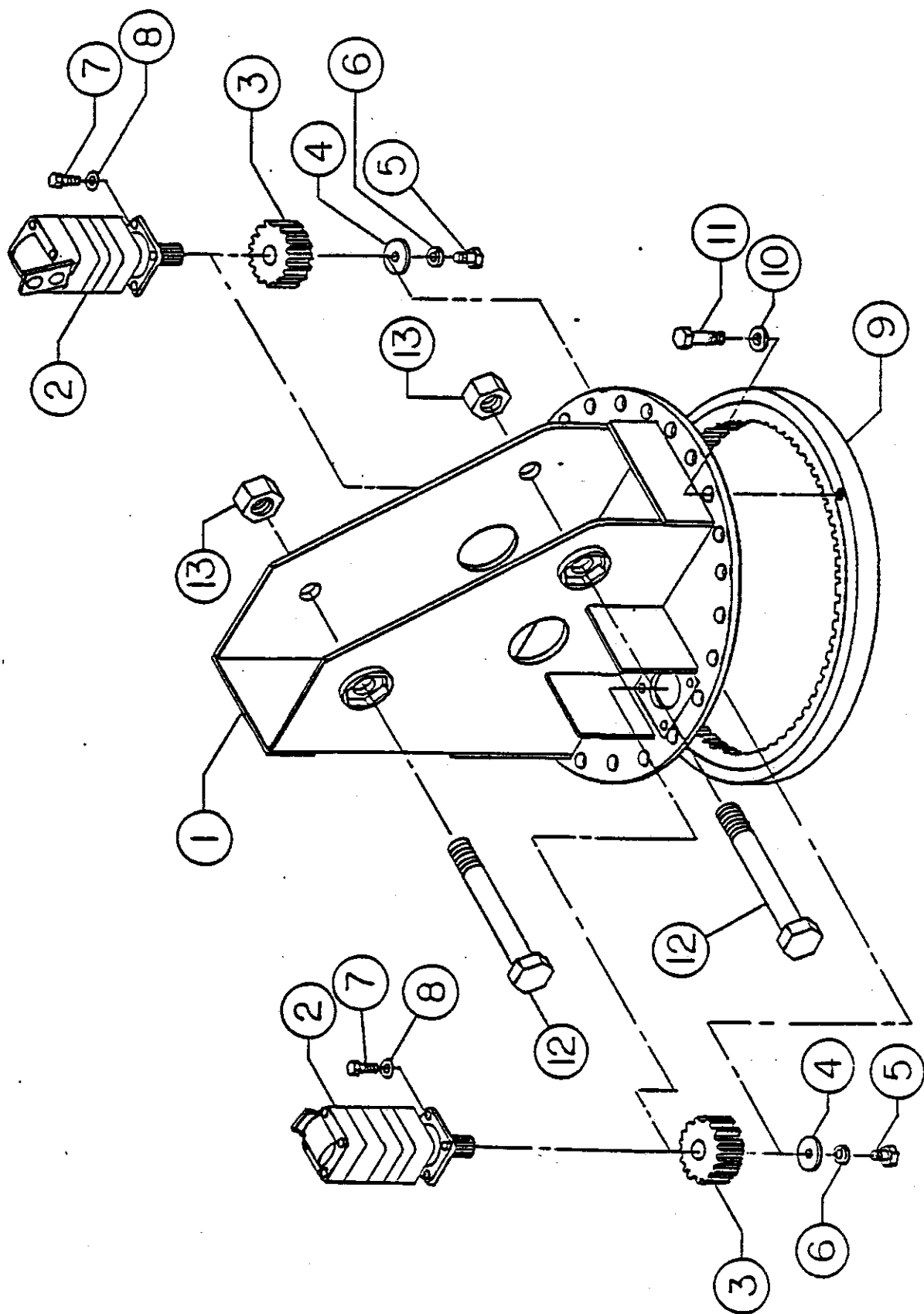
MODEL 130

PARTS LIST

<u>ITEM</u>	<u>QTY.</u>	<u>DESCRIPTION</u>	<u>PART NO.</u>
-	1	ASSEMBLY, complete.....	123-00017
1	1	WELDMENT, head.....	123-00109
2	2	MOTOR, hydraulic.....	560-00016
3	2	PINION.....	401-00808
4	1	BEARING, turntable.....	541-00511
5	2	RETAINER, pinion.....	211-00204
6	2	BOLT, hex head $\frac{1}{2}$ x 1"LG.....	511-00003
7	8	BOLT, hex head $\frac{5}{8}$ x 1- $\frac{3}{4}$ "LG.....	511-00403
8	8	WASHER, flat $\frac{5}{8}$ ".....	514-00150
9	2	WASHER, lock $\frac{1}{2}$ ".....	514-00013
10	30	BOLT, hex head $\frac{3}{4}$ x 2"LG.....	511-00424
11	30	BOLT, hex head $\frac{3}{4}$ x 2 $\frac{1}{4}$ ".....	511-00425
12	60	WASHER, flat $\frac{3}{4}$ ".....	514-00151
13	2	BOLT, hex head 2 x 1 $\frac{1}{2}$ ".....	482-00298
14	2	NUT, nylock 2".....	513-00417

Effective Date 3-27-81

MODEL 130 HEAD ASSEMBLY



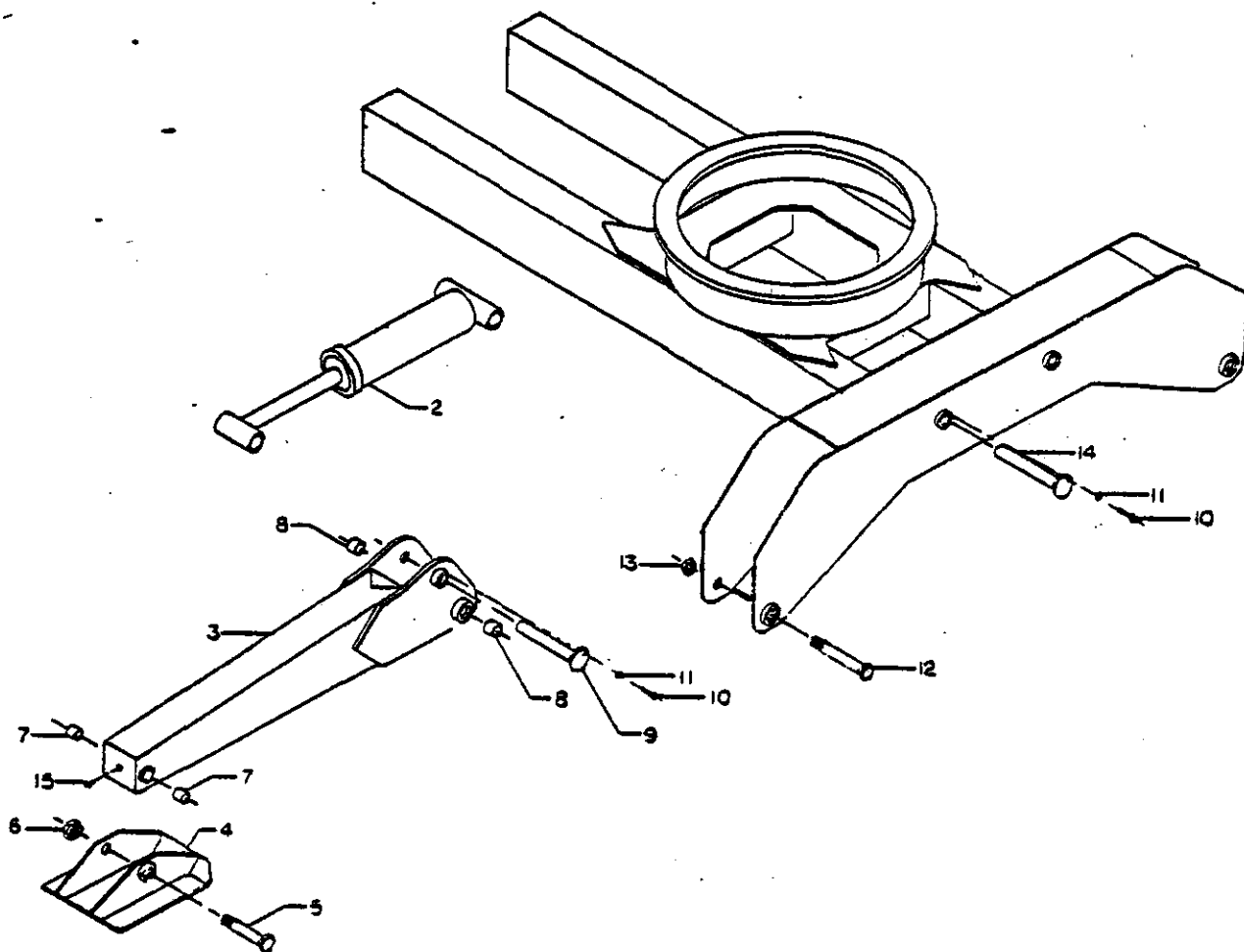
MODEL 130 BOC

HEAD ASSEMBLY

PARTS LIST

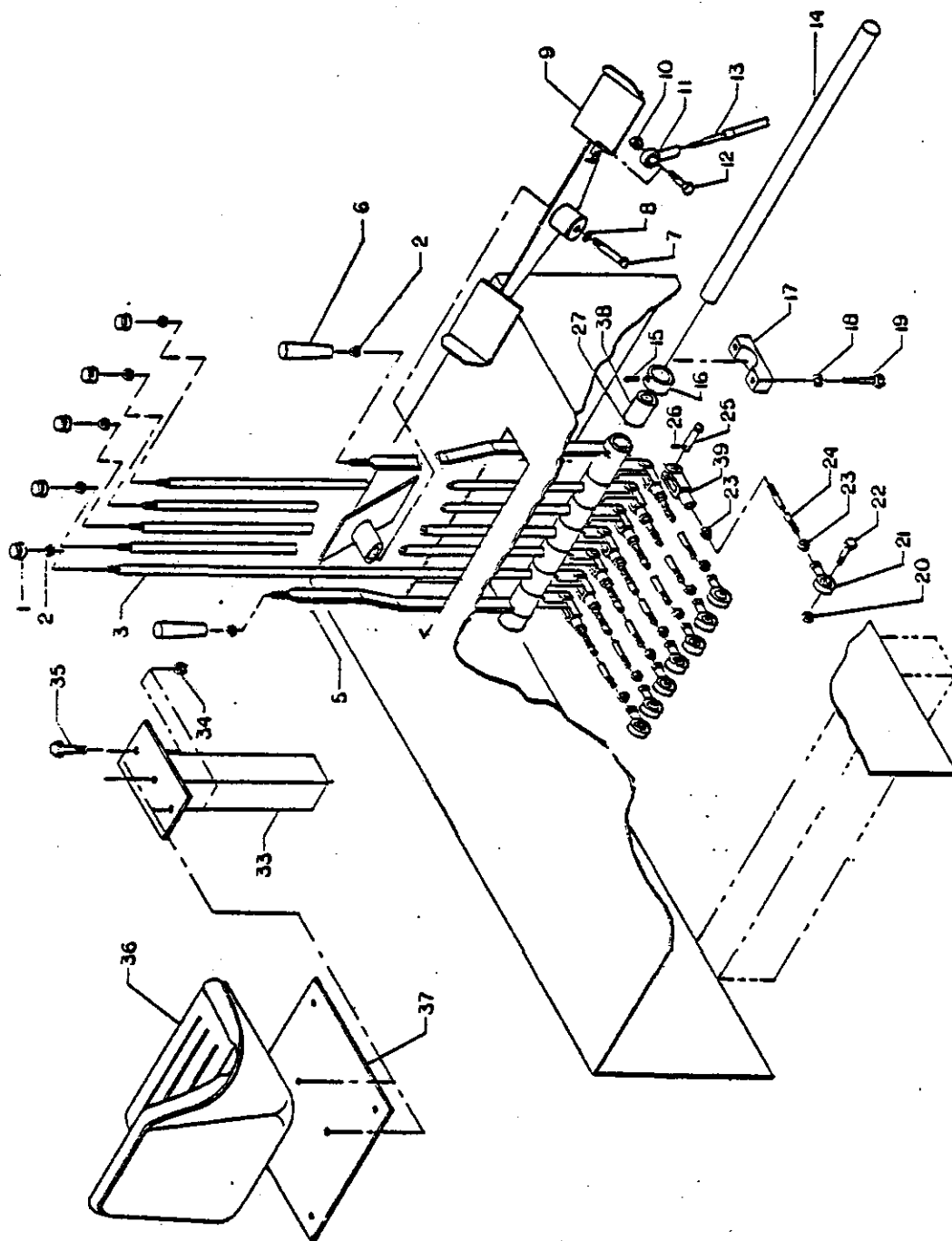
<u>ITEM NO.</u>	<u>QTY.</u>	<u>DESCRIPTION</u>	<u>PART NO.</u>
	1	ASSEMBLY, complete -----	121002
1	1	WELDMENT, head -----	123109
2	2	MOTOR, swing -----	60016
3	2	PINION -----	401808
4	2	RETAINER, pinion -----	121410
5	2	BOLT, hex head 1/2 unc X .1 long -----	10403
6	2	WASHER, lock 1/2 -----	14013
7	8	BOLT, hex head 5/8 unc X 2-1/2 long (gr. 9) -----	11401
8	8	WASHER, flat 5/8 (gr. 9) -----	14150
9	1	BEARING, turntable -----	41511
10	60	WASHER, flat 3/4 (gr. 9) -----	14151
11	60	BOLT, hex head 3/4 unc X 2 long (gr. 9) -----	11424
12	2	BOLT, body fit 2 X 16-1/2 long -----	482298
13	2	NUT, nylock 2" un -----	13417

EFFECTIVE DATE 5/17/78



MODEL 130
SUBFRAME & OUTRIGGER ASSEMBLY
PARTS LIST

<u>ITEM NO</u>	<u>QTY</u>	<u>DESCRIPTION</u>	<u>PART NO</u>
1	1	SUBFRAME & OUTRIGGER, weldment.....	133267
2	4	CYLINDER, stabilizer (6 x 17).....	812405
		For breakdown on cylinders see page 33.	
3	4	STABILIZER LEG, weldment.....	173203
4	4	PAD, weldment.....	172300
5	4	BOLT, body fit, 1½" x 8½" lg.....	482202
6	4	NUT, nylock, 1½".....	13413
7	8	BUSHINGS.....	42020
8	8	BUSHINGS.....	42032
9	4	CYLINDER, pin 2 x 8½ lg (rod end).....	482008
10	8	BOLT, hex head ½ - UNC, ¾ long, grade 5.....	10701
11	8	WASHER, lock spring.....	14013
12	4	BOLT, body fit, 2 x 13 7/8 long.....	482225
13	4	NUT, nylock, 2".....	13417
14	4	CYLINDER, pin 2" x 12½ long (butt end).....	482007
15	16	FITTING, straight grease 1/8.....	17300



MODEL 130

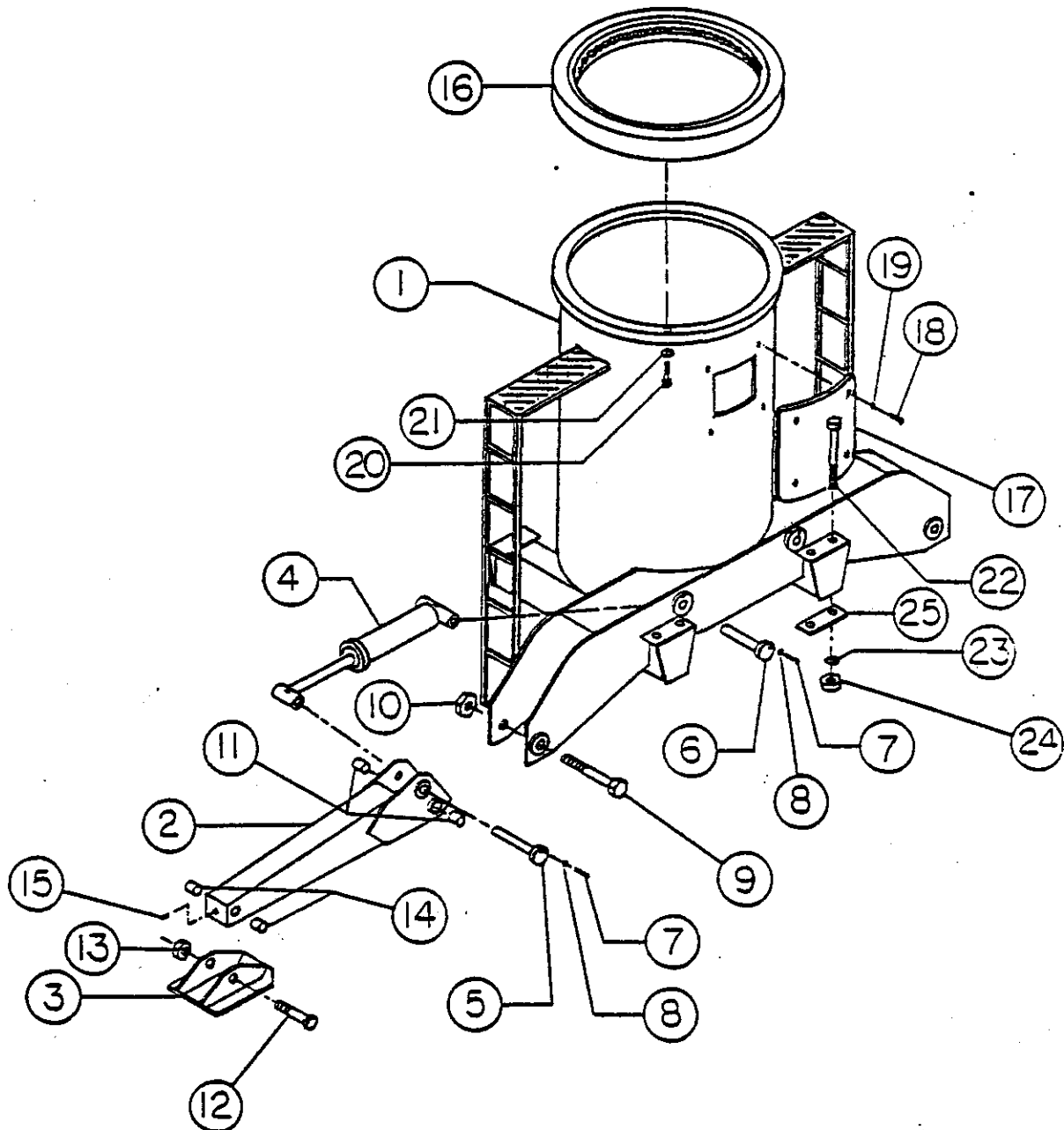
PLATFORM CONTROL LINKAGE ASSEMBLY

PARTS LIST

ITEM NO	QTY	DESCRIPTION	PART NO
1	5	KNOB, control.....	39550
2	9	NUT, hex 3/8".....	13108
3	5	CONTROL LEVER, weldment.....	161122
* 4	1	CONTROL LEVER, rear outrigger weldment.....	161126
* 5	1	CONTROL LEVER, front outrigger weldment.....	161125
* 6	2	KNOB, control - tapered.....	39552
7	1	BOLT, 1/2" x 1" long.....	10403
8	1	WASHER, LOCK 1/2	14013
9	1	PEDAL, foot swing weldment.....	212101
10	1	NUT, nylock 5/16".....	13153
11	1	JOINT, ball 5/16".....	24100
12	1	BOLT, hex head 5/16".....	10932
13	1	ASSEMBLY, swing cable 132" lg.....	35205
14	1	ROD, 1 1/2" dia. x 24 lg.....	161648
15	2	SCREW, set 3/8.....	12616
16	2	COLLAR, stop.....	161516
17	2	BAR, mounting.....	161645
18	4	WASHER, lock 3/8.....	14011
19	6	BOLT, hex head 3/8.....	10660
20	9	NUT, nylock 5/16.....	13153
21	9	JOINT, ball.....	24100
22	9	BOLT, hex head 5/16.....	10332
23	18	NUT, hex 5/16.....	13107
24	9	ROD, threaded 5/16 UNF x 2 1/2 lg.....	12345
25	9	PIN, clevis 5/16.....	15047
26	9	PIN, cotter.....	43712
27	9	FITTING, grease 1/8 NPT.....	17300
33	1	WELDMENT, seat stand.....	162602
34	2	NUT, nylock 1/2.....	13404
35	2	BOLT, hex head 1/2.....	10704
36	1	SEAT.....	36023
37	1	PLATE, bucket seat adapter.....	161452
38	9	BUSHING, bronze.....	42020
39	9	CLEVIS, 5/16.....	24002

*NOTE - THESE AND RELATED PARTS ARE NOT USED ON ELECTRIC MACHINES.

