CASE CONSTRUCTION

721G

Z-BAR/XT/XR WHEEL LOADER

TIER 4 FINAL CERTIFIED

EFFECTIVE MARCH 2024



ENGINE

Make	FPT
Model	F4HFE613T*B009
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 pump	Bosch CR/CP3
Fuel pump gradeability:	
Side-to-side	35°
Fore and aft	35°
Fuel Filter	Replaceable full flow spin-on cartridge
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 gradeability:	
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	3.4/3.4
Planetary ratio	6.0/6.0
Final axle ratio	20.2/20.2
Heavy-duty limited slip front/rear standard – optional:	
Heavy-duty Locking Front/Open Rear	
Heavy-duty Locking Front/LS Rear	
Planetaries	Outboard

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

Brake surface area:	
Front hub – each	721 in^2 (0,465 m^2)
Rear hub – each	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	4.7 (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 mph (kph)	Reverse 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.

LCD Displays/Gauges:
Transmission oil temperature Engine coolant temperature; Fuel Level; DEF level. 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*.

Warning lights:
Four-way flashers and turn signals; Brake pressure; Lamp/high beam indication; Engine Block Heater.

Audible alarms with diagnostics:
Parking brake; Coolant temperature; Hydraulic oil temperature; Transmission oil temperature; Air filter; Transmission filter; Hydraulic filter; Alternator; Low fuel. Engine oil pressure; Brake pressure; Steering pressure – w/ aux. steering*; Coolant temperature; Hydraulic oil temperature; Transmission oil temperature.
Backup alarm
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:
36,011 lb (16 334 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:
36,227 lb (16 432 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:
36,458 lb (16 537 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	36.0 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)

