



CLICK ANYWHERE FOR MORE DETAILS

MANUAL PREVIEW

Allis Chalmers

Operator's Manual

WF

purchase full manual at

Operator's Manual

JENSALES.COM
or Call 800-443-0625



CLICK ANYWHERE FOR MORE DETAILS

THIS IS A MANUAL PRODUCED BY JENSALES INC. WITHOUT THE AUTHORIZATION OF
ALLIS CHALMERS OR IT'S SUCCESSORS. ALLIS CHALMERS AND IT'S SUCCESSORS
ARE NOT RESPONSIBLE FOR THE QUALITY OR ACCURACY OF THIS MANUAL.

TRADE MARKS AND TRADE NAMES CONTAINED AND USED HEREIN ARE THOSE OF OTHERS,
AND ARE USED HERE IN A DESCRIPTIVE SENSE TO REFER TO THE PRODUCTS OF OTHERS.

AC-O-WF

Make: Allis Chalmers	Model: RC	Years Made: 1939-1941
HP-PTO: 18.14	HP-Engine:	HP-Drawbar: 12.1
HP-Range: 18	Engine-Make: AC	Engine-Fuel: DISTILLATE
Engine-Cyl(s)-CID: 4/	Transmission-STD: SG	Optional:
Fwd/Rev Standard: 4/1	Fwd/Rev Optional:	Mfwd-Std/Opt:
Tires-Std Front: 4.75-15	Tires-Std Rear: 10-28	Wheelbase-Inch:
Pto Type:	Pto Speed:	CAT I-3pt Hitch: False
CAT II-3pt Hitch: False	CAT III-3pt Hitch: False	Hitch Lift:
Hydraulics-Type:	Hyd-Cap:	Hyd-Flow:
Hyd Std Outlets:	Cooling Capacity:	Fuel Tank Capacity:
Cab-Std A/C; Rops:	Weight: 4005	New Price:

Make: Allis Chalmers	Model: WC	Years Made: 1934-1948
HP-PTO: 20.91	HP-Engine:	HP-Drawbar: 12.0
HP-Range: 21	Engine-Make: AC	Engine-Fuel: GAS
Engine-Cyl(s)-CID: 4	Transmission-STD: SG	Optional:
Fwd/Rev Standard: 4/1	Fwd/Rev Optional:	Mfwd-Std/Opt:
Tires-Std Front:	Tires-Std Rear: 11-28	Wheelbase-Inch:
Pto Type:	Pto Speed:	CAT I-3pt Hitch: False
CAT II-3pt Hitch: False	CAT III-3pt Hitch: False	Hitch Lift:
Hydraulics-Type:	Hyd-Cap:	Hyd-Flow:
Hyd Std Outlets:	Cooling Capacity:	Fuel Tank Capacity:
Cab-Std A/C; Rops:	Weight: 3792	New Price: 1290

Make: Allis Chalmers	Model: WF	Years Made: 1938-1951
HP-PTO: 22	HP-Engine:	HP-Drawbar:
HP-Range: 22	Engine-Make: AC	Engine-Fuel: GAS
Engine-Cyl(s)-CID: /201	Transmission-STD:	Optional:
Fwd/Rev Standard: 4/1	Fwd/Rev Optional:	Mfwd-Std/Opt:
Tires-Std Front:	Tires-Std Rear:	Wheelbase-Inch:
Pto Type:	Pto Speed:	CAT I-3pt Hitch: False
CAT II-3pt Hitch: False	CAT III-3pt Hitch: False	Hitch Lift:
Hydraulics-Type:	Hyd-Cap:	Hyd-Flow:
Hyd Std Outlets:	Cooling Capacity:	Fuel Tank Capacity:
Cab-Std A/C; Rops:	Weight: 3175	New Price: 1340

ABOVE PTO GUARD RC		
Year		Beginning Serial Number
1939		4
1940		4392
1941		5417

REAR OF DIFF HOUSING JUST ABOVE OPERATOR PLATFORM WC STARTING IN 1938		
Year		Beginning Serial Number
1933		1
1934		29
1935		3127
1936		13870
1937		31784
1938		60790
1939		75216
1940		91534
1941		103517
1942		114534
1943		123171
1944		127642
1945		134624
1946		148091
1947		152845
1948		170174

