



POWER HYDRAULIC CONTROLS

THIS PRECISION-BUILT AND HAS BEEN FULLY TESTED.
USE ONLY A PREMIUM GRADE OF CLEAN 32# OIL.
DO NOT USE SOAPY, MOIST, OR CONTAMINATED OIL.
EVERY THREE MONTHS, STOP PUMP, SCREEN, CLEAN, AND
REPLACE OIL. PRELIMINARY VALVE IS FACTORY PRE-SET AT 1500 PSI.
IF LOAD IS TOO HEAVY, ONE OR MORE PRESSURES IN 1750 PSI. IF LOAD IS TOO
HEAVY, THE RELIEF VALVE WILL AUTOMATICALLY CUT IN AND OLIVE
TENSION ON THE FASTEST DRIVEN MODELS.
PUMPS ARE TIGHT ON PUMP SHAFT. REMOVE ADJUSTABLE HALF OF
SCREW (SEE ABOVE). TIGHTEN SINGLE SET SCREW ON ADJUSTABLE HALF
CLUTCH THE TEE PULLEY. TIGHTEN SQUARE HEAD SET
FAN BELT MUST BE IN ALIGNMENT. THE RECOMMENDED
RPM FOR NOISE AND ALL OTHER CONNECTIONS EVENLY
TIGHTEN (LOOKING AT SHAFT END). RED PUMPS
ON SUPPLY IN RESERVOIR. CAUTION: DO NOT FILL
TANK COLLAPSED.

MONARCH

1331 Michigan Street N. E.

MACHINERY COMPANY
GRAND RAPIDS, MICH. U. S. A.





CAUTION
USE ONLY A PREMIUM
SAE No. 10 MOTOR
OIL. Refill more
top with 10W-30
fluids per spec.

WV-LO-JEEP

WAGNER ROAD MACHINE CO.
WASH. D.C.

A-6-62

OPERATING

THIS MONARCH HYDRAULIC MECHANISM IS PRECISION-BUILT FOR MAXIMUM PERFORMANCE AND LONG LIFE. USE ONLY OIL, SUCH AS MOBILION 10W (A PRODUCT OF THE OIL COMPANY), CHANGE OIL EVERY THREE MONTHS. OPERATING BACK OF PUMP BASE, THE INTERNAL PRESSURE CAP OVER BACK OF PUMP IS APPROXIMATELY ONE OR TWO PER SQ. IN. THE VOLUME IS USED, THE RELIEF VALVE OR WRONG RAM LEVERAGE IS USED, THE RELIEF VALVE OR WHISTLING SOUND.

MONARCH POWER HYDRAULIC CONTROLS

MAINTAIN ONLY A NORMAL 1/2 INCH FLEX TENSION ON THE TWO VEE PULLEY SET SCREWS ARE TIGHTENED. THE PULLEY FOR TIGHTENING BOTH OF ABOVE. PULPES EQUIPPED WITH MANUAL CLUTCH DOG ONLY. PUMP, VEE PULLEY AND FAN LEAKS. RANGE IS FROM 1200 TO 2500 RPM. LOOKING AT SHAFT END. RED PUMPS. CAUTION: DO NOT FILL.

GRAND MACHINERY COMPANY

GRAND RAPIDS, MICH., U. S. A.





MONARCH ROAD MACHINERY CO.
1331 Michigan, N. E.
GRAND RAPIDS 3, MICHIGAN, U.S.A.