MODEL 130 BOC
FRAME ASSEMBLY



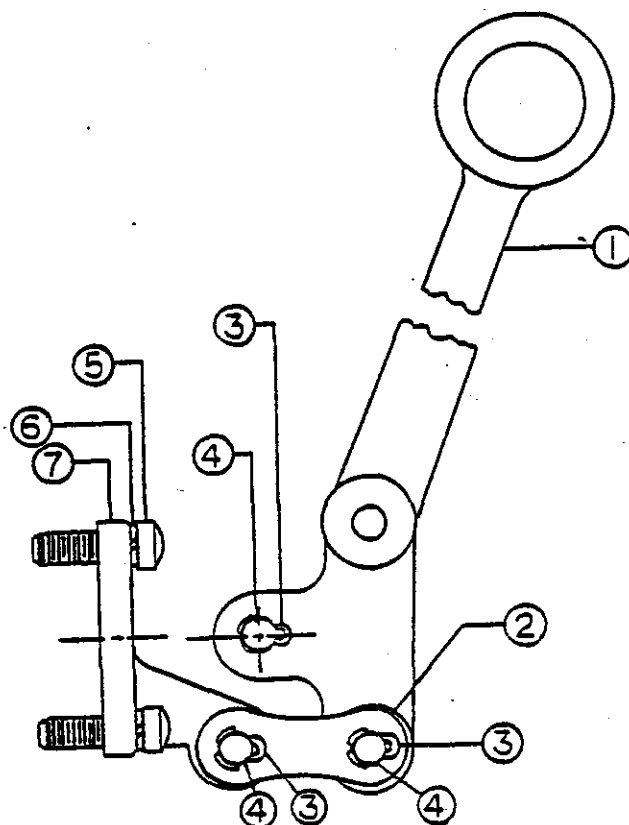
MODEL 130 BACK OF CAB

FRAME ASSEMBLY

<u>ITEM NO.</u>	<u>QTY.</u>	<u>DESCRIPTION</u>	<u>PART NO.</u>
	1	ASSEMBLY, complete -----	134014
1	1	WELDMENT, subframe and stabilizer -----	134138
2	2	WELDMENT, stabilizer leg -----	173203
3	2	WELDMENT, stabilizer pad -----	172300
4	2	ASSEMBLY, cylinder 6 X 17 -----	812506
5	2	WELDMENT, stabilizer cylinder pin -----	482008
6	2	WELDMENT, stabilizer cylinder pin -----	482007
7	4	BOLT, hex head 1/2-13 unc gr. 5 -----	10701
8	4	WASHER, lock 1/2" -----	14013
9	2	BOLT, body fit 2-12 un X 13-7/8 long -----	482225
10	2	NUT, hex nylock 2-12 un -----	13417
11	2	BUSHING, bronze 2-1/4 od X 2 id X 2-1/2 long -----	42032
12	2	BOLT, body fit 1-1/2-12 un X 8-3/4 long -----	482202
13	2	NUT, hex nylock 1-1/2-12 un -----	13413
14	2	BUSHING, bronze 1-3/4 od X 1-1/2 id X 2 long -----	42020
15	2	FITTING, straight grease -----	17300
* 16	1	BEARING, turntable -----	41511
17	1	PLATE, cover -----	131376
18	4	BOLT, hex head 1/2-13 nc X 3/4 long -----	10101
19	4	WASHER, lock 1/2" -----	14013
* 20	30	BOLT, hex head 3/4 unc X 2 long gr. 9 -----	11424
* 21	30	WASHER, lock 3/4" gr. 9 -----	14151
(1)* 22	8	BOLT, hex head 1 X 21 long -----	14440
(1)* 23	8	WASHER, lock 1" -----	14017
(1)* 24	8	NUT, hex 1" -----	13513
(1)* 25	4	PADS, mounting -----	131680

(1) INCLUDED IN MOUNTING KIT #141104
 * NOT INCLUDED IN COMPLETE ASSEMBLY

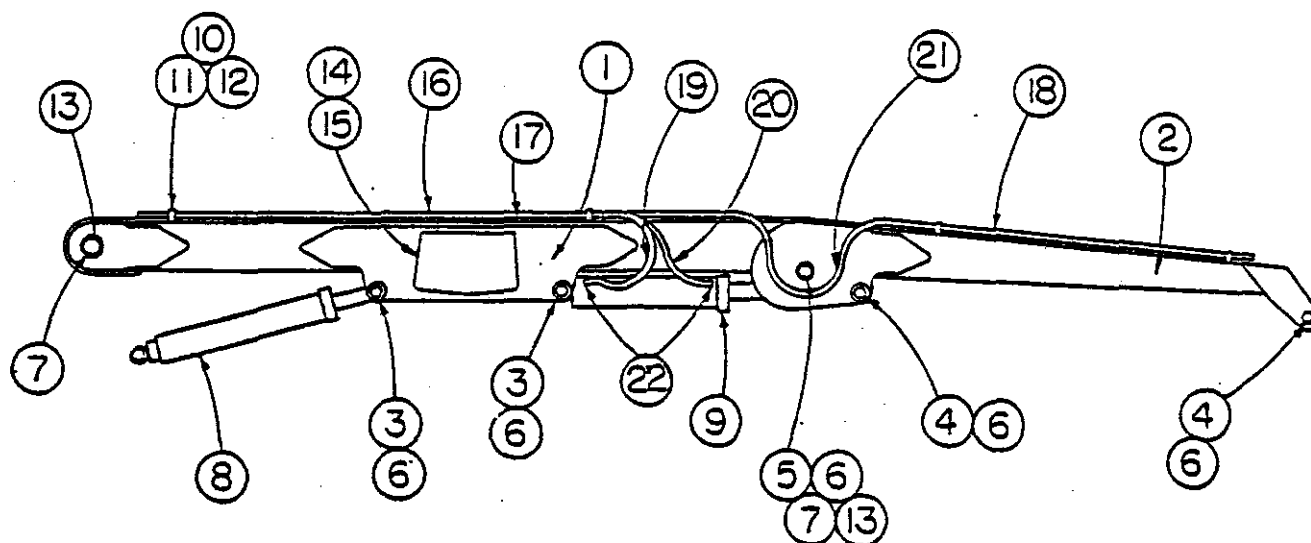
EFFECTIVE DATE 5/11/78



HANDLE BRACKET AND HANDLE
PARTS LIST

<u>ITEM NO.</u>	<u>QTY.</u>	<u>DESCRIPTION</u>	<u>PART NO.</u>
(1) 1	1	HANDLE -----	58009
(3) (1) 2	2	HANDLE, link -----	58003
(3) (1) 3	1	PIN, cotter -----	58004
(3) (1) 4	3	PIN, handle -----	58000
(2) (1) 5	4	SCREW, machine -----	58019
(2) (1) 6	4	WASHER, lock -----	58002
(2) (1) 7	1	BRACKET, handle -----	58008
(1) INCLUDED IN COMPLETE HANDLE ASSEMBLY KIT -----			52006
(2) INCLUDED IN COMPLETE HANDLE BRACKET KIT -----			52007
(3) INCLUDED IN COMPLETE HANDLE LINK KIT -----			52008

EFFECTIVE DATE 6/8/78

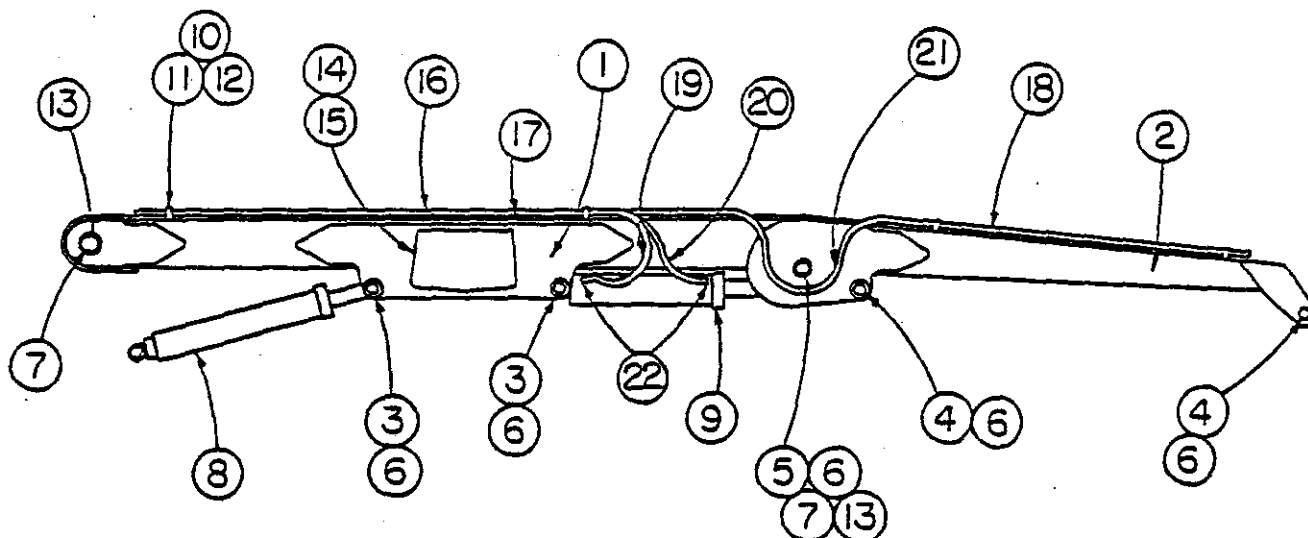


MODEL 130 BOOM ASSEMBLY (STRAIGHT SECONDARY)

STANDARD LENGTH

<u>ITEM NO.</u>	<u>QTY.</u>	<u>DESCRIPTION</u>	<u>PART NO.</u>
	1	ASSEMBLY, boom (complete) -----	103044
1	1	WELDMENT, main boom -----	104229
2	1	WELDMENT, secondary boom -----	113280
3	2	BOLT, body fit 2 X 10-1/2 long -----	482256
4	2	BOLT, body fit 2 X 9-1/2 long -----	482321
5	1	BOLT, body fit 2 X 12-1/2 long -----	482350
6	5	NUT, nylock 2" -----	13417
7	4	BEARING, tapered roller -----	41034
8	1	ASSEMBLY, cylinder 7 X 36 -----	812430
9	1	ASSEMBLY, cylinder 7 X 30 -----	812426
10	17	CLAMP, pipe -----	491000
11	17	WASHER, lock 3/8 -----	14011
12	17	NUT, hex 3/8 -----	13008
13	2	FITTING, grease -----	17300
14	2	DECAL, blank background -----	39566
15	2	DECAL, 130 insert -----	39617
16	4	ASSEMBLY, hydraulic tubing 5/8 X 129 long -----	93486
17	2	ASSEMBLY, hydraulic tubing 3/4 X 92 long -----	93577
18	4	ASSEMBLY, hydraulic tubing 5/8 X 82 long -----	93488
19	1	ASSEMBLY, hose -----	71702
20	1	ASSEMBLY, hose -----	71703
21	4	ASSEMBLY, hose -----	71836
22	2	ADAPTOR, straight swivel -----	66011

EFFECTIVE DATE 3/8/78

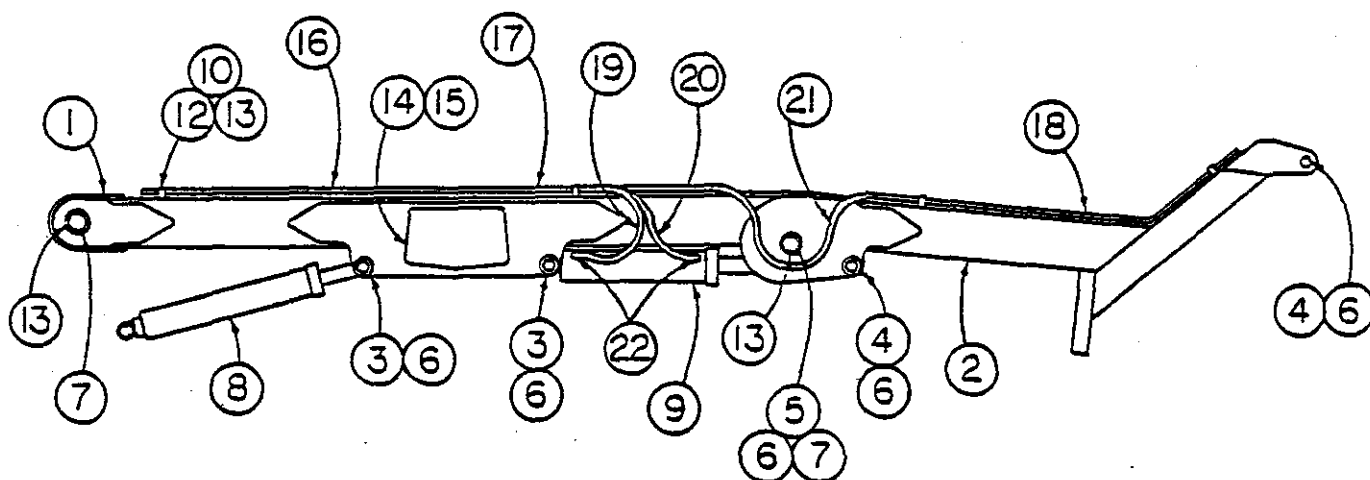


MODEL 130 BOOM ASSEMBLY (STRAIGHT SECONDARY)

24'-4" - 2' EXTENSION

<u>ITEM NO.</u>	<u>QTY.</u>	<u>DESCRIPTION</u>	<u>PART NO.</u>
	1	ASSEMBLY, boom (complete) -----	103047
1	1	WELDMENT, main boom -----	104234
2	1	WELDMENT, secondary boom -----	113286
3	2	BOLT, body fit 2 X 10-1/2 long -----	482256
4	2	BOLT, body fit 2 X 9-1/2 long -----	482321
5	1	BOLT, body fit 2 X 12-1/2 long -----	482350
6	5	NUT, nylock 2" -----	13417
7	4	BEARING, tapered roller -----	41034
8	1	ASSEMBLY, cylinder 7 X 36 -----	812430
9	1	ASSEMBLY, cylinder 7 X 30 -----	812426
10	17	CLAMP, pipe -----	491000
11	17	WASHER, lock 3/8 -----	14011
12	17	NUT, hex 3/8 -----	13008
13	2	FITTING, grease -----	17300
14	2	DECAL, blank background -----	39566
15	2	DECAL, 130 insert -----	39617
16	4	ASSEMBLY, hydraulic tubing 5/8 X 141 long --	93491
17	2	ASSEMBLY, hydraulic tubing 3/4 X 104 long --	93550
18	4	ASSEMBLY, hydraulic tubing 5/8 X 94 long --	93482
19	1	ASSEMBLY, hose -----	71702
20	1	ASSEMBLY, hose -----	71703
21	4	ASSEMBLY, hose -----	71836
22	2	ADAPTOR, straight swivel -----	66011

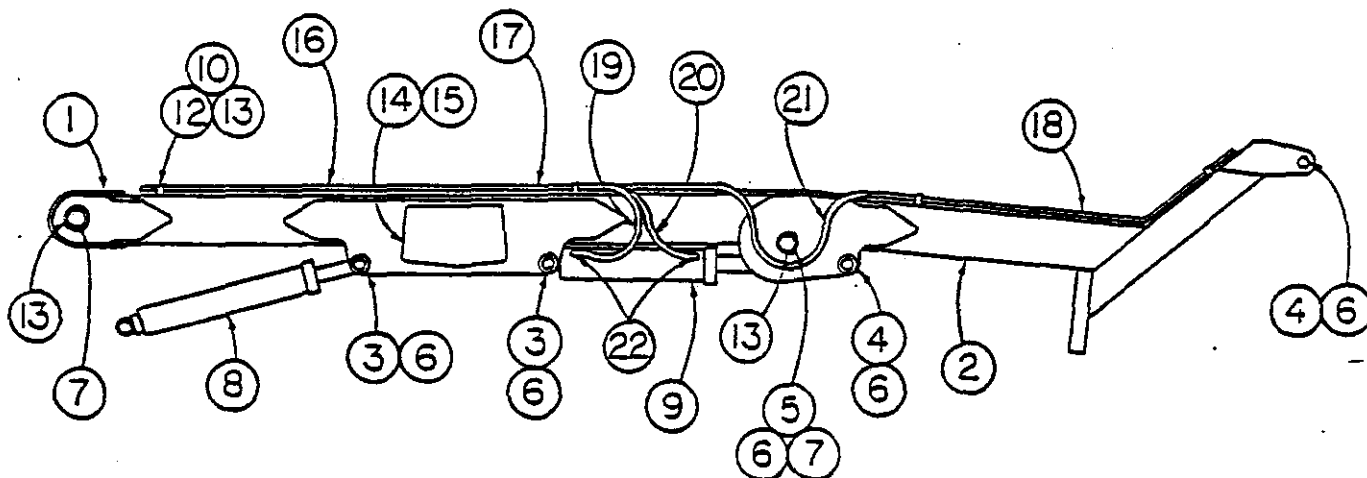
EFFECTIVE DATE 3/8/78



MODEL 130 BOOM ASSEMBLY (DEAD HEEL)

<u>ITEM NO.</u>	<u>QTY.</u>	<u>DESCRIPTION</u>	<u>PART NO.</u>
	1	ASSEMBLY, boom (complete) -----	103045
1	1	WELDMENT, main boom -----	104229
2	1	WELDMENT, secondary boom -----	113284
3	2	BOLT, body fit 2 X 10-1/2 long -----	482256
4	2	BOLT, body fit 2 X 9-1/2 long -----	482321
5	1	BOLT, body fit 2 X 12-1/2 long -----	482350
6	5	NUT, nylock 2" -----	13417
7	4	BEARING, tapered roller -----	41034
8	1	ASSEMBLY, cylinder 7 X 36 -----	812430
9	1	ASSEMBLY, cylinder 7 X 30 -----	812426
10	19	CLAMP, pipe -----	491000
11	19	WASHER, lock 3/8 -----	14011
12	19	NUT, hex 3/8-16 -----	13008
13	2	FITTING, grease -----	17300
14	2	DECAL, blank background -----	39566
15	2	DECAL, 130 insert -----	39617
16	4	ASSEMBLY, hydraulic tubing 5/8 X 129 long -----	93486
17	2	ASSEMBLY, hydraulic tubing 3/4 X 92 long -----	93577
18	4	ASSEMBLY, hydraulic tubing 5/8 X 82 long -----	93488
19	1	ASSEMBLY, hose -----	71702
20	1	ASSEMBLY, hose -----	71703
21	4	ASSEMBLY, hose -----	71836
22	2	ADAPTOR, straight swivel -----	66011

EFFECTIVE DATE 3/8/78

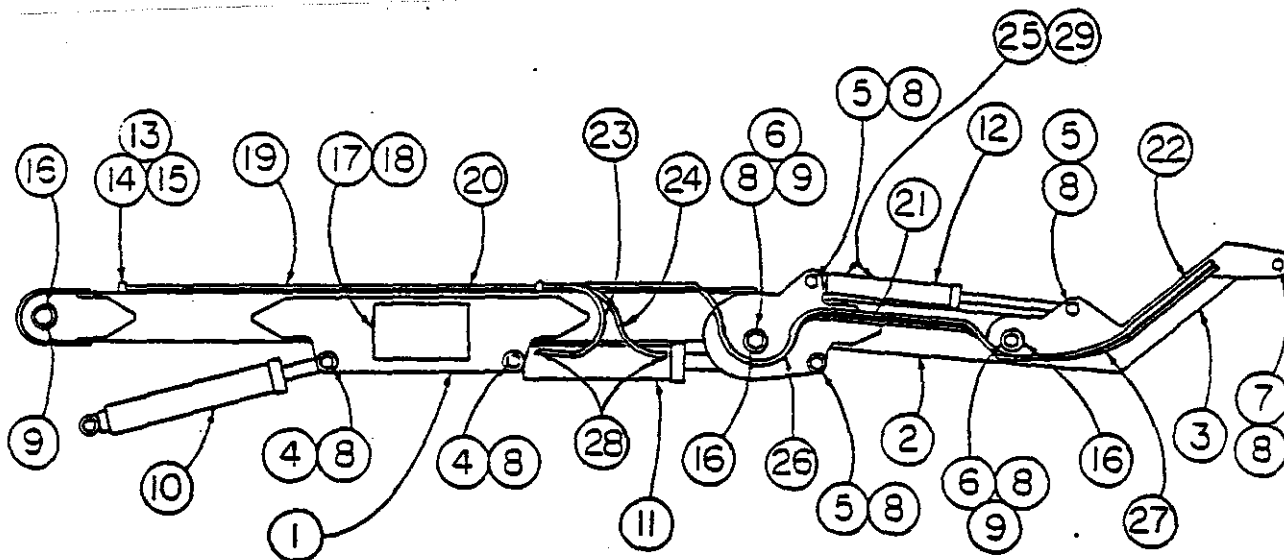


MODEL 130 BOOM ASSEMBLY (DEAD HEEL)

