



ENGINE

Make	FPT
Model	F4HFE413NB
Emissions Certification	Tier 4 Final
Type	4-stroke, turbocharged
Cylinders	4-cylinder in-line
Bore/Stroke	4.09 x 5.20 in (104 x 132 mm)
Displacement	275 in ³ (4.5 L)
Fuel	#2 Diesel, #1 and #2 mixture permitted for cold temperatures
Fuel injection	Direct injection – electronic
Fuel filter	Replaceable, full flow spin-on cartridge
Air filter	2-element dry type 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	142 hp (106 kW)
Net rated @ 2000 RPM	129 hp (96 kW)
Peak net @ 1800 RPM	131 hp (98 kW)
Standard Power Mode:	
Peak gross @ 1800 RPM	133 hp (99 kW)
Net rated @ 2000 RPM	106 hp (79 kW)
Peak net @ 1800 RPM	123 hp (91 kW)
Economy Power Mode:	
Peak gross @ 1700 RPM	110 hp (82 kW)
Net rated @ 2000 RPM	76 hp (57 kW)
Peak net @ 1700 RPM	101 hp (75 kW)

Torque – peak:

Maximum Power Mode:	
Gross @ 1600 RPM	448 lb-ft (608 N-m)
Net @ 1600 RPM	424 lb-ft (575 N-m)
Standard Power Mode:	
Gross @ 1300 RPM	407 lb-ft (552 N-m)
Net @ 1300 RPM	391 lb-ft (530 N-m)
Economy Power Mode:	
Gross @ 1200 RPM	403 lb-ft (547 N-m)
Net @ 1200 RPM	389 lb-ft (528 N-m)

Torque rise:

Maximum power range	21%
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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	Forward/Reverse
1st	4.012/3.804
2nd	2.174/2.061
3rd	1.088/1.031
4th	0.619/ —

Torque converter:

Stall ratio – 4-speed	2.30:1
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Differential:

Limited slip w/ 45% transfer on front and
rear axles

Rear axle oscillation	24° total
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Front and rear axles:

Differential ratio	3.364
Planetary ratio	6.4
Final axle ratio	21.53

Planetaries	Outboard
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Service brakes:

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

Brake surface area:

Front hub – each	480 in ² (0.31 m ²)
Rear hub – each	480 in ² (0.31 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	3.8 (6.1)	4.0 (6.4)
2nd	6.9 (11.1)	7.3 (11.7)
3rd	13.4 (21.6)	14.1 (22.8)
4th	22.3 (35.9)	—

NOTE: Travel speeds at full engine throttle
w/ 17.5 x 25 L2/L3 tires.

ELECTRICAL

Voltage	24 Volts, negative ground
Alternator	70 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; Time; FNR indicator; Trip
computer A/B; Differential lock; Engine
speed; Automatic transmission indicator;
DeClutch indicator; Fuel consumption; Engine
diagnostics; Error reporting; Travel speed;
Gear selection; Engine mode indicator;
Transmission diagnostics; DEF – Diesel
Exhaust Fluid gauge.

Audible/Visual alarms:

Warning lights:

Parking brake; Coolant temperature;
Hydraulic oil temperature; Transmission
oil temperature; Air filter; Transmission
filter; Alternator; Low fuel; Grid heater*;
Brake pressure; Engine oil pressure;
Steering pressure.

