



MODEL 3594

Tractor

217 S.A.E. gross engine hp* (161 kW)

212 D.I.N. ps* (156 kW)

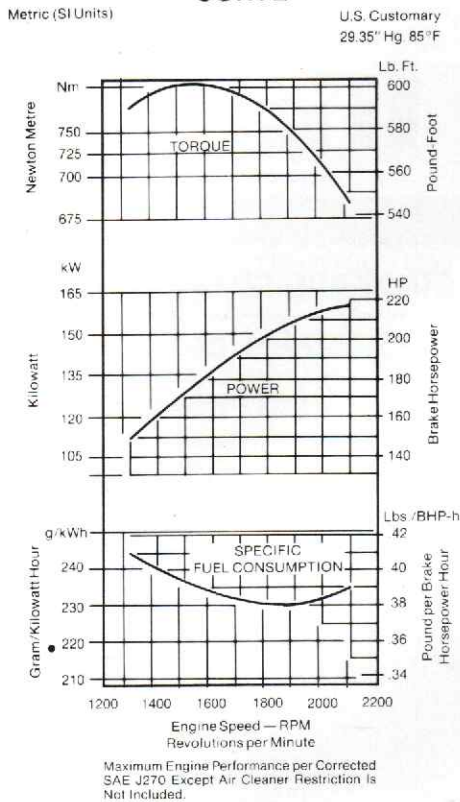
180 PTO hp* (134 kW)

*Mfr's. rating



BASIC TRACTOR

ENGINE PERFORMANCE CURVE



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

TRANSMISSION GEAR	STANDARD 24-SPEED						OPTIONAL 12-SPEED			REAR TIRE SIZE
	1	2	3	4	5 and R	6	1	2	3 and R	
1	1.9/3.0	2.1/3.4	2.5/4.0	2.9/4.6	3.1/5.0	3.6/5.8	2.1/3.4	2.9/4.6	3.6/5.8	20.8x38 R1
2	3.2/5.2	3.7/6.0	4.3/6.9	4.9/7.9	5.4/8.6	6.2/9.9	3.7/6.0	4.9/7.9	6.2/9.9	
3	4.4/7.0	5.0/8.1	5.8/9.4	6.7/10.8	7.3/11.7	8.4/13.5	5.0/8.1	6.7/10.8	8.4/13.5	
4	10.4/16.7	11.9/19.1	13.8/22.2	15.9/25.5	17.2/27.7*	20.8/33.5	11.9/19.1	15.9/25.5	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 dual oil filters 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. qts (41.6 litres)

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

Engine oil capacity with filters and coolers..... 23 U.S. qts (21.8 litres)
Transmission and hydraulic oil system..... 133 U.S. qts (125.8 litres)
Dipstick oil level indicators.

TRANSMISSION

Standard 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.

Optional Range Powershift

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.

Type of Filters: external spin-on type.

Type of Clutch: multiple wet disc.

Inching pedal operation: suspended pedal.

Transmission park lock

Locking mechanism engages ring gear mounted on differential carrier.

Inboard Planetaries

Planetary reduction..... 5.625:1

Differential Lock

Type: engaged electrically by switch located on RH console — the brake pedals deactivate differential lock (traction aid and field steering aid device).

Engine Full Load Performance

Maximum horsepower @ 2100 RPM

(mfr's rating):

S.A.E. gross engine..... 217 (161 kW)

D.I.N. ps..... 212 (156 kW)

PTO..... 180 (134 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" x 5.00" (117.5 x 127 mm)

Compression ratio..... 15.75:1

Cylinder sleeves, wet removable type; induction hardened.

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

Number of bearings..... 7

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: direct drive gear type (operates brakes, also).

Pump capacity: (steering and brakes) at 2100 engine rpm at 2000 psi (13 789 kPa) 13.0 gpm (49.2 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. Wheel turns lock

to lock 3.5-4

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 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.

Rated pump

pressure 2250 psi (15 513 kPa)

Rated volume 30 gpm (114 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 Motor Control

Operation: double acting, single acting or float (pressure/flow compensating). Features 1st remote priority and 1st/2nd remote load check.

