



# MODEL 2394 Tractor

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**197 (146 kW) gross engine horsepower**

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**191 D.I.N. ps (141 kW)**

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**162 (120 kW) PTO horsepower**

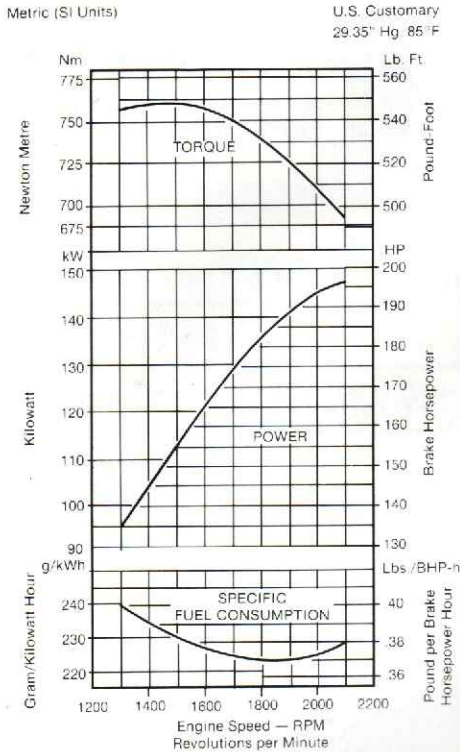
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After Serial No. 9939480



# BASIC TRACTOR

## ENGINE PERFORMANCE CURVE



Maximum Engine Performance per Corrected SAE J270. Except Air Cleaner Restriction Is Not Included.

## ENGINE

### Engine Full Load Performance

Maximum horsepower measured at 2100 rpm

S.A.E. gross engine . . . . . 197 (146 kW)

D.I.N. ps . . . . . 191 (141 kW)

PTO . . . . . 162 (120 kW)

Type: 6 cylinder in line, 4 cycle, valve in head, direct injection, turbocharged, diesel engine.

Fuel . . . . . No. 2 Diesel

High idle . . . . . 2300 rpm

Low idle . . . . . 725 rpm

Rated engine speed . . . . . 2100 rpm

Displacement . . . . . 504 C.I.D. (8.25 litres)

Bore and stroke . . . . . 4.625" × 5.00" (117.5 × 127 mm)

Compression ratio . . . . . 15.75:1

Cylinder sleeves, wet removable type; induction hardened.

Crankshaft — counterweighted, dynamically balanced, high strength, steel alloy.

Number of main bearings . . . . . 7

## APPROXIMATE TRACTOR SPEEDS IN MPH AND KM/H AT 2100 RPM POWERSHIFT TRANSMISSIONS

TRANSMISSION GEAR	STANDARD 12-SPEED			OPTIONAL 24-SPEED						REAR TIRE SIZE
	1	2	3 and R	1	2	3	4	5 and R	6	
1	2.1/3.4	2.9/4.6	3.6/5.8	1.9/3.0	2.1/3.4	2.5/4.0	2.9/4.6	3.1/5.0	3.6/5.8	20.8x38 R1
2	3.7/6.0	4.9/7.9	6.2/9.9	3.2/5.2	3.7/6.0	4.3/6.9	4.9/7.9	5.4/8.6	6.2/9.9	
3	5.0/8.1	6.7/10.8	8.4/13.5	4.4/7.0	5.0/8.1	5.8/9.4	6.7/10.8	7.3/11.7	8.4/13.5	
4	11.9/19.1	15.9/25.5	20.8/33.5*	10.4/16.7	11.9/19.1	13.8/22.2	15.9/25.5	17.2/27.7*	20.8/33.5	

\* When the tractor is in fourth range you cannot operate the tractor in reverse.

### Lubrication System

Pressure sensing type: constant oil pressure within working speed range with combination full flow oil filter and heat exchangers. Continuous spray piston cooling.

### Fuel System

Fuel injection pump. Bosch 9.5 mm multiple plunger type with hand primer. Size of injectors, 17 mm diameter.

### Fuel Filtering System

Water trap and drain located in base of fuel tank. Preliminary fuel filter located in base of fuel transfer pump.

1st stage fuel filter, full flow spin-on type.

2nd stage fuel filter, full flow spin-on type.