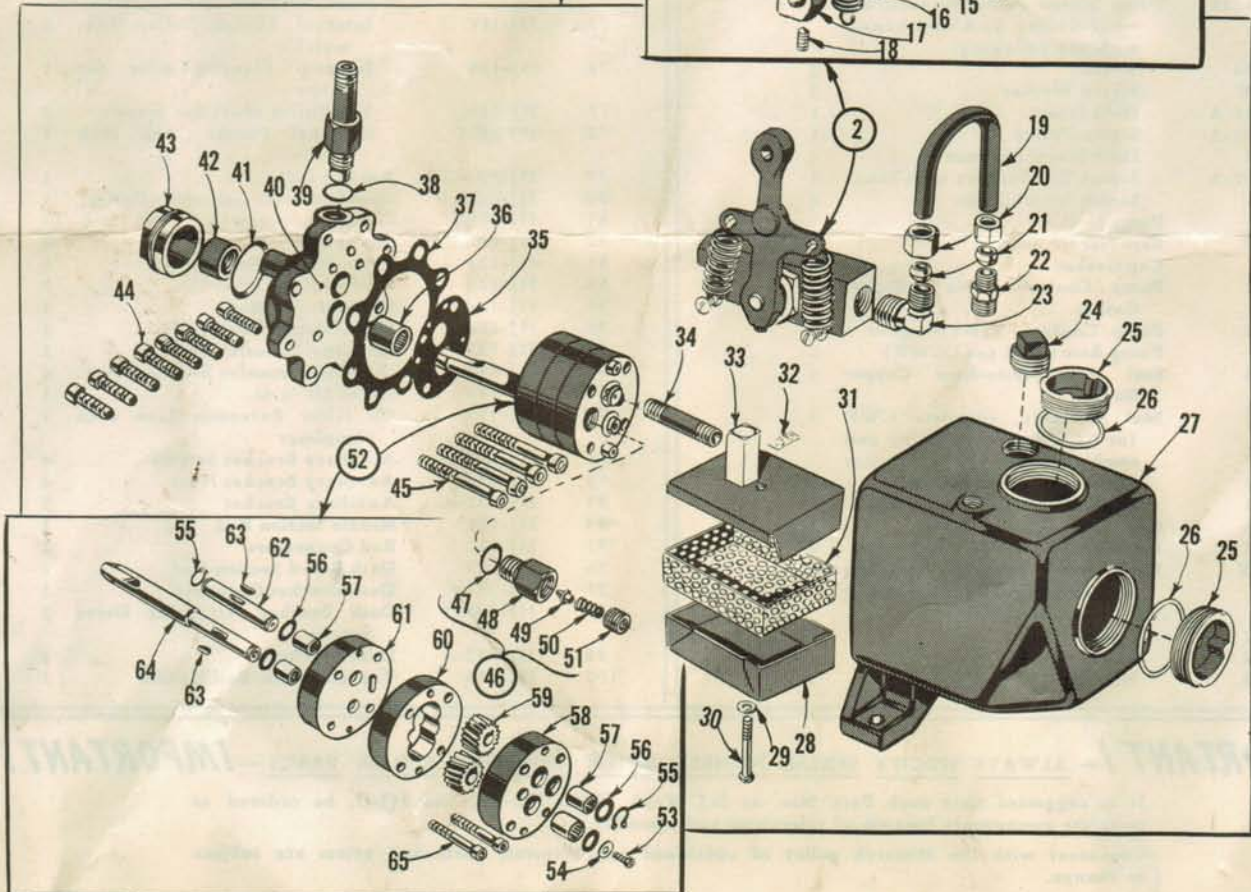
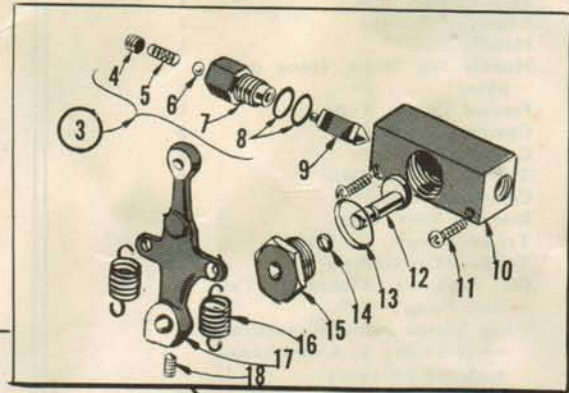
