

W50C

COMPACT WHEEL LOADER



ENGINE	
Model	FPT F5H FL463 A
Emissions certification	Tier 4 Final
Type	4-stroke
Cylinders	4
Bore/Stroke	3.9 x 4.3 in (99 x 110 mm)
Displacement	207 in³ (3.4 L)
Fuel injection	High pressure, common rail injection
Fuel	Diesel
Fuel filter	Spin on, Beta (4) = 20
Air filter	Dry type element w/ warning restriction indicator
Exhaust aftertreatment:	
Cooled Exhaust Gas Recirculation (CEGR) w/ Diesel Oxidation Catalyst (DOC)	
Radiator:	
Core type	All aluminum
Fan:	
Style	Direct drive
Lubrication/cooling oil pump:	
Style	Integral
Engine Oil:	
Pump:	
Rotor Pump w/ deep sump pan, plate cooled & pressurized under piston nozzles	
Pump operating angle ratings:	
Side-to-side	Rated 35°
Fore and aft	Rated 35°
Oil filtration	Spin on, full flow
Engine speeds	RPM
Rated – full load	2500
Low idle	950
High idle – no load	2500
Horsepower @ 2500 RPM:	
Gross	58 hp (43 kW)
Net	55 hp (41 kW)
Peak torque @ 1400 RPM:	
Gross	181 lb-ft (250 N-m)
Net	181 lb-ft (250 N-m)

NOTE: Gross horsepower and torque per SAE J1349.
Net horsepower and torque per SAE J1349.



DRIVETRAIN	
Transmission	Hydrostatic transmission
Pump relief	6092 psi (42 000 kPa)
Pump flow @ 2500 RPM	26.4 gpm (100 L/min)
Differential:	
Limited Slip, front and rear	
Front axles:	Z-bar
Differential ratio	3.63
Planetary ratio	4.24
Final axle ratio	15.34
Gear box:	
1st ratio	2.56
Planetaries	Outboard
Service brakes:	
Master cylinder hydraulically actuated Z-bar	Drum brake system
Parking brake:	
Mechanical Z-bar	Drum brake system
Travel speeds	Forward Reverse mph (kph) mph (kph)
1st low	4.7 (7.0) 3.1 (5.0)
2nd high	12.4 (20.00) 12.4 (20.00)

ELECTRICAL	
Voltage	12 volts
Alternator	120 amp
Batteries	95 AHR, 900 CCA

OPERATOR ENVIRONMENT	
ROPS/FOPS four post canopy: Adjustable vinyl mechanical suspension seat w/ automatic weight control; Base and Deluxe Cab w/ heater and AC; Key start; Articulated power steering w/ tilt column; Full adjustable, cloth suspension seat; Foot throttle; Single joystick w/ electronic speed shift control F/N/R switch proportional loader control and proportional hydraulic auxiliary w/ detent switch hydraulic; 3rd function auxiliary hydraulics; Display w/ encoder; SSL compatible coupler; Cup holder; Sun screen – front; Opening side window; Dome light; Wipers – front and rear; 12-volt auxiliary power; Lighter cigar and ashtray; Pocket cellular phone; Coat hook; External rearview mirrors; Loader control lockout; Storage tray and Telescopic steering wheel w/ Deluxe Cab.	

Electronic information center	
Rear view camera	
Displays/Gauges:	
Fuel Level, Engine Coolant temperature, Engine RPM, Vehicle Speed, Floating Functionality On/Off, Vehicle Hours, Vehicle Direction F/R, Gear number engaged, Clock.	
Indicator lights:	
Main hydraulic enabled; Turn signal – left and right; Rear work lamps; Work lamps; Main high beam; Side lights; Stop; Warning signal; Rabbit; Hand brake; Brake fluid level; Quick coupler on; Ride Control on; Creep speed; Low fuel level; Clogging air filter; Engine oil pressure; Glow plug; Alternator changing.	
Audible alarms:	
Caution alarm; Critical alarm; Backup alarm.	
Horn	

NOTE: If equipped w/ option.