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/ ROPS cab w/ heater and A/C;
Standard counterweight; 17.5-R25 L2 Radial tires;
2.1 yd³ (1.61 m³) pin-on w/ bolt on edge; Full fuel;
165 lb (75 kg) operator:

24,035 lb (10 902 kg)

XT
Unit equipped w/ ROPS cab w/ heater and A/C;
Full counterweight; 17.5-R25 L2 Radial tires;
2.1 yd³ (1.61 m³) ACS loader bucket; Standard
batteries; Full fuel; 165 lb (75 kg) operator:

25,236 lb (11 447 kg)

XR
Unit equipped w/ ROPS cab w/ heater and A/C;
Full counterweight; 17.5-R25 L2 Radial tires;
Front and rear fenders; 2.1 yd³ (1.61 m³) general
purpose loader bucket w/ edge; Full fuel; 165 lb
(75 kg) operator:

24,317 lb (11 030 kg)

HYDRAULICS

Pump – steering/implement:
Closed center pressure/flow compensated

Variable displacement – load-sensing:
35.4 gpm @ 2000 RPM
(134 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 3,625 psi (24 993 kPa)

Filtration:
Filtered vent w/ relief on hydraulic reservoir,
maintains 2-8 psi on reservoir, 10-micron, return
filter furnishes only clean oil to all components
of the system

SERVICE CAPACITIES

Fuel tank	50.0 gal (189.0 L)
DEF tank – Diesel Exhaust Fluid:	
Usable capacity	7.1 gal (26.7 L)
Total	11.7 gal (44.2 L)

Hydraulic system:	
Reservoir	15.0 gal (56.8 L)
Total	30.0 gal (113.6 L)

Transmission:	
Service w/ filter	5.0 gal (18.9 L)

Front and rear axle:	
Front axle	23.2 qt (22.0 L)
Rear axle	23.2 qt (22.0 L)

Engine oil w/ filter	12.5 qt (11.8 L)
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Cooling system	5.8 gal (22.0 L)
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OTHER SPECIFICATIONS

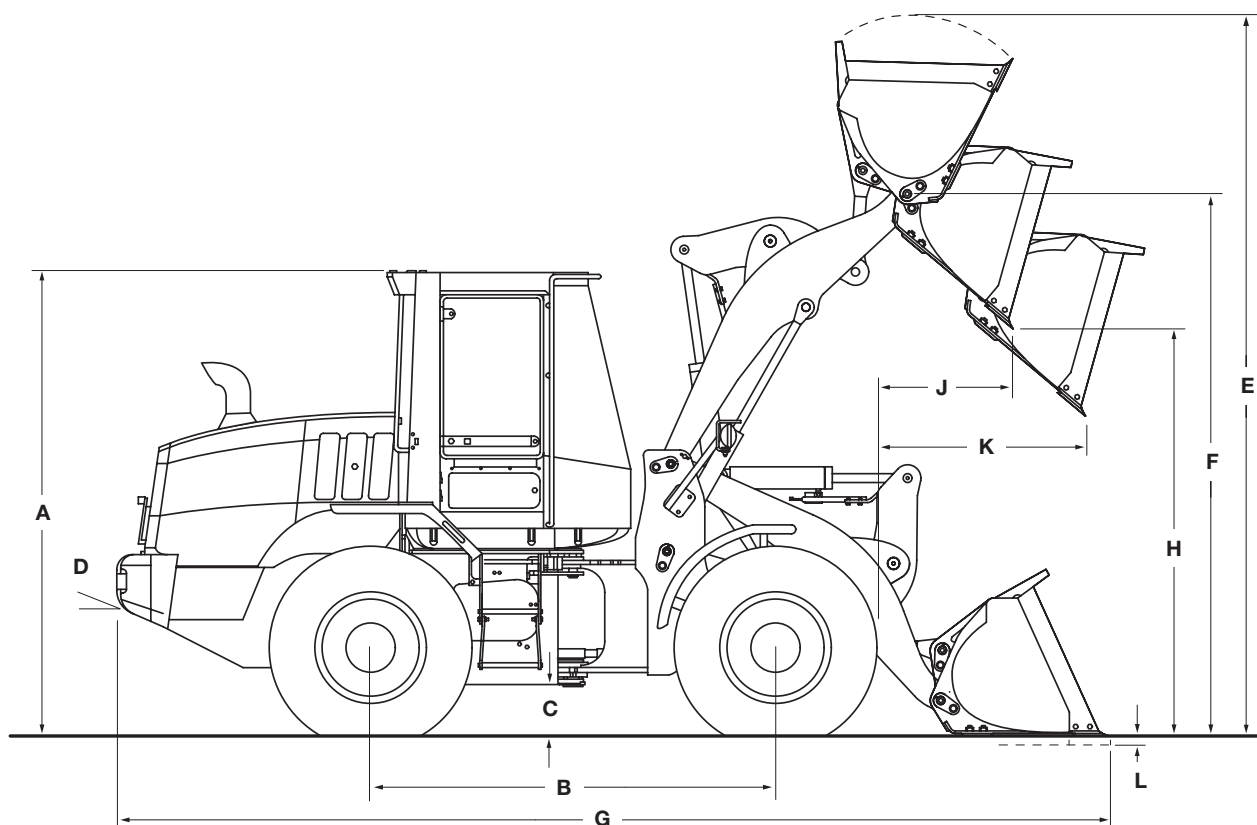
Lift cylinder:	
Bore diameter	4.00 in (101.6 mm)
Rod diameter	2.25 in (57.2 mm)
Stroke	30.82 in (783.0 mm)

