

MOTOR GRADERS

865C

ENGINE

Model	FPT 6.7L
Type	Electronic common rail fuel system, Water cooled, 4 Cycle, Direct injection, Open combustion chamber, Turbocharged, Charge air cooled. Tier IV Final
Cylinders	6
Bore/Stroke	4.09in x 5.17 in (104 mm x 132 mm)
Displacement	409 Cubic Inch (6.7 liters)
Horsepower at 2.200 rpm	
Gross (SAE J1995 Gross)	
Low Curve	144 kW (193 hp)
Mid Curve	153 kW (205 hp)
High Curve	164 kW (220 hp)
Net (SAE J1349)	
Low Curve	133 kW (178 hp)
Mid Curve	142 kW (190 hp)
High Curve	153 kW (205 hp)
Maximum torque at 1.500 rpm	
Gross (SAE J1995 Gross)	
Low Curve	612 ft.lb (830 Nm)
Mid Curve	649 ft.lb (880 Nm)
High Curve	686 ft.lb (930 Nm)
Net (SAE J1349)	
Low Curve	548 ft.lb (743 Nm)
Mid Curve	581 ft.lb (788 Nm)
High Curve	615 ft.lb (832 Nm)

POWERTRAIN

Rear axle	
Vertical ground clearance	14.9" (380 mm)
Differential	
* Brakes	
Number of disks per brake	
Tandem	
Type	Welded Plate (2204 x 631 x 200.5 mm)
Oscillation	20° in each direction
Command chain pitch	50.8 mm
Thickness of the internal and external side wall	19 mm
Front axle	
Type	CNH LA
Oscillation	15°
Wheel lean	20°
Vertical ground clearance	22.8" (580 mm)
* SAE J150 3450 (brake performance)	

HYDRAULIC SYSTEM

Type	Piston pump, variable displacement Pressure and flow compensated, Load sensing
Hydraulic pump	Rexroth
Rated flow 49.0	GPM (186 LPM) @ 2200 RPM
Control valve	HUSCO, LOAD SENSING 9 SECTIONS

TRANSMISSION

Brand / Model	ZF TC LOCK UP 6WG-160
Type:	Full power shift torque converter Shift modulation, downshift protection, reversals inhibited, Parking brake 15" (380 mm) dry disk, Electronic shift control mounted in R.H. console, 24V bump shifter control.
Gears	6 Forward 3 Reverse
Speeds - km/h	Forward Reverse
1st	5.2 4.9
2nd	3.3 2.0
3rd	2.1 0.8
4th	1.4 —
5th	0.5 —
6th	0.6 —

ELECTRICAL SYSTEM

Power	24 V
Alternator	BOSCH - 90 A
Batteries	2x100 Ah - low maintenance

STEERING

Type	Hydrostatic power steering
Steering wheel turns (lock to lock)	4,5 turns (fast); 3,2 turns (slow)
Pump capacity	11.1 GPM (41.8 LPM) @ 2200 engine RPM
Pressure	22530 PSI (175 bar) Integral with priority valve
Cylinders	2

ARTICULATION

Type	Hydraulic actuated (with lock valve)
Angle	25° left/right
Controls	Hydraulic

CAPACITIES (REFILL)

Engine with and w/o filter	16/15 lt
Fuel DEF (urea refill)	360 lt
Transmission with and w/o filter	25/26 lt
Engine water cooling system	16 lt
Hydraulic oil tank	90 lt
Total hydraulic system	148 lt
Rear axle center	44 lt
Tandem case (each)	42 lt

SADDLE

Locking system	Two cylinders actuated by an electric solenoid. Control valve regulated by a pressure reducing valve @ 600 psi (4137 kPa).
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FRAME

Type	Box section
Size - Rear section	327 x 220.5 mm
Size - Front section	298 x 258 mm

DRAWBAR

Type	"A" frame welded construction with center mounted circle turn motor. Shim adjustable at ball and circle.
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CIRCLE

Type	Welded construction
Maximum outside diameter	69.0" (1752.6 mm)
Rotation/Speed	360°/ 1.2 RPM (7.2 degrees per second)
Rated hydraulic flow	
N° of supports in phenolic resin	4

BLADE/MOLDBOARD

Type	Standard
Form	involute curve
Width	3658 mm / 3962 mm / 4267 mm
Height (curved profile)	622 mm
Thickness	875" (22mm)
Cutting edge	2 interchangeable
Blade pitch positions - Normal pitch	47°
Minimum pitch	42°
Maximum pitch	87°
Blade side shift	
Right	49.5" (1257 mm)
Left	43.5" (1105 mm)
Maximum bank-cutting angle (left and right)	90°
Ground penetration (max.)	28" (711.2 mm)
Lift above ground (max.)	17.5" (444.5 mm)
Blade side shift and pitch	Hydraulic type

