

ENGINE

Make	FPT
Model	F4HFE613
Emissions Certification	Tier 4 Final
Type	4-stroke, turbocharged and air-to-air cooled
Cylinders	6-cylinder in-line
Bore/Stroke	4.09 x 5.20 in (104 x 132 mm)
Displacement	411 in ³ (6.7 L)
Fuel	#2 Diesel, #1 and #2 mixture permitted for cold temperatures
Fuel injection	Direct injection – electronic
Fuel filter	Replaceable, spin-on cartridge
Fuel pump	Bosch CP 3.3
Gradeability:	
Side-to-side	35°
Fore and aft	35°
Air filter	Dry type elements w/ warning restriction indicator
Mid-mount cooling module:	Mid-mount air/water
Fan – hydraulic driven:	
Style	8 blade puller
Diameter	32 in (813 mm)
Water pump	Integral
Engine oil pump operating angle ratings:	
Side-to-side	35°
Fore and aft	35°
Oil filtration	Replaceable, full flow spin-on cartridge
Engine speeds	RPM
Rated – full load	2000

Horsepower:

Maximum Power Mode:

Peak gross @ 1800 RPM	230 hp (172 kW)
Net rated @ 2000 RPM	206 hp (153 kW)
Peak net @ 1800 RPM	211 hp (158 kW)

Standard Power Mode:

Peak gross @ 1700 RPM	208 hp (155 kW)
Net rated @ 2000 RPM	178 hp (133 kW)
Peak net @ 1700 RPM	193 hp (144 kW)

Economy Power Mode:

Peak gross @ 1400 RPM	169 hp (126 kW)
Net rated @ 2000 RPM	123 hp (92 kW)
Peak net @ 1400 RPM	161 hp (120 kW)

Torque – peak:

Maximum Power Mode:

Gross @ 1300 RPM	873 lb-ft (1 184 N-m)
Net @ 1300 RPM	845 lb-ft (1 145 N-m)

Standard Power Mode:

Gross @ 1300 RPM	745 lb-ft (1 010 N-m)
Net @ 1300 RPM	716 lb-ft (971 N-m)

Economy Power Mode:

Gross @ 1300 RPM	664 lb-ft (900 N-m)
Net @ 1300 RPM	635 lb-ft (861 N-m)

Torque rise:

Maximum power range	47%
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NOTE: Gross horsepower and torque per SAE J1995.
Net horsepower and torque per SAE J1349.

DRIVETRAIN

Transmission:

4F/3R Proportional w/ Electronic Control
Module torque sensing autoshift/manual shift and modulation

Gears	Helical cut
Gear ratios – 4 Speed	Forward/Reverse
1st	3.754/3.551
2nd	2.184/2.071
3rd	1.072/1.017
4th	0.636/ —
Gear ratios – 5 Speed	Forward/Reverse
1st	3.921/3.718
2nd	2.255/2.138
3rd	1.466/0.894
4th	0.942/ —
5th	0.613/ —

Torque converter:

Stall ratio – 4-speed	2.28:1
Stall ratio – 5-speed	2.42:1

Differential:

Limited slip differential, front – up to 72.5% of available axle torque to wheel w/ traction

Limited slip differential, rear – up to 72.5% of available axle torque to wheel w/ traction

Rear axle oscillation	24° total
Front and rear axles:	
Differential ratio	4.11
Planetary ratio	6.00
Final axle ratio	24.67

Heavy-duty axles – optional:

Front axle equipped w/ locking differential
Rear axle equipped w/ open differential

Planetaries	Outboard
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Service brakes:

Hydraulically actuated, maintenance-free, multiple wet disc w/ accumulator to all four wheels

Brake surface area:

Rear hub	600 in ² (0.387 m ²)
Front and opt. rear hub	721 in ² (0.465 m ²)

Parking brakes:

Spring-applied hydraulic release disc on transmission output shaft neutralizes power flow to wheels when engaged

Travel speeds – 4-speed transmission:

	Forward mph (kph)	Reverse mph (kph)
1st	4.4 (7.1)	4.7 (7.5)
2nd	7.4 (12.0)	7.8 (12.6)
3rd	14.5 (23.3)	15.2 (24.4)
4th	22.8 (36.6)	—

Travel speeds – 5-speed transmission:

	Forward mph (kph)	Reverse mph (kph)
1st	4.1 (6.6)	4.4 (7.0)
2nd	7.1 (11.4)	7.5 (12.0)
3rd	10.6 (17.1)	17.2 (27.7)
4th	16.4 (26.4)	—
5th	24.9 (40.0)	—

NOTE: Travel speeds at full engine throttle w/ 23.5-R25 L3 Radial tires.

ELECTRICAL

Voltage	24 Volts, negative ground
Alternator	120 amp
Batteries (2)	12-volt

OPERATOR ENVIRONMENT

ROPS cab AC w/ heat; Key start; Articulated power steering w/ tilt column; Fully adjustable, suspension seat; Foot throttle; Single lever loader control w/ fully adjustable wrist rest, 2 cup holders; 2 interior rear view mirrors; 2 in (51 mm) retractable seat belt; Multiple storage trays; Single brake pedal; F/N/R shuttle switch; External rearview mirrors; Pressurized air filtering; Anti-glare window strip; Front and Rear Defroster; Side window, partial/fully open; 2 Dome lights; Wipers, rear and intermittent front; Windshield washers, front and rear; Rubber floor mat; Horn.

Displays/Gauges:

Digital:

Transmission oil temperature; Engine coolant temperature; Fuel level; DEF level.

LCD screen:

Hour meter; Engine speed; Travel speed; Time; Automatic transmission indication; Current gear selection; FNR indication; DeClutch indication; Engine mode indication; Trip computer A/B; Fuel consumption; Multiple languages, Metric/English; Engine diagnostics; Transmission diagnostics; Warning prompts; Error reporting; Diff. Lock*.

Audible/Visual alarms:

Warning lights:

Four-way flashers and turn signals;
Brake pressure; Lamp/high beam indication; Grid heater*.

Caution warnings:

Parking brake; Coolant temperature; Hydraulic oil temperature; Transmission oil temperature; Air filter; Transmission filter; Hydraulic filter; Alternator; Low fuel.

Critical warnings:

Engine oil pressure; Brake pressure; Steering pressure – w/ aux steering*; Coolant temperature; Hydraulic oil temperature; Transmission oil temperature.

Backup alarm

Maintenance reminders:

Cab air filter; Engine oil filter; Fuel pre-filter; DEF tank vent filter; SCR supply filter; Hydraulic oil and filter; Engine air filter; Engine coolant drive belt; Cab recirculation filter; Engine breather filter; Transmission breather; Front and rear axle fluid; SCR supply module filter.

NOTE: *If equipped w/ option.

