

ENGINE - VHP

Model	FPT F4HE9687C, Tier 3 certified
	Compliant w/ EPA regulations effective January 2011
	Electronic control
Type	4-stroke, turbocharged and air to air cooled
Cylinders	6, in-line
Bore/Stroke	4.09 in x 5.17 in (104 mm x 132 mm)
Displacement	409 in ³ (6.7 L)
Fuel injection	Common rail
Fuel	Diesel
Cooling	Liquid
Horsepower @ 2200 RPM – SAE J1995:	
Gross	193/205/220 hp (144/153/164 kW)
Net	178/190/205 hp (133/142/153 kW)
Maximum torque @ 1500 RPM:	
	612/649/686 ft-lb (830/880/930 N-m)

DRIVETRAIN

Rear axle	Graziano, planetary
Differential	Hydraulic lock, operator controlled
Inboard brakes	Wet disc
Number of discs/brake	5
Brake surface area	2,225 in ² (14 336 cm ²)
Tandems:	
Type	Welded plate
Oscillation	20° each way
Front axle	High strength, welded steel
Oscillation	15.3° each direction
Wheel lean	20° left/right
Tires – standard	14.0 x 24 12PR TL G2 Firestone
Rims	1-piece 9 in x 24 in (227 mm x 610 mm)
Transmission type:	
Type	Direct drive countershaft powershift w/ electronic shift control and inching pedal
Pump flow @ 2200 RPM	29.5 gpm (112 L/min)
Sump	Integral
Speeds	8 forward/4 reverse
Shifting	Single lever, bump style automatic electronic control
Diagnostics	On-board

DRIVETRAIN (cont.)

Speeds:	
Forward:	mph (km/h)
1st	2.7 (4.3)
2nd	3.7 (6.0)
3rd	5.2 (8.4)
4th	7.3 (11.8)
5th	10.4 (16.7)
6th	14.4 (23.1)
7th	20.2 (32.5)
8th	27.8 (44.8)
Reverse:	mph (km/h)
1st	2.5 (4.0)
2nd	5.0 (8.0)
3rd	9.8 (15.8)
4th	19.3 (31.0)

ELECTRICAL

Voltage	24 Volts, negative ground
Alternator	90 amp
Batteries	(2) Low-maintenance 1010 CCA – 100 Ah (20 hr rate)
Work lights:	
	Headlights (2); Turn signals, front/rear; Stop/tail (2); Rear mounted floods (2); Front mounted floods (2).
Backup alarm	Standard

OPERATOR ENVIRONMENT

ROPS/FOPS cab – SAE J231, ISO 3449;
Adjustable operator's console; Adjustable cloth
suspension seat w/ 3 in (76 mm) retractable
seat belt; Safety glass; Dome light; Inside
rearview mirror; Outside rearview mirrors; Cup
holder; Storage tray; 12-volt outlet; Radio ready
– 12 Volt; Electrical master switch – automatic;
Heater/defroster/pressurizer; Air conditioner;
Sound suppression; Cab doors – left/right;
Steps – left/right; Steering wheel;
Windshield wiper – front; Windshield
washer – front; Sunshade.

OPERATING WEIGHT

W/ 14 ft (4.27 m) moldboard, 17.5-25 tires, front counterweight, 175 lb (79 kg) operator and full fuel:	
	35,273 lb (16 000 kg)
Weight, front axle	11,133 lb (5050 kg)
Weight, rear axle	24,140 lb (10 950 kg)
Blade pressure	20,976 lb (9514 kg)

HYDRAULICS

System design	Closed center, load sensing
Hydraulic pump	Load sensing piston pump, variable displacement, pressure and flow compensated
Rated flow @ 2200 RPM	49 gpm (187 L/min)
Control valve	9 section
Side shift and pitch	Hydraulic
Saddle	5 positions
Diagnostic quick couplers	8

SERVICE CAPACITIES

Engine	4.4 gal (17.5 L)
w/ filter change	4.7 gal (18.5 L)
Fuel	90 gal (341 L)
Transmission	5.0 gal (23 L)
w/ filter change	6.6 gal (25 L)
Radiator	10.5 gal (40 L)
Hydraulic reservoir	24 gal (90 L)
Hydraulic system	50.2 gal (190 L)
Circle gearbox	0.75 gal (2.8 L)
Rear axle center	11.6 gal (44 L)
Total axle	11.6 gal (44 L)
Tandem case, each	18.4 gal (69 L)