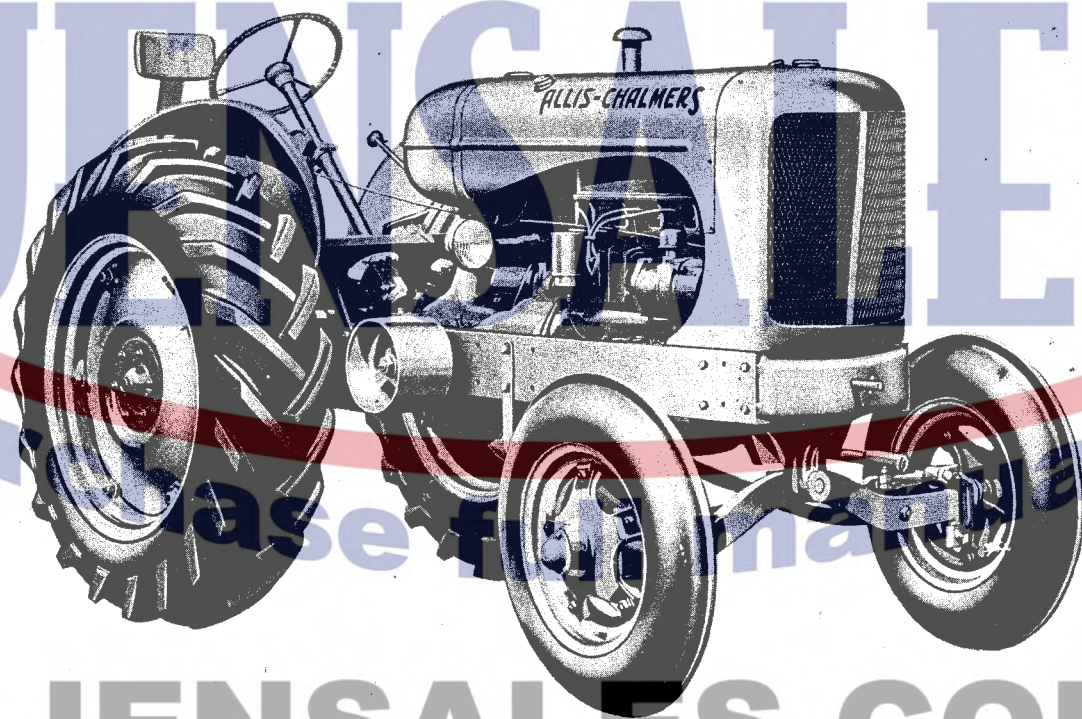
REAR OF DIFF HOUSING JUST ABOVE OPERATOR PLATFORM WF		
Year		Beginning Serial Number
1937		4
1938		389
1939		1336
1940		1892
1941		2300
1942		2704
1943		NONE
1944		3004
1945		3195
1946		3510
1947		34748
1948		4111

Paint Codes WC		
Location		MFG Color Name
ENTIRE TRACTOR		ACPERSIANORANGE1

Paint Codes RC & WF		
Location		MFG Color Name
ENTIRE TRACTOR LESS REAR RIM		ACPERSIANORANGE1
REAR RIMS		ACALUMINUM

CLICK ANYWHERE FOR MORE DETAILS

INSTRUCTIONS
AND
REPAIR PARTS LIST
FOR
ALLIS-CHALMERS MODEL
"WF" TRACTOR



JENSALES.COM

ALLIS-CHALMERS MFG. CO.

TRACTOR DIVISION

MILWAUKEE 1, WISCONSIN

U. S. A.

CLICK ANYWHERE FOR MORE DETAILS

FORM TPL-118B

IMPORTANT --- HOW TO ORDER REPAIR PARTS

When referring to right or left, face in the direction of forward travel.

When ordering repair parts be sure to state name and part number; also give both engine and tractor serial number. Engine number is located on left hand side of engine block directly to the rear of the carburetor. Tractor serial number is located on the rear side of differential housing near oil filler plug. This information is essential to supply correct repair parts.

Always order repair parts from your nearest Allis-Chalmers Dealer.

Be particular to state post office address, town, county and state where parts are to be shipped. Also specify whether material is to be shipped by freight, express or parcel post.

Unless claims for errors are made immediately upon receipt of goods they will not be considered.