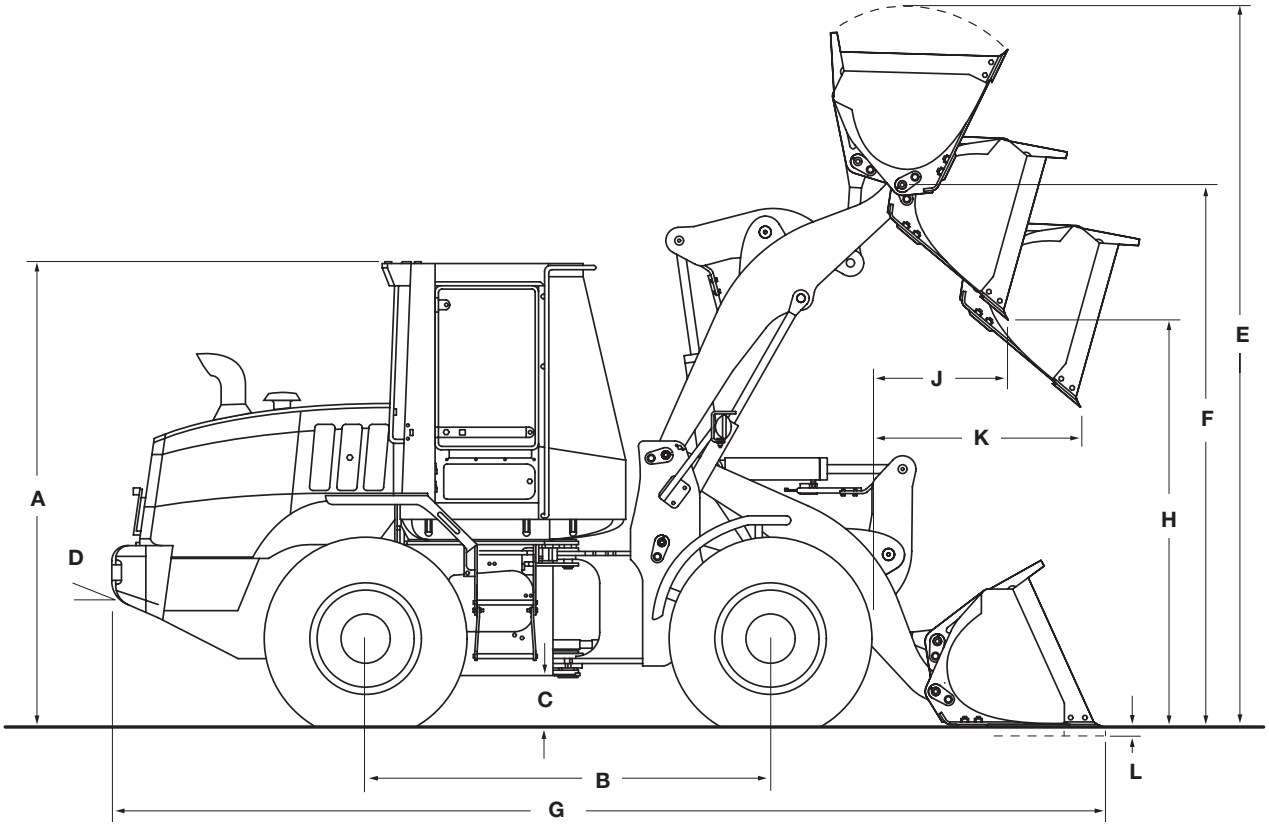
OTHER SPECIFICATIONS

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 tire	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 yd^3 (2.5 m^3) 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
Operating weight		36,011 lb (16 334 kg)	35,866 lb (16 269 kg)
E. Operating height – fully raised with spillguard		212.4 in (5 394 mm)	209.7 in (5 327 mm)
F. Hinge pin height – fully raised		160.5 in (4 077 mm)	160.5 in (4 077 mm)
G. Overall length – bucket level on ground		304.1 in (7 724 mm)	301.7 in (7 663 mm)
Dump angle – fully raised		47°	47°
H. Dump height – fully raised, 45° dump		117.7 in (2 989 mm)	119.2 in (3 029 mm)
J. Bucket reach – fully raised, 45° dump		41.8 in (1 062 mm)	40.0 in (1 017 mm)
K. Bucket reach – 7 ft 0 in (2.13 m) height, 45° dump		66.2 in (1 680 mm)	65.1 in (1 653 mm)
L. Dig depth		2.1 in (54 mm)	2.1 in (52 mm)
Operating load – ISO Rigid Tires		13,546 lb (6 144 kg)	13,546 lb (6 144 kg)
Operating load – ISO Deflected Tires		12,190 lb (5 529 kg)	12,190 lb (5 529 kg)
Maximum material density – ISO Rigid Tires		4,168 lb/yd³ (2 473 kg/m³)	4,168 lb/yd³ (2 473 kg/m³)
Maximum material density – ISO Deflected Tires		3,751 lb/yd³ (2 226 kg/m³)	3,751 lb/yd³ (2 226 kg/m³)
Tipping load – ISO Rigid Tires:	Straight 40° turn	32,380 lb (14 687 kg) 27,092 lb (12 289 kg)	32,380 lb (14 687 kg) 27,092 lb (12 289 kg)
Tipping load – ISO Deflected Tires:	Straight 40° turn	30,309 lb (13 748 kg) 24,381 lb (11 059 kg)	30,309 lb (13 748 kg) 24,381 lb (11 059 kg)
Lift capacity:	Full height Ground	15,777 lb (7 156 kg) 28,437 lb (12 899 kg)	15,923 lb (7 222 kg) 28,728 lb (13 031 kg)
Breakout force with tilt cylinder		32,107 lb (14 563 kg)	32,107 lb (14 563 kg)
Loader clearance circle with bucket		497.5 in (12 636 mm)	497.5 in (12 636 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
Operating weight		36,458 lb (16 537 kg)	36,313 lb (16 471 kg)
E. Operating height – fully raised with spillguard		228.0 in (5 792 mm)	225.4 in (5 725 mm)
F. Hinge pin height – fully raised		176.2 in (4 475 mm)	176.2 in (4 475 mm)
G. Overall length – bucket level on ground		318.2 in (8 081 mm)	315.8 in (8 020 mm)
Dump angle – fully raised		47°	47°
H. Dump height – fully raised, 45° dump		133.4 in (3 387mm)	134.9 in (3 427 mm)
J. Bucket reach – fully raised, 45° dump		40.8 in (1 037 mm)	39.0 in (992 mm)
K. Bucket reach – 7 ft 0 in (2.13 m) height, 45° dump		78.5 in (1 993 mm)	77.3 in (1 964 mm)
L. Dig depth		2.0 in (50 mm)	1.9 in (49 mm)
Operating load – ISO Rigid Tires		11,355 lb (5 150 kg)	11,477 lb (5 206 kg)
Operating load – ISO Deflected Tires		10,329 lb (4 685 kg)	10,452 lb (4 741 kg)
Maximum material density – ISO Rigid Tires		3,244 lb/yd³ (1 925 kg/m³)	3,532 lb/yd³ (2 095 kg/m³)
Maximum material density – ISO Deflected Tires		2,951 lb/yd³ (1 751 kg/m³)	3,216 lb/yd³ (1 908 kg/m³)
Tipping load – ISO Rigid Tires:	Straight 40° turn	27,228 lb (12 350 kg) 22,710 lb (10 301 kg)	27485 lb (12 467 kg) 22,955 lb (10 412 kg)
Tipping load – ISO Deflected Tires:	Straight 40° turn	25,700 lb (11 657 kg) 20,658 lb (9 370 kg)	25,960 lb (11 775 kg) 20,905 lb (9 482 kg)
Lift capacity:	Full height Ground	14,863 lb (6 742 kg) 23,634 lb (10 720 kg)	15,008 lb (6 808 kg) 23,895 lb (10 839 kg)
Breakout force with tilt cylinder		30,346 lb (13 765 kg)	32,011 lb (14 520 kg)
Loader clearance circle with bucket		512.6 in (13 019 mm)	511.0 in (12 980 mm)