24'-4" - 2' EXTENSION

<u>ITEM NO.</u>	<u>QTY.</u>	<u>DESCRIPTION</u>	<u>PART NO.</u>
	1	ASSEMBLY, boom (complete) -----	103048
1	1	WELDMENT, main boom -----	104234
2	1	WELDMENT, secondary boom -----	113291
3	2	BOLT, body fit 2 X 10-1/2 long -----	482256
4	2	BOLT, body fit 2 X 9-1/2 long -----	482321
5	1	BOLT, body fit 2 X 12-1/2 long -----	482350
6	5	NUT, nylock 2" -----	13417
7	4	BEARING, tapered roller -----	41034
8	1	ASSEMBLY, cylinder 7 X 36 -----	812430
9	1	ASSEMBLY, cylinder 7 X 30 -----	812426
10	19	CLAMP, pipe -----	491000
11	19	WASHER, lock 3/8 -----	14011
12	19	NUT, hex 3/8-16 -----	13008
13	2	FITTING, grease -----	17300
14	2	DECAL, blank background -----	39566
15	2	DECAL, 130 insert -----	39617
16	4	ASSEMBLY, hydraulic tubing 5/8 X 141 long -----	93491
17	2	ASSEMBLY, hydraulic tubing 3/4 X 104 long -----	93550
18	4	ASSEMBLY, hydraulic tubing 5/8 X 94 long -----	93482
19	1	ASSEMBLY, hose -----	71702
20	1	ASSEMBLY, hose -----	71703
21	4	ASSEMBLY, hose -----	71836
22	2	ADAPTOR, straight swivel -----	66011

EFFECTIVE DATE 3/8/78

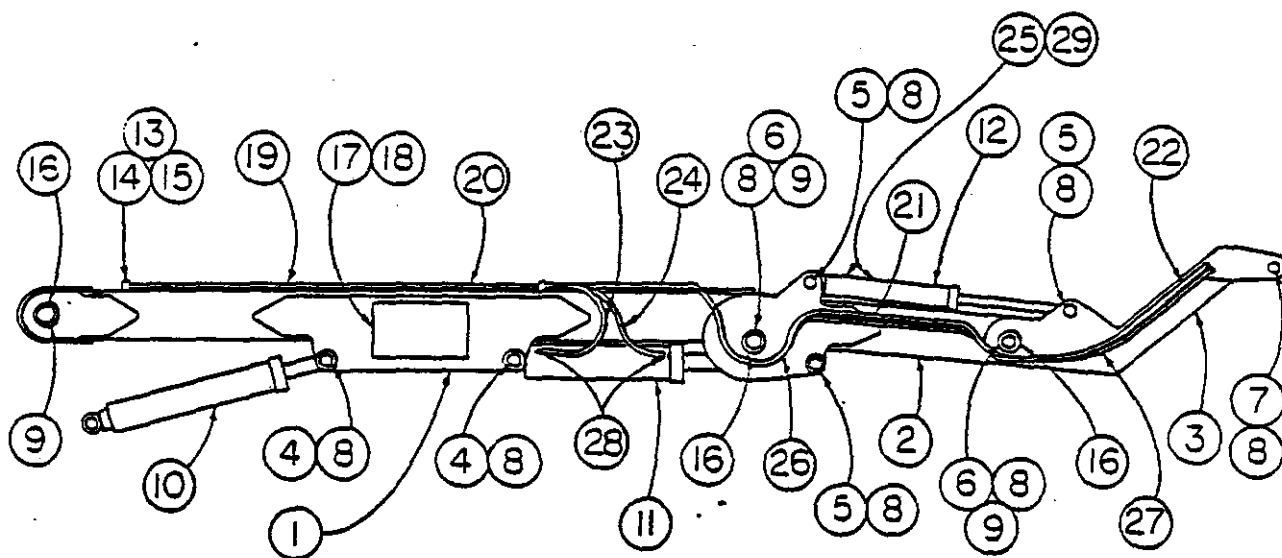


MODEL 130 BOOM ASSEMBLY (LIVE HEEL)

STANDARD LENGTH

<u>ITEM NO.</u>	<u>QTY.</u>	<u>DESCRIPTION</u>	<u>PART NO.</u>
	1	ASSEMBLY, boom (complete) -----	103046
1	1	WELDMENT, main boom -----	104229
2	1	WELDMENT, secondary boom -----	103250
3	1	WELDMENT, heel boom -----	113285
4	2	BOLT, body fit 2 X 10-1/2 long -----	482256
5	3	BOLT, body fit 2 X 9-1/2 long -----	482321
6	2	BOLT, body fit 2 X 12-1/2 long -----	482350
7	1	BOLT, body fit 2 X 8-3/4 long -----	482228
8	8	NUT, nylock 2# -----	13417
9	6	BEARING, tapered roller -----	41034
10	1	ASSEMBLY, cylinder 7 X 36 -----	812430
11	1	ASSEMBLY, cylinder 7 X 30 -----	812426
12	1	ASSEMBLY, cylinder 6 X 24 -----	812421
13	23	CLAMP, pipe -----	491000
14	16	WASHER, lock 3/8 -----	14011
15	16	NUT, hex 3/8-16 -----	13008
16	3	FITTING, grease 1/8 straight -----	17300
17	2	DECAL, blank background -----	39566
18	2	DECAL, 130 insert -----	39617
19	6	ASSEMBLY, hydraulic tubing -----	93486
20	2	ASSEMBLY, hydraulic tubing -----	93577
21	4	ASSEMBLY, hydraulic tubing -----	
22	4	ASSEMBLY, hydraulic tubing -----	
23	1	ASSEMBLY, hose -----	71702
24	1	ASSEMBLY, hose -----	71703
25	2	ASSEMBLY, hose -----	71708
26	4	ASSEMBLY, hose -----	71836
27	4	ASSEMBLY, hose -----	71877
28	2	ADAPTOR, straight swivel 3/4 -----	66011
29	2	ADAPTOR, straight swivel 1/2 X 3/4 -----	66009

EFFECTIVE DATE 3/8/78

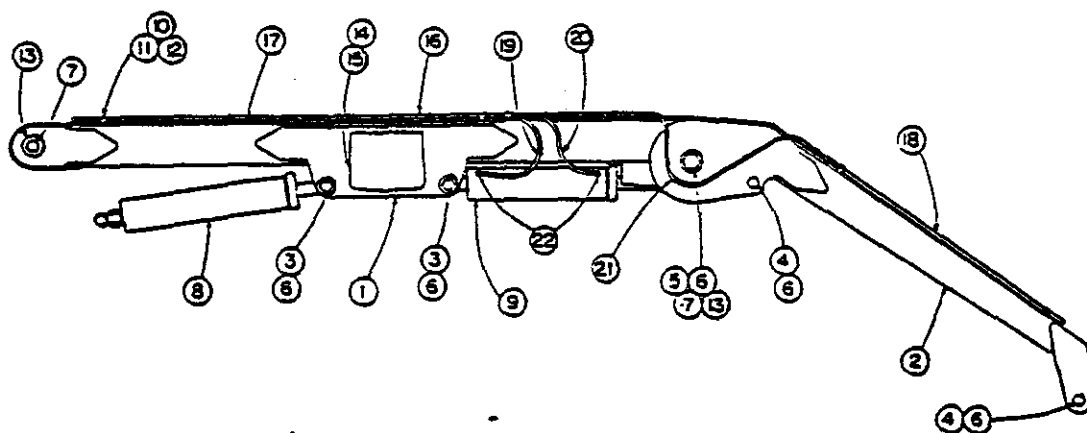


MODEL 130 BOOM ASSEMBLY (LIVE HEEL)

24'-4" - 2' EXTENSION

<u>ITEM NO.</u>	<u>QTY.</u>	<u>DESCRIPTION</u>	<u>PART NO.</u>
	1	ASSEMBLY, boom (complete) -----	103049
1	1	WELDMENT, main boom -----	104234
2	1	WELDMENT, secondary boom -----	103251
3	1	WELDMENT, heel boom -----	113285
4	2	BOLT, body fit 2 X 10-1/2 long -----	482256
5	3	BOLT, body fit 2 X 9-1/2 long -----	482321
6	2	BOLT, body fit 2 X 12-1/2 long -----	482350
7	1	BOLT, body fit 2 X 8-3/4 long -----	482228
8	8	NUT, nylock 2# -----	13417
9	6	BEARING, tapered roller -----	41034
10	1	ASSEMBLY, cylinder 7 X 36 -----	812430
11	1	ASSEMBLY, cylinder 7 X 30 -----	812426
12	1	ASSEMBLY, cylinder 6 X 24 -----	812421
13	23	CLAMP, pipe -----	491000
14	16	WASHER, lock 3/8 -----	14011
15	16	NUT, hex 3/8-16 -----	13008
16	3	FITTING, grease 1/8 straight -----	17300
17	2	DECAL, blank background -----	39566
18	2	DECAL, 130 insert -----	39617
19	6	ASSEMBLY, hydraulic tubing -----	93491
20	2	ASSEMBLY, hydraulic tubing -----	93550
21	4	ASSEMBLY, hydraulic tubing -----	
22	4	ASSEMBLY, hydraulic tubing -----	
23	1	ASSEMBLY, hose -----	71702
24	1	ASSEMBLY, hose -----	71703
25	2	ASSEMBLY, hose -----	71708
26	4	ASSEMBLY, hose -----	71836
27	4	ASSEMBLY, hose -----	71877
28	2	ADAPTOR, straight swivel 3/4 -----	66011
29	2	ADAPTOR, straight swivel 1/2 X 3/4 -----	66009

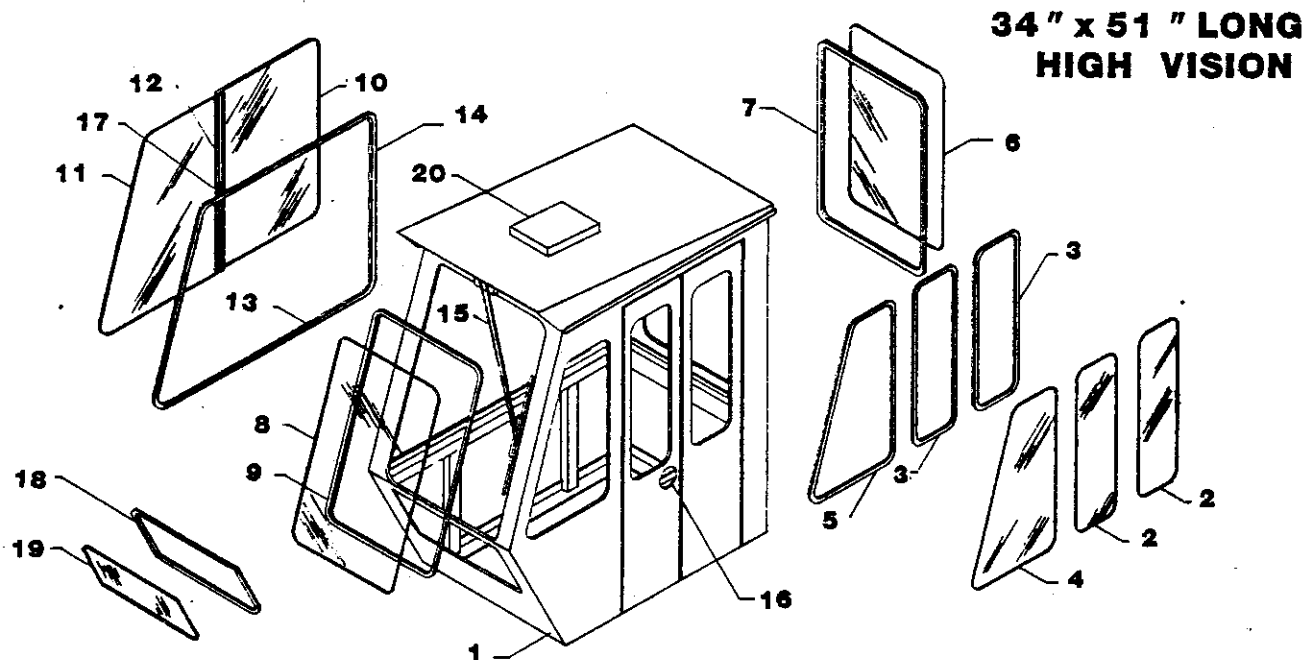
EFFECTIVE DATE 3/8/78



MODEL 130
BOOM ASSEMBLY
(30° DROP STRAIGHT SECONDARY)

<u>ITEM NO.</u>	<u>QTY.</u>	<u>DESCRIPTION</u>	<u>PART NO.</u>
0	1	BOOM ASSEMBLY, complete -----	104071
1	1	WELDMENT, main boom -----	104241
2	1	WELDMENT, secondary boom -----	113294
3	2	BOLT, body fit 2 X 10 1/2 long -----	482256
4	2	BOLT, body fit 2 X 9-1/2 long -----	482321
5	1	BOLT, body fit 2 X 12-1/2 long -----	482350
6	5	NUT, nylock 2" -----	13417
7	4	BEARING, tapered roller -----	41034
8	1	ASSEMBLY, hydraulic cylinder 7 X 36 -----	812430
9	1	ASSEMBLY, hydraulic cylinder 7 X 30 -----	812426
10	17	CLAMP, pipe -----	491000
11	17	WASHER, lock 3/8 -----	14011
12	17	NUT, hex 3/8 -----	13008
13	2	FITTING, grease -----	17300
14	2	DECAL, background -----	39566
15	2	DECAL, 130 insert -----	39617
16	4	ASSEMBLY, hydraulic tubing 5/8 X 129 long -----	93486
17	2	ASSEMBLY, hydraulic tubing 3/4 X 92 long -----	93577
18	4	ASSEMBLY, hydraulic tubing 5/8 X 82 long -----	93488
19	1	ASSEMBLY, hose -----	71702
20	1	ASSEMBLY, hose -----	71703
21	4	ASSEMBLY, hose -----	71836
22	2	ADAPTOR, straight swivel -----	66011

OPERATORS CAB & ACCESSORIES

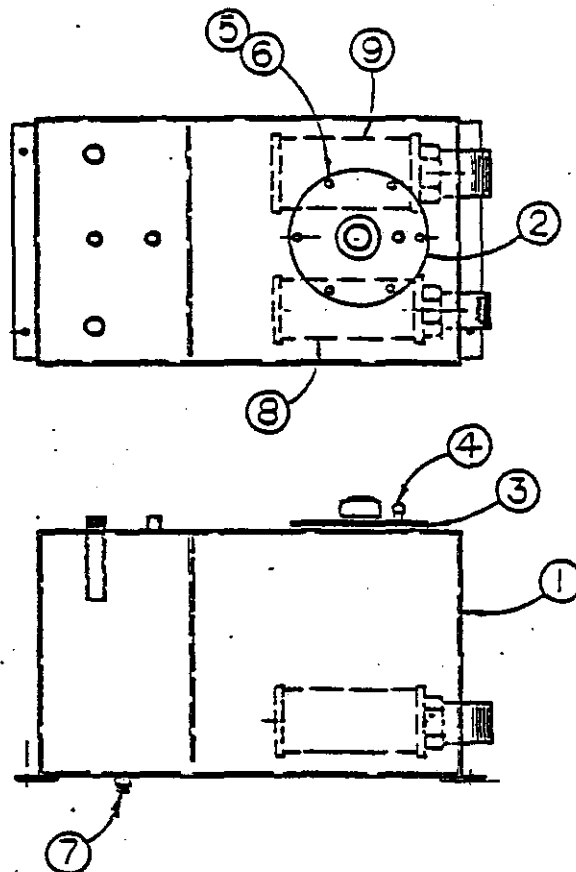


ITEM NO.	QTY.	DESCRIPTION	PART NO.
		CAB, complete	536-00400
1	1	DECALS, (in cab) see decal page no. _____ Not Shown	
2	1	GLASS, door pattern	536-00101
* 3	A/R	CASING, door glass, 69½" lg	536-00200
4	1	GLASS, left front panel pattern	536-00111
* 5	A/R	CASING, left front panel, 67½" lg	536-00200
6	1	GLASS, rear pattern	536-00123
* 7	1	CASING, rear glass 105" lg	536-00200
8	1	GLASS, windshield pattern	536-00113
* 9	A/R	CASING, windshield, 11½" lg	536-00200
10	1	GLASS, right side, rear section pattern	536-00124
11	1	GLASS, right side, sliding section pattern	536-00125
12	1	CHANNEL EDGE, sliding glass	536-00251
**13	A/R	CHANNEL, sliding 120" lg	536-00250
* 14	A/R	CASING, right side glass, 120" lg	536-00205
15	1	WIPER, assembly	548-00921
16	1	HANDLE, door	536-00300
17	1	GRIP, finger	536-00301
18	A/R	CASING, lower front 77" lg	536-00200
19	1	GLASS, lower front pattern	536-00119
20	1	VENT, dome	536-00204
21	1	FAN, defroster (not pictured)	548-00909
22	1	KIT, windshield washer (see page no.)	548-00920
23	1	LIGHT, dome (not pictured)	548-00306
24	1	VENT, dome	536-00204
25	1	HEATER, hot water (not pictured)	548-00910

* All window casing is sold by the foot. Approximate lengths are given in parts list above. When ordering, order by part number 536-00200 and proper length in feet, except item number 14, order by part number 536-00205.

**Channel for sliding window number 536-00250 is sold in 5 feet lengths. When ordering, order 10 feet of sliding channel for complete window.