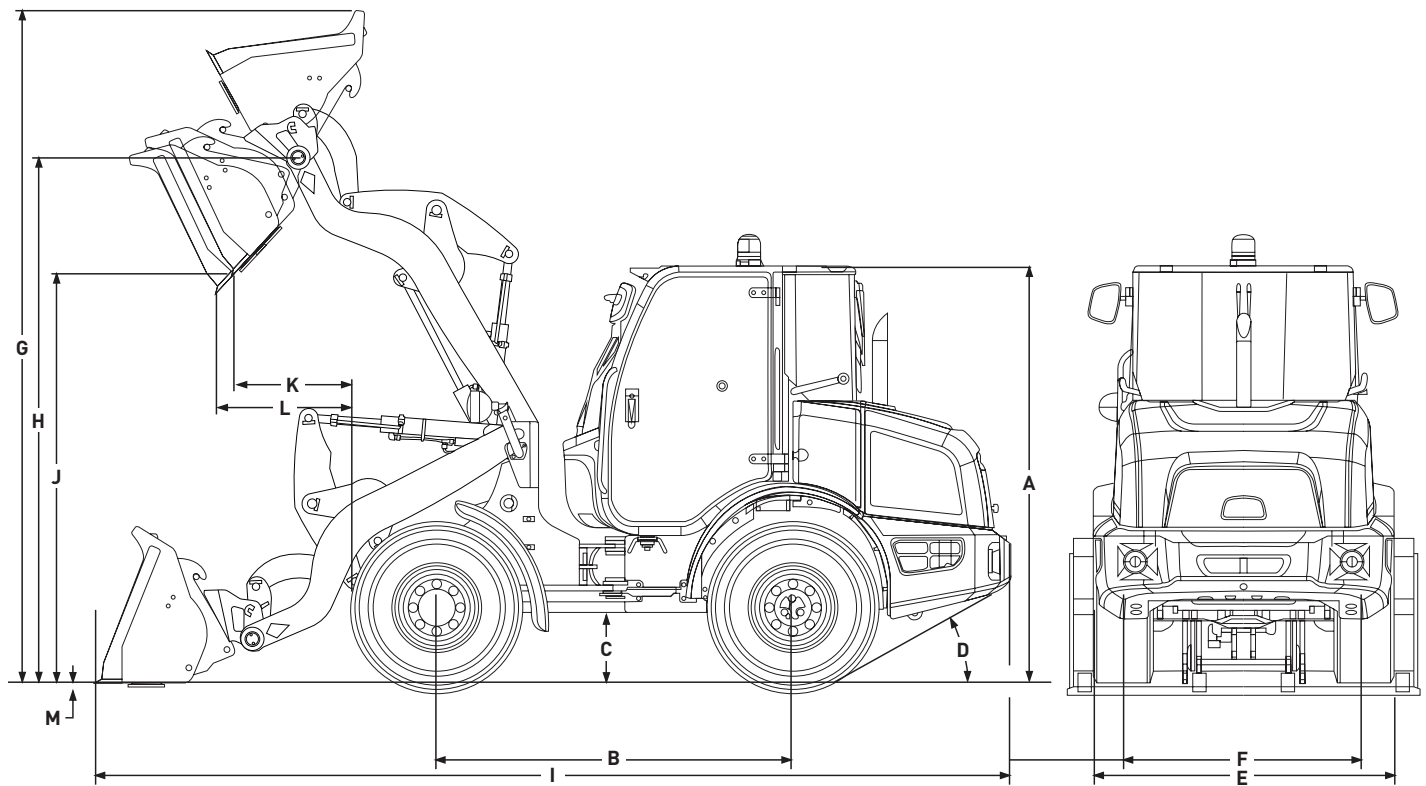
OPERATING WEIGHT	
Z-Bar:	10,518 lb (4771 kg)
Unit equipped w/ ROPS/FOPS cab w/ heater & A/C, standard counterweight, 12.5-18 MPT-04 Bias Mitas Tires, front and rear fenders, 0.92 yd³ (0.7 m³) general purpose bucket w/ bolt on edge, full fuel, 165 lb (75 kg) operator	

