



Allis Chalmers

Operator's Manual

WD45

Operator's Manual

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AC-O-WD45

WD-45

Starting Serial Numbers

1953.....	146607-160385
1954.....	160386-190992
1955.....	190993-217991
1956.....	217992-230294
1957.....	230295-236958

Paint Codes

Persian Orange #1 (1929-1960)

PPG.....	DAR 60080
Martin-Senour	90R-3723
Tisco.....	TP280

MANUAL PREVIEW

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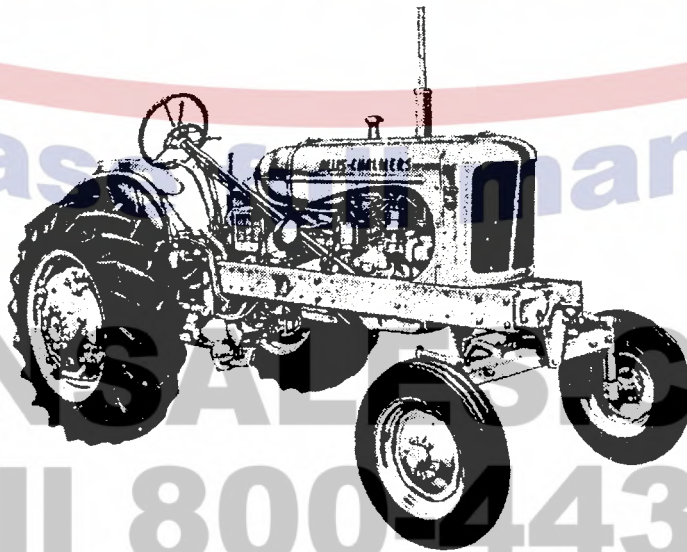
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**OPERATING INSTRUCTIONS
AND
REPAIR PARTS ILLUSTRATIONS**

**MODEL WD TRACTOR
45**



ALLIS-CHALMERS MFG. CO.
TRACTOR DIVISION
MILWAUKEE, WISCONSIN, U.S.A.

ALLIS-CHALMERS WD

With the success and popularity of the WC Allis-Chalmers, the company introduced in 1948 the WD tractor.

The WC remained in production that year, thus it is possible to own both models made in 1948. The WD continued to be manufactured through 1957. It is estimated there were approximately 131,200 WD's manufactured.

In the Nebraska tests this engine produced a drawbar pull of 4,300 pounds. For a tractor that weighed about 3,900 lbs. this was an impressive showing.

Probably the best description of the WD would be a super version of the WC. It had several design innovations that were readily accepted and helped maintain a loyalty to Allis-Chalmers orange.

Among the improvements was the live power PTO (power take-off). This enabled the operator to stop the tractor but keep the PTO turning; an especially valuable feature in combine operation.

The WD also introduced power adjusted rear wheels. Thus, with a turn of four bolts, the rear wheels could be adjusted in or out. This feature was to be copied by most tractor companies.

Foot brakes replaced the hand brakes.

The WD sold for about \$1,800 equipped with starter, lights, hydraulic control, power-adjust rear wheels, and a 201 CID engine. The engine was known as a square engine; that is, it had a 4 inch bore and a 4 inch stroke with a 1,400 RPM rating.

The WD Allis kept the sleek lines of the WC; namely the bullet shaped tank, the streamlined hood and grille. This outward appearance of the late styled WC, WD and WD-45 Allis tractors was to remain until 1957, when an entirely new line of tractors was introduced with the D-14, followed by the D-10 and D-12.

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FOREWORD

The instructions given in this book cover the operation of the "Allis-Chalmers" Model "WD" Tractor. A close adherence to these instructions will result in many hours of trouble-free operation and a longer operating life for the unit.

This book is written for the purpose of giving the operator essential information regarding the day-to-day care, lubrication and adjustment of the machine. Economical operation will be insured if these instructions are followed.

Many "Allis-Chalmers" owners employ the dealer's Service Department for any work other than routine care and adjustments. This practice is encouraged as our dealers are kept well informed by the factory regarding advanced methods of servicing "Allis-Chalmers" products and are equipped to render satisfactory service.