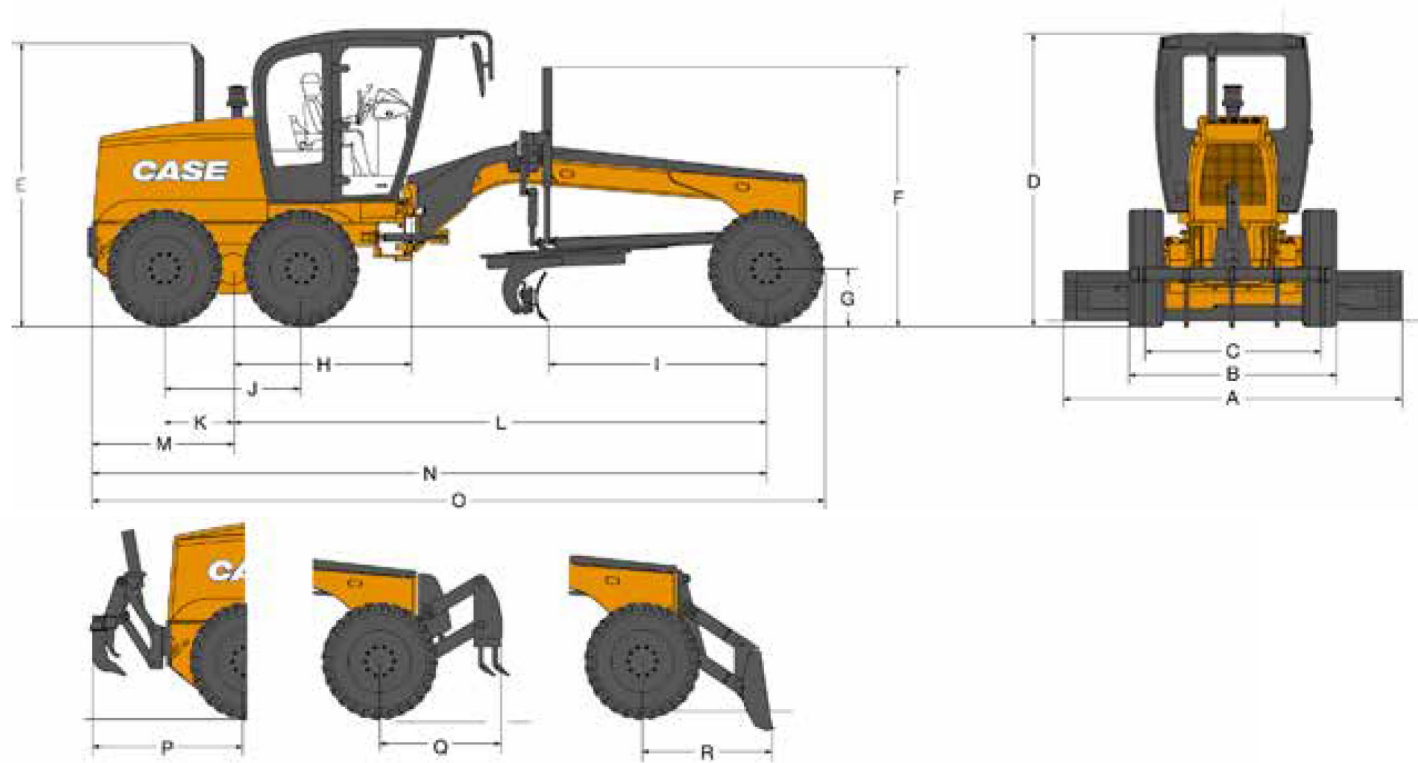
REAR RIPPER

Type	Parallelogram
Cutting width	86.4" (2195 mm)
Ripper teeth	3/5 optional
Scarifier teeth	5/9 optional
Lift above ground - Ripper teeth	20.38" (518 mm)
Maximum penetration - Ripper teeth	17.22" (437 mm)

OPERATING WEIGHT

With a 3658 mm blade, operator weigh 75 kg, full tank

865C VHP	Weight (kg)
Basic machine	15.481
Front couterweight	492



All units fitted with 14.0 x 24-12L tires, open ROPS/FOPS cab, standard battery, full fuel tank, operator weighing 75 kg, specifications in accordance with ISO 7134.

DIMENSIONS

	865C VHP
A. Blade width	3.962 mm
B. Tread width (single rim)	2.495 mm
C. Tread gauge (single rim)	2.074 mm
D. Height on top of the cab	3.200 / 3.400 mm
E. Height of top of exhaust	3.323 mm
F. Height to top of blade lift cylinder	3.047 mm
G. Tire static radius	610 mm
H. Distance between tandem center and the frame articulation pin	1.958 mm
I. Distance between the front axle and the blade	2.562 mm
J. Distance between the center of the rear tires	1.572 mm
K. Distance between tandem center and the wheel	786 mm
L. Wheelbase	6.219 mm
M. Distance between tandem center and the rear part of the equipment	2.064 mm
N. Distance between the front wheen axle and the rear part of the equipment	7.868 mm
O. Overall length	8.957 mm
P. Distance between the rear tires and the ripper	2028 mm
Q. Distance between the front tires and the scarifier	1.520 mm
R. Distance between the front tires and the dozer blade	1.626 mm
Turning radius (outside the tires)	7.250 mm

