

**2470**  
**Tractor**  
Operators Manual

9-4222

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.



**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 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**



**THIS SAFETY ALERT SYMBOL POINTS OUT IMPORTANT SAFETY MESSAGES IN THIS MANUAL. IT MEANS - ATTENTION! BECOME ALERT! YOUR SAFETY IS INVOLVED.**

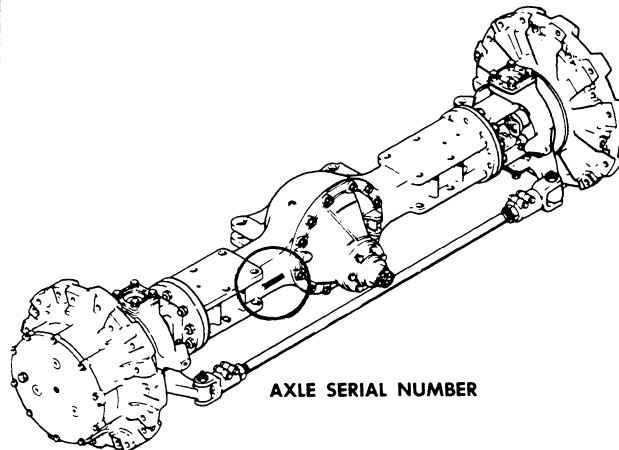
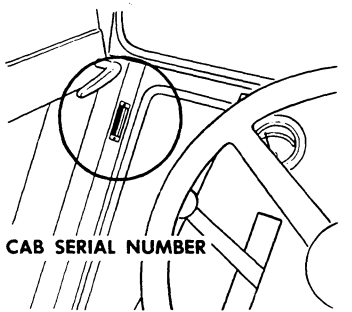
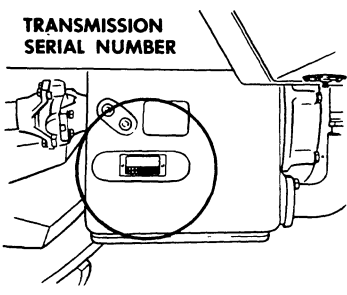
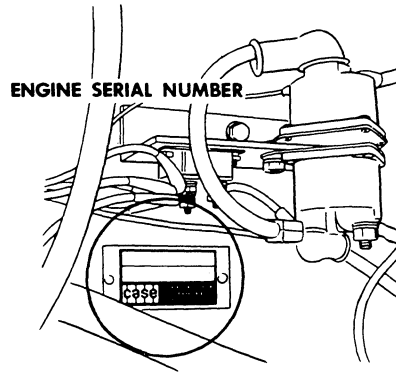
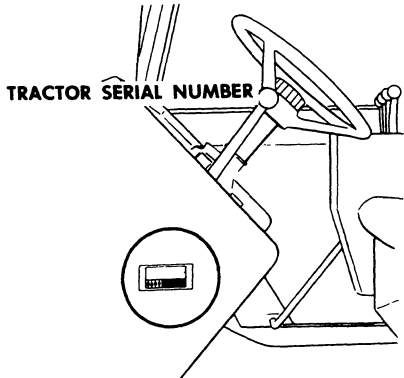
**TO INSURE EFFICIENT AND PROMPT SERVICE, PLEASE FURNISH US WITH THE MODEL, TRACTOR, ENGINE, TRANSMISSION, CAB AND AXLE SERIAL NUMBERS OF YOUR TRACTOR IN ALL CORRESPONDENCE OR CONTACTS.**

**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

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



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** \_\_\_\_\_  
**CAB SERIAL NUMBER** \_\_\_\_\_  
**AXLE SERIAL NUMBER (Front)** \_\_\_\_\_  
**AXLE SERIAL NUMBER (Rear)** \_\_\_\_\_

# Diesel Engine

## SPECIFICATIONS

### General

Type .....	6 Cylinder, 4 Stroke Cycle, Valve-In-Head Turbocharged Diesel Engine
Firing Order .....	1-5-3-6-2-4
Bore .....	4-5/8 Inches (117.5mm)
Stroke .....	5 Inches (127mm)
Piston Displacement .....	504 Cubic Inches (8 257cm <sup>3</sup> )
Compression Ratio .....	15.8 to 1
Cylinder Sleeves .....	Removable Wet Type
No Load Governed Speed .....	2340-2380 RPM
Rated Engine Speed .....	2200 RPM
Engine Idling Speed .....	775-825 RPM
*Valve Tappet Clearance (Exhaust) .....	(Hot) .020 Inch (0.508mm) (Cold) .025 Inch (0.635mm)
	(Intake) (Hot and Cold) .015 Inch (0.381mm)