Dump cylinder – Z-Bar and XR:	
Bore diameter	4.50 in (114.3 mm)
Rod diameter	2.50 in (63.5 mm)
Stroke	20.84 in (529.3 mm)

Dump cylinders – XT:	
Bore diameter	4.00 in (101.6 mm)
Rod diameter	2.25 in (57.2 mm)
Stroke	29.85 in (783.0 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	5.4 sec
Dump w/ rated bucket load:	
Z-Bar/XR	1.2 sec
XT	1.2 sec
Power down	3.9 sec
Float down	3.9 sec



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

DIMENSIONS

A. Height to top of ROPS cab	128.9 in (3 275 mm)
Height to drawbar	27.5 in (952 mm)
B. Wheelbase	108.3 in (2 750 mm)
C. Ground clearance	13.4 in (341 mm)
D. Angle of departure	30°
Width:	
Overall* without bucket	96.8 in (2 459 mm)
Centerline tread	78.7 in (2 000 mm)
Turning radius* – outside	197.1 in (5 007 mm)
Turning angle:	
From center	40°
Total angle	80°
Rear axle oscillation – total	24°

NOTE: *Dimensions taken with 17.5x25 L2 Radial tires. Additional dimensions on pages 4 through 6.

WEIGHT ADJUSTMENTS

Select Options	Weight Adjustment	Tipping Load Adjustment Straight	Tipping Load Adjustment 40° Turn
17.5 x 25 L2 Bias tires	-463 lb (-210 kg)	-400 lb (-182 kg)	-655 lb (-297 kg)
17.5 x 25 L3 Bias tires	-175 lb (-80 kg)	-131 lb (-59 kg)	-348 lb (-158 kg)
17.5-R25 XHA TL (L3 Radial) tires	+169 lb (+76 kg)	+187 lb (+85 kg)	+179 lb (+81 kg)
20.5-R25 XHA TL (L3 Radial) tires	+981 lb (+445 kg)	+796 lb (+361 kg)	+696 lb (+316 kg)
20.5-R25 L2 Radial tires	+725 lb (+329 kg)	+553 lb (+251 kg)	+470 lb (+213 kg)
20.5-R25 L3 Radial tires	+981 lb (+445 kg)	+796 lb (+361 kg)	+696 lb (+316 kg)
20.5-R25 Snow Radial tires	+848 lb (+385 kg)	+634 lb (+288 kg)	+541 lb (+245 kg)
Base counterweight	+1,069 lb (+485 kg)	+2,188 lb (+992 kg)	+1,773 lb (+804 kg)

NOTE: Tires inflated to 50 psi (345 kPa) in the front and 40 psi (275 kPa) in the rear.

