The Massey-Harris General Purpose Tractor

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Original in Design, its Flexible, Balanced Traction is the basis of its remarkable performance under all farm conditions.

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• For the Row Crop Territory •

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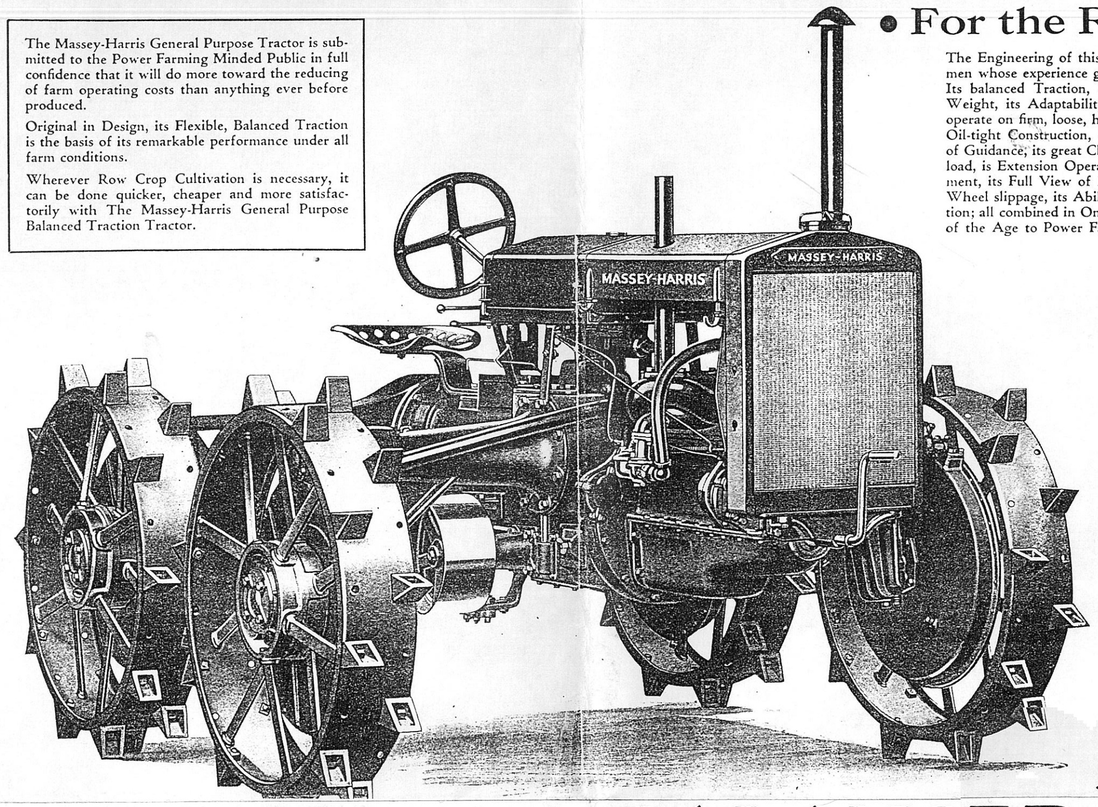
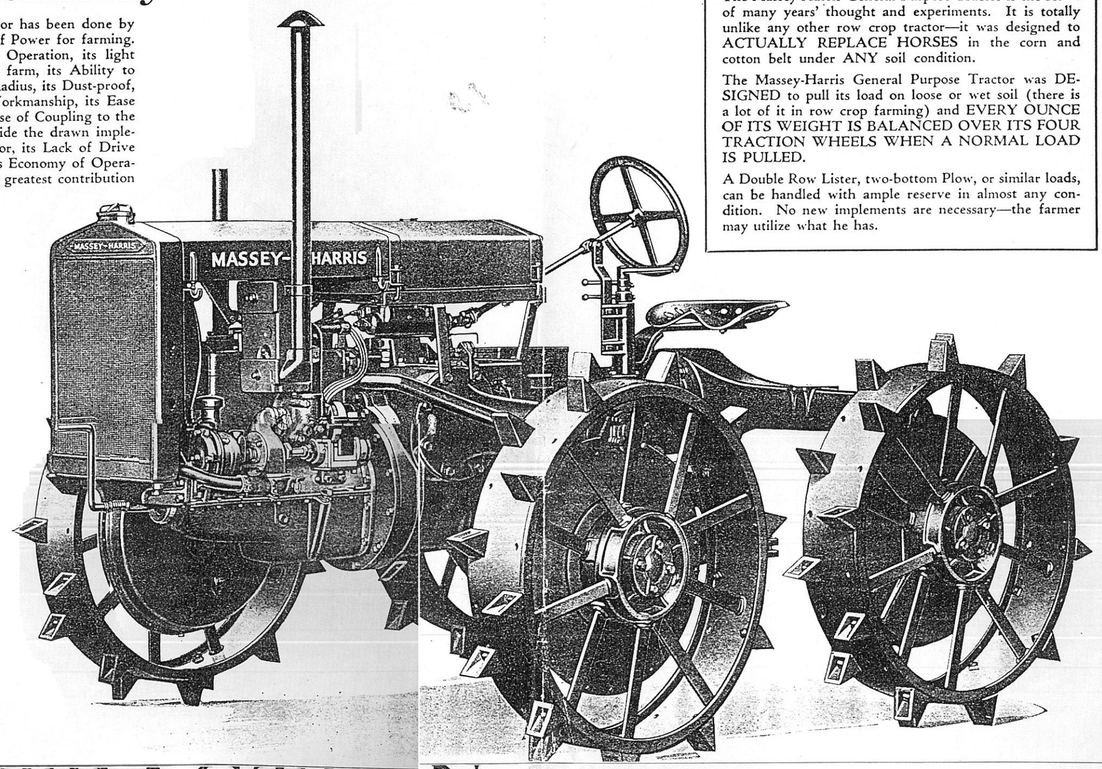
The Massey-Harris General Purpose Tractor was DESIGNED to pull its load on loose or wet soil (there is a lot of it in row crop farming) and EVERY OUNCE OF ITS WEIGHT IS BALANCED OVER ITS FOUR TRACTION WHEELS WHEN A NORMAL LOAD IS PULLED.

A Double Row Lister, two-bottom Plow, or similar loads, can be handled with ample reserve in almost any condition. No new implements are necessary—the farmer may utilize what he has.



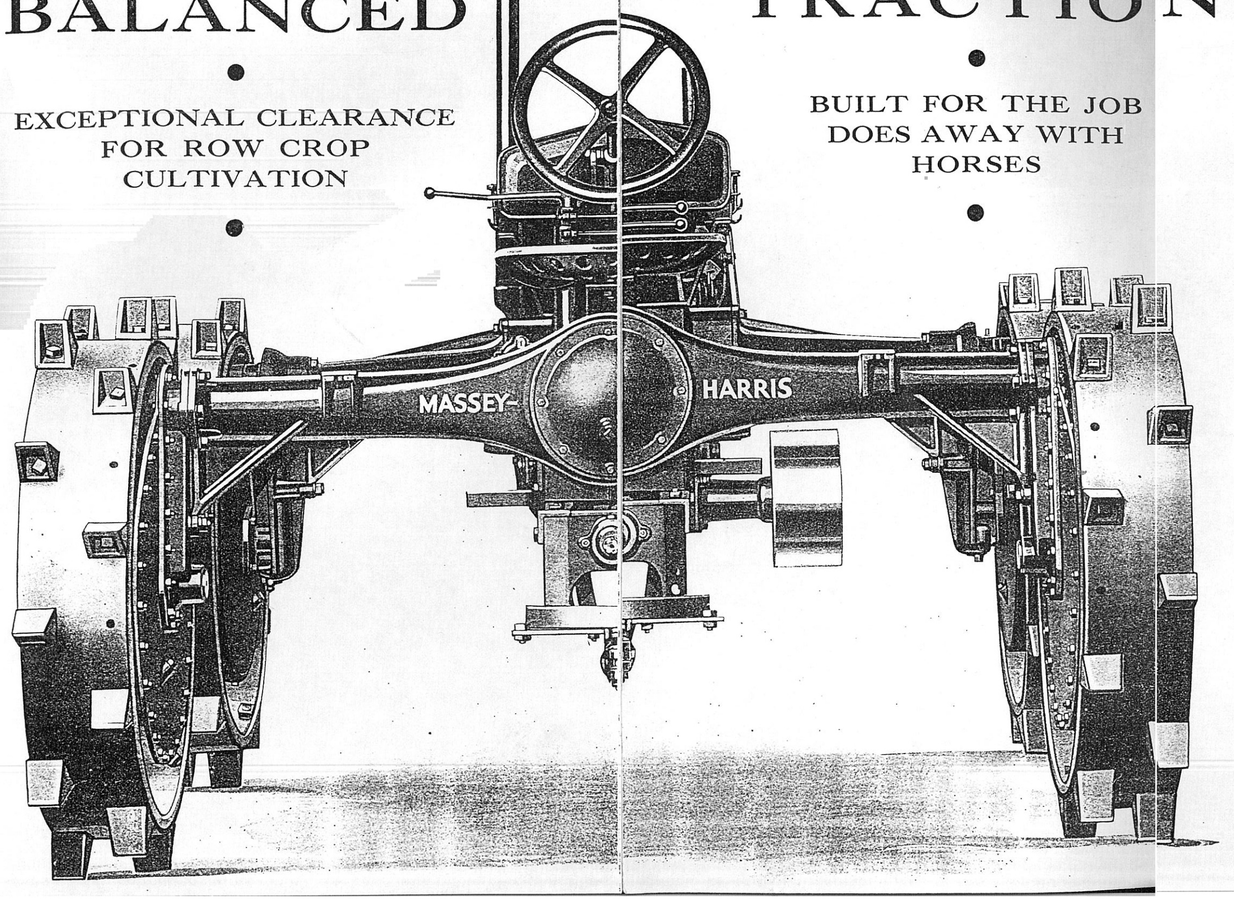
FOUR WHEEL DRIVE



BALANCED TRACTION

EXCEPTIONAL CLEARANCE FOR ROW CROP CULTIVATION

BUILT FOR THE JOB DOES AWAY WITH HORSES



The Massey-Harris General Purpose Tractor

SPECIFICATIONS

Engine—4″ bore, 4½″ stroke, 1200 R.P.M. Vertical 4 cylinder cast in block. L head type. Maximum Belt Horse Power approximately 25 H.P.

Crank Shaft—Double-balanced, heat-treated. Three bearings, total bearing length, 7-1/16″. 2″ Diameter.

Oil System—Dual system, forced feed by gear pump and dip pan splash. Oil filtering device.

Ignition—High tension magneto with impulse starter.

Pistons—Light weight De Luxe.

Fuel—Gasoline.

Air Cleaner—Massey-Harris oil flushing.

Governor—Variable speed, fly ball type.

Cooling System—Tubular type radiator. Centrifugal type water pump. 18″ fan, mounted on Timken Bearings and driven by a V belt.

Clutch—Twin Disc, three plate type.

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Transmission—Massey-Harris special. Gears, drop-forged steel, machine cut teeth, carbonized and hardened, enclosed in dust-proof case, running in oil.

Tractor Speeds—Low, 2.2 M.P.H. Inter., 3.2 M.P.H. High, 4 M.P.H. Reverse, 2½ M.P.H.

Bearings—Ball and Timken throughout.

Brakes—Two, one for each front wheel mounted on differential shaft.

Drive Wheels—Four, 38″ diameter, 8″ face.

Wheel Base—51 inches.

Tread—76 inches.

Clearance—30 inches between axle and ground.

Turning Radius—Inside, without brakes 6½ ft., with brakes 3 ft.

Weight—3861 lbs.

Hitch—Swinging Drawbar.

EXTRA EQUIPMENT

Extension Controls to the seat of the drawn implement giving full control of tractor.

Lights—Electric with generator and battery.

Starter—Electric with generator and battery.

Power Take-off—545 R.P.M. Standard 1⅜″ spline connection, 1⅛″ furnished on special order.

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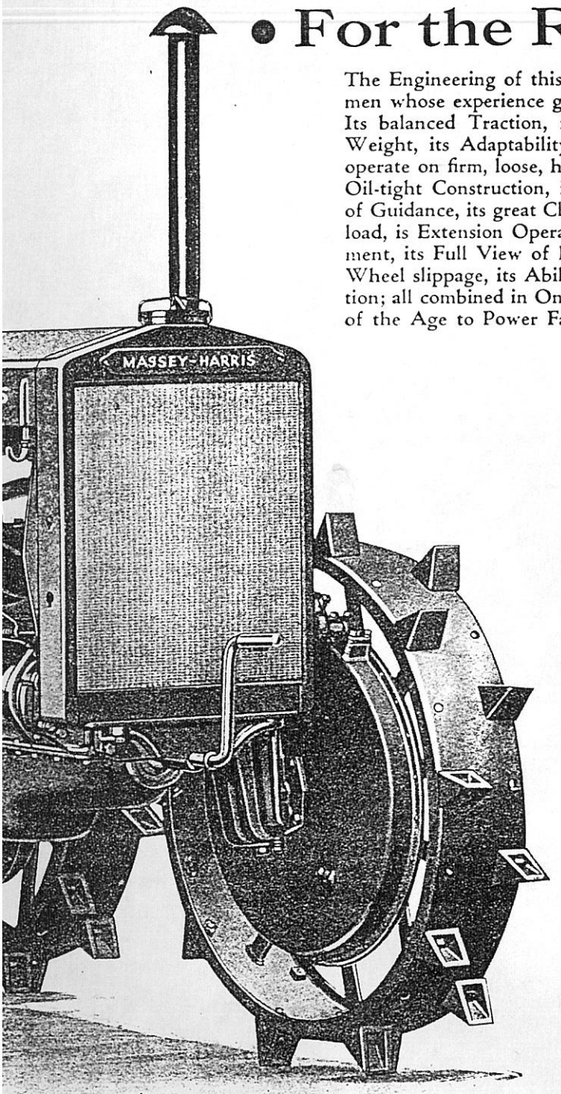