721G		Z-Bar/XR	Z-Bar/XR
Maximum rollback:	Ground Carry position @ Full height	40°/37° 44°/43° 57°/57°	40°/37° 44°/43° 57°/57°
Maximum grading angle with bucket – back dragging		59°/58°	58°/58°
SAE bucket capacity – struck Heaped		3.00 yd³ (2,29 m³) 3.50 yd³ (2,68 m³)	2.75 yd³ (2,10 m) 3.25 yd³ (2,48 m³)
Bucket width – outside		106.3 in (2 700 mm)	106.3 in (2 700 mm)
Bucket weight		2,851 lb (1 293 kg)	2706 lb (1 227 kg)

PERFORMANCE SPECS

721G Z-Bar		5.0 yd³ (3.8 m³) Bucket with Bolt-on Edge - JRB Coupler	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
Operating weight		37,508 lb (17 013 kg)	36,397 lb (16 759 kg)	36,703 lb (16 648 kg)
E. Operating height – fully raised with spillguard		233.1 in (5 921 mm)	219.7 in (5 580 mm)	214.9 in (5 457 mm)
F. Hinge pin height – fully raised		160.4 in (4 075 mm)	160.5 in (4 076 mm)	160.5 in (4 076 mm)
G. Overall length – bucket level on ground		325.0 in (8 256 mm)	314.8 in (7 997 mm)	310.5 in (7 886 mm)
Dump angle – fully raised		47°	47°	47°
H. Dump height – fully raised, 45° dump		103.6 in (2 631 mm)	110.7 in (2 812 mm)	113.6 in (2 885 mm)
J. Bucket reach – fully raised, 45° dump		55.0 in (1 397 mm)	49.8 in (1 265 mm)	46.7 in (1 186 mm)
K. Bucket reach – 7 ft 0 in (2.13 m) height, 45° dump		71.4 in (1 815 mm)	70.6 in (1 794 mm)	69.0 in (1 752 mm)
L. Dig depth		4.5 in (114 mm)	2.3 in (59 mm)	2.2 in (55 mm)
Operating load – ISO Rigid Tires		11,533 lb (5 231 kg)	11,968 lb (5 428 kg)	12,181 lb (5 525 kg)
Operating load – ISO Deflected Tires		10,296 lb (4 670 kg)	10,736 lb (4 870 kg)	10,952 lb (4 968 kg)
Maximum material density – ISO Rigid Tires		2,307 lb/yd³ (1 369 kg/m³)	3,419 lb/yd³ (2 029 kg/m³)	4,060 lb/yd³ (2 409 kg/m³)
Maximum material density – ISO Deflected Tires		2,059 lb/yd³ (1 222 kg/m³)	3,067 lb/yd³ (1 820 kg/m³)	3,651 lb/yd³ (2 166 kg/m³)
Tipping load – ISO Rigid Tires:	Straight 40° turn	27,942 lb (12 674 kg) 23,067 lb (10 463 kg)	28,838 lb (13 081 kg) 23,935 lb (10 857 kg)	29,282 lb (13 282 kg) 24,361lb (11 050 kg)
Tipping load – ISO Deflected Tires:	Straight 40° turn	26,052 lb (11 817 kg) 20,592 lb (9 340 kg)	26,964 lb (12 231 kg) 21,472 lb (9 739 kg)	27,417 lb (12 436 kg) 21,905 lb (9 936 kg)
Lift capacity:	Full height Ground	14,275 lb (6 475 kg) 23,517 lb (10 667 kg)	14,837 lb (6 730 kg) 25,358 lb (11 502 kg)	15,081 lb (6 841 kg) 26,443 lb (11 994 kg)
Breakout force with tilt cylinder		20,709 lb (9 393 kg)	24,282 lb (11 014 kg)	26,374 lb (11 963 kg)
Loader clearance circle with bucket		511.8 in (13 000 mm)	505.2 lb (12 832 mm)	502.5 in (12 765 mm)

