



ENGINE

Make	FPT
Model	F4HFE613T
Emissions Certification	Tier 4 Final
Emissions Technology	SCR/DOC
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
Fuel pump	Bosch CR/CP3
Gradeability:	
Side-to-side	35°
Fore and aft	35°
Air filter	Dry type elements w/ warning restriction indicator
Mid-mount cooling module w/ auto reversing fan:	
Mid-mount Air/Water w/ Lube Oil Cooler	
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
Engine speeds	RPM
Rated – full load	2000
Horsepower – Maximum Power:	
Peak gross @ 2000 RPM	195 hp (145 kW)
Net rated @ 2000 RPM	179 hp (133 kW)
Peak net @ 2000 RPM	179 hp (133 kW)
Torque – Maximum Power:	
Gross @ 1300 RPM	701 lb-ft (950 N-m)
Net @ 1300 RPM	674 lb-ft (914 N-m)
Net torque rise:	
Maximum power range	43%

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	3.745/3.551	
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	2.813:1	
Stall ratio – 5-speed	2.420:1	
Differential:	Limited slip w/ 34% available axle torque to wheel w/ traction	
Rear axle oscillation	24° total	
Front and rear axles	Front/Rear:	
Differential ratio	3.4/3.2	
Planetary ratio	6.0/6.4	
Final axle ratio	20.2/20.4	
Heavy-duty axles – optional:		
Front axle equipped w/ locking differential		
Rear axle equipped w/ open differential		
Planetaries	Outboard	
Service brakes:	Hydraulically actuated, maintenance-free, multiple wet disc w/ accumulator to all four wheels	
Brake surface area:		
Front hub – each	600 in ² (0.387 m ²)	
Rear hub – each	600 in ² (0.387 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	Reverse
	mph (kph)	mph (kph)
1st	4.7 (7.6)	5.0 (8.0)
2nd	7.9 (12.8)	8.4 (13.4)
3rd	15.2 (24.5)	15.9 (25.7)
4th	23.5 (37.8)	–
Travel speeds – 5-speed transmission:		
	Forward	Reverse
	mph (kph)	mph (kph)
1st	4.5 (7.2)	4.9 (7.9)
2nd	7.8 (12.6)	8.4 (13.5)
3rd	11.8 (19.0)	19.3 (31.1)
4th	18.3 (29.5)	–
5th	25.0 (40.0)	–

NOTE: Travel speeds at full engine throttle w/ 20.5 x 25 L3 tires.

ELECTRICAL

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

OPERATOR ENVIRONMENT

ROPS cab AC w/ heat; 8" LCD touchscreen display, adjustable armrest w/ 3 configurable buttons; Key start; Articulated power steering w/ tilt column; Fully adjustable, suspension seat w/ headrest; Foot throttle; Single lever (joystick) loader control w/ auxiliary function and fully adjustable wrist rest, 2 cup holders; Interior rear view mirror; 3 inch (76 mm) retractable seat belt; Integrated 4-corner strobe; Multiple storage trays; Single brake pedal; F/N/R shuttle switch; Left and Right external rear view 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; Radio ready – Includes antenna, speakers, wiring, radio fuse, 20A converter, 12-volt auxiliary power outlet, and USB outlet.

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; Engine Block 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/ 3.5 yd³ (2.7 m³) MD pin on w/ bolt on edge; 20.5-R25 L3 Radial tires; ROPS cab w/ heater and A/C; Std. battery; Heavy counterweight – 2,764 lb (1 254 kg); Front and rear fenders; Lights; Full fuel/urea; 165 lb (75 kg) operator:

32,633 lb (14 802 kg)

XT

Unit equipped w/ 3.5 yd³ (2.7 m³) CNH GP w/ BOE and CNH JRB coupler w/ edge; 20.5-R25 L3 Radial tires; ROPS cab w/ heater and A/C; Std. battery; Heavy counterweight – 2,764 lb (1 254 kg); Front and rear fenders; Lights; Full fuel/urea; 165 lb (75 kg) operator:

33,814 lb (15 338 kg)

XR

Unit equipped w/ 3.5 yd³ (2.7 m³) pin on bucket w/ bolt on edge; 20.5-R25 L3 Radial tires; ROPS cab w/ heater and A/C; Std. battery; Heavy counterweight – 2,764 lb (1 254 kg); Front and rear fenders; Lights; Full fuel/urea; 165 lb (75 kg) operator:

33,080 lb (15 005 kg)

HYDRAULICS

Main pump – steering/implement:

Closed center pressure/flow compensated

Tandem variable displacement – load-sensing:

Max. rated flow P1: 55.2 gpm @ 2000 RPM
(209 L/min @ 2000 RPM)

Loader control valve:

Closed-center, sectional 2, 3 or 4-function w/ control for lift, tilt and auxiliary hydraulics

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 65.0 gal (246.0 L)

DEF tank – Diesel Exhaust Fluid:

Usable capacity 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 (177.8 L)

Transmission:

Service w/ filter 39.0 qt (34.0 L)

Front and rear axle:

Front axle 37.0 qt (35.0 L)
Rear axle 24.3 qt (23.0 L)

Front and rear axle – optional:

Front axle 37.0 qt (35.0 L)
Rear axle 37.0 qt (35.0 L)

Engine oil w/ filter 16.0 qt (15.1 L)

Cooling system 30.0 qt (28.4 L)

OTHER SPECIFICATIONS

Lift cylinder:

Bore diameter 4.75 in (120.6 mm)
Rod diameter 3.0 in (76 mm)
Stroke 32.59 in (827.9 mm)

