



**International
Harvester
Operator's Manual
for McCORMICK-DEERING
O4 & OS4**

Operator's Manual

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IH-O-04,OS4

CONTENTS

Description	Pages
INTRODUCTION	Inside
Delivery report (to be filled in when tractor is delivered)	Front Cover
General	2
Serial numbers, engine and chassis	2
DESCRIPTION	
Before starting your new tractor	8
Instruments and controls	4 to 7
Preparing the tractor for each day's work	9
Views of the tractor	3
OPERATING YOUR TRACTOR	
Driving the tractor	16, 17
Operating a gasoline engine	11
Operating a distillate engine on distillate	12 to 15
Operating a distillate engine on gasoline	15, 16
Operating a kerosene engine	15
Operating the belt pulley	17
Operating the power take-off	17
LUBRICATION	
Engine and chassis lubricant specifications	21
General engine lubrication	18
Greasing the front wheels	20
Lubrication guide	22 to 25
Lubricating oil and grease specifications	20
Oil filter	19
MAINTENANCE	
Air cleaning system	33
Battery ignition unit	35 to 37
Brakes	59, 60
Carburetor	27, 28
Clutch	60
Cold weather precautions	29
Cooling system	30 to 32
Drawbar and hitch	61, 62
Fuel strainer	27
Fuse	42
Generator (tractors with voltage regulation)	43, 45
Generator (tractors without voltage regulation)	52 to 54
Lamps	43
Magneto (tractors so equipped)	38 to 40
Minor engine service operations	58
Periodic inspections	26, 27
Pneumatic tires	63 to 65
Spark plugs and cables	34
Starting and lighting equipment (tractors with battery ignition and voltage regulation)	41 to 51
Starting and lighting equipment (tractors without voltage regulation)	52 to 55
Starting motor	45 and 54
Storage battery	56, 57
Storing and housing your tractor	70
Trouble shooting	65 to 69
Valve clearance adjustment	58
Wheels	62
SPECIAL EQUIPMENT	71 to 76
SPECIFICATIONS	77, 78
COMPREHENSIVE INDEX	79, 80

INTRODUCTION

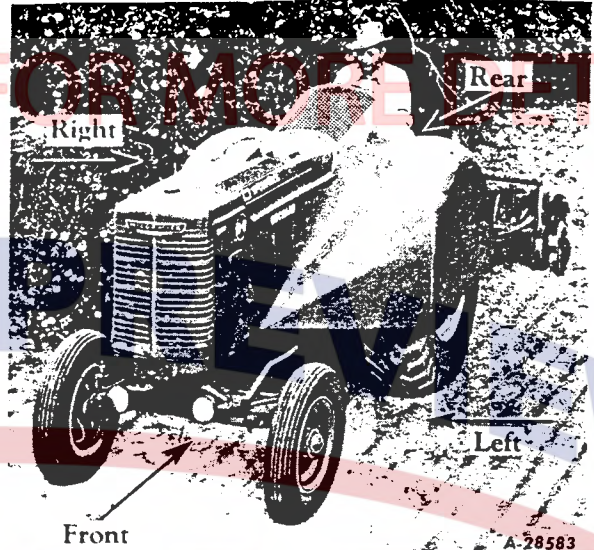
Assembled in this book are operating and maintenance instructions for the O-4 and OS-4 Tractors. This material has been prepared in detail in the hope that it will help you to better understand the correct care and efficient operation of your tractor.

If you should need information not given in this manual, or require the services of a trained mechanic, get in touch with the International Harvester dealer in your locality. Dealers are kept informed on the latest methods of servicing tractors. They carry stocks of IH parts, and are backed in every case by the full facilities of a nearby International Harvester District Office.

Throughout this manual the use of the terms LEFT, RIGHT, FRONT, and REAR must be understood to avoid confusion when following instructions. LEFT and RIGHT indicate the left and right sides of the tractor when facing forward in the driver's seat. Reference to FRONT indicates the radiator end and REAR the drawbar end of the tractor.

