The WEE McGREGOR Portable Drag Saws

DIRECTIONS
FOR
OPERATING
AND
GENERAL CARE OF
MACHINE

Sold Only by

D. McGREGOR
104 MAIN STREET
VANCOUVER, B. C.

Directions for the Operation of The Wee McGregor Drag-Saw

When the machine is in operation the fly-wheel on the engine should turn to the right when the operator stands facing the fly-wheel on the saw-gear side.

STARTING ENGINE Connect ignition system by closing switch arm, set timer-controller handle in the third or fourth hole from front end of quadrant fastened to frame, open up needle valve in gasoline mixer to between 4 and 5 on dial or stem of needle valve, turn engine over forward by means of fly-wheel a few times and engine will start without any trouble. After having the engine started allow it to run awhile before placing saw on log for cutting. But before turning engine over many times it is a wise idea to raise up on stem of spring valve on under side of mixer until it is primed or there is gasoline coming through the valve.

In getting more power after having started saw advance the timer backwards from three to four holes in quadrant from point where the engine was started. But do not advance any more than is necessary as it will give too much speed for the saw. 140 strokes per minute. To slow down move handle forward.

The large tank is for water and should be kept about 2/3 full when running the engine. DO NOT put any plug in this tank as the steam must have a vent.

OILING CYLINDER Place one pint of light auto oil in five gallons of gasoline before using it. The idea is that the gasoline vapor and air from mixer passes through the crank case of engine, and the oil the gasoline contains helps to lubricate the crank, also the piston and cylinder. Use oiler on cylinder 10 to 15 drops a minute. Use a good grade of hard oil or bearing compound in the grease cups on main bearings and counter-shaft.

Once a week use a gallon of gasoline without oil to clean out the needle valve in mixer.

When first starting motor place one-half pint of a good grade of auto oil, the same as will be used in the cylinder lubrication. in the crankcase through plug in top of same. After starting motor there will be an exhaust of blue smoke for a short time. This is only burning out excess oil in crankcase, as it is impossible to maintain only a small amount of oil in crankcase when running, a small amount should be put in twice a day.

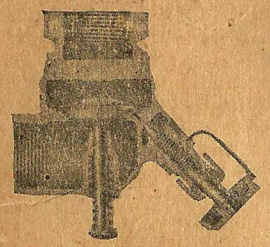
Blue smoke from excess oil in crankcase will not cut down the power as it does not last long enough, but blue smoke caused by too much oil in gasoline will cut down the power of motor about one-third. Be sure and place about one pint of light auto oil in each **five gallons** of gasoline, **but no more.**

GENERATOR VALVE OR MIXER The gasoline needle valve has numbers marked on its face. In starting engine turn this valve stem dial or open it to about number 4 on the marker finger. After trying to start at this opening adjust the mixer to the right point by opening or closing the needle BUT only one notch on dial at a time, as there is probability of getting too much or too little gasoline.

CAUTION

Not too much oil in gasoline.

OPERATION OF MIXER



On the up-stroke of the piston there is a vacuum formed in the crank case of the engine. This vacuum is filled by air passing in through the generator valve or mixer. In doing so it must lift the valve head or disc. When this valve is lifted from the seat it allows the gasoline to spray from needle valve opening. The amount of this spray or a good explosive mixture for the engine is adjusted by opening or closing the needle valve. When adjusted correctly it is held in place by a finger that fits over and engages notches on needle valve head or dial which is numbered on its face.

FLOODING OF GENERATOR The movable part or valve of generator will sometimes become lodged away from the seat which will allow the gasoline to flow continuously thereby causing too rich a mixture in the crank-case. This will not explode or burn with any power and is termed "flooding the crankcase or engine" in a 2-cycle motor.

When engine is flooded you will not be able to get over one or two explosions or power strokes at one time. If this happens turn off the gas at needle valve or strainer, turn engine over a few times until it starts, then turn the right amount of gasoline.

