Massey Harris
Massey Ferguson

Operator's Manual

MFTO35

Operator's® Manual

MH-O-MFTO35

MFTO 35

Serial Number:	Year Made:	Plate Location:
TO14001	1955	
TO167156	1956	
TO171741	1957	
178216	1958	
186603	1959	
203360	1960	

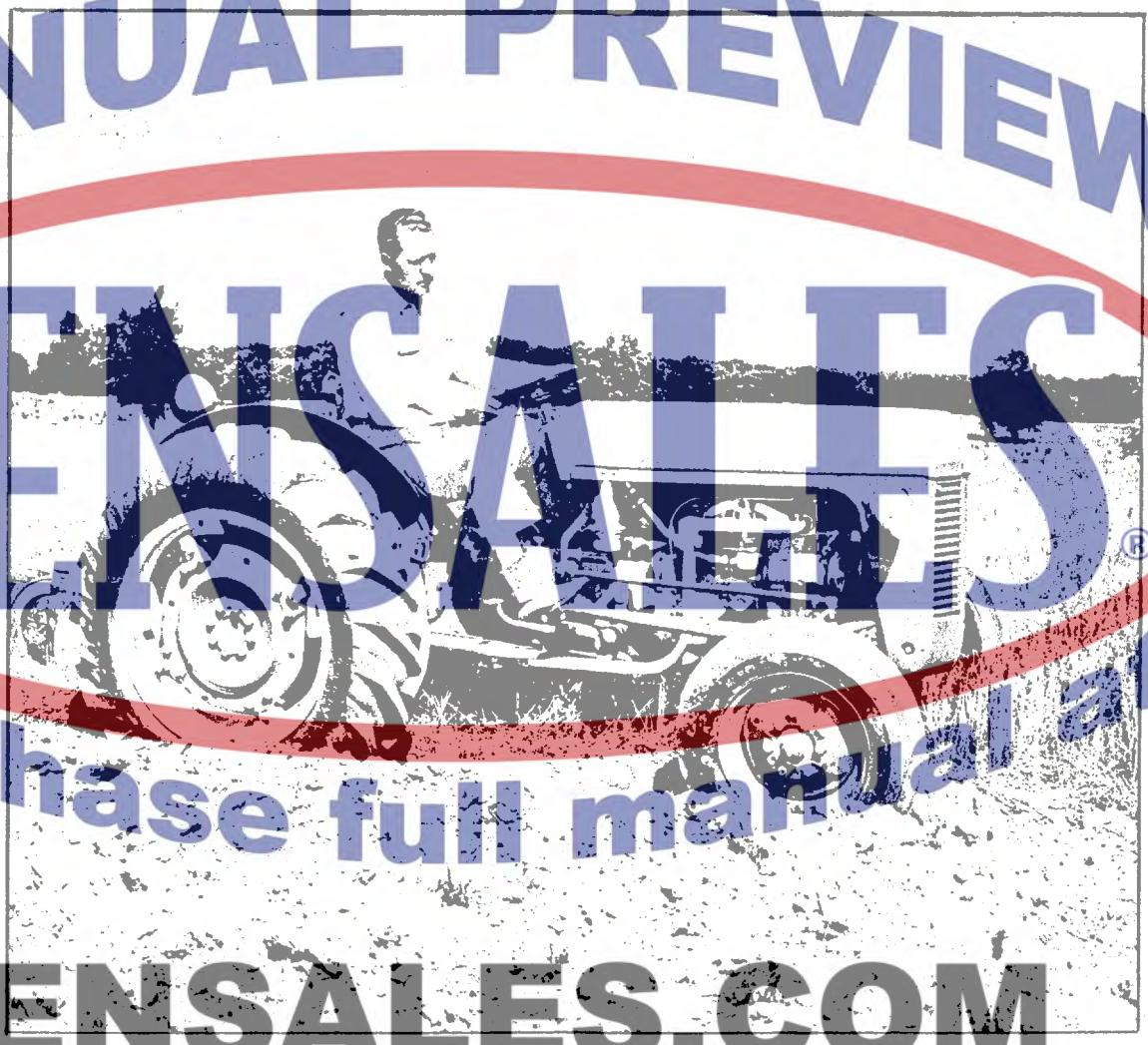
Paint

Color Application:	MFG Color Name:
BODY SHEET METAL	FLINT GREY
ENGINE, TRANSMISSION, & FINAL DRIVE	FORREST GREEN ENAMEL