The illustrations in this manual are numbered to correspond with the pages on which they appear; for example, *Illusts. 6 and 6A* are on page 6.

When in need of parts, always specify the tractor and engine serial numbers. The trac-

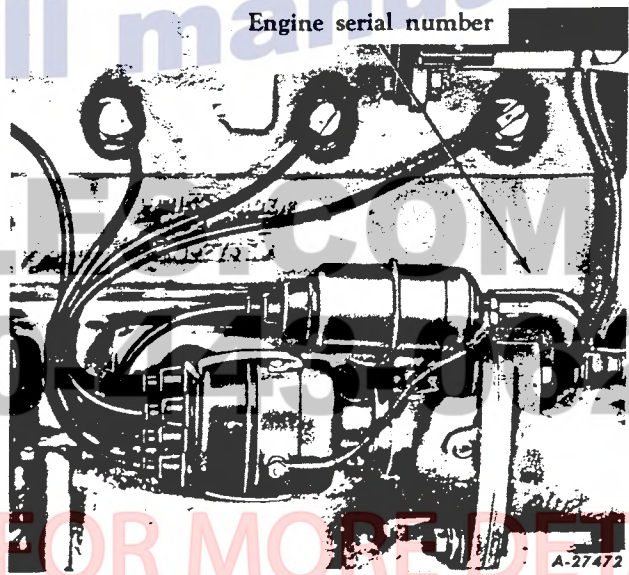


tor serial number is stamped on a name plate attached on the left side of the clutch housing. The serial number is preceded by the letters OBH or OBHS. See *Illust. 2*. The engine serial number is stamped on the right side of the engine crankcase. This serial number is preceded by the letters OBHM or OBHSM. See *Illust. 2A*.

For ready reference, these serial numbers should be written in the spaces provided on the Delivery Report found at the front of this manual.

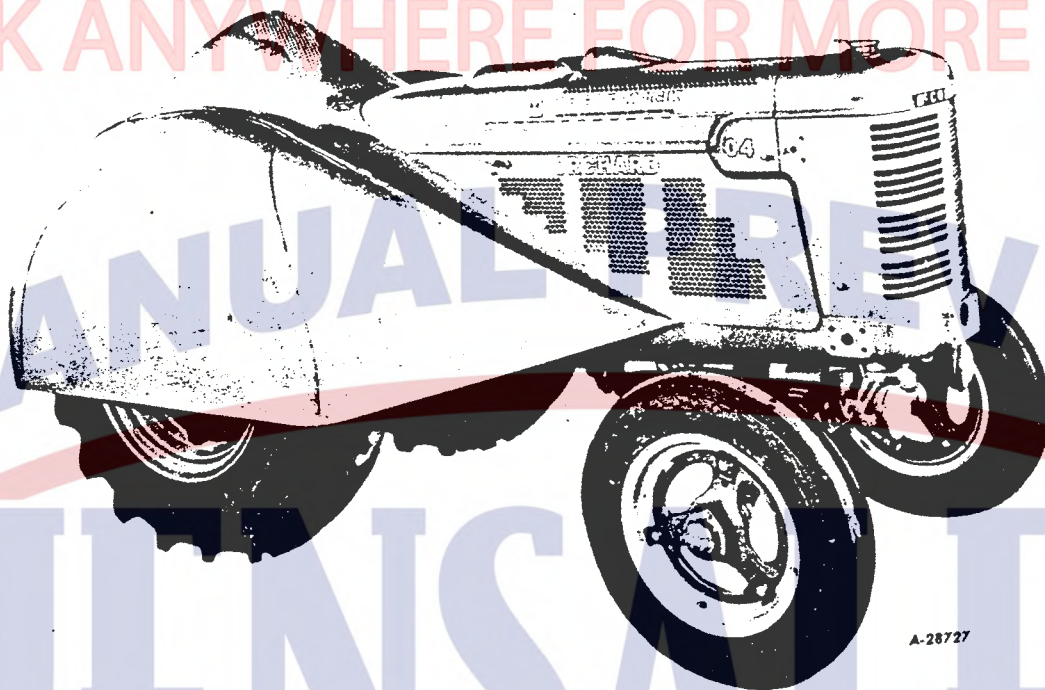


Illust. 2
Location of tractor serial number.