GENERATOR VALVE TROUBLES Too little gas will cause the engine to back-fire, or burn the gas out of the crank-case causing the engine to stop. There is too thin a mixture, more gasoline must be turned on. It may be that the gasoline tank is empty or the gasoline pipe line is stopped up. There may be dirt in the STRAINER or NEEDLE VALVE in the mixer. Water will cause trouble, the strainer should collect all of the water and dirt there is in the gasoline. Drain quite often.

In event of continued back-firing of motor after having adjusted mixer valve for more gasoline, be sure and remove all dirt and water from the mixer valve and strainer as this is the source of trouble. After the engine is started placing the thumb or finger over the valve opening or air intake for an instant will in lots of cases remove this obstruction, as it causes a greater suction on the gasoline inlet.

GASOLINE TANK

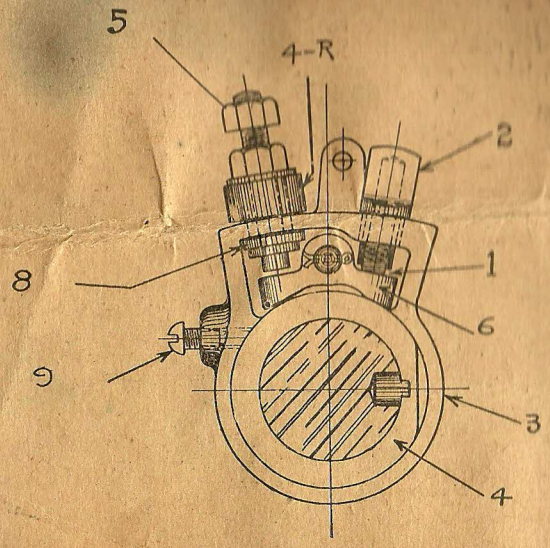
Remove all water and sediment from gasoline tank when it accumulates. and save trouble as the water will get into the needle valve and strainer. This water condenses from the air circulating in the tank.

Distillate can be used in these motors but must be primed with gasoline until started. To use, remove the plug from top of crankcase and put in one or two tablespoons of gasoline, turn engine over in the usual way until started. After the motor is once started and before all the gas placed in the crank-case has been used turn on or adjust the distillate at needle valve.

See that plug in gasoline tank has a small hole in it for air vent.

OPERATION OF TIMER

Timer body is held in place and controlled by a bar connecting timer to timer control quadrant. The breaker cam is keyed to and turns with shaft. In turning, a flat section on



cam comes in contact and allows rocker number 6 to drop into this flat section, while the other end of the rocker arm rises and makes a contact on insulated timer pin number 5.

The rocker arm is forced to drop into flat section on the cam by a small spring inside of spring container number 2.

TO TEST WHETHER TIMER OR PLUG CAUSES TROUBLE

Start the Engine. After it is running and missing alternately about one out of three, open up the latery box and listen for vibration or buzz of coil. If it continues to buzz when engine is running it is a sure sign that the trouble is in plug or mixture. If it misses vibrating when the engine misses an explosion the trouble is in the timer or adjustment of the coil.

ELECTRICAL CONNECTIONS See that all battery connections are securely fastened, the wires from battery to ground on engine, also from battery to coil and from coil to timer and plug. See that the switch makes a good firm contact. After using awhile the arm often gets loose by being operated so often.

PLUG ADJUSTMENT See that the points of plug are about of an inch apart and the electrode or center part of plug is solid in the insulation that it will not jump around under vibration of the engine and short the points, which will cause the engine to miss for want of a spark at plug points.