MASSEY-FERGUSON

TO 35

TRACTOR



Owner's Manual

Massey-Ferguson
DETROIT, MICHIGAN

REPRINT OF FORM NO. 690 241 M4

We are pleased

to add your name

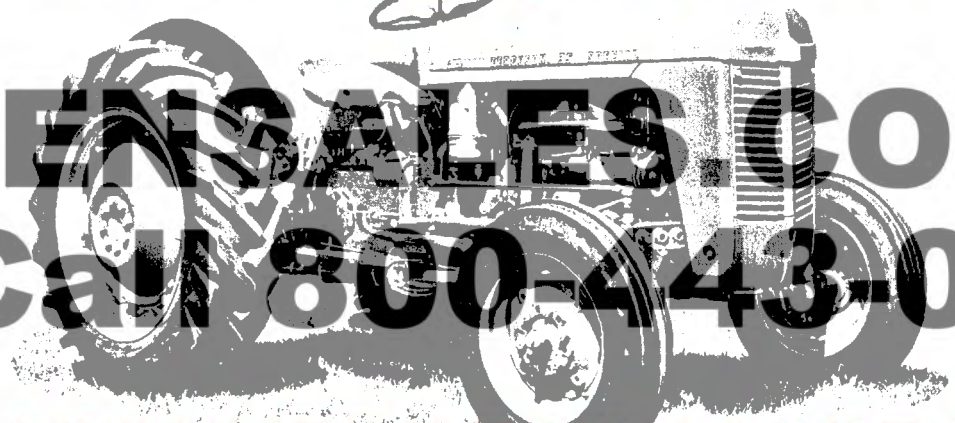
to our list of owners of this new Massey-Ferguson machine. We hope that it will give you the utmost satisfaction in your field work.

This machine is one of a full line of farm and industrial machinery manufactured by Massey-Ferguson including the great tractor line with the genuine Ferguson system and the world-famous Massey-Harris line of self-propelled combines.

The world-wide preference for Massey-Ferguson products is the result of internationally recognized leadership in engineering, plus precision of manufacture, in every one of our 15 factories in Canada, United States, Great Britain, France, Germany and Australia.

We are proud of the wonderful reputation earned by the products of these factories for efficiency and dependability.

Your dealer who serves you is one of over 10,000 business men in the great M-F dealer organization who are pledged to uphold the Massey-Ferguson tradition of service to customers.



Massey-Ferguson Inc.

The Ferguson 35 Deluxe Tractor

The Ferguson 35 Deluxe Tractor represents the ultimate in engineering and design in the 2-3 plow power class. The 35 Deluxe Model Tractor is a compact unit with pleasing lines and a trim, neat appearance. The 72 inch wheel base and the recirculating ball-nut steering gear provides a minimum turning circle and contributes substantially to the overall superior handling qualities of the tractor. The powerful engine, the dual clutch which provides both a "live" PTO and a "live" hydraulic pump, the six speed transmission and the world famous Ferguson System combine to make the Ferguson 35 Deluxe the most versatile tractor in its class.

Many special deluxe features are included as standard equipment on the Ferguson 35 Deluxe. Among these are such items as the dual clutch, ground speed power take-off, tractormeter and foam float seat.

The purchaser of a new Ferguson 35 Deluxe Tractor has a choice of a wide selection of optional equipment to better adapt this versatile unit to his special needs. The Deluxe Model is available with either the standard 6.60 to 1 compression ratio engine, recommended for operation at elevations of 5000 feet or less, or the 8.10 to 1 compression ratio "Hi-Altitude" engine, recommended for operation at elevations above 4000 feet. The Deluxe Model is available with either manual or power steering. Power steering makes it possible to steer the tractor with only "finger-tip" effort under even the roughest field conditions.

A wide selection of tire sizes are available as optional equipment on the Deluxe Model. The purchaser may select either 4:00-19 single rib or 6:00-16 triple rib front tires. 11-28 rear tires are available on either the standard wheel or the power adjusted wheel and the 13-24 wheel and tires gives the purchaser a choice of three different rear wheel and tire combinations.

Your choice of a Ferguson 35 Deluxe Tractor will give you a unit with unsurpassed durability, performance and versatility.

The Ferguson 35 Special Tractor

The Ferguson 35 Special Tractor was designed for the customer who wants a precision built tractor with the outstanding performance of the world famous Ferguson System, but does not desire the Deluxe features included as standard equipment on the Ferguson 35 Deluxe.