When broken goods are received, a full description of the damage should be made by the carrier agent on the freight bill. If this description is insisted upon, full damage can always be collected from the transportation company.

No responsibility is assumed for delay or damage to merchandise while in transit. Our responsibility ceases upon delivery of shipment to the transportation company, from whom a receipt is received showing that shipment was in good condition when delivered to them; therefore, claims (if any) should be filed with the transportation company and not with Allis-Chalmers Manufacturing Company.

The right is reserved to change the construction or material of any parts where it seems desirable to do so, without incurring the obligation of installing such changes on units already delivered.

INDEX OF ASSEMBLIES

<u>Name</u>	<u>Page</u>	<u>Name</u>	<u>Page</u>
Air Cleaner	36	Magneto and Governor	25
Belt Pulley	39	Manifold & Carburetor (Gasoline Engine)	29
Camshaft	21	Manifold & Carburetor (Low Grade Fuel)	30
Carburetor Parts	28	Motor Repair Kits	22
Clutch	37	Radiator & Shutter Assembly	27
Clutch Control	38	Rear Axle	45, 46
Clutch Housing	37	Rear Wheel (Air Tire)	53
Clutch Shaft	38	Rear Wheel (Steel)	53
Clutch Shifter	38	Seat	54
Crankshaft & Flywheel	20	Skeleton Rear Wheel (Steel)	53
Crankshaft Service Assembly	20	Starting Crank	49
Cylinder Block, Oil Sump & Oil Filter	17	Steering Gear	47
Cylinder Head and Valves	18	Piston & Connecting Rod	22
Electric Starting & Lighting	35	Platform & Drawbar	31
Engine Controls	26	Power Take-Off	57
Extension Rim	53	Tools	39
Frame	31	Transmission Case & Cover	41
Front Axle	51	Transmission Gear & Shaft	43
Front Support	48	Valve Mechanism	19
Fuel Tank & Hood	33	Water Manifold	25
Front Wheel (Steel)	53	Water Pump & Fan	23
Gasket Set (210146)	22	Wheels	53
Lubrication Gun No. 034692	55	Wheel Guard	54

or Call 800-443-0625

CLICK ANYWHERE FOR MORE DETAILS

SPECIFICATIONS

ENGINE:

Number of Cylinders.	4
Bore	4"
Stroke	4"
R. P. M.	1300
Firing Order	1-2-4-3
Piston Displacement.	201 cu. in.

TRANSMISSION - Selective Sliding Gear

First.	2.50
Second	3.50
Third.	4.75
Fourth	9.00
Reverse.	2.00

CLUTCH - Single Plate Dry Disc

Diameter	10"
--------------------	-----

BELT PULLEY

Diameter	9"
Face	6-1/2"
R. P. M.	1170

BRAKES - Enclosed Contracting Type

RADIATOR

Capacity	4 Gallons
--------------------	-----------

OIL SUMP

Capacity (See Chart)	6 Quarts
--------------------------------	----------

TRANSMISSION

Capacity	4 Quarts
--------------------	----------

DIFFERENTIAL

Capacity	6 Quarts
--------------------	----------

FINAL DRIVE GEARS

Capacity	Each 1-1/2 Pints
--------------------	------------------

FUEL TANK

Capacity	15 Gallons
--------------------	------------

WHEEL TREAD

Front.	44"
Rear	46"

TIRE SIZE

Front.	5.50 x 16
Rear	11 x 28

TIRE PRESSURES

Front.	28 lbs.
Rear	12 lbs.

EXTRA EQUIPMENT

POWER TAKE-OFF

Spline Size.	6B - 1-3/8"
R. P. M.	535

OIL FILTER

INSURE YOUR ENGINE LIFE BY REGULAR REPLACEMENT OF OIL FILTER ELEMENT.

