

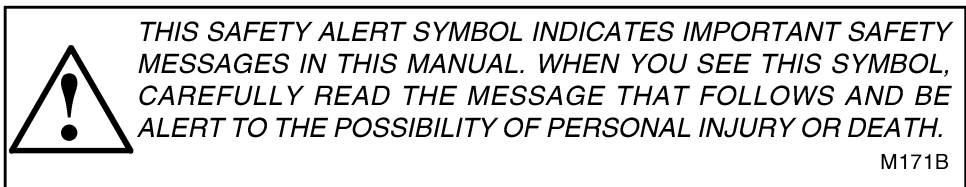
800B Diesel Tractor

Operators Manual

9-423

Reprinted








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.

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.

TABLE OF CONTENTS

	Page
Serial Number	4
General Specifications	7
Diesel Engine Fuel	21
Fuel Specifications for a Suitable Number 2 Diesel Fuel	23
Fuel Recommendations for Cold Weather Operation	26
Fuel Handling and Storage	27
Lubrication	33
Recommended Lubricants and Approximate Capacities	35
Lubricating Point Locations	36
Engine Lubrication	42
Case-O-Matic Drive Lubrication	48
Independent Power Take-Off	52
Hydraulic Control System	53
Hydraulic Power Steering	55
Operating Instructions	57
Run-In Procedure	58
Operating Controls and Instrument Guide	60
Diesel Engine Starting Procedure	68
Stopping Engine	69
Cold Weather Operation	70
Ether Starting Aid	72
Case-O-Matic Drive	75
Differential Brakes	83
Tire Sizes, Pressures, Rear Wheel and Front End Weights	84
Drawbar	86
Belt Pulley	89
Independent Power Take-off	91
Constant Hydraulic Control	95
Eagle Hitch	102

TABLE OF CONTENTS Continued

Rear Wheel Tread Spacing.....	107
Front Wheel Tread Spacing.....	119
Implement Warning Lamp.....	125
Important Checks During Operation.....	127
Service Suggestions.....	131
Preventive Maintenance.....	143
Fuel System.....	145
Bleeding Fuel System.....	148
Checking Condition of Fuel Filters.....	150
Servicing Fuel Filters.....	151
Air Cleaner.....	158
Crankcase Breathers.....	162
Case-O-Matic Breathers.....	162
Cooling System.....	163
Power Steering Drive Belt.....	169
Starting and Lighting Equipment.....	170
Adjusting Differential Brakes.....	179
Valve Tappet Clearance.....	180
Power Take-off Clutch Adjustment.....	182
Repacking and Adjusting Front Wheel, Bearings.....	184
Storing the Tractor.....	187
Index.....	189

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

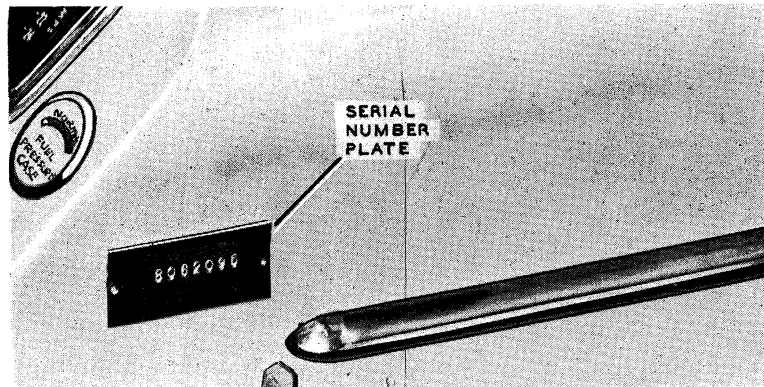


Figure 1. Number Plate on Instrument Panel

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.