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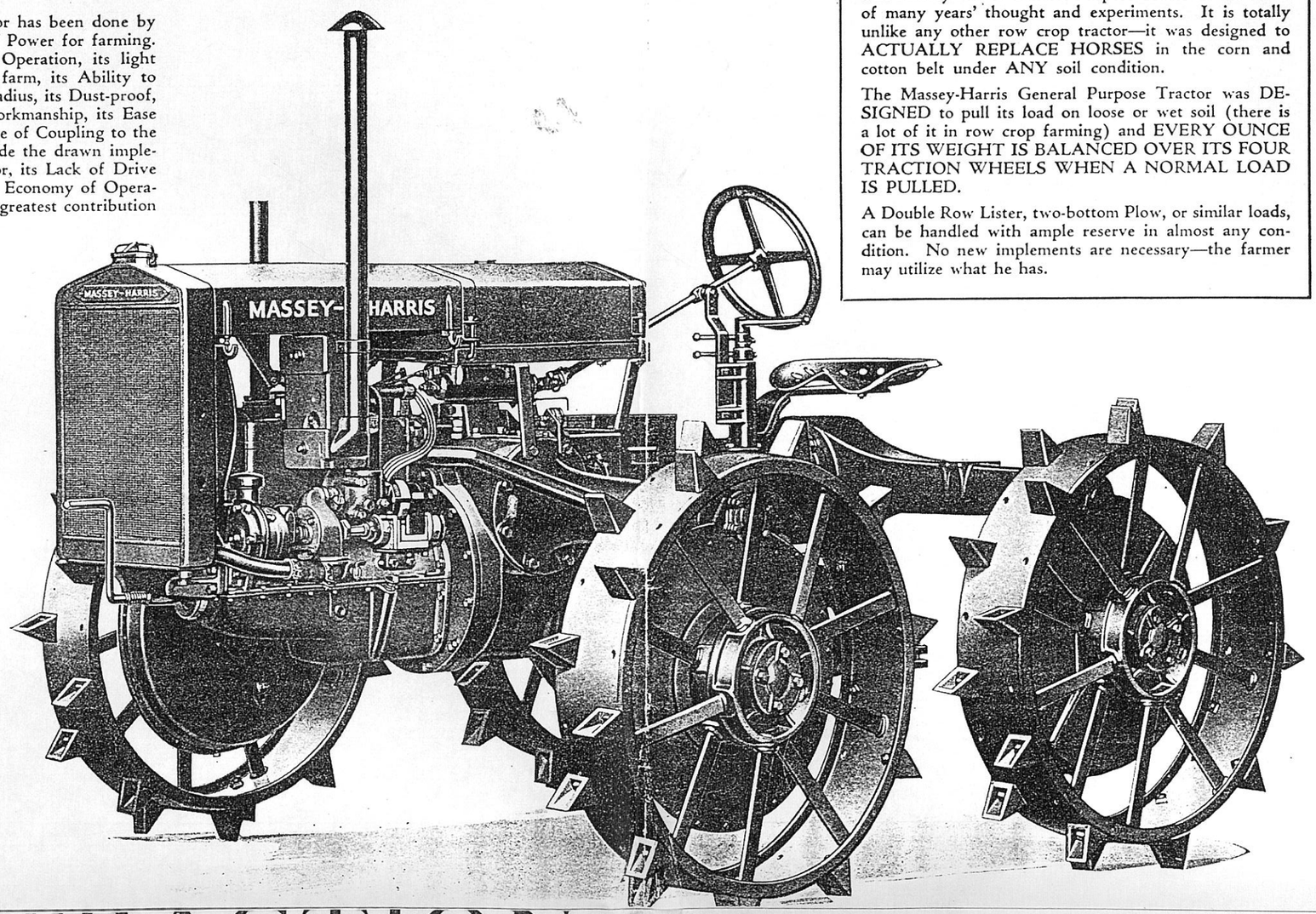
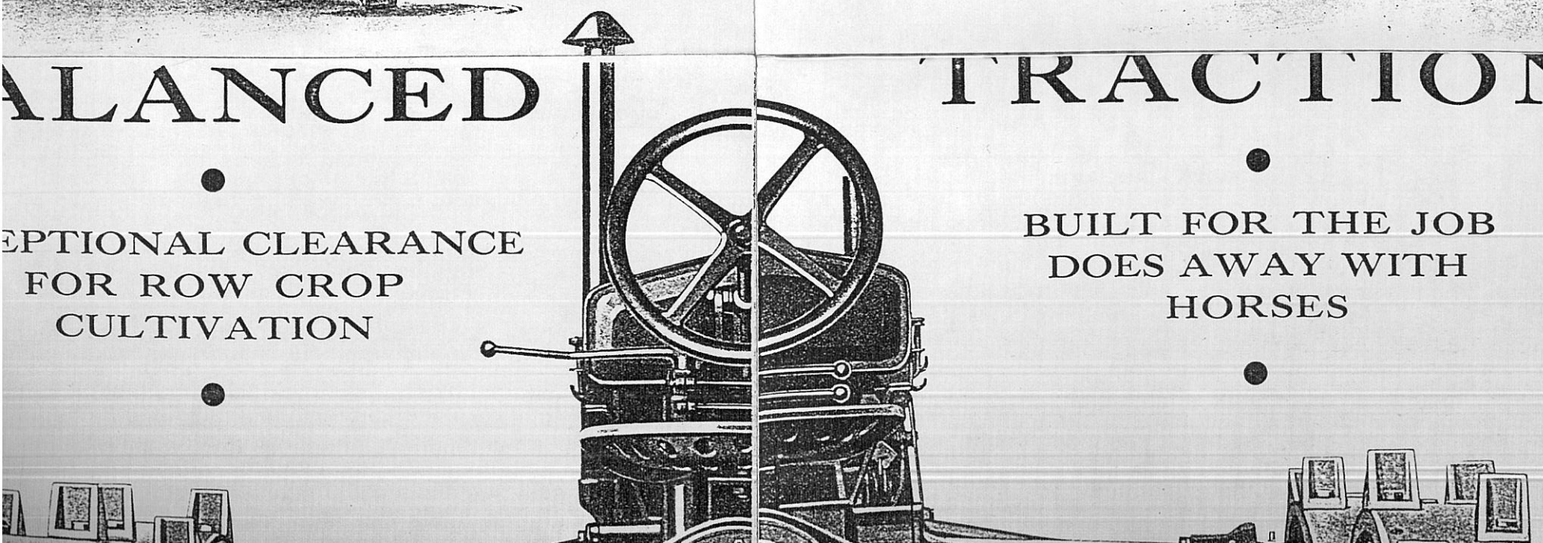


BALANCED TRACTION

EXCEPTIONAL CLEARANCE FOR ROW CROP CULTIVATION



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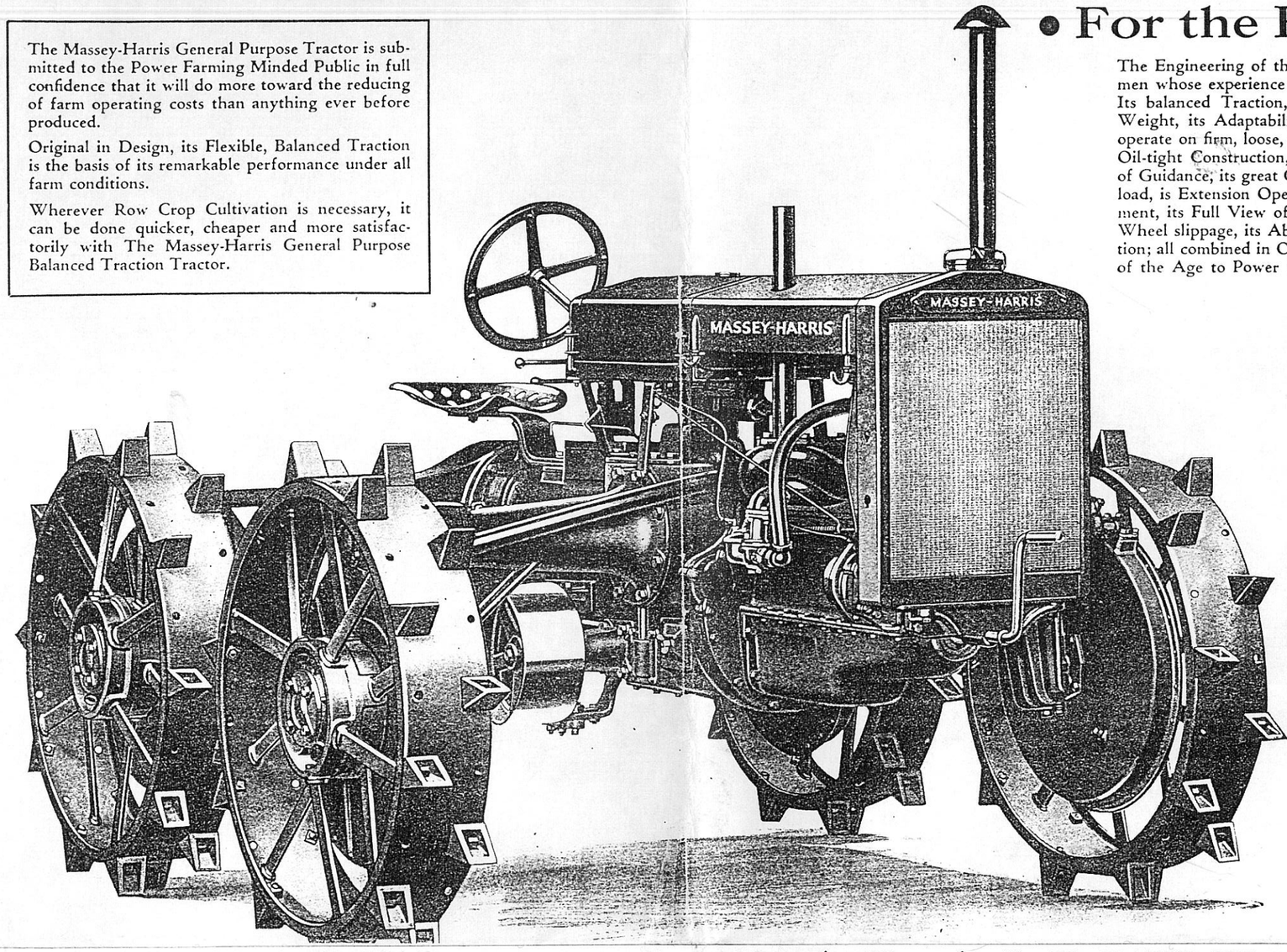

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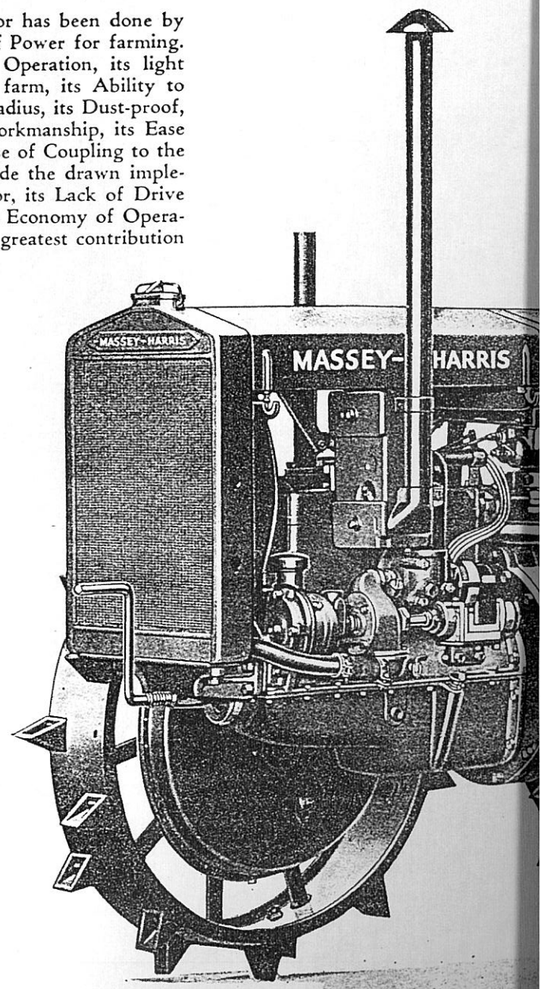

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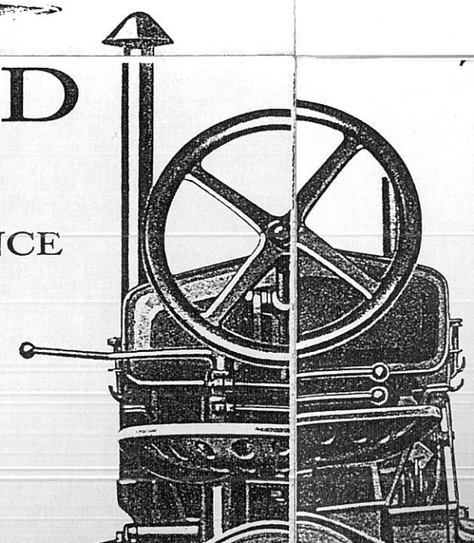
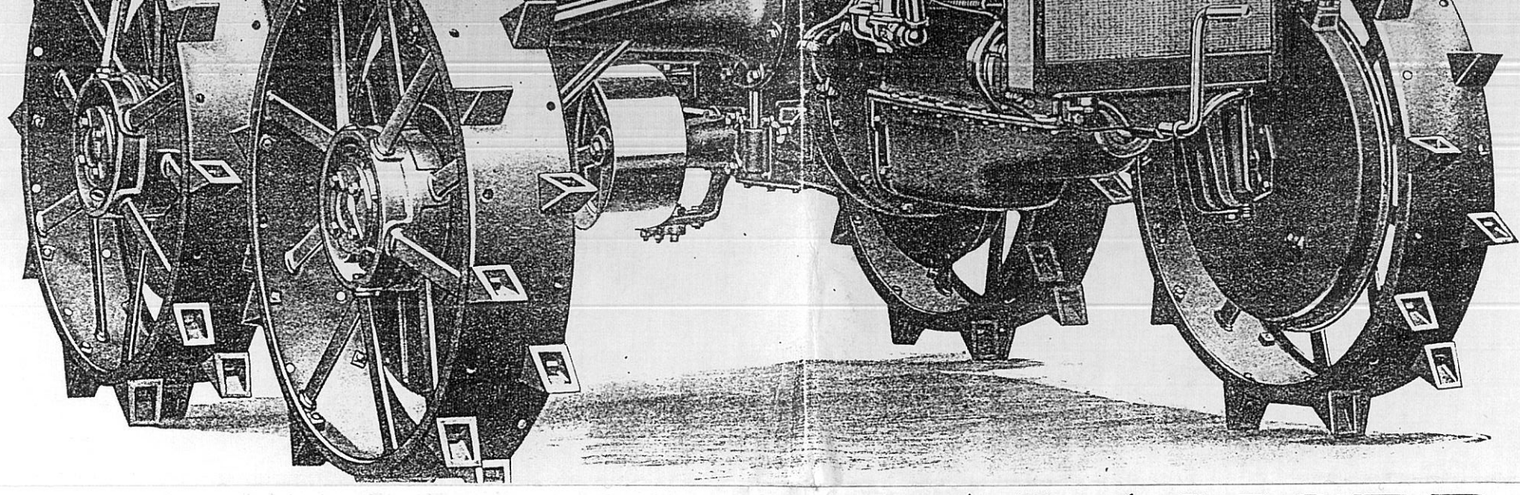
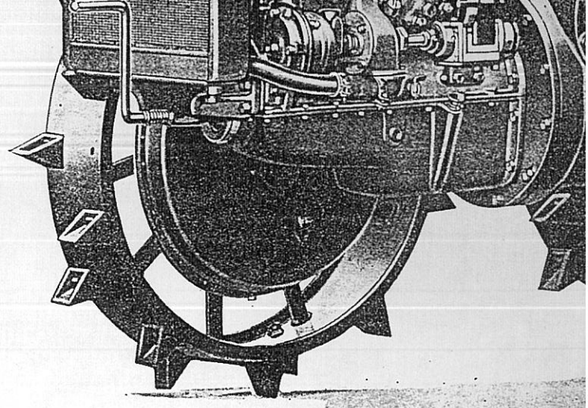