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 x 8" stroke (102 mm x 203 mm). Hydraulic cylinder hose length, 108" (2 743 mm) with quick detachable type ASAE/ISO standardized male hydraulic couplers (couple under minimal pressure).

..... 2000/1200 psi (13 790/8 274 kPa)

Optional remote double acting hydraulic cylinder, 4" bore x 8" stroke (102 mm x 203 mm). Hydraulic cylinder hose length, 108" (2 743 mm) with quick detachable type ASAE/ISO standardized male hydraulic couplers (couple under minimal pressure).

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DRAWBAR

Standard drawbar with hitch or 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 15,420 lbs (6 994 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:

16.9 x 26, 10 Ply (R1)

16.9 x 26, 10 Ply (R2)

18.4 x 26, 10 Ply (R1)

14.9 x 28, 10 Ply (R1)

16.9 x 28, 10 Ply (R1)

18.4 x 28, 6 Ply (R1)

Rear Tires:

24.5R32, 1 Star (R1)

30.5R32, 1 Star (R1)

18.4 x 38, 8/10 Ply (R1) & (R2)

18.4R38, 1 Star (R1)

20.8 x 38, 8/10 (R1) & (R2)

20.8R38, 1/2 Star (R1)

18.4 x 42, 10 Ply (R1)

18.4R42, 2 Star (R1)

20.8 x 42, 10 Ply (R1)

20.8R42, 2 Star (R1)

Optional Duals:

24.5 x 32, 10 Ply (R1)

24.5R32, 1 Star (R1)

18.4 x 38, 6 Ply (R1) & (R2)

18.4R38, 1 Star (R1)

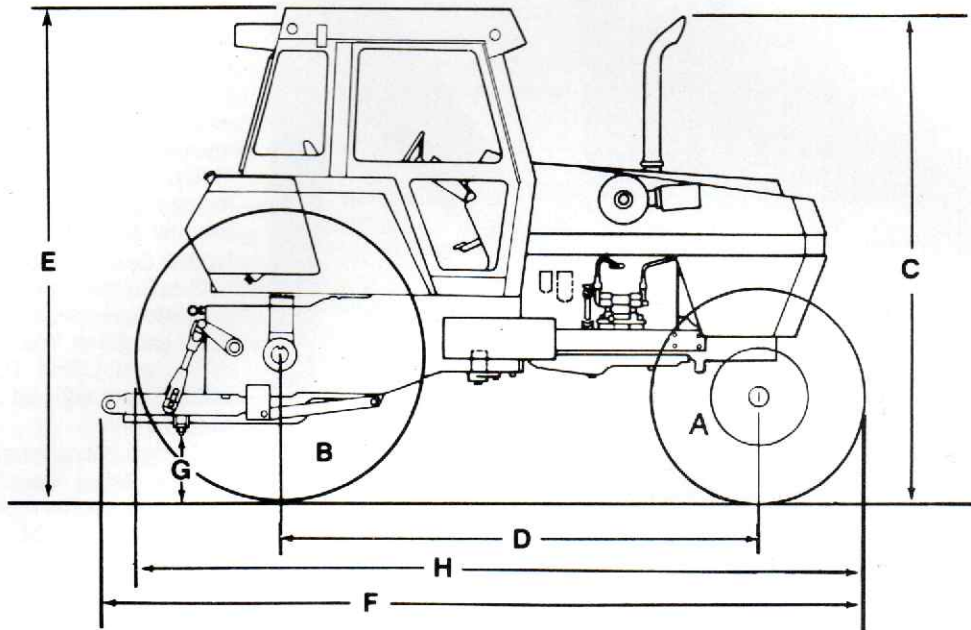
20.8 x 38, 8 Ply (R1) & (R2)

20.8R38, 1 Star (R2)

18.4 x 42, 8 Ply (R1)

20.8 x 42, 10 Ply (R1)

APPROXIMATE OVERALL DIMENSIONS



DIMENSIONS

A	16.9 x 28 (R1) tires
B	20.8 x 38 (R1) tires
C	126.5" (3.23 m)
D	116" (2.95 m)
E	120" (3.05 m)
F	192.5" (4.89 m)
G	16.5" (419 mm)
H	180.5" (4.58 m)
Turning radius without brakes	232" (5.89 m)
Turning radius with brake assistance	173" (4.39 m)

Front Wheels (MFD)

Front wheel tread spacing with 16.9 x 26 (R1) tires: adjustable front axle tread width — 60" (1.52 m), 64" (1.63 m), 68" (1.73 m), 72" (1.83 m), 77" (1.96 m), 81" (2.06 m), 85" (2.16 m), 89" (2.26 m).