The Ferguson 35 Special presents the same compact, pleasing appearance and embodies the same overall superior handling qualities as the Deluxe Model. The Special is available in one model, without optional equipment. It is equipped with the same powerful 6.60 to 1 compression ratio engine, the same six speed transmission and world famous Ferguson System as used in the Deluxe Model.

The nine inch single spring cushioned clutch controls both the tractor forward motion and the hydraulic pump and power take-off shaft.

Original equipment on the Special Model includes 5.50-16 triple rib front tires and 10-28 rear tires on standard rear wheels.

The Ferguson 35 Special is unsurpassed for quality, low-cost tractor power.

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Periodic Maintenance

Proper maintenance, including periodic inspection and regular lubrication with the correct lubricant, is essential to the long life and trouble-free operation of your new Ferguson 35 Tractor. Form the habit of performing scheduled maintenance by using the accumulated hours recorded on the tractormeter. Always keep your tractor in "top-notch" condition by servicing it as recommended. Take any major repair items to your local Massey-Ferguson Dealer, he has the proper "know-how" and tools to render the type of service which will keep your tractor in the best possible condition. This section of your manual is devoted entirely to maintenance and should be referred to as a quick reference when periodic servicing is performed.

LUBRICATION

Care should always be exercised when handling all types of lubricants. Open containers invite and collect dirt which may cause very serious damage to the lubricated parts. Secure a good grade of pressure gun lubricant from a reliable supplier to be used in the pressure-type grease fittings. Always wipe off a grease fitting before lubrication to prevent the entrance of dirt.

The points listed below should be lubricated periodically. The number in the boxes beside each point indicate the hours of operation after which these points should be serviced. The parts and time intervals are marked in the illustrations for your convenience.

▲10 PRESSURE-TYPE GREASE FITTINGS

NOTE: Clean fittings, lubricate and remove excess grease.

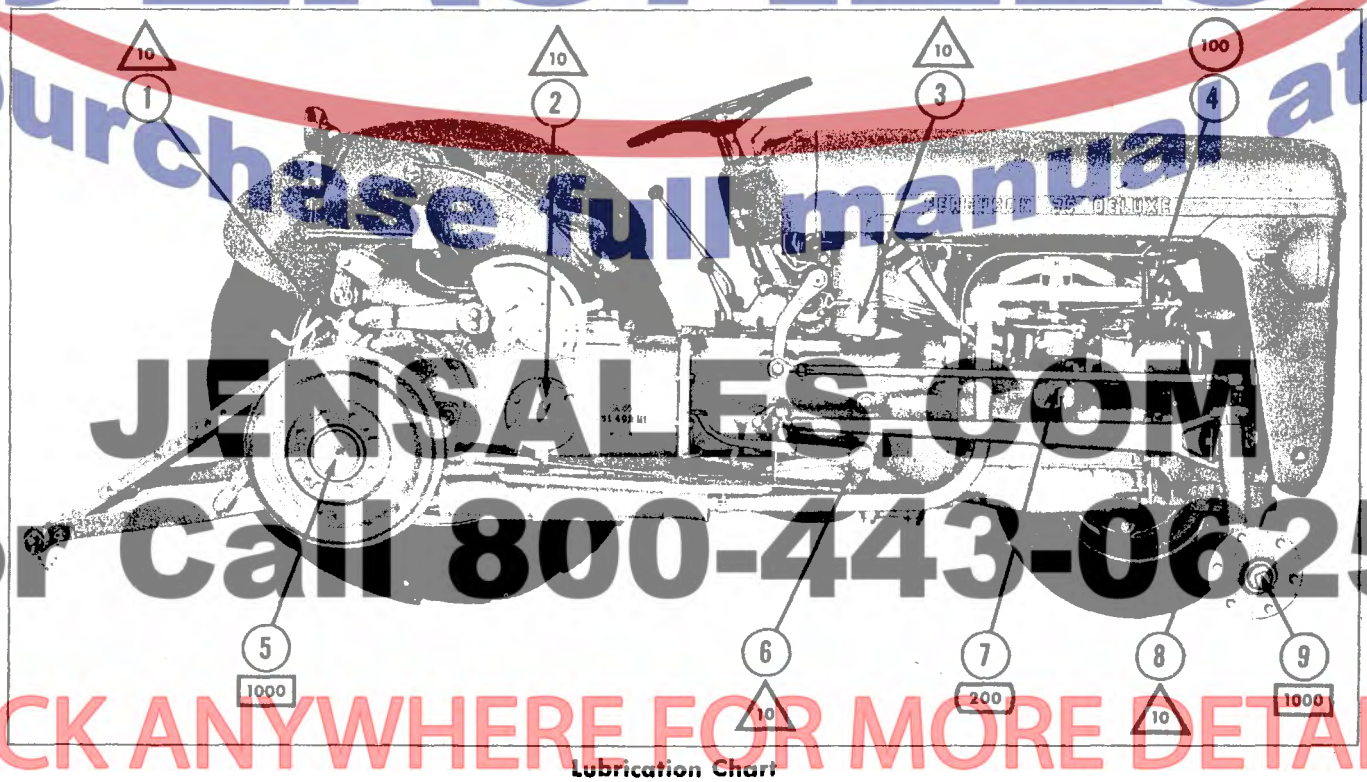
Lubrication Point	*No. of Fittings*
Leveling Box	1
Lift Rod Leveling Fork	1
Front Axle Spindles	1 each side
Brake Pedal Assembly	1