WHEEL
DRIVE



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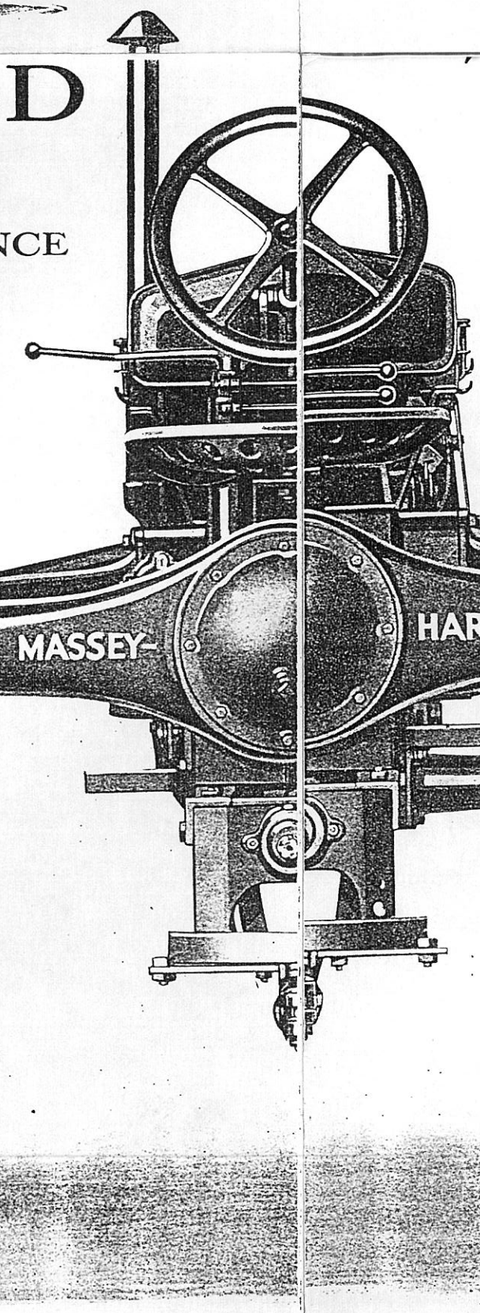
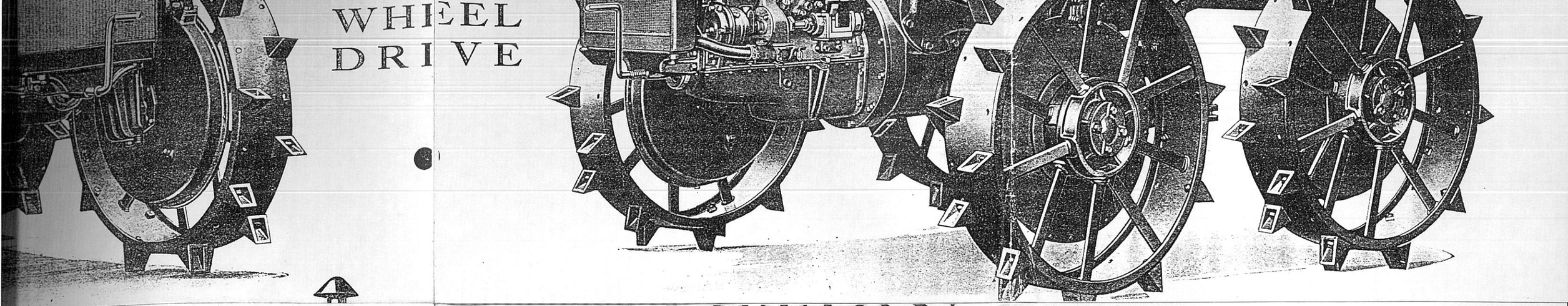


TRACTIO

BUILT FOR THE JOB
DOES AWAY WITH
HORSES



WHEEL
DRIVE

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TIONAL CLEARANCE
OR ROW CROP
CULTIVATION

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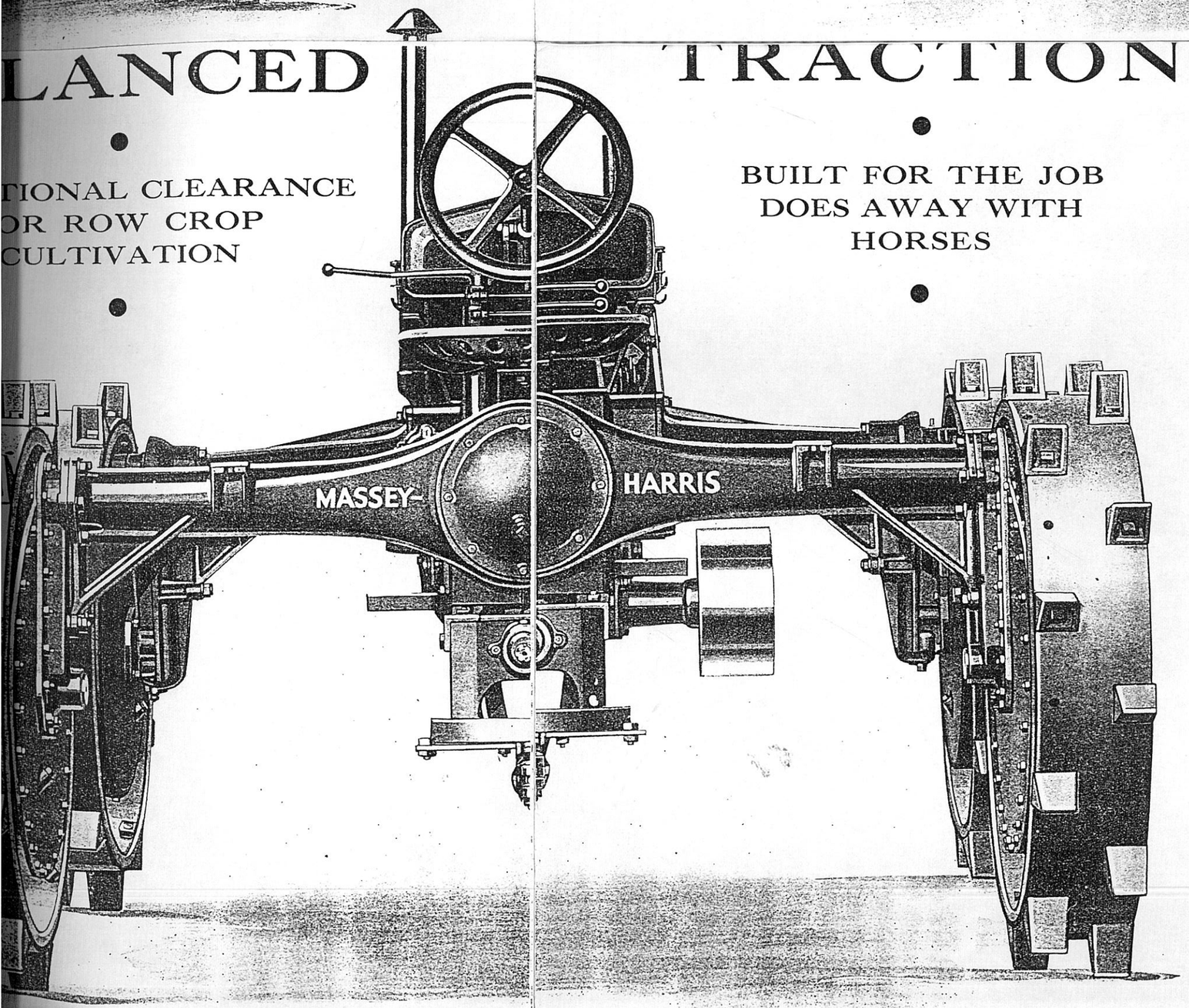

TRACTION

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Preparing Massey-Harris General Purpose T

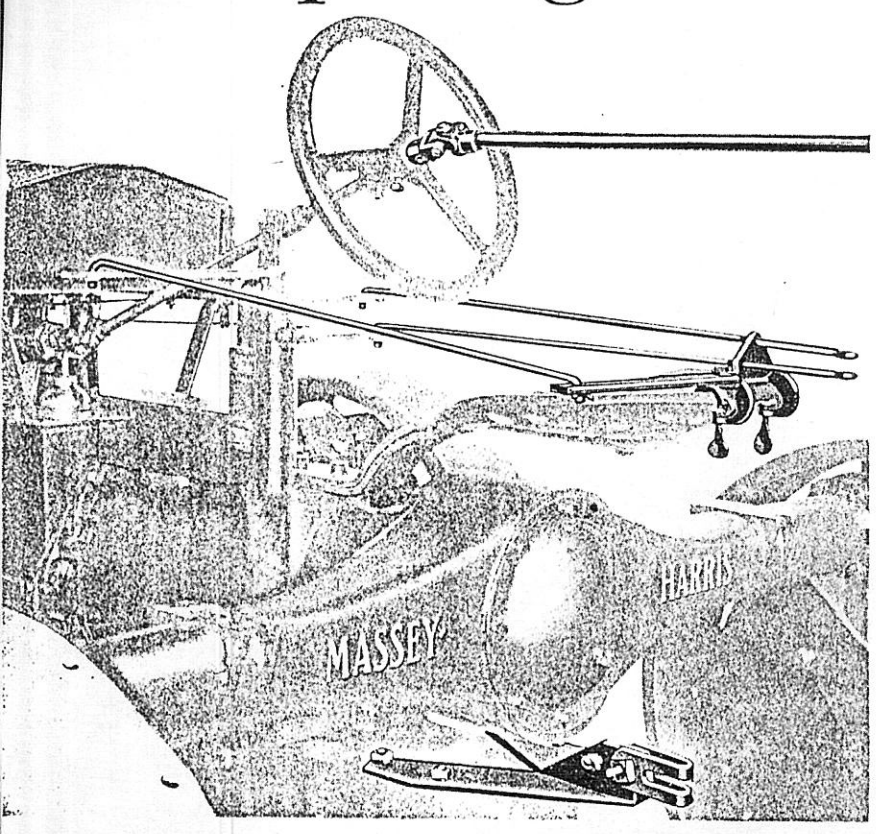


PLATE ONE
Tractor connected to Two Row Cultivator

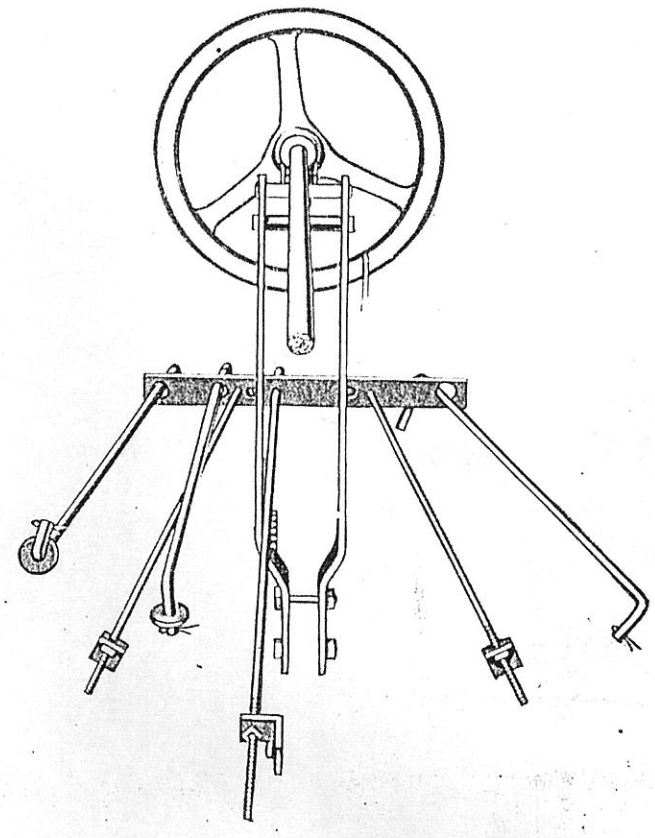


PLATE TWO

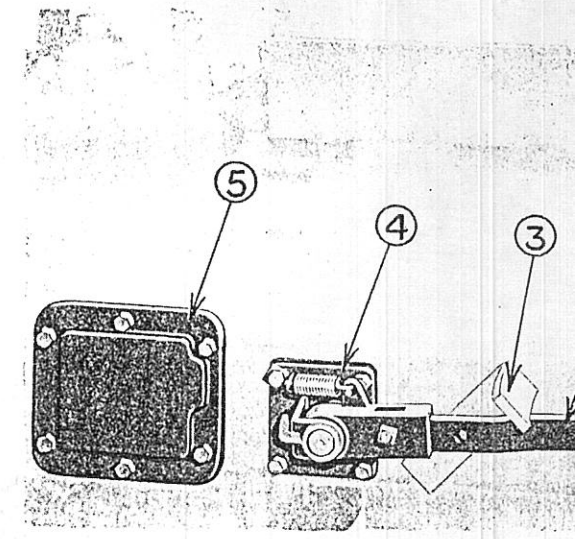


PLATE SIX
Left differential brake. Press down on lever N to the left. Remove Plate No. 1 to inspect gear No. 3 is a foot rest. Remove Plate No. 4 to a Screwing brake rod in tightens clutch band loosens it. Remove Plate No. 5 for inspection.

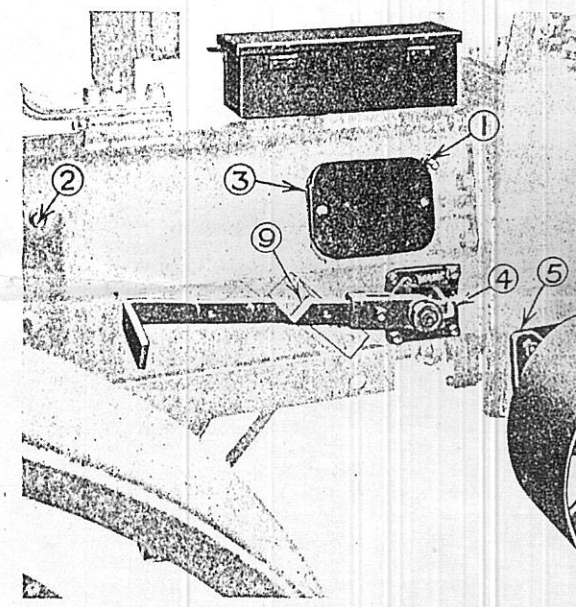


PLATE SEVEN
Nos. 1 and 2, lubricate with good grade cup grea
No. 3, remove plate to pour in oil for transmissio
1 quart, same grade as used in motor). When f
up to rib inside case of clutch opening No. 7.
No. 4, right differential brake—adjust same as lef
No. 5, spacing shims for bevel gear tooth mesh.
No. 6, lever for engaging or disengaging belt p
take-off.
No. 7, clutch inspection plate through which clut
No. 8, remove cap to adjust bearings of pulley sh
No. 9, foot rest.

