

# ROUGH TERRAIN FORKLIFT

F50C



## LIFT AND LOAD FASTER AND MORE SMOOTHLY

The NEW F50C rough terrain forklift lives up to its billing. You'll load materials with greater speed and ease on uneven, rutted or stony terrain. Its high-performing lift capacity, comfortable operator's platform and outstanding dual-mast visibility will increase your productivity in a wide range of work.

### Any job, any terrain

Standard 4WD and a power shuttle synchromesh transmission with four forward and four reverse gears put you in control of nearly any job or terrain. Standard differential lock features on-the-go, push-button activation and over 10 inches of ground clearance to let you tackle any terrain with ease.

### Fuel-efficient power

A simple, cost-effective Tier 4 Final solution, the 74-HP, 3.4-liter FPT engine features a Diesel Oxidation Catalyst (DOC) for increased fuel efficiency and faster response times. No fluids to add or diesel particulate filters to replace means simplified maintenance.

### Industry's first load control system

A 12-ft. standard mast delivers a 5,000-lb. lift capacity. Automatic load control—an industry first—provides on-the-go mast cushioning to stabilize your load when traveling over bumpy terrain and reduce shock for a more comfortable ride.

# F50C ROUGH TERRAIN FORKLIFT SPECIFICATIONS

Engine	
Model	FPT F5HFL463D
Emissions Certification	Tier 4 Final
Type	Diesel, 4-stroke, turbocharged
Cylinders	4
Bore/Stroke	in (mm) 3.9 x 4.33 (99 x 110)
Displacement	in <sup>3</sup> (L) 207 (3.4)
Fuel injection	Direct high pressure common rail
Fuel	Diesel
Cooling	Charged air
Engine speeds*	
Rated - full load	rpm 2,200
Low idle	rpm 900 - 1,000
High idle - no load	rpm 2,330 - 2,430
Horsepower @ 2200 RPM	
Gross	hp (kW) 74 (55)
Net	hp (kW) 68 (51)
Maximum torque @ 1400 RPM	
Gross	lb-ft (N•m) 233 (316)
Net	lb-ft (N•m) 220 (298)
Torque rise at rated speed	35% +/- 5%
Radiator	
Core size area	in <sup>2</sup> (cm <sup>2</sup> ) 486 (3145)
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

Drivetrain	
Transmission – standard	4F-4R Power Shuttle Synchromesh 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	
1st	mph (kph) 3.8 (6.1)
2nd	mph (kph) 6.1 (9.8)
3rd	mph (kph) 13.0 (20.9)
4th**	mph (kph) 24.1 (38.8)
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

\*Meets federal emission regulations.

\*\*Travel speeds at 2330 engine RPM w/ 16.9 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; Rearview mirrors, left and right; 2 rear LED work lights; Wide walk through platform; 3 in (76mm) seat belt; Molded front fenders; Non-suspension vinyl seat.	
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.	

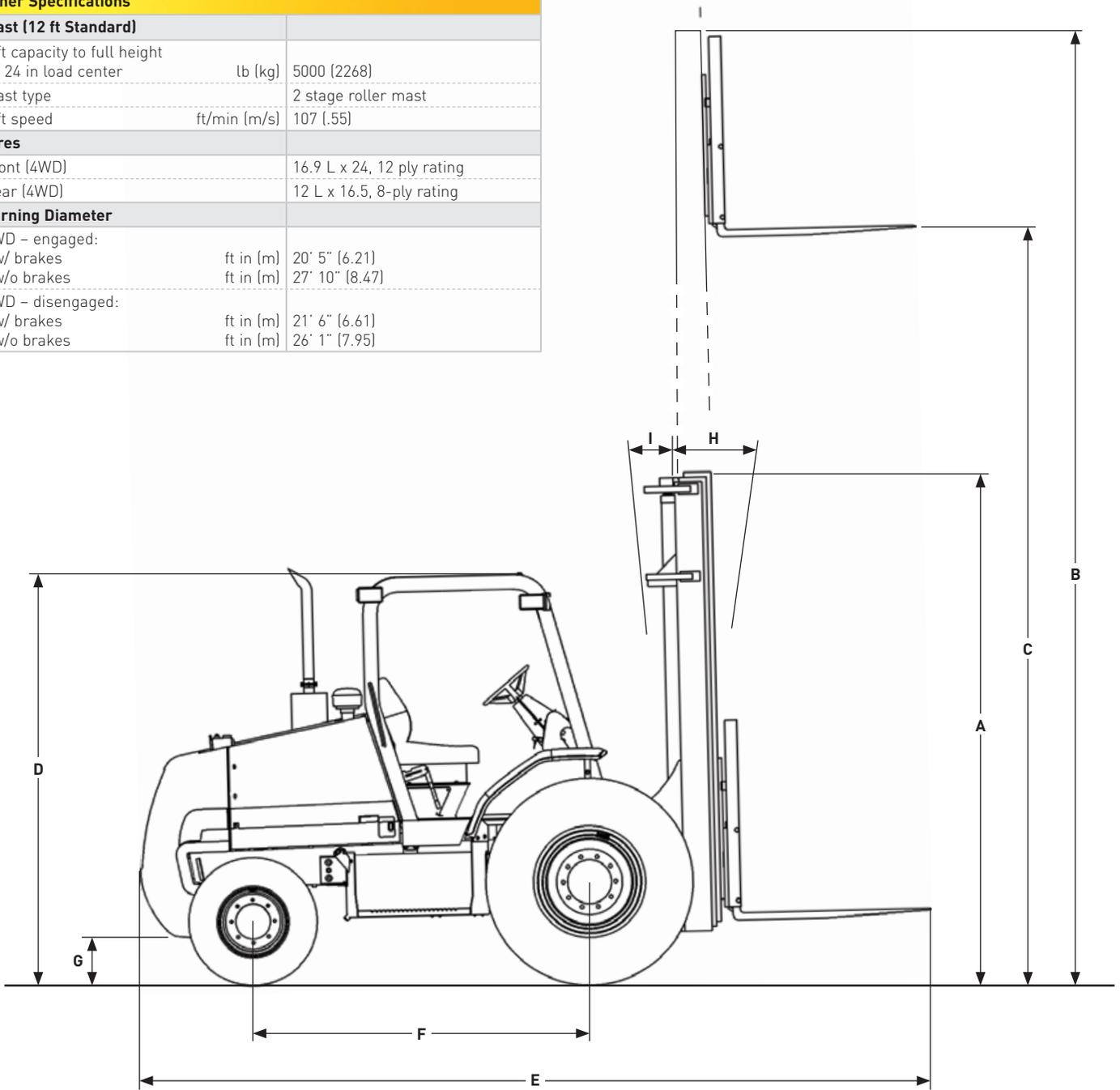
Operating Weight		
4WD, 12 ft Mast, 48 in forks	lbs (kg)	12,885 (5845)

