

**730-830
Tractor**

Operators Manual

9-872

Reprinted





This symbol means ATTENTION! BECOME ALERT! YOUR SAFETY IS INVOLVED. The message that follows the symbol contains important information about your safety. Carefully read the message. Make sure you fully understand the causes of possible injury or death.

SB001

IF THIS MACHINE IS USED BY AN EMPLOYEE, IS LOANED, OR IS RENTED, MAKE SURE THAT THE OPERATOR UNDERSTANDS THE TWO INSTRUCTIONS BELOW.

BEFORE THE OPERATOR STARTS THE ENGINE:

1. GIVE INSTRUCTIONS TO THE OPERATOR ON SAFE AND CORRECT USE OF THE MACHINE.
2. MAKE SURE THE OPERATOR READS AND UNDERSTANDS THE OPERATOR'S MANUAL FOR THIS MACHINE.

WARNING

IMPROPER OPERATION OF THIS MACHINE CAN CAUSE INJURY OR DEATH.

BEFORE STARTING THE ENGINE, DO THE FOLLOWING:

1. READ THE OPERATOR'S MANUAL.
2. READ ALL SAFETY DECALS ON THE MACHINE.
3. CLEAR THE AREA OF OTHER PERSONS.

LEARN AND PRACTICE SAFE USE OF MACHINE CONTROLS IN A SAFE, CLEAR AREA BEFORE YOU OPERATE THIS MACHINE ON A JOB SITE.

It is your responsibility to observe pertinent laws and regulations and to follow manufacturer's instructions on machine operation and maintenance.

See your Authorized Case dealer for additional operator's manuals, parts catalogs, and service manuals.

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	3
General Specifications	7
Lubrication	21
Pressure Fittings.....	24
Engine Lubrication.....	29
Case-O-Matic Lubrication.....	35
Hydraulic Control System.....	40
Hydraulic Power Steering Attachment.....	42
Independent Power Take-off.....	44
Operating Instructions	45
Run-In Procedure.....	46
Operating Controls and Instrument Guide.....	48
Engine Starting Procedure.....	55
Stopping Engine.....	56
Cold Weather Operation.....	57
Case-O-Matic Drive.....	60
Rear Tire Sizes.....	69
Rear Wheel and Front End Weights.....	70
Drawbar.....	71
Belt Pulley.....	74
Independent Power Take-Off.....	76
Constant Hydraulic Control Operation.....	80
Rear Wheel Tread Spacings.....	92
Front Wheel Tread Spacings.....	105
Fuels and Fuel Storage.....	111
Implement Warning Lamp.....	113
Important Checks During Operation.....	115
Service Suggestions	117
Preventive Maintenance	127
Cooling System.....	129
Air Cleaner.....	137
Crankcase Breather.....	140
Transmission Breather.....	140
Torque Converter Housing Breather.....	140
Fuel System.....	141
Starting and Lighting Equipment.....	144
Governor and Engine Speed.....	164
Adjusting Neutral Starting Safety Switch.....	164
Valve Tappet Clearance.....	165
Differential Brake.....	167
Adjusting Power Take-off Clutch.....	168
Repacking and Adjusting Front Wheel Bearing.....	169
Tractor Storage.....	172
LP Gas Equipment	175

SERIAL NUMBER

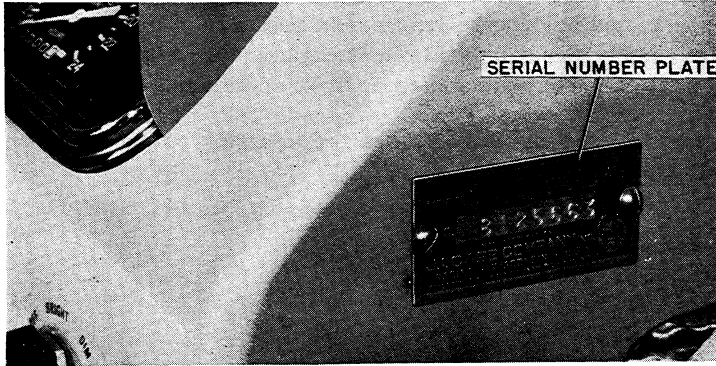


Figure 1

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 are stamped on the number plate located on the side of 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.

