

CASE
730 and 830 Series
Diesel Wheel
Tractors
Case-o-matic Drive
Prior to S/N 8173401

Operator's Manual

9-861

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.

Operator's Instruction Manual

CASE

**730 AND 830 SERIES
DIESEL
WHEEL TRACTORS**

PRIOR TO S/N 8173401

Case-o-matic DRIVE

Reference Library
DO NOT REMOVE

Service & Educational Dept.

J. I. Case Co.

RACINE, WISCONSIN - U. S. A.



NOTICE!

At the time your Case Dealer delivers your new tractor, he will acquaint you with its operation and maintenance as outlined in the "Dealer's Delivery Service Report". When your Dealer has completed these instructions, he will ask you to sign the report and will then hand you the yellow copy for your records.

NOTE: The "Dealer's Delivery Service Report" also contains a record of the Pre-Delivery Checkup which your Dealer made on your tractor.

AFTER DELIVERY CHECKUP

The Authorized Case Dealer from whom you purchased your new tractor will perform the "After Delivery Checkup" outlined on the following page, if you will arrange to bring your tractor to his Service Shop within - - -

60 days after date of delivery or 200 hours of operation (whichever occurs first)

NOTE: The only charge your dealer will make for this inspection will be for oil, filters or other accessories.

AFTER DELIVERY CHECKUP (Diesel)

(Owner's Name)	(Date Checkup Performed)
(Owner's Address)	
(Dealership)	(Town)
Tractor has been operated _____ hours	
(Tractor Model and Serial Number)	

- | | |
|--|--|
| <input type="checkbox"/> Operate and check hydraulic powr-clutches.
<input type="checkbox"/> Check Case-O-Matic oil levels and filter.
<input type="checkbox"/> Check PTO clutch and lock.
<input type="checkbox"/> Check brakes.
<input type="checkbox"/> Operate hydraulic system and check.
<input type="checkbox"/> Check tire pressure.
<input type="checkbox"/> Tighten cylinder heads and adjust tappets.
<input type="checkbox"/> Check fuel injection pump timing.
<input type="checkbox"/> Fuel filtering system.
<input type="checkbox"/> Check no load full governed engine speed.
<input type="checkbox"/> Tighten all bolts. | <input type="checkbox"/> Cooling system.
<input type="checkbox"/> Crankcase oil (Change oil and filter if necessary).
<input type="checkbox"/> Oil Level in hydraulic system, and steering gear.
<input type="checkbox"/> Lubricate all pressure fittings and oil cups.
<input type="checkbox"/> Check air cleaner.
<input type="checkbox"/> Check steering, bearing adjustment and front wheel toe-in.
<input type="checkbox"/> Batteries, starter, generator and lights.
<input type="checkbox"/> Check operation of all instruments. |
|--|--|

DEALER: Question purchaser carefully concerning his experience with tractor and answer any questions concerning maintenance or operation that are not clear to him.

Checkup.....
Performed by

Signed.....
Dealer

Signed.....
Customer

Original — Dealer
 Duplicate — Leave in Operator's Manual

To the Purchaser of a Case Tractor,

The care you give your new Case tractor will greatly determine the satisfaction and service life you will obtain from it. Use this manual as your guide. By observing the instructions and suggestions in this manual, your Case tractor will serve you well for many years.

As an Authorized Case Dealer, we stock Genuine Case Parts, which are manufactured with the same precision and skill as the original equipment. Our factory trained staff is kept well informed on the best methods of servicing Case equipment and is ready and able to help you.

Should you require additional aid or information, contact us.

Your Authorized Case Dealer

To insure efficient and prompt service, please furnish us with the Model and Serial Number of your tractor in all correspondence or contacts.

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PERIODIC CHECKUPS

Your authorized Case Dealer has the service knowledge necessary to keep your tractor in top running condition.

Arrange to have him check your tractor at regular intervals.

NOTE: The terms "Right Hand" and "Left Hand" whenever used in this manual apply to the tractor when facing in the direction the tractor will move in forward operation.

SERIAL NUMBER



Figure 1. Number Plate on Instrument Panel

When ordering parts from your Authorized Case Dealer and in all contacts or correspondence with your dealer relative to the tractor, always specify the Serial Number and Model of your tractor.

The model and serial number is stamped on the number plate located on the instrument panel Figure 1. The serial number is also stamped on the left rear side of the engine block near the air cleaner, Figure 2.