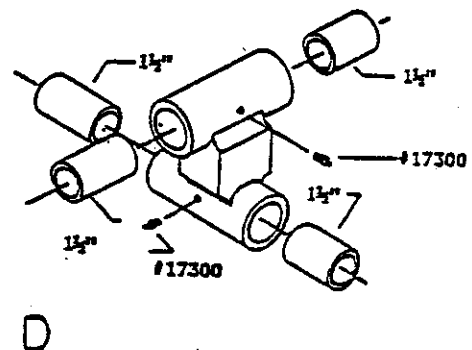
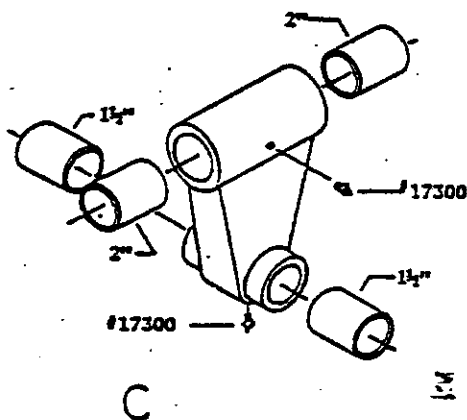
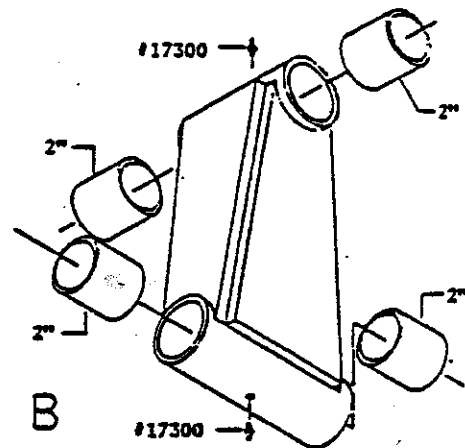
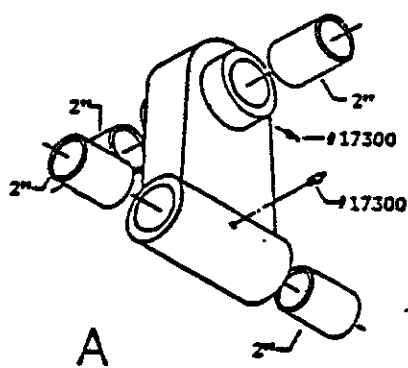
EFFECTIVE DATE 1/1/81



42 GALLON RESERVOIR
ASSEMBLY

<u>ITEM NO.</u>	<u>QTY.</u>	<u>DESCRIPTION</u>	<u>PART NO.</u>
1	1	WELDMENT, reservoir -----	643139
2	1	ASSEMBLY, inspection cover -----	643201
3	1	GASKET -----	651302
4	1	WELDMENT, dipstick -----	641101
5	6	BOLT, hex head 3/8-16 X 3/4 long -----	10052
6	6	WASHER, lock -----	14011
7	1	PLUG, pipe 1" (magnetic) -----	22338
8	1	STRAINER 1-1/2" -----	65017
9	1	STRAINER 3" -----	65020

EFFECTIVE DATE 5/3/78



HANGERS FOR ATTACHMENTS

NOTE: 42020 - PART NO. FOR 1 1/2 BUSHING
42032 - PART NO. FOR 2 BUSHING

- A PART NO. 152116
GENERALLY USED IN CONJUNCTION WITH THE
54" & 60" BYPASS GRAPPLE
- B PART NO. 152173
USED ON CONTINUOUS ROTATION MODELS
UTILIZING CONTINUOUS ROTATING GRAPPLES
- C PART NO. 152117
GENERALLY USED IN CONJUNCTION WITH THOSE
MACHINES USING THE STANDARD HEAVY DUTY
33" & 42" BYPASS GRAPPLE
- D PART NO. 152118
USED ON MODEL 140. GENERALLY USED IN
CONJUNCTION WITH THE STANDARD HEAVY DUTY
33" & 42" BYPASS GRAPPLE

PUMP/ENGINE MOUNTING DIAGRAM (3-53)

<u>SWING PUMP HOOK-UP</u>	
<u>ITEM</u>	<u>PART NO.</u>
PUMP (TA-15)	60619
BOLTS (1/2"-UNC x 1 1/4 lg)	2 req'd
LOCKWASHER	2 req'd

<u>MAIN PUMP HOOK-UP</u>	
<u>ITEM</u>	<u>PART NO.</u>
ENGINE/PUMP ADAPTER (For adaptor breakdown & type, see Page 23)	
PUMP, 30/21 (MODEL 160)	60620
PUMP, 22/22 (MODEL 140)	60525
PUMP, 31/22 (MODEL 160)	60400
PUMP, 20/20 (MODEL 140)	60527
*BOLTS (5/8"-UNC x 1 3/4 Lg)	2 req'd
*LOCKWASHER	2 req'd

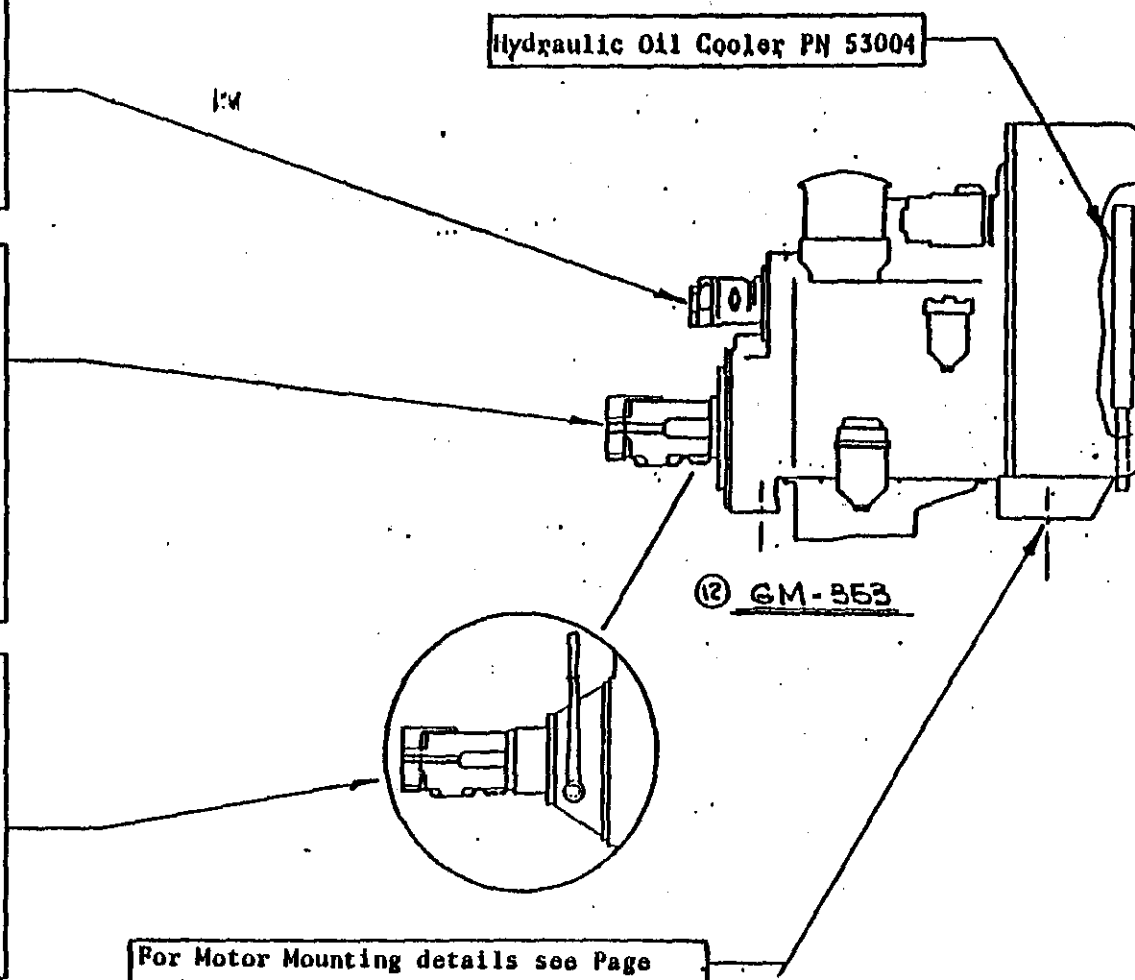
<u>DISCONNECT CLUTCH ASSY (optional)</u>	
<u>ITEM</u>	<u>PART NO.</u>
DISCONNECT CLUTCH (For breakdown on Clutch see Page 24)	39000
MAIN PUMP, MOUNTING BOLTS LOCKWASHERS - ARE SAME AS ABOVE.	

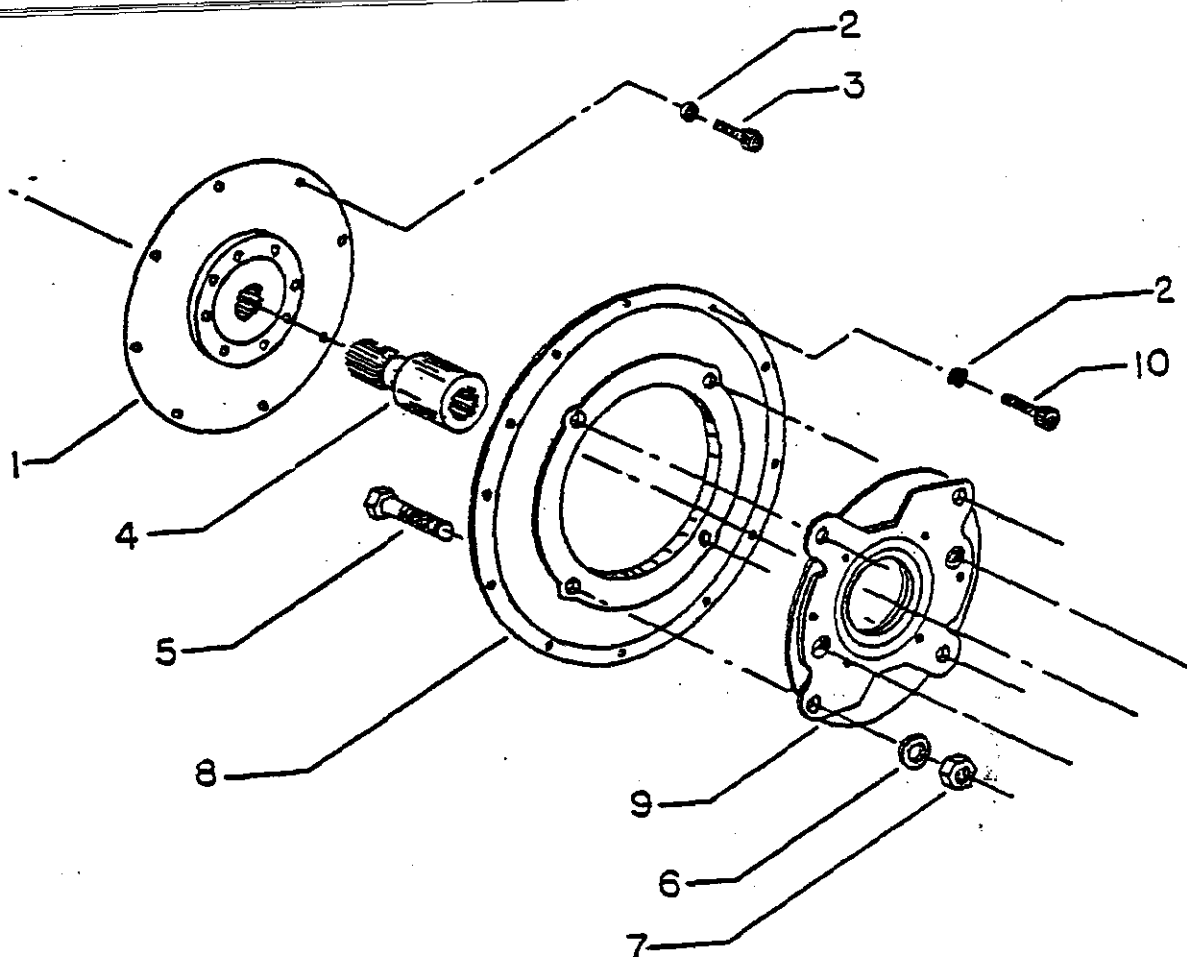
Hydraulic Oil Cooler PN 53004

⑫ GM-353

For Motor Mounting details see Page

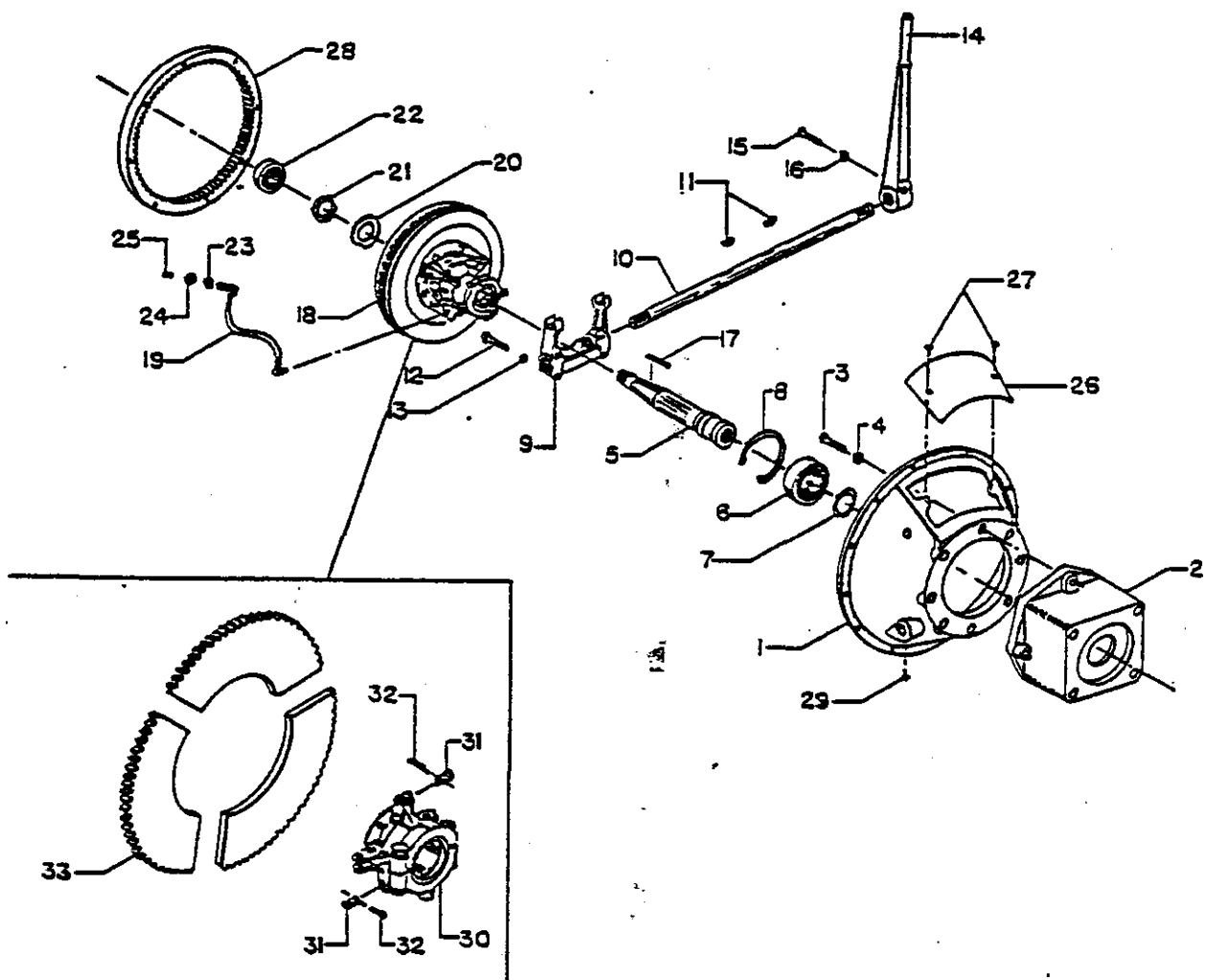
*These bolts & lockwashers shown above
are used with the Vickers (30/21)
Commercial pumps utilize 1/2"-UNC
1 3/4 lg. bolts and corresponding lockwashers.





ENGINE/PUMP ADAPTER ASSEMBLY
PARTS LIST

ITEM NO	QTY	DESCRIPTION	PART NUMBER
-	-	ADAPTOR UNIT, complete (Vickers & Denison Pumps).....	43207
-	-	ADAPTER UNIT, complete (Commercial Pump)....	43205
1	1	PLATE, drive.....	43305
2	20	WASHER, lock, hi-collar.....	14311
3	8	CAPSCREW, socket head 3/8"-UNC x 3/4 Lg....	11602
4	1	SHAFT, drive (SAE "C" (spline).....	43303
5	4	BOLT, 3/4-UNF - 2" long.....	11079
6	4	WASHER, lock.....	14016
7	4	NUT, hex.....	13313
8	1	ADAPTOR PLATE, engine (SAE #4).....	43300
9	1	ADAPTOR PLATE, pump	43302
10	12	CAPSCREW, socket head, 3/8-UNC- 1 1/4 long..	11605

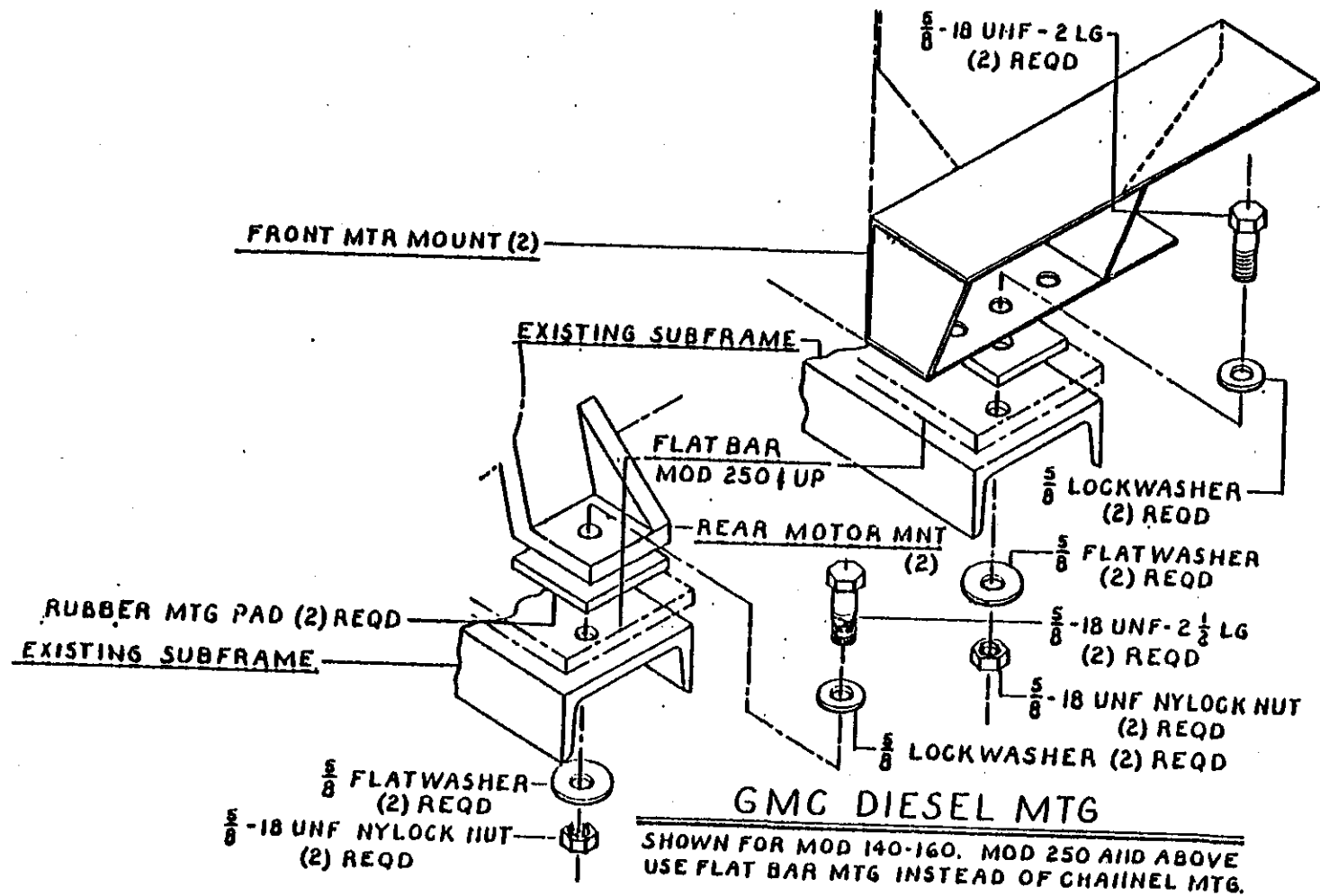


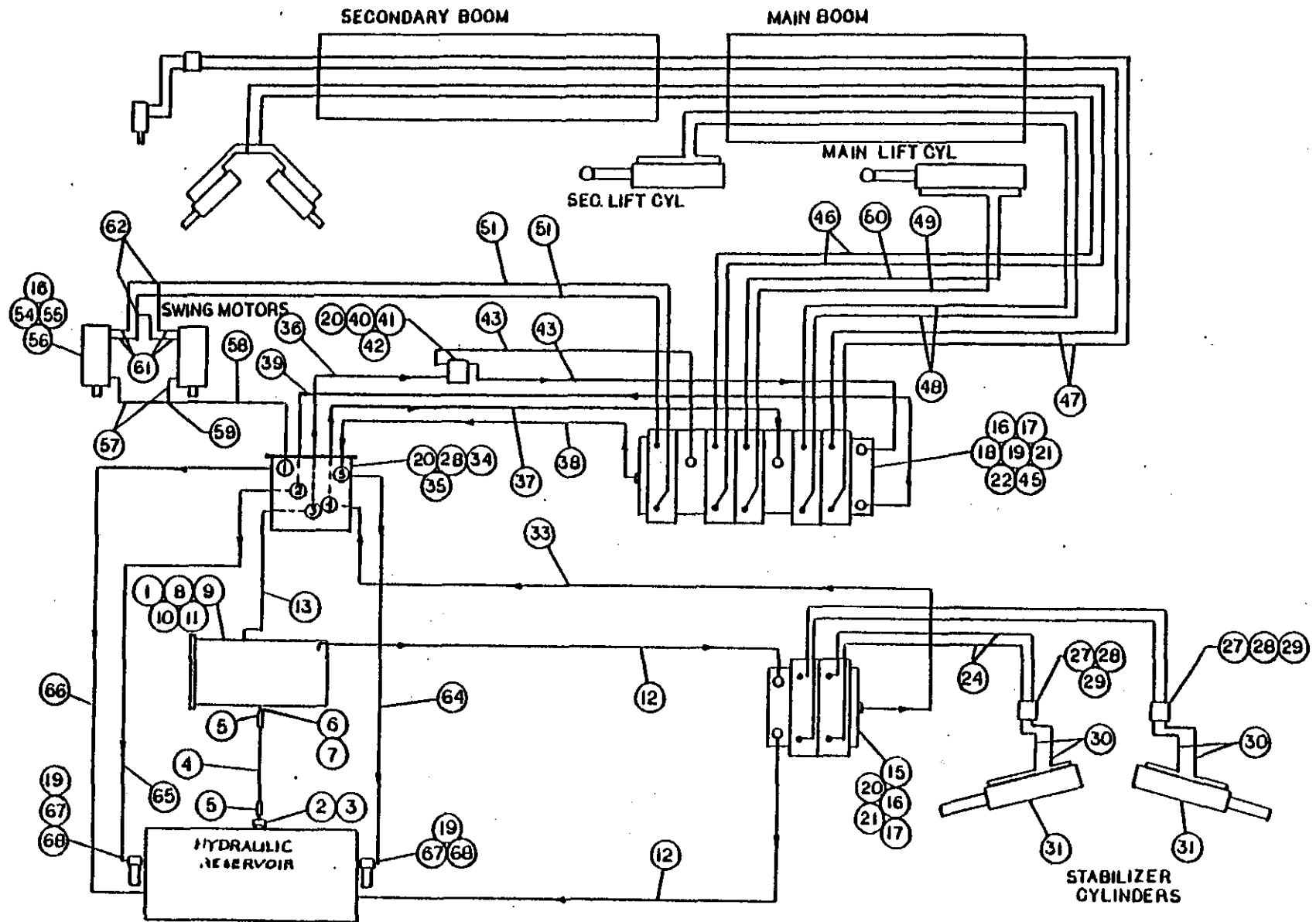
CLUTCH ASSEMBLY

(USED PRIMARILY TO ASSIST IN COLD STARTING WEATHER)

