

970 Tractors
Prior to P/N 8675001
Operators Manual

9-2422

Reprinted

CASE III



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 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



**LOOK FOR THIS SYMBOL TO POINT
OUT IMPORTANT SAFETY PRECAUTIONS**

**TO INSURE EFFICIENT AND PROMPT SERVICE, PLEASE
FURNISH US WITH THE MODEL, SERIAL, ENGINE AND
TRANSMISSION SERIAL NUMBERS OF YOUR TRACTOR
IN ALL CORRESPONDENCE OR CONTACTS**

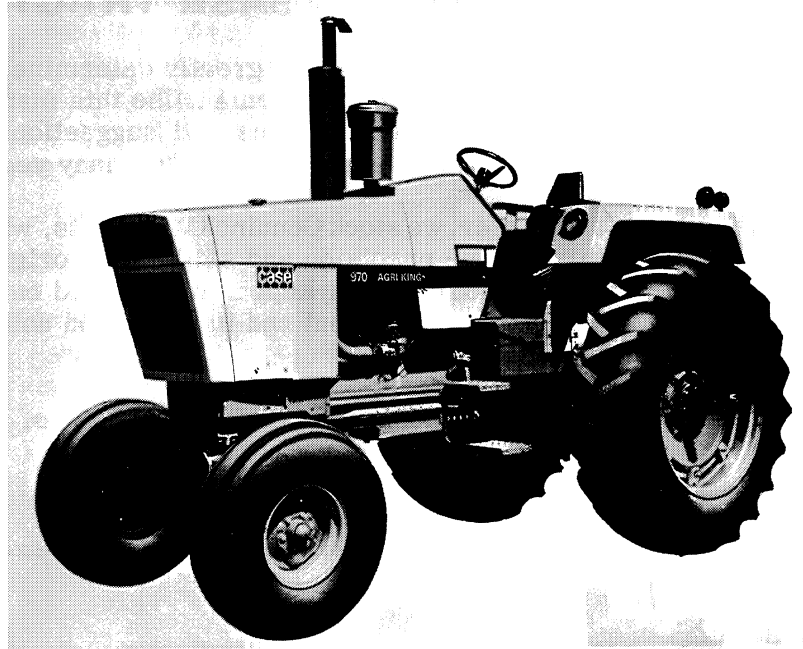


Figure 1 970 Tractor



Figure 2 970 Tractor with Cab

SERIAL NUMBER

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

The Model and Serial Numbers are stamped on the number plate located outside and lower left hand side of the fire wall assembly, Figure 3. The Engine Number is stamped on a plate fastened to the rear right hand side of the engine block, Figure 4. The Transmission Serial Number is stamped on a plate and fastened to the right hand side and to the front of the axle on the transmission housing, Figure 5.