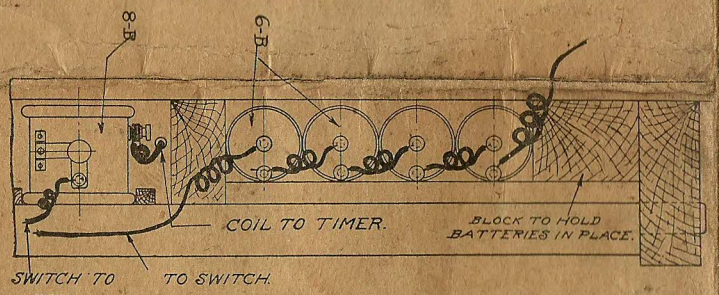
COIL ADJUSTMENT Do not attempt to adjust the coil until it is absolutely necessary as it is in the right shape at present. If it should require adjusting at any time do not turn over between ⅛ or ¼ turn of thumb screw in either direction. If at any time after coil has been used, a small sharp point forms on vibrator contacts take a small file and file them down smooth. This will not occur if coil is properly adjusted.

BATTERIES TESTING When new batteries are needed a weakness of electric current will be noticeable, the engine missing occasionally and becoming worse in a short time. Another indication of weak batteries is that the engine can be started but will gradually in a few minutes begin to miss and finally stop altogether. The batteries should be tested for strength when these indications of weakness become noticeable.

The dry cells should operate machine as low as six ampheres. In putting in new dry cells they should be wired according to the diagram in cut.

When testing the batteries for strength the operator often will ground the plug on cylinder. The sparking of the plug points under these conditions does not always indicate a current sufficient to jump the spark gap through the compressed gas in the cylinder. The reason of this is that a low ampherage in batteries will make a spark at the plug point in the atmosphere, while it will not spark in the greater resistance of the compressed air or gas in the cylinder.

It will be noticed that the batteries 6-B are wired from the center to the switch and from the outside to the center of the adjoining one, not from center to center.



Number 8-B indicates the coil.

The block indicated on cut is to hold battery or dry cells in place. Keeping dry cells firm prevents the terminals or connecting wires from coming loose. This block should be fastened securely but not so tight as to injure the dry cells by crushing.

After becoming used to starting motor by turning flywheel over forward, the motor can be started quicker by setting timer controll a little forward of center of quadrant and giving engine flywheel a quick pull backward against compression. Setting spark control forward of center gives the engine a power stroke in the right direction or forward, when fly-wheel is turned backward and contact is made in the timer which fires the gas in the cylinder. Do not pull fly-wheel back too far. when starting in this manner as the engine will run backward.

THE CLUTCH When putting a new copper friction in the clutch test the spring tension. It should slip and stop the engine in three or four turns when saw-blade comes to sudden stop through some obstruction or otherwise.

ADJUSTING SAWS File the saw to a cutting edge. Keep the rakers about 2/3 the thickness of a dime shorter than the teeth and in soft timber possibly shorter. Keep a sufficient amount of set. Run saw 125 to 140 strokes a minute.

GENERAL CARE OF MACHINE

MOTOR After having received the machine from the factory and run it continuously for a day or two, take out the plug from bottom side of crank-case, drain out the oil there may be in it, clean out all sediment and grit with a little gasoline and then replace the plug. To do this right it is necessary to take off the cover of the crank-case. After this has been done put in twice as much oil as was taken out, replace the cover, but in doing so care should be taken to see that the paper gasket is also replaced.

This care of engine should be taken because more or less grit will accumulate inside the crank-case for a day or two.

In refitting parts after taking down motor be sure and wire all screws in movable parts.

CARBON After long continued use the rings on piston become carbonized and need cleaning. A sympton of this is lack of compression. The engine should be taken apart, the rings taken off and cleaned of all carbon. Also all carbon must be cleaned from the ring groove. The carbon also accumulates on the piston and cylinder heads. This should be removed as it will cause premature ignition. If you do not wish to take the rings from the piston to clean them they can be cleaned fairly well by standing the piston in enough coal oil to cover same overnight. In the morning the rings can be turned around on the piston and the largest portion of this carbon can be removed with very little trouble.