721G XR		5.0 yd³ (3.8 m³) Bucket with Bolt-on Edge - JRB Coupler	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
Operating weight		37,955 lb (17 216 kg)	37,394 lb (16 962 kg)	37,150 lb (16 851 kg)
E. Operating height – fully raised with spillguard		248.8 in (6 319 mm)	235.4 in (5 978 mm)	230.5 in (5 855 mm)
F. Hinge pin height – fully raised		176.1 in (4 473 mm)	176.1 in (4 474 mm)	176.2 in (4 474 mm)
G. Overall length – bucket level on ground		338.8 in (8 607 mm)	328.9 in (8 353 mm)	324.5 in (8 243 mm)
Dump angle – fully raised		47°	47°	47°
H. Dump height – fully raised, 45° dump		119.3 in (3 029 mm)	126.4 in (3 210 mm)	129.2 in (3 283 mm)
J. Bucket reach – fully raised, 45° dump		54.0 in (1 371 mm)	48.8 in (1 240 mm)	45.7 in (1 160 mm)
K. Bucket reach – 7 ft 0 in (2.13 m) height, 45° dump		84.7 in (2 151 mm)	83.3 in (2 117 mm)	81.5 in (2 071 mm)
L. Dig depth		4.3 in (110 mm)	2.2 in (56 mm)	2.0 in (51 mm)
Operating load – ISO Rigid Tires		9,733 lb (4 415 kg)	10,141 lb (4 600 kg)	10,338 lb (4 689 kg)
Operating load – ISO Deflected Tires		8,780 lb (3 982 kg)	9,195 lb (4 171 kg)	9,393 lb (4 261 kg)
Maximum material density – ISO Rigid Tires		1,947 lb/yd³ (1 155 kg/m³)	2,898 lb/yd³ (1 719 kg/m³)	3,446 lb/yd³ (2 045 kg/m³)
Maximum material density – ISO Deflected Tires		1,756 lb/yd³ (1 042 kg/m³)	2,627 lb/yd³ (1 559 kg/m³)	3,131 lb/yd³ (1 858 kg/m³)
Tipping load – ISO Rigid Tires:	Straight 40° turn	23,676 lb (10 739 kg) 19,465 lb (8 829 kg)	24,516 lb (11 120 kg) 20,283 lb (9 200 kg)	24,925 lb (11 306 kg) 20,675 lb (9 378 kg)
Tipping load – ISO Deflected Tires:	Straight 40° turn	22,255 lb (10 095 kg) 17,559 lb (7 965 kg)	23,111 lb (10 483 kg) 18,389 lb (8 341 kg)	23,526 lb (10 671 kg) 18,787 lb (8 522 kg)
Lift capacity:	Full height Ground	13,366 lb (6 063 kg) 20,880 lb (9 471 kg)	13,927 lb (6 317 kg) 21,548 lb (9 774 kg)	14,171 lb (6 428 kg) 21,963 lb (9 962 kg)
Breakout force with tilt cylinder		20,686 lb (9 383 kg)	24,210 lb (10 982 kg)	26,293 lb (11 926 kg)
Loader clearance circle with bucket		527.2 in (13 392 mm)	519.8 in (13 202 mm)	516.8 in (13 127 mm)

