

Model "K"
18-32 Tractor
Operator's Manual

5205

Reprinted








THIS SAFETY ALERT SYMBOL INDICATES IMPORTANT SAFETY MESSAGES IN THIS MANUAL. WHEN YOU SEE THIS SYMBOL, CAREFULLY READ THE MESSAGE THAT FOLLOWS AND BE ALERT TO THE POSSIBILITY OF PERSONAL INJURY OR DEATH.

M171B

If Safety Decals on this machine use the words **Danger, Warning or Caution**, which are defined as follows:

- **DANGER:** Indicates an immediate hazardous situation which if not avoided, will result in death or serious injury. The color associated with Danger is RED.
- **WARNING:** Indicates an potentially hazardous situation which if not avoided, will result in serious injury. The color associated with Warning is ORANGE.
- **CAUTION:** Indicates an potentially hazardous situation which if not avoided, may result in minor or moderate injury. It may also be used to alert against unsafe practices. The color associated with Caution is YELLOW.

If Safety Decals on this machine are ISO two panel Pictorial, decals are defined as follows:

- The first panel indicates the nature of the hazard.
- The second panel indicates the appropriate avoidance of the hazard.
- Background color is YELLOW.
- Prohibition symbols such as   and  if used, are RED.



WARNING

IMPROPER OPERATION OF THIS MACHINE CAN CAUSE INJURY OR DEATH. BEFORE USING THIS MACHINE, MAKE CERTAIN THAT EVERY OPERATOR:

- Is instructed in safe and proper use of the machine.
- Reads and understands the Manual(s) pertaining to the machine.
- Reads and understands ALL Safety Decals on the machine.
- Clears the area of other persons.
- Learns and practices safe use of machine controls in a safe, clear area before operating this machine on a job site.

It is your responsibility to observe pertinent laws and regulations and follow Case Corporation instructions on machine operation and maintenance.

KEEP THIS BOOK FOR FUTURE REFERENCE

CASE MANUAL

Instructions for
Operating and Care of the
CASE
MODEL "K"
18-32 TRACTOR



TO CASE OWNERS—

The more thorough knowledge the owner has of his Tractor the better will be the results, and the greater the profit from its use. It is the desire of the J. I. Case Co., that every machine should give the highest degree of service and every effort is made toward insuring this service in the design and manufacture of the machine. When it passes into the hands of the owner it passes largely beyond the control of the Company. This manual has been prepared with the purpose of giving the owner as much knowledge of the Tractor as possible. The owner and particularly the operator is urged to read and study this manual and to use good judgement in the use and care of his machine, and satisfactory service will follow.

J. I. CASE CO.
Racine - Wisconsin - U. S. A.

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SPECIAL INSTRUCTIONS

1. Modern tractors travel fast, therefore, care should be exercised in getting on or off the tractor, especially when pulling such machinery as harrows, plows, disc plows, etc. to avoid accident or injury to the operator.
 2. When power takeoff shaft is used, care should be taken that the power takeoff guard is in place and in good condition; or otherwise the operator may be injured by his clothing being caught by the universal joint or the revolving shaft.
 3. When cranking an engine the handle of the crank should be pulled upward with the left hand so the operator's hand will be in a position to avoid being struck by the starting crank if there is a reversal of the direction of the engine from any cause whatsoever.
 4. When starting any tractor do not engage the clutch quickly. Always engage clutch gradually so the engine will pick up the load slowly. This is particularly necessary when the tractor is going up a steep hill, climbing out of ditches or when hitched to some heavy or difficult load. Never hitch a tractor to a stump or other object by means of a long chain or rope with slack so that when the tractor moves forward it will jerk into the load.
 5. When working on steep side hills, any tractor may tip over sideways, especially when the wheel on the lower side strikes a hollow or hole or ditch. The center of gravity on Case tractors is low and they are especially stable but when operating under unusual conditions they must be operated with reasonable care.
 6. When going up a steep hill or climbing out of a ditch or gully, any tractor is liable to raise its front wheels off of the ground, if the full power is quickly applied or the clutch quickly engaged. Under such conditions the momentum of the flywheel adds to the horse power of the engine, and to avoid possibility of danger under these conditions the operator should keep his hand on the clutch lever, engaging the power of the engine slowly and be prepared at all times to disengage the clutch promptly should the front wheels raise off the ground. The same precautions must be taken if the tractor becomes mired down by being driven into a soft bog or a mud hole or ditch.
- Ordering Repairs.**
7. When ordering repairs be sure to give Serial Number and Model of tractor and name and number of Part Ordered.
 8. The better and more thorough knowledge the owner has of his tractor the greater will be the profit and satisfaction derived from its use.
 9. The owner, to know and understand his tractor and its operation, should first have ordinary knowledge of farm machinery and farm work, and then he should acquire thorough knowledge of the tractor by study and practice. This manual has been prepared with the object in view of giving as much of this knowledge as possible.
 10. It is the desire of the J. I. Case Company that every tractor should give the highest degree of service and every effort is made toward insuring this service in the design and manufacture of the tractor. When it passes into the hands of the owner it passes largely beyond control of the Company. The owner is urged to use good judgment and diligence in the operation and care of the tractor, and satisfactory service will follow.