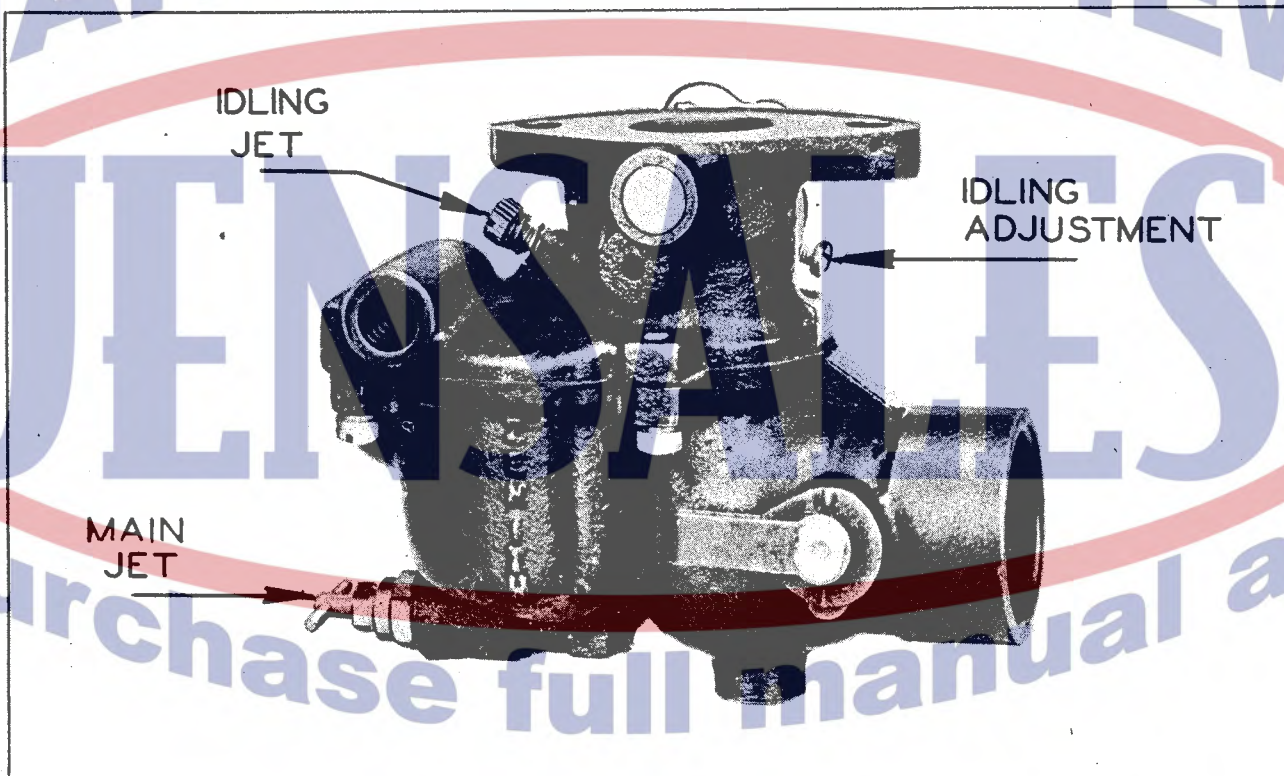
The oil filter is a highly efficient unit for the purpose of filtering abrasive particles from the crankcase oil.

Filter element consists of a metal can packed with a special long thread filtering yarn.

Change filter element as mentioned in Maintenance Chart.

CAUTION: Install only a new element which is machine packed, to a specific density and supplied by Allis-Chalmers Manufacturing Company for the protection of your engine.

A slight decrease in oil pressure is generally noted when a new filter element is installed until the element is thoroughly saturated with oil.



CARBURETOR

The carburetor has three adjustments, one for controlling the idling speed of the engine and two for correcting changes in fuels and atmospheric conditions.

1. To regulate idling speed of the engine, adjust the stop screw on throttle valve arm on inner side of the carburetor.

2. For correct fuel mixture at idling speeds of engine, adjust needle valve located on front top of carburetor. Turn needle inward for richer mixture. Normal setting is approximately one and one-half turns out.

3. The main jet adjusting needle located on lower front of the carburetor body regulates fuel mixtures at working speeds. Turn this needle outward for richer mixture. Normal setting is two to three turns out, depending on fuels and atmospheric conditions.

Do not force the main jet needle down on its seat as it will cause damage to these parts.

IGNITION

EXCEPT FOR MINOR ADJUSTMENTS, SEE YOUR AUTHORIZED SERVICE STATION.

To time magneto, crank engine until number one piston is nearly on top dead center of its compression stroke and fire mark on flywheel is lined up in center of inspection opening located on bottom of clutch housing.

There are two methods of locating the compression stroke of number one cylinder.

