



Allis Chalmers

Operator's Manual

715

Tractor, Loader & Backhoe

Operator's Manual

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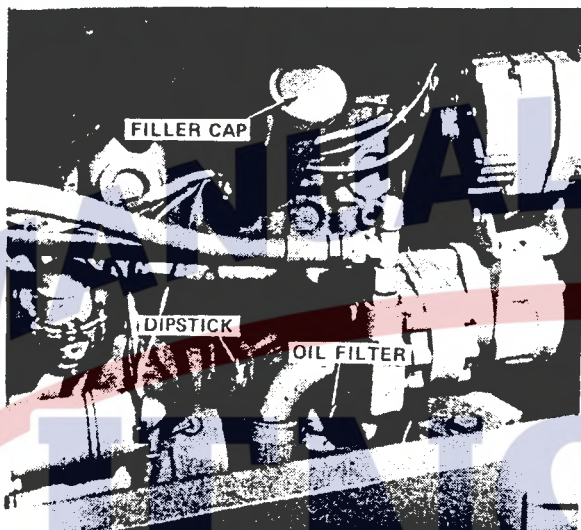
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AC-O-715 TLB

CONTENTS

GENERAL INFORMATION	7
LUBRICATION & MAINTENANCE	13
Break in period	13
Lubrication Chart	14
Service points	17
1. Engine oil & filter	17
2. Engine air cleaner	18
3. Hyd. Reservoir & filter	19
4. Radiator & Cooling System	19
5. Converter Oil & Filter	21
6-10. Front Axle Backhoe & Loader Lubrication Points	22
11. 4 Speed Transmission	22
12. Batteries	22
13. Water Separator	22
14. Rear Axle	23
15. Drive Shaft	24
16. Twin Primary Fuel Filters	24
17. Front Wheels	26
18. Brake Adjustment	26
19. Axle Retaining Bracket	27
OPERATION	28
Controls	
Backhoe Controls	35
Loader Controls	32
Operators Platform	28
Control Panel	28
Fuse Locations	28
OPERATING TIPS	
Backhoe	37
Loader	34
SAFETY PRECAUTIONS	5
SERIAL NO. LOCATIONS	42
SPECIFICATIONS	9
Digging Chart	12
TO OUR CUSTOMER	2
USERS RESPONSIBILITY	3
WEIGHTS OF VARIOUS MATERIAL	(back cover)
WIRING DIAGRAM	43
HYDRAULIC FLOW DIAGRAM	44

SERVICE-POINT**1. ENGINE OIL AND FILTER**

CHECK ENGINE OIL level every 10 hours of operation. Check crankcase oil level with unit on level ground (allow a minimum of 10 minutes) for the oil to drain down before checking. The best time to check the oil is after an overnight shut down period. If oil level is at or below bottom mark on dipstick, add sufficient oil of proper viscosity and type specified to bring oil level to between marks on dipstick. Do not operate engine with oil level below the bottom mark.

Oil used in crankcase should meet the American Petroleum Institute (API) Diesel Classification of CD (DS Series 3) Diesel Oil Mil-L-45199B. Use the following oil viscosities for the lowest expected temperature during time oil will be in the crankcase.

Engine Oil		Recommended Oil Viscosity
Lowest Expected	90 degrees	SAE - 40
	40 degrees	SAE - 30
	20 degrees	SAE - 20-20W
	Below 20 degree	SAE - 10 W

CHANGE OIL in crankcase after first 10 hours of operation and every 75 hours thereafter. The engine oil drain plug is located at the bottom of the oil sump. When oil is drained, it should be near operating temperature. This will help keep foreign particles in suspension in the oil so they can be flushed out of the engine when oil is drained.

CHANGE OIL FILTER after the first 10 hours of operation, thereafter at every 150 hours of operation or every other oil change. Replace only with an Allis-Chalmers filter provided specifically for your engine.

CLICK ANYWHERE FOR MORE DETAILS

CLICK ANYWHERE FOR MORE DETAILS

6-10. SERVICE POINTS 6 thru 10 ARE FRONT AXLE, LOADER, STABILIZERS, SWING LINKAGE, AND BACKHOE LUBRICATION POINTS.

These points should be lubricated every 10 hours of operation. Please note the number of lubrication points the Loader, Backhoe, etc. has listed under No. of points on the Service Chart.