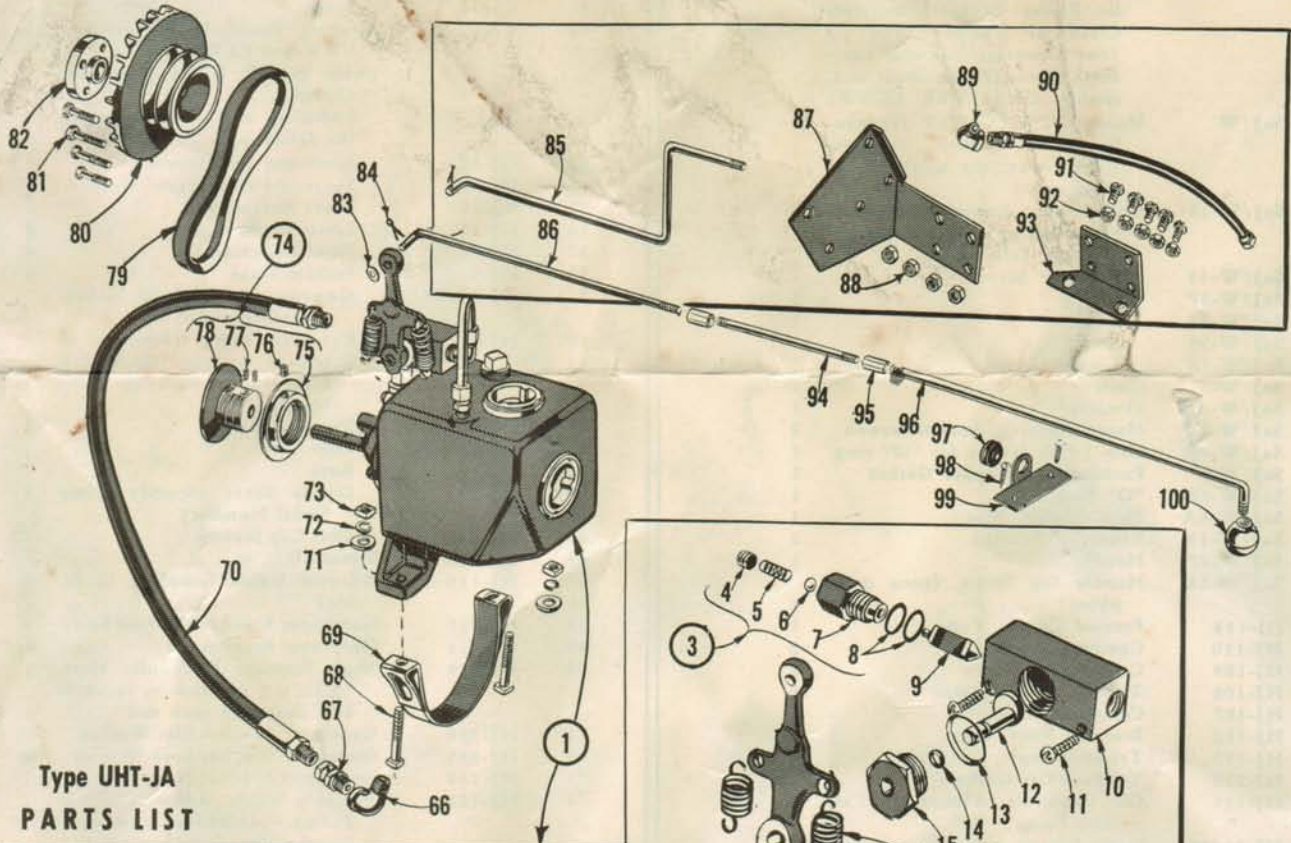
Monarch