Dump cylinder – Z-Bar and XR:

Bore diameter 5.75 in (146 mm)
Rod diameter 3.0 in (76.2 mm)
Stroke 24.75 in (629.4 mm)

Dump cylinder – XT:

Bore diameter 4.5 in (114 mm)
Rod diameter 2.25 in (57.2 mm)
Stroke 33.7 in (856.5 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:
Z-Bar 5.2 sec
XR 5.2 sec
XT 5.2 sec

Dump w/ rated bucket load:

Z-Bar 1.2 sec
XR 1.2 sec
XT 1.3 sec

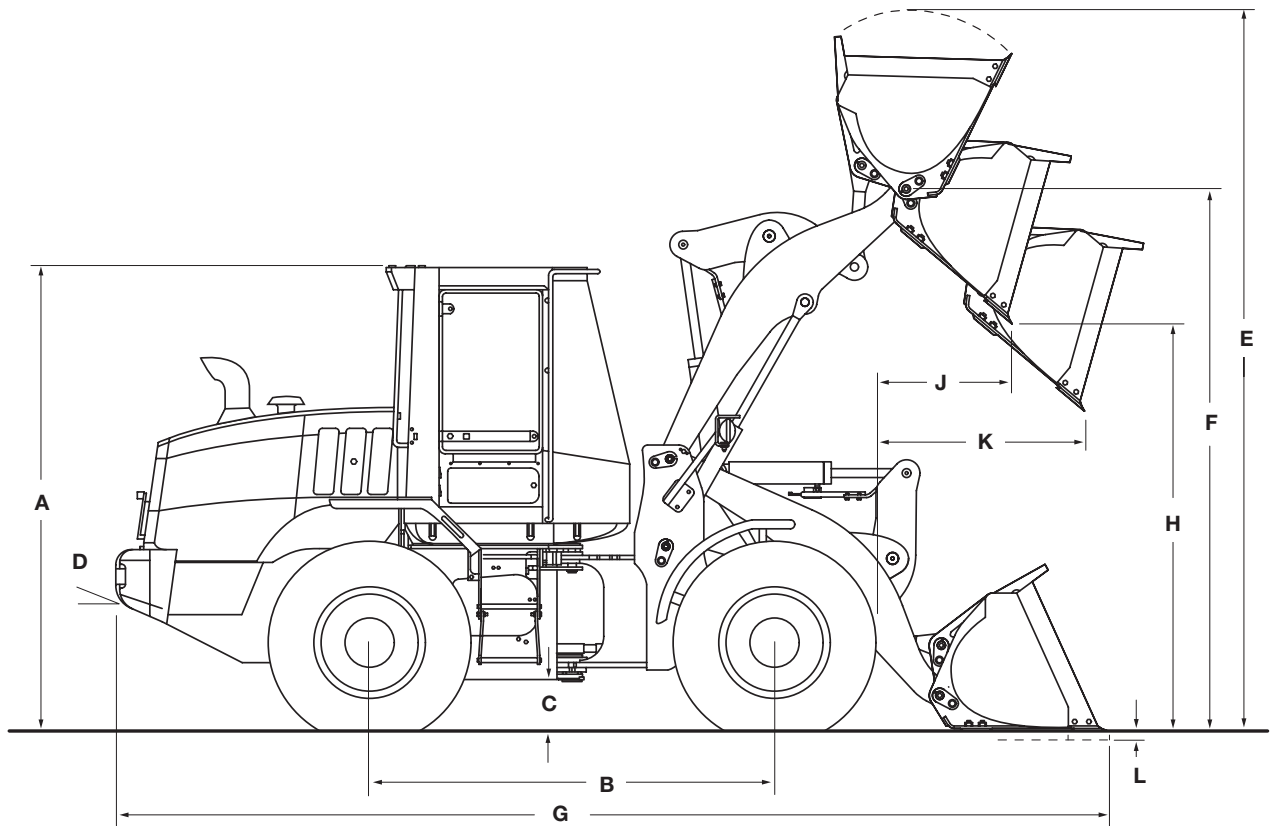
Float down:

Z-Bar 2.4 sec
XR 2.4 sec
XT 2.4 sec

Sound level in Cab (LpA) 68 dB(A)

Exterior sound level (LwA) 103 dB(A)

NOTE: Sound level data tested in accordance with ISO6395, 6396, 3744.



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

DIMENSIONS

A. Height to top of ROPS cab	133.0 in (3 378 mm)
Height to drawbar	43.5 in (1 105 mm)
B. Wheelbase	128.1 in (3 253 mm)
C. Ground clearance	15.1 in (384 mm)
D. Angle of departure	29°
Width:	
Overall* without bucket	100.7 in (2 558 mm)
Tread width	79.9 in (2 030 mm)
Turning radius* – outside	226.3 in (5 748 mm)
Turning angle:	
From center	40°
Total angle	80°
Rear axle oscillation – total	24°

NOTE: *Dimensions taken with 20.5-R25 L3 Radial tires. Additional dimensions on pages 4 through 8.