▲10 CRANKCASE DIPSTICK

Check and maintain oil level at full mark.

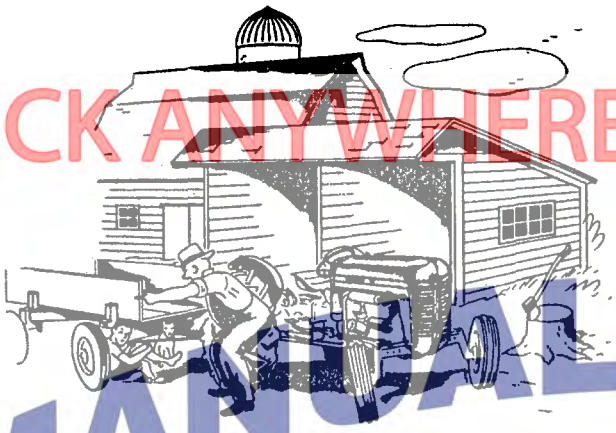
▲10 TRANSMISSION, FERGUSON SYSTEM AND DIFFERENTIAL DIPSTICK

Check and maintain oil level within arrow.

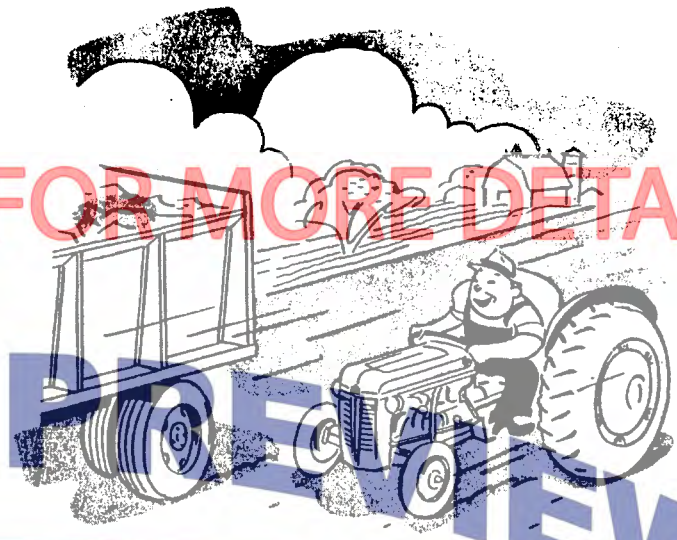


Lubrication Chart

1. Lift Leveling Box
2. Transmission, Ferguson System and Differential Dipstick
3. Air Cleaner Bowl
4. Generator
5. Rear Wheel Bearings
6. Brake Pedal Assembly
7. Oil Filter Element
8. Front Axle Spindles
9. Front Wheel Bearings



Always Check to Make Sure Everyone is Clear Before Moving or Starting Equipment



Drive Carefully on the Highway, Observing all Traffic Rules

DRIVING THE TRACTOR

To start the tractor in motion after the engine is operating, proceed as follows:

1. Make sure brakes are released.
2. Depress the clutch pedal fully and move the dual range lever to either high or low range and gear shift lever to desired gear. On dual clutch tractors the clutch pedal need only be depressed through the first stage.
3. Increase speed slightly and release clutch pedal slowly.
4. Remove foot from clutch pedal and slowly increase throttle setting until desired speed is obtained.

