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MANUAL PREVIEW

Ditch Witch

Operator's Manual

VP12

Vibratory Plow Chassis Only

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Operator's Manual

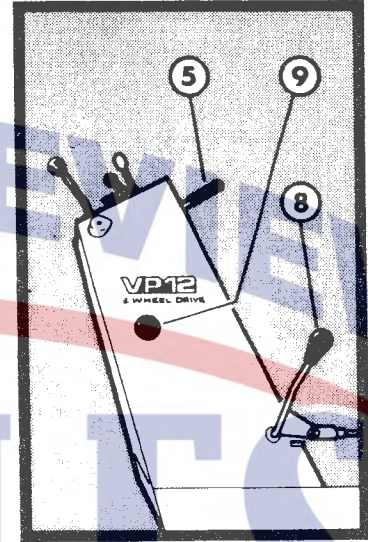
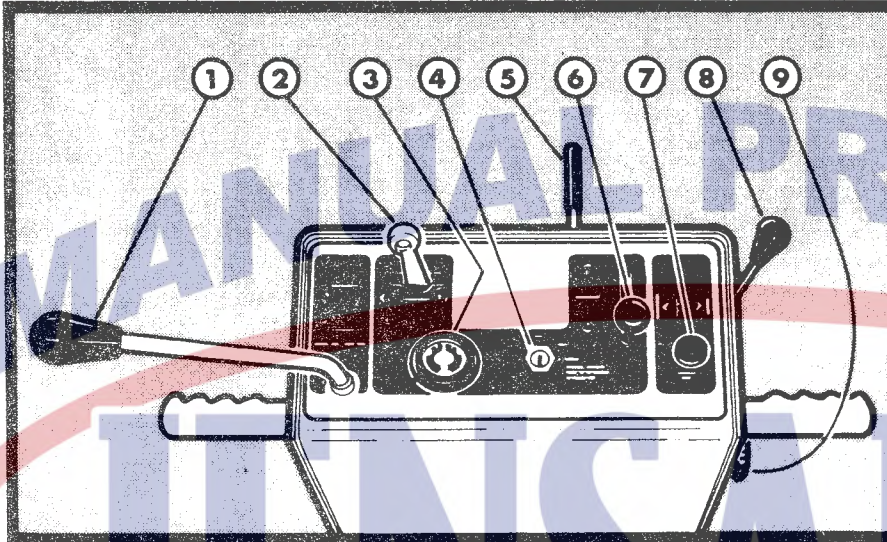
CONTENTS

SAFETY	7
CONTROLS	9
OPERATION	10
LUBRICATION	13
SERVICE	14
TRUBLE SHOOTING	15
SPECIFICATIONS	19
PARTS LISTING	23
Engine	1
Fuel Line	2
Upper Arm	3-4
Lift Arm & Trolley	5-7
Shaker	8
Plow Blades	9-10
Belt Clutch	11
Front Axle	12
Steering Frame & Rear Axle	13
Differential	15
Frame Parts	16
Electrical Diagram	17-18
Hydraulic System—Pump & Valve Circuit ..	19-20
Hydraulic System—Steering & Blade Lift ..	21
Traction Control Valve	22
Steering & Lift Valves	23
Plow & Mobile Valve	24
Hydraulic Motor	25
Counterbalance Valve	26
Hydraulic Cylinders	27
WARRANTY	25

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II CONTROLS

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- | | |
|------------------------|------------------------|
| 1. Traction Control | 6. Throttle |
| 2. Steering Control | 7. Choke |
| 3. Ammeter | 8. Shaker Clutch |
| 4. Ignition Switch | 9. Plow-Mobile Control |
| 5. Blade Depth Control | |

1. Traction Control—used to control the vehicle speed and direction in mobile and plow mode. To travel forward, move the control forward (clockwise); to travel in reverse, move the control to the rear (counterclockwise). To go faster in either direction, move the control further from NEUTRAL; to go slower, move the control closer to NEUTRAL. To stop movement, return the control to NEUTRAL.