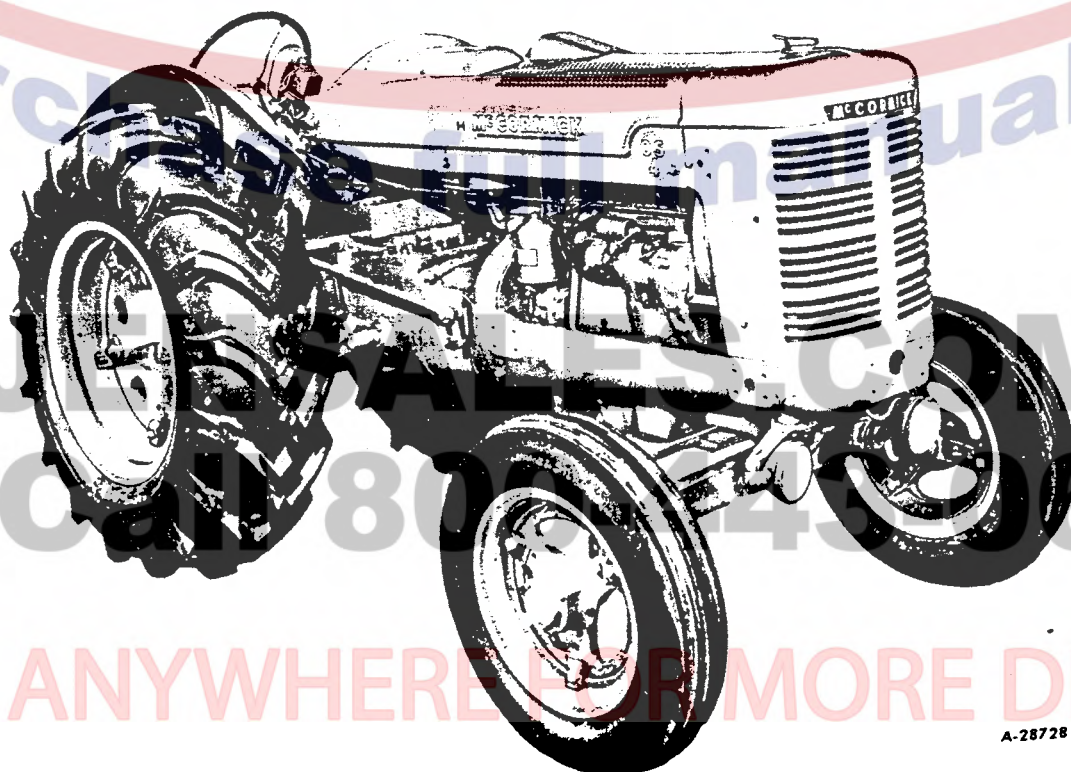
Illust. 2A
Location of engine serial number.

DESCRIPTION



A-28727

Illust. 3
Right front view of the O-4 Tractor.



A-28728

Illust. 3A
Right front view of the OS-4 Tractor.

LUBRICATION

GREASING THE FRONT WHEELS

Removing and Greasing

To grease the front wheels, raise the front end of the tractor until the wheel clears the ground. Remove the hub cap "A", the cotter pin, the nut "B" and the washer "F". Remove the bearing "C" and place it in the hub cap "A" or in a clean container; then remove the wheel. Remove the grease retainer and clean the inside of the hub "D". Remove the old grease from the bearings and grease retainers, clean them with kerosene and repack them with pressure-gun grease (chassis lubricant).