721G		Z-Bar/XR	Z-Bar/XR	Z-Bar/XR
Maximum rollback:	Ground Carry position @ Full height	41°/37° 44°/43° 57°/57°	40°/38° 44°/43° 57°/56°	40°/37° 44°/43° 57°/57°
Maximum grading angle with bucket – back dragging		65°/62°	62°/60°	61°/60°
SAE bucket capacity – struck Heaped		4.50 yd³ (3,44 m³) 5.00 yd³ (3,82 m³)	3.00 yd³ (2,29 m³) 3.50 yd³ (2,68 m³)	2.50 yd³ (1,91 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		4,348 lb (1 972 kg)	3,787lb (1 718 kg)	3,543 lb (1 607 kg)

PERFORMANCE SPECS

721G Z-Bar		3.0 yd³ (2.3 m³) Bucket with Bolt-on Edge - ACS Coupler	3.5 yd³ (2.7 m³) Bucket with Bolt-on Edge - ACS Coupler
Operating weight		36,782 lb (16 684 kg)	37,047 lb (16 804 kg)
E. Operating height – fully raised with spillguard		212.7 in (5 402 mm)	217.4 in (5 522 mm)
F. Hinge pin height – fully raised		160.5 in (4 076 mm)	160.5 in (4 076 mm)
G. Overall length – bucket level on ground		307.2 in (7 804 mm)	311.8 in (7 919 mm)
Dump angle – fully raised		47°	47°
H. Dump height – fully raised, 45° dump		115.7 in (2 939 mm)	112.7 in (2 862 mm)
J. Bucket reach – fully raised, 45° dump		44.4 in (1 129 mm)	47.4 in (1 205 mm)
K. Bucket reach – 7 ft 0 in (2.13 m) height, 45° dump		67.8 in (1 723 mm)	69.3 in (1 760 mm)
L. Dig depth		2.0 in (50 mm)	2.3 in (59 mm)
Operating load – ISO Rigid Tires		12,452 lb (5 648 kg)	12,200 lb (5 534 kg)
Operating load – ISO Deflected Tires		11,185 lb (5 073 kg)	10,935 lb (4 960 kg)
Maximum material density – ISO Rigid Tires		4,151 lb/yd³ (2 463 kg/m³)	3,486 lb/yd³ (2 068 kg/m³)
Maximum material density – ISO Deflected Tires		3,728 lb/yd³ (2 212 kg/m³)	3,124lb/yd³ (1 854 kg/m³)
Tipping load – ISO Rigid Tires:	Straight 40° turn	29,940 lb (13 580 kg) 24,905 lb (11 297 kg)	29,403 lb (13 337 kg) 24,400 lb (11 068 kg)
Tipping load – ISO Deflected Tires:	Straight 40° turn	28,010 lb (12 705 kg) 22,369 lb (10 147 kg)	27,476 lb (12 463 kg) 21,870 lb (9 920 kg)
Lift capacity:	Full height Ground	15,008 lb (6 808 kg) 26,831 lb (12 708 kg)	14,742 lb (6 687 kg) 26,348 lb (11 951 kg)
Breakout force with tilt cylinder		28,017 lb (12 708 kg)	26,469 lb (12 006 kg)
Loader clearance circle with bucket		500.6 in (12 716 mm)	503.3 in (12 784 mm)