OPERATING WEIGHT

Z-Bar

Unit equipped w/ 23.5-R25 L3 Radial tires; ROPS cab w/ heater and A/C; Heavy-duty counterweight – 4,940 lb (2 241 kg); Heavy-duty batteries; Front and rear fenders; Lights; Full fuel; 165 lb (75 kg) operator; 4.25 yd³ (3.2 m³) MD pin on w/ bolt on edge:

40,057 lb (18 170 kg)

XR

Unit equipped w/ 23.5-R25 L3 Radial tires; ROPS cab w/ heater and A/C; Heavy-duty counterweight – 4,940 lb (2 240 kg); Heavy-duty batteries; Front and rear fenders; Lights; Full fuel; 165 lb (75 kg) operator; 4.25 yd³ (3.2 m³) MD pin on w/ bolt on edge:

40,648 lb (18 438 kg)

HYDRAULICS

Pump – steering/implement:

Closed center pressure/flow compensated

Variable displacement – load-sensing:

31.7 gpm @ 2000 RPM (120 L/min @ 2000 RPM)

Loader control valve:

Closed-center, sectional 2, 3 or 4-function w/ pilot control for lift, tilt and auxiliary hydraulics, electromagnetic detents in float, raise and rollback

Loader auxiliary steering:

Hydraulic orbital center-pivot articulating w/ on-demand oil flow

High pressure standby:

Implement 3,625 psi (25 000 kPa) Steering 3,500 psi (24 132 kPa)

Filtration:

Filtered vent w/ relief on hydraulic reservoir, maintains 3-5 psi on reservoir, 10-micron, return filter furnishes only clean oil to all components of the system

SERVICE CAPACITIES

Fuel tank 76.1 gal (288.0 L)

DEF tank – Diesel Exhaust Fluid:

Usable 9.8 gal (37.1 L) Total 15.6 gal (58.9 L)

Hydraulic system:

Reservoir 24.0 gal (90.8 L) Total 47.0 gal (178.0 L)

Transmission:

Service w/ filter 9.0 gal (34.1 L)

Front and rear axle:

Front axle 42.3 qt (40.0 L) Rear axle 42.3 qt (40.0 L)

Engine oil w/ filter 16.0 qt (15.1 L)

Cooling system 7.9 gal (30.0 L)

OTHER SPECIFICATIONS

Lift cylinder:

Bore diameter 5.5 in (140 mm) Rod diameter 3.0 in (76 mm) Stroke 33.3 in (846 mm)

Dump cylinder:

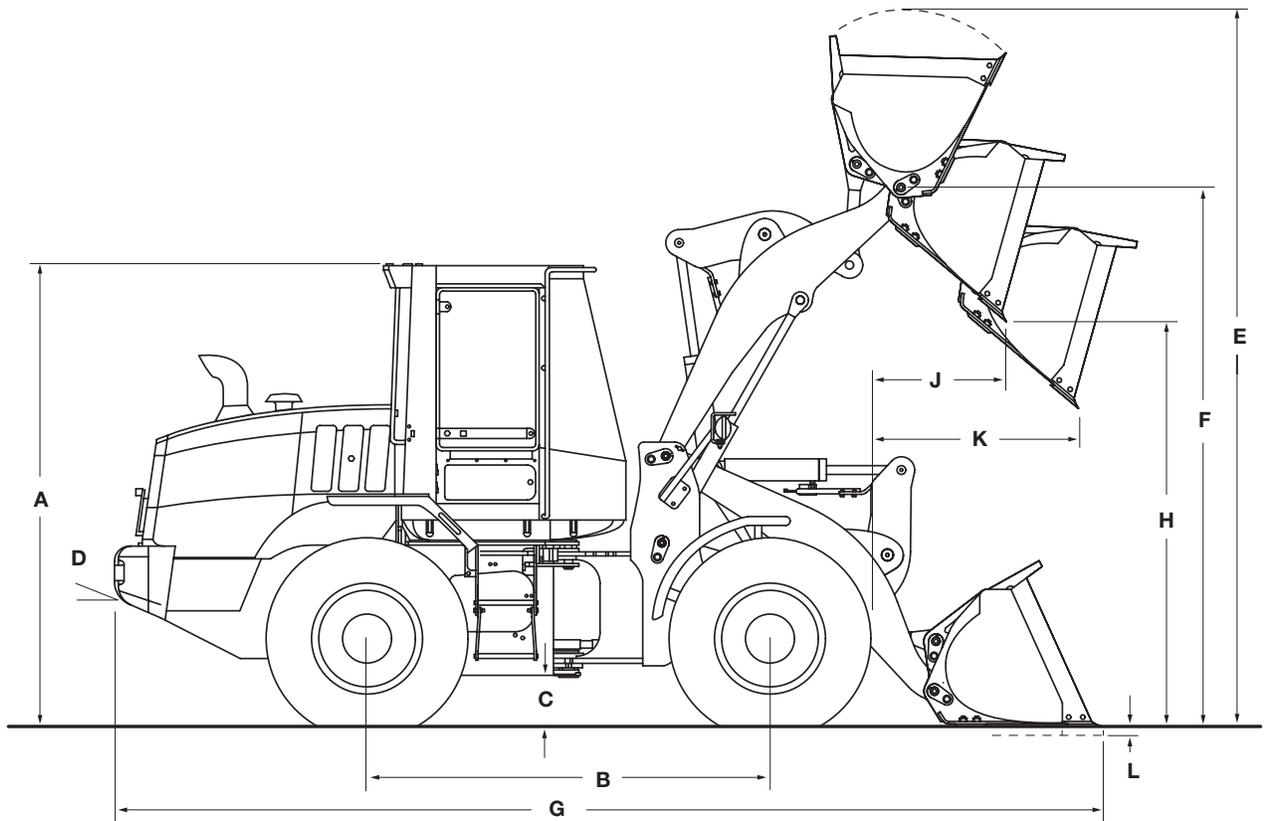
Bore diameter 6.5 in (165 mm) Rod diameter 3.5 in (90 mm) Stroke 23.6 in (600 mm)

Loader:

Z-Bar loader linkage; Single control for lift and tilt; Positive hold float; Automatic return-to-dig; Automatic height control; Automatic return-to-travel; Brake pedal transmission disconnect; Bucket position indicator on bucket.

Cycle time:

Raise w/ rated bucket load 6.2 sec Dump w/ rated bucket load 1.2 sec Power down 2.9 sec Float down 2.5 sec



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

DIMENSIONS

A. Height to top of ROPS cab	136.2 in (3 460 mm)
Height to drawbar	42.6 in (1 081 mm)
B. Wheelbase	131.5 in (3 340 mm)
C. Ground clearance	17.0 in (431 mm)
D. Angle of departure	29°
Width:	
Overall* without bucket	111.4 in (2 829 mm)
Centerline tread	87.8 in (2 230 mm)
Turning radius* – outside	236.3 in (6 003 mm)
Turning angle:	
From center	40°
Total angle	80°
Rear axle oscillation – total	24°

NOTE: *Dimensions taken with 23.5-R25 L3 Radial tires. Additional dimensions on pages 4 through 7.