OTHER SPECIFICATIONS

Steering:	
Type	Hydrostatic power steering
Turns – lock-to-lock	4.75
Pump capacity @ 2200 engine RPM:	
	11.1 gpm (41.8 L/min)
Relief pressure	2200 psi (151 bar) Integral w/ priority valve
Cylinder (2):	
	2.0 in bore x 11.85 in stroke x 1.0 in rod dia. (50.8 mm x 301.0 mm x 25.4 mm)
Supplemental steering	Integral
Articulation:	
Type	Hydraulic actuated – w/ lock valve
Range	25° left/right
Controls	Hydraulic

MAINFRAME

Type	All welded box
Front section:	
Size	10.0 in x 11.73 in (254 mm x 298 mm)
Weight – each side	124.7 lb-ft (172.8 kg/m)
Rear section:	
Size	4.75 in x 11.75 in (121 mm x 299 mm)
Weight – each side	55.6 lb-ft (84.0 kg/m)

DRAWBAR

Type:	
“A” frame welded construction with center mounted circle turn motor	
Ball and circle	Shim adjustable

MOLDBOARD

Type	High-carbon steel
Shape	Involute curve
Length	14 ft 0 in (4 267 mm)
Height	23.6 in (600 mm)
Thickness	0.875 in (22 mm)
End bits	2, interchangeable
Blade pitch positions:	
Normal pitch	47°
Minimum pitch	42°
Maximum pitch	87°
Blade shift:	
Right	27.0 in (686 mm)
Left	21.0 in (533 mm)
Max. bank cutting angle:	
Right	90°
Left	90°
Max. ground penetration	28 in (711.2 mm)
Max. lift above ground	17.5 in (444.5 mm)

CIRCLE

Type	Welded construction
Diameter:	
Max. outside	69.0 in (1 752 mm)
Vertical member	63.0 in (1 600 mm)
Rotation	360°
Speed	1.2 rpm (7.2°/second)
Drive	Hydraulic motor
Type	Roller geroter
Displacement	15.26 in³/Rev (0.25 L/Rev)
Rated hydraulic flow	19.8 gpm (75 L/min)

ATTACHMENTS

SCARIFIER

Type	Front mounted
Width of cut	46 in (1 168 mm)
Teeth	5
Optional	11
Tooth spacing	9.0 in (229 mm)
Optional	4.5 in (114 mm)
Lift above ground	20.75 in (527 mm)
Max. penetration	12.5 in (318 mm)
Weight	1,256 lb (570 kg)
Includes front attachment group	

PUSH BLOCK

Type	Front mounted
Weight	1,084 lb (492 kg)