SAW GEAR The eccentric strap or main bearing of the saw gear slides will wear to a considerable extent after continued use. This wear can be taken up by filing off the face of cap and re-adjusting to fit. Plenty of good oil or grease should be used on slide gear and bearings. In event of wear of bearings on saw gear crosshead they can be re-babbitted at home with but little trouble. In re-babbitting these parts remove and rebabbit only one bearing at a time. This will enable the saw gear cross-head to be removed easier from the guide rods. In babbitting see that the gear is lined up true.

DON'TS

DON'T attempt to run engine without having a sufficient amount of gasoline coming through the mixer to operate. Look under GENERAL VALVE directions.

DON'T attempt to operate on worn out batteries. There must be some life in them. In testing there should be a spark on plug points in cylinder head. The absence of any buzzing noise in the coil is good notice that there is something wrong with the wiring or the batteries are worn out. Look under ELECTRICAL CONNECTIONS.

WATER TANK

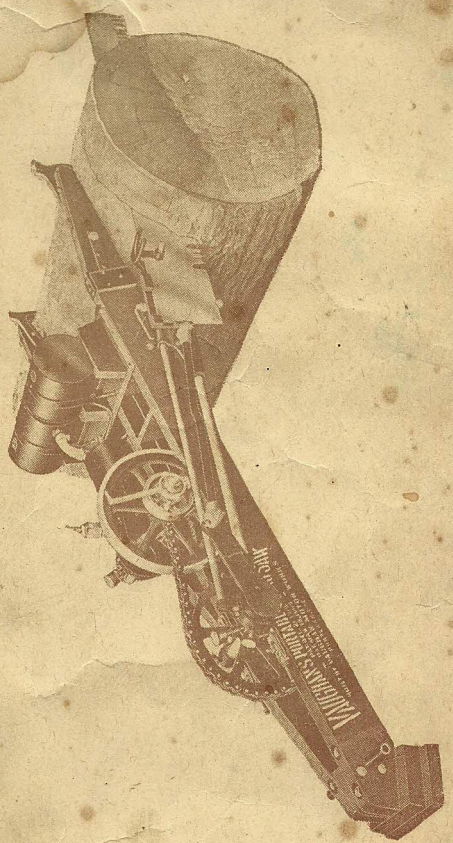
Drain all water from the engine and water tank in cold weather when left over night as it will freeze and burst the jacket.

Do not use plug in water tank when in operation. .