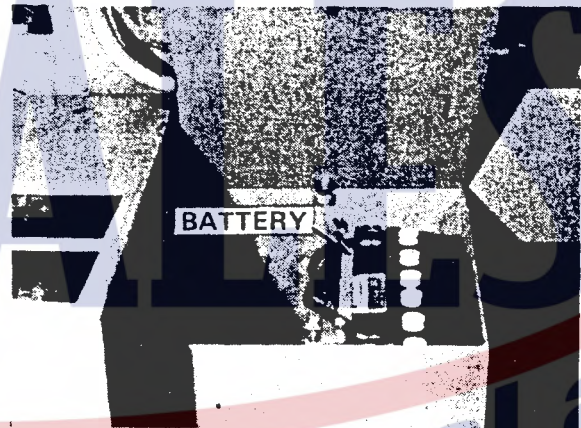
11. 4-SPEED TRANSMISSION

CHECK TRANSMISSION OIL every 100 hours of operation. The transmissions checking plug and filler hole is located on the R.H. side, approximately in the center of the housing. The oil level should be maintained level with the plug hole. Add only 90W gear oil when oil is needed.

CHANGE TRANSMISSION OIL after the first 50 hours of operation and every 500 hours thereafter. The drain plug is located just below the check plug in the center of the housing. The capacity of the transmission is 3½ quarts.

12. BATTERIES

CHECK the level of the electrolyte solution after each 75 hours of operation. The battery or batteries depending on how the tractor is equipped, are located on the R.H. side of the tractor. Maintain the solution level at indicated level in each cell, which approximately is 3/8" above top of separators. Keep the battery and cable terminals tight and clean.



20

Never fill battery after operating in below freezing weather because water will not mix with acid and will freeze. Always fill batteries before putting engine into service. If liquid level of battery is low, add distilled water to bring level of each cell to bottom of filler hole. Be sure filler plugs are tight and plug vents are open.

If battery is dirty, clean with soda solution and brush. Filler plugs should be tight to prevent solution from entering cells. After foaming stops, flush surface with clean water and apply a thin coat of vasoline to posts and cable terminals.

Maintain battery in a fully charged condition. Check charge condition or specific gravity with a hydrometer with electrolyte temperature at 80°F.

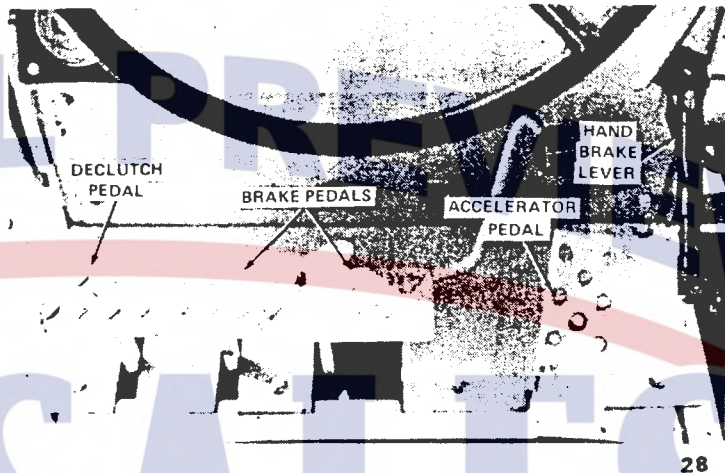
Hydrometer Indication	Charge Condition
1.110 to 1.135	Completely discharged
1.170 to 1.200	One-fourth charged
1.205 to 1.230	One-half charged
1.235 to 1.260	Three-fourths charged
1.265 to 1.290	Fully charged

ACCELERATOR PEDAL (Foot Operated)

The foot operated accelerator pedal is used when varying engine speeds are desired. Depress pedal to increase engine speeds. When the pedal is released the engine will return to low idle. **NOTE: Hand throttle must be in low idle position.**

BRAKE PEDALS

Two brake pedals, as shown in the figure are provided on the 715 unit. To brake one wheel independently of the other, depress the left pedal for left wheel braking and the right pedal for right wheel braking. Depress both brake pedals simultaneously to brake both rear wheels and stop the tractor.



To assist in making sharp turns at slow-to-moderate speeds, depress the right or left brake pedal as required.



CAUTION: When operating the tractor at high speeds, never attempt to make sharp turns by using the brakes.

The brake pedal lock is used for locking the brake pedals together. It is recommended that the brake pedals be locked together when the tractor is operated at high speeds or at any time the tractor is used on the highway.

DE-CLUTCH PEDAL

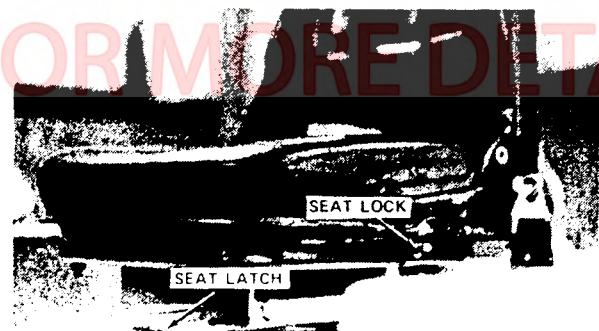
The de-clutch pedal should be depressed before starting engine. Once engine is running, the pedal is used when changing transmission speeds.