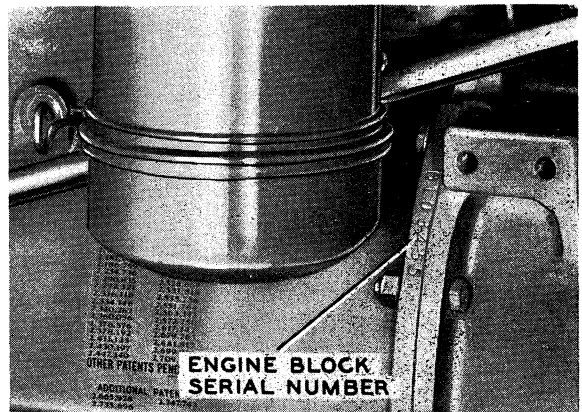
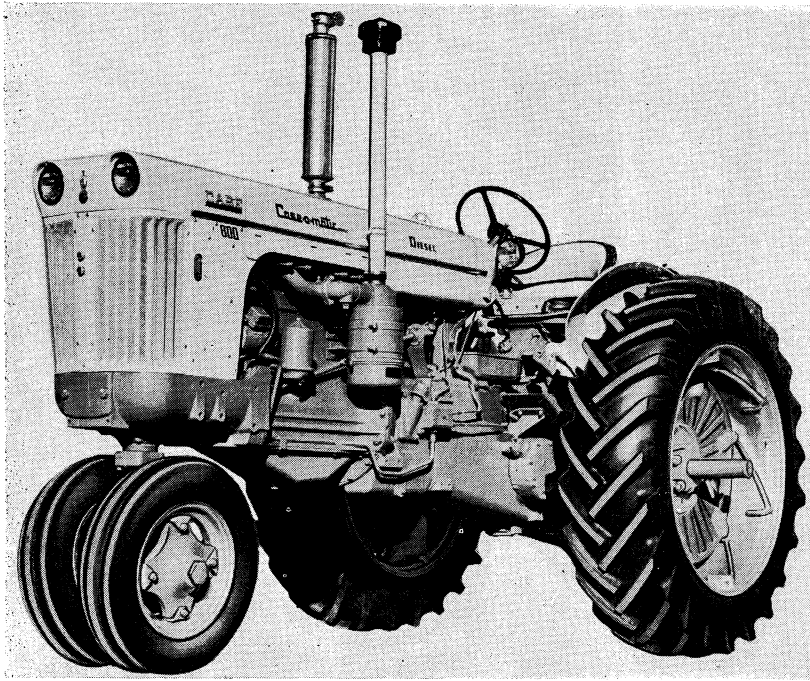


Figure 2. Serial Number Location on Engine Block

For reference, fill in the Serial number of your 800 Series Diesel Tractor in the space provided below.

Model *Serial No.*

INTRODUCTION



800 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.

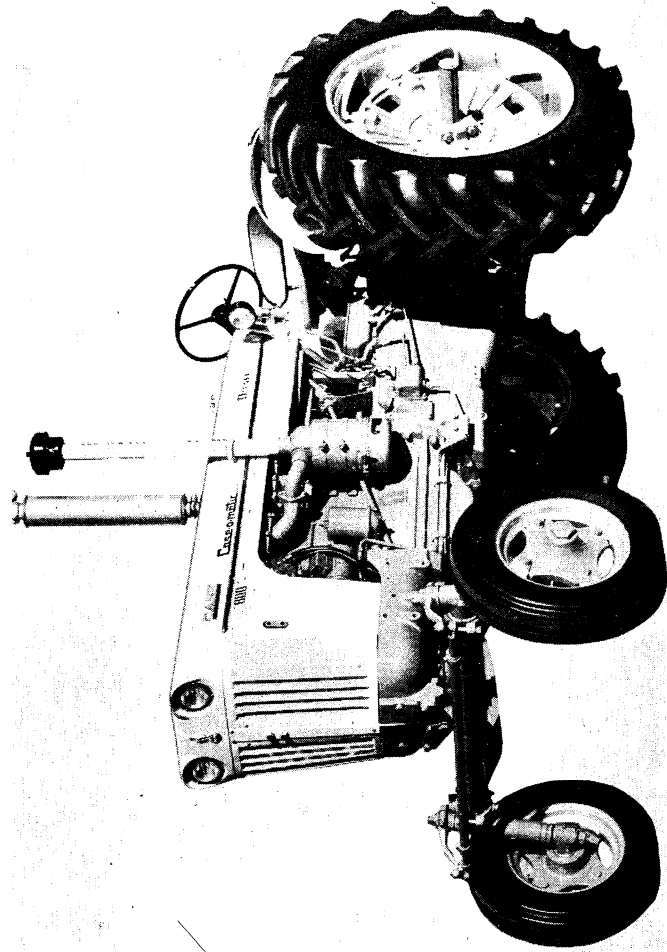
Cultivating or Planting - Torque converter drive and tiptoe acceleration give you complete control of travel speed for turning at the head lands or when approaching small plants.

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.

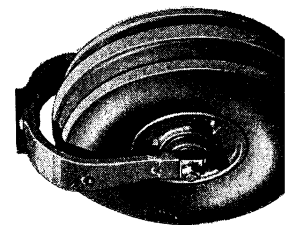
Hauling and Chore Work - Torque converter drive gives you that smooth easy start when transporting loads in 8th working range—after the load is moving, switch to direct drive for maximum speed.