PRICE LIST of PARTS

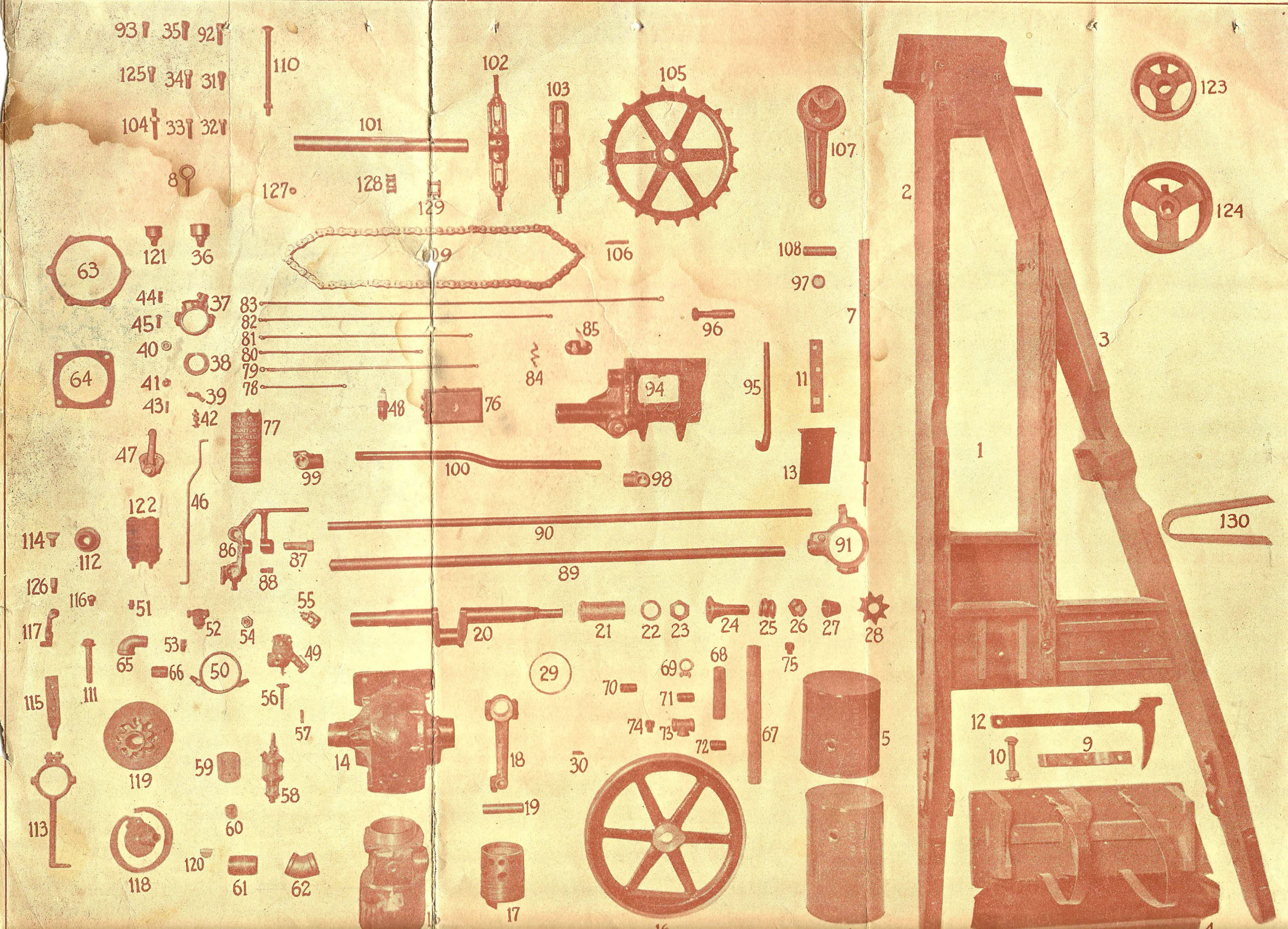
— FOR —

WEE MacGREGOR,
LI'L HUSKY, POND GASOLINE AND
THE STANDARD STEAM DRAG SAWS



Domion Drag Saw Company Limited

MAIN OFFICE AND SALES FROM
157 POWELL STREET PHONE DOUG. 403
VANCOUVER, B. C.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	STANDARD WEE MAC.	LI'L HUSKY	STEAM MACHINE	POND MACHINE
49—Carburetor complete, parts 54 to 57 inclusive	11.60	10.60		11.00
50—Gas Tube complete with part 53	1.30	1.30		1.30
51—⅛in. Nipple for attaching Strainer to Carburetor	.25	.25		.25
52—Strainer	2.60	2.60		2.60
53—68 F. Fitting for attaching gas tube	.35	.35		.35
54—Tail Piece and Union Nut	2.70	2.70		2.70
55—Needle Valve complete with packing nut	3.00	3.00		3.00
56—Carburetor Disc Valve and Stem	3.00	3.00		3.00
57—Carburetor Spring	.20	.20		.20
58—Lubricator	3.40	3.40	3.40	3.40
59—Large Lubricator Glass	.70	.70	.70	.70
60—Small Lubricator Glass	.45	.45	.45	.45
61—Exhaust Nipple	.25	.25	.75	.25
62—Exhaust Elbow	.85	.85	1.30	.85
63—Crankcase Side Cover Plate Gasket	.25	.25	.25	.25
64—Cylinder Gasket	.25	.25		.25
65—Street Ell for Attaching Carburetor	.45	.45		.45
66—Nipple for attaching Carburetor	.25	.25		.25
67—Long Hose	.45	.45		
68—Short Hose	.25	.25		
69—Hose Band, each	.20	.20		
70—Hose Nipple for Water Tank	.25	.25		