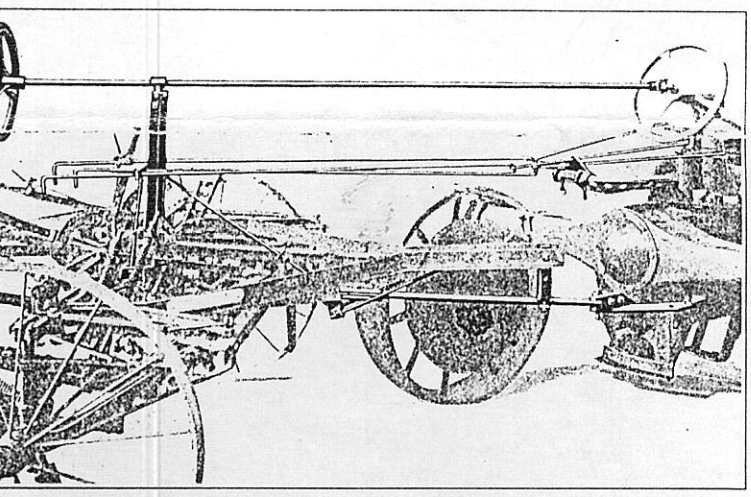
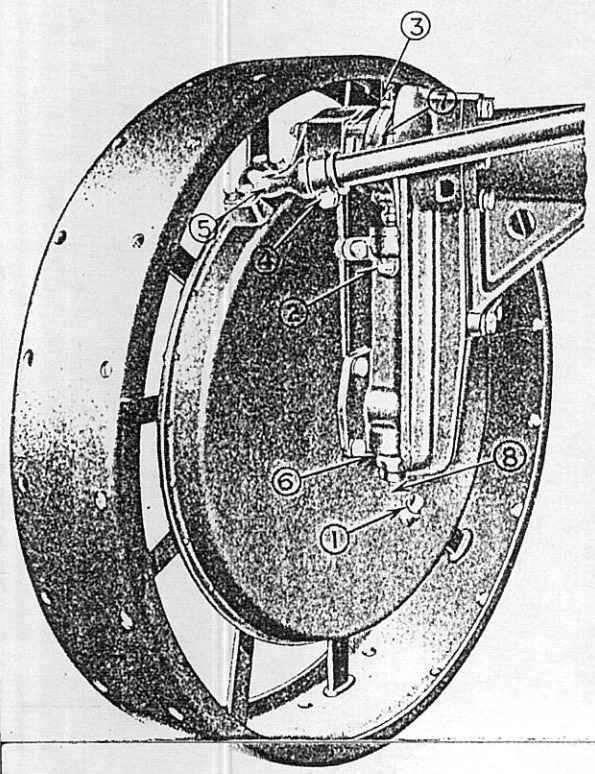
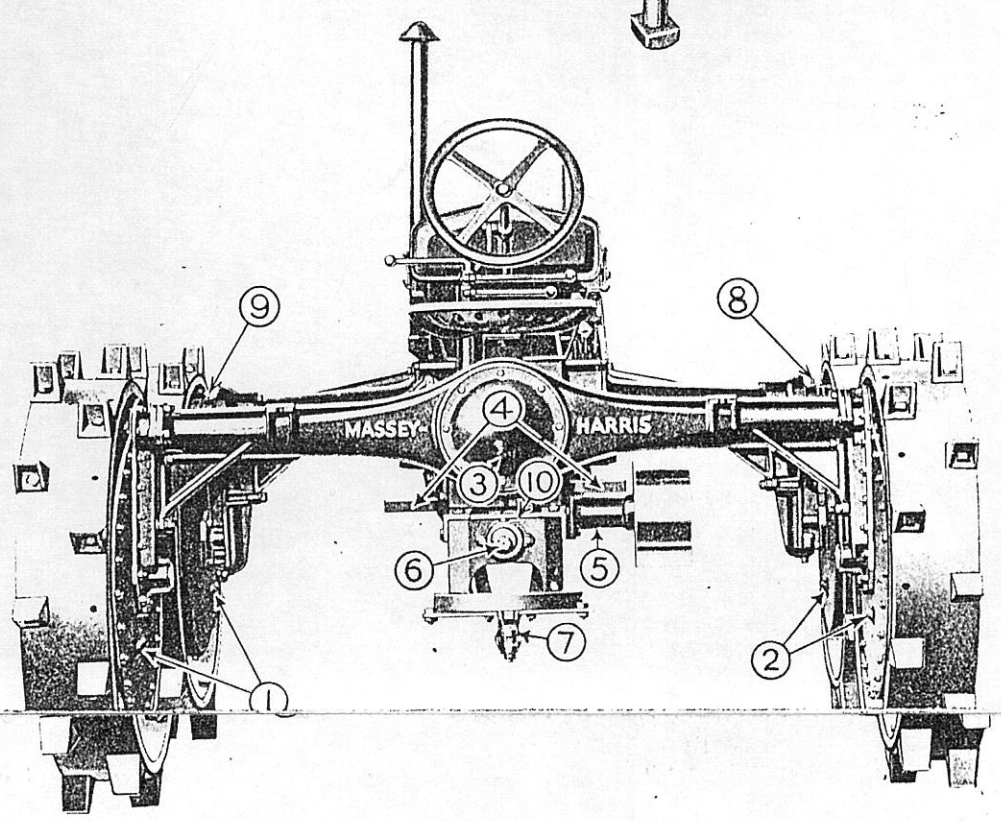


PLATE THREE
Tractor connected to Two Row Cultivator





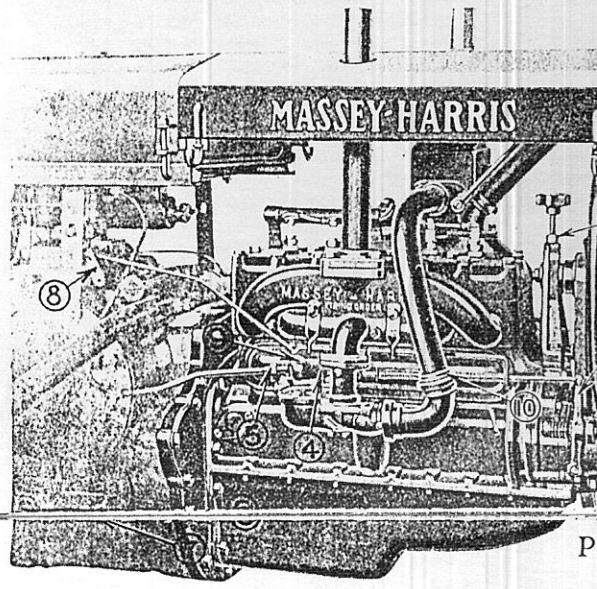
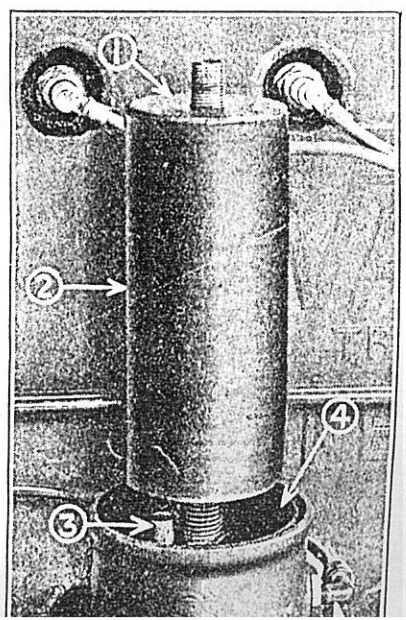


PLATE FOUR
No. 1, fill with 600 W.
No. 2, lubricate daily with good grade cup grease.
No. 3, fill every 60 days of work with ½ lb. 600 W.
No. 4, steering gear drag link adjustment.
No. 5, ball and socket steering gear connection adjustable.
No. 6, Timken bearing adjustment.
No. 7, universal joint.
No. 8, Timken bearing adjustment screw.

PLATE FIVE
Nos. 1 and 2, fill with 600 W.
No. 3, fill with 600 W.
No. 4, differential brakes.
No. 5, belt pulley. May be removed when doing field work if desired.
No. 6, power take-off spline connection 1⅜" standard. 1⅛" available on special order.
No. 7, swinging drawbar connection.
Nos. 8 and 9, fill every sixty days with ½ lb. of 600 W.

P
No. 1, governor speed screw. No. 2, speed contro
No. 3, fan belt adjustment.No. 4, motor idling spe
No. 5, gasoline line union.
No. 6, plate bolts to be removed when motor is
transmission.
No. 7, hand hole plate through which clutch adjus
No. 8, gasoline throttle lever arm. No. 9, plate cov



CARE OF

In the natura
Oil Filter, the
felt (2 Plate 1
to the delivery
Every time the
remove the c
pads. Remove
let the motor
oil will be r
from the inside
comes out, mas
ward with the
off any sedimen
the pads. Clean
when finished.
when this is do
on gauge.

All water and slu
Once every mon
The filter consis
them remove cap
Take off screw p

Lubrication

Lubrication is the very first and most important consideration. The object of lubrication is to prevent a metal to metal contact. The lubricant forms a film between the metal parts and prevents wear. In the engineering of Massey-Harris Tractors there has been provided sufficient clearance between the metal parts for a lubrication film.

Clean Lubrication

Cleanliness in lubrication is as essential in a tractor as is cleanliness in a surgical operation. Every provision possible has been made to exclude dirt from the inside of the tractor that it is possible to make. But, carelessness on the part of the operator is one thing for which the manufacturer cannot be held responsible.

Use Seasonable Oil

Learn To Drive

Before putting lugs on wheels, learn to drive in all speeds. Handle clutch and gear shift the same as you would your truck or automobile.

Power Take-off and Belt Pulley

To engage or disengage, lift up or down on lever 6, Plate Seven. The belt pulley may be removed when doing field work; be sure to put on the plate when pulley is removed.

Servicing Motor

Should the motor require service which the owner does not understand, the motor may be quickly removed from the transmission, loaded into a truck, taken to town to the dealer or any good garage, serviced and replaced in short time.

To Start Motor No. 5, Plate 11

PLATE THREE

Tractor connected to Two Row Cultivator

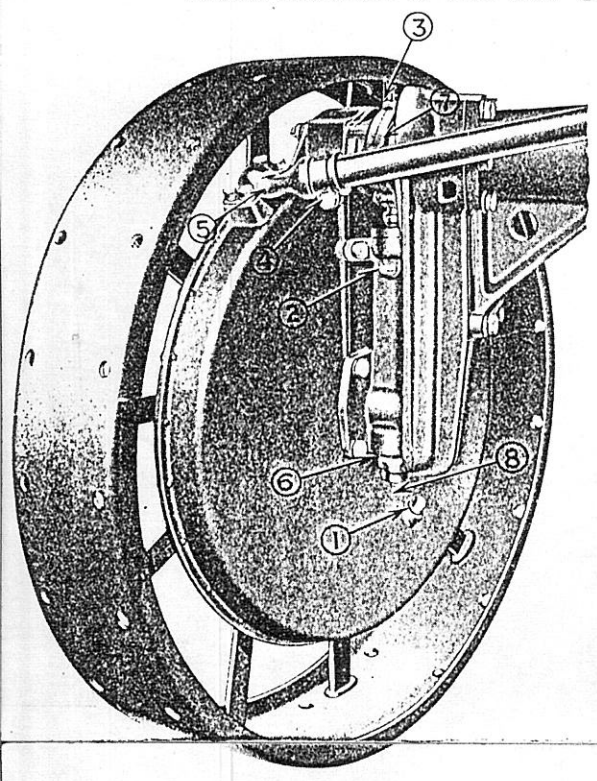


PLATE TWO

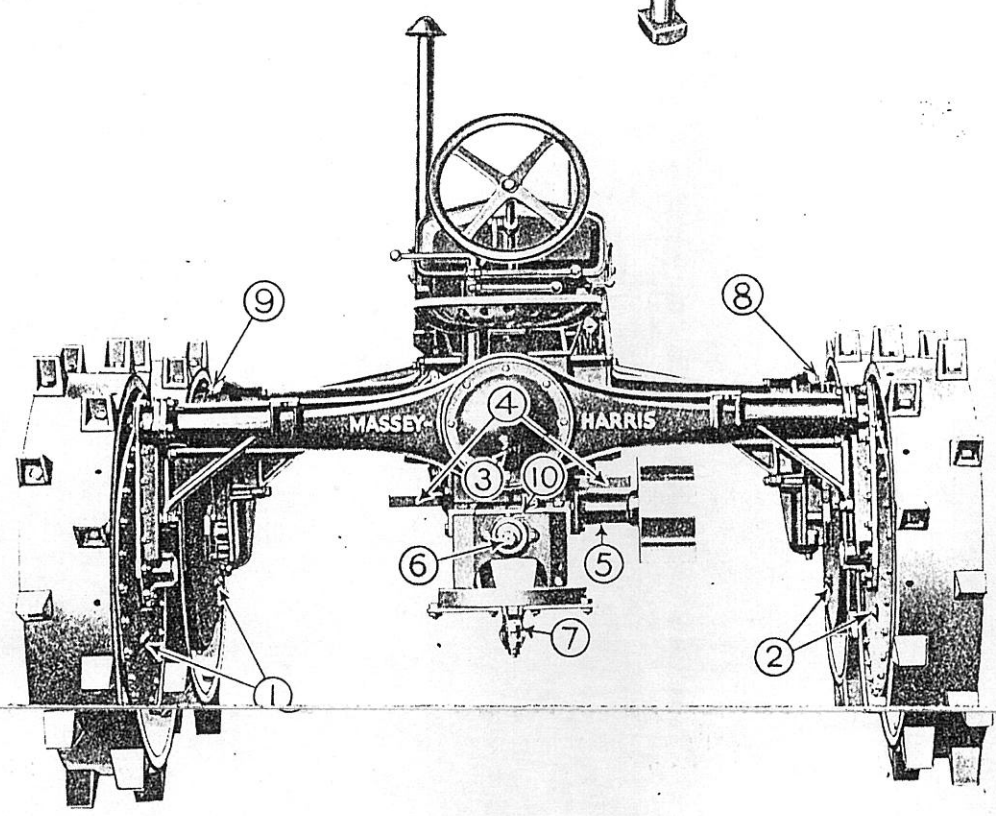


PLATE FOUR

No. 1, fill with 600 W.
No. 2, lubricate daily with good grade cup grease.
No. 3, fill every 60 days of work with ½ lb. 600 W.
No. 4, steering gear drag link adjustment.
No. 5, ball and socket steering gear connection adjustable.
No. 6, Timken bearing adjustment.
No. 7, universal joint.
No. 8, Timken bearing adjustment screw.

PLATE FIVE

Nos. 1 and 2, fill with 600 W.
No. 3, fill with 600 W.
No. 4, differential brakes.
No. 5, belt pulley. May be removed when doing field work if desired.
No. 6, power take-off spline connection 1⅜" standard. 1⅛" available on special order.
No. 7, swinging drawbar connection.
Nos. 8 and 9, fill every sixty days with ½ lb. of 600 W.

Lubrication

Lubrication is the very first and most important consideration. The object of lubrication is to prevent a metal to metal contact. The lubricant forms a film between the metal parts and prevents wear. In the engineering of Massey-Harris Tractors there has been provided sufficient clearance between the metal parts for a lubrication film.

Clean Lubrication

Cleanliness in lubrication is as essential in a tractor as is cleanliness in a surgical operation. Every provision possible has been made to exclude dirt from the inside of the tractor that it is possible to make. But, carelessness on the part of the operator is one thing for which the manufacturer cannot be held responsible.