### Cooling System

Type: pressurized, 10 psi (69 kPa) capacity thermostat controlled, bypass type, forced circulation (centrifugal pump).

Radiator: heavy duty fin and tube type.

### Engine Oil Heat Exchanger

Type: oil to water

Location: right hand side of engine

## ELECTRICAL SYSTEM

Type of system: 12 volt negative ground.

Alternator: 12 volt 105 ampere output.

### Lighting Equipment and Identification Marking

Front rectangular headlights

(hood mounted) . . . . . 2

Tail lights (fender mounted) . . . . . 2

Amber combination flashing warning and directional signal lights

(located on side of cab) . . . . . 2

Front flood lights (roof mounted) . . . . . 2

Rear flood lights (fender mounted) . . . . . 2

Optional front flood lights

(roof mounted) . . . . . 2

Optional rear flood lights (mounted on cab filter housing) . . . . . 4

Slow moving vehicle emblem

(rear mounted) . . . . . 1

## CAPACITIES

Engine cooling

system . . . . . 44 U.S. quarts (41.6 litres)

Fuel tank (rear mounted) . . . . . 85 U.S. gals (322 litres)

Engine oil capacity with filters and

coolers . . . . . 30 U.S. quarts (28.4 litres)

Transmission and hydraulic oil

system . . . . . 128 U.S. quarts (121.1 litres)

Dipstick oil level indicators.

## TRANSMISSION

### Standard Range Powershift Transmission

#### Ground speed selections

. . . . . 12 forward and 3 reverse speeds.

Type: 3-speed compound planetary with

electro-hydraulically actuated multiple wet

disc clutches and 4-speed gear selection.

3-speed powershift controlled by a lever on

operator's RH console, can be shifted with

tractor on the go.

### Transmission Gear Selection

4-speed gears and park lock controlled by

lever on operator's RH console. The tractor

must be stopped and inching pedal

depressed to shift to any of the four gears

or park. Neutral transmission starting

switch.

### Optional Dual Range Powershift Transmission

#### Ground speed selections

. . . . . 24 forward and 3 reverse speeds.

Type: 6-speed compound planetary with

electro-hydraulically actuated multiple wet

disc clutches and 4-speed gear selection.

6-speed powershift controlled by a lever on

operator's RH console can be shifted with

tractor on the go.

**Type of Clutch:** multiple wet disc.

Inching pedal operation: suspended pedal.

### Transmission Park Lock

Locking mechanism engages ring gear

mounted on differential carrier.

### Internal Inboard Planetaries

Planetary reduction . . . . . 5.625:1

### Differential Lock

Type: engaged electrically by switch

located on floor board — the brake pedals

deactivate differential lock (traction aid and

field steering aid device).

# BASIC TRACTOR

## BRAKES

Type: enclosed hydraulic power assisted (2) — self-adjusting and self-equalizing multiple plate wet-type differential brakes. Operation: individually operated, suspended pedals, sliding pin lock for transport.

## HYDROSTATIC POWER STEERING

**Pump:** Open center direct drive gear type (operates steering and brakes).

**Pump capacity:** at 2100 engine rpm at 2000 psi (13 789 kPa) ..... 8.0 gpm (30.3 litres/min)

**Steering Control Pump:** Hydrostatic type, integral and bi-directional gerotor. Metering section actuated by steering wheel.

**Steering Cylinder:** One double-acting cylinder located behind front axle assembly — equal steering speed right/left.

Maximum wheel turns lock to lock ... 3.5  
Steering wheel diameter ... 15" (381 mm)  
Tilting steering wheel ..... Standard  
Degree of tilting mechanism ... 25° to 55°  
Number of position adjustments ..... 5  
Operation ..... Foot lever  
Telescoping wheel ..... Standard  
Range of telescoping ..... 4" (102 mm)

## CASE INTERNATIONAL CONTROL HYDRAULICS

Type of system — closed center — pressure and flow compensating.

### Charging Pump for Hydraulic System

Hydraulic charging pump: delivers filtered oil under pressure to hydraulic pump.

Capacity ..... 61 gpm (231 litres/min)

### Main Hydraulic Pump

Variable displacement axial piston pump

Rate pump pressure ..... 2250 psi (15 513 kPa)

Rated volume .... 27 gpm (103 litres/min)

Hydraulic oil pressure filtration.