PARTS LIST

ITEM	QTY	DESCRIPTION	PART NUMBER
*	-	ASSEMBLY, complete (SAE #4)....	39000
		ASSEMBLY, complete (SAE #3)....	39001
1	1	HOUSING, (SAE #4).....	39002
	1	HOUSING, (SAE #3).....	39003
2	1	ADAPTER.....	39004
3	6	CAPSCREW 3/4 - 10 NC x 1 3/4"lg	10778
4	6	WASHER, lock.....	14016
5	1	SHAFT, drive.....	39005
6	1	BEARING, ball.....	39006
7	1	RING, snap.....	42434
8	1	RING, snap.....	42563
9	1	YOKE.....	39007
10	1	SHAFT, clutch release.....	39008
11	2	KEY, Woodruff.....	39009
12	2	CAPSCREW, 3/8-16 NC x 1 1/2"lg	10656
13	2	WASHER, lock.....	14011
14	1	HANDLE, clutch.....	39010
15	1	CAPSCREW, 1/2-13 NC -1 3/4 lg.	10706
16	1	WASHER, lock.....	14013
17	1	KEY 1/4" x 2" long.....	39011
18	1	CLUTCH, assembly.....	39012
19	1	HOSE, grease.....	39013
20	1	WASHER, lock.....	39014
21	1	NUT.....	39015
22	1	BEARING, pilot.....	39016
23	1	WASHER, star.....	39017
24	1	NUT, jam 5/8-18 UNF.....	13135
25	1	FITTING, grease.....	39018
26	1	COVER, inspection.....	39019
27	2	SCREW, machine 1/4-20 x 1/2"lg	39020
28	1	RING, clutch drive.....	39021
29	1	FITTING, grease.....	39022
30	1	SLEEVE, sliding assembly.....	39023
31	8	PIN, clevis.....	-
32	8	PIN, cotter.....	-
33	1	PLATE, drive (3 pieces).....	39024





MODEL 130 BACK OF CAB HYDRAULIC PIPING ASSEMBLY

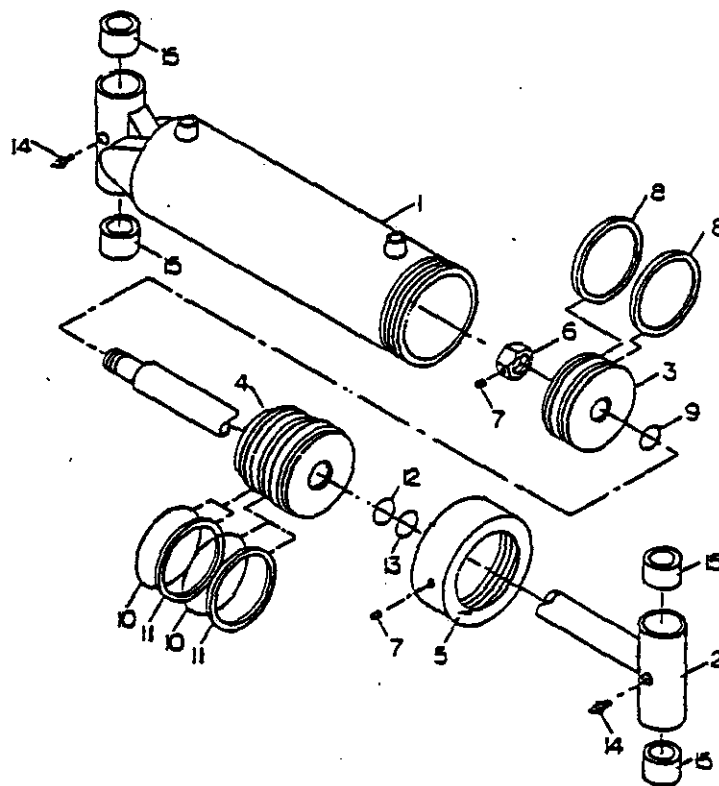
MODEL 130 BACK OF CAB
TYPICAL HYDRAULIC PIPING ASSEMBLY

<u>ITEM NO.</u>	<u>QTY.</u>	<u>DESCRIPTION</u>	<u>PART NO.</u>
1	1	PUMP, tandem 30-21 -----	60510
2	1	VALVE, shut-off 3" -----	63090
3	1	NIPPLE, king 3" -----	67667
4	1	HOSE, suction 3 X 36" -----	94010
5	4	CLAMP, hose #56 -----	69513
6	1	ADAPTER, beaded stem -----	67550
7	2	FLANGE, split 3" -----	67607
8	1	FITTING, block 1-1/4" -----	67203
9	1	FITTING, block 1" -----	67202
10	1	ELBOW, 20MP-16FPX-90 (4FP) -----	651206
11	1	ELBOW, 16MP-12FPX-90 (4FP) -----	651201
12	2	ASSEMBLY, hose 12-2W301-12MP-none-144 -----	
13	1	ASSEMBLY, hose 16-2W301-16MP-none-144 -----	
14			
15	1	VALVE, outrigger 2 spool -----	58714
16	14	ADAPTER, 16MB-8MJ -----	65905
17	3	ADAPTER, 10MB-12MJ -----	
18	6	ADAPTER, 16MB-12MJ -----	65897
19	3	ADAPTER, 20MB-16MJ -----	65901
20	8	ADAPTER, 16MP-16MJ -----	65900
21	2	REDUCER, 20MP-16FP -----	69313
22	1	ELBOW, 16MP-16MJ-90 -----	68819
23			
24	2	ASSEMBLY, hose 8-2W301-8FJX90-8FJX-72 -----	
25	2	ASSEMBLY, hose 8-2W301-8FJX90D-8FJX-62 -----	
26			
27	2	VALVE, cylinder lock -----	63002
28	6	ADAPTER, 8MP-8MJ -----	66984
29	4	ELBOW, 8MP-8FJX-90 -----	66059
30	4	ASSEMBLY, hose 8-2W301-8MP-8MP-32 -----	
31	4	ADAPTER, 8MP-8FPX -----	66008
32			
33	1	ASSEMBLY, hose 12-2W301-12FJX90-12FJX-36 -----	
34	1	ASSEMBLY, hydraulic collector 7"-5 port -----	692018
35	2	ADAPTER, 16MP-12MJ -----	66991
36	1	ASSEMBLY, hose 16-2W301-12FJX-16FJX90-36 -----	
37	1	ASSEMBLY, hose 12-2W301-12FJX-12FJX90-56 -----	
38	1	ASSEMBLY, hose 16-2W301-16FJX-16FJX90-43 -----	
39	1	ASSEMBLY, hose 16-2W301-16FJX-16FJX90-46 -----	
40	1	VALVE, flow divider -----	63136
41	2	ADAPTER, 12MB-12MJ -----	65896
42	2	ELBOW, 12MJ-12FJX-90 -----	68890
43	2	ASSEMBLY, hose 12-2W301-12FJX-12FJX-42 -----	
44			
45	1	VALVE, control 5 spool -----	58730
46	2	ASSEMBLY, hose 8-2W301-8FJX-8MA-78 -----	
47	2	ASSEMBLY, hose 8-2W301-8FJX-8MA-100 -----	
48	2	ASSEMBLY, hose 12-2W301-12FJX-12MA-92 -----	
49	1	ASSEMBLY, hose 12-2W301-12FJX-12FJX-82 -----	
50	1	ASSEMBLY, hose 12-2W301-12FJX-12FJX-102 -----	

(CONTINUED)

MODEL 130 BACK OF CAB
TYPICAL HYDRAULIC PIPING ASSEMBLY

<u>ITEM NO.</u>	<u>QTY.</u>	<u>DESCRIPTION</u>	<u>PART NO.</u>
51	2	ASSEMBLY, hose 8-2W301-8FJX-8FJX-44 -----	
52			
53			
54	2	MOTOR, swing -----	60019
55	2	ADAPTER, 10MB-4FP -----	65974
56	2	ADAPTER, 4MP-4MJ -----	66976
57	2	ASSEMBLY, hose 4-2W301-4FJX90-4FJX-15 -----	
58	1	ASSEMBLY, hose 4-2W301-4FJX-4FJX-12 -----	
59	1	TEE, 4MJ-4MJ-4MJ -----	
60			
61	4	ASSEMBLY, hose 8-2W301-8FJX90-8FJX-16 -----	
62	2	TEE, 8MJ-8MJ-8MJ -----	69163
63			
64	1	ASSEMBLY, hose 16-2W301-16FJX-none-144 -----	
65	1	ASSEMBLY, hose 16-2W301-16FJX-none-144 -----	
66	1	ASSEMBLY, hose 4-2W301-4MP-none-144 -----	
67	2	FILTER, return -----	65040
68	2	ELBOW, 16MP-16FJX-90 -----	66067



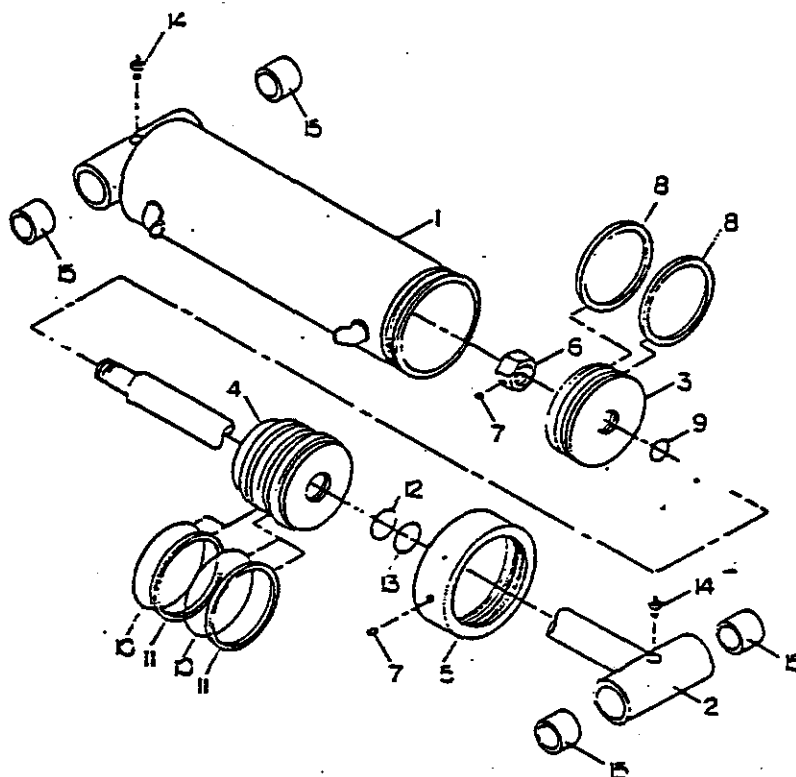
MODEL 130

MAIN BOOM CYLINDER

(7 x 36 WITH 3" ROD)

<u>ITEM NO</u>	<u>QTY</u>	<u>DESCRIPTION</u>	<u>PART NO</u>
0	1	ASSEMBLY, complete-----	812430
1	1	WELDMENT, butt and tube-----	832150
2	1	WELDMENT, rod-----	842028
3	1	PISTON-----	852004
4	1	GLAND-----	852306
5	1	CAP, gland-----	852811
6	1	NUT, hex-----	13123
7	2	SCREW, set-----	12616
(1) (3) 8	2	SEAL, piston-----	
(1) (3) 9	1	O-RING-----	
(2) (3) 10	2	O-RING-----	
(2) (3) 11	2	WASHER, back-up-----	
(2) (3) 12	1	SEAL, rod-----	
(2) (3) 13	1	SEAL, wiper-----	
14	2	FITTING, grease-----	17300
15	6	BUSHING, bronze-----	42032
<u>SEAL KITS AVAILABLE</u>			
(1)		PISTON SEAL KIT-----	65494
(2)		GLAND SEAL KIT-----	65495
(3)		COMPLETE SEAL KIT-----	65523

Effective 4-1-78



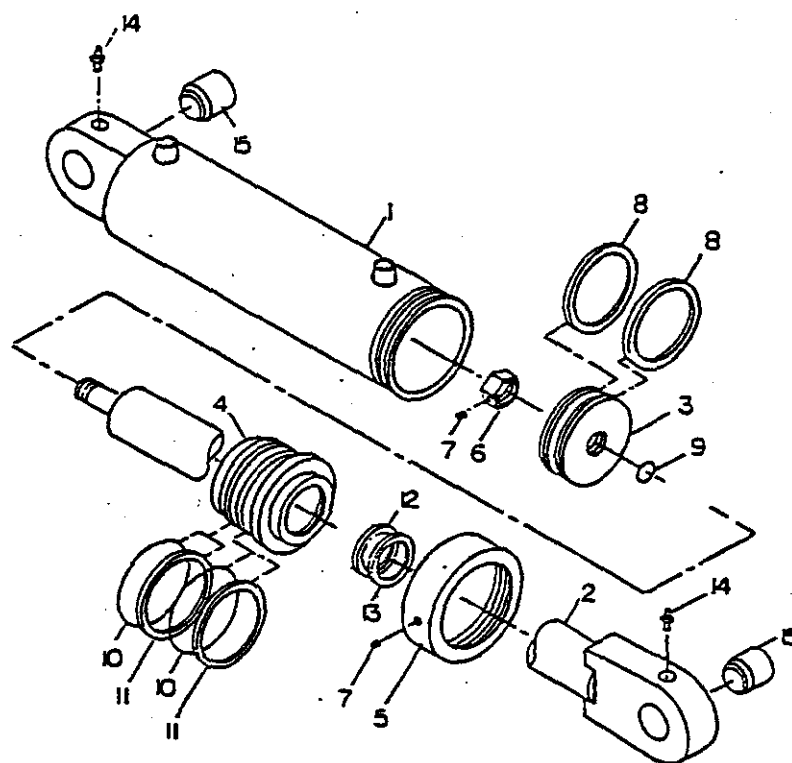
MODEL 130

SECONDARY BOOM CYLINDER

(7 x 30 WITH 3" ROD)

<u>ITEM NO</u>	<u>QTY</u>	<u>DESCRIPTION</u>	<u>PART NO</u>
0	1	ASSEMBLY, complete-----	812426
1	1	WELDMENT, butt and tube-----	832038
2	1	WELDMENT, rod-----	842024
3	1	PISTON-----	852004
4	1	GLAND-----	852306
5	1	CAP, gland-----	852811
6	1	NUT, hex-----	13123
7	2	SCREW, set-----	12616
(1) (3) 8	2	SEAL, piston-----	
(1) (3) 9	1	O-RING-----	
(2) (3) 10	2	O-RING-----	
(2) (3) 11	2	WASHER, back up-----	
(2) (3) 12	1	SEAL, rod-----	
(2) (3) 13	1	SEAL, wiper-----	
14	2	FITTING, grease-----	17300
15	4	BUSHING, bronze-----	42032
<u>SEAL KIT AVAILABLE</u>			
(1)		PISTON SEAL KIT-----	65494
(2)		GLAND SEAL KIT-----	65495
(3)		COMPLETE SEAL KIT-----	65523

Effective 4-1-78



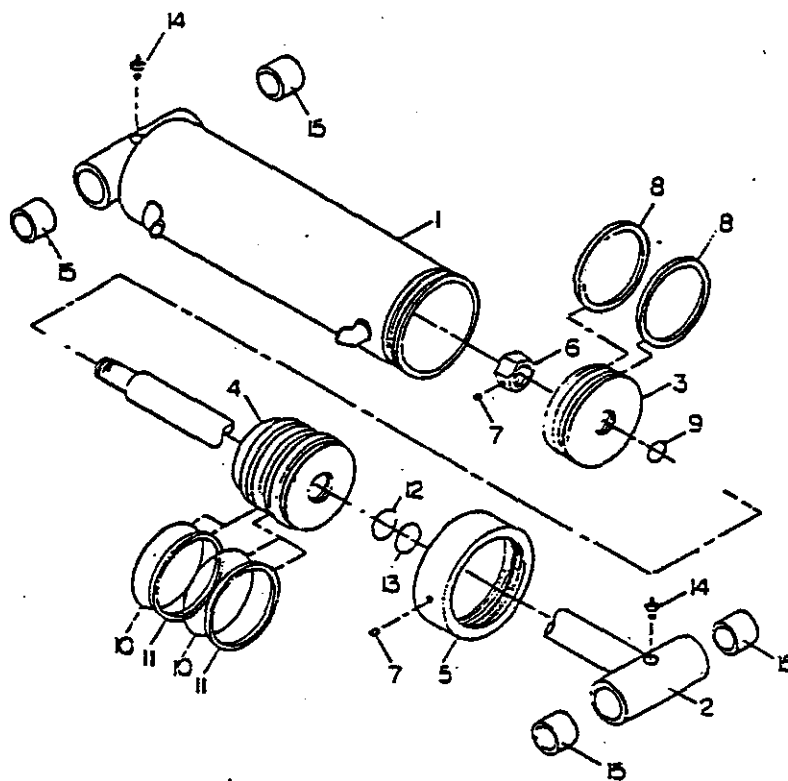
MODEL 130

LEFT HEEL BOOM CYLINDER

6 x 24 WITH 2 1/2" ROD

<u>ITEM NO</u>	<u>QTY</u>	<u>DESCRIPTION</u>	<u>PART NO</u>
0	1	ASSEMBLY, complete-----	812421
1	1	WELDMENT, butt and tube-----	832033
2	1	WELDMENT, rod-----	842015
3	1	PISTON-----	852003
4	1	GLAND-----	852304
5	1	CAP, gland-----	852814
6	1	NUT, hex-----	13119
7	2	SCREW, set-----	12616
(1) (3) 8	2	SEAL, piston-----	
(1) (3) 9	1	O-RING-----	
(2) (3) 10	2	O-RING-----	
(2) (3) 11	2	WASHER, back up-----	
(2) (3) 12	1	SEAL, rod-----	
(2) (3) 13	1	SEAL, wiper-----	
14	2	FITTING, grease-----	17300
15	2	BUSHING, ball-----	41515
<u>SEAL KITS AVAILABLE</u>			
(1)	1	PISTON SEAL KIT-----	65489
(2)	1	GLAND SEAL KIT-----	65490
(3)	1	COMPLETE SEAL KIT-----	65524