CAUTION: Do not permit foot to rest on or ride the clutch pedal. "Riding the clutch" over a period of time will cause the clutch to slip.

Notice how easily your "35" steers. This permits flexible maneuverability for both field and highway operation. Also, the independent wheel brakes can be used in conjunction with the steering wheel when making short turns.

CAUTION: Sharply braking one wheel causes wasteful tire and brake wear, and therefore, should only be done when short turns are necessary. INDIVIDUAL WHEEL BRAKING SHOULD NOT BE ATTEMPTED WHILE TRAVELING AT HIGH SPEEDS. Always lock the brake pedals together with the interlocking latch before driving at high speeds on the highway, in lanes or in the field.

SELECTING THE CORRECT GEAR

The correct working gear can only be obtained by an intelligent selection by the operator. The basic factors involved in this selection are: (1) type of implement used; (2) field conditions encountered; (3) load subjected to the tractor; and (4) the ground speed to effectively perform the operation.

Also, a factor to keep in mind while operating your "35" is the torque or "lugging" characteristic it possesses. This can be expressed as the ability the tractor has to work in varying soil and terrain conditions without changing the throttle setting or shifting gears. In other words, a good torque characteristic means you can work at a steady speed without throttle adjustment. Your Ferguson 35 incorporates a broad range of lugging power with the peak developing at the lower engine RPM's. Maximum torque occurs at 1,200 RPM. This does not mean, however, you should "lug" your tractor down at this speed. Instead, the throttle setting should be such that you can obtain maximum performance and yet "lug" through any tough spots that may be encountered. The low speed "lugging" characteristics your tractor develops should only be used to avoid a rough, fast ride in rough or rocky ground.

Always keep in mind that: (1) Operating the tractor under load in a high gear, or when an excessive load is involved for the selected gear and throttle setting, overloads the engine and can cause serious damage and wear. When this condition exists, the engine is turning with a low manifold vacuum and relatively higher compres-

CAUTION: Always make sure to leave one open bolt hole between the two bolts to provide a wider support area between the arms and center axle.

6. Tighten the two radius rod bolts.

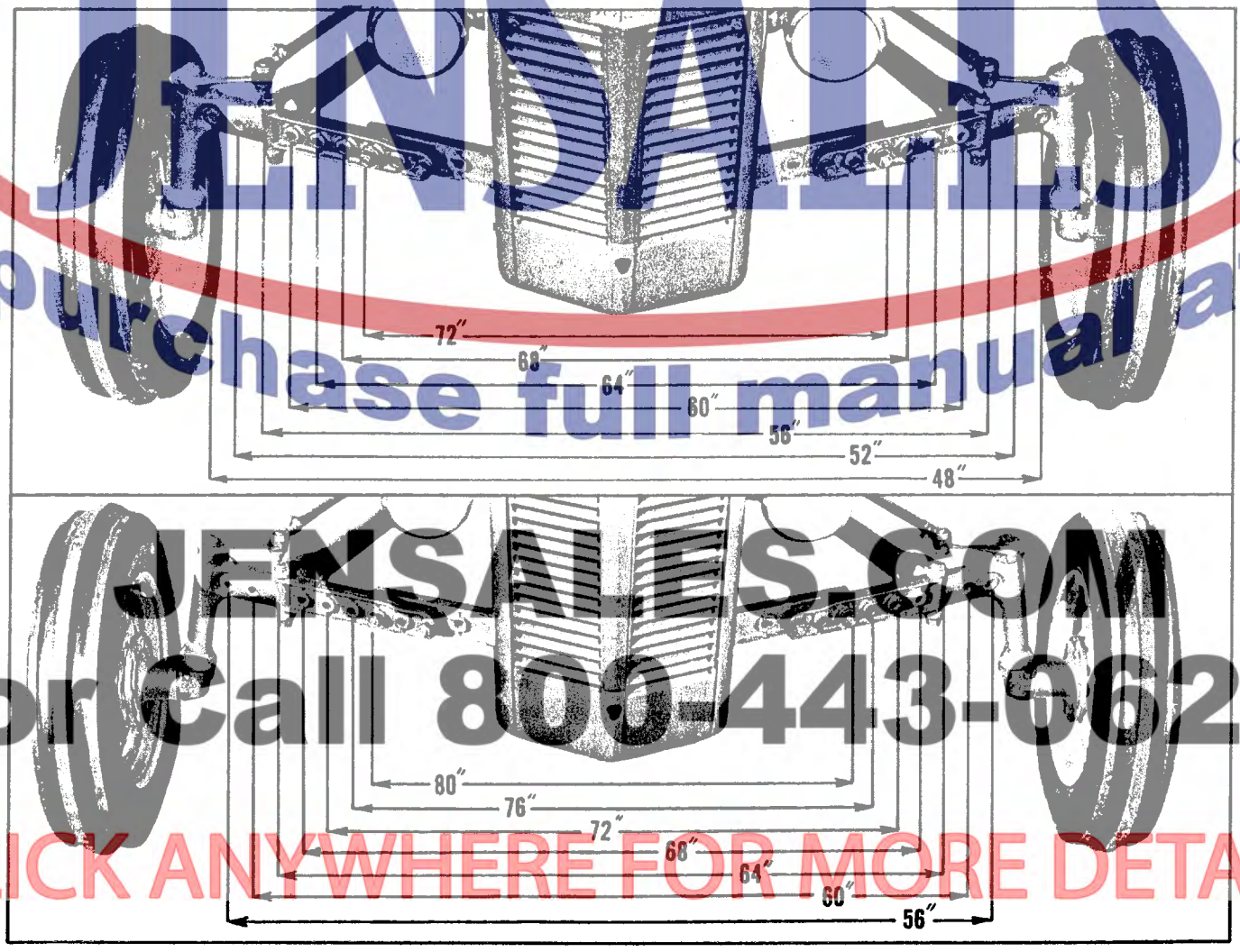
It may be convenient for some owners to reverse the wheel discs on the wheel hubs. For instance, if the tractor is normally operated with a front wheel tread setting of 56 inches, a setting of 64 inches can be obtained by reversing the discs on the hubs without the necessity of moving the axle arms. This applies to all the wheel settings. With the wheel discs reversed on the wheel hubs, the possible front wheel settings range from 56 to 80 inches in 4 inch increments.