Transmission and hydraulic oil cooler.

Type: air to oil.

Location: front of radiator.

## THREE-POINT HITCH

**Hitch Control Hydraulic System for Category II, III, and III N. (Sway adjustment provided) Load and Depth Sensing System.**

Type sensing: lower link — transfers mounted implement weight to rear tractor wheels for additional traction when encountering heavy draft conditions.

Number of rockshaft lift cylinders ..... 2

Maximum pressure to rockshaft ..... 2250 psi (15 513 kPa)

Hitch control lever: draft sensing control lever on RH console.

Type hitch control valve: 3 position, raise-hold-lower.

Type draft arms: swinging type with fixed or float position on lift links: solid, heavy duty.

Lifting capacity 3-point hitch: at 24" (610 mm) load centers to rear of hitch points: mfr's est. .... 7750 lbs. (3 515 kg)

Linkage lifting range ..... 8"-40" (203-1 016 mm)

## REMOTE HYDRAULICS

### Remote Hydraulic Cylinder and Hydrostatic Master Control

Operation: double acting, single acting or float (pressure/flow compensating).

Type of control valve — closed center.

Number of remote outlets, 2 standard, up to 2 optional.

Flow control — variable adjust according to application, standard on remote valve, optional kit for cab control.

Variable range of flow at remote outlets. .... 24/3.5 gpm (91/13 litres/min)

Adjustment pressure range control ..... 2000/1200 psi (13 790/8 274 kPa)

Optional remote double acting hydraulic cylinder, 4" bore × 8" stroke (102 mm × 203 mm). Hydraulic cylinder hose length, 108" (2.74 m) with quick detachable type ASAE/ISO standardized male hydraulic couplers (couple under minimal pressure).

## POWER TAKE OFF

Power take off shaft with shield.

Performance: PTO horsepower at 2100 engine rpm ..... 162 hp (120 kW)

Type: hydraulically actuated wet multiple disc clutch, controlled by console lever.

PTO brake — power applied. Independent, hydraulically actuated wet disc clutch.

Operation hydraulic detent: hand lever on RH operator console, coast position.

Rotation (from the rear): clockwise.

Spline shaft diameter

(21 splines) ..... 1.375" (35 mm)

PTO speed is 1000 rpm @ 2100 engine rpm.

## DRAWBAR

Standard drawbar with hitch or optional yoke type swinging drawbar will accommodate 1.5" (38.1 mm) diameter pin for implement hitch.

Optional wide swinging drawbar without hitch accommodates 1.5" (38.1 mm) diameter pin.

## AVERAGE SHIPPING WEIGHT

Includes cab, hitch with coupler, steel wheels ..... 14,875 lbs (6 747 kg)

Maximum operating weight tractor with cab and normal field operating equipment (weight/ballast; dealer installation) ..... 20,500 lbs max (9 299 kg)

## TIRE EQUIPMENT AVAILABLE

Front Tires:

11.0 x 16, 8 PR (F2)  
14L x 16.1, 6/10 PR (F2)  
18.4 x 16.1, 6 PR (R3)  
16.5 x 16.1, 8 PR (F2M)

Rear Tires:

