

# W80D & W80D LR

## COMPACT WHEEL LOADERS



| ENGINE                                                                          |                                                         |
|---------------------------------------------------------------------------------|---------------------------------------------------------|
| Model                                                                           | FPT F5H FL463 A                                         |
| Emissions certification                                                         | Tier 4 Final                                            |
| Type                                                                            | 4-stroke                                                |
| Cylinders                                                                       | 4                                                       |
| Bore/Stroke                                                                     | 3.9 x 4.3 in<br>(99 x 110 mm)                           |
| Displacement                                                                    | 207 in³ (3.4 L)                                         |
| Fuel injection                                                                  | High pressure,<br>common rail injection                 |
| Fuel                                                                            | Diesel                                                  |
| Fuel filter                                                                     | Spin on, Beta (4) = 20                                  |
| Air filter                                                                      | Dry type element<br>w/ warning restriction<br>indicator |
| Exhaust aftertreatment:                                                         |                                                         |
| Cooled Exhaust Gas Recirculation (CEGR)<br>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<br>& 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.

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



| 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            | 2.46                                                              |                        |
| Gear box HS:         |                                                                   |                        |
| 1st ratio            | 2.75                                                              |                        |
| 2nd ratio            | 1.16                                                              |                        |
| Planetaries          | Outboard                                                          |                        |
| Service brakes:      | Master cylinder hydraulically actuated,<br>wet disc on front axle |                        |
| SAHR parking brake:  | Mechanical, caliper on front axle                                 |                        |
| Travel speeds        | Forward                                                           | Reverse                |
| 1st low              | 3.6 (5.9) mph (kph)                                               | 3.6 (5.9) mph (kph)    |
| 2nd high             | 12.4 (20.00) mph (kph)                                            | 12.4 (20.00) mph (kph) |
| Travel speeds – HS   | Forward                                                           | Reverse                |
| 1st low              | 3.6 (5.9) mph (kph)                                               | 3.6 (5.9) mph (kph)    |
| 2nd high             | 12.4 (14.4) mph (kph)                                             | 12.4 (14.4) mph (kph)  |
| 3rd high             | 25 (40.0) mph (kph)                                               | 25 (40.0) mph (kph)    |

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

| OPERATOR ENVIRONMENT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |  |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| ROPS: ISO 3471: 2008 lb (6800 kg); Deluxe Cab w/ heater and A/C; Key start; Articulated power steering w/ tilt column; 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; 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; PM Catalyst icons.                                                                                                                                                                                                                                                                                                                                                                                                                                                    |  |
| 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.