WEIGHT ADJUSTMENTS

Select Options	Weight Adjustment	Tipping Load Adjustment Straight: Deflected*	Tipping Load Adjustment 40° Turn: Deflected*
20.5 x 25 16 ply L2 Bias tires	-564 lb (-256 kg)	-565 lb (-256 kg)	-987 lb (-448 kg)
20.5 x 25 16 ply L3 Bias tires	-536 lb (-243 kg)	+99 lb (+45 kg)	+182 lb (+82 kg)
20.5-R25 L2 Radial tires	-256 lb (-116 kg)	-262 lb (-119 kg)	-118 lb (-54 kg)
20.5-R25 Snow Radial Tires	-132 lb (-60 kg)	-169 lb (-77 kg)	-32 lb (-15 kg)

NOTE: Unit equipped with Z-Bar loader arms, 3.25 yd³ (2.5 m³) pin on bucket with bolt-on edge, 20.5-R25 L3 Radial tires, ROPS cab with heater and air conditioner, heavy counterweight, heavy-duty batteries, front and rear fenders, full fuel and 165 lb (75 kg) operator. Adjust select options from rated weight.

*Tipping loads: ISO 14397-1 Deflected Tires.

PERFORMANCE SPECS

721G Z-Bar		3.5 yd³ (2.7 m³) Bucket with Bolt-on Edge - Pin On	3.25 yd³ (2.5 m³) Bucket with Bolt-on Edge - Pin On	3.0 yd³ (2.3 m³) Bucket with Bolt-on Edge - Pin On
Operating weight		32,633 lb (14 802 kg)	32,492 lb (14 738 kg)	32,403 lb (14 698 kg)
E.	Operating height – fully raised with spillguard	208.4 in (5 294 mm)	205.7 in (5 225 mm)	203.4 in (5 165 mm)
F.	Hinge pin height – fully raised	156.5 in (3 976 mm)	156.5 in (3 976 mm)	156.5 in (3 976 mm)
G.	Overall length – bucket level on ground	304.0 in (7 721 mm)	301.6 in (7 660 mm)	299.4 in (7 606 mm)
Dump angle – fully raised		50°	50°	50°
H.	Dump height – fully raised, 45° dump	113.7 in (2 888 mm)	115.2 in (2 926 mm)	116.6 in (2 962 mm)
J.	Bucket reach – fully raised, 45° dump	46.0 in (1 169 mm)	44.2 in (1 123 mm)	42.6 in (1 081 mm)
K.	Bucket reach – 7 ft 0 in (2.13 m) height, 45° dump	66.2 in (1 682 mm)	65.1 in (1 654 mm)	64.1 in (1 628 mm)
L.	Dig depth	3.0 in (77 mm)	3.0 in (77 mm)	3.0 in (77 mm)
Operating load – ISO Rigid Tires		11,108 lb (5 039 kg)	11,225 lb (5 092 kg)	11,301 lb (5 126 kg)
Operating load – ISO Deflected Tires		10,106 lb (4 584 kg)	10,225 lb (4 638 kg)	10,305 lb (4 674 kg)
Maximum material density – ISO Rigid Tires		3,174 lb/yd³ (1 883 kg/m³)	3,454 lb/yd³ (2 049 kg/m³)	3,767 lb/yd³ (2 235 kg/m³)
Maximum material density – ISO Deflected Tires		2,887 lb/yd³ (1 713 kg/m³)	3,146 lb/yd³ (1 867 kg/m³)	3,435 lb/yd³ (2 038 kg/m³)
Tipping load – ISO Rigid Tires:				
	Straight	26,678 lb (12 101 kg)	26,921 lb (12 211 kg)	27,074 lb (12 281 kg)
	40° turn	22,217 lb (10 077 kg)	22,451 lb (10 184 kg)	22,602 lb (10 252 kg)
Tipping load – ISO Deflected Tires:				
	Straight	25,081 lb (11 377 kg)	25,329 lb (11 489 kg)	25,490 lb (11 562 kg)
	40° turn	20,212 lb (9 168 kg)	20,450 lb (9 276 kg)	20,609 lb (9 348 kg)
Lift capacity:				
	Full height	15,904 lb (7 214 kg)	16,046 lb (7 278 kg)	16,135 lb (7 319 kg)
	Ground	29,622 lb (13 436 kg)	29,913 lb (13 568 kg)	30,124 lb (13 664 kg)
Breakout force with tilt cylinder		30,485 lb (13 828 kg)	32,158 lb (14 587 kg)	33,810 lb (15 336 kg)
Loader clearance circle with bucket		498.8 in (12 671 mm)	497.5 in (12 636 mm)	496.3 in (12 606 mm)