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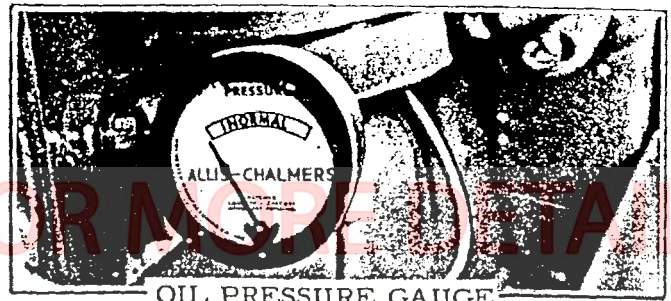
AFTER ENGINE HAS STARTED - CHECK

1. **OIL PRESSURE GAUGE.** When operating engine look at oil gauge at frequent intervals to make certain oil is being circulated by pump. The indicator needle should always remain near the O.R. or M. in the word **NORMAL** when the engine is hot and running at its normal speed. A slight decrease will be noted when engine idles. Do not operate unless gauge registers.
2. **THE TEMPERATURE GAUGE** needle should operated in the green portion of gauge.
3. **THE LIGHT SWITCH & GENERATOR CONTROL** is located on the instrument panel. To turn on lights pull switch to first notch. The generator has two charging rates, with switch pushed all the way in the lights are off and rate of charge about 3 amperes as indicated on ammeter, when pulled to first notch lights are on and charging rate remains about 3 amperes. When switch is pulled all the way out about 10 to 13 amps. The high rate of charge should be used only when the battery is in a partially discharged condition. In most tractor operation the trend will be to overcharge the battery.

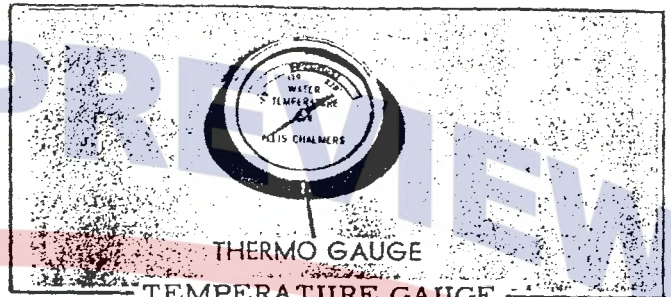
STOPPING ENGINE - Place throttle in idling position and allow engine to idle a few moments. Shut off by turning ignition key to off positions. If using low octane fuel close valve under fuel tank and allow engine to run until it stops from lack of fuel, then turn off ignition key. This will drain the carburetor so gasoline may be used for starting.

OPERATING TRACTOR - The clutch is provided for engaging or disengaging the power of engine from the tractor. When using clutch depress pedal fully and allow tractor and clutch to come to a full stop before attempting to shift gears. Reducing engine speed to low idle before depressing clutch will help prevent clashing gears - With the engine running, push the clutch pedal forward to release clutch. Hold in this position until the clutch stops revolving. Move the gear shift lever to the desired position as indicated on top of transmission cover. Open throttle far enough to avoid stalling. Release clutch pedal slowly to avoid jerking. The transmission clutch is provided to disengage the engine power from the transmission and rear wheels, leaving the power applied only to the P.T.O., hydraulic pump and belt pulley, if used.

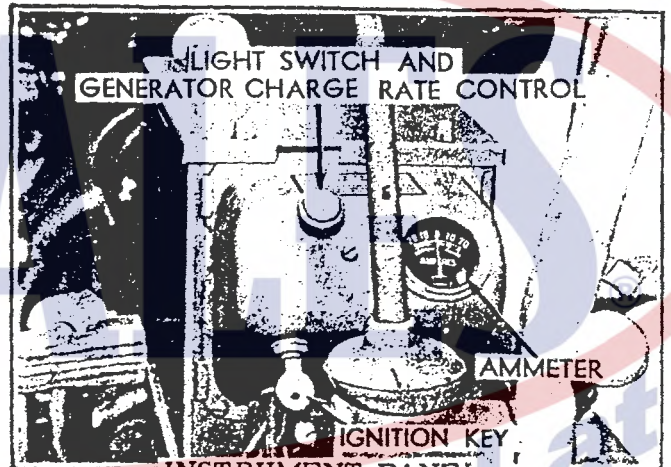
The transmission clutch is hand operated and the lever is mounted to the right of the



OIL PRESSURE GAUGE



THERMO GAUGE
TEMPERATURE GAUGE



LIGHT SWITCH AND
GENERATOR CHARGE RATE CONTROL

AMMETER

IGNITION KEY

INSTRUMENT PANEL

steering shaft support. Pushing lever forward disengages clutch.

When using the belt pulley, the transmission clutch should be engaged and the transmission shifter lever placed in neutral position.

Easy turns may be made by simply turning steering wheel to right or left as desired. Foot brakes are provided for making extremely short turns. Turn steering wheel in direction desired and then apply brake on side towards which the tractor is being turned. Do not attempt short turns when traveling at high speeds. When using the brakes for stopping, apply pressure to both brakes so that the brakes are engaged evenly. This will bring the tractor to an even stop without skidding. The latch on brake lever is conveniently located for locking the brake in the engaged position to hold the tractor on an incline, or for belt work.