1. Remove number one spark plug and place thumb in spark plug hole. Turn engine slowly until air is forced past thumb. Continue turning until fire mark is in center of inspection opening.

2. Remove valve cover and crank engine until number four exhaust valve is closing. Valve will be very nearly closed when fire mark on flywheel is in center of inspection opening.

Remove distributor cover, held in place by two screws and turn magneto coupling counter-clockwise until distributor contact lines up with timing boss, located in upper left hand corner of distributor compartment. Couple magneto to engine. If rotor does not line up with boss, shift on engine until it does.

Attach number one spark plug wire to upper terminal nearest block. Number two in upper terminal farthest from block. Number four in lower terminal farthest from block and number three in lower terminal nearest block.

The spark plugs and cables must be maintained in good condition, and if ignition difficulties are encountered, they should be checked before opening up magneto. The gap at spark plug points should be from .030" to .040". Use Auto-Lite A7 or A-C 45 for gasoline engine designated "G", and Auto-Lite All or A-C 47 for distillate or tractor fuel engines designated "K".

The spark plugs should be removed every 200 hours or oftener depending on operating conditions and cleaned and points spaced. If spark plug is in poor condition it should be replaced.

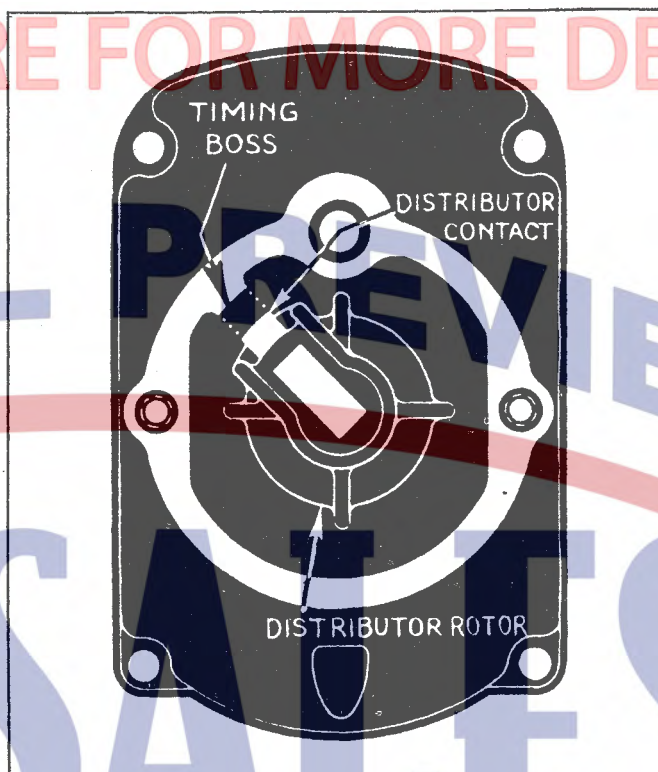
In event of difficulty in ignition system, plugs and wires having been checked, remove distributor compartment cover held in place by four screws. If contact points are pitted or pyramided, dress with a fine point file or hone.

If points are worn or badly pitted, they should be replaced. Points should be adjusted to have .020" gap at full separation.

Reassembling of distributor cap to magneto housing involves proper meshing of rotor pinion and distributor gear wheel as follows: The marked tooth on rotor pinion must mesh between the two marked teeth of distributor gear at point marked "C".

For difficulties other than above mentioned, remove the magneto and take it to your nearest authorized service station for check-up and repair.

The magneto is permanently oiled at the factory and requires no further lubrication.



ELECTRICAL EQUIPMENT (Cont'd.)