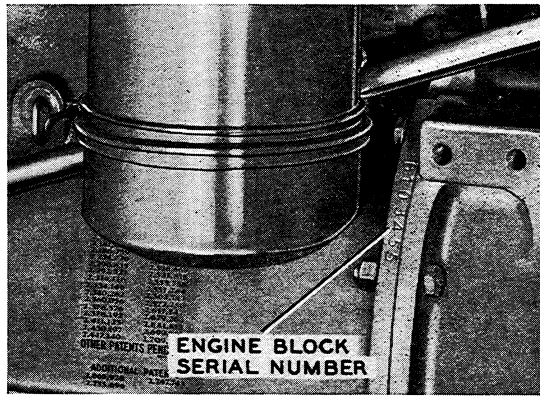


Figure 2

For reference, fill in the Serial number and Model of your Case Tractor in the space provided below

Model No...... *Serial No.*.....

Model Designations

- 740 and 840 — Standard 4 Wheel Tractors
- 741 and 841 — General Purpose Tractors
- 742 and 842 — Special 4 Wheel Tractors
- 843 — High Clearance Tractors

INTRODUCTION

The Case 730 and 830 Series Tractor is powered by a rugged four cylinder spark ignition engine which features heavy duty precision type construction usually found only in diesel engines. This engine is noted for its quiet operating characteristics and economy of operation.

Advanced engineering also includes the following outstanding features on the 730 and 830 Series Tractors.

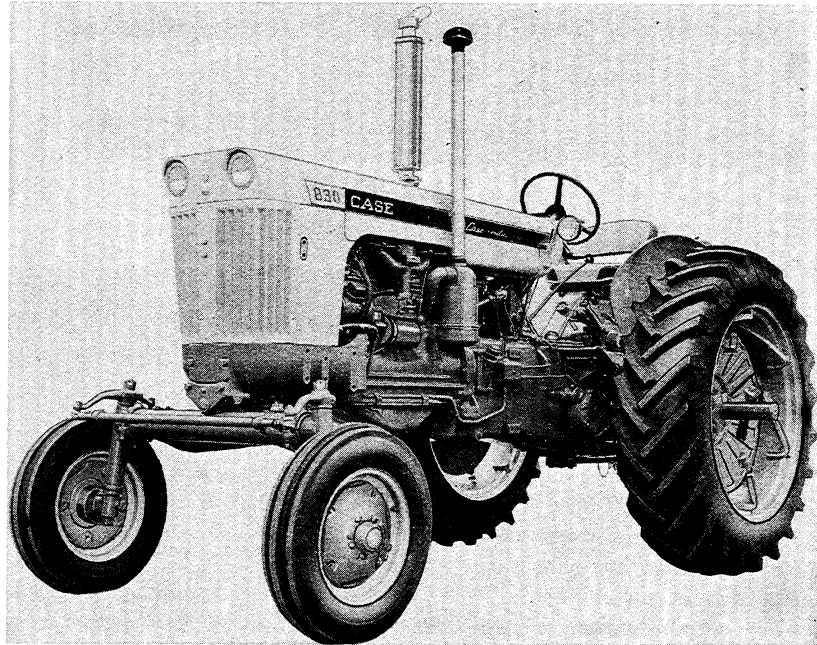


Figure 3

Case-O-Matic Drive

The Case-O-Matic Drive with its 8 "work ranges" in both Direct and Torque Converter Drive gives the exact speed for every job on the farm. Refer to page 5.

"Comforized" Platform

The Deluxe Seat, easily accessible operating controls, lighted "Tell Easy" instruments; all features designed with the operator's comfort in mind are standard equipment on Case 730 and 830 Series Tractors.