When temperatures are such that chassis lubricant is too thin to do a satisfactory job, a fibre grease should be used.

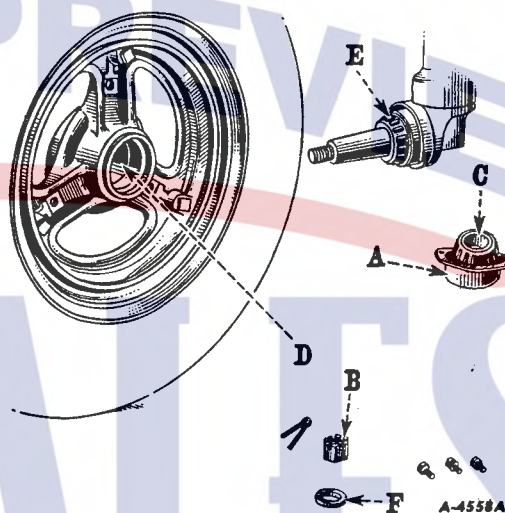
It is advisable to leave the bearing "E" on the axle and clean it with a brush and kerosene. Repack the rollers with new grease before reassembling the bearings.

Inspect the oil seal and felt washer "F" and if they are not in satisfactory condition, replace them with new ones. A dirt deflector is also provided on the axle to prevent dirt from entering at the inner bearing.

Replacing and Adjusting

Reassemble the wheel and tighten nut "B" until the wheel binds slightly, rotating the wheel at the same time. Back the nut off one castellation from the cotter pin hole; replace the cotter pin and hub cap.

Be sure to keep all parts clean.



Illust. 20

Wheel removed for cleaning and greasing.

LUBRICATING OIL AND GREASE SPECIFICATIONS

Engine Oil

Engine lubricating oil should be well-refined petroleum oil, free from water, sediment, and without admixtures of fatty oils, acids, soaps, resins or any other substance not derived from petroleum. Oil should not corrode any metal used in engine construction. Also engine lubricating oil containing additive products not necessarily derived from petroleum, but being of noncorrosive type, is satisfactory for use in this engine.

To Aid Starting

To facilitate starting, the selection of crankcase lubricating oils should be based on the lowest anticipated temperature for the day. It is not necessary to change the crankcase oil every time the temperature rises or falls into another temperature range during some part of the 24-hour day.

Also refer to "Cold Weather Precautions" on page 29 for special instructions.

Gear Lubricant

Tractors are shipped from the factory with SAE-90 oil in the transmission, differential, and steering gear housings.

For temperatures above 0° F., use SAE-90 transmission lubricant. For temperatures below 0° F., use the same transmission lubricant as for above 0° F., but also pour 1 U.S. gallon of kerosene into the transmission case.

After pouring in the kerosene, run the tractor until the mixture is thoroughly warm. Then drain the mixture to the level plugs. See CHASSIS LUBRICATION GUIDE". Replace the plugs.

For your own protection, use only high quality lubricating oils and grease of recognized manufacture.

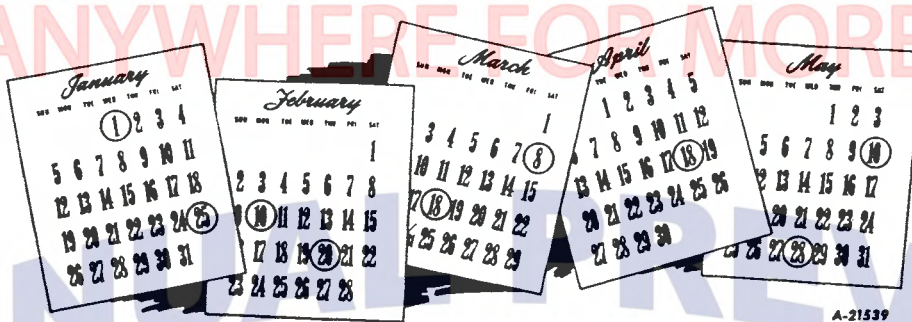
Lubrication Fitting Grease

Use pressure-gun grease (chassis lubricant) for lubrication fittings on which the hand lubricator is applied.