721G XR		3.5 yd³ (2.7 m³) Bucket with Bolt-on Edge - Pin On	3.25 yd³ (2.5 m³) Bucket with Bolt-on Edge - Pin On	3.0 yd³ (2.3 m³) Bucket with Bolt-on Edge - Pin On
Operating weight		33,080 lb (15 005 kg)	32,939 lb (14 941 kg)	32,851 lb (14 901 kg)
E.	Operating height – fully raised with spillguard	224.0 in (5 689 mm)	221.2 in (5 620 mm)	218.9 in (5 560 mm)
F.	Hinge pin height – fully raised	172.1 in (4 370 mm)	172.1 in (4 370 mm)	172.1 in (4 371 mm)
G.	Overall length – bucket level on ground	318.1 in (8 078 mm)	315.7 in (8 018 mm)	313.5 in (7 963 mm)
Dump angle – fully raised		50°	50°	50°
H.	Dump height – fully raised, 45° dump	129.2 in (3 282 mm)	130.8 in (3 321 mm)	132.1 in (3 356 mm)
J.	Bucket reach – fully raised, 45° dump	46.1 in (1 170 mm)	44.2 in (1 124 mm)	42.6 in (1 082 mm)
K.	Bucket reach – 7 ft 0 in (2.13 m) height, 45° dump	78.5 in (1 995 mm)	77.3 in (1 965 mm)	76.2 in (1 937 mm)
L.	Dig depth	3.1 in (80 mm)	3.1 in (80 mm)	3.1 in (79 mm)
Operating load – ISO Rigid Tires		9,334 lb (4 234 kg)	9,442 lb (4 283 kg)	9,513 lb (4 315 kg)
Operating load – ISO Deflected Tires		8,569 lb (3 887 kg)	8,679 lb (3 937 kg)	8,752 lb (3 970 kg)
Maximum material density – ISO Rigid Tires		2,667 lb/yd³ (1 582 kg/m³)	2,905 lb/yd³ (1 724 kg/m³)	3,171 lb/yd³ (1 882 kg/m³)
Maximum material density – ISO Deflected Tires		2,448 lb/yd³ (1 458 kg/m³)	2,670 lb/yd³ (1 585 kg/m³)	2,917 lb/yd³ (1 731 kg/m³)
Tipping load – ISO Rigid Tires:				
	Straight	22,489 lb (10 201 kg)	22,713 lb (10 302 kg)	22,857 lb (10 368 kg)
	40° turn	18,668 lb (8 468 kg)	18,884 lb (8 566 kg)	19,026 lb (8 630 kg)
Tipping load – ISO Deflected Tires:				
	Straight	21,299 lb (9 661 kg)	21,528 lb (9 765 kg)	21,678 lb (9 833 kg)
	40° turn	17,137 lb (7 773 kg)	17,358 lb (7 873 kg)	17,505 lb (7 940 kg)
Lift capacity:				
	Full height	14,794 lb (6 710 kg)	14,936 lb (6 775 kg)	15,025 lb (6 815 kg)
	Ground	24,637 lb (11 175 kg)	24,897 lb (11 293 kg)	25,085 lb (11 378 kg)
Breakout force with tilt cylinder		30,391 lb (13 785 kg)	32,058 lb (14 541 kg)	33,706 lb (15 289 kg)
Loader clearance circle with bucket		512.6 in (13 020 mm)	511.0 in (12 980 mm)	509.7 in (12 945 mm)

721G		Z-Bar/XR	Z-Bar/XR	Z-Bar/XR
Maximum rollback:	Ground	40°/37°	40°/37°	40°/37°
	Carry position	44°/43°	44°/43°	44°/43°
	@ Full height	57°/57°	57°/57°	57°/57°
Maximum grading angle with bucket – back dragging		59°/58°	58°/58°	58°/58°
SAE bucket capacity – struck		3.00 yd³ (2.29 m³)	2.78 yd³ (2.13 m³)	2.56 yd³ (1.96 m³)
	Heaped	3.50 yd³ (2.68 m³)	3.25 yd³ (2.48 m³)	3.00 yd³ (2.29 m³)
Bucket width – outside		106.3 in (2 700 mm)	106.3 in (2 700 mm)	106.3 in (2 700 mm)
Bucket weight		2,769 lb (1 256 kg)	2,629 lb (1 192 kg)	2,540 lb (1 152 kg)

PERFORMANCE SPECS

721G Z-Bar		3.0 yd³ (2.3 m³) Bucket with Teeth - Pin On	3.5 yd³ (2.7 m³) Bucket with Bolt-on Edge & Grapple - Pin On	5.5 yd³ (4.2 m³) Bucket with Bolt-on Edge - Pin On
Operating weight		32,390 lb (14 692 kg)	34,425 lb (15 615 kg)	33,265 lb (15 089 kg)
E.	Operating height – fully raised with spillguard	205.7 in (5 225 mm)	273.3 in (6 941 mm)	223.0 in (5 665 mm)
F.	Hinge pin height – fully raised	156.5 in (3 976 mm)	156.4 in (3 973 mm)	156.5 in (3 975 mm)
G.	Overall length – bucket level on ground	307.3 in (7 805 mm)	304.0 in (7 721 mm)	320.2 in (8 132 mm)
Dump angle – fully raised		50°	50°	50°
H.	Dump height – fully raised, 45° dump	111.6 in (2 834 mm)	113.6 in (2 886 mm)	102.9 in (2 613 mm)
J.	Bucket reach – fully raised, 45° dump	48.6 in (1 236 mm)	46.0 in (1 167 mm)	56.7 in (1 439 mm)
K.	Bucket reach – 7 ft 0 in (2.13 m) height, 45° dump	67.8 in (1 723 mm)	66.1 in (1 680 mm)	71.1 in (1 806 mm)
L.	Dig depth	3.0 in (75 mm)	3.1 in (80 mm)	4.5 in (114 mm)
Operating load – ISO Rigid Tires		11,397 lb (5 170 kg)	10,222 lb (4 636 kg)	10,229 lb (4 640 kg)
Operating load – ISO Deflected Tires		10,381 lb (4 709 kg)	9,199 lb (4 173 kg)	9,264 lb (4 202 kg)
Maximum material density – ISO Rigid Tires		3,799 lb/yd ³ (2 254 kg/m ³)	2,920 lb/yd ³ (1 733 kg/m ³)	1,860 lb/yd ³ (1 104 kg/m ³)
Maximum material density – ISO Deflected Tires		3,460 lb/yd ³ (2 053 kg/m ³)	2,628 lb/yd ³ (1 560 kg/m ³)	1,684 lb/yd ³ (999 kg/m ³)
Tipping load – ISO Rigid Tires:				
	Straight	27,311 lb (12 388 kg)	24,924 lb (11 305 kg)	24,746 lb (11 225 kg)
	40° turn	22,798 lb (10 340 kg)	20,443 lb (9 273 kg)	20,458 lb (9 280 kg)
Tipping load – ISO Deflected Tires:				
	Straight	25,691 lb (11 653 kg)	23,297 lb (10 567 kg)	23,208 lb (10 527 kg)
	40° turn	20,762 lb (9 417 kg)	18,398 lb (8 345 kg)	18,528 lb (8 404 kg)
Lift capacity:				
	Full height	16,155 lb (7 328 kg)	14,116 lb (6 403 kg)	15,247 lb (6 916 kg)
	Ground	30,217 lb (13 706 kg)	27,759 lb (12 591 kg)	27,872 lb (12 643 kg)
Breakout force with tilt cylinder		34,749 lb (15 762 kg)	28,621 lb (12 982 kg)	22,682 lb (10 288 kg)
Loader clearance circle with bucket		501.2 in (12 731 mm)	498.8 in (12 670 mm)	508.7 in (12 921 mm)