REAR RIPPER

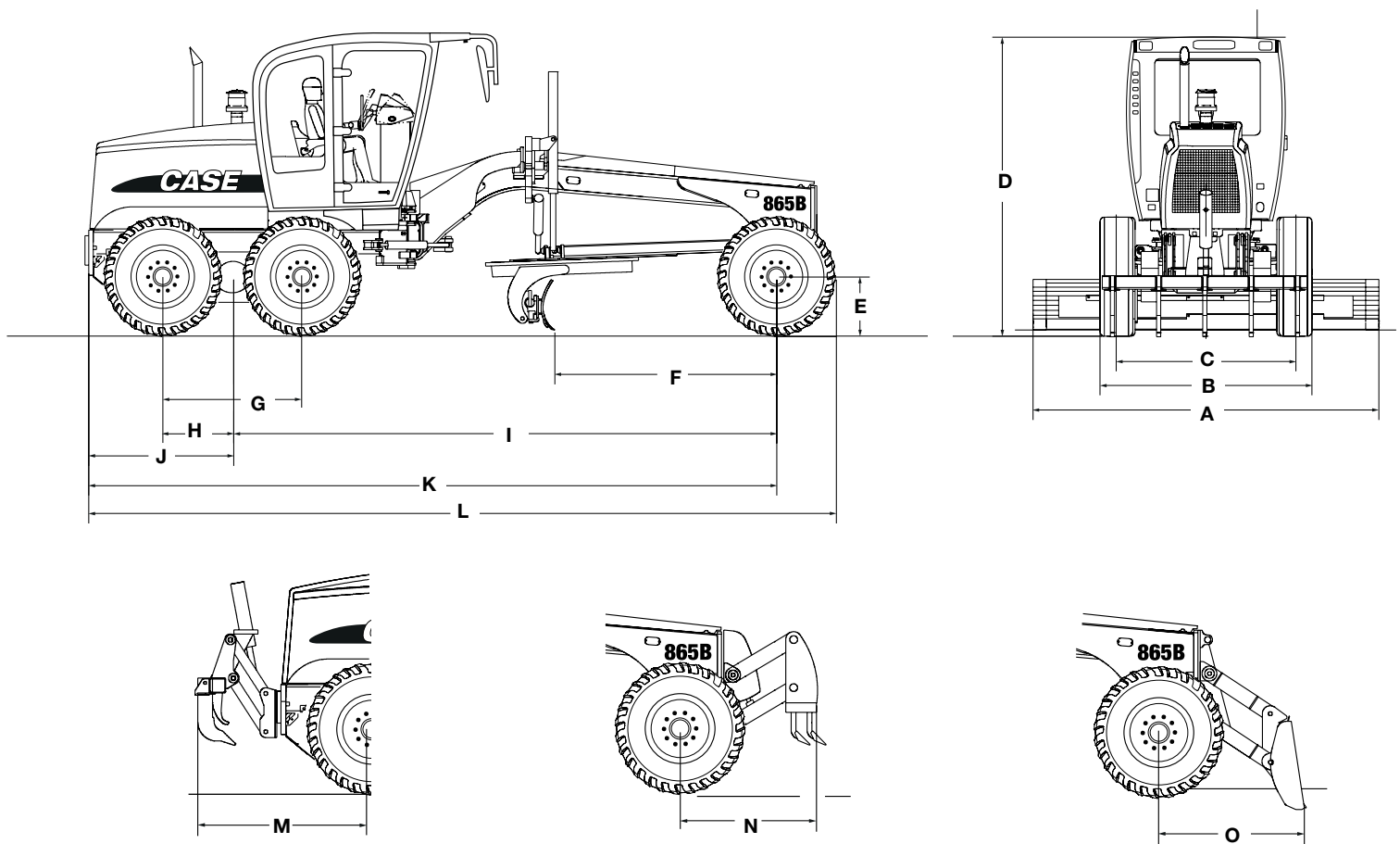
Type	Parallel
Ripper teeth	3
Optional	5
Scarifier teeth	5
Optional	9
Width of cut	92.13 in (2 340 mm)
Lift above ground:	
Ripper teeth	20.38 in (518 mm)
Scarifier teeth	27.67 in (703 mm)
Max. penetration:	
Ripper teeth	17.22 in (437 mm)
Scarifier teeth	9.43 in (252 mm)
Weight	1,874 lb (850 kg)

DOZER BLADE

Type	Front mounted
Width	109 in (2 762 mm)
Height	37.5 in (953 mm)
Lift above ground	24.5 in (622 mm)
Penetration	6.5 in (165 mm)
Weight	2,568 lb (1 165 kg)
Includes front attachment group	

COUNTERWEIGHT

Type	Front mounted
Weight	1,084 lb (492 kg)



Line drawings are for illustrative purpose only and may not be exact representation of unit.

DIMENSIONS

	865B AWD VHP
A. Blade width	14 ft 0 in (3 962 mm)
B. Distance between outside edges of tires	8 ft 2 in (2 452 mm)
C. Wheel tread – rim 9 x 24 - one piece rim	6 ft 10 in (2 106 mm)
D. Height to top of cab – high profile	10 ft 11 in (3 340 mm)
D. Height to top of cab – low profile	10 ft 4 in (3 150 mm)
E. Tire radius – when static	2 ft 0 in (610 mm)
F. Blade base	8 ft 5 in (2 562 mm)
G. Distance between tandem axles	5 ft 2 in (1 594 mm)
H. Distance between tandem center and wheel	2 ft 7 in (797 mm)
I. Wheelbase	20 ft 5 in (6 219 mm)
J. Distance between tandem center and rear end of machine	5 ft 5 in (1 650 mm)
K. Distance between front axle and rear end of machine	25 ft 10 in (7 869 mm)
L. Overall length – without ripper or front attachment	28 ft 0 in (8 534 mm)
M. Distance between rear tires and rear ripper	6 ft 8 in (2 028 mm)
N. Distance between front tires and front scarifier	5 ft 0 in (1 520 mm)
O. Distance between front tires and front dozer blade	5 ft 4 in (1 626 mm)
Outside tire turning radius	23 ft 9 in (7 250 mm)
Ground clearance – rear axle	14.9 in (380 mm)
Ground clearance – front axle	24.5 in (622 mm)