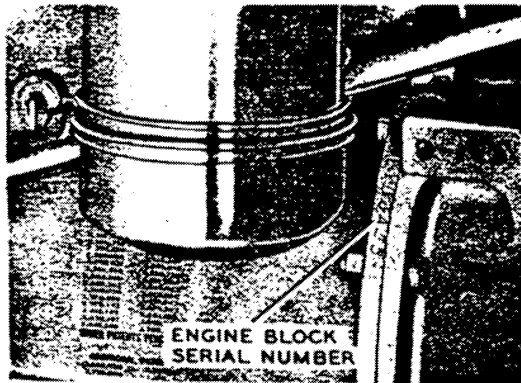


Figure 2. Serial Number Location on Engine Block

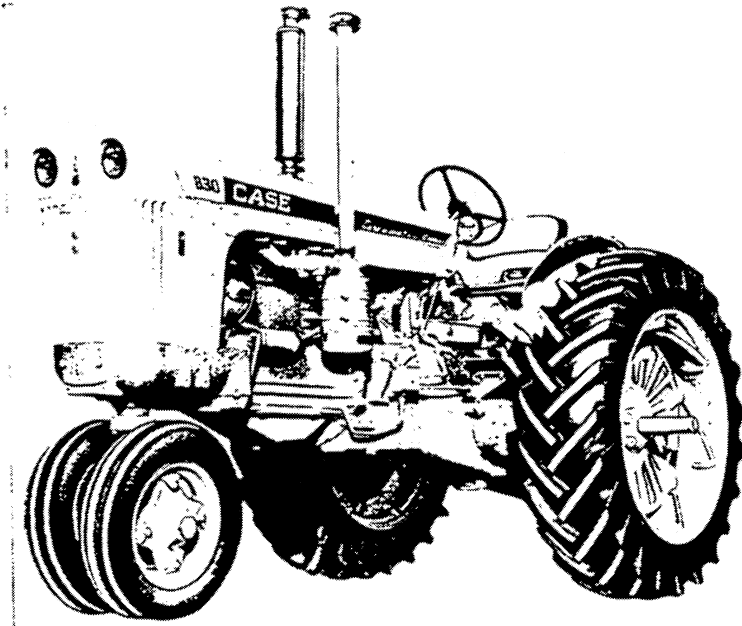
For reference, fill in the Serial number of your Case Diesel Tractor in the space provided below.

Model *Serial No.*

Model Designations

- 730 and 830 Standard 4 Wheel Tractors
- 731 and 831 General Purpose Tractors
- 732 and 832 Special 4 Wheel Tractors
- 733 and 833 High Clearance Tractors

INTRODUCTION



830 Series Diesel Tractor

Case-o-matic DRIVE

Easy handling... comfort... automatic control... an entirely new experience in tractor operation.

Case-o-matic Drive with its 8 "working ranges" in both Direct and Torque Converter drive give the exact speed for every job on the farm.

Heavy Tillage - Case-o-matic drive allows you to use a higher working range—can be operated in direct drive for maximum speed—simply flip into torque converter drive for additional power necessary to pull up a hill or for heavy draft demands.

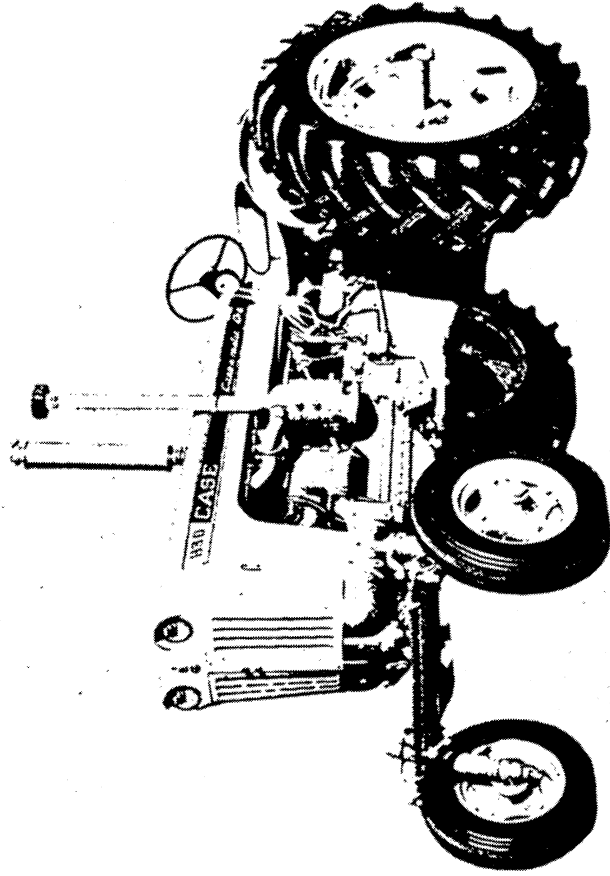
Cultivating or Planting - Torque converter drive and tiptoe acceleration give you complete control of travel speed for turning at the head lands or when approaching small plants.