721G XR		3.0 yd³ (2.3 m³) Bucket with Bolt-on Edge - ACS Coupler	3.5 yd³ (2.7 m³) Bucket with Bolt-on Edge - ACS Coupler
Operating weight		37,494 lb (17 007 kg)	37,494 lb (17 007 kg)
E. Operating height – fully raised with spillguard		228.4 in (5 800 mm)	233.1 in (5 920 mm)
F. Hinge pin height – fully raised		176.1 in (4 474 mm)	176.0 in (4 474 mm)
G. Overall length – bucket level on ground		321.3 in (8 161 mm)	325.8 in (8 275 mm)
Dump angle – fully raised		47°	47°
H. Dump height – fully raised, 45° dump		131.4 in (3 337 mm)	128.4 in (3 260 mm)
J. Bucket reach – fully raised, 45° dump		43.5 in (1 104 mm)	46.4 in (1 180 mm)
K. Bucket reach – 7 ft 0 in (2.13 m) height, 45° dump		80.2 in (2 038 mm)	81.9 in (2 080 mm)
L. Dig depth		1.8 in (46 mm)	2.2 in (56 mm)
Operating load – ISO Rigid Tires		10,540 lb (4 781 kg)	10,311 lb (4 677 kg)
Operating load – ISO Deflected Tires		9,571 lb (4 341 kg)	9,342 lb (4 238 kg)
Maximum material density – ISO Rigid Tires		3,513 lb/yd³ (2 085 kg/m³)	2,946 lb/yd³ (1 748 kg/m³)
Maximum material density – ISO Deflected Tires		3,190 lb/yd³ (1 893 kg/m³)	2,669 lb/yd³ (1 584 kg/m³)
Tipping load – ISO Rigid Tires:	Straight 40° turn	25,418 lb (11 529 kg) 21,080 lb (9 562 kg)	24,934 lb (11 310 kg) 20,622 lb (9 354 kg)
Tipping load – ISO Deflected Tires:	Straight 40° turn	23,979 lb (10 877 kg) 19,141 lb (8 682 kg)	23,495 lb (10 657 kg) 18,685 lb (8 475 kg)
Lift capacity:	Full height Ground	13,831 lb (6 274 kg) 21,800 lb (9 888 kg)	13,831 lb (6 274 kg) 21,800 lb (9 888 kg)
Breakout force with tilt cylinder		28,017 lb (12 708 kg)	25,614 lb (11 618 kg)
Loader clearance circle with bucket		500.6 in (12 716 mm)	517.7 in (13 149 mm)