Front axle ground clearance 18" (457 mm)
 Front axle oscillation..... 22° (total)
 Front axle steering angle..... 50° (max.)

Rear Wheels

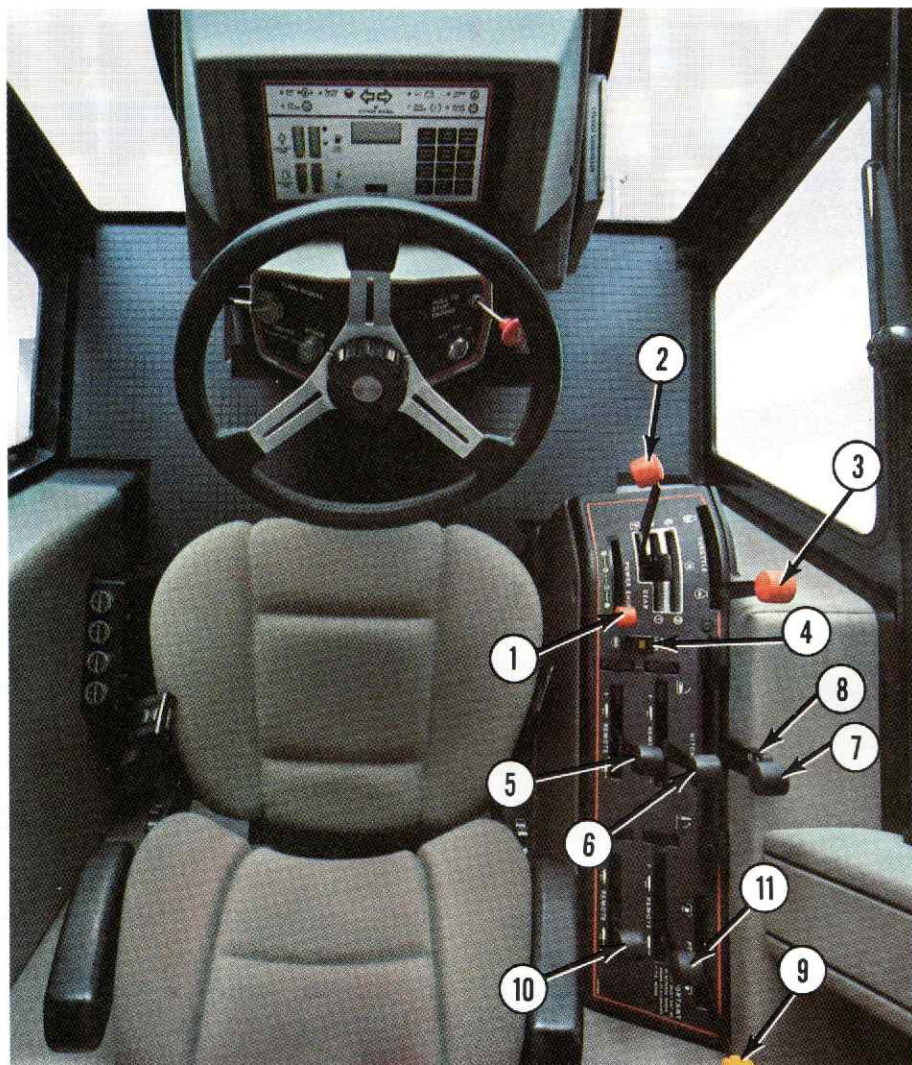
Single rear wheel tread spacing with 18.4 x 38 tires on standard 96" (2.44 m) axle
 60"-110" (1.52-2.79 m)
 Rear wheel tread width on optional 120" (3.05 m) axle... 60"-134" (1.52-3.40 m)
 Diameter of rear axles... 3.875" (98 mm)