IMPORTANT: Keep your supply of lubricating oil and grease absolutely clean and free from dust. Always use clean containers. Keep the lubricator clean and wipe the dirt from the grease fittings before applying the lubricator.

MAINTENANCE

PERIODIC INSPECTIONS



A-21539

To keep your tractor performing efficiently, it is advisable to systematically inspect the following points at intervals as outlined below.

After Every 10 Hours of Operation

- Hood air intake cover screen Remove dirt or chaff. See page 33. (When unusual dust or dirt conditions are encountered during operation, it may be necessary to service more frequently.)
- Lubrication points See "ENGINE AND CHASSIS LUBRICATION GUIDES".
- Air cleaner oil cup Remove, clean and refill. See page 33.
- Cooling system Check level of coolant in radiator. See pages 30 and 31.

After Every 60 Hours of Operation

- Air cleaner, complete Remove, and clean. See page 33. (When unusual dust or dirt conditions are encountered during operation, it may be necessary to service more frequently.)
- Flexible rubber connections between air cleaner and carburetor Inspect for loose fit or damage.
- Fan belt and generator belt Check tension; replace when necessary. See pages 32 and 44.
- Radiator fins Clean spaces. See page 32.
- Lubrication points See "ENGINE AND CHASSIS LUBRICATION GUIDES".
- Pneumatic tires Check pressure. See page 63.

After Every 120 Hours of Operation

- Lubricating oil filter Replace filter element. See page 19.
- Engine crankcase Drain and change oil.
- Lubrication points See "ENGINE AND CHASSIS LUBRICATION GUIDES".
- Storage battery Check liquid level and specific gravity. See pages 56 and 57.

After Every 250 Hours of Operation

- Fuel strainer and sediment bowl Take apart and clean. See page 27.
- Spark plugs Remove and clean; check gaps. See page 34.
- Magneto breaker points and chamber (tractors with magneto) Clean chamber and check breaker points and breaker point openings. See pages 38 to 40.
- Magneto drive chamber and impulse coupling (tractors with magneto) Check and clean if necessary. See "COLD WEATHER PRECAUTIONS" on page 29.
- Crankcase breather Remove, clean in kerosene, and replace. (When unusual dust or dirt conditions are encountered during operation, it may be necessary to service more frequently. See page 18.)

MAINTENANCE

After Every 400 Hours of Operation

Fuel line screen (at carburetor)	Remove and clean. See page 27.
Cooling system	Clean. See pages 30 to 32.
Engine valves	Check for clearance. See page 58.
Brake pedals	Check for free movement and equalization. See pages 59 and 60.

After Every 500 Hours of Operation

Distributor breaker points and chamber	Clean chamber and check breaker points and breaker point openings. See pages 35, 36 and 39.
Lubrication points	See "ENGINE AND CHASSIS LUBRICATION GUIDES" (PERIODIC).

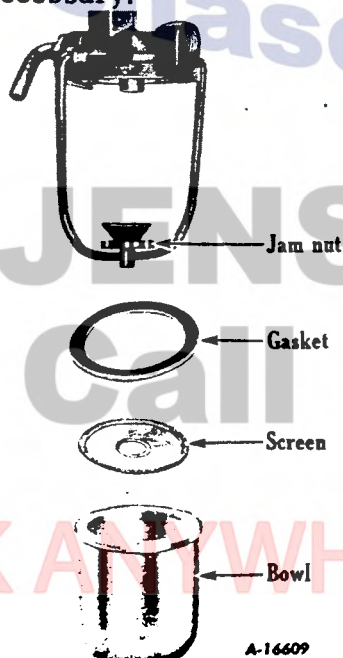
After Every 6 Months

Front wheels	Clean and repack with new grease. See page 20.
Lubrication points (1,000 hours)	See "ENGINE AND CHASSIS LUBRICATION GUIDES" (PERIODIC).