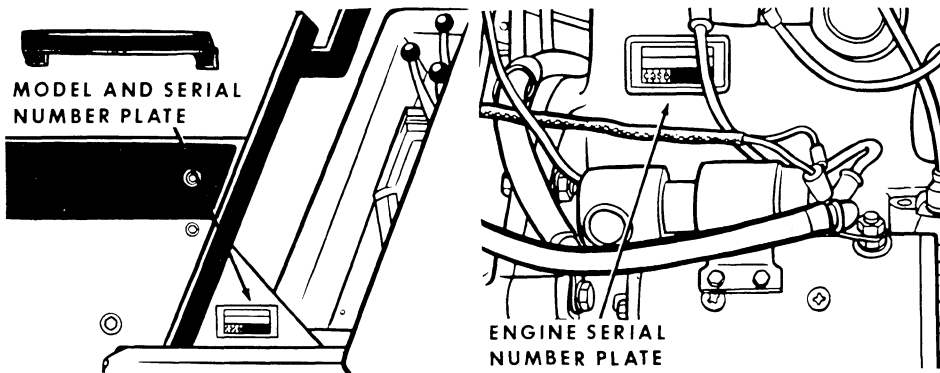


Figure 3

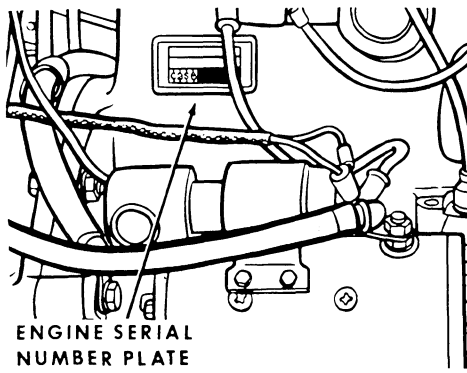


Figure 4

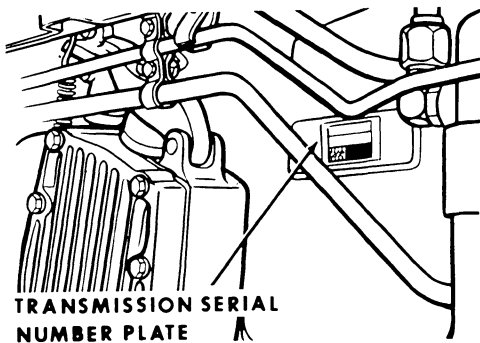


Figure 5

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.

For reference, fill in the Serial Numbers of your Tractor in the spaces provided below.

Model Designation _____

Tractor Serial Number _____

Engine Serial Number _____

Transmission Serial Number _____

Diesel Engine

SPECIFICATIONS

General

Type	6 Cylinder, 4 Stroke Cycle, Valve-in-Head.
Firing Order	1-5-3-6-2-4
Bore	4-1/8 Inches
Stroke	5 Inches
Piston Displacement	401 Cubic Inches
Compression Ratio	16.5 to 1
Cylinder Sleeves	Removable Wet Type
No Load Governed Speed	2060 RPM
Rated Engine Speed	1900 RPM
Engine Idling Speed	725 RPM
*Valve Tappet Clearance (Exhaust)	(Hot) .020 Inch (Cold) .025 Inch
Valve Tappet Clearance (Intake)	(Hot and Cold) .015 Inch

*Hot Settings Are Made After The Engine Has Operated At Thermostat Controlled Temperature For At Least Fifteen Minutes.

Piston and Connecting Rods

Rings per Piston	3
Number of Compression Rings	2
Number of Oil Rings	1
Type Pins	Full Floating Type
Type Bearing	Replaceable Precision, Steel Back, Copper-Lead Alloy Liners.

Main Bearings

Number of Bearings	7
Type Bearings	Replaceable Precision Steel Back, Copper-Lead Alloy Liners.

Engine Lubricating System

Oil Pressure ----- 45 to 55 Pounds with Engine Warm and Operating at Rated Engine Speed.

Type System ----- Pressure and Spray Circulation

Oil Pump ----- Gear Type

Oil Filter ----- Full Flow Spin on Type

Fuel System

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

Pump Timing ----- 29 Degrees Before Top Dead Center (Port Closing).

Fuel Injectors ----- Pencil Type (Opening Pressure 2800 PSI).

Fuel Transfer Pump ----- Plunger Type, Integral Part of Injection Pump.

Governor ----- Variable Speed, Fly-Weight Centrifugal Type; Integral Parts of Injection pump.

1st Stage fuel filter ----- Full Flow Spin on Type

2nd Stage fuel filter ----- Full Flow on Type

Fuel Tank Water Trap and Drain ----- Located in Base of Fuel Tank

Fuel Tank Capacity ----- 50 U. S. Gallons

Fuel Level Gauge ----- Electric, Located on Instrument Panel.

Engine Lubricating System

Oil Pressure ----- 45 to 55 Pounds with
Engine Warm and Operating at
Full Governed RPM.

Type System ----- Pressure Spray Circulation

Oil Pump ----- Gear Type

Oil Filter ----- Full Flow, Spin on Type

Fuel System

Fuel Tank Capacity ----- 50 U.S. Gallons

Carburetor (Zenith)(w/solenoid shut-off) 1-1/2 Inch SAE Flange

Fuel Pump and Screen ----- A.C. Vacuum Type, Camshaft
Actuated.