**Unit equipped with Z-Bar loader arms, 2.1 yd³ (1.61 m³) general purpose pin on bucket with bolt-on edge, 17.5x25 L2 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. Adjust select options from rated weight.

PERFORMANCE SPECS

521G Z-Bar*	2.6 yd³ GP (2.0 m³) Bucket with Bolt-on Edge	2.3 yd³ GP (1.76 m³) Bucket with Bolt-on Edge	2.3 yd³ GP (1.76 m³) Bucket with Teeth Only
Operating weight	24,054 lb (10 911 kg)	24,122 lb (10 942 kg)	24,046 lb (10 907 kg)
SAE bucket capacity – struck	2.21 yd³ (1.69 m³)	2.00 yd³ (1.53 m³)	1.90 yd³ (1.45 m³)
Heaped	2.60 yd³ (1.99 m³)	2.3 yd³ (1.76 m³)	2.2 yd³ (1.68 m³)
Bucket width – outside	100.4 in (2 550 mm)	100.4 in (2 550 mm)	100.9 in (2 563 mm)
Bucket weight	1,622 lb (736 kg)	1,690 lb (776 kg)	1,614 lb (732 kg)
E. Operating height – fully raised with spillguard	186.6 in (4 739 mm)	184.1 in (4 677 mm)	184.1 in (4 677 mm)
F. Hinge pin height – fully raised	141.8 in (3 601 mm)	141.8 in (3 601 mm)	141.8 in (3 601 mm)
G. Overall length – bucket level on ground	266.2 in (6 761 mm)	263.4 in (6 691 mm)	269.1 in (6 836 mm)
Dump angle – fully raised	55°	55°	55°
H. Dump height – fully raised, 45° dump	104.7 in (2 660 mm)	106.5 in (2 706 mm)	102.9 in (2 613 mm)
J. Bucket reach – fully raised, 45° dump	41.6 in (1 057 mm)	39.9 in (1 014 mm)	44.1 in (1 119 mm)
K. Bucket reach – 7 ft 0 in (2.13 m) height, 45° dump	57.4 in (1 459 mm)	56.8 in (1 442 mm)	58.8 in (1 494 mm)
Operating load – ISO Rigid Tires	8,741 lb (3 965 kg)	8,790 lb (3 987 kg)	8,910 lb (4 041 kg)
Operating load – ISO Deflected Tires	7,879 lb (3 574 kg)	7,926 lb (3 595 kg)	8,035 lb (3 644 kg)
Maximum material density – ISO Rigid Tires	3,362 lb/yd³ (1 995 kg/m³)	3,822 lb/yd³ (2 268 kg/m³)	4,050 lb/yd³ (2 403 kg/m³)
Maximum material density – ISO Deflected Tires	3,031 lb/yd³ (1 798 kg/m³)	3,446 lb/yd³ (2 045 kg/m³)	3,652 lb/yd³ (2 167 kg/m³)
Tipping load – ISO Rigid Tires:			
Straight	19,865 lb (9 011 kg)	19,983 lb (9 064 kg)	20,243 lb (9 182 kg)
40° turn	17,481 lb (7 929 kg)	17,579 lb (7 974 kg)	17,819 lb (8 083 kg)
Tipping load – ISO Deflected Tires			
Straight	18,361 lb (8 328 kg)	18,474 lb (8 380 kg)	18,713 lb (8 488 kg)
40° turn	15,759 lb (7 148 kg)	15,852 lb (7 190 kg)	16,069 lb (7 289 kg)
Lift capacity:			
Full height	12,197 lb (5 532 kg)	12,141 lb (5 507 kg)	12,218 lb (5 542 kg)
Ground	20,709 lb (9 393 kg)	22,060 lb (10 006 kg)	23,350 lb (10 592 kg)
Breakout force with tilt cylinder	18,183 lb (8 248 kg)	19,373 lb (8 787 kg)	20,778 lb (9 425 kg)
Maximum rollback:			
Ground	40°	40°	40°
Carry position	46°	46°	46°
@ Full height	54°	54°	54°
L. Dig depth	3.4 in (86 mm)	3.1 in (78 mm)	3.2 in (81 mm)
Maximum grading angle with bucket – back dragging	60°	60°	61°
Loader clearance circle with bucket	435.8 in (11 069 mm)	434.2 in (11 029 mm)	437.9 in (11 123 mm)