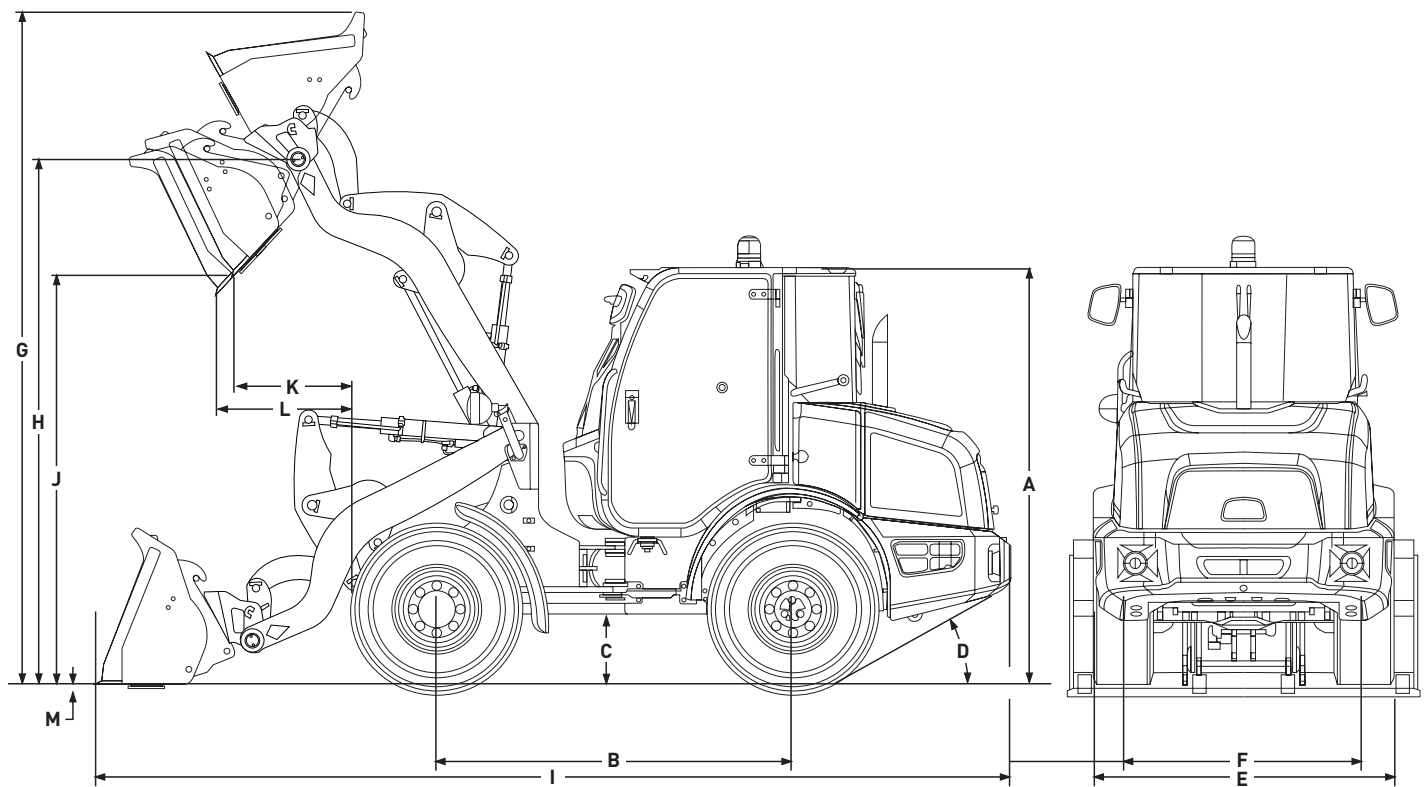
| OPERATING WEIGHT                                                                                                                                                                                                |                     |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|
| Z-Bar loader arm:                                                                                                                                                                                               | 13,633 lb (6184 kg) |
| Unit equipped w/ ROPS/FOPS cab w/ HVAC, standard HD counterweight, 14.5-20 MPT-04 Bias Mitas tires, front and rear fenders, 1.3 yd³ (1.0 m³) general purpose bucket w/ edge, full fuel, 165 lb (75 kg) operator |                     |
| LR loader arm:                                                                                                                                                                                                  | 13,900 lb (6305 kg) |
| Unit equipped w/ ROPS/FOPS cab w/ HVAC, standard HD counterweight, 14.5-20 MPT-04 Bias Mitas tires, front and rear fenders, 1.3 yd³ (1.0 m³) 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<br>(Max. 85 L/min @ 230 bar)  |
| Optional high flow:                                                                                                                                                             | Max. 34.3 gpm @ 2901 psi<br>(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                                                                                                                                                       |                                                        |
| 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 cylinders                                  | 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                                          | 22.24 in (535.0 mm) |
| Loader:                                         |                     |
| Loader Linkage:                                 |                     |
| Z-Bar W80D, Long Reach Z-Bar W80D LR            |                     |
| 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

|                                       |                    |
|---------------------------------------|--------------------|
| <b>A</b> Height to top of ROPS cab    | 105.5 in (2680 mm) |
| <b>B</b> Wheelbase                    | 87.6 in (2225 mm)  |
| <b>C</b> Ground clearance under shaft | 19.4 in (493 mm)   |
| Ground clearance under axles          | 14.6 in (370 mm)   |
| <b>D</b> Angle of departure           | 32°                |
| Width:                                |                    |
| <b>E</b> Overall without bucket       | 73.2 in (1860 mm)  |
| <b>F</b> 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°                |

## FORKS

|                                | W80D Z-Bar          | W80D LR Z-Bar       |
|--------------------------------|---------------------|---------------------|
| Fork length                    | 47.2 in (1200 mm)   | 47.2 in (1200 mm)   |
| Fork weight – includes coupler | 869 lb (394 kg)     | 934 lb (428 kg)     |
| Operating load – level ground  | 4998 lb (2267 kg)   | 4185 lb (1898 kg)   |
| Operating mass                 | 13,468 lb (6109 kg) | 13,613 lb (6175 kg) |
| Tipping load – straight        | 7372 lb (3344 kg)   | 6136 lb (2783 kg)   |
| Tipping load – 40° turn        | 6247 lb (2834 kg)   | 5433 lb (2465 kg)   |
| Fork load center               | 19.7 in (500 mm)    | 19.7 in (500 mm)    |