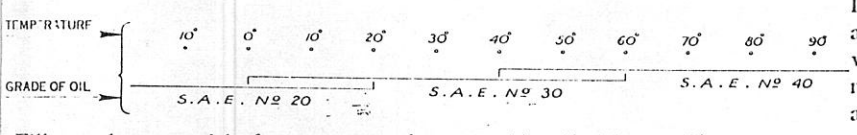
Use Seasonable Oil

The Society of Automotive Engineers, working with most of the reputable oil companies, has established a series of numbers which represent certain bodies of motor lubricating oil. These have been adopted by The Massey-Harris Co.
The chart below shows the various body numbers recommended and the temperatures for which they are suitable.
Please note the overlapping of temperatures on each body number. The reason for this overlapping is obvious, when it is considered that, as in the case of No. 20, the motor may be started in the morning when it is below zero, the chances are that the temperature will rise during the day.
In the case of No. 30 the same is true and No. 40 would be used only in the extremely hot weather.

Heating the Oil

In cold weather it is advisable and practical to drain the oil into a pail at night when the oil is hot and in the morning heat it and pour back into the crank case. It does not matter whether it is the No. 20 or No. 30 body that is being used by doing so the motor gets instant lubrication on starting.

Oil Spec. for Massey-Harris General Purpose Tractor



Fill crank case with four quarts of seasonable oil, No. 1, Plate Eleven.
Oil should be up to the 44 mark on bayonet gauge, No. 2, Plate Eleven.
Oil pressure should be from 10 to 20 pounds.
Drain and refill after sixty hours of work.
Fill oil air cleaner, No. 9, Plate Eleven.
Clean air filter when oil is changed, No. 8-9-10, Plate Eleven.
Clean oil filter when oil is changed, No. 3, Plate Eleven.
Fill grease cup on water pump shaft with good grade cup grease, No. 12, Plate Eleven.
To lubricate fan, remove plug insert alemite connection, then use good grade cup grease, replace plug.
Use 600W, No. 1-2-3-8-9, Plate Five and No. 1-3, Plate Four.
Use good grade cup grease. No. 2, Plate Four on both front brackets and Nos. 1-2, Plate Seven.
Transmission oil, No. 3, Plate Seven, same kind as used in motor. Remove plate to fill.

Starting Motor

Turn magneto button contact, No. 5, Plate Eleven.
Pull choke wire and crank motor. Be sure gas has been turned on under tank.

Learn To Drive

Before putting lugs on wheels, learn to drive in all speeds. Handle clutch and gear shift the same as you would your truck or automobile.

Power Take-off and Belt Pulley

To engage or disengage, lift up or down on lever 6, Plate Seven. The belt pulley may be removed when doing field work; be sure to put on the plate when pulley is removed.

Servicing Motor

Should the motor require service which the owner does not understand, the motor may be quickly removed from the transmission, loaded into a truck, taken to town to the dealer or any good garage, serviced and replaced in short time.

To Start Motor No. 5, Plate 11

To move tractor, Plate Ten, do not shift gears with clutch engaged. No two speeds can be engaged at the same time.

Guiding Tractor

Make all turns with tractor in motion. When a short turn is desired, turn steering wheels and press down on foot lever 4, Plate Five, on the side in the desired direction. Do not ride clutches with feet.
To adjust brake bands, see No. 4, Plate Six.

Carburetor Adjustment

There is no adjustment for the gasoline needle valve. The adjusting needle valve 4, Plate Eight is for motor idling only.

Visible Fuel Strainer

Before removing glass bowl for cleaning shut off valve under tank. Remove screen and clean it.

Governor

The motor speed is set at 1200 R.P.M. before shipment. Motor speed may be increased or decreased by turning adjusting screw 4, Plate Eight. The governor is automatically lubricated.

Clutch Adjustment

Remove clutch Plate, Seven. Turn clutch until the retaining pin appears. Pull back, turn clutch collar and release pin which will drop into a hole which gives a five one thousandth adjustment. When adjusted properly, the clutch lever will lock with a snap when engaged. Never adjust so tight that clutch lever must be held in by hand.

Belt Pulley 5, Plate 5

To engage or disengage, No. 6, Plate Seven. Normal speed 800 R.P.M.

Power Take-off 6, Plate 5

To engage or disengage operate lever 6, Plate Seven. Normal speed 545 R.P.M.

Motor Timing

Firing order is 1-2-4-3.

Magneto Wiring

Spark plug wire next to motor block goes to cylinder No. 2.
Spark plug wire next to No. 2 wire goes to cylinder No. 4.
Spark plug wire next to No. 4 wire goes to cylinder No. 3.
Spark plug wire next to No. 3 wire goes to cylinder No. 1.

Draining Cooling System

Open petcock 13, Plate Eleven.
Remove pipe plug 15, Plate Eleven.
(When shipped this plug is in the tool box.)
The operation of the Massey-Harris is so simple and the adjustments provided so easy that it is the most practical tractor for the inexperienced operator.

PLATE SEVEN

Nos. 1 and 2, lubricate with good grade cup grea
No. 3, remove plate to pour in oil for transmissi
1 quart, same grade as used in motor). When f
up to rib inside case of clutch opening No. 7.
No. 4, right differential brake—adjust same as le
No. 5, spacing shims for bevel gear tooth mesh.
No. 6, lever for engaging or disengaging belt p
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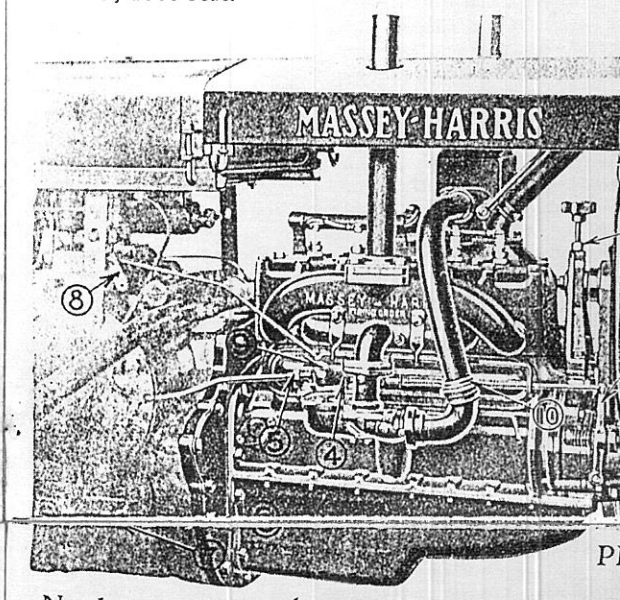
No. 7, clutch inspection plate through which clut
No. 8, remove cap to adjust bearings of pulley sh
No. 9, foot rest.



P

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No. 3, fan belt adjustment. No. 4, motor idling spe
No. 5, gasoline line union.
No. 6, plate bolts to be removed when motor is r
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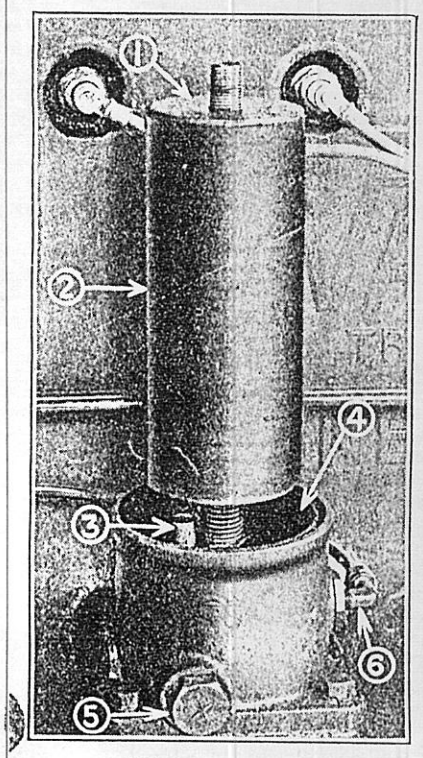

PLATE TWELVE

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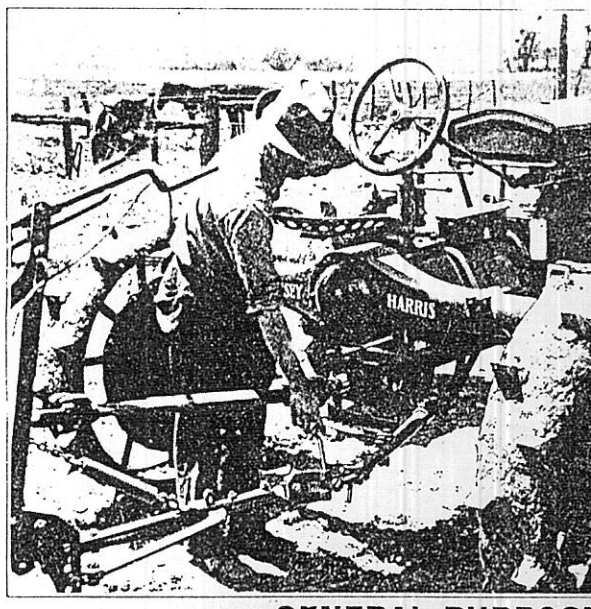
Replace the cove
CAUTION: Do

MASSEY-HARRIS



GENERAL PURPOSE

MASSEY-HARRIS CO., L

General Offices: Toronto, Canada

IMPORTANT

Send your name, address and tractor number to the Co., Ltd., Toronto, Canada. Service Bulletins are whose names are on record.

E TWO

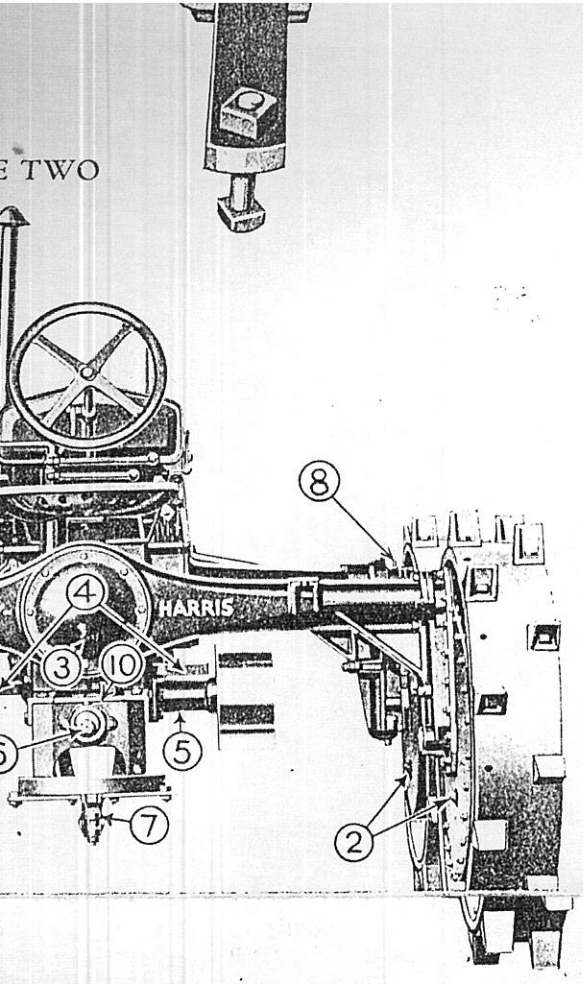


PLATE FIVE

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Belt Pulley 5, Plate 5

disengage, No. 6, Plate Seven. Normal speed

Power Take-off 6, Plate 5

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Motor Timing

1-2-4-3.

Magneto Wiring

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Nos. 1 and 2, lubricate with good grade cup grease.
No. 3, remove plate to pour in oil for transmission (4 gallons and 1 quart, same grade as used in motor). When filled, it will come up to rib inside case of clutch opening No. 7.
No. 4, right differential brake—adjust same as left side.
No. 5, spacing shims for bevel gear tooth mesh.
No. 6, lever for engaging or disengaging belt pulley and power take-off.
No. 7, clutch inspection plate through which clutch is adjusted.
No. 8, remove cap to adjust bearings of pulley shaft.
No. 9, foot rest.

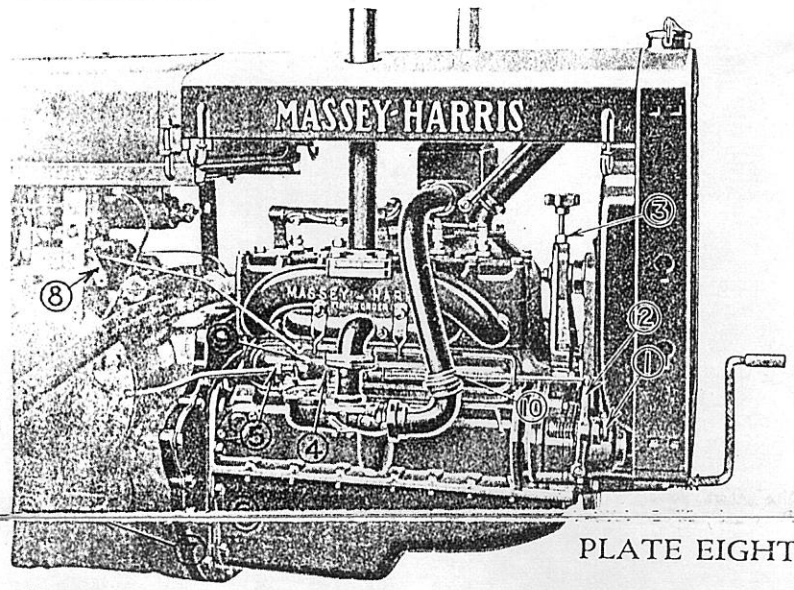


PLATE EIGHT

No. 1, governor speed screw. No. 2, speed control rocker arm.
No. 3, fan belt adjustment. No. 4, motor idling speed adjustment
No. 5, gasoline line union.
No. 6, plate bolts to be removed when motor is removed from transmission.
No. 7, hand hole plate through which clutch adjustment is made.
No. 8, gasoline throttle lever arm. No. 9, plate covering tappets.

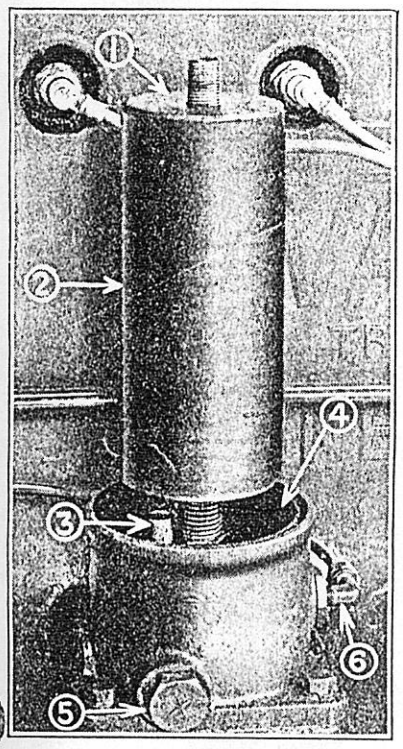


PLATE TWELVE

CARE OF OIL FILTER

In the natural operation of the Oil Filter, the oil passes thru the felt (2 Plate 12) from the outside to the delivery tube (6 Plate 12). Every time the motor oil is changed remove the cover over filtering pads. Remove plug (5 Plate 12), let the motor run slowly so all oil will be run thru the pads from the inside out; as the oil comes out, massage the pads downward with the hands, this will clean off any sediment on the outside of the pads. Clean sump (4 Plate 12) when finished. Refill crank case when this is done, to the 44 mark on gauge.