OPERATING INSTRUCTIONS (Cont'd.)

Operate engine at full throttle or nearly full throttle and select the desired transmission gear to suit the work being done. To shift to low or first gear with the gear shift lever in neutral position, disengage clutch, move gear shift lever to left and forward. Second from neutral, left and back, third gear right and forward, fourth gear to right and back. To shift to reverse, lift reverse latch and push lever to extreme right and back, always stop tractor before changing gears. Severe overloads may be thrown on engine if tractor is operated at reduced engine speeds on heavy loads.

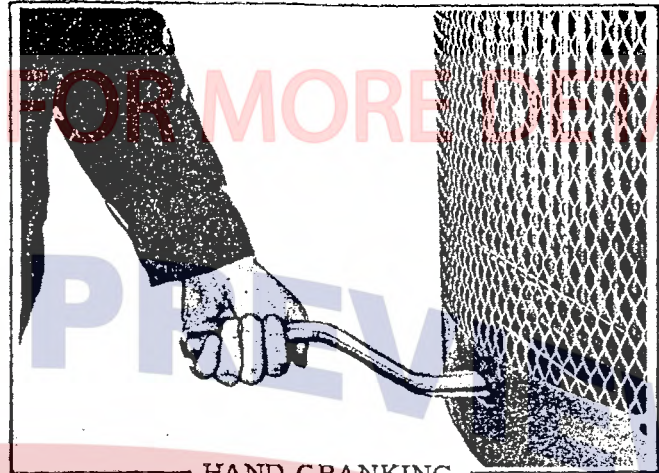
Adjust the drawbar height to recommended height for the implement being drawn. The drawbar should be placed as near in the centerline of draft as possible. Rear wheel weights are available for securing extra traction on heavy loads.

STOPPING TRACTOR - Push clutch pedal forward, allow tractor to stop or if necessary apply brakes. Place gear shift in neutral position, release clutch pedal.

HAND CRANKING - Push clutch pedal down and engage pedal lock. Proceed as under "Starting Engine". Engage crank grasping handle with thumb on same side of crank as fingers. Crank in quarter turns only, pulling up and over. **DO NOT ATTEMPT TO "SPIN ENGINE"**. When engine starts release clutch pedal lock. Do not operate engine for long periods with pedal locked forward.

OPERATING BELT PULLEY - Push clutch pedal down and engage pedal lock. Loosen belt pulley retaining screw and push pulley assembly into the tractor. The dealer will stamp an arrow on tractor frame and on pulley tube. These arrows must be aligned to obtain proper gear mesh. Tighten lock screw and jam nut. Release clutch pedal. The clutch pedal lock may be engaged when pulley is stopped, however the engine should be stopped if any work is to be done on the driven machine.

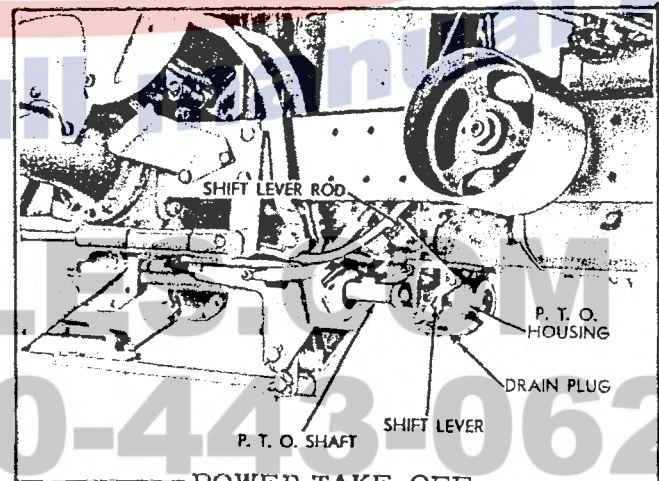
OPERATING POWER TAKE-OFF - The power take-off is used to furnish power to P.T.O. driven machines and operates at a speed of 548 r.p.m. at 1400 r.p.m. of engine. The speed of the P.T.O. remains at 548 regardless of what gear the tractor is operated in. The P.T.O. is provided with a shift lever for engaging or disengaging. To engage the P.T.O., push the clutch pedal forward the same as for shifting gears in the transmission. Allow the clutch to stop and, if



HAND CRANKING



BELT PULLEY



POWER TAKE-OFF

the tractor is in motion, allow it to stop. Pull up on the P.T.O. shift rod located near the steering rod support. If the P.T.O. is engaged, do not attempt to shift transmission gears until driven machine stops unless using hand clutch. This P.T.O. will keep on running when the transmission clutch is disengaged.