ROAD MACHINERY COMPANY

1331 MICHIGAN STREET, N. E.

Telephone GLeendale 8-4566

GRAND RAPIDS 3, MICHIGAN U. S. A.



Monarch Hy-Lo-Jeep Hydraulic Power Control - - Model UHT-JA

Ref. No.	Part No.	DESCRIPTION	Parts per unit	Price per part	Ref. No.	Part No.	DESCRIPTION	Parts per unit	Price per part
1	UHT-JA	Monarch HY-LO-JEEP Hydraulic Power Control, complete (Clockwise rotation 1500 psi (For Counter-clockwise rotation, viewing from shaft end, specify UHT-JA-ER CCWR))			50	HJ-20	Spring	1	
2	SaJ/W	Monarch HY-LO-JEEP Hydraulic Valve Control, complete (Three-way, for single acting rams only)	1		51	HJ-21	Screw	1	
3	SaJ/W-10	Check Valve Assembly, complete — including and combined with the following:	1		52	HJ-U	Internal Pump Unit, complete CWR (or CCWR) (with HJ-RV Relief Valve included . . . including and combined with the following:	1	
4	SaJ/W-13	Retainer Screw	1		53	HJ-116	Shaft-end Cap Screw	1	
5	SaJ/W-SP	Spring	1		54	HJ-117	Shaft-end Cap Screw Washer	1	
6	SaJ/W-12	Ball	1		55	HJ-12	Shaft Retainers	2	
7	SaJ/W-11	Shell	1		56	HJ-13	Fibre Washers	8	
8	SaJ/W-14	Copper Gaskets	2		57	HJ-23	Needle Bearings	4	
9	SaJ/W-3	Quill	1		58	HJ-5	Suction Plate	1	
10	SaJ/W-2	Housing	1		59	HJ-10/11	Gears — Driver and Idler (Matched set of 2)	Set	
11	SaJ/W-2	Housing-Spring/Anchor Screws	2		60	HJ-4	Cylinder Plate (Because of tolerances, the HJ-4 and HJ-10/11 should be combined)	1	
12	SaJ/W-4A	Cam (with groove for "O" ring)	1		61	HJ-3	Pressure Plate	1	
13	SaJ/W-5	Packing Nut Copper Gasket	1		62	HJ-9	Idler Shaft	1	
14	SaJ/W-OR	"O" Ring	1		63	HJ-17	Keys	2	
15	SaJ/W-6A	Packing Hex. Nut	1		64	HJ-8	Driver Shaft (Specify Pump Serial Number)	1	
16	SaJ/W-19	Extension Springs	2		65	HJ-14	Unit Cap Screws	2	
17	SaJ/W-17	Handle	1		66	HJ-118	Street Ell 1/4 in.	2	
18	SaJ/W-18	Handle Set Screw (cone point nylon)	1		67	HJ-119	Adapter Union Coupling 1/4 in. MxF	1	
19	HJ-111	Formed Copper Tube	1		68	HJ-137	Generator Bracket Machine Bolts	2	
20	HJ-110	Compression Nut	2		69	HJ-138	Generator Bracket	1	
21	HJ-109	Compression Sleeve	2		70	HJ-120	High Pressure Hydraulic Hose, 1/4 in. x 4 ft. with 1/4 in. male IPT couplings each end	1	
22	HJ-108	Tube-to-Case Adapter	1		71	HJ-136	Generator Bracket Flat Washer	2	
23	HJ-107	Compression Elbow	1		72	HJ-135	Generator Bracket Lock Washer	2	
24	HJ-112	Breather Vent Plug	1		73	HJ-134	Generator Bracket Nut	2	
25	HJ-113	Tri-Sure Cap	2		74	HJ-121	Variable Pitch Adjustable Vee Pulley — including and combined with the following:	1	
26	HJ-114	Tri-Sure Cap Gaskets	2		75	HJ-1FC	Internal Flange Collar (Female)	1	
27	HJ-115	Oil Reservoir Aluminum Case with Foot	1		76	HJ-1FS	Internal Flange Collar Set Screw	1	
	HJ-25/26	Pump Screen Assembly, complete — including and combined with the following:	1		77	HJ-123	Vee Pulley Shaft Set Screws	2	
28	HJ-104	Screen	1		78	HJ-EFH	External Flange with Hub (Male)	1	
29	HJ-SW	Screen Washer	1		79	HJ-FBA-21	Vee Fan Belt	1	
30	HJ-106-A	Hold Screw	1		80	HJ-DGA	Double Groove Generator Pulley	1	
31	HJ-105-A	Screen Frame	1		81	HJ-FSSA	Fan Spacer Screws	4	
32	HJ-SF	Hold Screw Fastener	1		82	HJ-FAS	Fan Spacer	1	
33	HJ-102-A	Screen Top Support with Inlet	1		83	HJ-124	Valve Handle Rod Washer	1	
34	HJ-SN	Screen Inlet Nipple	1		84	HJ-125	Control Rod Cotter Pin	1	
35	HJ-7	Pump Gasket	1		85	HJ-126	Valve Section Rod	1	
36	HJ-24	Base Needle Bearing	1		86	HJ-126-A	Valve Section Rod (226)	1	
37	HJ-6	Cap Gasket	1		87	HJ-142	Oil Filter Transfer Bracket	1	
38	HJ-22	Pump/Control - Valve Adapter Gasket	1		88	HJ-141	Oil Filter Transfer Bracket Nuts	4	
39	HJ-36	Pump/Control - Valve Adapter	1		89	HJ-140	Street Ell 1/8 in.	1	
40	HJ-1	Pump Base CWR (or CCWR)	1		90	HJ-139	Oil Filter Extension Line with Couplings	1	
41	HJ-35	Seal Assembly-to-Base Copper Gasket	1		91	HJ-ABS	Auxiliary Bracket Screws	4	
	HJ-S	Seal Assembly, complete CWR (or CCWR) — including and combined with the following:	1		92	HJ-ABN	Auxiliary Bracket Nuts	4	
42	HJ-33	Closure Seal with Gasket	1		93	HJ-142-A	Auxiliary Bracket	1	
43	HJ-31	Seal Collar CWR (or CCWR)	1		94	HJ-128	Middle Section Rod	1	
44	HJ-16	Cap Screws/Base-to-Case	8		95	HJ-127	Rod Connectors	2	
45	HJ-15	Internal Unit to Base Cap Screws	4		96	HJ-129	Dash Board Section Rod	1	
46	HJ-RV	Relief Valve Assembly, complete — including and combined with the following:	1		97	HJ-131	Dash Bracket Grommet	1	
47	HJ-22	Gasket	1		98	HJ-BADS	Dash Bracket Attaching Drive Screws	2	
48	HJ-18	Body	1		99	HJ-132-A	Dash Bracket	1	
49	HJ-19	Needle	1		100	HJ-133	Tapped Plastic Ball Handle	1	