71—Hose Nipple for Engine	.25	.25		
72—Nipple for attaching drain tee	.25	.25		25
73—Drain Tee	.45	.45		.45
74—Drain Plug	.20	.20		.20
75—Gas Tank Plug	.20	.20		.20
76—Coil	6.80	6.80		6.80
Vibrator for Coil	.75	.75		.75
Bridge for Coil	.75	.75		.75
77—Dry Cell, each	1.00	1.00		1.00
78—Wire, Timer to Engine Ground	.20	.20		.20
79—Wire, Spark Plug to Coil	.40	.40		.40
80—Wire, Coil to Switch, each	.20	.20		.20
81—Wire. Switch to Battery	.25	.25		.25
82—Wire, Battery to Ground	.40	.40		.40
83—Wire, Coil to Timer	.45	.45		.45
84—Battery Connectors, each	.05	.05		.05
85—Switch	.75	.75		.75
86—Angle or Handle complete with parts 87-88	5.10	5.10	5.10	6.50
87—Angle saw guide plug	.20	.20	.20	.20
88—Set Screw for attaching large guide rod, each	.20	.20	.20	.20
89—Large Guide Rod	4.25	4.25	4.25	5.10
90—Small Guide Rod	2.55	2.55	2.55	3.40
91—Eccentric Strap complete with part, 92	8.50	8.00	8.90	11.50
92—Eccentric Strap Bolt, each	.20	.20	.20	.20
93—Pitman Head Bolt, each	.20	.20	.20	.20
94—Saw Plate complete with parts 96	7.25	6.80	7.25	9.35
95—Saw Plate Bolt	.85	.85	.85	1.10
96—Saw Plate Pin	.70	.70	.70	.85
97—Crank Pin Washer, each	.20	.20	.20	.20
98—Pitman Head for Saw Plate	1.70	1.70	1.70	2.15
99—Pitman Head for Crank	1.70	1.70	1.70	2.15
100—Pitman Rod	1.30	1.30	1.30	1.70
101—Countershaft	4.25	4.25	4.25	5.50