Hydraulics		
Gear pump	gpm (Lpm)	18 @ 3,000 psi 68 @ 207 bar
Heavy-duty hydraulic oil cooler		
7 micron, spin-on oil filter		

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

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Other Specifications		
<b>Mast (12 ft Standard)</b>		
Lift capacity to full height w/ 24 in load center	lb (kg)	5000 (2268)
Mast type		2 stage roller mast
Lift speed	ft/min (m/s)	107 (.55)
<b>Tires</b>		
Front (4WD)		16.9 L x 24, 12 ply rating
Rear (4WD)		12 L x 16.5, 8-ply rating
<b>Turning Diameter</b>		
4WD – engaged:		
w/ brakes	ft in (m)	20' 5" (6.21)
w/o brakes	ft in (m)	27' 10" (8.47)
4WD – disengaged:		
w/ brakes	ft in (m)	21' 6" (6.61)
w/o brakes	ft in (m)	26' 1" (7.95)



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

Dimensions		
		<b>12 ft (3.66 m) Std. Mast</b>
<b>A.</b>	Overall height to top of mast – mast closed	in (m) 110 (2.8)
<b>B.</b>	Overall operating height – top of bin clamp w/ mast fully raised	in (m) 225 (5.7)
<b>C.</b>	Maximum fork height – forks horizontal	in (m) 144 (3.7)
<b>D.</b>	Overall height to top of ROPS: 19.5 L x 24, 12-ply	in (m) 104 (2.6)
<b>E.</b>	Overall length with 48 in forks	ft in (m) 16' 2" (4.93)
<b>F.</b>	Wheelbase: 4WD	in (m) 84.5 (2.15)
<b>G.</b>	Ground clearance: 4WD	in (mm) 10.3 (260)
<b>H.</b>	Forward mast tilt	degrees 45
<b>I.</b>	Backward mast tilt	degrees 15
	Overall width – outside tires	in (mm) 80.7 (2050)
	Mast side shift – right	in (mm) 3 (76)
	Mast side shift – left	in (mm) 3 (76)

## 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

Drivetrain
Front axle, as selected: 4WD heavy-duty outboard planetary drive, with 16.9 L x 24 tires
Rear axle: 4WD heavy-duty mechanically driven rear axle, with 12 L x 16.5 tires
4F-4R Power Shuttle Synchronesh 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
Load control

Mast
See page 3
48 in Pallet Forks, ITA Class 2 hook type

Hydraulics
See page 2

Operator Environment
See page 2

Other
Swing out side panel engine access
Front/rear tie downs
Reflective logos
Light Package: Turn signals Hazard warning Combination flashers 2 front LED work lights 2 rear LED work light Brake and turn signals

## OPTIONAL EQUIPMENT

Other
FleetForce™ Telematics



Learn more at [www.newholland.com](http://www.newholland.com)

Design, materials and/or specifications are subject to change without notice and without liability therefor. Specifications are applicable to units sold in Canada, the United States, its territories and possessions, and may vary outside these areas.

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Safety begins with a thorough understanding of the equipment. Always make sure you and your operators read the Operator's Manual before using the equipment. Pay close attention to all safety and operating decals and never operate machinery without all shields, protective devices and structures in place.

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