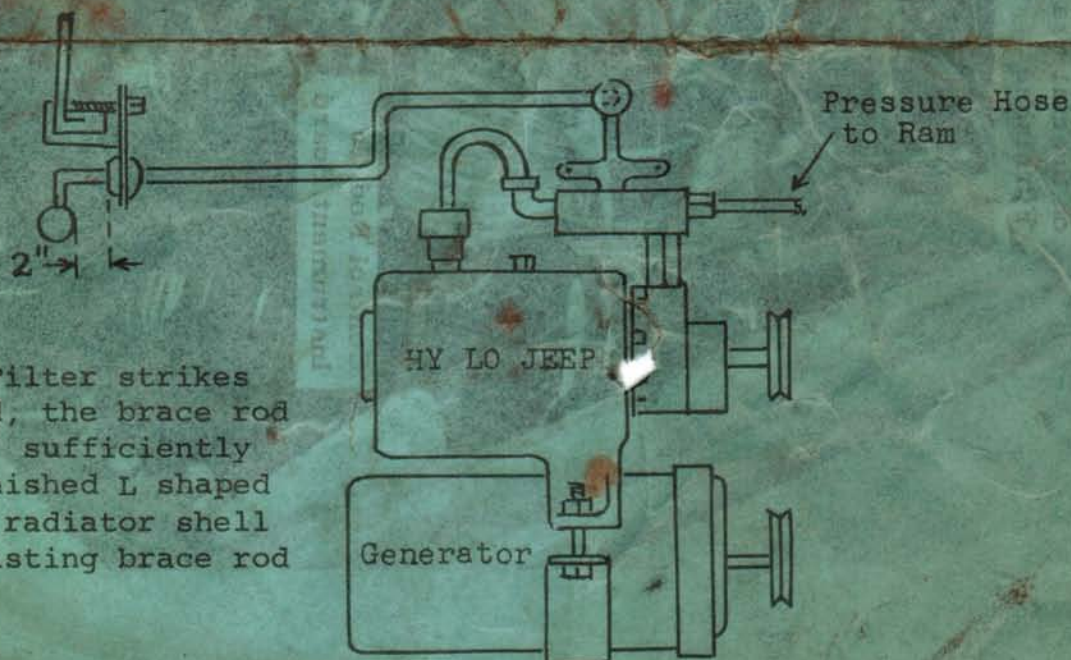
IMPORTANT! — ALWAYS SPECIFY SERIAL NUMBER WHEN ORDERING REPAIR PARTS — IMPORTANT!