	STANDARD WEE MAC.	LI'L HUSKY	STEAM MACHINE	POND MACHINE
49—Carburetor complete, parts 54 to 57 inclusive	11.60	10.60		11.00
50—Gas Tube complete with part 53	1.30	1.30		1.30
51—⅛in. Nipple for attaching Strainer to Carburetor	.25	.25		.25
52—Strainer	2.60	2.60		2.60
53—68 F. Fitting for attaching gas tube	.35	.35		.35
54—Tail Piece and Union Nut	2.70	2.70		2.70
55—Needle Valve complete with packing nut	3.00	3.00		3.00
56—Carburetor Disc Valve and Stem	3.00	3.00		3.00
57—Carburetor Spring	.20	.20		.20
58—Lubricator	3.40	3.40	3.40	3.40
59—Large Lubricator Glass	.70	.70	.70	.70
60—Small Lubricator Glass	.45	.45	.45	.45
61—Exhaust Nipple	.25	.25	.75	.25
62—Exhaust Elbow	.85	.85	1.30	.85
63—Crankcase Side Cover Plate Gasket	.25	.25	.25	.25
64—Cylinder Gasket	.25	.25		.25
65—Street Ell for Attaching Carburetor	.45	.45		.45
66—Nipple for attaching Carburetor	.25	.25		.25
67—Long Hose	.45	.45		
68—Short Hose	.25	.25		
69—Hose Band, each	.20	.20		
70—Hose Nipple for Water Tank	.25	.25		
71—Hose Nipple for Engine	.25	.25		
72—Nipple for attaching drain tee	.25	.25		25
73—Drain Tee	.45	.45		.45
74—Drain Plug	.20	.20		.20
75—Gas Tank Plug	.20	.20		.20
76—Coil	6.80	6.80		6.80
Vibrator for Coil	.75	.75		.75
Bridge for Coil	.75	.75		.75
77—Dry Cell, each	1.00	1.00		1.00
78—Wire, Timer to Engine Ground	.20	.20		.20
79—Wire, Spark Plug to Coil	.40	.40		.40
80—Wire, Coil to Switch, each	.20	.20		.20
81—Wire. Switch to Battery	.25	.25		.25
82—Wire, Battery to Ground	.40	.40		.40
83—Wire, Coil to Timer	.45	.45		.45
84—Battery Connectors, each	.05	.05		.05
85—Switch	.75	.75		.75
86—Angle or Handle complete with parts 87-88	5.10	5.10	5.10	6.50
87—Angle saw guide plug	.20	.20	.20	.20
88—Set Screw for attaching large guide rod, each	.20	.20	.20	.20
89—Large Guide Rod	4.25	4.25	4.25	5.10
90—Small Guide Rod	2.55	2.55	2.55	3.40
91—Eccentric Strap complete with part, 92	8.50	8.00	8.90	11.50
92—Eccentric Strap Bolt, each	.20	.20	.20	.20
93—Pitman Head Bolt, each	.20	.20	.20	.20
94—Saw Plate complete with parts 96	7.25	6.80	7.25	9.35
95—Saw Plate Bolt	.85	.85	.85	1.10
96—Saw Plate Pin	.70	.70	.70	.85
97—Crank Pin Washer, each	.20	.20	.20	.20
98—Pitman Head for Saw Plate	1.70	1.70	1.70	2.15
99—Pitman Head for Crank	1.70	1.70	1.70	2.15

	STANDARD WEE MAC.	LI'L HUSKY	STEAM MACHINE	POND MACHINE
102—R. H. Countershaft Box complete, parts 35 to 104	3.00	3.00	3.00	3.80
103—L. H. Countershaft Box complete parts 104	3.00	3.00	3.00	3.80
104—Countershaft Box Adjusting Screw and Nut	.25	.25	.25	.25
105—Large Sprocket	11.00	11.00	11.00	14.50
106—Large Sprocket Key	.25	.25	.25	.25
107—Combined Crank and Eccentric	8.50	8.50	8.50	11.00
108—Crank Pin	.50	.50	.50	.70
109—Chain Complete	12.00	12.00	12.00	12.00
110—Engine Bolt, each	.25	.25	.25	.25
111—Clutch Bolt and Washer	.25	.25		.25
112—Clutch Cone	3.00	3.00		3.00
113—Clutch Yoke and Handle	2.55	2.55		2.55
114—Clutch Shifter Shoes. each	.50	.50		.50
115—Clutch Support	.85	.85		.85
116—Clutch Dog Adjusting Screw and Lock Nut	.25	.25		.25
117—Clutch Dog	1.30	1.30		1.30
118—Clutch Band and Spindle	5.50	5.50		5.50
119—Clutch Drum and Sprocket	5.10	5.10		5.10
120—Clutch Spindle Key	.20	.20		.20
121—Grease Cup No. O for Eccentric Strap	.50	.50		.50
122—Angle Saw Guide Block with Bolts	1.30			
123—Small Pulley 5½in. in Diam. 4 in. Face	8.50			8.50
124—Large Pulley 8 in. in Diam. 4 in. Face	11.20			11.20
125—Crankcase Cover Bolt, each	.20	.20	.20	.20
126—Clutch Dog Bearing Pin	.40	.40		.40
127—Chain Rolls, each	.15	.15	.15	.15
128—Inside Chain Link	.40	.40	.40	.40
129—Outside Chain Link	.25	.25	.25	.25
130—Frame End Strap, each	.70	.70	.70	
131—Heavy Dog Bolt Washer		.25		
132—Combined Crankcase and Cylinder		45.00	47.00	
133—Timer Retaining Nut		.75		
134—Rear Inspection Plate	2.55	2.10	2.55	2.55
135—Rear Inspection Plate Bolt	.20	.20	.20	.20
136—Rear Inspection Plate Gasket	.20	.20	.20	.20
137—Large Sprocket Spacer	.85	.85		1.30
138—Side Cover Plate with Bearing	9.75	9.35	11.00	9.75
139—Timer Cam Key	.20	.20		.20
140—Water Proof Coil and Battery Cover	.75	.75		
141—Small Lubricator Cork Gasket	.10	.10	.10	.10
142—Large Lubricator Cork Gasket	.20	.20	.20	.20
143—Wedge for holding dry cells	.25	.25		
144—Bronze Clutch Drum Bushing	1.60	1.60		1.60
145—Frame Cross Member	1.70	1.70	1.70	2.15
146—Frame Center Member	1.70	1.70	1.70	
147—Frame Wedge Block	1.10	1.10	1.10	
148—Frame Foot Block	1.30	1.30	1.30	2.15
149—No. 55 Needle Valve less Packing Nuts	2.15	2.15		2.15
150—Lubricator Sight Feed Post	1.30	1.30		1.30
151—Intake Valve		4.25	4.25	
155—Intake Valve Spring			.45	
156—Intake Valve Spring Guide and Cap			2.00	
157—Valve Stem Packing Nut			.60	