521G XR	2.6 yd³ GP (2.0 m³) Bucket with Bolt-on Edge	2.3 yd³ GP (1.76 m³) Bucket with Bolt-on Edge	2.3 yd³ GP (1.76 m³) Bucket with Teeth Only
Operating weight	24,336 lb (11 038 kg)	24,404 lb (11 069 kg)	24,328 lb (11 035 kg)
E. Operating height – fully raised with spillguard	201.5 in (5 118 mm)	199.1 in (5 057 mm)	199.1 in (5 057 mm)
F. Hinge pin height – fully raised	156.7 in (3 981 mm)	156.7 in (3 981 mm)	156.7 in (3 981 mm)
G. Overall length – bucket level on ground	279.7 in (7 105)	277.0 in (7 036 mm)	282.7 in (7 180 mm)
Dump angle – fully raised	51°	51°	51°
H. Dump height – fully raised, 45° dump	119.7 in (3 039 mm)	121.5 in (3 086 mm)	117.8 in (2 992 mm)
J. Bucket reach – fully raised, 45° dump	40.6 in (1 031 mm)	38.9 in (988 mm)	43.1 in (1 094 mm)
K. Bucket reach – 7 ft 0 in (2.13 m) height, 45° dump	69.3 in (1 761 mm)	68.5 in (1 740 mm)	70.9 in (1 800 mm)
Operating load – ISO Rigid Tires	7,445 lb (3 377 kg)	7,475 lb (3 391 kg)	7,575 lb (3 436 kg)
Operating load – ISO Deflected Tires	6,768 lb (3 070 kg)	6,797 lb (3 083 kg)	6,890 lb (3 125 kg)
Maximum material density – ISO Rigid Tires	2,863 lb/yd³ (1 699 kg/m³)	3,250 lb/yd³ (1 928 kg/m³)	3,443 lb/yd³ (2 043 kg/m³)
Maximum material density – ISO Deflected Tires	2,603 lb/yd³ (1 545 kg/m³)	2,955 lb/yd³ (1 753 kg/m³)	3,132 lb/yd³ (1 858 kg/m³)
Tipping load – ISO Rigid Tires:			
Straight	16,987 lb (7 705 kg)	17,062 lb (7 739 kg)	17,278 lb (7 837 kg)
40° turn	14,890 lb (6 754 kg)	14,950 lb (6 781 kg)	15,151 lb (6 872 kg)
Tipping load – ISO Deflected Tires			
Straight	15,823 lb (7 177 kg)	15,895 lb (7 210 kg)	16,099 lb (7 303 kg)
40° turn	13,536 lb (6 140 kg)	13,593 lb (6 166 kg)	13,781 lb (6 251 kg)
Lift capacity:			
Full height	11,089 lb (5 030 kg)	11,020 lb (4 999 kg)	11,095 lb (5 033 kg)
Ground	19,908 lb (9 030 kg)	19,967 lb (9 057 kg)	20,131 lb (9 131 kg)
Breakout force with tilt cylinder	18,243 lb (8 275 kg)	19,439 lb (8 817 kg)	20,847 lb (9 456 kg)
Loader clearance circle with bucket	448.4 in (11 390 mm)	446.7 in (11 345 mm)	450.7 in (11 448 mm)