STANDARD EQUIPMENT

OPERATOR ENVIRONMENT

ROPS/FOPS closed cab with:
Adjustable suspension vinyl seat, with a 50.8 mm (2") seatbelt
Adjustable operator console
Pedal accelerator
Manual accelerator
Front windshield wiper with washer
Safety glass
Ceiling light
Internal and external rear-view mirrors
12 V power supply
Automatic master switch
Steps on the right and left sides

ENGINE

FPT 6.7 lt
Turbocharged, diesel
Dry air filter with primary and secondary safety elements
Air pre-filter with cyclonic dust ejector
90 A alternator
Swing-up hood, diesel

HYDRAULIC SYSTEM

Hydraulic system with load sensor, closed center
9-section control valve
Hydraulic control for all functions:
blade lifting (right and left side), circle turn, side shift of the circle, wheel lean, frame articulation, blade side shift and pitch, front and rear accessories
Diagnostics center with 8 quick couplers
Hydraulic axial piston pump
Hydraulic engine fan
Swing-up hood, diesel

BRAKES

Multidisk oil-bathed service brakes with nitrogen accumulator safety system
Disk parking brake integrated into the transmission with warning light

TIRES

14" 3-pieces rim / 17,25 x 25

OTHERS

Standard tool kit
Drawbar / Standard circle

AXLES

Conventional differential with brakes on 4 wheels
and differential locking with electrohydraulic mechanism (rear axle)

STEERING

Hydrostatic steering with integrated emergency system

INSTRUMENTS

Electronic Information Center
Indicators/gauges:
Tachometer
Direction selected F/N/R
Transmission modes - automatic/manual
Selected gear
Engine cooling temperature
Fuel level
Transmission oil temperature
Hydraulic oil temperature
Hourmeter
Fuel consumption
Engine diagnostics
Transmission diagnostics

INDICATOR LIGHTS:

Low fuel level
Floodlights
High beam
Brake pressure
Main alert
Parking brake

SOUND ALERTS:

Warning alert
Emergency alert
Reversing alert

ELECTRICAL SYSTEM

Lights
Front headlight with direction indicators (2)
Rear brake light and direction indicators (2)
Rear work light on top of the cabin (2)
Front work light on top of the cabin (2)
24 V system (Two 12 V batteries 12 V / 750 CCA)
Electronic system monitoring
Horn
Hourmeter
Reverse alarm

TRANSMISSION

ZF transmission of torque conversion type with lock up (also functions as Direct Drive), Powershift, 6 forward speeds and 3 reverse speeds, automatic gear shift, emergency electrical failure device (Limp-Home)

All ROPS/FOPS cabins are certified in accordance with the SAE J1040 (ROPS) and SAE J231 (FOPS) standards.

OPTIONS

OTHERS

Fire extinguisher
Windshield washer and lower windshield wipers
Rear windshield washer and wipers
Radio
Tandem lock device
Rear fogger

FRONT ATTACHMENT

Scarifier
Pushblock
Front blade

BLADE

3,658 x 622 x 22 mm blade
3,962 x 671 x 22 mm blade
4,267 x 671 x 22 mm blade

REAR ATTACHMENT

Medium ripper with 3 large teeth and 5 small teeth
2 additional large teeth and 4 additional small teeth
Rear pull hook
Support for lifting the machine

WORK LIGHTS

2 work lights behind the blade
2 work lights mounted in front of the moldboard
2 work lights on the front attachment

OPTIONAL EXTRAS

Revolving safety light
Luxury toolbox
Toolbox without tools, with support, mounted on the rear frame
Slow movement symbol
Electric pump for filling tires
Support for spare tire

TIRES AND MOUNTED RIMS

TUBELESS TIRES

9" Rim - single piece/14x24 tire
10" Rim - 3 pieces / 14x24 tire
13" Rim - single piece / 17.5x25 tire
14" Rim - 3 pieces / 17.5x25 tire

RADIAL TUBELESS TIRES

10" Rim - 3 piece / 14x24 tire
XGLA2 RADIAL

RIMS

9" Rim - single piece with valve
10" Rim - 3 pieces with valve
13" Rim - single piece with valve
14" Rim - 3 pieces with valve

*All the options are subject to the local availability.



Fleet management and monitoring system by satellite or cell phone tracking.

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CCEIO172 - 07/2024 – Printed in Brazil

CaseCE.com.br

Escritório Comercial
Garin – Buenos Aires
Rep. Argentina
Calle 28, 920
Panamericana km 38,5
Tel.: +54 3327-4461000

Manufacturing plants
Contagem – Minas Gerais – Brasil
Av. General David Sarnoff, 2.237
Inconfidentes – CEP 32210-900
Tel.: +55 31 2104-3392

Sorocaba – São Paulo – Brasil
Av. Jerome Case, 1.801
Éden – CEP 18087-220
Tel.: +55 15 3334-1700

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