Effective 4-1-78

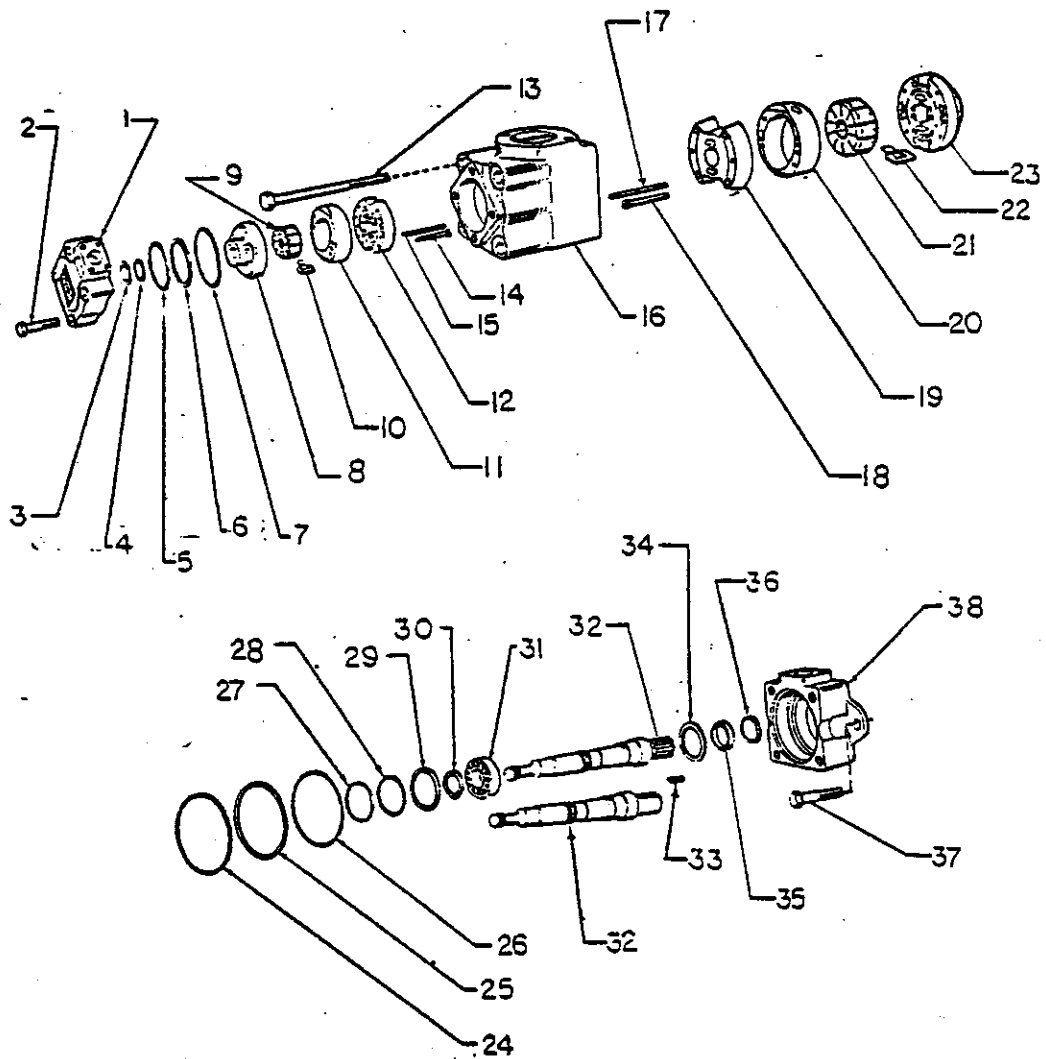


MODEL 130
STABILIZER ARM CYLINDER
(6 x 17 WITH 3" ROD)

<u>ITEM NO</u>	<u>QTY</u>	<u>DESCRIPTION</u>	<u>PART NO</u>
0	1	ASSEMBLY, complete-----	182506
1	1	WELDMENT, butt and tube-----	832132
2	1	WELDMENT, rod-----	842014
3	1	PISTON-----	852003
4	1	GLAND-----	852305
5	1	CAP, gland-----	852814
6	1	NUT, hex-----	13119
7	2	SCREW, set-----	12616
(1) (3) 8	2	SEAL, piston-----	
(1) (3) 9	1	O-RING-----	
(2) (3) 10	2	O-RING-----	
(2) (3) 11	2	WASHER, back up-----	
(2) (3) 12		SEAL, rod-----	
(2) (3) 13	1	SEAL, wiper-----	
14	2	FITTING, grease-----	17300
15	4	BUSHING, bronze-----	42032
<u>SEAL KITS AVAILABLE</u>			
(1)		PISTON SEAL KIT-----	65489
(2)		GLAND SEAL KIT-----	65491
(3)		COMPLETE SEAL KIT-----	65537

Effective 4-1-78

VICKERS TANDEM PUMP

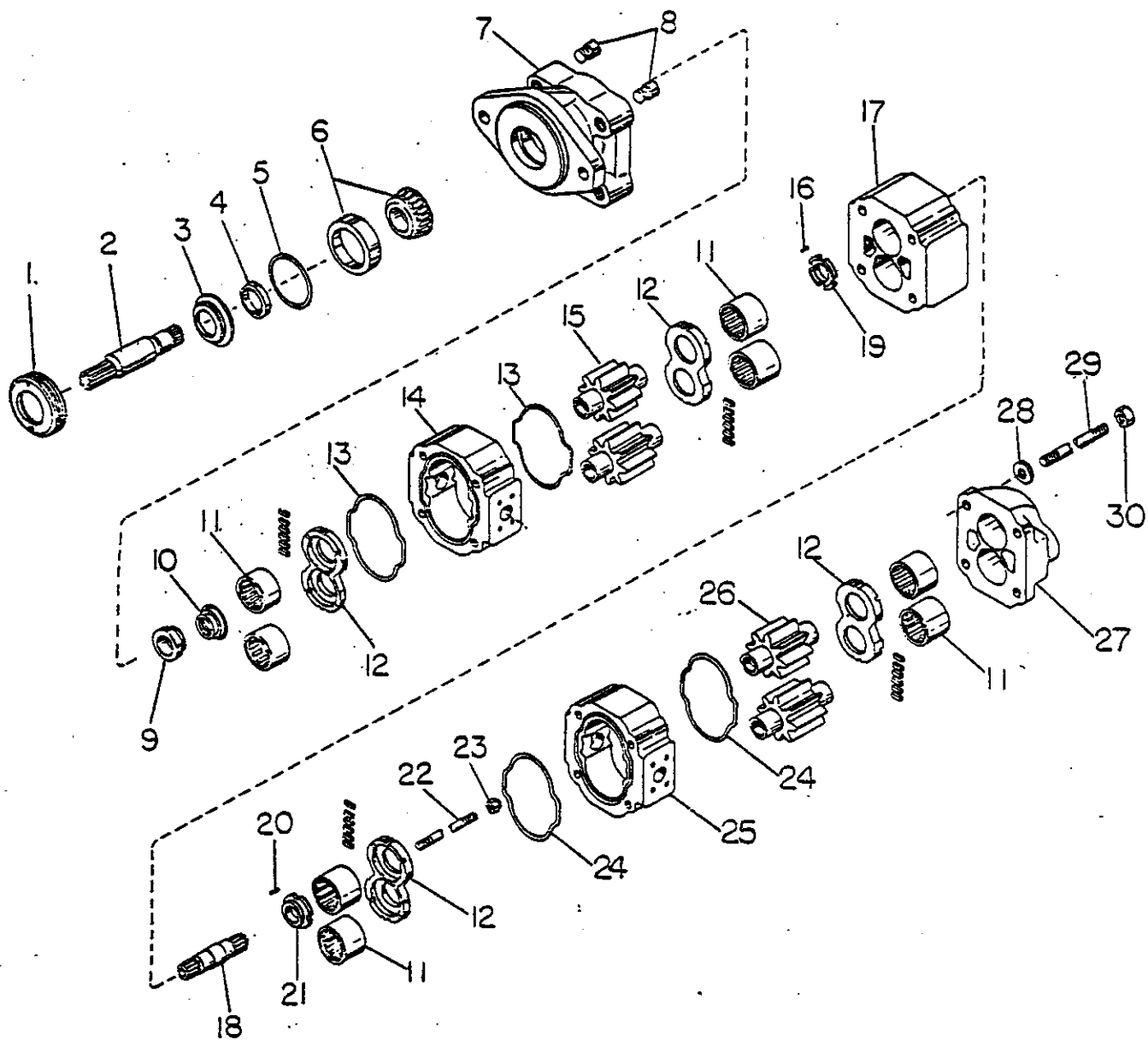


VICKERS TANDEM PUMP
SERIES 252V (21/14 GPM)
PARTS LIST

ITEM NO	QTY	DESCRIPTION	PART NUMBER
-	-	PUMP, assembly, R.H.....	60601
-	-	PUMP, assembly, L.H.....	60600
1	1	COVER.....	59500
2	4	BOLT.....	59506
The following Items 3-14 below are serviced only in Cartridge Kit, Part No. 65257:			
(1)	3	RING, back-up.....	(59510)
(1)	4	O-RING.....	(65318)
(1)	5	O-RING.....	(65413)
(1)	6	RING, back-up.....	(59511)
(1)	7	O-RING.....	(65413)
	8	PLATE, pressure.....	(59512)
	9	ROTOR.....	(59503)
	10	KIT, vane.....	(59513)
	11	RING.....	(59514)
	12	PLATE, wear.....	(59515)
	13	PIN.....	(59516)
	14	SCREW.....	(59517)
	15	BOLT.....	59504
	16	HOUSING.....	59505
The following Items 17-28 below are serviced only in Cartridge Kit, Part No. 65251:			
	17	PIN.....	(59518)
	18	SCREW.....	(59519)
	19	PLATE.....	(59524)
	20	RING.....	(59525)
	21	ROTOR.....	(59521)
	22	KIT, vane.....	(59526)
	23	PLATE, pressure.....	(59522)
(1)	24	O-RING.....	(65417)
(1)	25	RING, back-up.....	(59523)
(1)	26	O-RING.....	(65414)
(1)	27	O-RING.....	(65401)
(1)	28	RING, back-up.....	(59527)
	29	RING, lock.....	59536
	30	RING, snap.....	59528
	31	BEARING.....	59529
	32	SHAFT, splined.....	59531
		SHAFT, keyed.....	59530
	33	KEY.....	59532
	34	WASHER.....	50537
(1)	35	SEAL.....	(44206)
(1)	36	WIPER.....	(44512)
	37	BOLT.....	59539
	38	BODY.....	59534

NOTES: PART NUMBERS IN BRACKETS () ARE SUPERCEDED NUMBERS AND ARE SERVICED ONLY IN APPROPRIATE KITS.

(1) Seal Kit..... 65506



COMMERCIAL TANDEM PUMP (20/20 GPM)

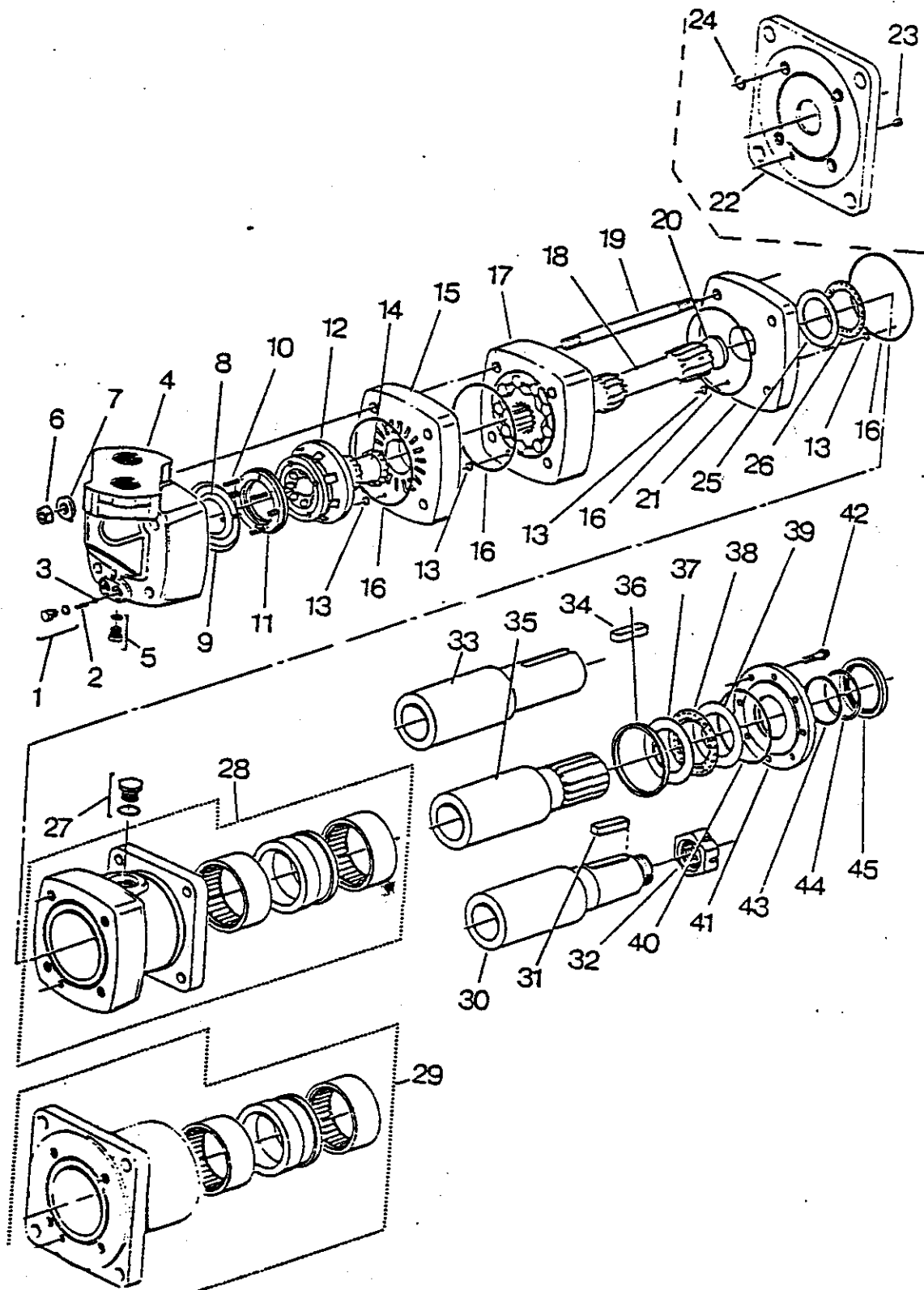
PARTS LIST

ITEM NO.	QTY.	DESCRIPTION	PART NUMBER
-	1	PUMP, 20-20.....	60527
1	1	RING, retainer.....	60673
2	1	SHAFT, splined.....	60677
3	1	RETAINER, seal.....	60674
(1) 4	1	SEAL, double lip.....	(60627)
(1) 5	1	O-RING.....	(60628)
6	1	BEARING.....	60675
7	1	END COVER, shaft.....	60680
8	1	CHECK, assembly.....	60681
(1) 9	1	SHAFT, bronze bushing.....	(60636)
(1) 10	1	SPRING, conical.....	(60637)
11	8	BEARING, roller.....	60682
1 - 12	4	PLATE, thrust.....	60678
(1) 13	2	GASKET, o-ring.....	(60641)
14	1	HOUSING, gear.....	60642
(1) 15	1	GEARS, matched.....	(60685)
16	1	PIN, roll.....	60646
17	1	CARRIER, bearing.....	60647
18	1	SHAFT, connecting.....	60648
(1) 19	1	BUSHING, shaft.....	(60645)
20	1	PIN, roll.....	60646
(1) 21	1	BUSHING, shaft.....	(60645)
22	1	STUD.....	60649
23	1	NUT, lock.....	60650
(1) 24	2	GASKET, o-ring.....	(60662)
25	1	HOUSING, gear.....	60642
26	1	GEARS, matched.....	60685
27	1	END COVER, port.....	60653
28	4	WASHER.....	60654
29	4	STUD.....	60669
30	4	NUT.....	60657

NOTE: NUMBERS IN BRACKETS () INDICATE SUPERCEDED NUMBERS

(1) Included in Seal Kit 65581

CHAR-LYNN 10,000 SERIES DRIVE MOTOR



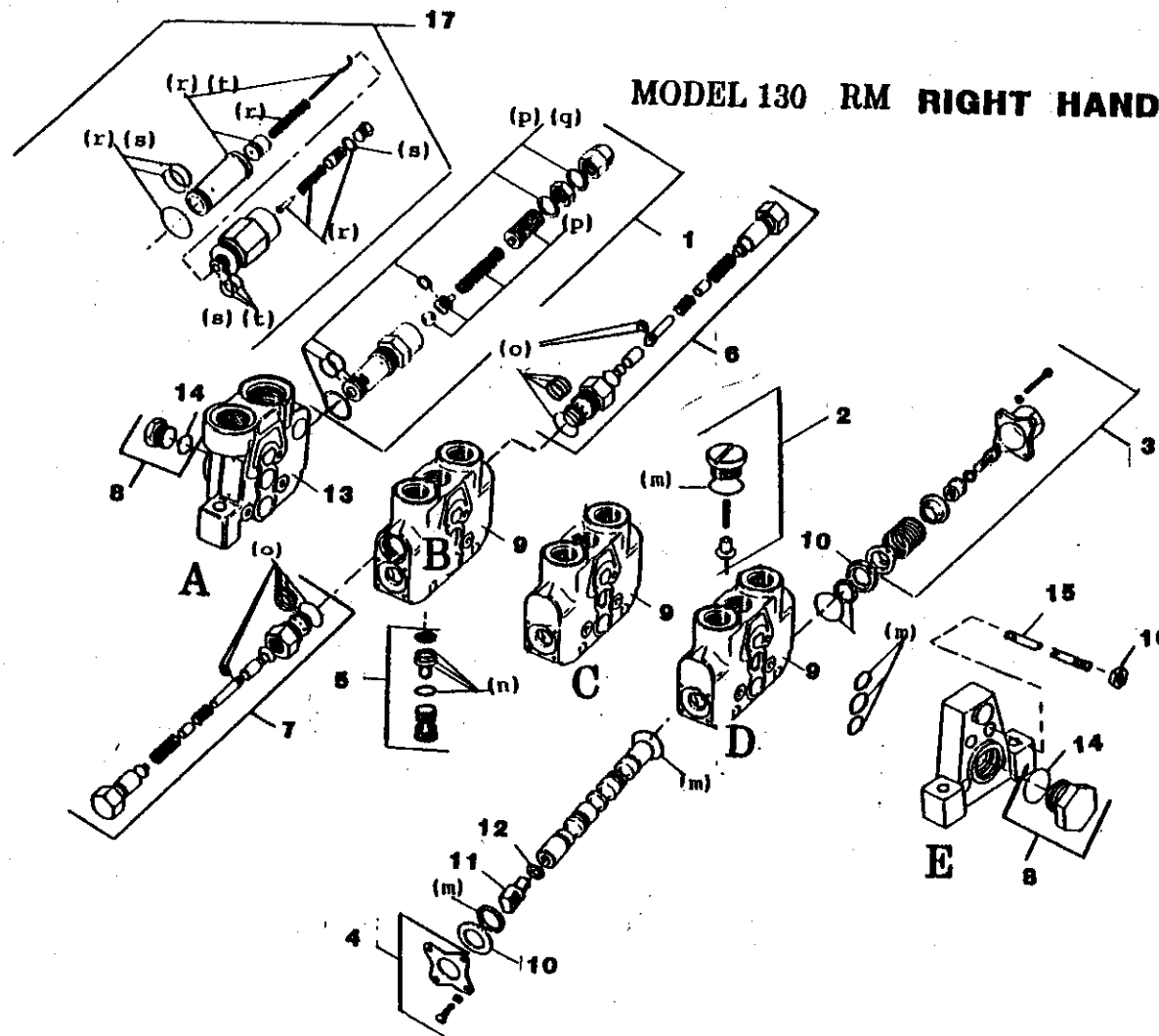
CHAR-LYNN 10,000 SERIES DRIVE MOTOR

(20.34 W. IN./REV.)