PERFORMANCE SPECS

521G Z-Bar*

	2.1 yd ³ GP (1.61 m ³) Bucket with Bolt-on Edge	2.0 yd ³ GP (1.5 m ³) Bucket with Teeth Only
Operating weight	24,035 lb (10 902 kg)	23,960 lb (10 868 kg)
SAE bucket capacity – struck	1.77 yd ³ (1.35 m ³)	1.67 yd ³ (1.28 m ³)
Heaped	2.10 yd ³ (1.61 m ³)	2.00 yd ³ (1.53 m ³)
Bucket width – outside	100.4 in (2 550 mm)	100.9 in (2 563 mm)
Bucket weight	1,603 lb (727 kg)	1,527 lb (693 kg)
E. Operating height – fully raised with spillguard	181.4 in (4 609 mm)	181.4 in (4 609 mm)
F. Hinge pin height – fully raised	141.8 in (3 601 mm)	141.8 in (3 601 mm)
G. Overall length – bucket level on ground	260.5 in (6 616 mm)	266.1 in (6 760 mm)
Dump angle – fully raised	55°	55°
H. Dump height – fully raised, 45° dump	108.5 in (2 756 mm)	104.8 in (2 663 mm)
J. Bucket reach – fully raised, 45° dump	37.9 in (964 mm)	42.1 in (1 068 mm)
K. Bucket reach – 7 ft 0 in (2.13 m) height, 45° dump	55.8 in (1 417 mm)	58.0 in (1 472 mm)
Operating load – ISO Rigid Tires	8,907 lb (4 040 kg)	9,030 lb (4 096 kg)
Operating load – ISO Deflected Tires	8,041 lb (3 647 kg)	8,152 lb (3 698 kg)
Maximum material density – ISO Rigid Tires	4,241 lb/yd ³ (2 517 kg/m ³)	4,515 lb/yd ³ (2 679 kg/m ³)
Maximum material density – ISO Deflected Tires	3,829 lb/yd ³ (2 272 kg/m ³)	4,076 lb/yd ³ (2 419 kg/m ³)
Tipping load – ISO Rigid Tires:		
Straight	20,237 lb (9 179 kg)	20,502 lb (9 300 kg)
40° turn	17,814 lb (8 080 kg)	18,059 lb (8 192 kg)
Tipping load – ISO Deflected Tires		
Straight	18,724 lb (8 493 kg)	18,968 lb (8 604 kg)
40° turn	16,083 lb (7 295 kg)	16,305 lb (7 396 kg)
Lift capacity:		
Full height	12,229 lb (5 547 kg)	12,306 lb (5 582 kg)
Ground	23,607 lb (10 708 kg)	24,619 lb (11 167 kg)
Breakout force with tilt cylinder	20,937 lb (9 497 kg)	22,596 lb (10 249 kg)
Maximum rollback:		
Ground	40°	40°
Carry position	46°	46°
@ Full height	54°	54°
L. Dig depth	2.8 in (72 mm)	3.0 in (76 mm)
Maximum grading angle with bucket – back dragging	60°	61°
Loader clearance circle with bucket	432.6 in (10 987 mm)	436.2 in (11 076 mm)