CAUTION: When the wheel discs are in the 80 inch or 76 inch settings, the front wheel bearings are subjected to greater strain and load. These tread widths should be used only when absolutely necessary and never used with front mounted equipment such as loaders.

Adjusting Front Wheels to Desired Settings

REAR WHEEL WIDTHS (Standard Wheels)

The standard rear wheels on the "35" can be adjusted in 4 inch steps from 48 to 76 inches. Tread width settings are accomplished by chang-



Front Wheel Tread Settings

3. Observe if governor lever arm rod is long enough to contact horizontal arm of governor lever assembly and hold control rod against idle stop. If not, loosen locknut on governor lever arm rod, remove governor lever spring and adjust rod until it lightly touches the arm of the governor lever assembly and holds it at the idle position. Reconnect spring and retighten locknut.

4. Recheck top engine speed, if not 2100-2200 RPM, loosen U-bolt on throttle rod and adjust.

To remove throttle control lever "creep"

1. Increase spring compression on cork washer under instrument panel by relocating clamp. If this does not remove "creep", replace cork washer.

NOTE: Care must be taken not to position clamp where it will strike the battery.

2. Shorten compensating spring.

To correct throttle control lever arc:

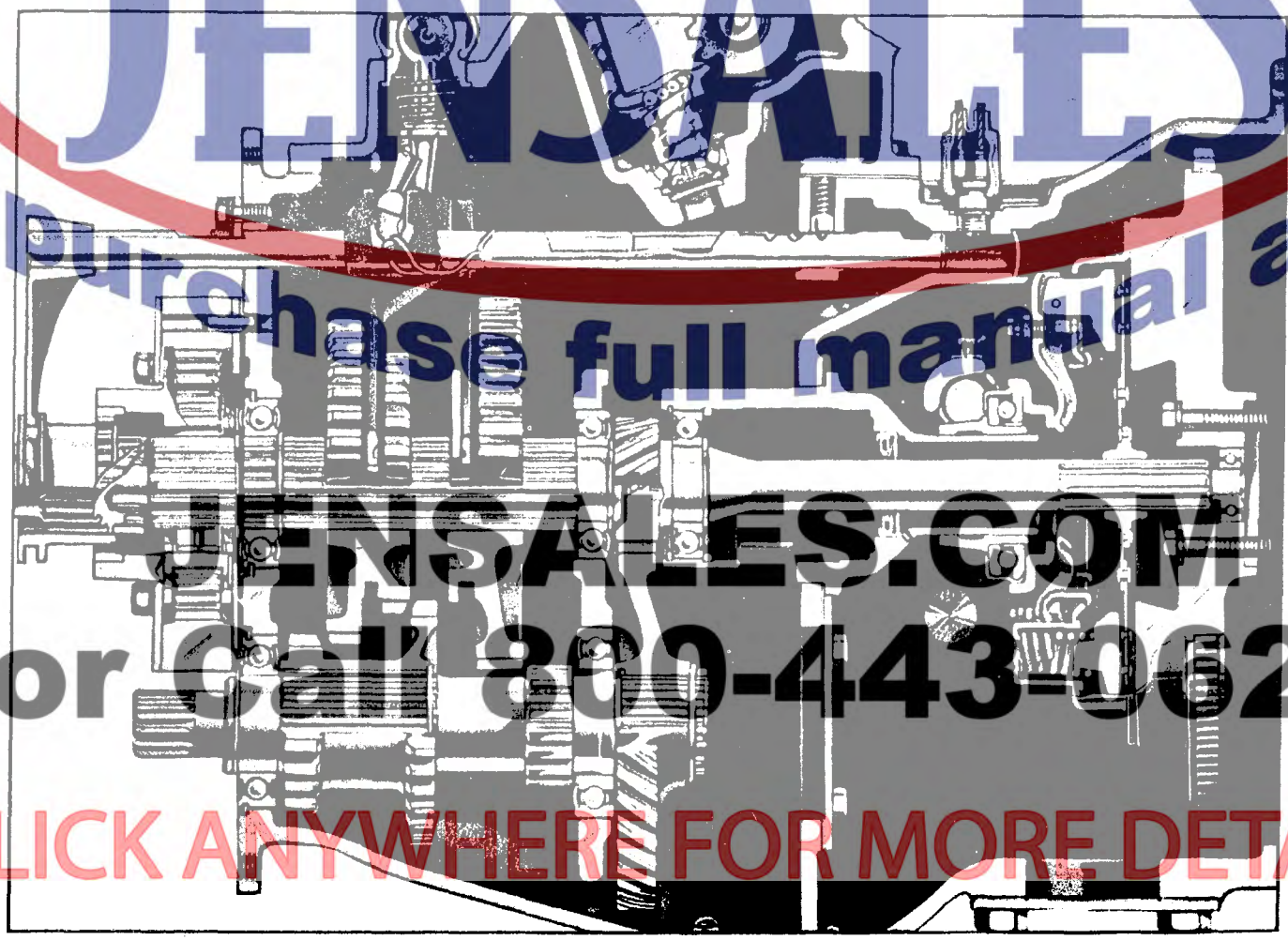
1. Remove governor lever spring and shorten rounded end.

2. If step 1 did not correct, replace spring.

CLUTCH AND TRANSMISSION