<u>ITEM NO.</u>	<u>QTY.</u>	<u>DESCRIPTION</u>	<u>PART NO.</u>
-	1	COMPLETE 10,000 SERIES CHAR-LYNN MOTOR -----	60019
1	2	ASSEMBLY, VALVE CHECK PLUG (60450)	
2	2	SPRING -----	60451
3	2	BALL -----	60452
4	1	HOUSING -----	60453
5	1	ASSEMBLY, PLUG -----	60454
6	4	NUT, HEX -----	60455
7	4	WASHER, FLAT -----	60456
(3) (1) 8	1	SEAL, INNER FACE (60457)	
(3) (1) 9	1	SEAL, OUTER FACE (60458)	
10	4	SPRING -----	60459
11	1	ASSEMBLY, BALANCING PLATE -----	60460
12	1	VALVE -----	60461
(3) (1) 13	4	SEAL (60462)	
14	1	DRIVE (VALVE) -----	60463
15	1	PLATE (VALVE) -----	60464
(3) (1) 16	4	SEAL (60465)	
17	1	GEROLER -----	60497
18	1	DRIVE -----	60498
19	4	STUDS -----	60499
20	1	SPACER (DRIVE) -----	60469
21	1	PLATE (WEAR) -----	60470
ITEMS 22 - 24 ARE NOT APPLICABLE			
25	1	WASHER, THRUST (REAR) -----	60471
26	1	BEARING, THRUST (REAR) -----	60472
(3) (1) 27	2	ASSEMBLY, PLUG (60473)	
28	1	KIT, BEARING HOUSING -----	60474
ITEMS 29 - 34 ARE NOT APPLICABLE			
35	1	SHAFT, OUTPUT SPLINED -----	60475
36	1	SPACER (FRONT BEARING) -----	60476
37	1	WASHER (THRUST) -----	60477
38	1	BEARING, THRUST (FRONT) -----	60478
39	1	WASHER (THRUST) -----	60479
(3) (2) 40	1	O RING (FRONT RETAINER) (60480)	
41	1	RETAINER (FRONT) -----	60481
42	8	SCREW, CAP -----	60482
(3) (2) 43	1	SEAL (SHAFT) (60483)	
44	1	WASHER (BACKUP) -----	60484
(3) (2) 45	1	SEAL (DIRT) (60485)	
(1)	1	SEAL KIT (MOTOR) -----	65477
(2)	1	SEAL KIT (SHAFT) -----	65478
(3)	1	COMPLETE SEAL KIT (INCLUDES BOTH OF ABOVE) ----	65480

Effective 4/20/78

EFFECTIVE DATE 1/1/81



ITEM NO.	QTY.	DESCRIPTION
1	1	ASSEMBLY, right hand valve bank assembly, complete (includes all items listed below)
A	1	VALVE SECTION, left end inlet/outlet
B	1	VALVE SECTION, secondary boom lift

PART NO.
558-00966

551-00097
551-00077

INCLUDED IN VALVE SECT.
A B C D E

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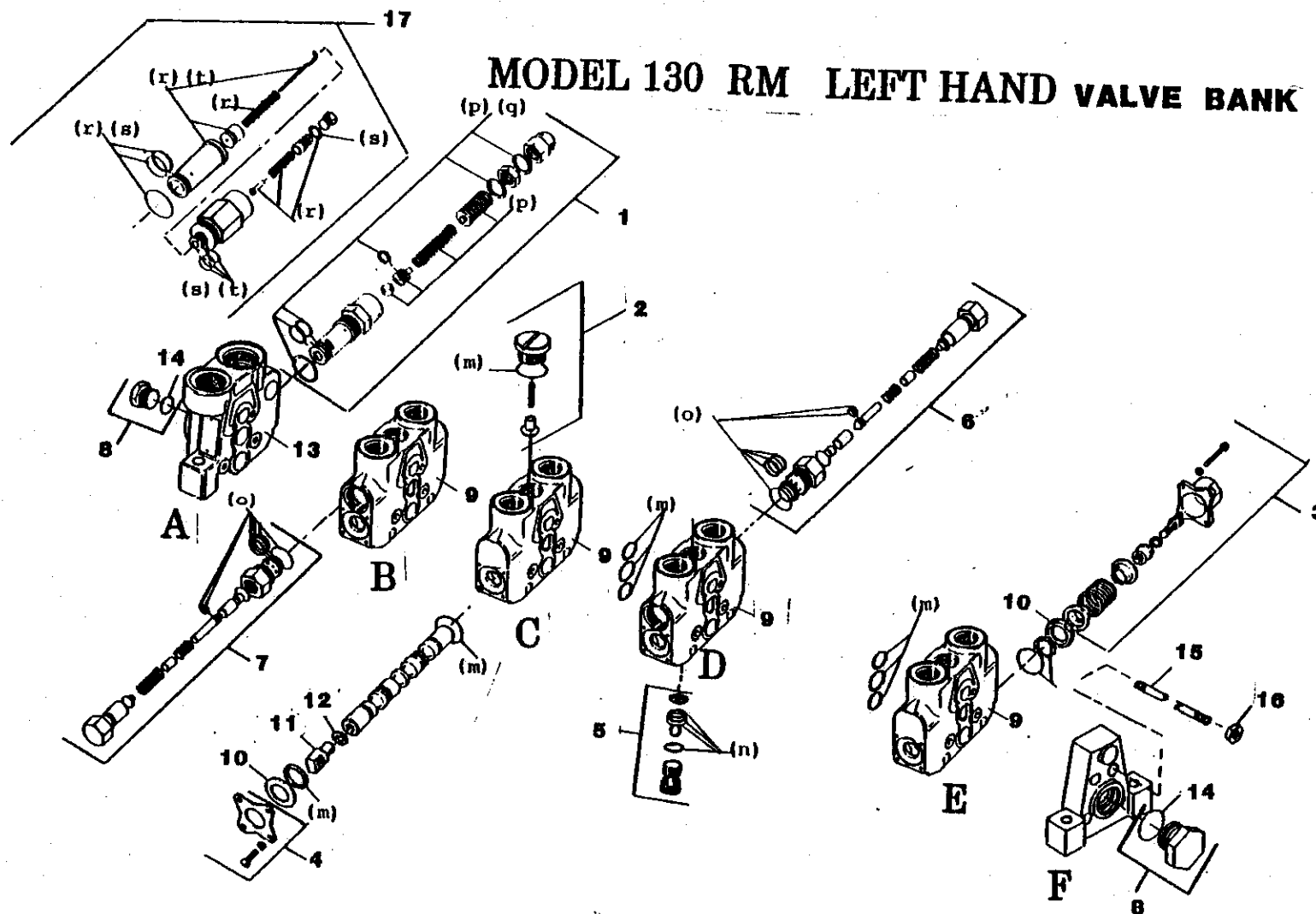
MODEL 130 RM RIGHT HAND VALVE BANK ASSEMBLY **(Continued)**

ITEM NO.	QTY.	DESCRIPTION	PART NO.	INCLUDED IN VALVE SECT.				
				A	B	C	D	E
C	1	VALVE SECTION, grapple rotate	551-00065					
D	1	VALVE SECTION	551-00065					
E	1	VALVE SECTION, right end outlet	551-00098					
1	1	ASSEMBLY, main relief valve	558-00100	X				
2	3	KIT, check plug	552-00002		X	X	X	
3	3	ASSEMBLY, positioner	552-00028		X	X	X	
4	3	KIT, retainer	552-00029		X	X	X	
5	1	ASSEMBLY, anti cavitation check	558-00534		X			
6	1	ASSEMBLY, port relief valve	557-00018		X			
7	1	ASSEMBLY, port relief valve	557-00018		X			
8	2	PLUG and O-RING	558-00510	X				X
9	3	HOUSING & SPOOL, (N.S.S.) (order complete valve section)			X	X	X	
10	6	PLATE, seal	551-00109		X	X	X	
11	3	ADAPTER, clevis	551-00119		X	X	X	
12	3	LOCKWASHER	551-00118		X	X	X	
13	1	CASTING, outlet cover		X				
14	2	O-RING		X				
15	4	STUD	558-000	X	X	X	X	X
16	4	NUT	558-00034	X	X	X	X	X
17	1	ASSEMBLY, main relief valve (optional)	551-00150	X				
(m)	as req'd	Included in seal kit	552-00013		X	X	X	
(n)	as req'd	Included in anti cavitation seal kit	552-00047		X			
(o)	as req'd	Included in port relief seal kit	558-00660		X			
(p)	as req'd	Included in re-building kit	552-00032	X				
(q)	as req'd	Included in seal kit	552-00017	X				
(r)	as req'd	Included in rebuilding kit	552-00030	X				
(s)	as req'd	Included in seal kit	552-00018	X				
(t)	as req'd	Included in piston & cylinder kit	552-00031	X				

(N.S.S.) — NOT SOLD SEPARATELY

EFFECTIVE DATE 1/1/81

EFFECTIVE DATE 1/1/81



ITEM NO.	QTY.	DESCRIPTION
	1	ASSEMBLY, left hand valve bank assembly, complete (includes all items listed below)
A	1	VALVE SECTION, left end inlet/outlet
B	1	VALVE SECTION, swing

PART NO.
558-00879

INCLUDED IN VALVE SECT.
A B C D E F

551-00097
551-00094

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MODEL 130 RM LEFT HAND VALVE BANK ASSEMBLY **(Continued)**

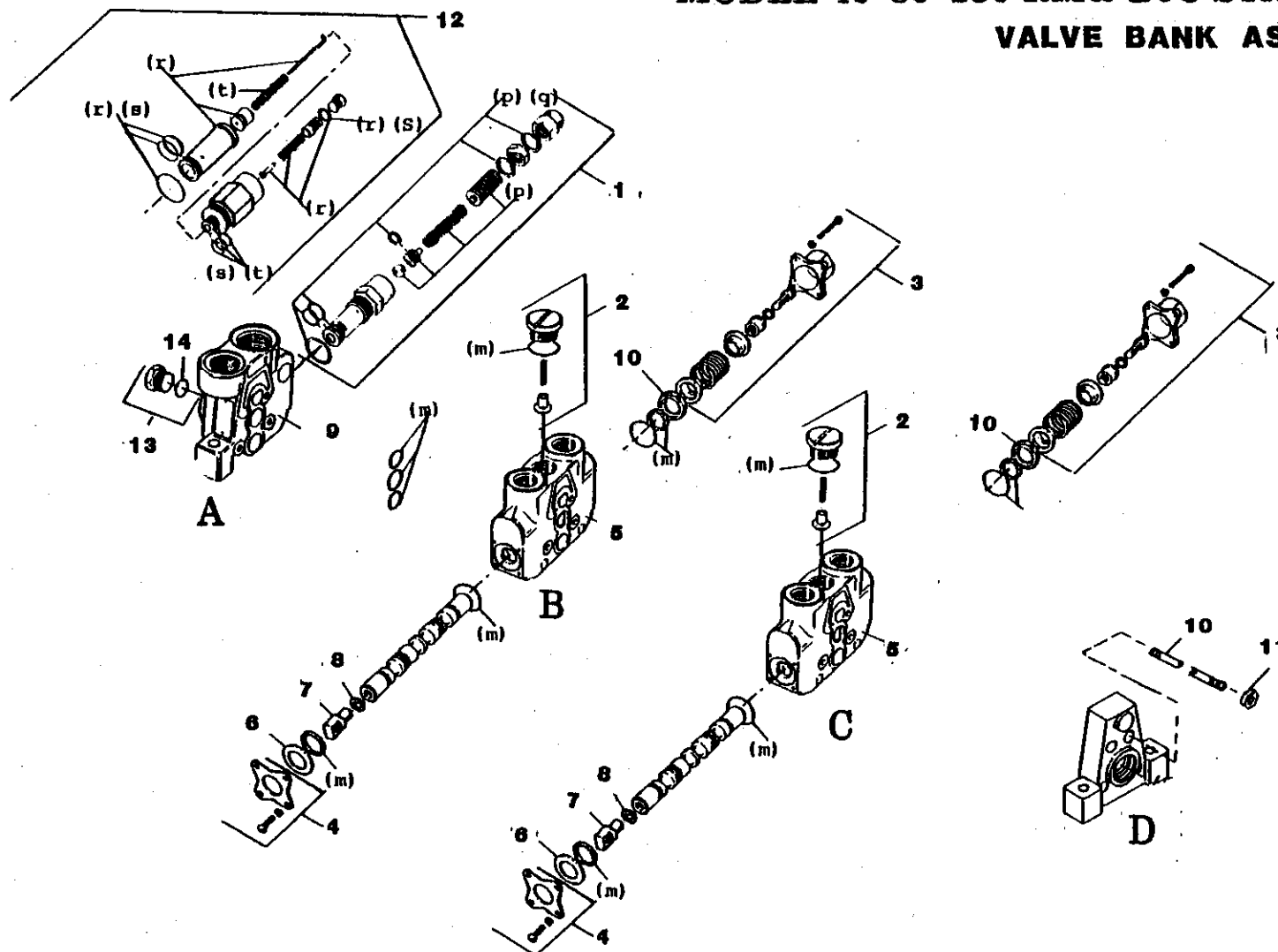
ITEM NO.	QTY.	DESCRIPTION	PART NO.	INCLUDED IN VALVE SECT.					
				A	B	C	D	E	F
C	1	VALVE SECTION, grapple	551-00065						
D	1	VALVE SECTION, main boom lift	551-00072						
E	1	VALVE SECTION,	551-00065						
F	1	VALVE SECTION, right end outlet	551-00098						
1	1	ASSEMBLY, main relief valve	558-00100	X					
2	4	KIT, check plug	552-00002		X	X	X	X	
3	4	ASSEMBLY, positioner	552-00028		X	X	X	X	
4	4	KIT, retainer	552-00029		X	X	X	X	
5	2	ASSEMBLY, anti cavitation check	558-00534		X		X		
6	1	ASSEMBLY, port relief valve	557-00017		X				
6	1	ASSEMBLY, port relief valve	557-00018				X		
7	1	ASSEMBLY, port relief valve	557-00019				X		
7	1	ASSEMBLY, port relief valve	557-00017		X				
8	2	PLUG & O-RING	568-00510	X					X
9	5	HOUSING & SPOOL, (N.S.S.) (order complete valve section)			X	X	X	X	
10	10	PLATE, seal	551-00109		X	X	X	X	
11	5	ADAPTER, clevis	551-00119		X	X	X	X	
12	5	LOCKWASHER	551-00118		X	X	X	X	
13	1	CASTING, outlet cover		X					
14	2	O-RING		X					
15	4	STUD	558-000	X	X	X	X	X	X
16	4	NUT	558-00034	X	X	X	X	X	X
17	1	ASSEMBLY, main relief valve (optional)	557-00150	X					
(m)	as req'd	Included in seal kit	552-00013		X	X	X	X	
(n)	as req'd	Included in anti cavitation seal kit	552-00047					X	
(o)	as req'd	Included in port relief seal kit	556-00660					X	
(p)	as req'd	Included in rebuilding kit	552-00032	X					
(q)	as req'd	Included in seal kit	552-00017	X					
(r)	as req'd	Included in rebuilding kit	552-00030	X					
(s)	as req'd	Included in seal kit	552-00018	X					
(t)	as req'd	Included in piston & cylinder kit	552-00031	X					

(N.S.S.) — NOT SOLD SEPARATELY

EFFECTIVE DATE 1/1/81

EFFECTIVE DATE 1/1/81

MODEL 40-80-130 RM& BOC STABILIZER VALVE BANK ASSEMBLY



ITEM NO.	QTY.	DESCRIPTION	PART NO.	INCLUDED IN VALVE SECT.
	1	ASSEMBLY, stabilizer valve bank (complete) includes all items below	558-00714	A B C D
A	1	VALVE SECTION, left end inlet/outlet	551-00097	
B	1	VALVE SECTION, stabilizer, left side	551-00058	

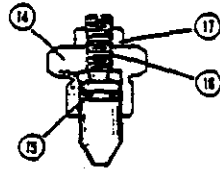
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MODEL 40-80-130 RM& BOC STABILIZER **VALVE BANK ASSEMBLY** **(Continued)**

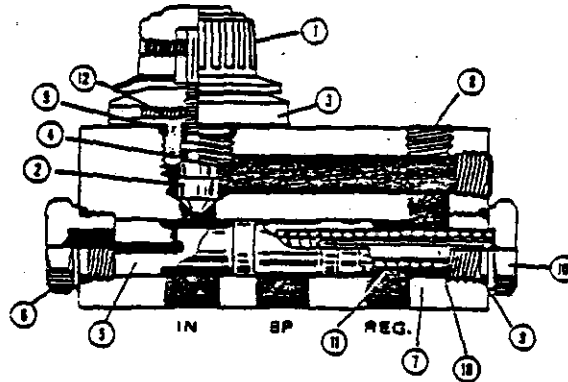
ITEM NO.	QTY.	DESCRIPTION	PART NO.	INCLUDED IN VALVE SECT.			
				A	B	C	D
C	1	VALVE SECTION, stabilizer, left side	551-00058				
D	1	VALVE SECTION, right end outlet	551-00049				
1	1	ASSEMBLY, main relief valve	558-00100	X			
2	2	KIT, check plug	552-00002		X	X	
3	2	ASSEMBLY, positioner	552-00028		X	X	
4	2	KIT, retainer	552-00029		X	X	
5	2	HOUSING & SPOOL, (N.S.S.) (order complete valve section)			X	X	
6	5	PLATE, seal	551-00109		X	X	
7	2	ADAPTER, clevis	551-00119		X	X	
8	2	LOCKWASHER	551-00118		X	X	
9	1	CASTING, outlet cover		X			
10	4	STUD		X	X	X	X
11	4	NUT	558-00034	X	X	X	X
12	1	ASSEMBLY, main relief valve (optional)	557-00150	X			
13	2	PLUG & O-RING	568-00510	X			
14	2	O-RING		X			
(m)	as req'd	Included in seal kit	552-00013		X	X	
(p)	as req'd	Included in rebuilding kit	552-00032	X			
(q)	as req'd	Included in seal kit	552-00017	X			
(r)	as req'd	Included in rebuilding kit	552-00030	X			
(s)	as req'd	Included in seal kit	552-00018	X			
(t)	as req'd	Included in piston & cylinder kit	552-00031	X			

(N.S.S.) — NOT SOLD SEPARATELY

STEM ADJUSTABLE



KNOB ADJUSTABLE



Ref. No.	Part No.	Description	Qty.
1	356429	Knob & Screw Assembly	1
2	356431	Stem	1
3	356430	Plug	1
4	401273	"O" Ring 1/16 x 3/8 OD	1
5	356789	Spool	1
6	355099	Plug	1
7	See table	Body	1
8	490436	Pipe Plug 1/4 N.P.T.F.	2
9	405393	"O" Ring .087 x .818 OD	3
10	356791	Plug	1
11	407843	Spring	1
12	400877	Set Screw 8-32 x 1/4	1
13	356522	Adjusting Needle	1
14	356526	Plug	1
15	402664	"O" Ring 1/16 x 7/16 OD	1
16	356428	Adj. Needle	1
17	490474	Lock Nut	1
18	356433	Stop Pin	1

TABLE — Bodies

SERIES			PORT SIZE	BODY NO.
1428-6-6-6	K-1427-6-6-6	S-1427-6-6-6	3/4 N.P.T.F.	356538
1428-8-8-6	K-1427-8-8-6	S-1427-8-8-6	1 & 3/4 N.P.T.F.	356559
1428-SAE 10-10-10	K-1427-SAE 10-10-10	S-1427-SAE 10-10-10	10 SAE	356794
1428-SAE 12-12-12	K-1427-SAE 12-12-12	S-1427-SAE 12-12-12	12 SAE	356793
1428-SAE 16-16-12	K-1427-SAE 16-16-12	S-1427-SAE 16-16-12	16 & 12 SAE	356790

SARASOTA DIVISION

RACINE HYDRAULICS P.O. BOX 11648 SARASOTA, FLORIDA U.S.A.