It is suggested that such Part Nos. as SaJ/W-10, HJ-S, HJ-RV, and HJ-U, be ordered as complete components because of tolerances and assembly.

Consistent with the Monarch policy of continued improvement, parts and prices are subject to change.

INSTALLATION INSTRUCTIONS
MONARCH HY LO JEEP
FOR MOUNTING ON WILLYS JEEP, MODEL CJ

1. Remove the Oil Filter from the cylinder head bracket and mount on Special Bracket furnished. Attach Special Bracket and Oil Filter to front cylinder head bolts, left of radiator hose. Remove the hexagon fitting from the Oil Filter inlet port and replace with 1/8 inch street ell furnished. Screw the hexagon fitting into the street ell and connect to the existing long hose on the engine. The return hose must be extended 14 inches. Use the extension line furnished and connect to the bottom outlet of Oil Filter.
2. Remove existing generator pulley and replace with double sheave pulley furnished. Mount Pump Unit on top of generator and place attaching band around bottom. Fasten band to bracket on bottom of Pump Unit using bolts furnished. Line up adjustable pump pulley with inside double generator pulley and install short V belt furnished. Belt tension may be adjusted by tightening flange on adjustable pump pulley. **CAUTION: BE SURE PUMP SHAFT AND PULLEY DO NOT STRIKE FAN BLADES.** Make certain that pump pulley is in alignment with Generator and Fan pulleys, and that all parts are firmly tightened.
3. Connect control rods by coupling sections furnished. Rods may be formed or bent as installation requires. Locate position and drill 1/2 inch hole through fire wall to provide for control rod to reach instrument panel. Control rod may be fastened to instrument panel with dash bracket furnished, or by drilling hole through instrument panel. Attach adapter union coupling and high pressure hose to control valve (hexagon) outlet and connect to snow plow ram.
4. Before operating, fill reservoir with CLEAN S.A.E. 10W lubricating oil, available at all gasoline service stations, to within 1 inch of top level when hose lines and ram are empty. Let engine idle 3 minutes to circulate oil in pump and free lines of air. PULL the rod to apply pressure and RAISE the plow. PUSH the rod to release pressure and LOWER the plow. Center position is hold or by-pass.
5. Maximum pump pressure 1500 lbs. per square inch. Volume 1 (U.S.) gallon, 231 cubic inches, per minute. Recommended pump speed 1500 to 2500 r.p.m.



If relocated Oil Filter strikes radiator brace rod, the brace rod may be moved over sufficiently by use of the furnished L shaped bracket bolted to radiator shell at point where existing brace rod is fastened