WEIGHT ADJUSTMENTS

Select Options	Weight Adjustment	Tipping Load Adjustment Straight	Tipping Load Adjustment 40° Turn
L2 Bias tires	-748 lb (-339 kg)	-610 lb (-376 kg)	-971 lb (-440 kg)
L2 Radial tires	-28 lb (-12 kg)	-104 lb (-47 kg)	-133 lb (-60 kg)
23.5-R25 Snow Radial Tires	+52 lb (+24 kg)	+162 lb (+74 kg)	+166 lb (+75 kg)
Base counterweight	-1,654 lb (-750 kg)	-3,514 lb (-1 594 kg)	-2,770 lb (-1 257 kg)

NOTE: Unit equipped with Z-Bar loader arms, 4.25 yd³ (3.2 m³) general purpose pin on bucket with bolt-on edge, 23.5-R25 L3 Radial tires, ROPS cab with heater and air conditioner, full counterweight, heavy-duty batteries, front and rear fenders, full fuel and 165 lb (75 kg) operator. Adjust select options from rated weight.

PERFORMANCE SPECS

821G Z-Bar*		3.5 yd³ GP (2.7 m³) Bucket with Bolt-on Edge	3.2 yd³ GP (2.4 m³) Bucket with Teeth Only	4.25 yd³ GP (3.2 m³) Bucket with Bolt-on Edge
Operating weight		39,723 lb (18 018 kg)	39,584 lb (17 955 kg)	40,057 lb (18 170 kg)
E. Operating height – fully raised with spillguard		209.5 in (5 322 mm)	209.5 in (5 322 mm)	215.4 in (5 471 mm)
F. Hinge pin height – fully raised		162.2 in (4 120 mm)	162.2 in (4 120 mm)	162.2 in (4 120 mm)
G. Overall length – bucket level on ground		308.4 in (7 834 mm)	314.3 in (7 983 mm)	315.1 in (8 004 mm)
Dump angle – fully raised		55°	55°	55°
H. Dump height – fully raised, 45° dump		121.8 in (3 094 mm)	118.0 in (2 998 mm)	117.3 in (2 981 mm)
J. Bucket reach – fully raised, 45° dump		38.9 in (989 mm)	43.4 in (1 101 mm)	43.4 in (1 102 mm)
K. Bucket reach – 7 ft 0 in (2.13 m) height, 45° dump		64.3 in (1 633 mm)	67.1 in (1 704 mm)	66.8 in (1 696 mm)
L. Dig depth – edge below ground		2.5 in (63 mm)	2.5 in (64 mm)	3.1 in (78 mm)
Operating load – ISO Rigid Tires		14,653 lb (6 646 kg)	14,885 lb (6 752 kg)	14,251 lb (6 464 kg)
Operating load – ISO Deflected Tires		12,653 lb (5 739 kg)	12,857 lb (5 832 kg)	12,257 lb (5 560 kg)
Maximum material density – ISO Rigid Tires		4,187 lb/yd ³ (2 484 kg/m ³)	4,652 lb/yd ³ (2 760 kg/m ³)	3,353 lb/yd ³ (1 990 kg/m ³)
Maximum material density – ISO Deflected Tires		3,615 lb/yd ³ (2 145 kg/m ³)	4,018 lb/yd ³ (2 384 kg/m ³)	2,884 lb/yd ³ (1 711 kg/m ³)
Tipping load – ISO Rigid Tires:	Straight	33,583 lb (15 233 kg)	34,089 lb (15 463 kg)	32,719 lb (14 841 kg)
	40° turn	29,306 lb (13 293 kg)	29,771 lb (13 504 kg)	28,503 lb (12 929 kg)
Tipping load – ISO Deflected Tires:	Straight	31,229 lb (14 165 kg)	31,698 lb (14 378 kg)	30,374 lb (13 777 kg)
	40° turn	25,305 lb (11 478 kg)	25,715 lb (11 664 kg)	24,515 lb (11 120 kg)
Lift capacity:	Full height	22,334 lb (10 131 kg)	22,490 lb (10 201 kg)	21,980 lb (9 970 kg)
	Ground	41,169 lb (18 674 kg)	41,508 lb (18 828 kg)	40,434 lb (18 341 kg)
Breakout force with tilt cylinder		40,608 lb (18 420 kg)	44,051 lb (19 981 kg)	35,288 lb (16 007 kg)
Loader clearance circle with bucket		520.2 in (13 214 mm)	523.3 in (13 291 mm)	523.9 in (13 308 mm)

821G XR		3.5 yd³ GP (2.7 m³) Bucket with Bolt-on Edge	3.2 yd³ GP (2.4 m³) Bucket with Teeth Only	4.25 yd³ GP (3.2 m³) Bucket with Bolt-on Edge
Operating weight		40,314 lb (18 286 kg)	40,175 lb (18 223 kg)	40,648 lb (18 438 kg)
E. Operating height – fully raised with spillguard		226.9 in (5 763 mm)	226.9 in (5 763 mm)	232.8 in (5 912 mm)
F. Hinge pin height – fully raised		179.6 in (4 561 mm)	179.6 in (4 561 mm)	179.6 in (4 561 mm)
G. Overall length – bucket level on ground		327.6 in (8 322 mm)	333.5 in (8 470 mm)	334.3 in (8 490 mm)
Dump angle – fully raised		49°	49°	49°
H. Dump height – fully raised, 45° dump		139.2 in (3 535 mm)	135.4 in (3 440 mm)	134.7 in (3 422 mm)
J. Bucket reach – fully raised, 45° dump		43.4 in (1 102 mm)	47.8 in (1 214 mm)	47.8 in (1 215 mm)
K. Bucket reach – 7 ft 0 in (2.13 m) height, 45° dump		81.2 in (2 062 mm)	84.2 in (2 139 mm)	84.0 in (2 132 mm)
L. Dig depth – edge below ground		5.1 in (130 mm)	5.2 in (131 mm)	5.7 in (145 mm)
Operating load – ISO Rigid Tires		11,622 lb (5 272 kg)	11,805 lb (5 355 kg)	11,286 lb (5 119 kg)
Operating load – ISO Deflected Tires		10,193 lb (4 623 kg)	10,358 lb (4 698 kg)	9,861 lb (4 473 kg)
Maximum material density – ISO Rigid Tires		3,321 lb/yd ³ (1 970 kg/m ³)	3,689 lb/yd ³ (2 189 kg/m ³)	2,655 lb/yd ³ (1 576 kg/m ³)
Maximum material density – ISO Deflected Tires		2,912 lb/yd ³ (1 728 kg/m ³)	3,237 lb/yd ³ (1 921 kg/m ³)	2,320 lb/yd ³ (1 377 kg/m ³)
Tipping load – ISO Rigid Tires:	Straight	26,828 lb (12 169 kg)	27,223 lb (12 348 kg)	26,109 lb (11 843 kg)
	40° turn	23,244 lb (10 543 kg)	23,610 lb (10 709 kg)	22,571 lb (10 238 kg)
Tipping load – ISO Deflected Tires:	Straight	25,220 lb (11 440 kg)	25,593 lb (11 609 kg)	24,508 lb (11 117 kg)
	40° turn	20,386 lb (9 247 kg)	20,716 lb (9 397 kg)	19,723 lb (8 946 kg)
Lift capacity:	Full height	20,496 lb (9 297 kg)	20,650 lb (9 367 kg)	20,146 lb (9 138 kg)
	Ground	31,551 lb (14 311 kg)	31,877 lb (14 459 kg)	30,790 lb (13 966 kg)
Breakout force with tilt cylinder		41,299 lb (18 733 kg)	44,797 lb (20 319 kg)	35,879 lb (16 275 kg)
Loader clearance circle with bucket		538.6 in (13 680 mm)	542.3 in (13 775 mm)	543.1 in (13 795 mm)