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

### Piston and Connecting Rod

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

### Main Bearings

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

## Engine Lubrication System

Oil Pressure ..... 45 to 60 PSI (3.2 to 4.2 kg/cm<sup>2</sup>) with  
Engine Warm and Operating at Rated Engine Speed.  
Type System ..... Pressure and Spray Circulation  
Oil Pump ..... Gear Type  
Oil Filter (2) ..... Full Flow Spin on Type  
Oil Capacity ..... With Filters, 23 U.S. Qts. (21.8 liters)  
Without Filters, 19 U.S. Qts. (17.9 liters)

## Fuel System

Fuel Injection Pump ..... Robert Bosch, Type PES  
(Multiple Plunger).  
Pump Timing ..... 30 Degrees Before Top Dead  
Center (Port Closing).  
Fuel Injectors ..... Pencil Type  
(Opening Pressure 3200 PSI). (225 kg/cm<sup>2</sup>)  
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 Spin on Type  
Fuel Tank Water Trap and Drain (2) ..... Located in Base  
of Each Fuel Tank.  
Fuel Tank Capacity ..... (55 U.S. Gallons - 208.2 liters - each tank).  
Fuel Level Gauge ..... Electric, Located on Instrument Panel.  
Hand Primer Pump ..... Located on Top of the  
Fuel Transfer Pump.  
Preliminary Fuel Filter ..... Located At The Bottom  
Of The Fuel Transfer Pump.

# *general specifications*

## **Cooling System**

Capacity of System ..... 44 U.S. Quarts (41.6 liters)  
Type of System ..... Pressurized, Thermostat Controlled  
By-Pass Type: Forced Circulation,  
(Impeller Type Pump).  
Radiator ..... Heavy Duty Fin and Tube Type  
Thermostat (2) ..... Starts to Open at Approximately 175°F. (79°C),  
Fully Open at 202°F. (94°C.)  
Pressure Cap Required ..... 7 PSI (0.492 kg/cm<sup>2</sup>)

## **Electrical System**

Type of System ..... 12 Volt Negative Ground  
Batteries ..... (2) 12 Volt Batteries Connected in parallel  
Group Size 30H, Rated in 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 Volt per cell  
after 4 min.  
Alternator ..... 12 Volt 55 Amp Output, Negative Ground  
Voltage Regulator ..... 12 Volt, Solid Stage,  
Mounted on Alternator.  
Starter Motor ..... 12 Volt with Solenoid Switch  
Head Lights (2) ..... 12 Volt. 40/40 Watt Sealed High-Low Beam  
Front Flood Lights (2) (optional) ..... 12 Volt, 35 Watt Sealed Beam  
L.H.Rear Flood and Tail Light (1) ..... 12 Volt, 60 Watt Sealed Beam  
Combination Tail and Flood Lamp.  
R.H. Rear Flood (optional) (1) ..... 12 Volt, 35 Watt Sealed Beam  
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 ..... 40 Amp., Located on Light Switch  
Parking Brake Warning Light ..... 12 Volt, Red Flasher Type  
Fuel Shut-off Solenoid ..... 12 Volt, Rotary Type

## **Hydraulic Brakes**

Type ..... Self-Adjusting Multiple Disc  
Wet Type Transmission Brakes.



## **Parking Brake**

Type ..... Cable Actuated by over center  
Type Handle - Adjustable from  
Operator's Seat. Multiple Disc. Type.

## **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 Operator's Console.  
4 Speed Range Controlled by a  
Mechanical Shifter From a Lever  
on Operator's Console.  
Oil Type ..... Case TFD (Transmission-Final Drive)  
Oil Capacity ..... 56 U.S. Quarts (52.9 liters)

## **Hydraulic Pump**

Type ..... Direct Drive, Gear Type,  
Triple Hydraulic Pump  
First Section ..... Charging Pump, Capacity at  
2200 Engine RPM - 39 GPM (147.6 l/mn)  
Intermediate Section ..... Supplies oil to the Transmission  
Hydraulic and PTO. Capacity at 2200  
Engine Rpm - 17 GPM (64.4 l/mn)  
Third Section ..... Supplies oil to the Steering  
System. Capacity at 2200 Engine RPM  
17 GPM (64.4 l/mn)  
Front Steering ..... 7 GPM (26.5 l/mn)  
Rear Steering ..... 10 GPM (37.9 l/mn)

## **Hydrostatic Front Power Steering**

Oil Supply ..... Triple Hydraulic Pump  
HGA Hydrostatic Type ..... Integral and Bi-Directional  
Gerotor Metering Section, Actuated  
By the Steering Wheel.  
Front Steering Cylinders ..... Two Double Acting Cylinders

## **Rear Power Steering**

Oil Supply ..... Triple Hydraulic Pump  
Control Valve Type ..... 4 Way, Three Position  
Spool Type.  
Rear Steering Cylinders ..... Two Double Acting Cylinders  
Controls ..... Hand Lever on Instrument Panel  
(Manual or Automatic)

## **Differential and Planetaries**

Front and Rear ..... Spiral Bevel with Planetary Reduction in Hub.