## W80D & W80D LR COMPACT WHEEL LOADER SPECIFICATIONS

| PERFORMANCE SPECS                                           |                                                    |                                                    |
|-------------------------------------------------------------|----------------------------------------------------|----------------------------------------------------|
| W80D Z-Bar                                                  | 1.3 yd³ GP (1.0 m³) GP<br>Bucket with Bolt-on Edge | 1.7 yd³ GP (1.3 m³) LM<br>Bucket with Bolt-on Edge |
| ISO bucket capacity – struck                                | 1.05 yd³ [0.8 m³]                                  | 1.44 yd³ [1.1 m³]                                  |
| Heaped                                                      | 1.31 yd³ [1.0 m³]                                  | 1.70 yd³ [1.3 m³]                                  |
| Bucket width – outside                                      | 82.7 in [2100 mm]                                  | 82.7 in [2100 mm]                                  |
| Bucket weight – includes coupler and added components       | 1076 lb [488 kg]                                   | 1173 lb [532 kg]                                   |
| <b>G</b> Operating height – fully raised with spillguard    | 175.1 in [4448 mm]                                 | 168.0 in [4276 mm]                                 |
| <b>H</b> Hinge pin height – fully raised                    | 133.7 in [3395 mm]                                 | 133.7 in [3395 mm]                                 |
| <b>I</b> Overall length – bucket level on ground            | 232.5 in [5905 mm]                                 | 236.6 in [6010 mm]                                 |
| Dump angle – fully raised                                   | 46°                                                | 46°                                                |
| <b>J</b> Dump height – fully raised, 45° dump               | 99.3 in [2521 mm]                                  | 96.3 in [2447 mm]                                  |
| <b>K</b> Bucket reach – fully raised, 45° dump              | 37.0 in [940 mm]                                   | 39.9 in [1014 mm]                                  |
| <b>L</b> Bucket reach – 7 ft 0 in [2.13 m] height, 45° dump | 51.4 in [1305 mm]                                  | 52.0 in [1322 mm]                                  |
| <b>M</b> Dig depth                                          | 5.2 in [133 mm]                                    | 5.3 in [134 mm]                                    |
| Operating Load (ROC) - ISO                                  | 4233 lb [1920 kg]                                  | 4236 lb [1922 kg]                                  |
| Maximum material density – ISO                              | 3273 lb/yd³ [1920 kg/m³]                           | 2492 lb/yd³ [1478 kg/m³]                           |
| Tipping load – ISO:                                         |                                                    |                                                    |
| Straight                                                    | 10,182 lb [4618 kg]                                | 10,376 lb [4706 kg]                                |
| 40° turn                                                    | 8466 lb [3840 kg]                                  | 8473 lb [3843 kg]                                  |
| Lift capacity:                                              |                                                    |                                                    |
| Full height                                                 | 7999 lb [3628 kg]                                  | 7932 lb [3598 kg]                                  |
| Maximum reach                                               | 9964 lb [4520 kg]                                  | 9834 lb [4461 kg]                                  |
| Ground                                                      | 12,770 lb [5792 kg]                                | 12,178 lb [5524 kg]                                |
| Breakout force with tilt cylinder                           | 10,629 lb [4821 kg]                                | 9407 lb [4267 kg]                                  |
| Maximum rollback:                                           |                                                    |                                                    |
| @ Ground                                                    | 39°                                                | 37°                                                |
| @ Carry position                                            | 48°                                                | 48°                                                |
| @ Maximum reach                                             | 66°                                                | 66°                                                |
| @ Full height                                               | 70°                                                | 70°                                                |
| Maximum grading angle with bucket – back dragging           | 59°                                                | 62°                                                |
| Loader clearance circle with bucket                         | 371.7 in [9441 mm]                                 | 374.1 in [9503 mm]                                 |