821G		Z-Bar/XR	Z-Bar/XR	Z-Bar/XR
Maximum rollback:	Ground	41°/37°	41°/37°	41°/37°
	Carry position	46°/44°	46°/44°	46°/44°
	@ Full height	59°/60°	59°/60°	59°/60°
Maximum grading angle with bucket – back dragging		59°/62°	60°/63°	60°/63°
SAE bucket capacity – struck		2.90 yd ³ (2.22 m ³)	2.75 yd ³ (2.10 m ³)	3.63 yd ³ (2.78 m ³)
	Heaped	3.50 yd ³ (2.68 m ³)	3.20 yd ³ (2.45 m ³)	4.25 yd ³ (3.25 m ³)
Bucket width – outside		119.3 in (3 030 mm)	119.2 in (3 027 mm)	119.3 in (3 030 mm)
Bucket weight		3,064 lb (1 390 kg)	2,925 lb (1 327 kg)	3,398 lb (1 541 kg)

PERFORMANCE SPECS

821G Z-Bar*	4.0 yd³ GP (3.1 m³) Bucket with Teeth Only	4.5 yd³ GP (3.4 m³) Bucket with Bolt-on Edge	3.5 yd³ (2.7 m³) Bucket with CNH Coupler with Bolt-on Edge
Operating weight	39,916 lb (18 106 kg)	40,123 lb (18 200 kg)	41,110 lb (18 647 kg)
E. Operating height – fully raised with spillguard	215.4 in (5 471 mm)	216.7 in (5 505 mm)	216.2 in (5 491 mm)
F. Hinge pin height – fully raised	162.2 in (4 120 mm)	162.2 in (4 120 mm)	162.1 in (4 118 mm)
G. Overall length – bucket level on ground	321.0 in (8 153 mm)	316.5 in (8 039 mm)	319.2 in (8 108 mm)
Dump angle – fully raised	55°	55°	55°
H. Dump height – fully raised, 45° dump	113.6 in (2 885 mm)	116.5 in (2 958 mm)	114.7 in (2 914 mm)
J. Bucket reach – fully raised, 45° dump	47.8 in (1 215 mm)	44.4 in (1 128 mm)	46.5 in (1 181 mm)
K. Bucket reach – 7 ft 0 in (2.13 m) height, 45° dump	69.4 in (1 762 mm)	67.4 in (1 712 mm)	68.6 in (1 743 mm)
L. Dig depth – edge below ground	3.1 in (78 mm)	3.1 in (78 mm)	3.1 in (79 mm)
Operating load – ISO Rigid Tires	14,477 lb (6 567 kg)	14,186 lb (6 435 kg)	12,945 lb (5 872 kg)
Operating load – ISO Deflected Tires	12,457 lb (5 650 kg)	12,189 lb (5 529 kg)	11,097 lb (5 034 kg)
Maximum material density – ISO Rigid Tires	3,619 lb/yd ³ (2 148 kg/m ³)	3,153 lb/yd ³ (1 871 kg/m ³)	3,596 lb/yd ³ (2 134 kg/m ³)
Maximum material density – ISO Deflected Tires	3,114 lb/yd ³ (1 848 kg/m ³)	2,709 lb/yd ³ (1 607 kg/m ³)	3,083 lb/yd ³ (1 829 kg/m ³)
Tipping load – ISO Rigid Tires:			
Straight	33,209 lb (15 063 kg)	32,581 lb (14 778 kg)	29,859 lb (13 544 kg)
40° turn	28,954 lb (13 133 kg)	28,373 lb (12 870 kg)	25,891 lb (11 744 kg)
Tipping load – ISO Deflected Tires:			
Straight	30,829 lb (13 984 kg)	30,231 lb (13 713 kg)	27,708 lb (12 568 kg)
40° turn	24,913 lb (11 300 kg)	24,377 lb (11 057 kg)	22,194 lb (10 067 kg)
Lift capacity:			
Full height	22,138 lb (10 042 kg)	21,913 lb (9 939 kg)	20,848 lb (9 456 kg)
Ground	40,760 lb (18 488 kg)	40,294 lb (18 277 kg)	31,046 lb (14 082 kg)
Breakout force with tilt cylinder	37,922 lb (17 201 kg)	34,301 lb (15 559 kg)	32,313 lb (14 657 kg)
Loader clearance circle with bucket	527.1 in (13 388 mm)	524.7 in (13 327 mm)	526.2 in (13 365 mm)