All water and sludge will accumulate in the sump (4 Plate 12) and drain out when plug (5 Plate 8) is removed.
Once every month of motor operation the felt pads (2 Plate 12) should be removed and washed.
The filter consists of a series of disc-like pads pressed together by a screw plate (1 Plate 8) and to get at them remove cap plug (4 Plate 11) which will release the shell and leave the filter exposed.
Take off screw plate (1 Plate 12) and the filter pads can be removed complete.
Remove each disc separately and wash in gasoline. All the dirt, carbon and foreign substance can be washed out.
When replacing, be sure the sump (4 Plate 12) is clean.
Replace the cover, tighten cap nut (4 Plate 11) on shell.
CAUTION: Do not overlook the importance of pouring oil into the crank case after washing the filter.

No. 1, lubricate with good grade cup grease.
No. 2, low and high speed gear shift lever.
No. 3, intermediate and reverse gear shift lever.
Each lever is marked for speed shift direction.
No. 4, gas throttle.

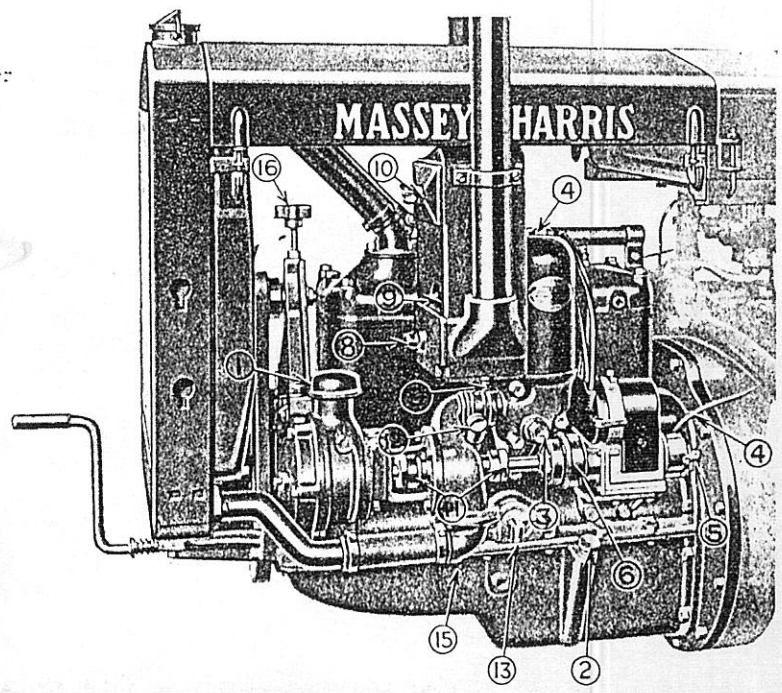
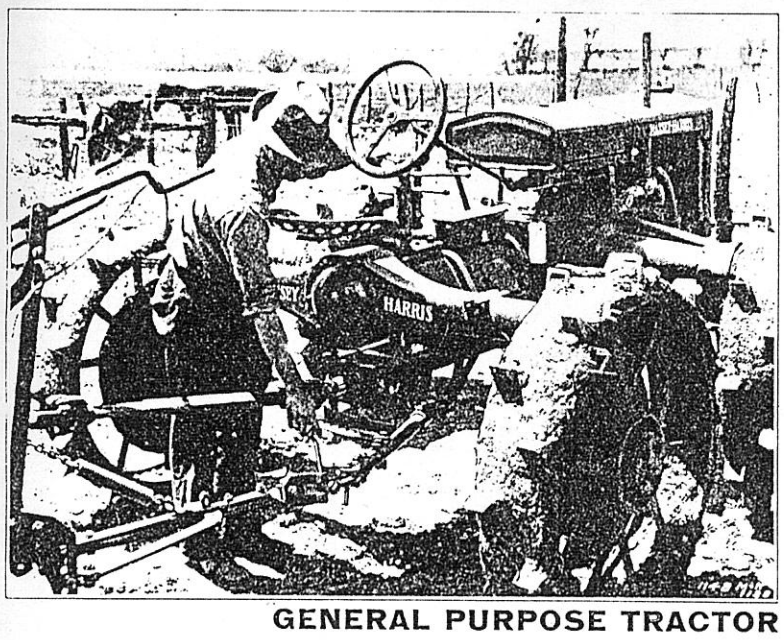


PLATE ELEVEN

No. 1, oil filler cap. Wash frequently.
No. 2, bayonet type oil gauge. Keep oil to 44 mark.
No. 3, oil filter drain. Remove plug. Remove nut No. 4. Remove cover and start motor slowly. The oil will be reversed and come out through the pads and as it does so massage the felts to clean. This pumps the oil out of crank case. Open the drain plug in bottom of crank case for complete oil draining. Do not run motor long nor fast as it will soon empty the crank case.
Replace plug 3 also shield and fasten with Nut No. 4.
No. 5, pull out and turn button for starting and reverse action for stopping motor.
No. 6, impulse starter.
No. 7, water pump hose connection.
No. 8, oil deposit for oil air filter. Drain and clean frequently.
No. 9, oil air filter filler plug. Fill daily.
No. 10, remove cover. Take out the moss, wash clean, soak in oil and replace.
No. 11, water pump packing glands. Keep just tight enough to prevent water leakage.
No. 12, fill grease cup with good grade cup grease.
No. 13, motor housing water drain cock.
No. 15, water drain plug. Remove to drain system.
No. 16, fan belt adjusting screw.

MASSEY-HARRIS



GENERAL PURPOSE TRACTOR

MASSEY-HARRIS CO., LTD.

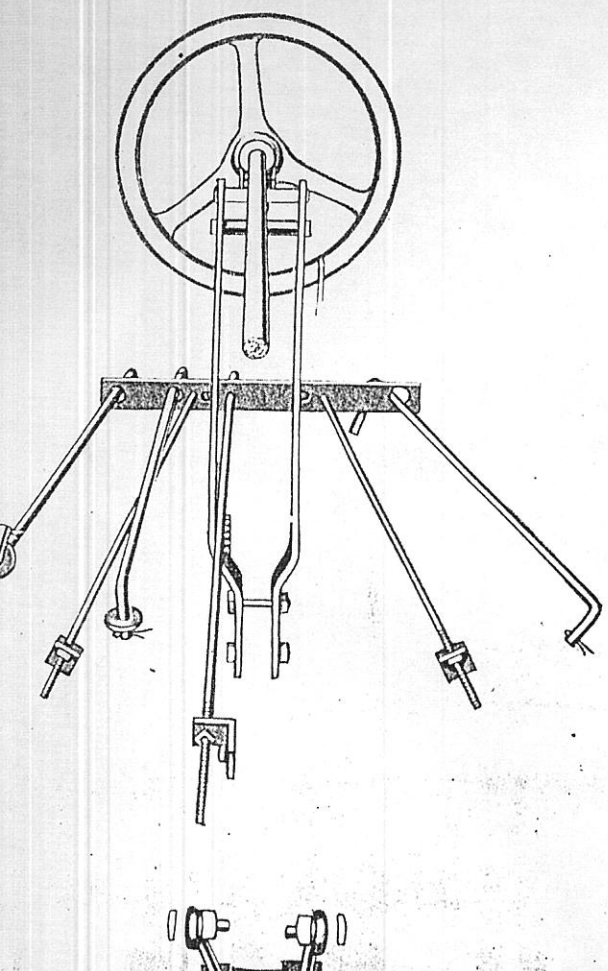
General Offices: Toronto, Canada

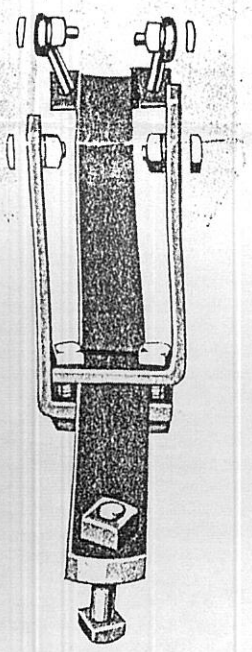
Printed in U. S. A.

IMPORTANT

Send your name, address and tractor number to the Massey-Harris Co., Ltd., Toronto, Canada. Service Bulletins are sent to those whose names are on record.

-Harris General Purpose Tractor For Work





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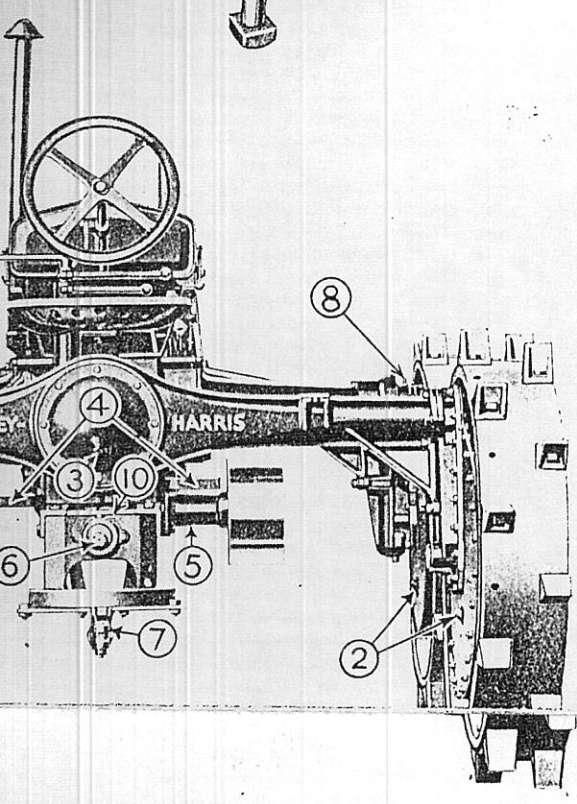

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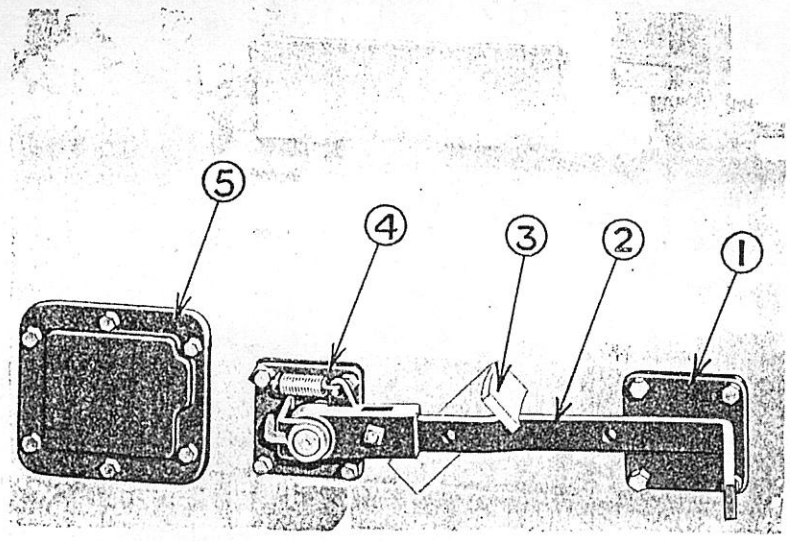

PLATE SIX

Left differential brake. Press down on lever No. 2 to turn short to the left. Remove Plate No. 1 to inspect gear shift connections. No. 3 is a foot rest. Remove Plate No. 4 to adjust brake band. Screwing brake rod in tightens clutch band and, screwing out loosens it. Remove Plate No. 5 for inspection.

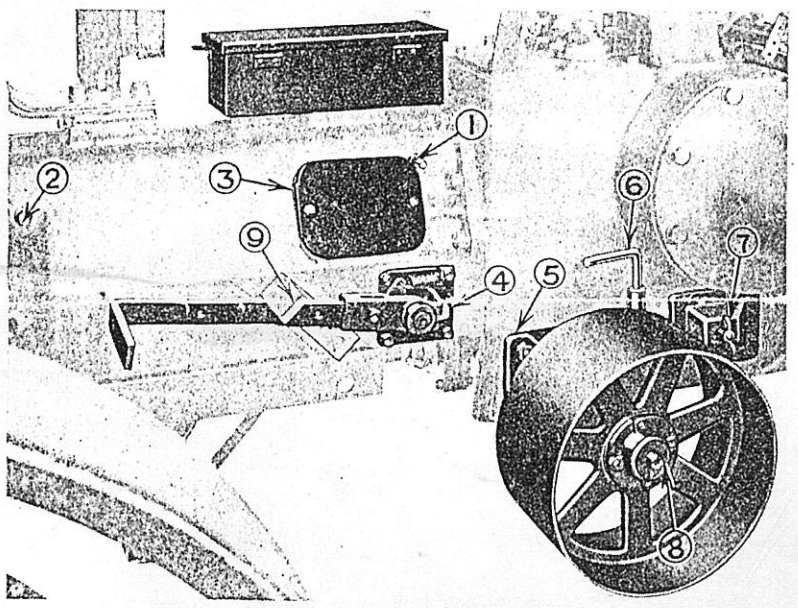

PLATE SEVEN

Nos. 1 and 2, lubricate with good grade cup grease.
No. 3, remove plate to pour in oil for transmission (4 gallons and 1 quart, same grade as used in motor). When filled, it will come up to rib inside case of clutch opening No. 7.
No. 4, right differential brake—adjust same as left side.
No. 5, spacing shims for bevel gear tooth mesh.
No. 6, lever for engaging or disengaging belt pulley and power take-off.
No. 7, clutch inspection plate through which clutch is adjusted.
No. 8, remove cap to adjust bearings of pulley shaft.
No. 9, foot rest.

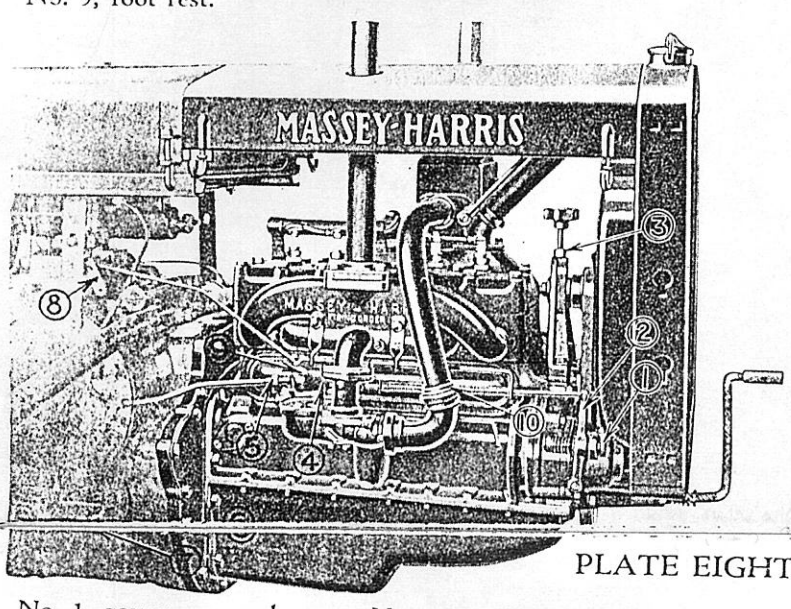

PLATE EIGHT

No. 1, governor speed screw. No. 2, speed control rocker arm.
No. 3, fan belt adjustment. No. 4, motor idling speed adjustment
No. 5, gasoline line union.
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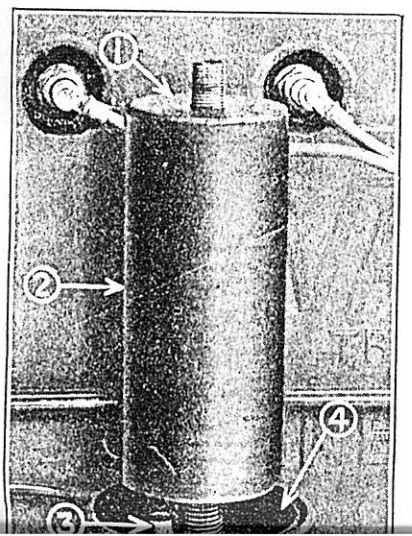

CARE OF OIL FILTER

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All water and sludge will accumulate in the sump (4 Plate 12) and drain out when plug (5 Plate 8) is removed.

