

W70D

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 in ³ (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	74 hp (55 kW)
Net	70 hp (52 kW)
Peak torque @ 1400 RPM:	
Gross	232 lb-ft (314 N-m)
Net	227 lb-ft (308 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	37.0 gpm (140 L/min)	
Differential:	Limited slip or 100% lock opt.	
Front axles:		
Differential ratio	3.67	
Planetary ratio	6.00	
Final axle ratio	22.00	
Gear box:		
1st ratio	2.75	
2nd ratio	1.16	
Planetaries	Outboard	
Service brakes:		
Master cylinder hydraulically actuated, wet disc on front axle		
SAHR park brake:		
Mechanical, caliper on front axle		
Travel speeds	Forward	Reverse
	mph (kph)	mph (kph)
1st low	3.6 [5.9]	3.6 [5.9]
2nd high	12.4 [20.0]	12.4 [20.0]
Travel speeds	Forward	Reverse
	mph (kph)	mph (kph)
1st low	3.2 [5.2]	3.6 [5.2]
2nd high	11. [17.7]	11. [17.7]
3rd high	21.7 [35]	21.7 [35]

NOTE: Travel speeds at full engine throttle w/ 365/80 R29 tires.

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

OPERATOR ENVIRONMENT	
ROPS: ISO 3471: 2,008 lb (6 800 kg); Deluxe Cab w/ heater and A/C; Key start; Articulated power steering w/ tilt column; Adjustable, cloth suspension seat; Foot throttle; Seat Mounted Single joystick w/ electronic speed shift control, F/N/R switch, proportional loader control and proportional hydraulic auxiliary w/detent switch hydraulic; Cup holder; Storage tray; Sun screen – front; Opening side window; Dome light; Wipers – front and rear; 12-volt auxiliary power; Pocket cellular phone; Coat hook; External rearview mirrors; Loader control lockout; Display w/ encoder; SSL compatible coupler.	
Electronic information center	
Rear view camera	
Displays/Gauges:	
Vehicle speed; Hourmeter; Floating functionality on; High flow functionality on; Clock; Vehicle directions; Gear number engaged.	
Indicator lights:	
Diff. lock; Main hydraulic enabled; Turn light – 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; PM Catalyst; 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:	12,547 lb (5691 kg)
Unit equipped w/ ROPS/FOPS cab w/ HVAC, standard counterweight, 14.5-20 MPT-04 Bias Mitas Tires, front and rear fenders, 1.2 yd ³ (0.9 m ³) general purpose bucket w/ edge, full fuel, 165 lb (75 kg) operator	