521G XR

	2.1 yd ³ GP (1.61 m ³) Bucket with Bolt-on Edge	2.0 yd ³ GP (1.5 m ³) Bucket with Teeth Only
Operating weight	24,317 lb (11 030 kg)	24,241 lb (10 996 kg)
E. Operating height – fully raised with spillguard	196.4 in (4 988 mm)	196.4 in (4 989 mm)
F. Hinge pin height – fully raised	156.7 in (3 981 mm)	156.7 in (3 981 mm)
G. Overall length – bucket level on ground	274.1 in (6 962 mm)	279.7 in (7 105 mm)
Dump angle – fully raised	51°	51°
H. Dump height – fully raised, 45° dump	123.4 in (3 135 mm)	119.8 in (3 043 mm)
J. Bucket reach – fully raised, 45° dump	36.9 in (938 mm)	41.1 in (1 043 mm)
K. Bucket reach – 7 ft 0 in (2.13 m) height, 45° dump	67.5 in (1 713 mm)	69.8 in (1 774 mm)
Operating load – ISO Rigid Tires	7,575 lb (3 436 kg)	7,677 lb (3,482 kg)
Operating load – ISO Deflected Tires	6,896 lb (3,128 kg)	6,991 lb (3,171 kg)
Maximum material density - ISO Rigid Tires	3,607 lb/yd ³ (2 140 kg/m ³)	3,839 lb/yd ³ (2 278 kg/m ³)
Maximum material density - ISO Deflected Tires	3,284 lb/yd ³ (1 949 kg/m ³)	3,495 lb/yd ³ (2 074 kg/m ³)
Tipping load – ISO Rigid Tires:		
Straight	17,276 lb (7 836 kg)	17,497 lb (7 936 kg)
40° turn	15,149 lb (6 872 kg)	15,354 lb (6 965 kg)
Tipping load – ISO Deflected Tires		
Straight	16,109 lb (7 307 kg)	16,315 lb (7 400 kg)
40° turn	13,792 lb (6 256 kg)	13,982 lb (6 342 kg)
Lift capacity:		
Full height	11,106 lb (5 038 kg)	11,182 lb (5 072 kg)
Ground	20,173 lb (9 150 kg)	20,340 lb (9 226 kg)
Breakout force with tilt cylinder	21,011 lb (9 531 kg)	22,674 lb (10 285 kg)
Loader clearance circle with bucket	444.8 in (11 299 mm)	448.8 in (11 399 mm)

PERFORMANCE SPECS

521G XT	2.1 yd ³ GP (1.61 m ³) ACS Bucket with Edge**	2.0 yd ³ GP (1.5 m ³) ACS Bucket with Teeth and Segment**	2.1 yd ³ GP (1.61 m ³) Case Bucket with Edge***	2.0 yd ³ GP (1.5 m ³) Case Bucket with Teeth***
Operating weight	25,666 lb (11 642 kg)	25,597 lb (11 611 kg)	25,236 lb (11 447 kg)	25,160 lb (11 413 kg)
E. Operating height – fully raised with spillguard	196.0 in (4 979 mm)	193.6 in (4 918 mm)	188.2 in (4 781 mm)	188.2 in (4 781 mm)
F. Hinge pin height – fully raised	147.1 in (3 737 mm)	147.1 in (3 737 mm)	147.2 in (3 738 mm)	147.2 in (3 738 mm)
G. Overall length – bucket level on ground	269.8 in (6 852 mm)	275.4 in (6 995 mm)	274.2 in (6 964 mm)	279.8 in (7 107 mm)
Dump angle – fully raised	57°	57°	57°	57°
H. Dump height – fully raised, 45° dump	105.9 in (2 691 mm)	101.7 in (2 582 mm)	101.8 in (2 585 mm)	98.1 in (2 492 mm)
J. Bucket reach – fully raised, 45° dump	46.2 in (1 173 mm)	49.5 in (1 258 mm)	40.7 in (1 033 mm)	44.8 in (1 138 mm)
K. Bucket reach – 7 ft 0 in (2.13 m) height, 45° dump	62.9 in (1 597 mm)	63.7 in (1 618 mm)	54.9 in (1 394 mm)	56.6 in (1 438 mm)
Operating load – ISO Rigid Tires	7,604 lb (3 449 kg)	7,671 lb (3 480 kg)	7,343 lb (3 331 kg)	7,442 lb (3 376 kg)
Operating load – ISO Deflected Tires	6,775 lb (3 073 kg)	6,840 lb (3 103 kg)	6,615 lb (3 000 kg)	6,706 lb (3 042 kg)
Maximum material density – ISO Rigid Tires	3,621 lb/yd ³ (2 149 kg/m ³)	3,836 lb/yd ³ (2 276 kg/m ³)	3,497 lb/yd ³ (2 075 kg/m ³)	3,721 lb/yd ³ (2 208 kg/m ³)
Maximum material density – ISO Deflected Tires	3,226 lb/yd ³ (1 914 kg/m ³)	3,420 lb/yd ³ (2 029 kg/m ³)	3,150 lb/yd ³ (1 869 kg/m ³)	3,353 lb/yd ³ (1 990 kg/m ³)
Tipping load – ISO Rigid Tires:				
Straight	17,400 lb (7 892 kg)	17,541 lb (7 956 kg)	16,767 lb (7 605 kg)	16,979 lb (7 702 kg)
40° turn	15,209 lb (6 899 kg)	15,343 lb (6 959 kg)	14,686 lb (6 662 kg)	14,884 lb (6 751 kg)
Tipping load – ISO Deflected Tires:				
Straight	15,957 lb (7 238 kg)	16,095 lb (7 301 kg)	15,510 lb (7 035 kg)	15,709 lb (7 126 kg)
40° turn	13,550 lb (6 146 kg)	13,681 lb (6 206 kg)	13,229 lb (6 001 kg)	13,412 lb (6 084 kg)
Lift capacity:				
Full height	10,538 lb (4 780 kg)	10,631 lb (4 822 kg)	10,413 lb (4 723 kg)	10,544 lb (4 783 kg)
Ground	25,067 lb (11 370 kg)	25,048 lb (11 362 kg)	22,789 lb (10 337 kg)	22,778 lb (10 332 kg)
Breakout force – dump cylinder	20,304 lb (9 210 kg)	21,533 lb (9 767 kg)	21,226 lb (9 628 kg)	22,554 lb (10 230 kg)
Loader clearance circle with bucket	430.6 in (10 937 mm)	433.8 in (11 020 mm)	434.4 in (11 033 mm)	437.3 in (11 109 mm)