821G XR	4.0 yd³ GP (3.1 m³) Bucket with Teeth Only	4.5 yd³ GP (3.4 m³) Bucket with Bolt-on Edge	3.5 yd³ GP Pin-On (2.7 m³) Bucket with CNH Coupler with Bolt-on Edge
Operating weight	40,507 lb (18 373 kg)	40,714 lb (18 467 kg)	41,701 lb (18 915 kg)
E. Operating height – fully raised with spillguard	232.8 in (5 912 mm)	234.1 in (5 946 mm)	233.6 in (5 933 mm)
F. Hinge pin height – fully raised	179.6 in (4 561 mm)	179.6 in (4 561 mm)	179.5 in (4 560 mm)
G. Overall length – bucket level on ground	340.1 in (8 638 mm)	335.6 in (8 525 mm)	338.3 in (8 593 mm)
Dump angle – fully raised	49°	49°	49°
H. Dump height – fully raised, 45° dump	130.9 in (3 326 mm)	133.8 in (3 399 mm)	132.1 in (3 355 mm)
J. Bucket reach – fully raised, 45° dump	52.3 in (1 327 mm)	48.9 in (1 241 mm)	50.9 in (1 293 mm)
K. Bucket reach – 7 ft 0 in (2.13 m) height, 45° dump	86.8 in (2 205 mm)	84.6 in (2 150 mm)	86.0 in (2 184 mm)
L. Dig depth – edge below ground	5.7 in (145 mm)	5.7 in (145 mm)	5.7 in (146 mm)
Operating load – ISO Rigid Tires	11,464 lb (5 200 kg)	11,229 lb (5 093 kg)	10,237 lb (4 644 kg)
Operating load – ISO Deflected Tires	10,024 lb (4 547 kg)	9,803 lb (4 446 kg)	8,903 lb (4 038 kg)
Maximum material density – ISO Rigid Tires	2,866 lb/yd ³ (1 701 kg/m ³)	2,495 lb/yd ³ (1 481 kg/m ³)	2,844 lb/yd ³ (1 687 kg/m ³)
Maximum material density – ISO Deflected Tires	2,506 lb/yd ³ (1 487 kg/m ³)	2,178 lb/yd ³ (1 293 kg/m ³)	2,473 lb/yd ³ (1 467 kg/m ³)
Tipping load – ISO Rigid Tires:			
Straight	26,495 lb (12 018 kg)	25,979 lb (11 788 kg)	23,834 lb (10 811 kg)
40° turn	22,929 lb (10 400 kg)	22,457 lb (10 186 kg)	20,475 lb (9 287 kg)
Tipping load – ISO Deflected Tires:			
Straight	24,874 lb (11 283 kg)	24,386 lb (11 061 kg)	22,346 lb (10 136 kg)
40° turn	20,049 lb (9 094 kg)	19,605 lb (8 893 kg)	17,807 lb (8 077 kg)
Lift capacity:			
Full height	20,302 lb (9 209 kg)	20,079 lb (9 108 kg)	19,023 lb (8 629 kg)
Ground	31,106 lb (14 110 kg)	30,646 lb (13 901 kg)	28,764 lb (13 047 kg)
Breakout force with tilt cylinder	38,553 lb (17 488 kg)	34,876 lb (15 820 kg)	32,861 lb (14 905 kg)
Loader clearance circle with bucket	546.9 in (13 891 mm)	544.0 in (13 817 mm)	545.8 in (13 863 mm)

821G		Z-Bar/XR	Z-Bar/XR	Z-Bar/XR
Maximum rollback:	Ground	42°/37°	41°/37°	42°/37°
	Carry position	46°/44°	46°/44°	47°/44°
	@ Full height	59°/60°	59°/60°	59°/60°
Maximum grading angle with bucket – back dragging		61°/64°	60°/63°	61°/63°
SAE bucket capacity – struck		3.44 yd ³ (2.63 m ³)	3.78 yd ³ (2.89 m ³)	2.90 yd ³ (2.22 m ³)
Heaped		4.00 yd ³ (3.06 m ³)	4.50 yd ³ (3.44 m ³)	3.60 yd ³ (2.75 m ³)
Bucket width – outside		119.2 in (3 027 mm)	119.3 in (3 030 mm)	119.3 in (3 030 mm)
Bucket weight		3,256 lb (1 477 kg)	3,434 lb (1 571 kg)	4,450 lb (2 019 kg)

PERFORMANCE SPECS

821G Z-Bar*		3.2 yd³ (2.4 m³) Bucket with CNH Coupler with Teeth Only	3.5 yd³ (2.7 m³) Bucket with ACS Coupler with Bolt-on Edge	3.2 yd³ (2.4 m³) Bucket ACS Coupler with Teeth Only
Operating weight		40,969 lb (18 583 kg)	41,223 lb (18 699 kg)	41,082 lb (18 634 kg)
E. Operating height – fully raised with spillguard		216.2 in (5 491 mm)	214.0 in (5 436 mm)	214.0 in (5 436 mm)
F. Hinge pin height – fully raised		162.2 in (4 119 mm)	162.1 in (4 118 mm)	162.1 in (4 118 mm)
G. Overall length – bucket level on ground		325.0 in (8 256 mm)	316.5 in (8 040 mm)	322.4 in (8 188 mm)
Dump angle – fully raised		55°	55°	55°
H. Dump height – fully raised, 45° dump		110.9 in (2 818 mm)	116.4 in (2 956 mm)	112.6 in (2 860 mm)
J. Bucket reach – fully raised, 45° dump		50.9 in (1 293 mm)	44.2 in (1 124 mm)	48.7 in (1 236 mm)
K. Bucket reach – 7 ft 0 in (2.13 m) height, 45° dump		71.1 in (1 806 mm)	67.2 in (1 706 mm)	69.7 in (1 771 mm)
L. Dig depth – edge below ground		3.1 in (80 mm)	3.3 in (83 mm)	3.3 in (84 mm)
Operating load – ISO Rigid Tires		13,152 lb (5 966 kg)	13,128 lb (5 955 kg)	13,339 lb (6 051 kg)
Operating load – ISO Deflected Tires		11,280 lb (5 117 kg)	11,253 lb (5 104 kg)	11,440 lb (5 189 kg)
Maximum material density – ISO Rigid Tires		4,110 lb/yd ³ (2 439 kg/m ³)	3,751 lb/yd ³ (2 226 kg/m ³)	4,169 lb/yd ³ (2 473 kg/m ³)
Maximum material density – ISO Deflected Tires		3,525 lb/yd ³ (2 092 kg/m ³)	3,215 lb/yd ³ (1 908 kg/m ³)	3,575 lb/yd ³ (2 121 kg/m ³)
Tipping load – ISO Rigid Tires:				
Straight		30,309 lb (13 748 kg)	30,293 lb (13 741 kg)	30,752 lb (13 949 kg)
40° turn		26,304 lb (11 931 kg)	26,256 lb (11 910 kg)	26,678 lb (12 101 kg)
Tipping load – ISO Deflected Tires:				
Straight		28,126 lb (12 758 kg)	28,105 lb (12 748 kg)	28,532 lb (12 942 kg)
40° turn		22,560 lb (10 233 kg)	22,507 lb (10 209 kg)	22,880 lb (10 378 kg)
Lift capacity:				
Full height		21,005 lb (9 528 kg)	20,759 lb (9 416 kg)	20,916 lb (9 487 kg)
Ground		32,481 lb (14 733 kg)	33,901 lb (15 377 kg)	35,573 lb (16 136 kg)
Breakout force with tilt cylinder		34,565 lb (15 678 kg)	34,091 lb (15 463 kg)	36,578 lb (16 591 kg)
Loader clearance circle with bucket		529.4 in (13 447 mm)	524.7 in (13 328 mm)	527.9 in (13 409 mm)