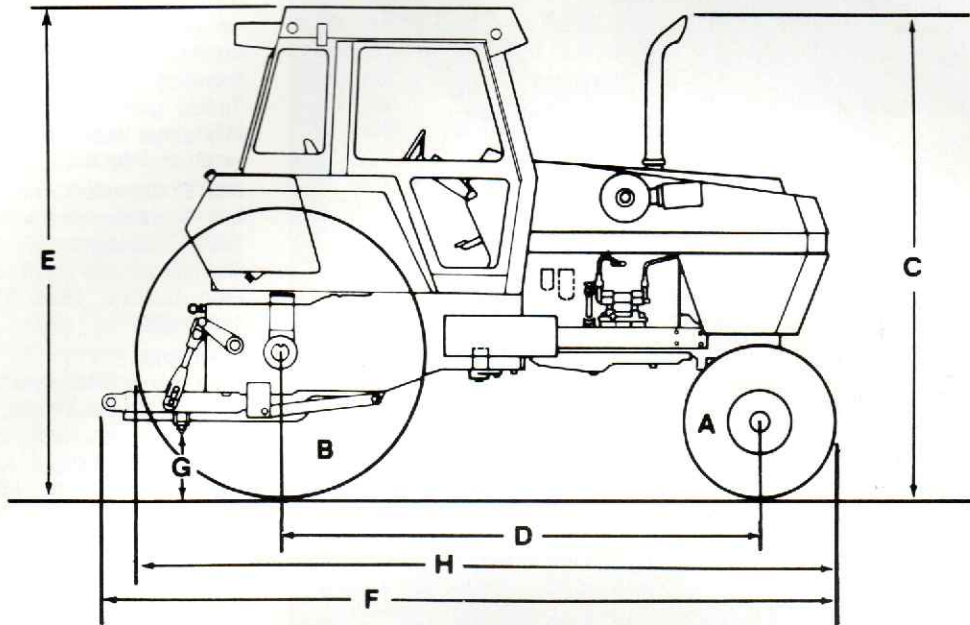
24.5 x 32, 10 PR (R1) & (R2)  
24.5R x 32, 1 Star (R1)  
30.5 x 32, 10 PR (R1) & (R2)  
30.5R x 32, 1 Star (R1)  
18.4 x 38, 8 PR (R1) & (R2)  
18.4R x 38, 1 Star (R1)  
20.8 x 38, 8/10 PR (R1) & (R2)  
20.8R x 38, 1/2 Star (R1)  
18.4 x 42, 8/10 PR (R1)  
18.4R x 42, 2 Star (R1)  
20.8 x 42, 10 PR (R1)  
20.8R x 42, 2 Star (R1)

Optional Dual:

24.5 x 32, 10 PR (R1) & (R2)  
24.5R x 32, 1 Star (R1)  
18.4 x 38, 6 PR (R1) & (R2)  
18.4R x 38, 1 Star (R1)  
20.8 x 38, 8 PR (R1) & (R2)  
20.8R x 38, 1 Star (R1)  
18.4 x 42, 8 PR (R1)  
20.8 x 42, 10 PR (R1)

# BASIC TRACTOR

## APPROXIMATE OVERALL DIMENSIONS



### DIMENSIONS

A.....	14L x 16.1 (F2) tires
B.....	20.8 x 38 (R1) tires
C.....	117.5" (2.99 m)
D.....	118" (3.00 m)
E.....	117" (2.97 m)
F.....	183.25" (4.66 m)
G.....	16" (406 mm)
H.....	173" (4.39 m)
Turning radius without brakes.....	184.5" (4.69 m)
Turning radius with brake assistance.....	163.8" (4.16 m)
Height over cab.....	115.5" (2.93 m)
Height over muffler.....	117.5" (2.99 m)

### Front Wheels

Front wheel tread spacing with 11.00 x 16 tires.  
Adjustable front axle  
tread width..... 60"-88" (1.52-2.24 m)  
Adjustments (increments) ... 4" (102 mm)  
Row-crop clearance under front  
axle..... 22.6" (574 mm)

### Rear Wheels

Single rear wheel tread spacing with  
20.8 x 38 tires on standard 96" (2.44 m)  
axle..... 60"-110" (1.52-2.79 m)  
Diameter of std 96" (2.44 m)  
rear axle..... 3.875" (98 mm)  
Rear wheel tread width on optional 120"  
(3.05 m) axle..... 60"-134"  
(1.52-3.40 m)

### Dual Wheels

Dual rear wheel tread with 20.8 x 38 tires  
and 120" (3.05 m) rear axle.  
Minimum inside wheel tread  
width..... 60" (1.52 m)  
Maximum outside wheel tread  
width..... 134" (3.40 m)  
Maximum width with wheel  
spacers..... 160" (4.06 m)



# BASIC TRACTOR

## INSTRUMENTATION

### Intelligent Monitoring System

Digital instrument cluster, with English or Metric readout capability, displaying engine, PTO and ground speed and electric tach/hourmeter. Bar graphics display of fuel level, coolant temperature, pyrometer and voltage.

**Monitoring** system provides lights and audible warning for critical functions, engine oil pressure and coolant temperature, transmission oil pressure and temperature and air filter indicator. Light for alternator. Green light to signify all "systems normal."