721G XR		3.0 yd³ (2.3 m³) Bucket with Teeth - Pin On	3.5 yd³ (2.7 m³) Bucket with Bolt-on Edge & Grapple - Pin On	5.5 yd³ (4.2 m³) Bucket with Bolt-on Edge - Pin On
Operating weight		32,837 lb (14 895 kg)	34,872 lb (15 818 kg)	33,712 lb (15 292 kg)
E.	Operating height – fully raised with spillguard	221.2 in (5 620 mm)	288.8 in (7 335 mm)	238.6 in (6 060 mm)
F.	Hinge pin height – fully raised	172.1 in (4 371 mm)	172.0 in (4 368 mm)	172.0 in (4 369 mm)
G.	Overall length – bucket level on ground	321.4 in (8 163 mm)	318.0 in (8 078 mm)	334.1 in (8 486 mm)
Dump angle – fully raised		50°	50°	50°
H.	Dump height – fully raised, 45° dump	127.1 in (3 229 mm)	129.2 in (3 281 mm)	118.4 in (3 008 mm)
J.	Bucket reach – fully raised, 45° dump	48.7 in (1 237 mm)	46.0 in (1 168 mm)	56.7 in (1 440 mm)
K.	Bucket reach – 7 ft 0 in (2.13 m) height, 45° dump	80.3 in (2 039 mm)	78.5 in (1 993 mm)	84.1 in (2 135 mm)
L.	Dig depth	3.1 in (78 mm)	3.2 in (82 mm)	4.6 in (116 mm)
Operating load – ISO Rigid Tires		9,585 lb (4 348 kg)	8,441 lb (3 829 kg)	8,576 lb (3 890 kg)
Operating load – ISO Deflected Tires		8,811 lb (3 997 kg)	7,659 lb (3 474 kg)	7,835 lb (3 554 kg)
Maximum material density – ISO Rigid Tires		3,195 lb/yd ³ (1 896 kg/m ³)	2,412 lb/yd ³ (1 431 kg/m ³)	1,559 lb/yd ³ (925 kg/m ³)
Maximum material density – ISO Deflected Tires		2,937 lb/yd ³ (1 743 kg/m ³)	2,188 lb/yd ³ (1 298 kg/m ³)	1,424 lb/yd ³ (845 kg/m ³)
Tipping load – ISO Rigid Tires:				
	Straight	23,034 lb (10 448 kg)	20,719 lb (9 398 kg)	20,836 lb (9 451 kg)
	40° turn	19,171 lb (8 696 kg)	16,881 lb (7 657 kg)	17,152 lb (7 780 kg)
Tipping load – ISO Deflected Tires:				
	Straight	21,831 lb (9 902 kg)	19,505 lb (8 848 kg)	19,682 lb (8 928 kg)
	40° turn	17,622 lb (7 993 kg)	15,318 lb (6 948 kg)	15,669 lb (7 107 kg)
Lift capacity:				
	Full height	15,044 lb (6 824 kg)	13,005 lb (5 899 kg)	14,139 lb (6 413 kg)
	Ground	25,151 lb (11 408 kg)	22,768 lb (10 327 kg)	23,100 lb (10 478 kg)
Breakout force with tilt cylinder		34,641 lb (15 713 kg)	28,529 lb (12 940 kg)	22,638 lb (10 268 kg)
Loader clearance circle with bucket		515.2 in (13 087 mm)	512.5 in (13 019 mm)	523.8 in (13 304 mm)

721G		Z-Bar/XR	Z-Bar/XR	Z-Bar/XR
Maximum rollback:	Ground	40°/37°	40°/37°	41°/38°
	Carry position	44°/43°	44°/43°	44°/43°
	@ Full height	57°/57°	57°/57°	57°/57°
Maximum grading angle with bucket – back dragging		59°/59°	59°/58°	63°/61°
SAE bucket capacity – struck		2.62 yd ³ (2.00 m ³)	3.00 yd ³ (2.29 m ³)	4.44 yd ³ (3.39 m ³)
Heaped		3.00 yd ³ (2.29 m ³)	3.50 yd ³ (2.68 m ³)	5.50 yd ³ (4.21 m ³)
Bucket width – outside		106.8 in (2 713 mm)	106.3 in (2 700 mm)	106.3 in (2 700 mm)
Bucket weight		2,526 lb (1 146 kg)	4,561 lb (2 069 kg)	3,402 lb (1 543 kg)