**GENERAL
PURPOSE
TRACTOR**

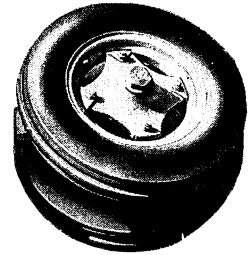
3 *Tractors In* **1**



Adjustable
Front Axle
Attachment



Single
Front
Wheel
Attachment



Dual
Front
Wheel
Attachment

GENERAL SPECIFICATIONS FOR CASE 800 SERIES DIESEL TRACTORS

ENGINE

General

Type	4 Cylinder, 4 Stroke Cycle, Valve-in-Head, Diesel Engine
Firing Order	1-3-4-2
Bore	4 $\frac{1}{8}$ Inches
Stroke	5 Inches
Piston Displacement	267 Cubic Inches
Compression Ratio	15 to 1
Cylinder Sleeves	Removable, Wet Type
Full Governed Engine Speed at No Load (Approximate)	1950 RPM
Full Governed Engine Speed at Full Load	1800 RPM
Engine Idling Speed	600 RPM
Valve Tappet Clearance (Both Intake and Exhaust)012 Inch (cold)
Cold Weather Starting Aid	Ether Capsule Type Starting Aid Standard Equipment (Use only 7 CC Capsules)
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..... 35 to 40 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 Element

Fuel Injection System

Fuel Injection Pump..... Robert Bosch, Type PES
(Multiple Plunger)
Pump Timing..... 33 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)

COOLING SYSTEM

Type of System.....Pressurized, Thermostat Controlled By-Pass Type;
Forced Circulation (Impeller Type Pump)
Radiator.....Heavy Duty Fin and Tube Type
Thermostat.....Starts to Open at Approximately 187°F;
Fully Open at 202°F.
Radiator Shutters.....Available as Extra Equipment
Cooling System Operating Pressure.....4 PSI

ELECTRICAL SYSTEM

Type of System.....12 Volt, Negative Ground
Batteries.....Two 6 Volt Batteries Connected in Series
(Group 4, 19 Plates, 150 Ampere Hours at 20 Hour Rate)
Generator.....12 Volt
Voltage Regulator.....Automatic Type, Mounted on Generator
Starting Motor.....12 Volt; Drive Assembly
Sealed from Dust in Clutch Housing
Headlights.....12 Volt, 35 Watt, Sealed Tractor Unit
Rear Light.....Combination Red Tail Light for Safe Night Road
Travel and White Flood Light for Night Work
Rear Light Bulb Sizes.....Large — 32 C.P. Single Contact 12 Volt
Small — 1 C.P. Single Contact 12 Volt
Instrument Panel Light Bulb Size....4 Bulbs, 1.5 C.P. Single Contact, 12 Volt
Fuse.....20 Ampere Fuse (Located on Instrument Panel)
Electrical Outlet Socket.....12 Volt; For Auxiliary Tail Light on Implements
or Trailers and for Plugging in a
12 Volt Battery Charger, etc.
12 Volt Red Warning Lamp.....For Use with Electrical Outlet Socket
(Extra Equipment) and Pull Behind Equipment

CASE-O-MATIC DRIVE

Main Powr-Clutch.....Multiple Disc, Hydraulically Actuated,
Engages Engine and Torque Converter
with Transmission
Direct Drive Powr-Clutch.....Single Disc, Hydraulically Actuated,
Engages Engine Directly with Main
Powr Clutch and Transmission, By-
Passing Torque Converter
Type Torque Converter.....13 Inch, Single Stage
Transmission Case.....Heavy Cast Iron One Piece Unit Construction
Containing All Gears, Shafts, Bearings, Differ-
ential and Final Drive
Transmission.....8 Forward Work Ranges and 2 Reverse
Final Drive.....Heavy Duty Gear Drive

DRAWBAR

Type.....Reversible Full Swinging Roller
Mounted, Self-Locking
Drawbar Pin Hole Size.....Will Accommodate 1 Inch Pin
Height Adjustment.....Refer to Diagrams on Pages 86 thru 88

BRAKES

Type.....Heavy Duty, Double Disc,
Self Energizing Differential Brakes
Brake Pedals.....Can Be Locked Together for Road Travel;
Can Be Used Individually for Steering Assistance

BELT PULLEY (Extra Equipment)

Method of Engaging.....PTO Clutch Hand Lever
Pulley Diameter.....10½ Inches
Pulley Face Width.....7¼ Inches
Pulley Speed at No Load
Governed Engine Speed at 1950 RPM.....1222 RPM
Pulley Speed at Full Load
Governed Engine Speed of 1800 RPM.....1128 RPM
Pulley Speed at 600 RPM Engine
Idling Speed.....376 RPM
Belt Speed.....3100 Feet Per Minute Under Load
Ratio Engine Speed to Belt Pulley Speed.....1.596 to 1

INDEPENDENT POWER TAKE-OFF

(Extra Equipment)

Rotation.....Clockwise
PTO Shaft Speed at 1450 Engine RPM.....540 RPM
PTO Shaft Speed at 600 RPM Idle Speed.....223 RPM
Spline Size.....Standard 1⅜ Inch Diameter
Location on Tractor.....Tractor Center Line
Distance from Center of PTO Shaft to
top of Drawbar.....See Figures 69 thru 72, Page 87
Method of Engaging.....PTO Clutch Hand Lever
Type PTO Clutch.....Oil Bath, Multiple Disc, Over
Center Adjustable Type
With Cone Brake
Fluid Recommendation.....Automatic Transmission Fluid - Type A

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