**Functions** are percent of wheel slip, elapsed time, acres covered per hour and cumulative acreage count.

**"T"-Bar Operator Cockpit Control (Under Steering Wheel).** Left-right turn signal switch. 2-position light switch (road and field). Key switch. Engine shut-off. Ether start switch.

## STANDARD EQUIPMENT

Air induction system — stratotube pre-cleaner with exhaust aspirator, with dry type final and safety air elements with service indicator.

Anti-freeze solution to  $-20^{\circ}\text{F}$  ( $-29^{\circ}\text{C}$ ).

Ash tray and cigar lighter.

Auxiliary 7 terminal electrical outlet (rear mounted)

Brakes — power internal wet disc, self adjusting and self equalizing.

Cab — Case International "Silent Guardian," pod type, rubber mounted and isolated from the power train, roll protected.

Color coded knobs.

Control console RH side of operator;

"T"-Bar cockpit console with ignition, lighting controls and engine shut-off.

Drawbar—swinging, sliding type with hitch. Wide swinging, roller type and yoke without hitch.

Electrically actuated differential lock.

Engine, 6 cylinder diesel, turbocharged. . . . . 504 C.I.D. (8.25 litres)

Ether starting aid (less fluid).

Fenders — steps, hand rails and handles on rear of cab.

Floor mat.

Front axle — adjustable . . . . . 60" x 88" (1.52-2.24 m)

Fuel tank, rear mounted. . . . . 85 gals (322 litres). Fuel cap with sealing boat.

Hitch — 3-point Category III with load and depth sensing. Heavy-duty upper link.

Muffler — vertical offset with aspirator and curved extension.

Neutral start ignition system.

PTO performance at 2100 rpm . . . 162 hp (120 kW)

Rear axle diameter. . . . . 3.875" (98 mm)

Rear axle length. . . . . 96" (2.44 m)

Rear wheel tread. 20.8 x 38 tires and 96" (2.44 m) axle. . . . . 60"-110" (1.32-2.79 m)

Roof cap.

Seat — Case International, air/oil suspension, swivel, fore-aft isolator, contoured gray cloth cushions, lumbar adjustment, weight and height adjustment, seat cushion tilt/back rest tilt, flip-up arm rests and retractable seat belt.

Side rails.

SMV safety emblem.

Spring loaded elevating hood.

Steering — hydrostatic power (3.5 turns from lock to lock).

Steering wheel — tilting and telescoping. Custom sport.

Step extension — adjustable.

Throttle — hand-type.

Transmission — range powershift, 4 gear constant mesh with 3-speed powershift, park lock.

Water filter coolant.

Wheelbase — 118" (3.00 m)

Wheels and tires — various sizes for front and rear are available.

## OPTIONAL EQUIPMENT

ROPS, 4 post roll protection, noise suppressed. Various front tires. Various radial and bias ply rear tires and duals. Tool box. Implement cord window kit. 120" (3.05 m) rear axle. Third remote load check valve. Rear windshield wiper. 4" x 8" (102 mm x 205 mm) portable cylinder with fittings and 108" (2.74 m) hose length. ASAE/ISO valve couplings. A selection of radio, stereo and cassette. True ground speed sensor kit. Roller drawbar with hitch. Telescoping draft arms. Heavy-duty convertible Category II-III-IIIN quick coupler with telescoping mast. Convertible Category II-III-IIIN quick coupler. Category III non-adjustable quick coupler. Sway block spacer kit. Cross bar pivot kit. Safety chain support kit. Additional remote hydraulic control circuits. Front weight frame and add-on segment weights. Rear wheel weights. In-cab remote flow control kit. 2 front and 4 rear halogen flood lights. Exterior mount rear view mirrors. Block heater. Battery heater. Automatic shutdown kit.

**IMPORTANT:** The total tractor weight with ballast and weights must never be more than 20,500 lbs. (9 299 kg).

The tractor described is equipped with non-standard items and is intended to represent a set of specifications for a typical tractor.

**Attention Worldwide Readers.** Local availability, standard specifications and options may vary from those listed or illustrated in this North American publication. Your local Case branch or dealer will gladly advise concerning Worldwide availability and recommended specifications.

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