Wide Range of Easily Adjustable Wheel Spacings

Both front and rear wheel treads can be adjusted on 730 and 830 Series Tractors for the various row spacings in a matter of minutes. One man can easily move the tire and rim to any of the tread positions.

Case-o-matic^{DRIVE}

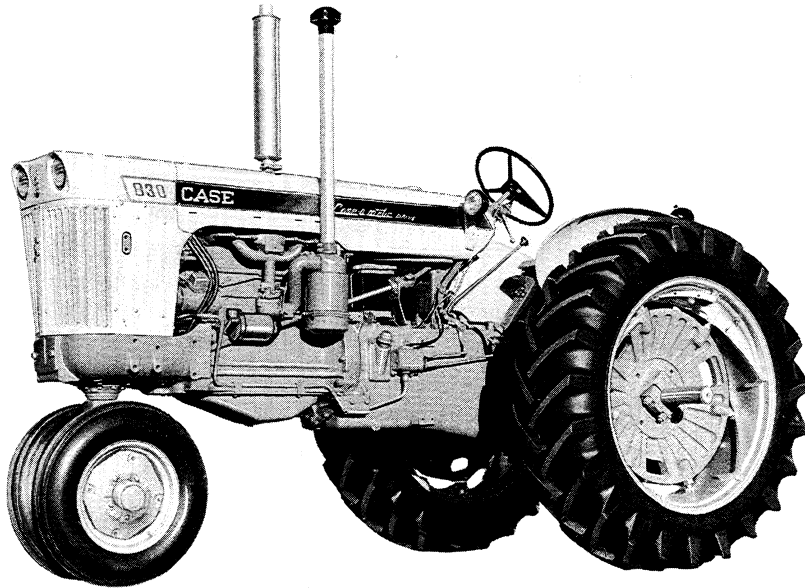


Figure 4

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.

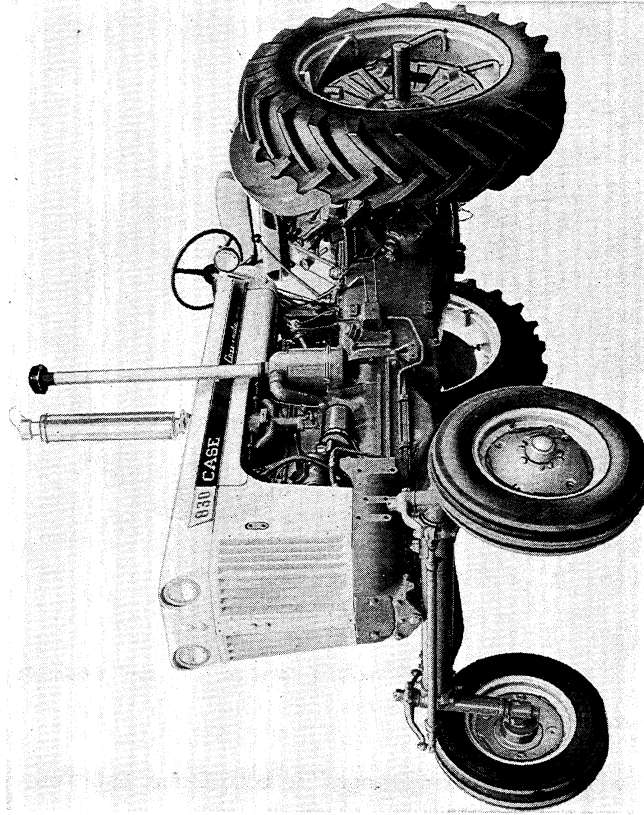
Cultivating or Planting - Torque converter drive and tiptoe acceleration give you complete control of travel speed for turning at the head lands or when approaching small plants.

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.

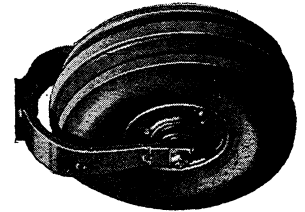
Hauling and Chore Work - Torque converter drive gives you that smooth easy start when transporting loads in 8th working range—after the load is moving, switch to direct drive for maximum speed.