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CHAPTER I

Starting and Operating Tractor

Important

No fine piece of machinery should ever be loaded to full capacity until it has been run light for a reasonable length of time.

This tractor should be oiled and run at one quarter load for ten hours, and one half load for ten hours before it is put on full load.

Engine Lubrication

Upon receiving a new tractor it is advisable to examine the condition of oil in crankcase and to make sure that oil flows from upper oil level hole in crankcase. If the oil is not in good condition it should all be drained out and the crankcase refilled to height of upper plug with **fresh oil of good quality.**

Oiling Transmission

The transmission and all gear housings of a new tractor should be examined before tractor is put to work to make sure that they contain the correct amount of oil as indicated by the oil level plugs.

Keep Lugs Tight

The drive wheels should be gone over occasionally, and the lugs tightened. Neglect to do this may result in breakage.

Warning

The magneto is fitted with an impulse coupling which provides for a hot spark when engine is cranked slowly. **On the Splitdorf magneto used on a great many 18-32 tractors prior to 58374 this device must be tripped by hand before it will become engaged for starting. If engine is cranked slowly without first tripping the impulse, the spark would occur too early in the stroke causing the engine to "kick back."**

Starting New Tractor

A tractor should be looked over very carefully before starting for the first time to see that nothing has become loose, or has been broken or damaged in shipment. Sometimes machinery is tampered with on the cars which causes trouble unless detected and remedied.

Cinders and dirt always accumulate on a machine in transit, hence it should be thoroughly cleaned before starting.

With a mixture of kerosene and gas engine oil, clean paint and dirt from moving parts where it may cause these parts to bind or otherwise cause trouble. Sometimes the small vent hole in top of carburetor bowl or fuel tank becomes clogged. Unless this obstruction is removed the engine will not operate satisfactorily. Keep all parts clean.

The governor rod should move freely without binding or the governor action will be affected. Sometimes paint causes this to stick when tractor is new.

See that the clutch does not stick or that the brake does not bind on belt pulley, and that both engage properly when operated. Particular attention should be given to the lubrication of every bearing.

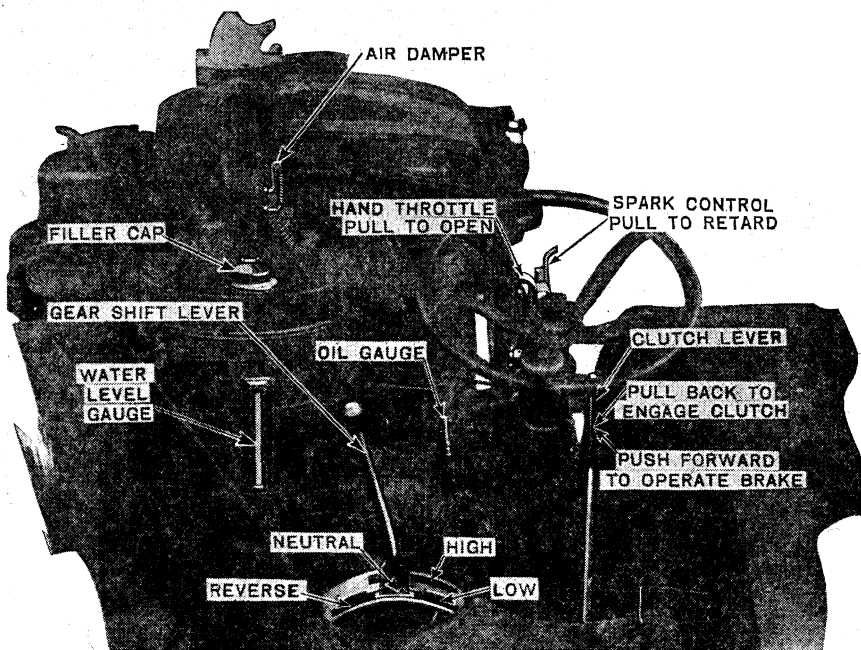


Fig. 1. Control Arrangement

Note:

On tractors after No. 62,409, oil level plugs on the side of crank-case are used instead of float type of oil gauge as shown in Fig. 1.

In cold weather the condition of the oil should be ascertained before starting the engine, as low temperature will congeal or thicken the oil and the oiling system cannot handle it. Running the engine under such conditions would ruin it in a very short time.

The oil should either be heated until it will pour readily before it is placed in the crank case or oil of lower cold test should be used.

Drain the oil from the crank case at regular intervals according to directions as given in the chapter on "Lubrication," page 47.

Remove valve cover from the top of motor by loosening hand screws and drop a few drops of motor oil in each valve stem and on the valve rockers and see that all operate freely when engine is turned.

Fill the radiator with clean soft water. Do not start a new engine until radiator has been filled. To do so may cause a scored cylinder. Be sure water is clean, as dirt will clog up the water passages and interfere with the proper circulation and cooling of the engine.