Oil Filter Mounted
on Special Bracket
Furnished

CJ Model
WILLYS JEEP

Control Rod To
Instrument Board

High Pressure
Hose to Ram

Double Groove Pulley
Fits Generator

INSTALLATION INSTRUCTIONS
MODEL UHT-226 MONARCH POWER HYDRAULIC CONTROL
FOR WILLYS TRUCK OR STATION WAGON

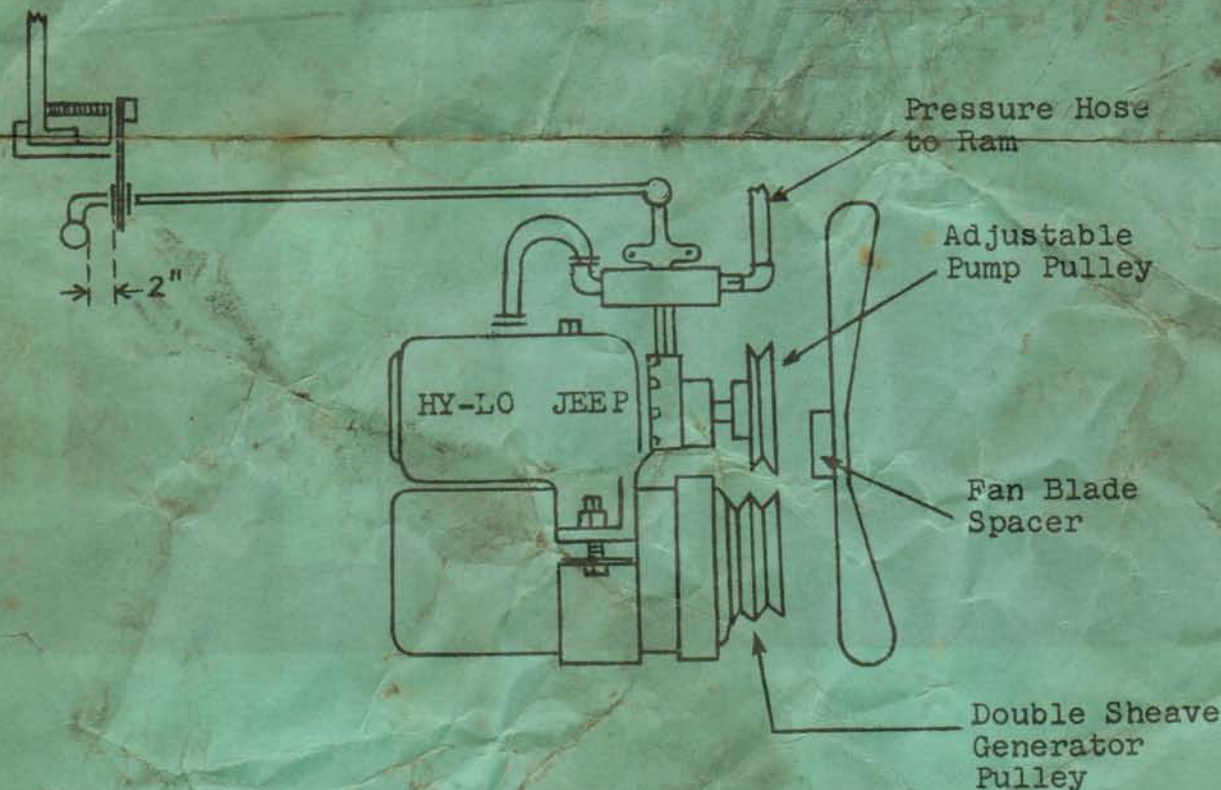
1. Remove existing generator pulley and replace with double sheave pulley furnished. Fan blades will strike double sheave generator pulley, consequently it is necessary to move fan forward. To do this, remove screws holding fan blade and mount furnished spacer block between drive hub and inside of fan hub to set blades forward: use longer screws furnished to re-assemble fan. Move ignition coil back toward oil filter by loosening screws and sliding the coil backward in the slots.
2. Mount Pump Unit on top of generator and place attaching band around bottom. Fasten band to bracket on bottom of Pump Unit, using bolts furnished. Line up adjustable pump pulley with outside double generator pulley and install short "V" belt furnished. Belt tension may be adjusted by tightening flange on adjustable pump pulley.
3. Connect control rods by coupling sections furnished. Rods may be bent or formed as installation requires. Locate and drill 1/2 inch hole through fire wall to provide for control rod to reach instrument panel. Control rod may be fastened to instrument panel with dash bracket furnished, or by drilling hole through instrument panel. Attach adapter union coupling with high pressure hose to control valve outlet and connect to snow plow ram.
4. Before operating, fill reservoir with CLEAN, S.A.E. 10W lubricating oil available at gasoline service stations, to within 1 inch of top level with lines and ram empty. CAUTION: DO NOT USE BRAKE FLUID OR OTHER SO-CALLED HYDRAULIC FLUIDS. Let engine idle for 3 minutes to circulate oil in pump. PULL the rod (toward operator) to apply pressure and RAISE the plow. PUSH the rod to release pressure and LOWER the plow. Center position is hold or by-pass.