821G XR		3.2 yd³ GP Pin-On (2.4 m³) Bucket (JRB Compatible) with Teeth Only	4.0 yd³ GP Pin-On (3.1 m³) Bucket with CNH Coupler with Bolt-on Edge	3.8 yd³ GP Pin-On (2.9 m³) Bucket with JRB Coupler with Teeth Only
Operating weight		41,559 lb (18 851 kg)	42,021 lb (19 060 kg)	41,879 lb (18 996 kg)
E. Operating height – fully raised with spillguard		233.6 in (5 933 mm)	239.3 in (6 078 mm)	239.3 in (6 078 mm)
F. Hinge pin height – fully raised		179.5 in (4 560 mm)	179.5 in (4 559 mm)	179.5 in (4 559 mm)
G. Overall length – bucket level on ground		344.2 in (8 742 mm)	344.2 in (8 743 mm)	350.1 in (8 892 mm)
Dump angle – fully raised		49°	49°	49°
H. Dump height – fully raised, 45° dump		128.3 in (3 259 mm)	128.3 in (3 258 mm)	124.5 in (3 162 mm)
J. Bucket reach – fully raised, 45° dump		55.3 in (1 406 mm)	55.4 in (1 408 mm)	59.9 in (1 521 mm)
K. Bucket reach – 7 ft 0 in (2.13 m) height, 45° dump		88.7 in (2 254 mm)	88.8 in (2 256 mm)	91.4 in (2 322 mm)
L. Dig depth – edge below ground		5.8 in (147 mm)	5.8 in (146 mm)	5.8 in (147 mm)
Operating load – ISO Rigid Tires		10,404 lb (4 719 kg)	9,955 lb (4 515 kg)	10,118 lb (4 589 kg)
Operating load – ISO Deflected Tires		9,055 lb (4 107 kg)	8,622 lb (3 911 kg)	8,771 lb (3 978 kg)
Maximum material density – ISO Rigid Tires		3,251 lb/yd ³ (1 929 kg/m ³)	2,489 lb/yd ³ (1 477 kg/m ³)	2,663 lb/yd ³ (1 580 kg/m ³)
Maximum material density – ISO Deflected Tires		2,830 lb/yd ³ (1 679 kg/m ³)	2,155 lb/yd ³ (1 279 kg/m ³)	2,308 lb/yd ³ (1 370 kg/m ³)
Tipping load – ISO Rigid Tires:				
Straight		24,193 lb (10 974 kg)	23,232 lb (10 538 kg)	23,584 lb (10 697 kg)
40° turn		20,807 lb (9 438 kg)	19,909 lb (9 031 kg)	20,236 lb (9 179 kg)
Tipping load – ISO Deflected Tires:				
Straight		22,686 lb (10 290 kg)	21,745 lb (9 863 kg)	22,078 lb (10 015 kg)
40° turn		18,110 lb (8 215 kg)	17,244 lb (7 822 kg)	17,541 lb (7 957 kg)
Lift capacity:				
Full height		19,179 lb (8 699 kg)	18,692 lb (8 479 kg)	18,847 lb (8 549 kg)
Ground		29,068 lb (13 185 kg)	28,087 lb (12 740 kg)	28,385 lb (12 875 kg)
Breakout force with tilt cylinder		35,147 lb (15 942 kg)	29,366 lb (13 320 kg)	31,221 lb (14 161 kg)
Loader clearance circle with bucket		549.7 in (13 962 mm)	549.8 in (13 965 mm)	553.8 in (14 067 mm)

821G		Z-Bar/XR	Z-Bar/XR	Z-Bar/XR
Maximum rollback:				
Ground		42°/37°	42°/37°	42°/37°
Carry position		47°/44°	47°/44°	47°/44°
@ Full height		59°/60°	59°/60°	59°/60°
Maximum grading angle with bucket – back dragging		62°/65°	60°/65°	61°/67°
SAE bucket capacity – struck		2.75 yd ³ (2.10 m ³)	2.90 yd ³ (2.22 m ³)	2.75 yd ³ (2.10 m ³)
Heaped		3.20 yd ³ (2.45 m ³)	3.50 yd ³ (2.68 m ³)	3.20 yd ³ (2.45 m ³)
Bucket width – outside		119.2 in (3 027 mm)	119.3 in (3 030 mm)	119.2 in (3 027 mm)
Bucket weight		4,309 lb (1 955 kg)	4,564 lb (2 070 kg)	4,422 lb (2 006 kg)

PERFORMANCE SPECS

821G Z-Bar*	4.0 yd³ GP Pin-On (3.1 m³) Bucket with CNH Coupler with Bolt-on Edge	3.8 yd³ GP Pin-On (2.9 m³) Bucket with CNH Coupler with Teeth Only	4.0 yd³ GP Pin-On (3.1 m³) ACS Coupler with Teeth Only with Bolt-on Edge
Operating weight	41,430 lb (18 792 kg)	41,289 lb (18 728 kg)	41,483 lb (18 816 kg)
E. Operating height – fully raised with spillguard	221.9 in (5 636 mm)	221.9 in (5 636 mm)	218.8 in (5 558 mm)
F. Hinge pin height – fully raised	162.1 in (4 118 mm)	162.1 in (4 118 mm)	162.1 in (4 118 mm)
G. Overall length – bucket level on ground	325.1 in (8 258 mm)	331.0 in (8 406 mm)	320.9 in (8 151 mm)
Dump angle – fully raised	55°	55°	55°
H. Dump height – fully raised, 45° dump	110.9 in (2 817 mm)	107.1 in (2 721 mm)	113.6 in (2 886 mm)
J. Bucket reach – fully raised, 45° dump	51.0 in (1 295 mm)	55.4 in (1 408 mm)	47.8 in (1 213 mm)
K. Bucket reach – 7 ft 0 in (2.13 m) height, 45° dump	71.2 in (1 807 mm)	73.5 in (1 866 mm)	69.4 in (1 762 mm)
L. Dig depth – edge below ground	3.1 in (79 mm)	3.2 in (80 mm)	3.1 in (79 mm)
Operating load – ISO Rigid Tires	12,618 lb (5 723 kg)	12,820 lb (5 815 kg)	12,975 lb (5 885 kg)
Operating load – ISO Deflected Tires	10,768 lb (4 884 kg)	10,947 lb (4 966 kg)	11,077 lb (5 024 kg)
Maximum material density – ISO Rigid Tires	3,155 lb/yd ³ (1 872 kg/m ³)	3,374 lb/yd ³ (2 002 kg/m ³)	3,244 lb/yd ³ (1 925 kg/m ³)
Maximum material density – ISO Deflected Tires	2,692 lb/yd ³ (1 597 kg/m ³)	2,881 lb/yd ³ (1 709 kg/m ³)	2,769 lb/yd ³ (1 643 kg/m ³)
Tipping load – ISO Rigid Tires:			
Straight	29,157 lb (13 225 kg)	29,595 lb (13 424 kg)	29,981 lb (13 599 kg)
40° turn	25,236 lb (11 447 kg)	25,640 lb (11 630 kg)	25,951 lb (11 771 kg)
Tipping load – ISO Deflected Tires:			
Straight	27,004 lb (12 249 kg)	27,412 lb (12 434 kg)	27,762 lb (12 593 kg)
40° turn	21,537 lb (9 769 kg)	21,894 lb (9 931 kg)	22,154 lb (10 049 kg)
Lift capacity:			
Full height	20,513 lb (9 305 kg)	20,670 lb (9 376 kg)	20,500 lb (9 299 kg)
Ground	28,363 lb (12 865 kg)	29,604 lb (13 428 kg)	32,373 lb (14 684 kg)
Breakout force with tilt cylinder	28,872 lb (13 096 kg)	30,695 lb (13 925 kg)	31,163 lb (14 135 kg)
Loader clearance circle with bucket	529.5 in (13 450 mm)	532.9 in (13 535 mm)	527.1 in (13 389 mm)