Harvesting - Direct drive may be desirable for most harvesting operations. When heavy crops tend to overload your harvester, flip into torque converter drive and slow down forward speed while engine and PTO RPM stay high to clear the machine.

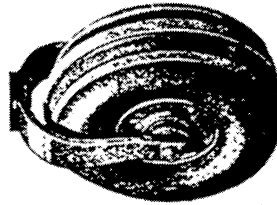
Hauling and Chore Work - Torque converter drive gives you that smooth easy start when transporting loads in 8th working range after the load is moving, switch to direct drive for maximum speed.

**MODEL 831
GENERAL
PURPOSE
TRACTOR**

3 Tractors In 1



Adjustable
Front Axle
Attachment



Single
Front
Wheel
Attachment



Dual
Front
Wheel
Attachment

GENERAL SPECIFICATIONS FOR CASE 730 AND 830 SERIES DIESEL TRACTORS

ENGINE

General

Type	4 Cylinder, 4 Stroke Cycle, Valve-in-Head, Diesel Engine
Firing Order	1-3-4-2
Bore (730 Series)	4 $\frac{1}{8}$ Inches
(830 Series)	4 $\frac{3}{8}$ Inches
Stroke	5 Inches
Piston Displacement (730 Series)	267 Cubic Inches
(830 Series)	301 Cubic Inches
Compression Ratio	15 to 1
Cylinder Sleeves	Removable, Wet Type
Full Governed Engine Speed at No Load (Approximate)	2060 RPM
Full Governed Engine Speed at Full Load	1900 RPM
Engine Idling Speed	600 RPM
Valve Tappet Clearance (Both Intake and Exhaust)025 Inch (cold)
Exhaust Valve Rotators	Positive Type
Diesel Fuel	Number 2 Diesel Fuel
	(Refer to Fuel Specification Section)

Piston Rings

Rings Per Piston	4
Number of Compression Rings	3
Number of Oil Rings	1

Piston Pins

Type Pins	Full Floating Type
-----------------	--------------------

Connecting Rods

Type Bearings	Replaceable Precision, Steel Back, Copper-Lead Alloy Liners
---------------------	--

Main Bearings

Number of Bearings	5
Type Bearings	Replaceable Precision, Steel Back, Copper-Lead Alloy Liners

Engine Lubricating System

Oil Pressure 40 to 45 Pounds with Engine Warm and
Operating at Full Governed RPM
Type System Forced Circulation
Oil Pump Gear Type, Floating Oil Screen Inlet
Oil Filter Replaceable Full Flow Element

Fuel Injection System

Fuel Injection Pump Robert Bosch, Type PES
(Multiple Plunger)
Pump Timing (730 Series) 33 Degrees Before Top Dead Center
(Port Closing)
(830 Series) 29 Degrees Before Top Dead Center
(Port Closing)
Fuel Injectors Robert Bosch, Throttling Pintle Type;
(Opening Pressure 1850 to 2000 Pounds
Per Square Inch)
Fuel Transfer Pump Plunger Type, Integral Part of Injection Pump
Governor Variable Speed, Fly-Weight Centrifugal
Type; Integral Part of Injection Pump

Fuel Filters

Fuel Strainer Fine Mesh Screen Type; Located in Fuel
Tank Filler Opening; Removable for Cleaning
1st Stage Fuel Filter Replaceable Element Type
2nd Stage Fuel Filter Replaceable Element Type
Final (3rd Stage) Fuel Filter Replaceable "Sealed Type" Filter
Fuel Tank Breather Located in Filler Cap;
Element Removable for Cleaning
Fuel Tank Water Trap and Drain Located in Base of Fuel Tank

Fuel Gauges

Fuel Tank Level Gauge Located on Instrument Panel
Pressure Gauge Located on Instrument Panel. Indicates Condition of
Fuel Filters (Standard Equipment)

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