NOTE: All units equipped with 14.0 x 24-10 PR tires, ROPS cab with heater and A/C, std. battery, full fuel, 175 lb (79 kg) operator. Specifications per ISO 7134.

STANDARD EQUIPMENT

OPERATOR ENVIRONMENT

See page 1

ENGINE

FPT F4HE9687C turbocharged diesel

Tier 3 certified

Temperature controlled cooling fan

Charge air cooler

Air intake grid heater

Common rail electronic fuel injection

Hydraulic driven cooling fan

Auto idle

DRIVETRAIN

Hydraulic differential lock

HYDRAULICS

Closed center, load sensing hydraulic system

Controls for all functions

9 section control valve

Hydraulic moldboard side shift and pitch

5-position saddle

14 ft x 23.6 in (4267 x 600 mm) moldboard

Moldboard Float Control

8 hydraulic diagnostic quick couplers

TIRES

14.0 x 24-12 PR

INSTRUMENTS

Analog displays/Gauges:

Fuel level; Engine coolant temperature;

Transmission oil temperature;

Hydraulic oil temperature.

Monitor Functions:

Hour meter; Engine speed; Travel speed;

Current gear selection; FNR indication;

Clock; Trip computer; Fuel consumption;

Fuel level percentage; Oil pressure;

Coolant temperature; Engine oil

temperature; Transmission oil temperature;

Hydraulic oil temperature; Turbocharger air

temperature; Differential lock indicator;

Engine diagnostics; Transmission

diagnostics; System voltage; Error reporting;

Warning prompts; Indicator warning lamps –

main warning, parking brake, low brake

pressure, high beams, turn signals,

hazard lights, low fuel.

ELECTRICAL

(2) Heavy-duty batteries – 1010 CCA

Electronic Systems Monitor

Horn

Alternator – 90 amp

Backup alarm

Headlights

(2) Turn signals front

(2) Tail lights with turn signals, brake lights

Flood lights – cab mounted

TELEMATICS

CASE SiteWatch™ Telematics – includes hardware and a 3-yr Advanced data subscription

OPTIONAL EQUIPMENT

MOLDBOARDS

12 ft x 22 in (3658 x 559 mm), involute curve

13 ft x 23.6 in (4267 x 600 mm), involute curve

Extensions – 2 ft (610 mm)

Front Float Control

Lift cylinder/side shift accumulators

Lift cylinder accumulators

OPERATOR ENVIRONMENT

High profile ROPS/FOPS cab

Front windows openable with rear window defroster

Lower front wiper/washers

Rear windshield washer

Air suspension seat

Radio, AM/FM with CD player

TIRES

13.0 x 24-12 PR

14.0 x 24-10 PR

14.0 x 24-12 PR

14.0 x R24 XGLA radial

14.0 x R24 Snoplus

16.0 x 24-12 PR

17.5 x 25-12 PR

17.5 x 25-16 PR

17.5 x R25 XTLA radial

17.5 x R25 Snoplus

ELECTRICAL

(2) Front mounted working lights

(2) Floodlights at moldboard

(2) Floodlights at articulation

Snow plow lighting package

OTHER

Bidirectional engine cooling fan

Cold weather package

Fire extinguisher

Strobe light

Tool box – without tools

Deluxe tool box – with tools

Tire inflator kit

Spare wheel

Spare wheel support

Slow moving vehicle sign

Rear pull hook

ATTACHMENTS

Front pull hook

Front counterweight

Front dozer blade

Front scarifier

Front push plate

Front support and lift cylinder

Rear ripper



NOTE: All specifications are stated in accordance with SAE Standards or Recommended Practices, where applicable.

NOTE: All engines are compliant with current EPA emissions requirements.

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All Case construction equipment is biodiesel ready.



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