PERFORMANCE SPECS

721G Z-Bar		3.5 yd³ (2.7 m³) Bucket with Bolt-on Edge - JRB Coupler	3.0 yd³ (2.3 m³) Bucket with Bolt-on Edge - JRB Coupler	3.0 yd³ (2.3 m³) Bucket with Bolt-on Edge - ACS Coupler
Operating weight		33,530 lb (15 209 kg)	33,344 lb (15 124 kg)	33,414 lb (15 156 kg)
E.	Operating height – fully raised with spillguard	216.0 in (5 485 mm)	210.9 in (5 356 mm)	208.6 in (5 298 mm)
F.	Hinge pin height – fully raised	156.5 in (3 974 mm)	156.5 in (3 975 mm)	156.5 in (3 975 mm)
G.	Overall length – bucket level on ground	314.6 in (7 992 mm)	310.0 in (7 873 mm)	307.2 in (7 802 mm)
Dump angle – fully raised		50°	50°	50°
H.	Dump height – fully raised, 45° dump	106.8 in (2 711 mm)	109.9 in (2 791 mm)	111.6 in (2 835 mm)
J.	Bucket reach – fully raised, 45° dump	53.9 in (1 370 mm)	51.0 in (1 296 mm)	48.4 in (1 231 mm)
K.	Bucket reach – 7 ft 0 in (2.13 m) height, 45° dump	70.6 in (1 794 mm)	69.4 in (1 763 mm)	67.7 in (1 719 mm)
L.	Dig depth	3.3 in (83 mm)	2.7 in (69 mm)	3.1 in (78 mm)
Operating load – ISO Rigid Tires		10,035 lb (4 552 kg)	10,020 lb (4 545 kg)	10,228 lb (4 639 kg)
Operating load – ISO Deflected Tires		9,093 lb (4 124 kg)	9,109 lb (4 132 kg)	9,293 lb (4 215 kg)
Maximum material density – ISO Rigid Tires		2,867 lb/yd ³ (1 701 kg/m ³)	3,340 lb/yd ³ (1 982 kg/m ³)	3,409 lb/yd ³ (2 023 kg/m ³)
Maximum material density – ISO Deflected Tires		2,598 lb/yd ³ (1 541 kg/m ³)	3,036 lb/yd ³ (1 802 kg/m ³)	3,098 lb/yd ³ (1 838 kg/m ³)
Tipping load – ISO Rigid Tires:				
	Straight	24,301 lb (11 023 kg)	24,202 lb (10 978 kg)	24,704 lb (11 205 kg)
	40° turn	20,069 lb (9 103 kg)	20,040 lb (9 090 kg)	20,456 lb (9 279 kg)
Tipping load – ISO Deflected Tires:				
	Straight	22,803 lb (10 343 kg)	22,759 lb (10 323 kg)	23,222 lb (10 533 kg)
	40° turn	18,185 lb (8 249 kg)	18,217 lb (8 263 kg)	18,586 lb (8 430 kg)
Lift capacity:				
	Full height	14,992 lb (6 800 kg)	15,171 lb (6 881 kg)	15,111 lb (6 854 kg)
	Ground	27,377 lb (12 418 kg)	26,989 lb (12 242 kg)	27,954 lb (12 680 kg)
Breakout force with tilt cylinder		24,386 lb (11 062 kg)	26,469 lb (12 006 kg)	28,136 lb (12 762 kg)
Loader clearance circle with bucket		505.2 lb (12 831 mm)	502.3 in (12 758 mm)	500.7 in (12 717 mm)

721G XR		3.5 yd³ (2.7 m³) Bucket with Bolt-on Edge - JRB Coupler	3.0 yd³ (2.3 m³) Bucket with Bolt-on Edge - JRB Coupler	3.0 yd³ (2.3 m³) Bucket with Bolt-on Edge - ACS Coupler
Operating weight		33,977 lb (15 412 kg)	33,791 lb (15 327 kg)	33,861 lb (15 359 kg)
E.	Operating height – fully raised with spillguard	231.5 in (5 880 mm)	226.4 in (5 751 mm)	224.1 in (5 692 mm)
F.	Hinge pin height – fully raised	172.0 in (4 369 mm)	172.0 in (4 369 mm)	172.0 in (4 369 mm)
G.	Overall length – bucket level on ground	328.7 in (8 349 mm)	324.1 in (8 232 mm)	321.2 in (8 159 mm)
Dump angle – fully raised		50°	50°	50°
H.	Dump height – fully raised, 45° dump	122.3 in (3 106 mm)	125.4 in (3 186 mm)	127.1 in (3 230 mm)
J.	Bucket reach – fully raised, 45° dump	54.0 in (1 371 mm)	51.1 in (1 297 mm)	48.5 in (1 232 mm)
K.	Bucket reach – 7 ft 0 in (2.13 m) height, 45° dump	83.3 in (2 117 mm)	81.9 in (2 081 mm)	80.1 in (2 034 mm)
L.	Dig depth	3.4 in (85 mm)	2.8 in (72 mm)	3.2 in (81 mm)
Operating load – ISO Rigid Tires		8,409 lb (3 814 kg)	8,426 lb (3 822 kg)	8,581 lb (3 892 kg)
Operating load – ISO Deflected Tires		7,682 lb (3 484 kg)	7,720 lb (3 502 kg)	7,859 lb (3 565 kg)
Maximum material density – ISO Rigid Tires		2,403 lb/yd ³ (1 426 kg/m ³)	2,809 lb/yd ³ (1 667 kg/m ³)	2,860 lb/yd ³ (1 697 kg/m ³)
Maximum material density – ISO Deflected Tires		2,195 lb/yd ³ (1 302 kg/m ³)	2,573 lb/yd ³ (1 527 kg/m ³)	2,620 lb/yd ³ (1 554 kg/m ³)
Tipping load – ISO Rigid Tires:				
	Straight	20,462 lb (9 281 kg)	20,447 lb (9 275 kg)	20,821 lb (9 444 kg)
	40° turn	16,818 lb (7 628 kg)	16,853 lb (7 644 kg)	17,161 lb (7 784 kg)
Tipping load – ISO Deflected Tires:				
	Straight	19,333 lb (8 769 kg)	19,354 lb (8 779 kg)	19,703 lb (8 937 kg)
	40° turn	15,363 lb (6 969 kg)	15,439 lb (7 003 kg)	15,717 lb (7 129 kg)
Lift capacity:				
	Full height	13,884 lb (6 298 kg)	14,063 lb (6 379 kg)	14,003 lb (6 351 kg)
	Ground	22,753 lb (10 321 kg)	22,866 lb (10 372 kg)	23,201 lb (10 524 kg)
Breakout force with tilt cylinder		24,311 lb (11 027 kg)	26,378 lb (11 965 kg)	28,045 lb (12 721 kg)
Loader clearance circle with bucket		519.8 in (13 202 mm)	516.5 in (13 120 mm)	514.7 in (13 073 mm)