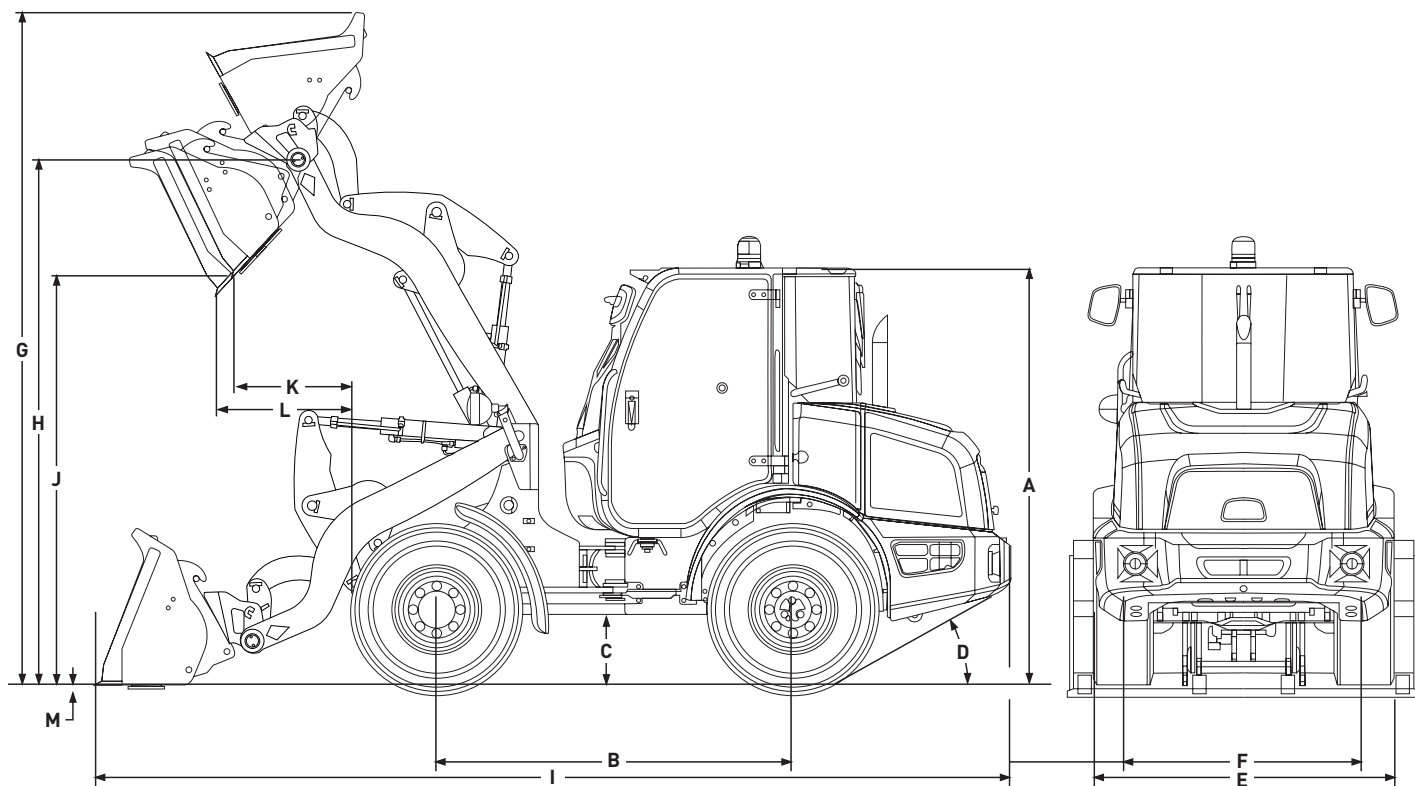
HYDRAULICS	
Pump – steering/implement:	
Open-centered pressure/flow compensated	
Fixed gear type:	
Standard flow:	Max. 22.5 gpm @ 3336 psi (Max. 85 L/min @ 230 bar)
Optional high flow:	Max. 34.3 gpm @ 2901 psi (Max. 130 L/min @ 200 bar)
Loader control valve:	
Open-center circuit. Electro-hydraulic control w/ single lever includes: Forward/Neutral/ Reverse switch, Floating switch, Low/High Travel mode switch, Auxiliary Function Roller	
Loader auxiliary steering:	
Hydraulic orbital center-pivot articulating w/ on-demand oil flow	
Main relief pressure:	
3336 psi (23 000 kPa)	
Filtration:	
15-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	1.6 gal (7.3 L)
Rear axle	1.9 gal (8.9 L)
Rear axle HS	2.3 gal (10.5 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	Two (2)
Bore diameter	3.25 in (82.5 mm)
Rod diameter	1.97 in (50.0 mm)
Stroke	29.57 in (751.0 mm)
Tilt cylinder:	
Bore diameter	3.49 in (88.7 mm)
Rod diameter	2.25 in (57.1 mm)
Stroke	19.96 in (507.0 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	5.8 sec
Dump w/ rated bucket load	0.9 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	103.4 in (2627 mm)
B	Wheelbase	87.6 in (2225 mm)
C	Ground clearance under shaft	17.3 in (440 mm)
	Ground clearance under axles	12.5 in (317 mm)
D	Angle of departure	27°
	Width:	
E	Overall without bucket	73.2 in (1860 mm)
F	Centerline tread	59.1 in (1500 mm)
	Turning radius – outside	157.0 in (3987 mm)
	Turning angle:	
	From center	40°
	Total angle	80°
	Rear axle oscillation – total	20°