Distributor Ignition

Contact Point Gap ----- .020 Inches

Dwell Angle ----- 39°

Spark Plugs ----- Prestolite 18 8

Plug Gap ----- .025 Inches

Thread ----- 18 MM

Shank Length ----- 1/2 Inch

Engine Timing

Static Timing ----- TDC

Running Timing ----- Engine running at Rated
Engine Speed: 27° BTDC

general specifications

Cooling System

Capacity ----- 38 U.S. Quarts
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 195°F.
Fully Open at 202°F.
Pressure Cap Required ----- (w/o cab) 7 PSI
Pressure Cap Required ----- (w/cab) 14 PSI

When using a proper operating pressure cap, the engine temperature can safely rise to 230°F.

Electrical System

Type of System ----- 12 Volt Negative Ground
Batteries ----- (2) 12 Volt Batteries Connected
in parallel.
(Spark Ignition) - Group Size 27H, Rated at 1.255 to 1.265
Specific Gravity, Discharge Rate 300 Amps
at 0° F., Voltage drops to 8.7 after 10 seconds,
Voltage drops to 1.0 volts per cell after
3-1/2 minutes.
(Diesel) - Group Size 30H, Rated at 1.255 to 1.265
Specific Gravity. Discharge Rate 300 Amps
at 0° F. Voltage drops to 9.2 after 10 seconds.
Voltage drops 1.0 Volts per cell after 4 min.
Alternator ----- 12 Volt 55 Amp Output
Voltage Regulator ----- 12 Volt, Solid State,
Mounted on Alternator.
Starter Motor ----- 12 Volt with Solenoid Switch
Head Lights (2) ----- 12 Volt, 35 Watt, Sealed Beam
Flood Lights ----- 12 Volt, 35 Watt, Sealed Beam
Amber Warning Light ----- 12 Volt, Double Face, Flasher Type
Rear Tail Light ----- 12 Volt, 60 Watt Sealed Beam
Combination Tail and Flood Lamp.
Circuit Breaker System over load check - 12 Volt Twin 40 AMP
Breakers connected in parallel, 80 AMP rating -
60 AMP. Min. Continuous capacity.
Lights Circuit Breaker ----- 30 Amp., Located on Light Switch
Parking Brake Warning Light ----- 12 Volt, Red Flasher Type

Parking Brake

Type ----- Cable Actuated by Orchlin Type Handle - Adjustable from Operator's Seat.

Hydraulic Brakes

Type ----- Hydraulic Actuated, Self-Adjusting Disc Type Differential Brakes.

Hydraulic Power Assist Brakes

Type ----- Hydraulic, Power Assisted, Self-Adjusting Disc Type Differential Brakes.

Mechanical Transmission

Type ----- 2 Speed Gear Range With a 4 Speed Gear Section.

Gear Selection ----- 8 Speeds Forward - 2 Speeds Reverse.

Shifting ----- Mechanical With Plunger Type Locks and Tube Type Interlocks.

Power Shift Transmission

Type ----- 3 Speed Compound Planetary With Hydraulically Actuated Clutches and a 4 Speed Gear Range Section.

Gear Selection ----- 12 Speeds Forward and 4 Speeds Reverse

Shifting ----- Hydraulic Power Shifting Controlled By a Lever On Operators Console. 4 Speed Range Controlled By a Mechanical Shifter From a Lever On Operator's Console.

Hydrostatic Power Steering

Pump Type ----- Large Volume, Spur Gear, Continuous Running.

Pump Capacity at 1900 Engine RPM ----- 7 GPM

Hand Pump Type ----- Gerotor Bi-Directional, Driven By the Steering Wheel.

Actuating Cylinders ----- 2 Way Cylinders Are Integral Part of Steering Gear Mechanism.

Remote Hydraulic System

Pump ----- Large Volume, Spur Gear, Continuous Running.

Type Valve ----- Dual Valve - Individual Hand Lever Control.

Portable Cylinder Coupling ----- Case Quick Detachable Break-away Type.