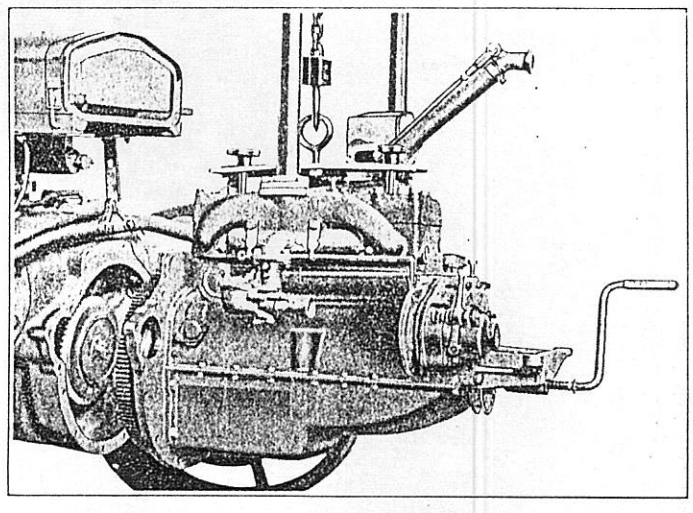

PLATE NINE

To remove motor use chain hoist as shown. Remove bolts which hold motor to transmission housing. To replace, put motor in position, open clutch hand hole, and insert ring on clutch in teeth inside fly wheel.

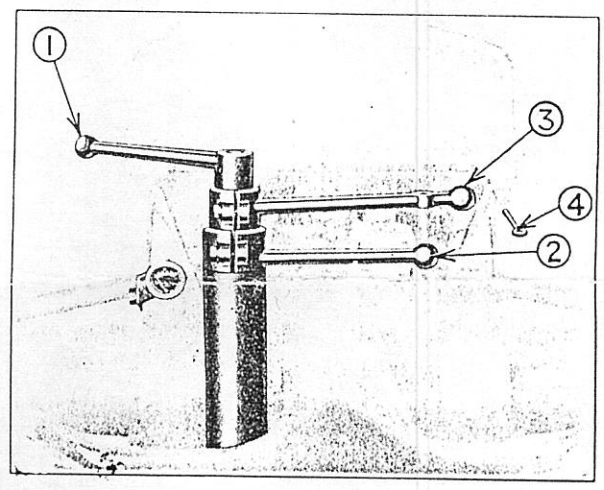

PLATE TEN

No. 1, clutch lever.
No. 2, low and high speed gear shift lever.
No. 3, intermediate and reverse gear shift lever. Each lever is marked for speed shift direction.
No. 4, gas throttle.

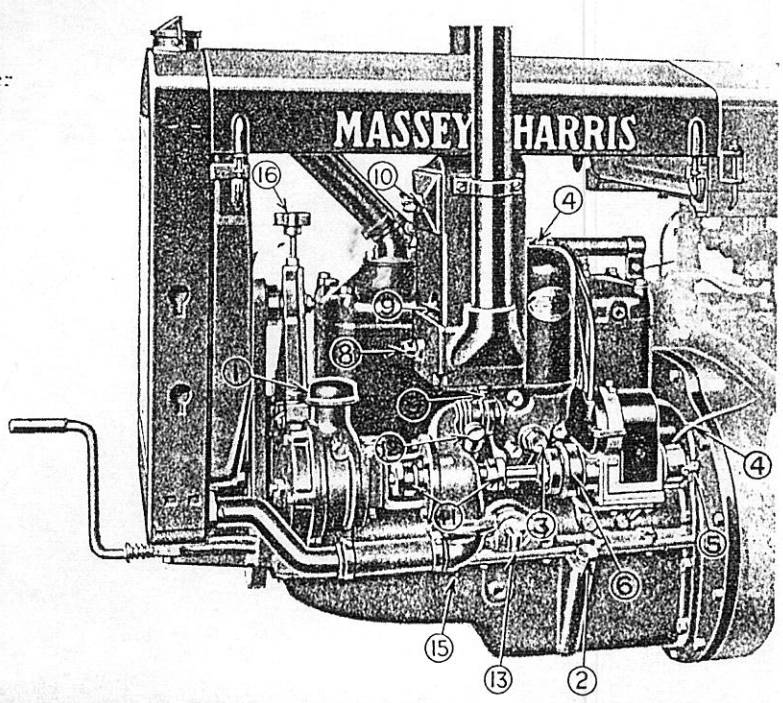

PLATE ELEVEN

No. 1, oil filler cap. Wash frequently.
No. 2, bayonet type oil gauge. Keep oil to 44 mark.
No. 3, oil filter drain. Remove plug. Remove nut No. 4. Remove cover and start motor slowly. The oil will be reversed and come out through the pads and as it does so massage the felts to clean. This pumps the oil out of crank case. Open the drain plug in bottom of crank case for complete oil draining. Do not run motor long nor fast as it will soon empty the crank case.
Replace plug 3 also shield and fasten with Nut No. 4.
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No. 12, fill grease cup with good grade cup grease.
No. 13, motor housing water drain cock.
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No. 16, fan belt adjusting screw.

Preparing Massey-Harris General Purpose Tractor For Work

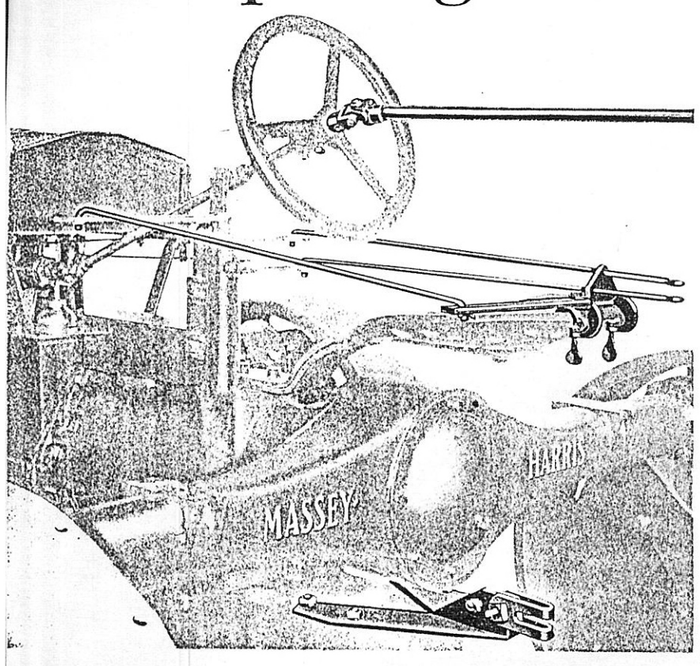
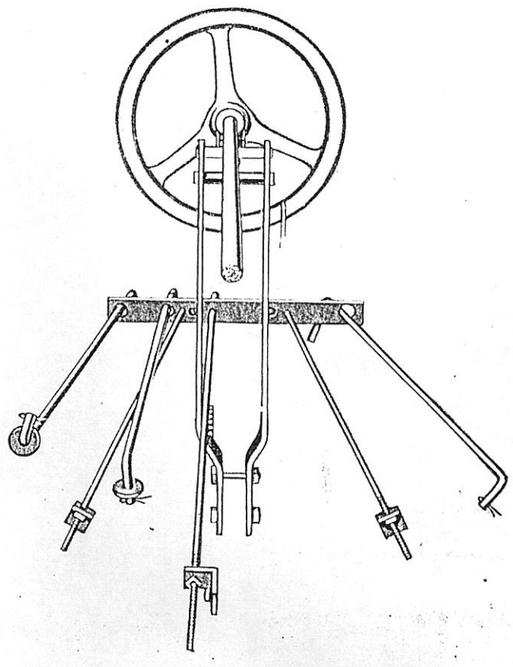


PLATE ONE
Tractor connected to Two Row Cultivator



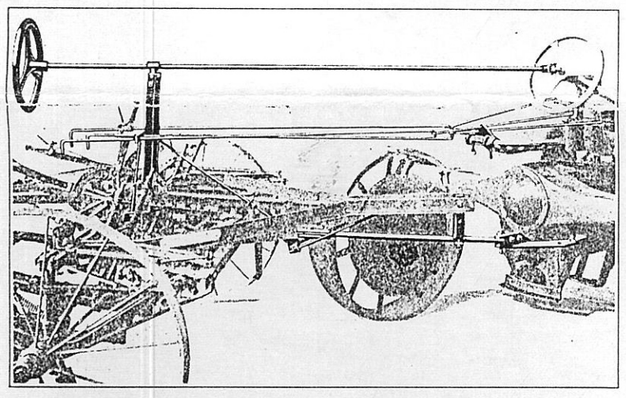


PLATE THREE
Tractor connected to Two Row Cultivator

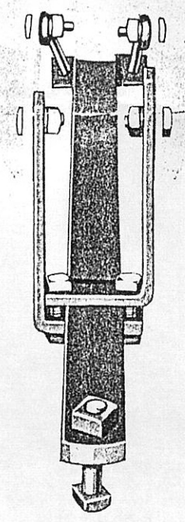


PLATE TWO

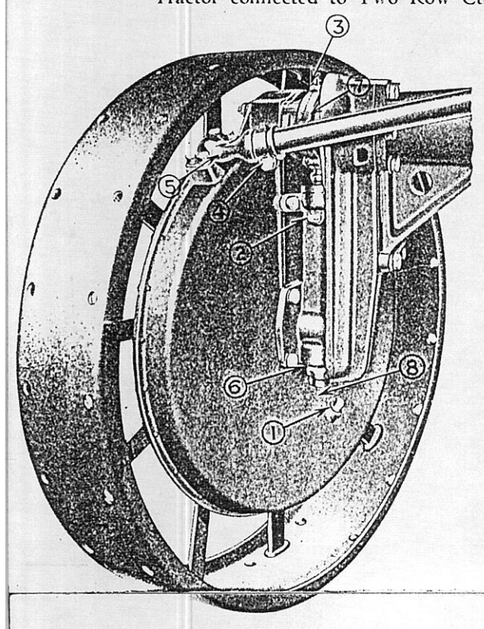


PLATE FOUR

No. 1, fill with 600 W.
No. 2, lubricate daily with good grade cup grease.
No. 3, fill every 60 days of work with ½ lb. 600 W.
No. 4, steering gear drag link adjustment.
No. 5, ball and socket steering gear connection adjustable.
No. 6, Timken bearing adjustment.
No. 7, universal joint.
No. 8, Timken bearing adjustment screw.

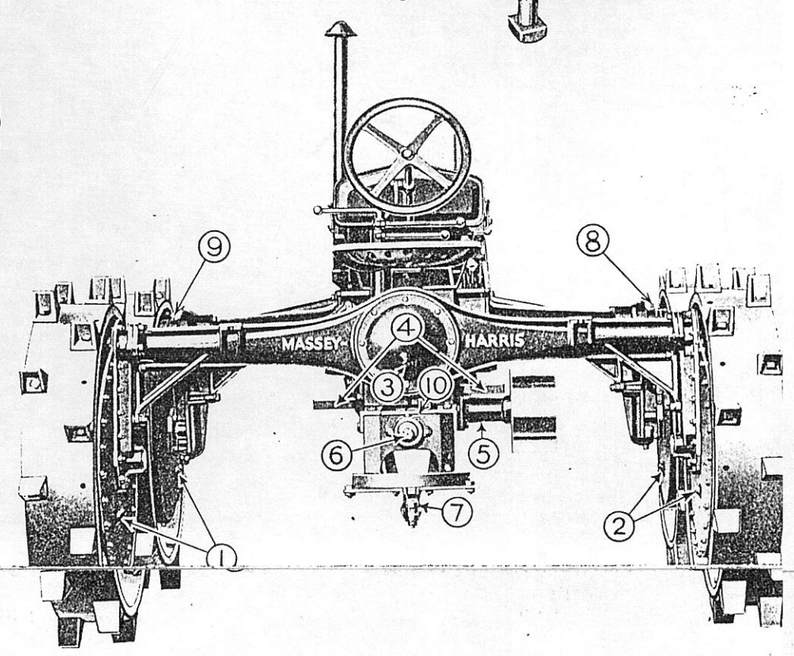


PLATE FIVE

Nos. 1 and 2, fill with 600 W.
No. 3, fill with 600 W.
No. 4, differential brakes.
No. 5, belt pulley. May be removed when doing field work if desired.
No. 6, power take-off spline connection 1⅜" standard. 1⅛" available on special order.
No. 7, swinging drawbar connection.
Nos. 8 and 9, fill every sixty days with ½ lb. of 600 W.

Lubrication

Lubrication is the very first and most important consideration. The object of lubrication is to prevent a metal to metal contact. The lubricant forms a film between the metal parts and prevents wear. In the engineering of Massey-Harris Tractors there has been provided sufficient clearance between the metal parts for a lubrication film.

Clean Lubrication

Cleanliness in lubrication is as essential in a tractor as is cleanliness in a surgical operation. Every provision possible has been made to exclude dirt from the inside of the tractor that it is possible to make. But, carelessness on the part of the operator is one thing for which the manufacturer cannot be held responsible.

Use Seasonable Oil

The Society of Automotive Engineers, working with most of the reputable oil companies, has established a series of numbers which represent certain bodies of motor lubricating oil. These have been adopted by The Massey-Harris Co.

The chart below shows the various body numbers recommended and the temperatures for which they are suitable.

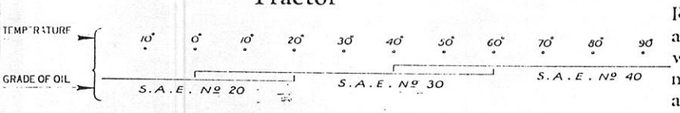
Please note the overlapping of temperatures on each body number. The reason for this overlapping is obvious, when it is considered that, as in the case of No. 20, the motor may be started in the morning when it is below zero, the chances are that the temperature will rise during the day.

In the case of No. 30 the same is true and No. 40 would be used only in the extremely hot weather.

Heating the Oil

In cold weather it is advisable and practical to drain the oil into a pail at night when the oil is hot and in the morning heat it and pour back into the crank case. It does not matter whether it is the No. 20 or No. 30 body that is being used by doing so the motor gets instant lubrication on starting.