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)

MFD Approved Tire Combinations

FRONT TIRE	REAR TIRE
16.9 x 26 (R1)	24.5R32 (R1) 18.4 x 38 (R1) 18.4R38 (R1)
16.9 x 26 (R2)	18.4 x 38 (R2) 20.8 x 38 (R2)
18.4 x 26 (R1)	30.5R32 (R1) 20.8R38 (R1) 18.4 x 42 (R1) 18.4R42 (R1) 20.8R42 (R1)
14.9 x 28 (R1)	24.5R32 (R1) 18.4 x 38 (R1) 18.4R38 (R1)
16.9 x 28 (R1)	30.5R32 (R1) 20.8 x 38 (R1) 20.8R38 (R1) 18.4 x 42 (R1) 18.4R42 (R1)
18.4 x 28 (R1)	20.8 x 42 (R1)



OPERATIONAL ITEMS

Right hand console controls — control functions of the tractor and remote implements. (See illustration above).

1. Power shift
2. Range transmission and park lock combination
3. Engine throttle
4. Differential lock switch
5. Remote hydraulic outlet No. 1
6. Remote hydraulic outlet No. 2
7. 3-point hitch
8. Sensing lever for hitch system
9. PTO control lever
10. Remote hydraulic outlet No. 3 (optional)
11. Remote hydraulic outlet No. 4 (optional)

OPERATOR'S ENVIRONMENT

Case International "Silent Guardian" cab, pod type, rubber mounted and isolated from power train, roll-protected. Heater, air conditioning and self-purging rear-mounted air filter. Custom interior, instrumentation light and 3 position dome light. Tinted glass. Gas assist door opener. Inside rear view mirror. Equipped for radio, external antenna.

NOTE: Operator's cabs are equipped with built in rollover protection and overhead protection as specified in ASAE Standards S383 and S310, SAE Standards J167 and J1194, and OSHA Regulations 1928.51, 1928.53 and 1926.1002.

Seat Type

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

Entry door location Left side
 Door locks with ignition key Yes
 Number of alternate exits excluding

door 2
 Type of glazing . . . Tinted tempered glass
 Total glass area 5915 in² (3.82 m²)
 Cab size 84 ft³ (2.38 m³)
 Threshold width 17" (432 mm)
 Isolation mounts 4
 Cab air intake and filter location Rear
 Size of cab air filter 266 in² (1 716 cm²)
 Cab blower design Double radial

pressurization blower
 Cab blower speeds 3
 Blower location Rear of cab headliner
 Blower rated capacity

(max.) 520 cfm (14 720 litres/min.)
 Maximum recirculation of air inside
 cab 75%

Type of recirculation
 control Adjustable sliding door

Operator Environment Controls. Heater and Air Conditioner

Capacity 2 ton (24,000 BTU)

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). Turn signal switch. 2-position light switch (road and field). Key switch. 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°F (-29°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. ROPS.

Colored coded knobs.

Control console RH side of operator;

"T"-Bar cockpit console with key switch, 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 MFD axle — adjustable

..... 60" x 89" (1.52-2.26 m)

Fuel tank, rear

mounted. 85 U.S. gals (322 litres)

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

Muffler—vertical offset with aspirator and curved extension.

Neutral starting switch.

PTO performance at 2100 rpm

(mfr's rating) 180 hp (134 kW)

Rear axle diameter. 3.875" (98 mm)

Rear axle length. 96" (2 438 mm)

Rear wheel tread

20.8 x 38 tires and

96" (2.44 m) axle

..... 60"-110" (1.52- 2.79 m)

Roof cap.

Seat — Case, 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 6-speed powershift, park lock.

Water filter coolant.

Wheelbase—116" (2.95 m)

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

OPTIONAL EQUIPMENT

MFD fenders. MFD driveline Shield. Toolbox. Various front tires. Various radial and bias ply rear tires and duals. Implement cord window kit. 120" (3.05 m) rear axle. 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-IIIIN quick coupler with telescoping mast. 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.

JI Case
A Tenneco Company



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