Maximum pump pressure 1500 lbs. per square inch. Volume 1 (U.S.) gallon, 231 cubic inches, per minute. Recommended pump speed 1500 to 2500 r.p.m.

MONARCH ROAD MACHINERY CO.

Hydraulics Div.

GRAND RAPIDS 3, MICH. USA



226 Model
WILLYS Truck
or Station Wagon

Move Ignition
Coil Back as Shown

Control Rod To
Instrument Board

High Pressure
Hose to Ram

Double Groove Pulley
Fits Generator

CAUTION

Do not fill oil reservoir more than 1" from top with ram collapsed

Over-filling may result in cracked case or reservoir.

Use only a premium grade of SAE No.10 oil.

Do Not Use brake or hydraulic fluids.

MONARCH POWER HYDRAULIC CONTROLS

THIS MONARCH HYDRAULIC MECHANISM IS PRECISION-BUILT, AND HAS BEEN FULLY TESTED. FOR MAXIMUM PERFORMANCE AND LONG LIFE, USE ONLY A PREMIUM GRADE OF CLEAN SAE No. 10W OIL, SUCH AS MOBIL OIL 10W (A PRODUCT OF SOCONY MOBIL OIL CO., INC.). UNDER NORMAL OPERATING CONDITIONS CHANGE OIL EVERY THREE MONTHS. KEEP PUMP SCREEN CLEAN. (REMOVE CAP OVER BACK OF PUMP BASE.) THE INTERNAL PRESSURE RELIEF VALVE IS FACTORY PRE-SET AT 1500 LBS. PER SQ. IN. THE VOLUME IS APPROXIMATELY ONE GALLON PER MINUTE (@ 1750 RPM.). IF LOAD IS TOO HEAVY OR WRONG RAM LEVERAGE IS USED, THE RELIEF VALVE WILL AUTOMATICALLY CUT IN AND GIVE A WHISTLING SOUND.

MAINTAIN ONLY A NORMAL 1/2 INCH FLEX TENSION ON THE FAN-BELT DRIVEN MODELS.

BE SURE THE TWO VEE PULLEY SET SCREWS ARE TIGHT ON PUMP SHAFT. (REMOVE ADJUSTABLE HALF OF VEE PULLEY FOR TIGHTENING BOTH OF ABOVE). TIGHTEN SINGLE SET SCREW ON ADJUSTABLE HALF WHEN POSITION IS DETERMINED.

TO ENGAGE PUMPS EQUIPPED WITH MANUAL CLUTCH TYPE VEE PULLEYS, TIGHTEN SQUARE HEAD SET SCREW ON CLUTCH DOG ONLY.

WHEN MOUNTING PUMP, VEE PULLEY AND FAN-BELT MUST BE IN ALIGNMENT. THE RECOMMENDED OPERATING SPEED RANGE IS FROM 1200 TO 2500 RPM. KEEP HOSE AND ALL OTHER CONNECTIONS EVENLY TIGHT TO AVOID AIR LEAKS.

PUMPS PAINTED BLACK OR GRAY HAVE CLOCKWISE ROTATION (LOOKING AT SHAFT END). RED PUMPS ARE COUNTER-CLOCKWISE — EXCEPT HY-LO-JEEP TYPE UHT-J.

BEFORE OPERATING BE SURE OF ADEQUATE OIL SUPPLY IN RESERVOIR. CAUTION: DO NOT FILL RESERVOIR MORE THAN ONE INCH FROM TOP — WITH RAM COLLAPSED.

MONARCH ROAD MACHINERY COMPANY

1331 Michigan Street N. E.

(Hydraulics Division)

GRAND RAPIDS, MICH., U. S. A.

READ BEFORE OPERATING

10M-6-62

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MONARCH ROAD MACHINERY CO.

1331 Michigan, N. E.

GRAND RAPIDS 3, MICHIGAN, U.S.A.

