



ENGINE

Model	FPT F5HFL463D
Emissions Certification	Tier 4 Final
Type	Diesel, 4-stroke, turbocharged
Cylinders	4
Bore/Stroke	3.9 in x 4.33 in (99 mm x 110 mm)
Displacement	207 in ³ (3.4 L)
Fuel injection	Direct high pressure common rail
Fuel	Diesel
Cooling	Charged air
Engine speeds*	RPM
Rated speed, full load	2200
Low idle	900 - 1000
High idle, no load	2330 - 2430
Horsepower @ 2200 RPM:	
Gross	74 hp (55 kW)
Net	68 hp (51 kW)
Maximum torque @ 1400 RPM:	
Gross	233 lb-ft (316 N-m)
Net	220 lb-ft (298 N-m)
Torque rise at rated speed	35% +/- 5%
Radiator:	
Core size area	486 in ² (3 145 cm ²)
Rows of tubes	5
33° fan:	
Style	7 blade suction
Ratio	1.1:1
Engine oil	CJ-4 – semi-synthetic 10W40
Pump operating angle ratings:	
Side-to-side	Rated 35°
Fore and aft	Rated 35°
Oil filtration	Replaceable, spin-on

NOTE: *Meets federal emission regulations.

DRIVETRAIN

Transmission – standard:
4F-4R Power Shuttle
Synchronesh Transmission manual gear shift
fully synchronized

Gear ratios	Forward/Reverse
1st	5.603/5.603
2nd	3.481/3.481
3rd	1.584/1.584
4th	0.793/0.793
Travel speeds	mph (kph)
1st	3.8 (6.1)
2nd	6.1 (9.8)
3rd	12.8 (20.6)
4th*	24.0 (38.6)
Torque converter ratio	3.01
Differential lock	On-the-go push-button activation
Drive/steer axle:	
Differential ratio	2.5/2.0
Planetary hub ratio	6.4/6.0
Total reduction ratio	16.0/12.0

Service brakes:
Individually applied, hydraulically actuated,
outboard mounted, wet disc, 2 per side

Parking brakes Transmission Mounted
spring applied hydraulic
release – SAHR

NOTE: *Travel speeds at 2330 engine RPM
w/ 19.5 L x 24 tires.

ELECTRICAL

Voltage	12 Volts
Alternator	120 amp
Battery	950 cold-cranking amps
Power plugs – 2	30 amps total

OPERATOR ENVIRONMENT

ROPS/FOPS certified protective canopy; Wide
walk through platform; Vinyl seat; 3 in (76 mm)
seat belt; Molded front fenders; Rearview mirrors,
left and right.

Gauges:
Hour meter; Engine RPM; Engine coolant
temperature; Transmission oil temperature;
Job timer; Fuel level.

Warning lights:
Air cleaner restriction; Alternator; Cold start;
Engine oil pressure; Hydraulic oil filter
bypass; Parking brake engagement; Engine
coolant temp; Battery voltage.

Audible alarms:
Coolant temperature; Engine oil pressure;
Parking brake engagement; Converter oil
temperature; Backup; Horn.

OPERATING WEIGHT

Configuration 1 – Lightest:

16,102 lb (7 304 kg)
2WD, 15 ft Std. Mast, 48 in forks

Configuration 2 – Heaviest:

16,978 lb (7 701 kg)
4WD, 22 ft Std. Mast, 48 in forks

Add-on weights:

Masts:	
15 ft Std. Mast	2,468 lb (1 120 kg)
22 ft Std. Mast	3,183 lb (1 444 kg)
Carriage – 60 in	110 lb (50 kg)
Forks:	
Hook style	330 lb (150 kg)
Shaft style	302 lb (137 kg)

HYDRAULICS

Pump	Gear pump
Capacity	24 gal/min @ 3,000 psi (91 L/min @ 207 bar)

SERVICE CAPACITIES

Fuel tank	31 gal (119 L)
Hydraulic system:	
Total	74 qt (70 L)
Reservoir w/ filter	58 qt (55 L)
Reservoir w/o filter	56 qt (53 L)
Transmission:	
2WD:	
Total	19.5 qt (18.5 L)
Reservoir	12.6 qt (11.9 L)
4WD:	
Total	22.0 qt (20.8 L)
Reservoir	15.2 qt (14.4 L)
Front axle:	
Differential and Planetaries	14.4 qt (13.6 L)
Rear axle:	
Differential and Planetaries	5.8 qt (5.5 L) 0.7 qt (0.7 L)
Engine oil w/ filter	8.5 qt (8.0 L)
Cooling system	18.3 qt (17.3 L)