721G		Z-Bar/XR	Z-Bar/XR	Z-Bar/XR
Maximum rollback:	Ground	40°/37°	40°/37°	40°/37°
	Carry position	44°/43°	44°/43°	44°/43°
	@ Full height	57°/57°	57°/57°	57°/57°
Maximum grading angle with bucket – back dragging		62°/60°	60°/59°	60°/59°
SAE bucket capacity – struck		3.00 yd ³ (2.29 m ³)	2.56 yd ³ (1.96 m ³)	2.56 yd ³ (1.96 m ³)
Heaped		3.50 yd ³ (2.68 m ³)	3.00 yd ³ (2.29 m ³)	3.00 yd ³ (2.29 m ³)
Bucket width – outside		106.3 in (2 700 mm)	106.3 in (2 700 mm)	106.3 in (2 700 mm)
Bucket weight		3,666 lb (1 663 kg)	3,480 lb (1 579 kg)	3,551 lb (1 611 kg)

PERFORMANCE SPECS

721G XT		3.5 yd³ (2.7 m³) Bucket with Bolt-on Edge - JRB Coupler	3.0 yd³ (2.3 m³) Bucket with Bolt-on Edge - JRB Coupler	2.8 yd³ (2.1 m³) Bucket with Teeth - JRB Coupler**	3.0 yd³ (2.3 m³) Bucket with Bolt-on Edge - ACS Coupler***
Operating weight		33,814 lb (15 338 kg)	33,392 lb (15 146 kg)	33,290 lb (15 100 kg)	33,861 lb (15 359 kg)
E. Operating height – fully raised with spillguard		222.2 in (5 643 mm)	217.1 in (5 515 mm)	217.1 in (5 516 mm)	219.1 in (5 564 mm)
F. Hinge pin height – fully raised		163.6 in (4 156 mm)	163.6 in (4 157 mm)	163.7 in (4 157 mm)	163.6 in (4 156 mm)
G. Overall length – bucket level on ground		317.1 in (8 054 mm)	312.7 in (7 942 mm)	318.4 in (8 086 mm)	315.2 in (8 005 mm)
Dump angle – fully raised		55°	55°	55°	55°
H. Dump height – fully raised, 45° dump		112.0 in (2 846 mm)	114.9 in (2 919 mm)	111.3 in (2 827 mm)	113.3 in (2 878 mm)
J. Bucket reach – fully raised, 45° dump		53.3 in (1 355 mm)	50.2 in (1 275 mm)	54.6 in (1 388 mm)	52.1 in (1 323 mm)
K. Bucket reach – 7 ft 0 in (2.13 m) height, 45° dump		73.7 in (1 871 mm)	72.0 in (1 828 mm)	74.6 in (1 894 mm)	73.1 in (1 856 mm)
L. Dig depth		3.7 in (94 mm)	3.5 in (89 mm)	3.4 in (87 mm)	3.5 in (90 mm)
Operating load – ISO Rigid Tires		9,571 lb (4 341 kg)	9,679 lb (4 390 kg)	9,825 lb (4 456 kg)	9,301 lb (4 219 kg)
Operating load – ISO Deflected Tires		8,654 lb (3 925 kg)	8,788 lb (3 986 kg)	8,922 lb (4 047 kg)	8,427 lb (3 822 kg)
Maximum material density – ISO Rigid Tires		2,710 lb/yd ³ (1 608 kg/m ³)	3,226 lb/yd ³ (1 914 kg/m ³)	3,509 lb/yd ³ (2 082 kg/m ³)	3,100 lb/yd ³ (1 840 kg/m ³)
Maximum material density – ISO Deflected Tires		2,450 lb/yd ³ (1 454 kg/m ³)	2,929 lb/yd ³ (1 738 kg/m ³)	3,187 lb/yd ³ (1 891 kg/m ³)	2,809 lb/yd ³ (1 667 kg/m ³)
Tippling load – ISO Rigid Tires:	Straight	23,209 lb (10 527 kg)	23,361 lb (10 596 kg)	23,690 lb (10 745 kg)	22,545 lb (10 226 kg)
	40° turn	19,142 lb (8 682 kg)	19,357 lb (8 780 kg)	19,650 lb (8 913 kg)	18,602 lb (8 438 kg)
Tippling load – ISO Deflected Tires:	Straight	21,741 lb (9 861 kg)	21,942 lb (9 953 kg)	22,250 lb (10 092 kg)	21,152 lb (9 595 kg)
	40° turn	17,307 lb (7 850 kg)	17,577 lb (7 973 kg)	17,844 lb (8 094 kg)	16,854 lb (7 645 kg)
Lift capacity:	Full height	14,059 lb (6 377 kg)	14,396 lb (6 530 kg)	14,564 lb (6 606 kg)	13,839 lb (6 277 kg)
	Ground	30,839 lb (13 989 kg)	31,434 lb (14 258 kg)	31,483 lb (14 281 kg)	31,098 lb (14 106 kg)
Breakout force with tilt cylinder		25,542 lb (11 586 kg)	27,817 lb (12 618 kg)	29,706 lb (13 474 kg)	26,353 lb (11 954 kg)
Loader clearance circle with bucket		497.9 in (12 646 mm)	496.0 in (12 598 mm)	498.8 in (12 670 mm)	497.0 in (12 624 mm)