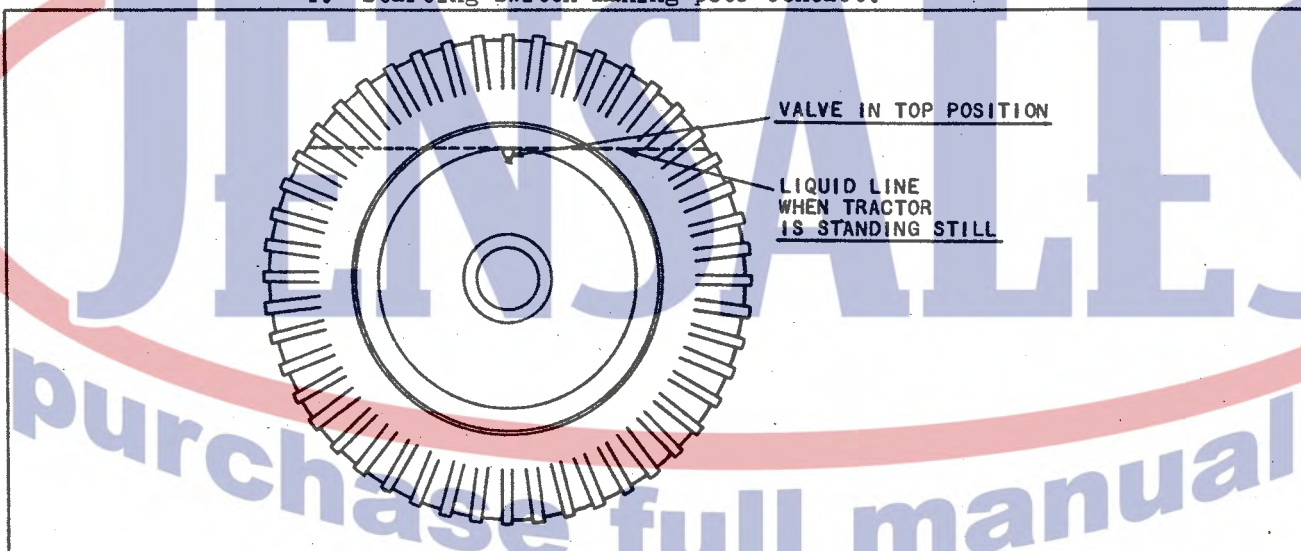
AMMETER - The ammeter, located on the dash, indicates the charging or discharging rate of battery.

If ammeter should register discharge with lights off, disconnect the battery cable to prevent its discharge until the difficulty is located and corrected. Such a condition is usually caused by a worn or frayed wire making a short circuit or by cut-out relay points being stuck together.

The lighting switch is also a generator output regulator. With this type switch, it is possible to increase the charging rate of the battery without making any changes in the generator. The operation of the switch is as follows: With control rod forward as far as possible, charging rate is from two to four amperes and lights are off; when pulled out to first stop, lights are on and charging rate remains the same; when pulled back as far as possible, the lights are off and the charging rate is increased to approximately twelve amperes. This last position is to be used only when the battery, due to abnormal conditions of operation, loses its charge faster than the regular charging rate can make up. In ordinary tractor operation the danger will be to overcharge the battery.

STARTING MOTOR - The starting motor seldom causes any difficulty, but if it should, any one of the following may be the cause:

1. Exhausted battery.
2. Broken or loose wires.
3. Loose or corroded battery terminals.
4. Starting switch making poor contact.



HYDROMATIC TRACTOR TIRES

It is generally known, that to obtain maximum traction with a tractor equipped with low pressure pneumatic tires, weight must be added. The practice has been to attach cast iron weights to spokes of the rear wheels, but after numerous experiments by our engineering department, the use of liquid injected into the tire has shown several advantages.

The action of the tires, partly filled with liquid, tends to eliminate "bouncing" to a great extent. The liquid adds weight to the tractor at the correct point -- nearest to the ground -- and thereby increases the stability of the tractor. Weight added in this manner is a "free wheeling" weight and eliminates much of the shock that otherwise would be absorbed by the tractor gears.

As water alone will freeze in cold weather, Allis-Chalmers' tractor tires are filled with the proper quantity of 15% calcium chloride solution. Calcium chloride will in no way harm the casings, tubes or valves. A mixture of 15% calcium chloride and 85% water has a specific gravity of 1.140 and may be tested by the use of an ordinary battery hydrometer. This mixture will form a slush at 10° above zero, but will not freeze solid at 20° below zero. No harm will be done to the tires at even colder temperatures.

The tires are filled about 3/4 full of the solution and then inflated to the standard recommended air pressure. This amount of solution will give the same weight as two cast iron wheel weights on each wheel. If more weight is needed for difficult traction conditions, wheel weights may be added.

Tire companies have instructed their service stations concerning liquid ballast for tractor tires and they have the necessary facilities for mixing and injecting this fluid into the tires.