The Clutch and Dual Range Transmission is that portion of the power train which mechanically regulates and controls the energy supplied by the engine. The single clutch receives the power directly from the engine flywheel and performs an interruption control of the entire power flow to the transmission. In the case of the dual clutch, the clutch channels the power flow into (1) the transmission input shaft (primary clutch) and (2) the hydraulic pump and power take-off input shaft (secondary clutch). This then provides an additional control of the latter when the power flow to the transmission is interrupted. The transmission receives the power the single clutch transmits, or in the case of the dual clutch, the power that is transmitted by the primary clutch.

NOTE: The pump is constant running and operates whether or not the power take-off shaft is engaged. The pump may be stopped only when either the single or dual clutch is completely disengaged.



Dual Range Transmission and Single Clutch (Special Model)

Size of Tire	Pounds Calcium Chloride	Gallons of Water	Total Weight in Tire
FRONT TIRES			
4.00-19	9.8	2.8	33
5.50-16	20.7	5.9	70
6.00-16	20.7	5.9	70
REAR TIRES			
10-28	90.0	26.0	315
11-28	131.0	37.3	442
13.24	180.0	51.4	609

FRONT WHEEL WEIGHTS

When heavy overhanging implements are mounted on the rear of the tractor, the weight on the front wheels is reduced, resulting in decreased steering traction. This condition is especially noticeable when crossing headland furrows or ridges such as corn rows, etc., as the bouncing action reduces, even more, the weight on the front wheels.