Oil Spec. for Massey-Harris General Purpose Tractor



Fill crank case with four quarts of seasonable oil, No. 1, Plate Eleven.

Oil should be up to the 44 mark on bayonet gauge, No. 2, Plate Eleven.

Oil pressure should be from 10 to 20 pounds.
Drain and refill after sixty hours of work.
Fill oil air cleaner, No. 9, Plate Eleven.
Clean air filter when oil is changed, No. 8-9-10, Plate Eleven.
Clean oil filter when oil is changed, No. 3, Plate Eleven.
Fill grease cup on water pump shaft with good grade cup grease, No. 12, Plate Eleven.
To lubricate fan, remove plug insert alemite connection, then use good grade cup grease, replace plug.
Use 600W, No. 1-2-3-8-9, Plate Five and No. 1-3, Plate Four.
Use good grade cup grease. No. 2, Plate Four on both front brackets and Nos. 1-2, Plate Seven.
Transmission oil, No. 3, Plate Seven, same kind as used in motor. Remove plate to fill.

Starting Motor

Turn magneto button contact, No. 5, Plate Eleven.

Pull choke wire and crank motor. Be sure gas has been turned on under tank.

Learn To Drive

Before putting lugs on wheels, learn to drive in all speeds. Handle clutch and gear shift the same as you would your truck or automobile.

Power Take-off and Belt Pulley

To engage or disengage, lift up or down on lever 6, Plate Seven. The belt pulley may be removed when doing field work; be sure to put on the plate when pulley is removed.

Servicing Motor

Should the motor require service which the owner does not understand, the motor may be quickly removed from the transmission, loaded into a truck, taken to town to the dealer or any good garage, serviced and replaced in short time.

To Start Motor No. 5, Plate 11

To move tractor, Plate Ten, do not shift gears with clutch engaged. No two speeds can be engaged at the same time.

Guiding Tractor

Make all turns with tractor in motion. When a short turn is desired, turn steering wheels and press down on foot lever 4, Plate Five, on the side in the desired direction. Do not ride clutches with feet.

To adjust brake bands, see No. 4, Plate Six.

Carburetor Adjustment

There is no adjustment for the gasoline needle valve. The adjusting needle valve 4, Plate Eight is for motor idling only.

Visible Fuel Strainer

Before removing glass bowl for cleaning shut off valve under tank. Remove screen and clean it.

Governor

The motor speed is set at 1200 R.P.M. before shipment. Motor speed may be increased or decreased by turning adjusting screw 4, Plate Eight. The governor is automatically lubricated.

Clutch Adjustment

Remove clutch Plate, Seven. Turn clutch until the retaining pin appears. Pull back, turn clutch collar and release pin which will drop into a hole which gives a five one thousandth adjustment. When adjusted properly, the clutch lever will lock with a snap when engaged. Never adjust so tight that clutch lever must be held in by hand.

Belt Pulley 5, Plate 5

To engage or disengage, No. 6, Plate Seven. Normal speed 800 R.P.M.

Power Take-off 6, Plate 5

To engage or disengage operate lever 6, Plate Seven. Normal speed 545 R.P.M.

Motor Timing

Firing order is 1-2-4-3.

Magneto Wiring

Spark plug wire next to motor block goes to cylinder No. 2.
Spark plug wire next to No. 2 wire goes to cylinder No. 4.
Spark plug wire next to No. 4 wire goes to cylinder No. 3.
Spark plug wire next to No. 3 wire goes to cylinder No. 1.

Draining Cooling System

Open petcock 13, Plate Eleven.
Remove pipe plug 15, Plate Eleven.
(When shipped this plug is in the tool box.)
The operation of the Massey-Harris is so simple and the adjustments provided so easy that it is the most practical tractor for the inexperienced operator.

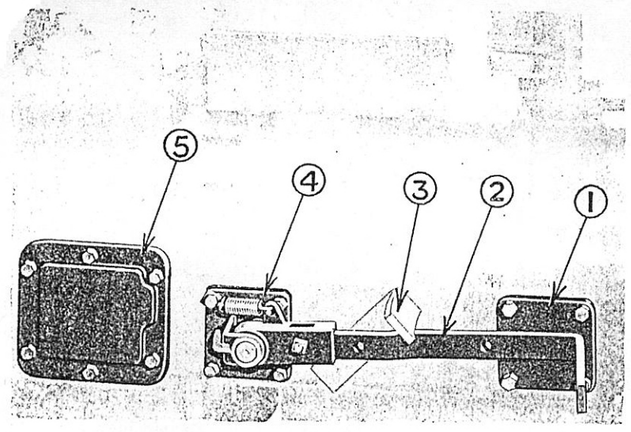


PLATE SIX

Left differential brake. Press down on lever No. 2 to turn short to the left. Remove Plate No. 1 to inspect gear shift connections. No. 3 is a foot rest. Remove Plate No. 4 to adjust brake band. Screwing brake rod in tightens clutch band and screwing out loosens it. Remove Plate No. 5 for inspection.

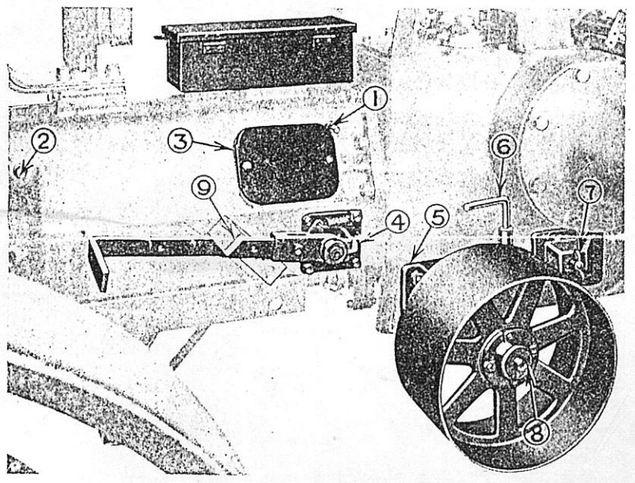


PLATE SEVEN

Nos. 1 and 2, lubricate with good grade cup grease.
No. 3, remove plate to pour in oil for transmission (4 gallons and 1 quart, same grade as used in motor). When filled, it will come up to rib inside case of clutch opening No. 7.
No. 4, right differential brake—adjust same as left side.
No. 5, spacing shims for bevel gear tooth mesh.
No. 6, lever for engaging or disengaging belt pulley and power take-off.
No. 7, clutch inspection plate through which clutch is adjusted.
No. 8, remove cap to adjust bearings of pulley shaft.
No. 9, foot rest.

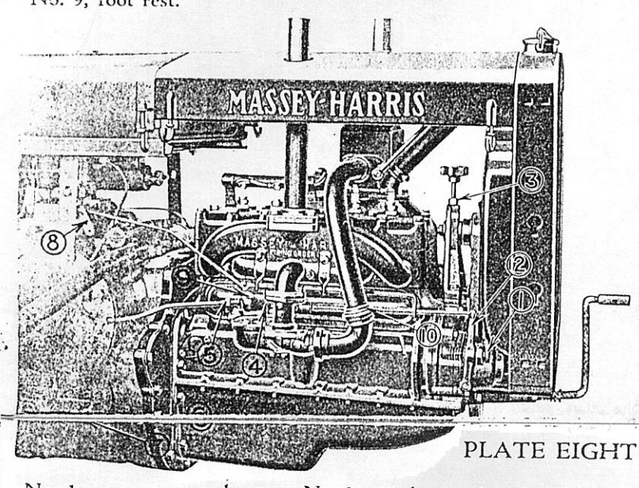


PLATE EIGHT

No. 1, governor speed screw. No. 2, speed control rocker arm.
No. 3, fan belt adjustment. No. 4, motor idling speed adjustment
No. 5, gasoline line union.
No. 6, plate bolts to be removed when motor is removed from transmission.
No. 7, hand hole plate through which clutch adjustment is made.
No. 8, gasoline throttle lever arm. No. 9, plate covering tappets.

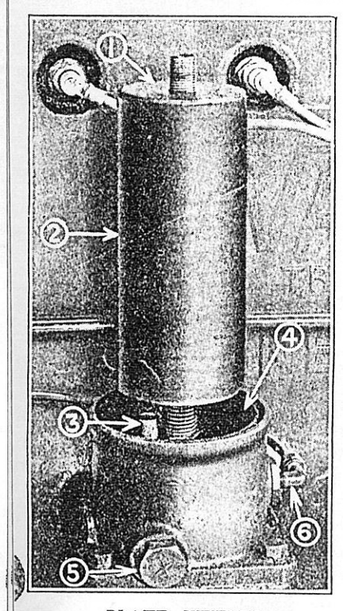


PLATE TWELVE

CARE OF OIL FILTER

In the natural operation of the Oil Filter, the oil passes thru the felt (2 Plate 12) from the outside to the delivery tube (6 Plate 12). Every time the motor oil is changed remove the cover over filtering pads. Remove plug (5 Plate 12), let the motor run slowly so all oil will be run thru the pads from the inside out; as the oil comes out, massage the pads downward with the hands, this will clean off any sediment on the outside of the pads. Clean sump (4 Plate 12) when finished. Refill crank case when this is done, to the 44 mark on gauge.

All water and sludge will accumulate in the sump (4 Plate 12) and drain out when plug (5 Plate 8) is removed.
Once every month of motor operation the felt pads (2 Plate 12) should be removed and washed.
The filter consists of a series of disc-like pads pressed together by a screw plate (1 Plate 8) and to get at them remove cap plug (4 Plate 11) which will release the shell and leave the filter exposed.
Take off screw plate (1 Plate 12) and the filter pads can be removed complete.
Remove each disc separately and wash in gasoline. All the dirt, carbon and foreign substance can be washed out.
When replacing, be sure the sump (4 Plate 12) is clean.
Replace the cover, tighten cap nut (4 Plate 11) on shell.
CAUTION: Do not overlook the importance of pouring oil into the crank case after washing the filter.

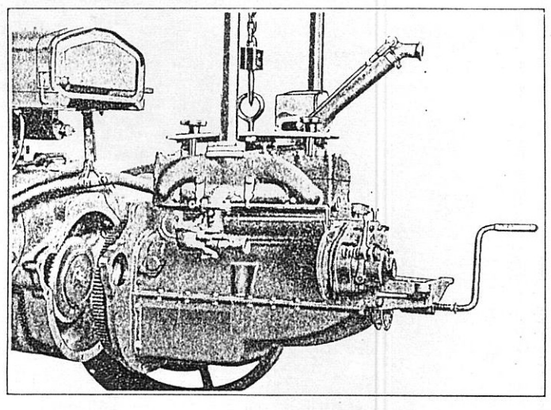


PLATE NINE

To remove motor use chain hoist as shown. Remove bolts which hold motor to transmission housing. To replace, put motor in position, open clutch hand hole, and insert ring on clutch in teeth inside fly wheel.

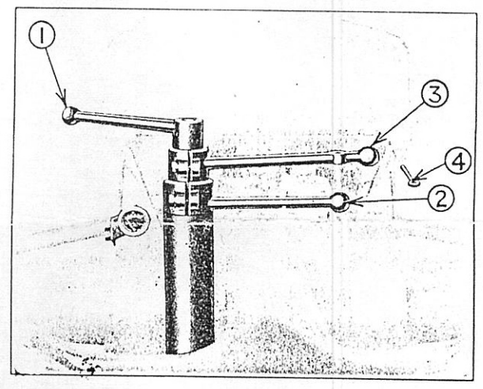


PLATE TEN

No. 1, clutch lever.
No. 2, low and high speed gear shift lever.
No. 3, intermediate and reverse gear shift lever. Each lever is marked for speed shift direction.
No. 4, gas throttle.

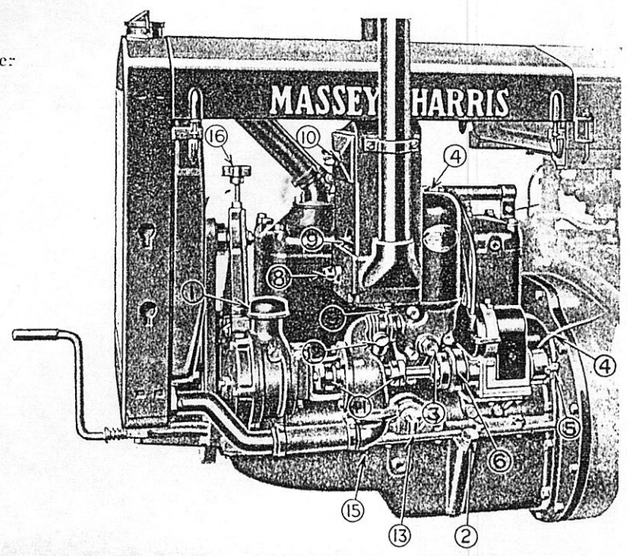
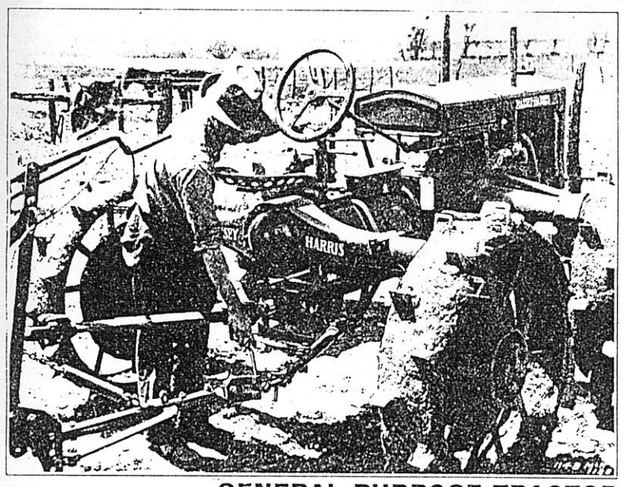


PLATE ELEVEN

No. 1, oil filler cap. Wash frequently.
No. 2, bayonet type oil gauge. Keep oil to 44 mark.
No. 3, oil filter drain. Remove plug. Remove nut No. 4. Remove cover and start motor slowly. The oil will be reversed and come out through the pads and as it does so massage the felts to clean. This pumps the oil out of crank case. Open the drain plug in bottom of crank case for complete oil draining. Do not run motor long nor fast as it will soon empty the crank case.
Replace plug 3 also shield and fasten with Nut No. 4.
No. 5, pull out and turn button for starting and reverse action for stopping motor.
No. 6, impulse starter.
No. 7, water pump hose connection.
No. 8, oil deposit for oil air filter. Drain and clean frequently.
No. 9, oil air filter filler plug. Fill daily.
No. 10, remove cover. Take out the moss, wash clean, soak in oil and replace.
No. 11, water pump packing glands. Keep just tight enough to prevent water leakage.
No. 12, fill grease cup with good grade cup grease.
No. 13, motor housing water drain cock.
No. 15, water drain plug. Remove to drain system.
No. 16, fan belt adjusting screw.

MASSEY-HARRIS



GENERAL PURPOSE TRACTOR

MASSEY-HARRIS CO., LTD.
General Offices: Toronto, Canada

Printed in U. S. A.

IMPORTANT

Send your name, address and tractor number to the Massey-Harris Co., Ltd., Toronto, Canada. Service Bulletins are sent to those whose names are on record.