821G XR	3.5 yd³ GP Pin-On (2.7 m³) Bucket with ACS Coupler with Bolt-on Edge	3.2 yd³ GP Pin-On (2.4 m³) Bucket with ACS Coupler with Teeth Only	4.0 yd³ GP Pin-On (3.1 m³) Bucket with ACS Coupler with Bolt-on Edge
Operating weight	41,814 lb (18 966 kg)	41,672 lb (18 902 kg)	42,074 lb (19 084 kg)
E. Operating height – fully raised with spillguard	231.4 in (5 878 mm)	231.4 in (5 878 mm)	236.2 in (5 999 mm)
F. Hinge pin height – fully raised	179.5 in (4 559 mm)	179.5 in (4 560 mm)	179.5 in (4 559 mm)
G. Overall length – bucket level on ground	335.6 in (8 525 mm)	341.5 in (8 673 mm)	340.0 in (8 636 mm)
Dump angle – fully raised	49°	49°	49°
H. Dump height – fully raised, 45° dump	133.7 in (3 397 mm)	130.0 in (3 301 mm)	131.0 in (3 327 mm)
J. Bucket reach – fully raised, 45° dump	48.7 in (1 236 mm)	53.1 in (1 349 mm)	52.2 in (1 326 mm)
K. Bucket reach – 7 ft 0 in (2.13 m) height, 45° dump	84.4 in (2 144 mm)	87.2 in (2 216 mm)	86.8 in (2 204 mm)
L. Dig depth – edge below ground	5.9 in (150 mm)	5.9 in (151 mm)	5.8 in (146 mm)
Operating load – ISO Rigid Tires	10,350 lb (4 695 kg)	10,519 lb (4 771 kg)	10,198 lb (4 626 kg)
Operating load – ISO Deflected Tires	8,999 lb (4 082 kg)	9,152 lb (4 151 kg)	8,833 lb (4 007 kg)
Maximum material density – ISO Rigid Tires	2,957 lb/yd ³ (1 755 kg/m ³)	3,287 lb/yd ³ (1 950 kg/m ³)	2,549 lb/yd ³ (1 513 kg/m ³)
Maximum material density – ISO Deflected Tires	2,571 lb/yd ³ (1 526 kg/m ³)	2,860 lb/yd ³ (1 697 kg/m ³)	2,208 lb/yd ³ (1 310 kg/m ³)
Tipping load – ISO Rigid Tires:			
Straight	24,109 lb (10 936 kg)	24,474 lb (11 101 kg)	23,799 lb (10 795 kg)
40° turn	20,700 lb (9 389 kg)	21,038 lb (9 543 kg)	20,396 lb (9 251 kg)
Tipping load – ISO Deflected Tires:			
Straight	22,600 lb (10 251 kg)	22,944 lb (10 407 kg)	22,272 lb (10 102 kg)
40° turn	17,998 lb (8 164 kg)	18,304 lb (8 303 kg)	17,667 lb (8 013 kg)
Lift capacity:			
Full height	18,931 lb (8 587 kg)	19,087 lb (8 658 kg)	18,674 lb (8 470 kg)
Ground	29,021 lb (13 164 kg)	29,326 lb (13 302 kg)	28,592 lb (12 969 kg)
Breakout force with tilt cylinder	34,663 lb (15 723 kg)	29,326 lb (13 302 kg)	31,694 lb (14 376 kg)
Loader clearance circle with bucket	544.0 in (13 818 mm)	547.9 in (13 916 mm)	546.9 in (13 892 mm)

821G		Z-Bar/XR	Z-Bar/XR	Z-Bar/XR
Maximum rollback:	Ground	42°/38°	42°/38°	42°/37°
	Carry position	47°/44°	47°/44°	47°/44°
	@ Full height	47°/60°	47°/60°	59°/60°
Maximum grading angle with bucket – back dragging		62°/63°	64°/64°	61°/64°
SAE bucket capacity – struck		3.41 yd ³ (2.61 m ³)	3.25 yd ³ (2.48 m ³)	3.41 yd ³ (2.61 m ³)
Heaped		4.00 yd ³ (3.06 m ³)	3.80 yd ³ (2.91 m ³)	4.00 yd ³ (3.06 m ³)
Bucket width – outside		119.3 in (3 030 mm)	119.2 in (3 027 mm)	119.3 in (3 030 mm)
Bucket weight		4,770 lb (2 164 kg)	4,629 lb (2 100 kg)	4,824 lb (2 188 kg)