FUEL STRAINER

Clean the fuel strainer after every 250 hours of operation. To do this, proceed as follows:

1. Close all shut-off valves.
2. Take the strainer apart by loosening the lower jam nut.
3. Clean the sediment bowl and clean the screen if necessary.
4. When reassembling, be sure the cork gasket between the bowl and the main body is in good condition and does not leak. Use a new gasket if necessary.



Illust. 27

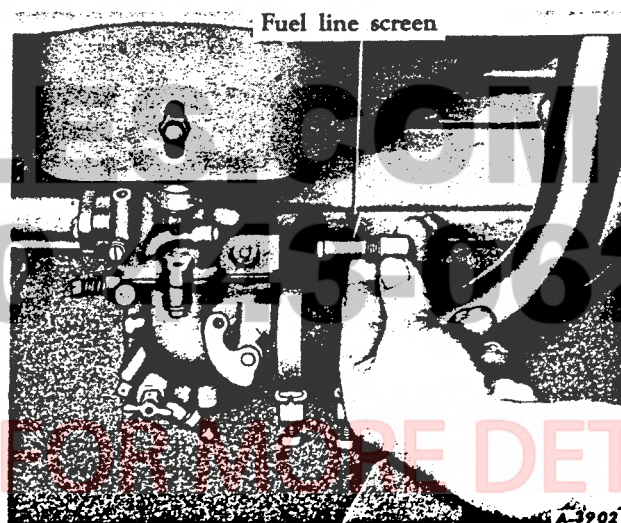
Fuel strainer showing glass bowl removed for cleaning.

CARBURETOR

After every 400 hours of operation, remove the fuel line screen by unscrewing the fuel line fitting; clean the screen and replace it.

The flange nuts which hold the carburetor to the manifold should be checked periodically for tightness.

Occasionally check the screws that fasten the fuel bowl to the fuel bowl cover. These screws should be kept tight to prevent any air leakage past the fuel bowl cover gasket.

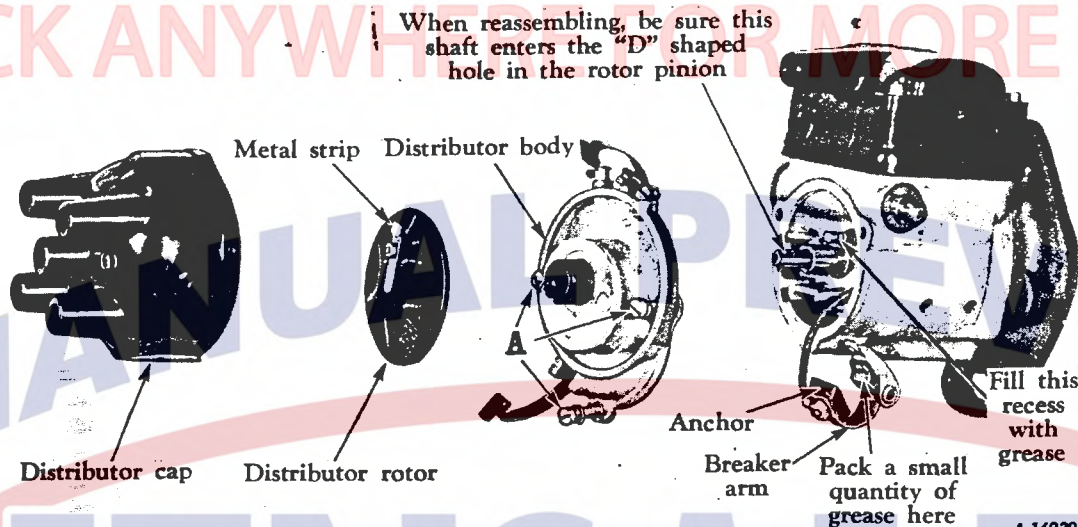


Illust. 27A

Removing the fuel line screen.