## **3 Point Hitch System**

Type Control ..... Hand Lever  
Type Valve ..... 3 Positions - Raise - Hold - Lower with  
Speed Control  
Type Draft Arms ..... Rigid Swinging, with  
Manual Float Adjustment  
Type Hitch ..... 3 Point Category III

## **Single Dual Remote Hydraulic System**

Triple Hydraulic Pump (17 gal. Section) ..... Direct  
Drive Gear Type  
Type Remote Valve (R.H. Side) ..... Dual Valve-Individual  
Hand Lever Control  
Portable Cylinder Couplings (L.H. Side) ..... Quick Detachable  
Break-away Type.  
Oil Supply ..... Triple Hydraulic Pump  
Relief Valve Pressure ..... 1900 to 2050 PSI  
(133.6 to 144.1 kg/cm<sup>2</sup>)  
Portable Cylinders ..... Case Cylinders Available

## Twin Dual Remote Hydraulic System

Oil Supply ..... From Single Remote Valve  
(Connected in Series)

Type Remote Valve (R.H. Side, Forward of Single Valve) .... Dual  
Valve-Individual Hand Lever Control.

Oil Supply ..... Triple Hydraulic Pump

Relief Valve Pressure ..... Dependent on Single Remote.

Portable Cylinder Couplings (R.H. Side) ..... Quick Detachable  
Break-away Type.

Portable Cylinders ..... Case Cylinders Available

## Power Take-Off

Type Clutch ..... Hydraulically Operated

Rotation ..... Clockwise

Spline Size ..... 21 Splines ..... 1-3/8 in. (34.9mm) Dia.

Engine Speed 2200 RPM ..... 1000 RPM Shaft Speed

## Drawbar

Standard or Yoke Type ..... Full Swinging Roller Mounted,  
Will Accommodate a 1-1/2 Inch (38.1mm) Dia. Pin.

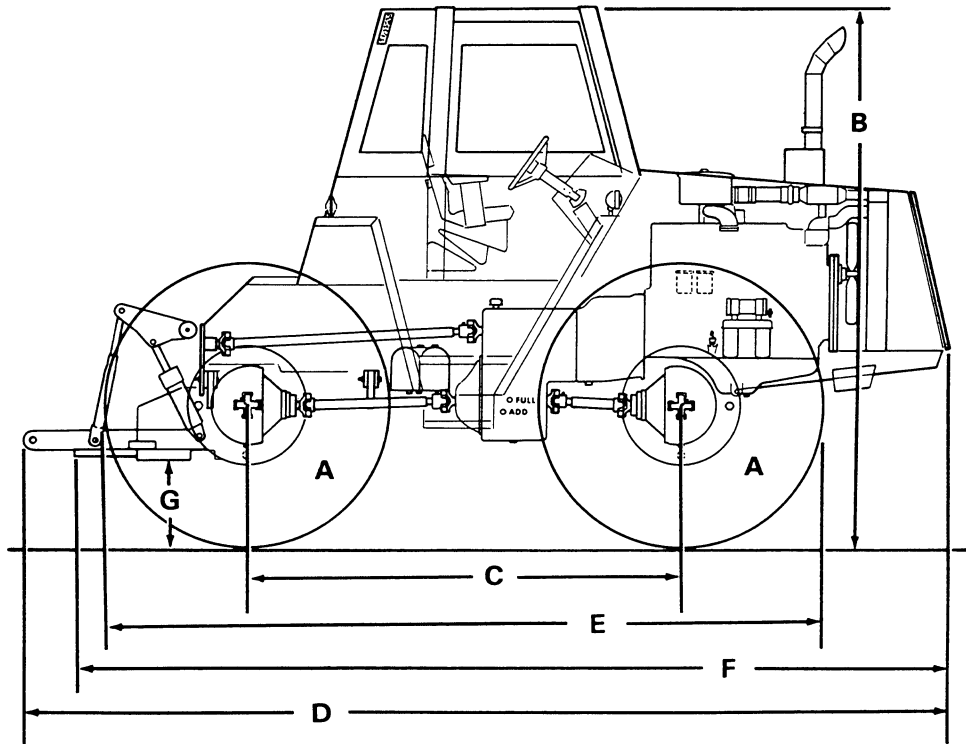
## TIRE AND WHEEL EQUIPMENT Front And Rear