PARKING BRAKE

The parking brake is located to the right of the instrument panel. Pull the brake lever from the down or "RELEASE" position, to the up "LOCK" position to apply the parking brake. The parking brake operates independently of the service brakes. IT IS A GOOD HABIT TO SET THE PARKING BRAKE BEFORE LEAVING THE MACHINE.

OPERATORS SEAT

The operator's seat is of a dual purpose type. It serves as a operator's seat during tractor operation and as a backhoe operator's seat during backhoe operation. To reposition





32

BACKHOE DUAL LEVER CONTROL

The 715 is equipped with a dual lever control. Each lever operates two circuits. Moving the lever forward and back operates one circuit. Moving the lever from side to side operates the other circuit. If the lever is moved forward or back and to the side at the same time, then two circuits can be actuated simultaneously.

STABILIZER CONTROLS

Stabilizers are controlled by the short handle control lever on each end of the control valve bank. Pushing forward will lower stabilizer; pulling back will raise stabilizer.

Boom and Swing Control

The boom control handle will operate boom cylinder to raise and lower the boom. Pulling back on the boom control handle will raise boom. Pushing forward to the detent will lower the boom in the normal manner. Pushing boom control handle through detent to its full forward stroke will lower boom using the regenerative circuit in the boom control valve section.

REGENERATION is the word used to describe the action taking place in the boom hydraulic circuit when boom is being operated with control handle in the forward most position. In this position oil from the rod end of the boom cylinder is directed to the base end of boom cylinder rather than to tank as the boom is being lowered. The purpose of this feature is to supplement pump oil with the return oil from the exhausting end of the boom cylinder and thereby preventing cylinder cavitation when lowering boom quickly in deep excavations.

Down Pressure

When in the normal lowering position once the bottom of an excavation is reached, pump pressure may work against the full piston area giving maximum down pressure to backhoe boom.

completed is costly and time consuming. **KEEP ALL CORNERS SQUARE AS THE HOLE IS DUG.** Remember, precision digging is not high speed work. Accuracy and a full bucket each cycle, is the most efficient operation. When vertical walls are necessary be sure to level the unit.

WALKING THE BACKHOE

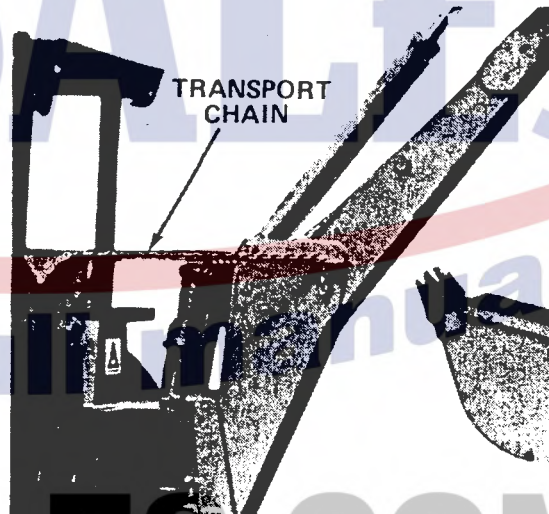
Walking the Backhoe

The 715 tractor can best be moved forward when trenching by positioning the transmission in first gear and using the directional reverser. The backhoe operator can conveniently reach both the steering wheel and the directional reverser lever and reposition the tractor with precision control from the backhoe seat.

The unit can be pushed forward with the dipperstick while digging. Lift the loader bucket. Lift both stabilizers. Set the bucket in the ground with the dipperstick approximately one foot back of the vertical position. Apply a reasonable amount of down pressure and dipper out. Continue the down pressure as you dipper out. This will roll the tractor forward a few feet for continued digging.

TRANSPORTING Job to Job Travel

When moving the unit from job to job swing the boom directly behind the tractor. Raise the boom to full height, completely bring the dipperstick in with the dipper and stop just before contact of the bucket and the boom. Roll the bucket in. Do not force the bucket into the boom member. Completely lift both stabilizers. With the boom centered and fully raised, attach the safety **TRANSPORT CHAIN** through the two hooks on the boom at equal length and lower the boom to take up chain slack. The transport chains are provided to carry the weight of the boom assembly and prevent it from swinging by unloading the swing cushion valve.



1006

IMPORTANT: When lowering boom to take up chain slack, do not apply excessive down pressure. Chain breakage may result from excessive down pressure.