MAINTENANCE

MAGNETO

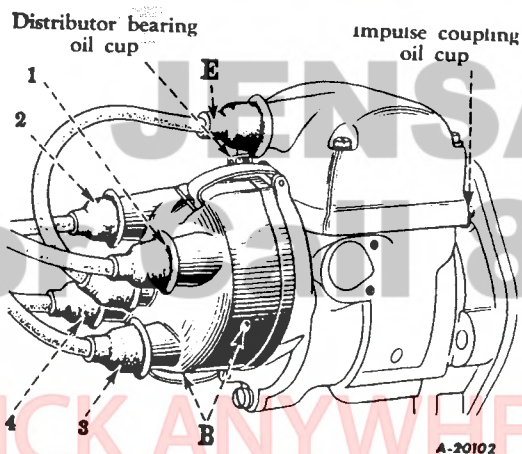


Illustr. 38
Magneto disassembled.

Lubrication

Every week, or after every sixty hours of operation, liberally oil the impulse coupling with a light oil, such as cream separator or sewing machine oil. Use kerosene when the temperature is below 10° F.

After every 500 hours of operation, fill the distributor bearing oil cup with very light oil, such as cream separator or sewing machine oil. Do not oil more often as the excess oil might work into the breaker point chamber and cause rapid point wear.



Illustr. 38A
Magneto wiring and lubrication.

Magneto Impulse Coupling and Magneto Drive Chamber

For satisfactory starting, it is important to keep the magneto impulse coupling liberally oiled as specified on page 23. The impulse coupling should be kept free of dirt and gummy, rust formation.

When hand-cranked, the impulse coupling should trip (click) twice for each revolution of the engine. Failure to do so indicates the need for cleaning or service.

After every 250 hours of operation, check the magneto drive chamber and clean it if necessary.

Remove the magneto as described on page 39 and flush the impulse coupling and magneto drive chamber with kerosene.

If it is necessary to remove the impulse coupling from the magneto for cleaning or service, we recommend this be done by your International Harvester dealer.

Greasing the Breaker Mechanism and Checking the Points

The magneto requires very little attention other than properly lubricating the oil cups as specified above. It is important, however, to keep the breaker arm chamber clean as oil on the breaker points will cause rapid point wear.

INDEX TO UNITS

Description	Page No.	Description	Page No.
Air cleaning system	33	Engine serial number	2
Ammeter	6	Engine speed control lever.	6
Antifreeze solutions	29	Fan belt	32
Battery.	56, 57	Filter elements	19
Battery ignition unit	35 to 37	Fourth speed forward, 7 mph	73
Battery testing.	56 to 57	Front wheel rims	62
Before starting your tractor.	8	Front wheels	20, 62
Belt pulley	{ 17, 72 and 73	Fuel screen.	27
Blower fan	72	Fuel shut-off valve control rod button.	7
Brake pedal lock control rods.	4	Fuel strainer.	27
Brake pedals.	4	Fuel system	{ 8, 9, 11, 12, 15
Brakes	59, 60	Fuel tank	11, 12
Brakes, locking the.	17	Fuse	42, 52
Cables, electrical equipment	34 to 55	Gasoline shut-off valve control rod button.	7
Cables, spark plug	34	Gear lubricant.	20, 21
Carburetor	27, 28	Gearshift lever	6
Carburetor choke lever.	5	Generator	43, 52, 53 [®]
Carburetor fuel line screen	27, 28	Generator belt.	44, 53
Chassis lubrication guide.	24, 25	Governor	6
Chassis serial number	2	Grease specifications	20, 21
Choke lever rod.	5	Greasing the front wheels	20
Choke rod.	5	Hand cranking the engine	11, 14
Cleaning spark plugs.	34	Heat indicator	7
Clutch	60	High altitude pistons	72
Clutch hand lever.	5	Hitching to the tractor.	61
Cold weather precautions.	29	Ignition	{ 8, 34 to 57
Cooling system	{ 8, 9 30 to 32	Ignition cables.	34
Cowl sheet for steering wheel.	73	Ignition switch button	6
Crankcase breather	18	Instruments and controls.	4 to 7
Cylinder head gasket.	58	Introduction	2
Distributor cap, battery ignition	35, 36	Lamps	43, 52
Distributor cap, magneto	39	Light switch	6, 42, 52
Drain plug, crankcase oil pan.	23	Locking the brakes	17
Drain plug, radiator	31	Lubricating oil and grease specifications	20, 21
Drain plug, steering gear housing	25	Lubrication.	{ 8, 9, 18 to 25
Drain plug, transmission.	25	Lubrication, front wheels.	20
Drawbar	61, 62	Lubrication guide.	22 to 25
Driving the tractor	16, 17	Magneto	38 to 40
Engine hour meter	72		
Engine lubrication guide	22, 23		
Engine oil	20, 21		