TIRE SIZE	TIRE PLY	RIM SIZE	TREAD TYPE	TIRE PRESSURE
18.4-30	6	W16L-30	R1	16 PSI (1.1 kg/cm <sup>2</sup> )
18.4-34	6	W16L-34	R1 R2-O	16 PSI (1.1 kg/cm <sup>2</sup> )
20.8-34	8	W18L-34	R1	16 PSI (1.1 kg/cm <sup>2</sup> )
23.1-30	8	W20L-30	R1 R2-O	16 PSI (1.1 kg/cm <sup>2</sup> )

**APPROXIMATE TRAVEL SPEEDS  
IN MPH & KM/H AT 2200 RPM  
12 Speed Power Shift Transmission**

TRANSMISSION RANGE	POWER SHIFT			TIRE SIZE
	1	2	3 AND REVERSE	
1	1.9 mph (3.1 km/h)	2.5 mph (4.0 km/h)	3.1 mph (5.0 km/h)	18.4-30
2	2.8 mph (4.6 km/h)	3.8 mph (6.1 km/h)	4.8 mph (7.7 km/h)	
3	4.0 mph (6.4 km/h)	5.4 mph (8.7 km/h)	6.7 mph (10.5 km/h)	
4	7.4 mph (11.9 km/h)	9.8 mph (15.8 km/h)	12.3 mph (19.8 km/h)	
1	2.0 mph (3.2 km/h)	2.7 mph (4.4 km/h)	3.4 mph (5.5 km/h)	23.1-30
2	3.1 mph (5.0 km/h)	4.1 mph (6.6 km/h)	5.1 mph (8.2 km/h)	
3	4.3 mph (6.9 km/h)	5.8 mph (9.3 km/h)	7.2 mph (11.6 km/h)	
4	8.0 mph (12.9 km/h)	10.6 mph (17.1 km/h)	13.3 mph (21.4 km/h)	
1	2.0 mph (3.2 km/h)	2.7 mph (4.4 km/h)	3.3 mph (5.3 km/h)	18.4-34
2	3.0 mph (4.8 km/h)	4.1 mph (6.6 km/h)	5.1 mph (8.2 km/h)	
3	4.3 mph (6.9 km/h)	5.7 mph (9.2 km/h)	7.1 mph (11.4 km/h)	
4	7.9 mph (10.7 km/h)	10.5 mph (16.9 km/h)	13.1 mph (21.1 km/h)	
1	2.1 mph (3.4 km/h)	2.8 mph (4.5 km/h)	3.5 mph (5.6 km/h)	20.8-34
2	3.2 mph (5.2 km/h)	4.2 mph (6.8 km/h)	5.3 mph (8.5 km/h)	
3	4.4 mph (7.1 km/h)	5.9 mph (9.5 km/h)	7.4 mph (11.9 km/h)	
4	8.2 mph (13.2 km/h)	10.9 mph (17.5 km/h)	13.6 mph (21.9 km/h)	

## APPROXIMATE OVERALL MEASUREMENTS



	TIRE	WHEEL RIM
A	23.1-30 R1	W20L-30

B	127 Inches (3 226mm)
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D	216 Inches (5 486mm)
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F	(5 232mm) 206 Inches
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C	102 Inches (2 591mm)
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E	165 Inches (4 191mm)
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G	15 Inches (381mm)
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Overall Width ..... 108 Inches (2 743mm)  
 Turning Radius (Minimum) ..... 192 Inches (4 877mm)  
 Overall Length (w/Hitch Coupler) ..... 223 Inches (5 664mm)

## APPROXIMATE SHIPPING WEIGHT

2 WHEEL STEER W/STD. EQUIPMENT ..... 14,800 Pounds (6 713 kg)

## OPERATOR'S CAB

**THIS CASE 2470 OPERATORS CAB IS EQUIPPED WITH BUILT IN ROLLOVER PROTECTION AS SPECIFIED IN ASAE STANDARD S-336.**

### WHEEL TREAD SPACING WITH DOUBLE CLAMP

WHEEL TREAD SPACING	TIRE SIZE & CLAMP LOCATION	
	18.4 X 34 20.8 X 34	23.1 X 30
72 in. (1 828.8mm)	1	1 ★
74 in. (1 879.6mm)	2	2 ★
76 in. (1 930.4mm)	7	
78 in. (1 981.2mm)	3 & 9	3 & 7
80 in. (2 032mm)	5 & 8	5 & 9
82 in. (2 082.8mm)	4 & 10	4 & 8
84 in. (2 133.6mm)	6	6 & 10
86 in. (2 184.4mm)	11	
88 in. (2 235.2mm)	13	11
90 in. (2 286mm)	12	13
92 in. (2 336.8mm)	14	12
94 in. (2 387.6mm)		14

★**CAUTION:** This location must not be used or the steering will be greatly reduced and damage to the tires could result.

**Buy Now**



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