721G		Z-Bar/XR	Z-Bar/XR
Maximum rollback:	Ground Carry position @ Full height	40°/37° 44°/43° 57°/56°	40°/38° 44°/43° 57°/56°
Maximum grading angle with bucket – back dragging		60°/59°	61°/60°
SAE bucket capacity – struck Heaped		2.50 yd³ (1,91 m³) 3.00 yd³ (2,29 m³)	3.00 yd³ (2,29 m³) 3.50 yd³ (2,68 m³)
Bucket width – outside		106.3 in (2 700 mm)	106.3 in (2 700 mm)
Bucket weight		3,621 lb (1 643 kg)	3,887 lb (1 763 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	3.0 yd³ (2.3 m³) Bucket with Bolt-on Edge - ACS Coupler	3.5 yd³ (2.7 m³) Bucket with Bolt-on Edge - ACS Coupler
Operating weight		36,227 lb (16 432 kg)	35,977 lb (16 319 kg)	36,451 lb (16 534 kg)	36,716 lb (16 654 kg)
E. Operating height – fully raised with spillguard		221.8 in (5 634 mm)	217.0 in (5 511 mm)	219.0 in (5 563 mm)	223.7 in (5 682 mm)
F. Hinge pin height – fully raised		163.5 in (4 153 mm)	163.5 in (4 153 mm)	163.5 in (4 153 mm)	163.5 in (4 152 mm)
G. Overall length – bucket level on ground		317.2 in (8 058 mm)	312.9 in (7 947 mm)	315.3 in (8 009 mm)	319.9 in (8 124 mm)
Dump angle – fully raised		55°	55°	55°	55°
H. Dump height – fully raised, 45° dump		111.9 in (2 842 mm)	114.7 in (2 914 mm)	113.2 in (2 874 mm)	110.2 in (2 798 mm)
J. Bucket reach – fully raised, 45° dump		53.4 in (1 357 mm)	50.3 in (1 277 mm)	52.3 in (1 328 mm)	55.3 in (1 404 mm)
K. Bucket reach – 7 ft 0 in (2.13 m) height, 45° dump		73.6 in (1 871 mm)	71.9 in (1 827 mm)	73.2 in (1 858 mm)	74.6 in (1 895 mm)
L. Dig depth		3.8 in (97 mm)	3.6 in (92 mm)	3.6 in (90 mm)	3.9 in (100 mm)
Operating load – ISO Rigid Tires		11,216 lb (5 088 kg)	11,422 lb (5 181 kg)	11,017 lb (4 997 kg)	10,789 lb (4 894 kg)
Operating load – ISO Deflected Tires		10,032 lb (4 550 kg)	10,243 lb (4 646 kg)	9,858 lb (4 471 kg)	9,630 lb (4 368 kg)
Maximum material density – ISO Rigid Tires		3,205 lb/yd³ (1 902 kg/m³)	3,807 lb/yd³ (2 259 kg/m³)	3,672 lb/yd³ (2 179 kg/m³)	3,082 lb/yd³ (1 829 kg/m³)
Maximum material density – ISO Deflected Tires		2,866 lb/yd³ (1 701 kg/m³)	3,414 lb/yd³ (2 026 kg/m³)	3,286 lb/yd³ (1 950 kg/m³)	2,751 lb/yd³ (1 633 kg/m³)
Tipping load – ISO Rigid Tires:	Straight	27,064 lb (12 276 kg)	27,487 lb (12 468 kg)	26,613 lb (12 072 kg)	26,132 lb (11 853 kg)
	40° turn	22,433 lb (10 175 kg)	22,844 lb (10 362 kg)	22,035 lb (9 995 kg)	21,577 lb (9 787 kg)
Tipping load – ISO Deflected Tires:	Straight	25,253 lb (11 455 kg)	25,689 lb (11 652 kg)	24,844 lb (11 269 kg)	24,362 lb (11 051 kg)
	40° turn	20,064 lb (9 101 kg)	20,487 lb (9 293 kg)	19,715 lb (8 943 kg)	19,260 lb (8 736 kg)
Lift capacity:	Full height	14,101 lb (6 397 kg)	14,381 lb (6 523 kg)	13,821 lb (6 269 kg)	13,515 lb (6 130 kg)
	Ground	30,898 lb (14 015 kg)	31,160 lb (14 134 kg)	30,855 lb (13 996 kg)	30,501 lb (13 835 kg)
Breakout force with tilt cylinder		25,560 lb (11 594 kg)	27,732 lb (12 579 kg)	26,233 lb (11 899 kg)	24,233 lb (10 992 kg)
Loader clearance circle with bucket		499.2 in (12 680 mm)	495.1 in (12 577 mm)	496.1 in (12 601 mm)	498.1 in (12 651 mm)

721G					
Maximum rollback:	Ground	58°	58°	58°	58°
	Carry position	57°	58°	58°	58°
	@ Full height	58°	58°	58°	58°
Maximum grading angle with bucket – back dragging		61°	60°	61°	62°
SAE bucket capacity – struck		3.00 yd³ (2,29 m³)	2.50 yd³ (1,91 m³)	2.50 yd³ (1,91 m³)	3.00 yd³ (2,29 m³)
Heaped		3.50 yd³ (2,68 m³)	3.00 yd³ (2,29 m³)	3.00 yd³ (2,29 m³)	3.50 yd³ (2,68 m³)
Bucket width – outside		106.3 in (2 700 mm)	106.8 in (2 713 mm)	106.3 in (2 700 mm)	106.3 in (2 700 mm)
Bucket weight		3,491 lb (1 583 kg)	3,240 lb (1 470 kg)	3,714 lb (1 685 kg)	3,979 lb (1 805 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
Greasable 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 5-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:
- Locking Front Diff/Open Rear
- Locking Front Diff/Limited Slip Rear

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

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