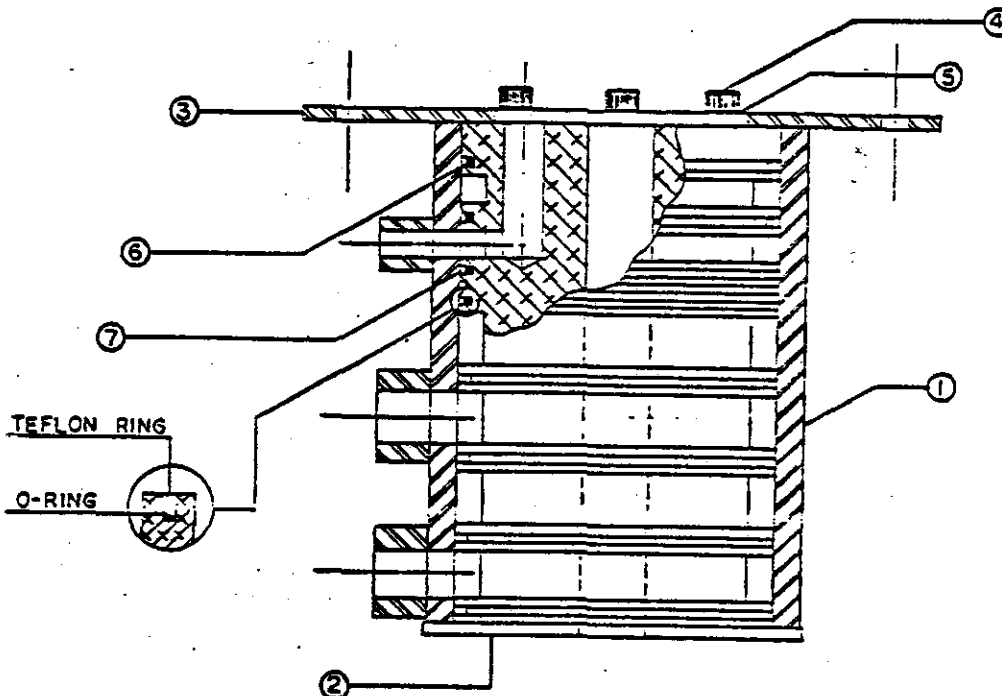
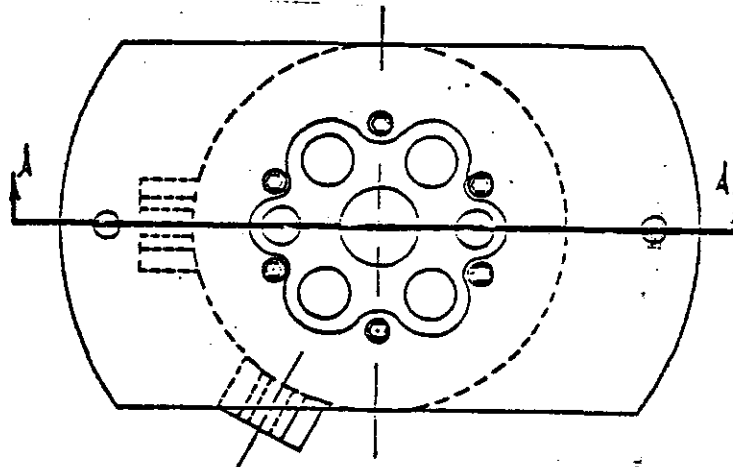


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PARTS LIST
MODEL 14000
COLLECTOR BLOCK

REFERENCE NO.	PART NO.	QUANTITY	DESCRIPTION
0	693200	1	Collector Block Assy. (Complete)
1	692203	1	Barrel
2	692301	1	Spool
3	691301	1	Mounting Plate
4	11575	6	5/16-18 UNC 1" Long
5	14010	6	Lockwasher
6	*65429	8	O-Ring
7	*50170	8	Teflon Ring
	*65540		Seal Kit



SIDE VIEW
SECTION AA

INSTRUCTIONS FOR REPLACING SPOOL SEALS

40 P VALVE

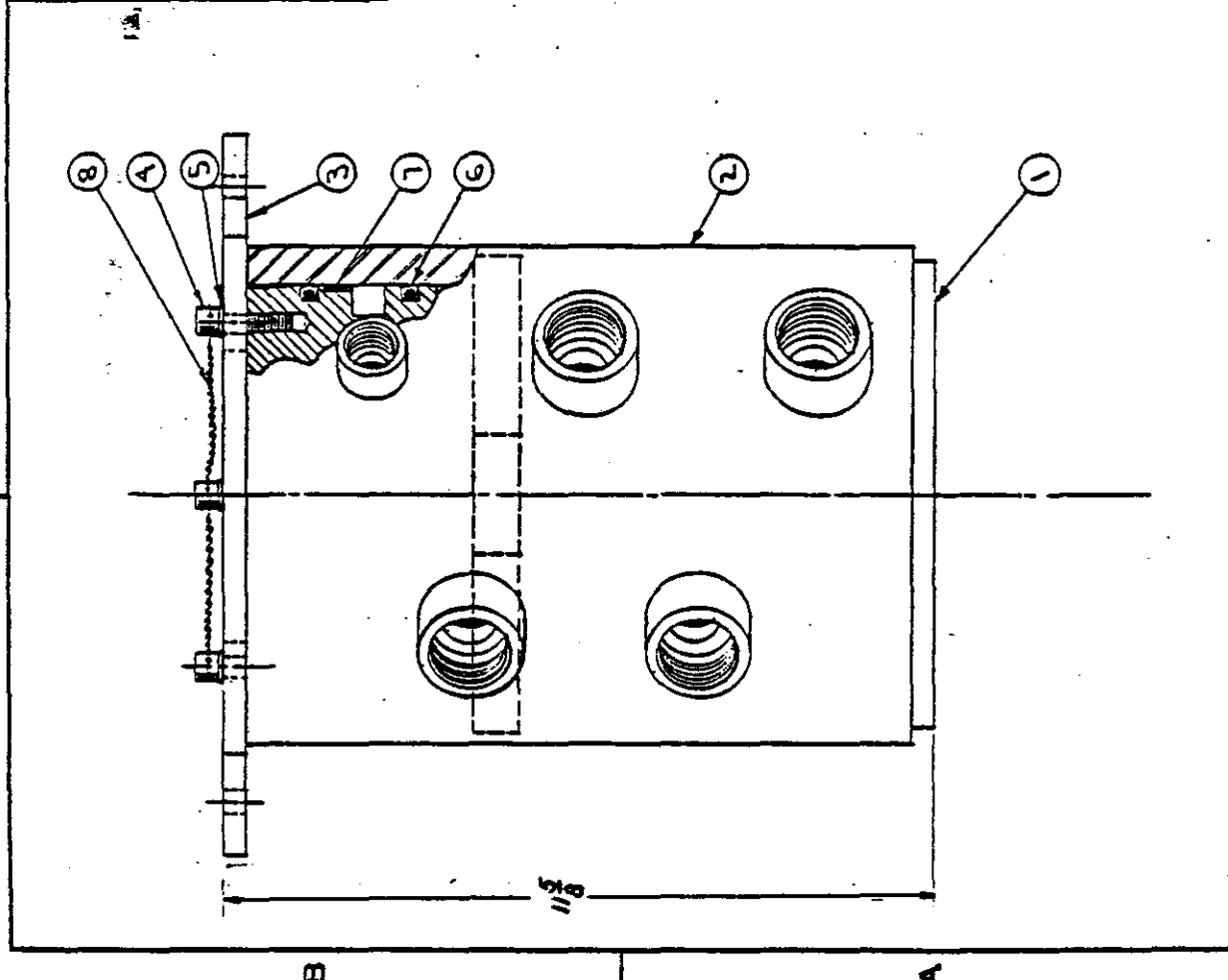
NOTE: FOR THE PURPOSE OF THESE INSTRUCTIONS WE SHALL CONSIDER THE CONTROL HANDLE SIDE OF THE VALVE AS THE FRONT, AND THE OPPOSITE SIDE THE BACK.

1. AT THE BACK OF THE VALVE, REMOVE ALL BONNET ASSEMBLY PARTS WHICH ARE CONNECTED TO THE SPOOL AND KEEP IN THE ORDER OF DISASSEMBLY. (SEE DRAWINGS ON THE REVERSE SIDE FOR THE PARTS INVOLVED IN THE MAKEUP OF DIFFERENT BONNET ASSEMBLIES.)
2. AT THE FRONT OF THE VALVE, REMOVE ALL PARTS CONNECTED TO THE SPOOL. (HANDLE AND ETC.)
3. THE SPOOL SEALS ON THE 40P CONTROL VALVE CAN BE INSTALLED EXTERNALLY WITHOUT REMOVING THE SPOOL FROM THE VALVE SECTION.
4. REMOVE THE PART #51109 SEAL PLATE, THE # 51008 SPOOL SEALS, AND THE #51110 O-RING SEAL.
5. THOROUGHLY CLEAN THE COUNTERBORE AND THE SEAL GROOVES IN THE SEAL PLATE.
6. LIGHTLY OIL THE NEW SEALS TO BE INSTALLED, AND INSERT THEM IN THE GROOVES IN THE SEAL PLATE.
7. SLIDE THE SEAL PLATE OVER THE END OF THE SPOOL INTO THE CASING COUNTERBORE.
8. RE-INSTALL ALL PARTS THAT WERE REMOVED IN REVERSE ORDER.

NOTE: IF THIS VALVE DID NOT HAVE A HANDLE INSTALLED, THE SPOOL CAN BE PREVENTED FROM TURNING WHILE REMOVING THE SPRING CENTERING PARTS BY USE OF A SCREWDRIVER INSERTED THROUGH THE CLEVIS SLOT.

1 2 3 4

ITEM	QTY	MAT'L	PKG NO.	DESCRIPTION	WT
1	1		69222B	SPool	51
2	1		692413	BARREL	18.5
3	1		691321	MOUNTING PLATE	5.8
4	8		181238	LAP SCREW	.2
5	8		19311	WOLLAR LOCK WASHER	
6	6		502424	CROWN SEAL	
7	2		56190*	WEAR RING	
8	1		39611*	SAFETY WIRE	
			56606*	SEAL KIT - COMPLETE	1
					86.5

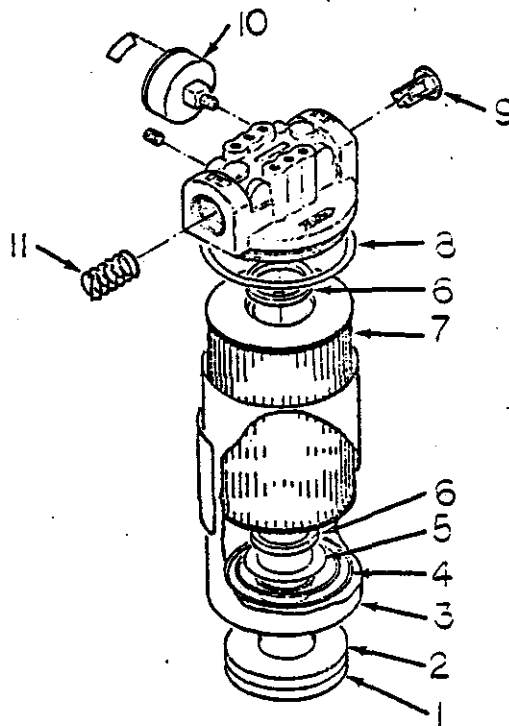


BARKO HYDRAULICS, INC.
 Office: Superior, Wisconsin Phone: (715) 382-6841
 Mailing address: P.O. Box 8227 Duluth, Minnesota 55806

TOLERANCES UNLESS OTHERWISE SPECIFIED:		FRACTIONAL: ± 1/32 DECIMAL: ± .010 ANGULAR: ± 1/2°	
DRAWN	DATE	BY	DATE
WJH	3-27-78		
APP			
REV. DATE		REV. DATE	
1		2	

TITLE		PART USED	
ASSEMBLY - HYD. COLL.		NEXT ASBY	
7" 5 PORT		130 BOC	
(ALUMINUM & STODL)		SET WT. 86.5 #	
SCALE		ACT WT.	
HALF	HALF		
Dwg. No. B		692025	

1 2 3 4



RETURN LINE FILTERS

PARTS LIST

ITEM	QTY.	DESCRIPTION	PART NO.
0	1	ASSEMBLY, complete 3 PSI shielded suction--- 10 micron	65040
0	1	ASSEMBLY, complete no relief shielded----- 10 micron	65041
0	1	ASSEMBLY, complete 15 PSI return 33 micron--	65042
1	1	POST, center-----	59001
2	1	GASKET, center post-----	See Filter Kits
3	1	HOUSING, filter-----	59003
4	1	SPRING, conical-----	59004
5	1	WASHER, back-up-----	59005
6	2	SEAL, filter element-----	See Filter Kits
7	1	ELEMENT, filter-----	See Filter Kits
8	1	O RING, housing seal-----	See Filter Kits
9	1	POPPET, relief valve-----	See Relief Ass'y
10		INDICATOR, compound-----	59009
		INDICATOR, 30" vacuum-----	59010
11		SPRING, relief valve-----	See Relief Ass'y
<u>FILTER KITS</u>			
		33 MICRON - RETURN LINE WITH SEALS-----	52019
		10 MICRON - RETURN LINE WITH SEALS-----	52020
		33 MICRON - SHIELD SUCTION WITH SEALS-----	52085
		10 MICRON - SHIELD SUCTION WITH SEALS-----	52086
<u>RELIEF ASSEMBLY</u>			
		3 PSI SUCTION - BLUE-----	52087
		15. PSI RETURN - SILVER-----	52088

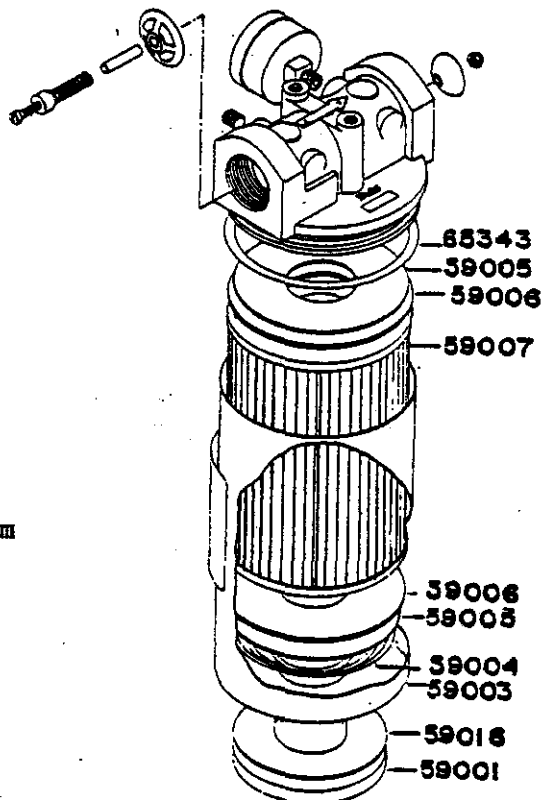
I N S T R U C T I O N S
F I L T E R E L E M E N T R E P L A C E M E N T

To remove the filter element, the following steps must be taken

1. Unscrew and drop #59001 Center Post (1" clearance for drop is all that is necessary to remove element container.)
2. Remove #59003 Filter Housing, #59005 Back-Up Washer, #59006 Gasket, #59007 Element, etc.
3. Clean all parts and filter housing. (CAUTION: Do NOT use solutions such as perchlorethylene or trichlorethylene to clean the Cork Gasket as these solutions will tend to cause swelling of the Gaskets which could result in malfunction of the filter when reassembled.)

4. Reassemble in the following order:
 - A. Put #59001 Post in Filter Housing. (Be sure Post has Gasket Seal, #59016, and that Gasket, Bottom of Filter Housing, and flange of Center Post are absolutely free of all oil and grease when tightening in order to prevent extrusion of Gasket.)
 - B. Insert #59004 Conical Spring, with small coil end down.
 - C. Insert #59005 - 4 1/4" Back-Up Washer (Bottom).
 - D. Insert #59006 Bottom Gasket.
 - E. Insert Filter Element.
 - F. Insert #59006 Top Gasket.
 - G. Insert Top #59005 Back-up Washer.
 - H. Position #59016 Filter Housing and tighten #59001 Center Post to MAXIMUM OF 20 FT. LBS. TORQUE.

CAUTION: When tightening Center Post, Hold Can From Turning, otherwise #65343 O-Ring may stretch out of shape and a leak may occur.



NOTE: Be sure Indicator reads "0" when system is not in operation

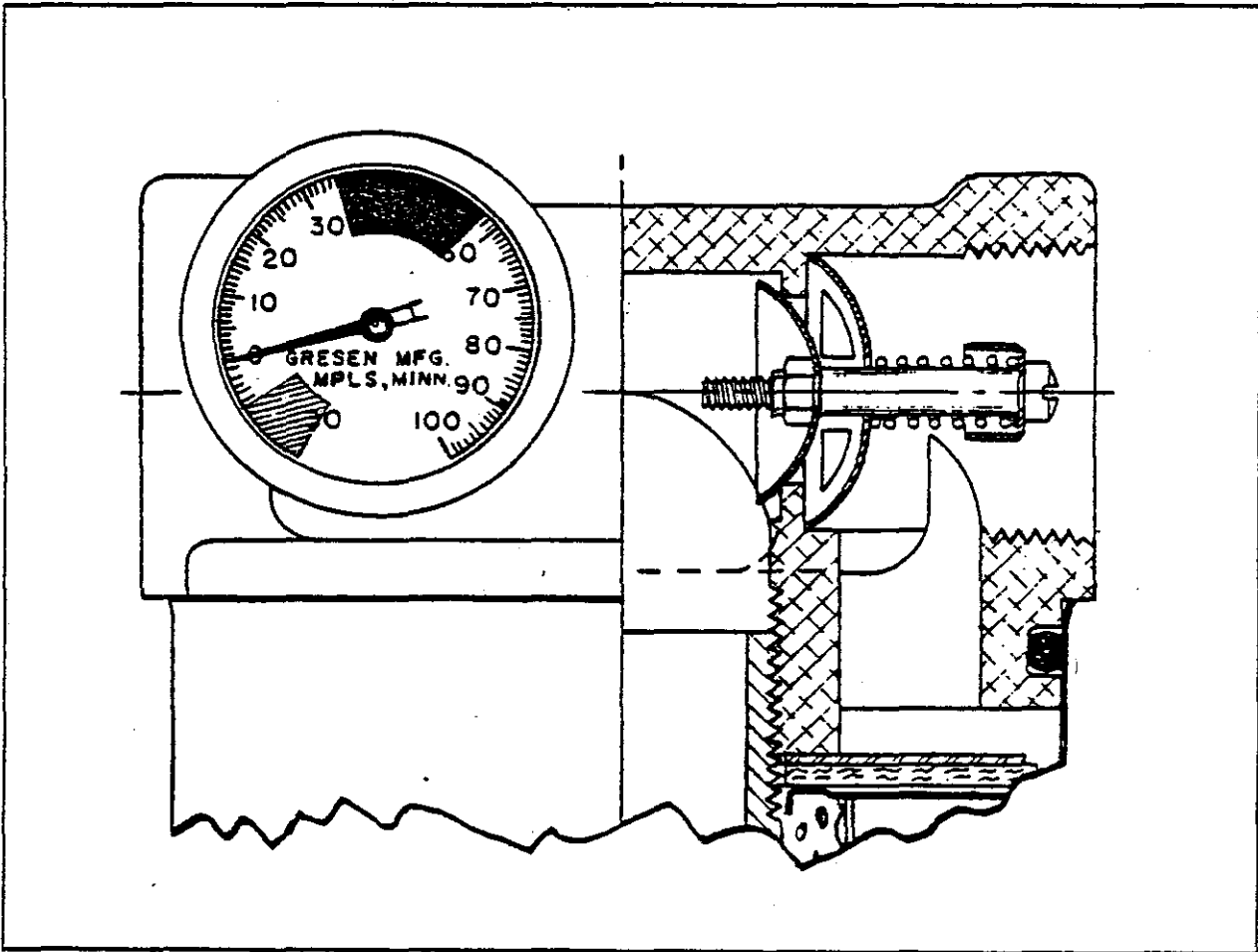
FILTER

INSTRUCTIONS TO REPLACE BY-PASS SPRING

TOOLS REQUIRED: One (1) Screwdriver
One (1) Socket Wrench - #11-11/32" Hex.

1. Disassemble Filter (See Filter Element Replacement Instructions)
2. For convenience, put #59022 Head Casting in Vise. (Upside-Down)
3. With screwdriver and socket wrench, remove By-Pass valve assembly. Observe carefully position of these parts.

Reinstall new spring.



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INTRODUCTION

This Parts Manual has been designed to assist you in identifying and ordering replacement parts for your Barko loader.

The manual is divided into seven sections: Nomenclature, Structural Upper, Structural Lower, Mechanical, Electrical, Hydraulic and Options and Accessories. All pages use two numbers for identification. The first number is the section and the second number is the page number. In other words, page one in section one is designated 1-1, and page two in section one is designated 1-2.

Your Barko loader has been designed to provide you with long, efficient service — and, in its manufacture, only the highest quality parts and components have been used. We, therefore, strongly recommend the use of only authorized Barko replacement parts to insure continued long life and service from your loader.