W70D COMPACT WHEEL LOADER SPECIFICATIONS

PERFORMANCE SPECS		
W70D Z-Bar	1.2 yd ³ GP (0.9 m ³) Bucket with Bolt-on Edge	1.56 yd ³ GP (1.2 m ³) Bucket with Bolt-on Edge
ISO bucket capacity – struck	0.92 yd ³ [0.7 m ³]	1.31 yd ³ [1.0 m ³]
Heaped	1.18 yd ³ [0.9 m ³]	1.57 yd ³ [1.2 m ³]
Bucket width – outside	80.7 in [2050 mm]	82.7 in [2100 mm]
Bucket weight – includes coupler and added components	1065 lb [483 kg]	1254 lb [569 kg]
G Operating height – fully raised with spillguard	170.3 in [4326 mm]	175.9 in [4 469 mm]
H Hinge pin height – fully raised	129.5 in [3290 mm]	129.5 in [3289 mm]
I Overall length – bucket level on ground	230.1 in [5 844 mm]	233.8 in [5 939 mm]
Dump angle – fully raised	46°	46°
J Dump height – fully raised, 45° dump	95.7 in [2432 mm]	93.1 in [2365 mm]
K Bucket reach – fully raised, 45° dump	37.0 in [939 mm]	39.6 in [1006 mm]
L Bucket reach – 7 ft 0 in [2.13 m] height, 45° dump	48.5 in [1232 mm]	48.9 in [1243 mm]
M Dig depth	5.9 in [151 mm]	5.9 in [151 mm]
Operating Load (ROC) - ISO	3498 lb [1791 kg]	3948 lb [1791 kg]
Maximum material density – ISO	3354 lb/yd ³ [1990 kg/m ³]	2515 lb/yd ³ [1492 kg/m ³]
Tipping load – ISO:		
Straight	9190 lb [4169 kg]	9485 lb [4302 kg]
40° turn	7897 lb [3582 kg]	7895 lb [3581 kg]
Lift capacity:		
Full height	8309 lb [3769 kg]	8125 lb [3685 kg]
Maximum reach	10,593 lb [4805 kg]	10,403 lb [4719 kg]
Ground	12,984 lb [5890 kg]	12,801 lb [5806 kg]
Breakout force with tilt cylinder	11,004 lb [4991 kg]	10,926 lb [4956 kg]
Maximum rollback:		
@ Ground	40°	40°
@ Carry position	48°	48°
@ Maximum reach	67°	67°
@ Full height	71°	71°
Maximum grading angle with bucket – back dragging	58°	60°
Loader clearance circle with bucket	367.0 in [9321 mm]	371.4 in [9433 mm]

FORKS	
W70D Z-Bar	
Fork length	47.2 in [1200 mm]
Fork weight – includes coupler	880 lb [399 kg]
Operating load – level ground	5002 lb [2269 kg]
Operating mass	12,364 lb [5608 kg]
Tipping load – straight	6898 lb [3129 kg]
Tipping load – 40° turn	6252 lb [2836 kg]
Fork load center	19.7 in [500 mm]

Standard Equipment

Operator Environment

- See page 1
- Radio, antenna, and speakers
- Telescoping adjustable steering column on Deluxe Cab

Engine

- FPT F5H FL463 A
- Fuel filter with water trap
- Dual element air cleaner
- Smart Mode feature

Loader

- Z-Bar: Z-Bar loader linkage
- Single control for lift and tilt
- Positive hold float
- Hydraulic attachment coupler: Skid steer compatible
- Auto Ride Control w/speed settings

Drivetrain

- 4-wheel drive
- Limited slip – front and rear axles
- Hydrostatic transmission
- Single joystick with electronic speed shift control F/ N / R switch and proportional loader control
- Outboard planetary axles
- Hydraulic wet disc brakes
- Mechanical parking brake

Hydraulics

- 3-spool loader control valve
- 3 Diagnostic quick couplers
- Adjustable electro hydraulic (EH) loader controls
Smooth, moderate & aggressive settings for both lift and tilt responsiveness
- Return to travel and return to Dump
- Return to Dig
- Hydraulic skid steer compatible coupler
- Connect under pressure connectors
- Remote drain of hydraulic oil
- Aux. Hydraulic drain line coupling
- Auxiliary flow:
22.5 gpm @ 3336 psi (85 l/min @ 230 bar)

Other

- Front and rear fenders
- Lights:
2 LED Front driving headlights – high/low beam
2 LED 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

- myNewHollandConstruction Telematics – includes hardware and a 7-year advanced data subscription

Optional Equipment

Operator Environment

- Creep speed: 0 – 3.1 mph (5 kph)
- 100% lock – front and open rear axles
- Horizontal pin coupler
- 4 Corner strobe lights

Loader

- Optional High flow:
Max. 34.3 gpm @ 2500 RPM @ 2,901 psi
(Max. 130 L/min @ 2500 RPM @ 20 000 kPa)
- Buckets – see performance data:
General purpose standard
General purpose light material
- STD forks
- Cold weather with Block Heater - Two 680 CCA batteries and Low-temp Hytran oil
- Anti-burst valves

Tires

- 12.5-20 MPT-04 Bias Mitas
- 14.5-20 MPT-04 Bias Mitas
- 360/80 R20 Nokian Tri 2 Snow
- 365/70 R18 EM-01 Mitas
- 365/70 R18 Goodyear Powerload
- 365/80 R20 EM-01 Mitas
- 365/80 R20 Goodyear Powerload
- 400/70R20 AG (Michelin XMCL)
- 405/70 R20 Goodyear Powerload
- 550/45 R22.5 ATG Flotation

Other

- Wheel Chocks



New Holland Construction
500 Diller Ave.
New Holland, PA 17557

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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.