| PERFORMANCE SPECS                                           |                                                    |                                                    |
|-------------------------------------------------------------|----------------------------------------------------|----------------------------------------------------|
| W80D LR Z-Bar                                               | 1.3 yd³ GP (1.0 m³) GP<br>Bucket with Bolt-on Edge | 1.7 yd³ GP (1.3 m³) LM<br>Bucket with Bolt-on Edge |
| ISO bucket capacity – struck                                | 1.05 yd³ [0.8 m³]                                  | 1.44 yd³ [1.1 m³]                                  |
| Heaped                                                      | 1.31 yd³ [1.0 m³]                                  | 1.70 yd³ [1.3 m³]                                  |
| Bucket width – outside                                      | 82.7 in [2100 mm]                                  | 82.7 in [2100 mm]                                  |
| Bucket weight – includes coupler and added components       | 1230 lb [558 kg]                                   | 1329 lb [603 kg]                                   |
| <b>G</b> Operating height – fully raised with spillguard    | 186.2 in [4730 mm]                                 | 193.2 in [4909 mm]                                 |
| <b>H</b> Hinge pin height – fully raised                    | 145.9 in [3705 mm]                                 | 145.9 in [3705 mm]                                 |
| <b>I</b> Overall length – bucket level on ground            | 249.8 in [6344 mm]                                 | 253.9 in [6449 mm]                                 |
| Dump angle – fully raised                                   | 46°                                                | 46°                                                |
| <b>J</b> Dump height – fully raised, 45° dump               | 110.4 in [2803 mm]                                 | 107.4 in [2729 mm]                                 |
| <b>K</b> Bucket reach – fully raised, 45° dump              | 46.3 in [1177 mm]                                  | 49.3 in [1251 mm]                                  |
| <b>L</b> Bucket reach – 7 ft 0 in [2.13 m] height, 45° dump | 68.9 in [1749 mm]                                  | 70.0 in [1777 mm]                                  |
| <b>M</b> Dig depth                                          | 14.5 in [369 mm]                                   | 14.5 in [369 mm]                                   |
| Operating Load (ROC) - ISO                                  | 3459 lb [1569 kg]                                  | 3342 lb [1516 kg]                                  |
| Maximum material density – ISO                              | 2645 lb/yd³ [1569 kg/m³]                           | 1966 lb/yd³ [1166 kg/m³]                           |
| Tipping load – ISO:                                         |                                                    |                                                    |
| Straight                                                    | 7841 lb [3557 kg]                                  | 7352 lb [3335 kg]                                  |
| 40° turn                                                    | 6919 lb [3138 kg]                                  | 6684 lb [3032 kg]                                  |
| Lift capacity:                                              |                                                    |                                                    |
| Full height                                                 | 6602 lb [2995 kg]                                  | 6605 lb [2951 kg]                                  |
| Maximum reach                                               | 8356 lb [3790 kg]                                  | 8255 lb [3744 kg]                                  |
| Ground                                                      | 10,886 lb [4938 kg]                                | 10,774 lb [4887 kg]                                |
| Breakout force with tilt cylinder                           | 10,545 lb [4783 kg]                                | 9344 lb [4234 kg]                                  |
| Maximum rollback:                                           |                                                    |                                                    |
| @ Ground                                                    | 40°                                                | 40°                                                |
| @ Carry position                                            | 43°                                                | 43°                                                |
| @ Maximum reach                                             | 61°                                                | 61°                                                |
| @ Full height                                               | 66°                                                | 66°                                                |
| Maximum grading angle with bucket – back dragging           | 53°                                                | 54°                                                |
| Loader clearance circle with bucket                         | 386.3 in [9813 mm]                                 | 389.8 in [9901 mm]                                 |

## Standard Equipment

### Operator Environment

- See page 1
- Radio, antenna, and speakers

### Engine

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

### Loader

- Loader Linkage:  
Z-Bar W80D, Long Reach Z-Bar W80D LR
- Seat Mounted 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 @ 3,336 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)
- Rotating beacon
- 100% lock – front and open rear axles
- Horizontal pin coupler

### Loader

- 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
- Optional High Flow:  
Max 34.3 gpm @ 3,336 psi  
(Max 130 L/min @ 200 bar)
- Anti-burst valves

### Tires

- 14.5-20 MPT-04 Bias Mitas
- 360/80 R20 Nokian Tri 2 Snow
- 365/80 R20 EM-01 Mitas
- 365/80 R20 Goodyear Powerload
- 405/70 R20 ALLIANCE
- 405/70 R20 EM-01 Mitas
- 405/70 R20 Goodyear Powerload
- 550/45 R22.5 ATG Flotation

### Other

- 4 Corner strobes
- Wheel Chocks



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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.