721G

Maximum rollback:	Ground	58°	58°	58°	58°
	Carry position	58°	58°	58°	58°
	@ Full height	58°	58°	58°	58°
Maximum grading angle with bucket – back dragging		61°	62°	61°	62°
SAE bucket capacity – struck		3.01 yd ³ (2.30 m ³)	2.42 yd ³ (1.85 m ³)	2.56 yd ³ (1.96 m ³)	2.42 yd ³ (1.85 m ³)
Heaped		3.53 yd ³ (2.70 m ³)	2.80 yd ³ (2.14 m ³)	3.00 yd ³ (2.29 m ³)	2.80 yd ³ (2.14 m ³)
Bucket width – outside		106.3 in (2 700 mm)	106.8 in (2 713 mm)	106.3 in (2 700 mm)	106.8 in (2 713 mm)
Bucket weight		3,601 lb (1 633 kg)	3,077 lb (1 396 kg)	3,648 lb (1 655 kg)	3,545 lb (1 608 kg)

NOTE: Performance data unit equipped with 20.5-R25 L3 Radial tires, ROPS cab with heater and A/C, heavy 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 F4HFE613W
Tier 4 Final Certified
Selective Catalytic Reduction (SCR) with Diesel Oxidation Catalyst
Selectable work modes:
Maximum Mode
Smart Mode
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 with hydraulically driven auto reversing fan
Engine block heater
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 – Z-Bar
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

Adjustable Electro-hydraulic - EH loader control with one auxiliary function and 3 configurable buttons
Adjustable EH settings:
Smooth
Moderate
Aggressive
Auxiliary Hydraulics
Ride Control™
Locking hydraulics for coupler
EH Parallel Lift
Low-effort steering
Hydraulic driven cooling fan
Diagnostic quick couplers
Hydraulic oil cooler

ELECTRICAL

Alternator and voltage regulator
Battery isolator/electrical disconnect
120 amp alternator
(2) 700 CCA 12-volt batteries
Electric starter
Lights:
Integrated 4-corner strobe
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
External rear view mirrors
Heavy counterweight
Drawbar hitch
Articulation locking bar
Lift arm locking bar
Lift and tie-down points – front/rear
Rear frame side covers
License plate brackets; front bracket and lit rear bracket
Rubber steering stops
Grouped remote-mounted ecology drains:
Engine oil
Engine coolant
Hydraulic oil

TELEMATICS

CASE SiteWatch™ Telematics – includes hardware and a 3-yr Advanced data subscription
SiteConnect Module providing remote diagnostics capability

OPTIONAL EQUIPMENT

OPERATOR ENVIRONMENT

Cloth-covered heated air-suspension seat with headrest
Sound Shield noise suppression package
Bluetooth radio, 12V AM/FM with auxiliary input
Cab convenience package:
Rear sun shade, interior mirror, under the seat drawer, coat hook, 12V accessory port, and an ash tray
In cab powered cooler box
In cab accessory mount
Rear view camera
External heated rear view mirrors
Front LED driving/headlights
LED front and rear work lights – 4 front, 2 rear

DRIVETRAIN

5F/3R Autoshift/manual shift transmission, lockup torque converter, PowerInch de-clutch
Heavy-duty axles:
With locking front differential and open/conventional rear differential
Cold weather package:
Heavy-duty (2) 950 CCA 12V batteries
Fuel heater
Hydraulic oil cooler bypass
Low temperature hydraulic oil
Fast-warm hydraulic valve

HYDRAULICS

Secondary steering
Integrated Payload System
Tire Pressure Monitoring System
2-function loader valve with joystick loader control
4-function loader valve with joystick loader control and two proportional auxiliary roller switches

LOADER

XR extended reach version
XT tool carrier version
Attachment auxiliary hydraulics
Coupler systems – JRB or ACS compatible
Buckets – see pages 4 through 8

TIRES

20.5x25 L2 bias (16 ply) – dirt/traction
20.5 x25 L3 bias (16 ply) – rock
20.5-R25 L2 radial – dirt/traction
20.5-R25 L3 radial – rock
20.5-R25 radial Michelin SnoPlus
Axle oscillation stops

GUARDING

Skid plate, transmission and front chassis bottom guards

ADVANCED ENGINE AIR FILTRATION

Heavy Debris cooling system:
Slanted cooling module cover
Increased cooling fin spacing
Added cooling module sealing
Sy-Klone® ejector type pre-cleaner

OTHER

Additional RH steps and platform with standard or wide fenders
12.4 mph (20 kph) maximum speed control
Special paint
Standard fenders with right and left hand steps
Wide full coverage fenders with right and left hand steps