Pump Capacity at 1900 Engine RPM ----- 16 GPM

Relief Valve Pressure ----- 1700 to 1900 PSI

Portable Cylinders ----- Available

Power Take-Off

Type Clutch----- Hydraulically Operated

Rotation ----- Clockwise

Spline Size ----- 540 RPM ----- 6 Splines ----- 1-3/8 Dia.
1000 RPM ----- 21 Splines ----- 1-3/8 Dia.

Engine Speed 1900 RPM----- 540 or 1000 RPM Shaft Speed

Belt Pulley

Method of Engagement ----- PTO Control Lever

Pulley Diameter ----- 10.5 Inches

Pulley Face Width ----- 7.25 Inches

Ratio Engine RPM:

(540 PTO) ----- 1.716 to 1

(1000 PTO) ----- 1.722 to 1

1 RPM of Belt Pulley ----- 2.75 Feet Per Minute Belt
Travel.

Drawbars

Standard or Yoke Type ---- Full Swinging Roller Mounted. Will
Accommodate a 1-1/4 Inch Dia. Pin.

Draft-O-Matic System

Type of Sensing ----- Lower Link

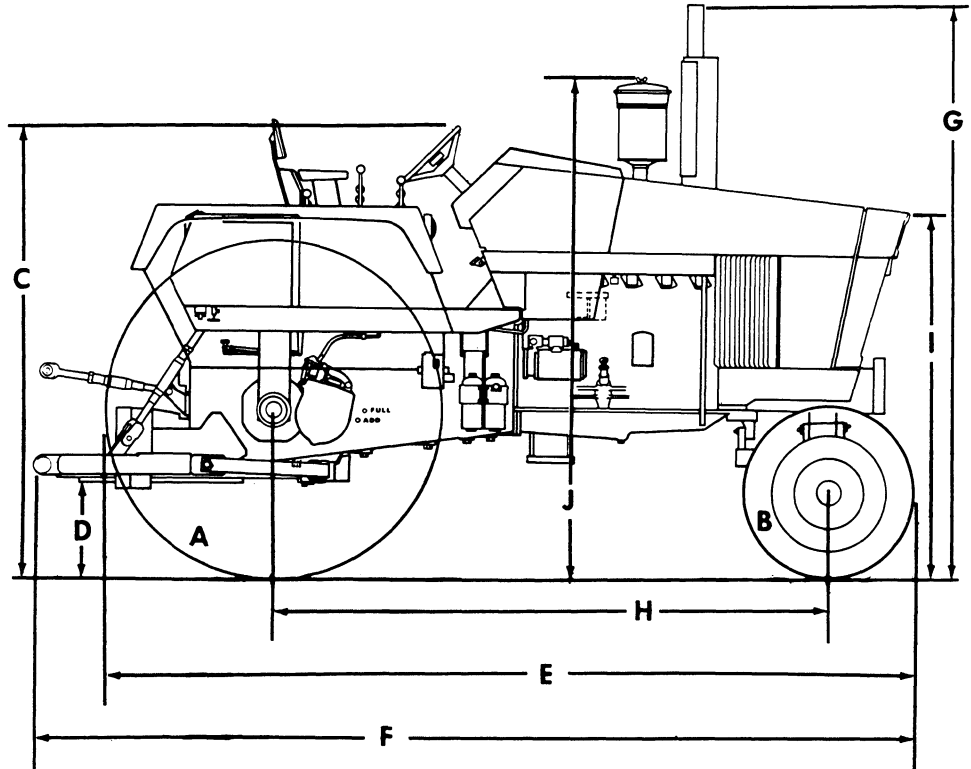
Type Control ----- Hand Lever

Type Valve ----- 3 Positions - Raise - Hold - Lower

Type Draft Arms ----- Swinging, with Manual Float Adjustment

Type Hitch ----- 3 Point Category II

APPROXIMATE OVERALL MEASUREMENTS



Model	A	B	C	D	E	F	G	H	I	J
Adjustable	18.4-34R1	7.50-16 F2	84	15	156	162	107	108	78	95

A and B Tire Sizes

C thru J Dimensions in Inches

APPROXIMATE WEIGHT

970 Tractor ----- 9800 Pounds

Buy Now



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