2. Steering Control—used to steer the rear wheels on the machine. When moving forward, steer the machine to the right by pushing the lever to the right; steer left by pushing the lever to the left.

3. Ammeter—measures the amount of charge going to or from the battery. When the engine is operating, the ammeter should register zero or above. If not, stop the engine and investigate the cause.

4. Ignition Switch—a three-position switch with a removable key. To start, insert ignition key and turn to the START position. When the engine starts, immediately release key. The key will return to the ON position.

5. Blade Depth Control—used to raise and lower the plow blade and shaker trolley. Raise the plow blade by moving the handle up, and lower by moving the handle down.

6. Throttle Lever—used to increase and decrease engine speed. Open throttle and increase engine speed by moving the lever forward. Close throttle and decrease engine speed by pulling lever to the rear.

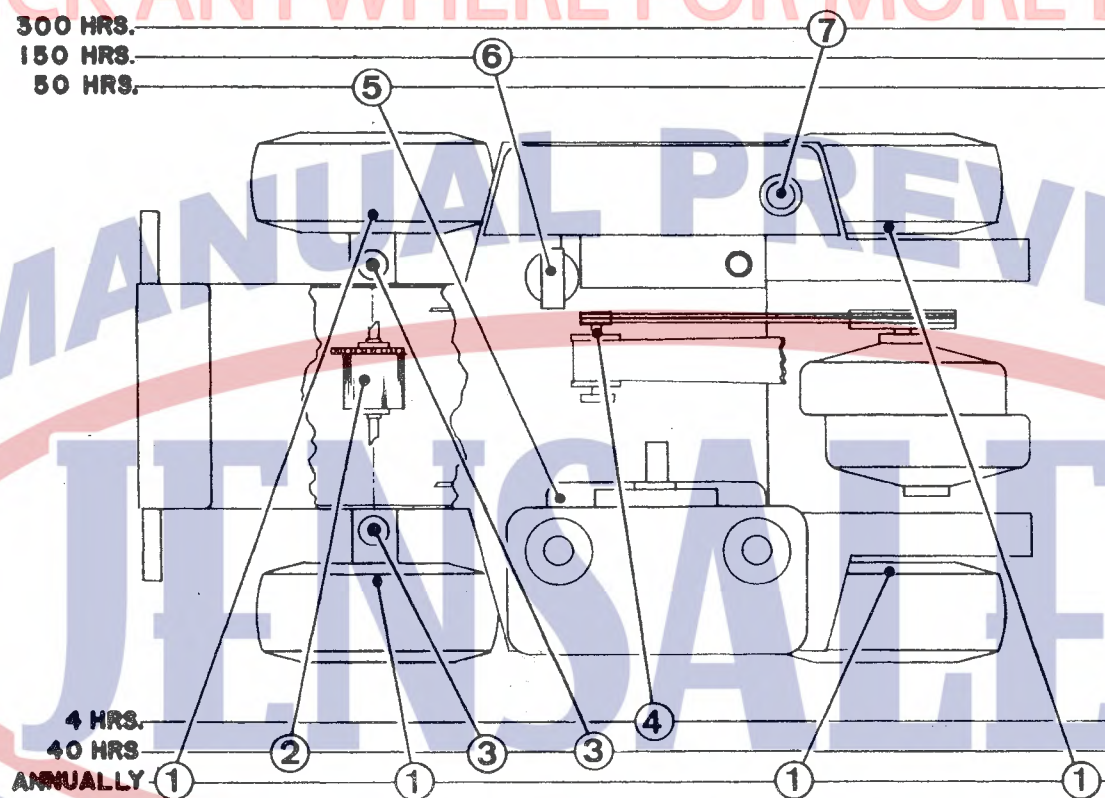
7. Choke—used to assist in starting a cold machine. Pull the choke valve out before starting, and push it all the way in when the engine has warmed up to operating temperature.