INDEX - Continued

Description	Page No.	Description	Page No.
Magneto impulse coupling	29, 38	Starting and lighting equipment (for tractors with battery ignition and voltage regulation)	41 to 51
Manifold heat control	7, 13, 16	Starting and lighting equipment (for tractors without voltage regulation)	52 to 55
Manifold shield	16	Starting engines that have been in storage.	70
Minor engine service operations. . .	58	Starting motor	{ 11, 13 45, 54
Oil, engine	20, 21	Starting the tractor.	16
Oil filter	19	Static electricity	65, 73
Oil pressure indicator.	6, 18	Steering the tractor	17
Oil pump.	18	Stopping a distillate engine.	15
Operating a distillate engine.	12 to 15	Stopping a gasoline engine	11
Operating a distillate or kerosene engine on gasoline	15	Stopping a kerosene engine.	15
Operating a gasoline engine	11	Stopping the tractor	17
Operating a kerosene engine.	15	Storage battery	56, 57
Operating the belt pulley	17	Storing and housing your tractor. .	70
Operating the power take-off	17	Thermostat	31
Packing, water pump.	32	Timing the distributor.	37
Periodic inspections	26, 27	Timing the magneto	40
Pistons (high altitude).	72	Tires, pneumatic	{ 8, 63 to 65
Pneumatic tires	{ 8, 63 to 65	Tire pressure chart	63
Pneumatic tire pumps	75	Tire pumps, pneumatic	75
Power take-off.	7, 17, 74	Trouble shooting	65 to 69
Preparing the tractor for each day's work	9	Valve clearance adjustment	58
Radiator filler cap	30, 31	Valve stem mounting cones	64
Radiator, filling.	31	Views of the tractors	3
Radiator shutter.	7, 12, 15, 72	Water pump packing	32
Rear light and tail light.	75	Wheels	56
Rear wheels	64	Wheels, front.	20, 56
Seat, de luxe upholstered.	74	Wheels, greasing, front.	20
Seat pad, detachable	74	Wheels, rear.	64
Sediment bowl (fuel strainer)	27	Wheel weights	64, 76
Serial numbers, engine and chassis	2	Wheel weights, liquid	64
Spark plugs and cables	34	Wiring diagram (battery ignition) .	46 to 51
Special equipment index.	71	Wiring diagram (magneto)	55
Specifications, lubricant	20, 21	Wiring, distributor (battery ignition)	34
Specifications, tractor.	77, 78	Wiring, distributor (magneto). . . .	38
Starter switch button.	6	Wiring, electrical equipment	34 to 55
Starting a distillate engine.	13, 14	Wiring, spark plug	34
Starting a gasoline engine	11		
Starting a kerosene engine.	15		