**MODEL 841
GENERAL
PURPOSE
TRACTOR**

3 *Tractors In* **1**



**Adjustable
Front Axle
Attachment**



**Single
Front
Wheel
Attachment**



**Dual
Front
Wheel
Attachment**

1



GENERAL SPECIFICATIONS

NOTE: The J. I. Case Company reserves the right to make improvements in design or changes in specifications at any time without incurring any obligation to install them on units previously sold.

7

**GENERAL SPECIFICATIONS
FOR CASE 730 AND 830 SERIES TRACTORS
(Spark Ignition Engine)
ENGINE**

General

Type.....	4 Cylinder, 4 Stroke Cycle, Valve-in-Head, Spark Ignition Engine
Firing Order.....	1-3-4-2
Bore (730 Series).....	4 Inches
(830 Series).....	4 $\frac{1}{4}$ Inches
Stroke.....	5 Inches
Piston Displacement (730 Series).....	251 Cubic Inches
(830 Series).....	284 Cubic Inches
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.....	Intake .015 Inch (Cold) Exhaust .025 Inch (Cold)
Exhaust Valve Rotators.....	Positive Type
Engine Hour Meter.....	Standard Equipment

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

IGNITION AND ELECTRICAL SYSTEM

Type of System.....	12 Volt, Negative Ground
Batteries.....	One 12 Volt Battery (Group 12H 13 Plates 70 Ampere Hours at 20 Hour Rate)
Generator.....	12 Volt,
Voltage Regulator.....	Automatic Type, Mounted on Generator
Starting Motor.....	12 Volt, Drive Assembly Located in Clutch Housing (Sealed from Dust)
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.....	12 Volt, 35 Watt, Sealed Unit Small Bulb — 15 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; Used for Auxiliary Tail Light on (Standard Equipment on General Implements or Trailers and for Plugging Purpose and Standard 4 Wheel Tractors) in a 12 Volt Battery Charger, etc.
(Model 743 and 843—Extra Equipment)	
Red Warning Lamp.....	12 Volt; for use with Electrical Outlet Socket (Extra Equipment) and Pull Behind Equipment

Distributor Ignition (Standard Equipment)

Automatic Advance

Gasoline (730 Series) at 1900 RPM27°
(830 Series) at 1900 RPM30°
LP Gas (730 Series) at 1900 RPM.....	.27°
(830 Series) at 1900 RPM.....	.34°
Distributor Contact Point Gap.....	.020 inch
Dwell Angle.....	.45°

Magneto Ignition (Optional Equipment)

Magneto Advance (740)25°
(840)28°
Magneto Point Gap.....	.010 inch
Spark Plugs (Gasoline)	Champion D16, or Equivalent
(LP Gas)	Champion D-9 or Equivalent
Thread.....	.18MM
Gap (Gasoline).....	.025 Inch
(LP Gas).....	.020 Inch
Shank Length.....	1/2 Inch

FUEL SYSTEM

Fuel System	Gravity Flow
Carburetor, Gasoline	
Float Level.....	1/4 Inch from Gasket to Nearest Surface of Float
Load Jet.....	Adjustable
Flange.....	SAE 1 1/4 Inch
Carburetor, LPG	Ensign Model XG
Fuel Strainer or Filter	
Gasoline.....	Brass Screen
LPG.....	Replaceable Paper Element

COOLING SYSTEM

Type of System.....	Pressurized, Thermostat Controlled By-Pass Type; Forced Circulation (Impeller Type Pump)
Radiator.....	Heavy Duty Tube and Fin Type
Thermostat.....	Starts to Open at 180°F. Fully Open at 195°F.
Radiator Shutters.....	Available as Extra Equipment
Cooling System Pressure.....	4PSI
Pressure Cap.....	Cooling System Requires a 4PSI Pressure Cap