OTHER SPECIFICATIONS

Mast:

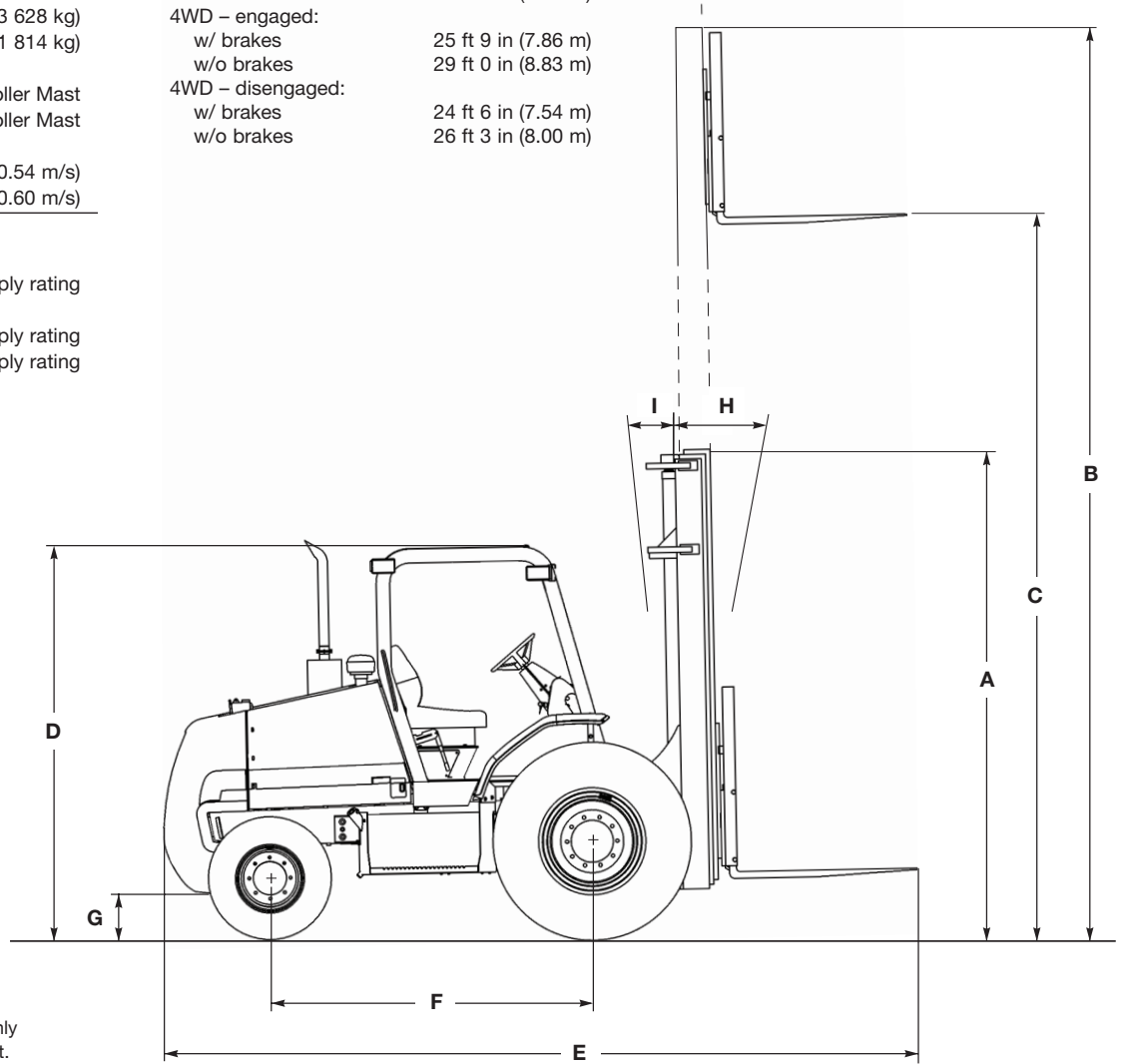
Lift capacity to full height w/ 24 in load center:	
15 ft Std. Mast	8,000 lb (3 628 kg)
22 ft Std. Mast	4,000 lb (1 814 kg)
Mast type:	
15 ft Std. Mast	2 Stage Roller Mast
22 ft Std. Mast	3 Stage Roller Mast
Lift speed:	
15 ft Std. Mast	106 ft/min (0.54 m/s)
22 ft Std. Mast	118 ft/min (0.60 m/s)