PERFORMANCE SPECS

821G	Z-Bar*	XR
	3.8 yd³ GP Pin-On (2.9 m³) Bucket with ACS Coupler Teeth Only	3.8 yd³ GP Pin-On (2.9 m³) Bucket with ACS Coupler Teeth Only
Operating weight	41,342 lb (18 752 kg)	41,932 lb (19 020 kg)
E. Operating height – fully raised with spillguard	218.8 in (5 558 mm)	236.2 in (5 999 mm)
F. Hinge pin height – fully raised	162.1 in (4 118 mm)	179.5 in (4 559 mm)
G. Overall length – bucket level on ground	326.8 in (8 299 mm)	345.9 in (8 785 mm)
Dump angle – fully raised	55°	49°
H. Dump height – fully raised, 45° dump	109.8 in (2 790 mm)	127.2 in (3 231 mm)
J. Bucket reach – fully raised, 45° dump	52.2 in (1 326 mm)	56.6 in (1 439 mm)
K. Bucket reach – 7 ft 0 in (2.13 m) height, 45° dump	71.8 in (1 823 mm)	89.5 in (2 274 mm)
L. Dig depth – edge below ground	3.2 in (80 mm)	5.8 in (147 mm)
Operating load – ISO Rigid Tires	14,613 lb (6 628 kg)	11,279 lb (5 116 kg)
Operating load – ISO Deflected Tires	12,259 lb (5 560 kg)	9,661 lb (4 382 kg)
Maximum material density – ISO Rigid Tires	3,845 lb/yd ³ (2 282 kg/m ³)	2,968 lb/yd ³ (1 761 kg/m ³)
Maximum material density – ISO Deflected Tires	3,226 lb/yd ³ (1 914 kg/m ³)	2,542 lb/yd ³ (1 509 kg/m ³)
Tipping load - ISO Rigid Tires:		
Straight	33,733 lb (15 301 kg)	26,290 lb (11 925 kg)
40° turn	29,225 lb (13 256 kg)	22,557 lb (10 232 kg)
Tipping load – SAE:		
Straight	30,896 lb (14 014 kg)	24,434 lb (11 083 kg)
40° turn	24,517 lb (11 121 kg)	19,322 lb (8 764 kg)
Lift capacity:		
Full height	20,789 lb (9 430 kg)	18,970 lb (8 604 kg)
Ground	39,661 lb (17 990 kg)	29,852 lb (13 541 kg)
Breakout force with tilt cylinder	33,269 lb (15 090 kg)	33,832 lb (15 346 kg)
Maximum rollback:		
Ground	42°	37°
Carry position	47°	44°
@ Full height	59°	60°
Maximum grading angle with bucket – back dragging	63°	65°
SAE bucket capacity – struck	3.25 yd ³ (2.48 m ³)	3.25 yd ³ (2.48 m ³)
Heaped	3.80 yd ³ (2.91 m ³)	3.80 yd ³ (2.91 m ³)
Bucket width – outside	119.2 in (3 027 mm)	119.2 in (3 027 mm)
Bucket weight	4,682 lb (2 124 kg)	4,682 lb (2 124 kg)
Loader clearance circle with bucket	530.4 in (13 472 mm)	550.9 in (13 992 mm)

NOTE: *Z-Bar performance data shown with full counterweight.

Performance data unit equipped with 23.5-R25 L3 Radial tires, ROPS cab with heater and air conditioner, full counterweight, standard batteries, front and rear fenders, full fuel and 165 lb (75 kg) operator. Specifications per SAE J732, J1234, J695, J742, and J818.

STANDARD EQUIPMENT

OPERATOR ENVIRONMENT

See page 1

ENGINE

Case/FPT F4HFE613
Tier 4 Final Certified
Selectable work modes:
 Maximum Power
 Standard Power
 Economy Power
 Auto Power
Turbocharger
Charge air cooling
Automatic belt tensioner
Integral engine oil cooling
Fuel filter with water trap
Dual-element dry-type air cleaner
Hydraulic-driven cooling fan
Air-cooled radiator
Mid-mounted cooling module
Common rail electronic fuel injection

LOADER

See page 2 – Operating weight,
Other specifications

DRIVETRAIN

4-wheel drive
4F/3R Selectable autoshift/manual
 shift transmission
Electronic Control Module – programmable,
computer controlled proportional shifting
with programmable gear selection

Onboard diagnostics
Single lever electronic shift control
F/N/R switch in loader control handle
Downshift button
Torque converter
Limited-slip differentials
Heavy-duty axles
Outboard planetary axles
Transmission oil cooler
Brake pedal transmission
 disconnect – declutch
Hydraulic wet disc brakes
Spring-applied hydraulic release
 parking brake
Limp-Home Mode
Greaseable rear axle trunnion
3-piece rims

HYDRAULICS

Electro-hydraulic (EH) joystick loader control
Low-effort steering
Hydraulic driven cooling fan
Diagnostic quick couplers
Split flange hydraulic connections –
 1 in or greater

ELECTRICAL

Alternator and voltage regulator
Battery isolator/electrical disconnect
120 amp alternator
(2) 700 CCA 12-volt batteries
Electric starter
Lights:
 2 Front and 2 rear halogen flood lights
 2 Front driving headlights – high/low beam
 with integrated turn signals
 2 LED stop/tail lights with integrated
 turn signals
Key start/stop switch
Backup alarm
Centrally located fuse box
 with all electrical circuits protected
Remote jump start posts

OTHER

Electric hood lift
Front and rear fenders, partial coverage
Heavy counterweight
Drawbar hitch
Articulation locking bar
Lift arm locking bar
Lift and tie-down points – front/rear
Remote drain points
Grouped remote-mounted ecology drains:
 Engine oil
 Engine coolant
 Hydraulic oil

TELEMATICS

CASE SiteWatch™ Telematics – includes
hardware and a 3-yr Advanced
data subscription

OPTIONAL EQUIPMENT

OPERATOR ENVIRONMENT

Cloth-covered heated air-suspension seat
Leather trimmed heated air seat with active suspension
Cloth mechanical suspension seat
Headrest
3 in (76 mm) retractable seat belt
Sound Shield noise suppression package
Bluetooth radio, 12V AM/FM with auxiliary input
Radio-ready – 12 or 24-volt with auxiliary power – 12-volt
Cab convenience package:
Rear sun shade, interior mirror, under the seat drawer, coat hook, 12V accessory port, and an ash tray
LED rotating beacon
Rear view camera
External rear view mirrors
LED front and rear work lights
Extra front-facing LED work lights

DRIVETRAIN

5F/3R Autoshift/manual shift transmission, lockup torque converter, PowerInch de-clutch
Heavy-duty axles:
Larger size rear axle with hydraulically-actuated differential lock on front axle, open differential on rear axle. Recommended for applications on hard surfaces or with solid tires.
Cold weather package:
Heavy-duty (2) 950 CCA 12V batteries
Grid heater
Fuel heater
Hydraulic oil cooler bypass
Low temperature hydraulic oil
Fast-warm hydraulic valve

HYDRAULICS

Auxiliary hydraulics
Ride Control
Secondary steering
Joystick steering with and without secondary steering
2-function loader valve with single access control
3-function loader valve with 3 lever control or with joystick plus lever
4-function loader valve with joystick and 2 lever control

LOADER

XR extended reach version
Attachment auxiliary hydraulics
Coupler systems – JRB or ACS compatible
Buckets – see pages 4 through 7
4 – 1 clamp buckets
Forks

TIRES

23.5 x 25 L2 bias – dirt/traction
23.5 x 25 L3 bias – rock
23.5-R25 L2 radial – dirt/traction
23.5-R25 L3 radial – rock
23.5-R25 radial Michelin SnoPlus
Spare wheels and tires
Axle oscillation stops

OTHER

Additional RH steps and platform with standard or wide fenders
Side guards for rear frame
Tool box – ground level access
Light counterweight – Z-Bar
Fire extinguisher
License plate bracket
12.4 mph (20 kph) maximum speed control
Special paint
Skid plate and transmission

ADVANCED ENGINE AIR FILTRATION

Variable speed hydraulic reversing fan
Full view air pre-cleaner
Sy-Klone® ejective air pre-cleaner