CASE-O-MATIC DRIVE

Case-O-Matic Drive.....	8 "Work Ranges" Forward, Two Reverse
Main Traction-Clutch.....	Multiple Disc Hydraulically Actuated, Engages Engine and Torque Converter with Transmission
Direct Drive Clutch.....	Single Disc, Hydraulically Actuated, Engages Engine Directly with Transmission, By-Passing Torque Converter
Type Torque Converter.....	13 Inch, Single Stage
Fluid Recommendation.....	See page 13
Transmission Case.....	Heavy Cast Iron One Piece Unit Construction Containing All Gears, Shafts, Bearings, Differential and Final Drive
Final Drive.....	Heavy Duty Gear Drive

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

DRAWBAR

Type..... Reversible Full Swinging Roller Mounted Self Locking
Drawbar Pin Hole Size..... Will Accommodate 1 Inch Pin
Height..... Adjustable
Refer to Figures 67 thru
72, Pages 71 and 73

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
of Approximately 2060 RPM (545 RPM PTO Attachment)..... 1112 RPM
(1000 RPM PTO Attachment)..... 1370 RPM
Pulley Speed at Full Load Governed Engine Speed
of 1900 RPM (545 RPM PTO Attachment)..... 1027 RPM
(1000 RPM PTO Attachment)..... 1261 RPM
Pulley Speed at 600 RPM Engine
Idling Speed (545 RPM PTO Attachment)..... 324 RPM
(1000 RPM PTO Attachment)..... 399 RPM
Belt Speed (545 RPM PTO Attachment).... 2820 Feet Per Minute Under Load
(1000 RPM PTO Attachment) .. 3470 Feet Per Minute Under Load
Ratio Engine Speed to Belt Pulley Speed
(545 RPM PTO Attachment)..... 1.850 to 1
(1000 RPM PTO Attachment)..... 1.506 to 1

INDEPENDENT POWER TAKE-OFF (Extra Equipment)

Rotation..... Clockwise
PTO Shaft Speed at 1700 Engine RPM..... Either 545 or 1000 RPM
PTO Shaft Speed at 600 RPM Idle Speed
(545 RPM PTO Attachment)..... 192 RPM
(1000 RPM PTO Attachment)..... 355 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 71. Pages 72 and 73
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 or Case
Hi Lo-TCH

HYDRAULIC CONTROL SYSTEM

(Model 741 & 841 Tractors Only — Standard Equipment)
(All Other Model Tractors — Extra Equipment)

General for All 730 and 830 Series Tractors

Pump.....Large Volume, Spur Gear
Continuous Running Dual Valve

Volume.....16 Gallons Per Minute at Full Load Governed RPM

Type Valve Control.....Hand Lever Operated

Coupling for Portable Cylinder.....Case Quick Detachable
Breakaway Type

Oil Filter.....Edge Wound Paper Element; Removable for Cleaning

Fluid Recommendations.....Automatic Transmission Fluid — Type A
or Case Hi Lo-TCH

Eagle Hitch Equipped Tractors

Type System...Eagle Hitch Draft Arms Raise and Lower Under Pressure
(Double Acting). Additional Lever Position for Float Control
Portable Cylinder Extends and Retracts
Under Pressure (Double Acting)

Relief Valve Opening Pressure.....1200 PSI

Mounted Cylinder.....4 Inch Diameter, 6 Inch Stroke

Portable Cylinder.....3 $\frac{1}{4}$ Inch Diameter, 8 Inch Stroke

Tractors Not Equipped with Eagle Hitch

Type System.....Couplings Provided for 2 Portable
Hydraulic Cylinders (Both Double Acting)

Portable Cylinder.....3 $\frac{1}{4}$ Inch Diameter; 8 Inch Stroke

Relief Valve Opening Pressure.....1100 PSI

NOTE

The Hydraulic Control System Does Not
Include the Portable Cylinder. The Portable
Cylinder Must Be Ordered Separately.

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