Tires:

Front:	
2/4WD	19.5 L x 24, 12-ply rating
Rear:	
2WD	12 L x 16.5, 12-ply rating
4WD	12 L x 16.5, 10-ply rating

Turning diameter:

2WD:	
w/ brakes	23 ft 8 in (7.19 m)
w/o brakes	25 ft 9 in (7.86 m)
4WD – engaged:	
w/ brakes	25 ft 9 in (7.86 m)
w/o brakes	29 ft 0 in (8.83 m)
4WD – disengaged:	
w/ brakes	24 ft 6 in (7.54 m)
w/o brakes	26 ft 3 in (8.00 m)



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

DIMENSIONS

	15 ft (4.57 m) Std. Mast	22 ft (6.71 m) Std. Mast
A. Overall height to top of mast – mast closed	10 ft 5 in (3.18 m)	10 ft 5 in (3.18 m)
B. Overall operating height – mast raised to full height	18 ft 4 in (5.59 m)	25 ft 5 in (7.75 m)
C. Maximum fork height – forks horizontal	15 ft 0 in (4.57 m)	22 ft 0 in (6.71 m)
D. Overall height to top of ROPS: 19.5 L x 24, 12-ply	104.1 in (2 645 mm)	104.1 in (2 645 mm)
E. Overall length with 48 in forks	17 ft 1 in (5.21 m)	17 ft 2 in (5.23 m)
F. Wheelbase:		
2WD	84 in (2.13 m)	84 in (2.13 m)
4WD	84.5 in (2.15 m)	84.5 in (2.15 m)
G. Ground clearance:		
2WD	10.3 in (260 mm)	10.3 in (260 mm)
4WD	10.3 in (260 mm)	10.3 in (260 mm)
H. Forward mast tilt	45°	45°
I. Backward mast tilt	15°	15°
Overall width – outside tires	7 ft 4 in (2 236 mm)	7 ft 4 in (2 236 mm)
Mast side shift – right	3 in (76 mm)	3 in (76 mm)
Mast side shift – left	3 in (76 mm)	3 in (76 mm)

STANDARD EQUIPMENT

ENGINE

FPT 3.4 L Diesel
Cooled EGR
Diesel Oxidation Catalyst
Full flow engine oil filter
Air cleaner:
 Replaceable dry type with radial seal
Radiator with de-aeration bottle
Antifreeze to -34°F (-37°C)
Foot throttle
Self adjusting belt
Insulated CCV hose
Glow Plugs
Block Heater
Pre Cleaner
Master Disconnect Switch
Remote Jump Start Terminals for Battery

MAST

See page 1

OPTIONAL EQUIPMENT

MAST/FORKS/CARRIAGE

15 ft Standard Mast
22 ft Standard Mast
48 in Pallet Forks, ITA Class 3 hook type
48 in Pallet Forks, shaft type
60 in Backrest
Other mast/fork/carriage combinations available through Special Feature

DRIVETRAIN

Front axle, as selected:
 2/4WD heavy-duty outboard planetary drive, with 19.5 L x 24 tires
Rear axle:
 2WD heavy-duty front axle with 12 L x 16.5 tires
 4WD heavy-duty mechanically driven rear axle, with 12 L x 16.5 tires
4F-4R Power Shuttle
 Synchromesh Transmission
Torque converter
On-the-Go electric 4WD control
Electric F/R shuttle control
Electric differential lock control, with push-button activation
Park brake, spring applied, hydraulic release

HYDRAULICS

Heavy-duty hydraulic oil cooler
7 micron, spin-on oil filter

OPERATOR ENVIRONMENT

See page 1

OTHER

Storage Compartment, lockable
Swing out side panel engine access
Front/rear tie downs
Reflective logos
Light Package:
 2 front halogen driving lights
 2 rear halogen work lights
 1 rear tail/stop light
 2 front turn signals
 2 rear turn signals
 Hazard warning

HYDRAULICS

4 section valve for auxiliary hydraulics

OPERATOR ENVIRONMENT

Load control
Deluxe suspension seat, with lumbar support and high adjustments

OTHER

Special paint
Sitewatch Telematics