HYDRAULICS	
Pump – steering/implement:	
Open-centered pressure/flow compensated	
Fixed gear type:	
Max. 17.7 gpm @ 2500 RPM @ 3046 psi (Max. 67 L/min @ 2500 RPM @ 21 000 kPa)	
Electro-Hydraulic (EH) joystick loader control:	
Forward/Neutral/Reverse switch, Floating switch, Low/High Travel mode switch, 3rd Function Auxiliary Roller control	
EH Joystick loader control adjustability switch for lift and tilt functions; Return to dig; Skid steer style; Connect under pressure connectors; Remote drain of hydraulic oil; Auxiliary hydraulic drain line coupling	
Loader auxiliary steering:	
Hydraulic orbital center-pivot articulating w/ on-demand oil flow	
Main relief pressure:	
Z-bar	3046 psi (21 000 kPa)
Filtration:	
10-micron, full flow replaceable cartridges on return line	

SERVICE CAPACITIES	
Fuel tank	22.7 gal (86.0 L)
Hydraulic system:	
Reservoir	10.6 gal (40.0 L)
Total	14.0 gal (53.0 L)
Front and rear axle:	
Front axle	
Z-bar	0.8 gal (3.8 L)
Rear axle	
Z-bar	0.99 gal (4.5 L)
Engine oil w/ filter	1.8 gal (7.0 L)
Cooling*	3.4 gal (13.0 L)

NOTE: *1.72 gal (6.5 L) antifreeze + 1.72 gal (6.5 L) water.

OTHER SPECIFICATIONS	
Lift cylinder – Z-bar	Two (2)
Bore diameter	4 in (101.6 mm)
Rod diameter	2.0 in (50.8 mm)
Stroke	27.68 (703 mm)
Tilt cylinder:	
Bore diameter	3.75 in (95.3 mm)
Rod diameter	2.0 in (50.8 mm)
Stroke	12.6 (306 mm)
Loader:	
Z-Bar:	
Z-Bar loader linkage	
Single control for lift and tilt	
Positive hold float	
Hydraulic attachment coupler:	
Skid steer compatible/horizontal pin compatible	
Cycle time:	
Z-Bar:	
Raise w/ rated bucket load	6.3 sec
Dump w/ rated bucket load	1.7 sec
Lower – empty	3.8 sec



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

DIMENSIONS		
Z-BAR		
A	Height to top of ROPS cab	96.8 in [2458 mm]
B	Wheelbase	81.7 in [2075 mm]
C	Ground clearance under shaft	17.5 in [444 mm]
	Ground clearance under axles	12.6 in [321 mm]
D	Angle of departure	28°
	Width:	
E	Overall without bucket	68.5 in [1740 mm]
F	Centerline tread	55.1 in [1400 mm]
	Turning radius – outside	146.5 in [3721 mm]
	Turning angle:	
	From center	40°
	Total angle	80°
	Rear axle oscillation – total	18°