Fill air washer with water to the proper level as marked upon the gauge.

Close the valve located in fuel lines from tanks to carburetor. This is a three-way valve connected to both tanks and is closed when the handle is straight down. (See Fig. 18). The operator should become familiar with the operation of this valve before starting up the engine.

Fill fuel tanks—the small tank with gasoline and the larger one with kerosene. Open the drain-cock located at bottom of carburetor and turn valve so that pointer is toward position marked "Gas."

Allow sufficient gasoline to run through carburetor and out of drain-cock to thoroughly wash out any sediment from the fuel line and carburetor.

The end of the exhaust pipe is covered before shipping and this cover should be removed before starting but cover should always be used when tractor is allowed to stand idle for any length of time to prevent rain from entering and perhaps reaching the cylinders.

Before putting the spark plugs in engine pour a small quantity of lubricating oil in each cylinder and crank engine over a few times so as to lubricate the pistons, rings and cylinder walls.

Adjust the spark plug points to a gap of about $1/32$ " and wipe them clean before putting them in the engine.

Crank engine over a few times to see that everything is all right before you attempt to start it.

To Operate the Engine

Before starting the engine, close the needle valve by turning to the right and with a small file make a notch on the dial which is provided for making carburetor adjustments. The notch should be made to correspond with a mark or notch on the body of the carburetor. This is very important and will greatly aid the operator in making and maintaining a correct carburetor adjustment.

1. Raise curtain on radiator to top notch in curtain frame. This will greatly assist in bringing engine temperature to the working point and also reduce the tendency to dilute the lubricating oil with unburned fuel.

2. Be sure that fresh gasoline stands at the proper level in fuel bowl of carburetor.

3. See that needle valve is open about one and one half turns from closed position.

4. Open throttle about half way by setting throttle lever about midway on quadrant.

5. **Trip impulse coupling** if same is not automatic.

6. Set magneto spark control lever at three quarters advance.

7. Pull choke rod and set in notch provided for that purpose.

8. Grasp crank firmly and pull up steadily on crank. Never push down on crank. It is also poor practice to jerk up on crank or spin a tractor engine even if you have the strength. Under ordinary conditions the engine will start after one complete turn of the crank shaft.

9. Release choke rod immediately on the starting of the engine. Failure to do so results in waste of fuel and dilution of oil in the crank case.

10. Adjust throttle to a position which will allow engine to run at about half normal speed.

11. Turn needle valve down immediately to prevent smoky exhaust and also to prevent dilution of oil. Adjust needle valve to position where engine will idle free and snappy and allow the engine to run idle for a short time to bring up to a working temperature before engaging clutch.

12. Open carburetor needle valve to a position about one and one fourth turns from closed position (watch marks on disk), open throttle wide open and engage clutch gradually.

13. Gradually adjust needle valve to position where engine will run free and snappy without smoky exhaust and without spitting back through carburetor. The operator should give this adjustment careful attention even after the engine has attained its normal working temperature.

14. Watch radiator temperature closely and do not switch over to kerosene till radiator water has reached a temperature of 190 degrees.

15. Watch radiator temperature closely and adjust curtain to a position which will keep radiator water temperature between 180 to 190 degrees F.

16. Adjust air valve and by pass levers to comply with load and weather conditions. Refer to chart for suggestions as to how to set levers. See page 36.

17. Refer to chart as to the use of water.

18. The air valve which is located between the air cleaner and carburetor should be given careful consideration for different weather and load conditions. Considerable fuel may be saved as well as the efficiency of the motor increased by proper adjustment of this valve. Refer to chart.

19. Three points the operator should bear in mind and give careful attention: Keep curtain on radiator as high as possible without boiling water in radiator. Adjust needle valve as close as possible for work being done. Use as little water as possible to prevent the pinging in engine. Never use hot air and endeavor to hold down ping with water. Use the air to its limit. Only use water as needed.

The Clutch Lever

The right hand control lever operates the clutch, and is used when starting and stopping tractor and in operating on belt work. It is also used to operate the **pulley brake**. When this lever is in **neutral** position the clutch is disengaged. Pulling back on the lever throws the clutch "in;" pushing the clutch lever to its forward position applies the **pulley brake**.

Always disengage clutch and stop tractor before shifting gears. Use judgment in operating the clutch. Do not throw it in with a jerk when operating as this causes an excessive strain on the transmission and motor parts. Apply the clutch gradually until load is started, then pull clutch completely "in."

The Gear Shift Lever

The **gear shift lever** is located at the driver's left. (See Fig. 1). This lever should always be placed in its **neutral** position when the tractor is not in use. This lever shifts the transmission gears to place them in mesh for different speeds. Each of the three positions of the lever places the transmission gears into different arrangement.

The positions of the lever for the different speeds are as follows: pulling lever towards the driver and to his left reverses the tractor, across to his right is low speed, and pushing forward towards the motor and to the right puts the lever in high gear position.

The gear shift lever should always be placed in **neutral** position before starting motor, and when the engine is allowed to run idle.

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