	STANDARD WEE MAC.	LI'L HUSKY	STEAM MACHINE	POND MACHINE
160—Valve Push Rod			2.55	
161—Push Rod Adj. Screw and Nut			.85	
162—Steam Chest			8.10	
163—Steam Chest Attaching Bolts			.20	
164—Side Cover Plate Cap			1.30	
165—Drain Cock ¼ in. Connection			.75	
166—Throttle Valve			3.80	
Rebabbitting Saw Plate	2.55	2.55	2.55	3.00
Rebabbitting Connecting Rod	2.55	2.55	2.55	2.55
Rebabbitting Countershaft Box	1.00	1.00	1.00	1.30
Primary Wire per foot	.15	.15		.15
Secondary Wire per foot	.18	.18		.18
Complete Set Wires	1.70	1.70		1.70
Copper Tubing per foot	.25	.25		.25
Chain, per foot	3.20	3.20	3.20	3.20
Engine assembled complete with Cooling and Ignition System. consisting of parts 14 to 24 inc., 4 to 7 inc., 29 to 34 inc., 36 to 85 inc., 125	170.00	161.50		178.50
Engine assembled complete without Cooling and Ignition System, consisting of parts 14 to 24 inc., 29 to 34 inc., 36 to 66 inc., 125	161.50	153.00		170.00
Steam Engine assembled complete with Throttle Valve but without Clutch			178.50	
Back Gear, assembled, consisting of parts 101 to 108 inc. 35	35.70	35.70	35.70	47.60
Side Gear, assembled, consisting of parts 86 to 92 inc., 94 to 100 inc.	35.70	35.70	35.70	47.60
Free Engine Clutch, assembled, complete, consisting of parts 111 to 120 inclusive.	22.95	22.95	22.95	22.95
Machinist Labor, per hour	1.75	1.75	1.75	1.75

All prices given on this list are subject to change without notice.

In order to save time and expense it is advisable to send remittance with order; otherwise parts will be sent C.O.D. unless other arrangements have been previously made.

IN ADDITION TO THE COST OF THE PARTS ORDERED, YOUR REMITTANCE SHOULD COVER THE ESTIMATED POSTAGE ON THEM.

No parts shipped into Eastern territory C.O.D.—remittance should be enclosed with order.

It is absolutely necessary we have your engine number, also that we know whether your machine is equipped with or without free engine clutch, before we can make shipment.

Always use reference number and name of parts when ordering.

If above instructions are not followed it may force us to delay your order.

Parts found defective should be forwarded, charges