W50C COMPACT WHEEL LOADER SPECIFICATIONS

PERFORMANCE SPECS		
W50C Z-Bar	0.92 yd ³ GP (0.7 m ³) GP Bucket with Bolt-on Edge	1.31 yd ³ GP (1.0 m ³) LM Bucket with Bolt-on Edge
ISO bucket capacity – struck	0.65 yd ³ [0.5 m ³]	1.05 yd ³ [0.8 m ³]
Heaped	0.92 yd ³ [0.7 m ³]	1.31 yd ³ [1.0 m ³]
Bucket width – outside	74.8 in [1900 mm]	80.7 in [2050 mm]
Bucket weight – includes coupler and added components	972 lb [441 kg]	1,091 lb [495 kg]
G Operating height – fully raised with spillguard	160.7 in [4081 mm]	166.1 in [4220 mm]
H Hinge pin height – fully raised	123.5 in [3137 mm]	123.5 in [3137 mm]
I Overall length – bucket level on ground	220.9 in [5612 mm]	220.9 in [5 612 mm]
Dump angle – fully raised	46°	46°
J Dump height – fully raised, 45° dump	90.6 in [2266 mm]	86.8 in [2204 mm]
K Bucket reach – fully raised, 45° dump	36.7 in [933 mm]	39.2 in [995 mm]
L Bucket reach – 7 ft 0 in [2.13 m] height, 45° dump	42.3 in [1073 mm]	42.2 in [1072 mm]
M Dig depth	4.9 in [125 mm]	4.9 in [125 mm]
Operating Load (ROC) - ISO	2768 lb [1256 kg]	2718 lb [1233 kg]
Maximum material density – ISO	3023 lb/yd ³ [1794 kg/m ³]	2078 lb/yd ³ [1233 kg/m ³]
Tipping load – ISO:		
Straight	6501 lb [2949 kg]	6233 lb [2904 kg]
40° turn	5536 lb [2511 kg]	5285 lb [2465 kg]
Lift capacity:		
Full height	6720 lb [3048 kg]	6651 lb [3017 kg]
Maximum reach	7620 lb [3456 kg]	7517 lb [3410 kg]
Ground	10,388 lb [4712 kg]	10,308 lb [4675 kg]
Breakout force with tilt cylinder	8301 lb [3765 kg]	7364 lb [3340 kg]
Maximum rollback:		
@ Ground	45°	45°
@ Carry position	52°	52°
@ Maximum reach	57°	57°
@ Full height	71°	71°
Maximum grading angle with bucket – back dragging	47°	52°
Loader clearance circle with bucket	345.2 in [8768 mm]	352.7 in [8959 mm]

FORKS	
W50C Z-Bar	
Fork length	47.2 in [1200 mm]
Fork weight – includes coupler	869 lb [394 kg]
Operating load – level ground	3261 lb [1479 kg]
Operating mass	10,238 lb [4644 kg]
Tipping load – straight	4756 lb [2157 kg]
Tipping load – 40° turn	4077 lb [1849 kg]
Fork load center	19.7 in [500 mm]

Standard Equipment

Operator Environment

- See page 1
- Vinyl seat (standard w/ canopy)
- Radio, antenna, and speakers (cab only)

Engine

- FPT F5H FL463 B
- Fuel filter with water trap
- Dual element air cleaner

Loader

- Z-Bar Linkage

Drivetrain

- 4-wheel drive
- Limited slip axles – front and rear
- Hydrostatic transmission
- Outboard planetary axles
- Mechanical parking brake

Hydraulics

- 3-spool loader control valve
- Single joystick with electronic speed shift control F/N/R switch and proportional loader control
- Adjustable electro hydraulic (EH) loader controls
 - Smooth, moderate & aggressive settings for both lift and tilt responsiveness:
 - Return to Dig
 - Hydraulic skid steer compatible coupler
 - Connect under pressure connectors
 - Remote drain of hydraulic oil
 - Aux. Hydraulic drain line coupling

Other

- Front and rear fenders
- Lights:
 - 2 Front driving headlights – high/low beam
 - 2 Rear flood lights
 - 2 Stop tail lights and backup light
 - Front and rear turn signal/flash
- Drawbar pin
- Articulation locking pin
- Tie-down and Lift-up point – front and rear
- Backup alarm
- Tool box
- Rotating beacon
- Bucket position indicator
- Front electrical socket for powered attachments
- Rear view camera

Telematics

- New Holland FleetForce™ Telematics – includes hardware and a 5-year advanced data subscription for 2-way communication

Optional Equipment

Operator Environment

- Creep speed: 0 – 3.1 mph (5 kph)
- TeleScop adjustable steering column on Deluxe Cab
- Canopy cab
- Horizontal pin coupler
- Air-ride seat (cab only)

Loader

- Buckets – see performance data:
 - General purpose standard
 - General purpose light material
- STD forks
- Ride Control
- Cold weather with Block Heater - Two 680 CCA batteries and Low-temp Hytran oil

Tires

- 12.5-18 MPT-04 Bias Mitas
- 335/80 R18 EM-02 Mitas
- 335/80 R18 Goodyear Powerload
- 365/70 R18 Alliance
- 365/70 R18 Goodyear Powerload
- 365/70 R18 EM-01 Mitas

Other

- LED work lights, 2 front and 2 rear
- Wheel Chocks



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Learn more at www.newholland.com

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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. This is a one-person machine. Never allow riders in the cab, outside the machine, or in/on any bucket or attachment.