To compensate for this relative reduction in front end weight, the use of front wheel weights may be desirable. These weights are easily installed in the dish side of the wheel discs. For the 5.50 and 6.00-16 tires, the weight is in two segments as shown in the illustration. For the 4.00-19 tire, the weight is one piece; therefore, the wheel will have to be removed before the weight can be installed.

CAUTION: Inspect regularly to see if wheel weights are bolted tight to the wheel discs.

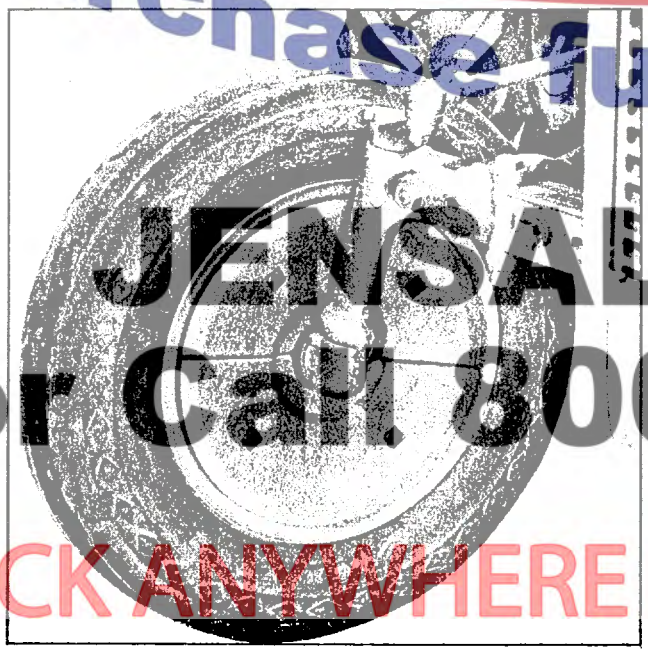
DUAL REAR WHEELS

When operating in some areas where a loose textured soil is encountered, excessive rear wheel slippage may result. To help overcome this condition, a dual wheel kit for the 10x28 and 11x28 tire sizes are available. The kit makes it possible to mount two wheel assemblies on each side of the rear axle. This will double the surface area reacting against the soil and consequently result in increased traction.

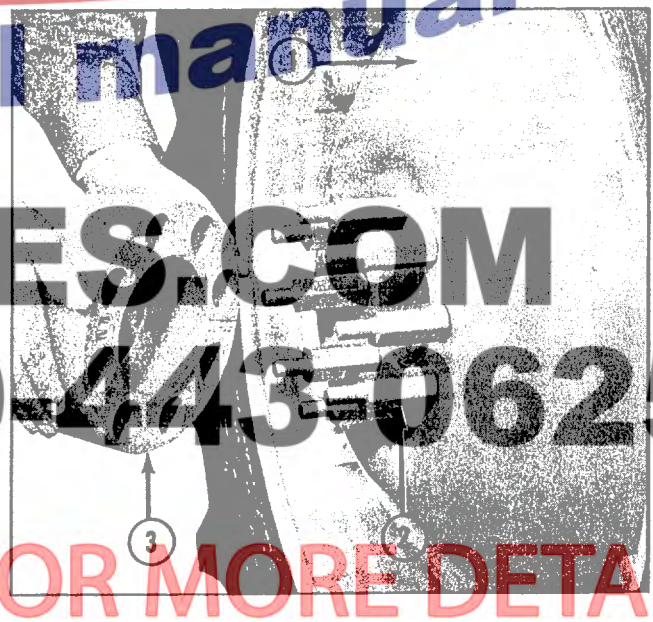
The kit consists of two ring spacers to space the wheel assemblies apart and 16 spacer nuts. The spacer for the 10 inch tires is 1-15/16 inches thick and the one for the 11 inch tires is 2-1/2 inches thick.

To install proceed as follows:

1. Raise the rear of the tractor with the tractor jack.
2. Remove the nuts securing the wheel disc to the hub.
3. Install the extension nuts and tighten them to 65-75 foot-pounds torque.
4. Place the spacer on the extension nuts.
5. Secure the outer wheel with the eight nuts and tighten to 65-75 foot-pounds torque.



Front Wheel Weights



The Dual Wheel Spacer Kit

1. Inner wheel disc
2. Extension nut
3. Spacer