8. Shaker Clutch—used to engage and disengage the belt drive to the shaker. To engage the shaker clutch, move the lever forward; to disengage the shaker clutch, move the lever to the rear.

9. Plow Mobile Control—pull knob out for plowing and push knob in for mobiling.

IV LUBRICATION

300 HRS.
150 HRS.
50 HRS.



4 HRS.
40 HRS.
ANNUALLY



WARNING To avoid possible bodily injury, do not lubricate, perform maintenance, or make any adjustments to the vehicle when the engine is running.

INTERVAL HOURS	POINT	IDENTIFICATION	LUBRICANT	ENGINE OIL CHART	
4	4	Cross Shaft	G	Temperature	Grade of Oil
40	2	Differential	G	Below 0°	5W
40	3	Steering Pivot	G	0° to 30°	10W
50	5	Engine Crankcase	EO	30° and Up	30
150	6	Hydraulic Oil Filter (change)		OIL TO BE USED IN SHAKER	
300	7	Hydraulic Oil (10W)	EO		
Annually	1	Wheel Bearing (packed)	G	Operating Temperatures	High Grade Motor Oil
LUBRICANT ABBREVIATIONS				-35° to 0° F	SAE 10
G Multipurpose chassis lubricant				0° to 50° F	SAE 20
EO Automotive crankcase oil meeting API service classification "MS". (See chart.)				50° to 300° F	SAE 30

HYDRAULIC OIL AND FILTER

Replace filter element after every 150 hours of service and with each oil change.

Drain and refill hydraulic system oil after each 300 hours of operation.

A clean automotive crankcase oil, SAE 10W, meeting API service classification "MS," is recommended. It will prove economical and assure longer operating life by using "the best."

V SERVICE

1. **IMPORTANT:** After engine has been run for 25 to 50 hours and has been allowed to cool, cylinder head nuts should be re-torqued to 22–25 foot-pounds.

2. The shaker foot bolts and blade bolts should be inspected every 10 to 12 hours for tightness. Any movement will allow rapid wear and possibly extensive damage.

3. The two "V" belts to the shaker should be tight and in line at all times. Belts are tightened by sliding shaker in trolley.

4. The oil level in the shaker should be checked weekly. Should the shaker shaft seal develop a small seepage, the oil level should be checked more frequently. To check for the correct oil level, lower trolley on the support mounts. Remove the plug in the top of the shaker and the lower plug in the side of the shaker housing. In one or two ounce increments, pour in oil until it is visible in the lower port.

IMPORTANT: Do not overfill! The alternative is to drain the shaker and put in 16 fluid ounces.

5. The wheel bearings should be checked each week for proper adjustment (see next section). Wear will be excessive if proper clearances and lubrication are not maintained.

6. Air pressure in the tires should be maintained at 16 pounds PSI.

7. Engine throttle should be maintained at 3250 RPM (no load). Proper engine speed is very important to the performance of the vibratory plow.

8. The belt roller clutch stop should be checked regularly to reduce belt wear and possible belt breakage.

IMPORTANT: Belt clutch stop too tight will cause belt slippage and loss of power to shaker.

9. On plows having feed blades, the feed tube should be cleaned daily.

10. Drive chains should be checked periodically for proper adjustment.

11. Check cross shaft assembly mounting bolts. Any movement will allow rapid wear and possible extensive damage.

12. Check trolley support shear mounts daily. Failure of either mount or a loose mount will induce extreme loading to the entire unit.

WHEEL BEARING ADJUSTMENT

Front wheel bearing adjustment requires special attention for this vibrating application. **NOTE:** Rear wheel bearings are not adjustable.

Remove cotter pin and drive chain. While spinning the wheel, adjust the castle nut until all the end play on the bearings is removed. If cotter pin hole does not align with a castle nut slot, tighten the nut just enough to align the hole and slot. The wheel must turn freely to be satisfactorily adjusted.