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

**XT lift arm with buckets for ACS Pro Series 2000® size 30 HD coupler.

***XT lift arm with bucket for Case coupler

Performance data unit equipped with 17.5x25 L2 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 F4HFE413NB
Tier 4 Final Certified
Selectable work modes:
 Maximum power
 Auto power
 Standard power
 Economy power
Turbocharger
Charge air cooling
Automatic fan belt tensioner
Integral engine oil cooling
Fuel filter with water trap
Dry-type air cleaner
Hydraulic-driven cooling fan
Air-cooled radiator
Mid-mounted cooling module
Common rail electronic fuel injection

LOADER

See page 2

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
Outboard planetary axles
Limited-slip differentials
Transmission oil cooler
Brake pedal transmission disconnect
Hydraulic wet disc brakes
Spring-applied hydraulic release parking brake
Limp-Home Mode

HYDRAULICS

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

ELECTRICAL

70 amp alternator and voltage regulator
Battery isolator/electrical disconnect
(2) 700 CCA 12-volt batteries
Lights:
 2 Front driving headlights – high/low beam
 2 Front flood
 2 LED stop and tail lights
 2 Rear flood
 Front and rear turn signal/flash
Centrally located fuse box
 with all electrical circuits protected
Backup alarm
Remote jump posts

OTHER

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

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
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
RH steps and platform
LED rotating beacon
Joystick steering
Rear view camera
External rear view mirrors
LED front and rear work lights
Extra front-facing LED work lights

DRIVETRAIN

Heavy-duty axles with locking front differential and open rear differential
Cold weather package:
Heavy-duty batteries
Fuel heater
Hydraulic oil cooler bypass
Low temperature hydraulic oil
Grid heater

HYDRAULICS

Auxiliary hydraulics
Ride Control
Secondary steering
3- or 4-spool loader valves with 2- or 3-lever loader control
Hydraulic reversing fan

LOADER

Hydraulic attachment coupler systems
Buckets – see pages 4 and 5
Parallel lift XT
Extended reach XR

TIRES

17.5 x 25 radial
20.5 R25 radial
20.5 R25 bias

OTHER

Special paint
Full coverage fenders
Tool box
Fire extinguisher
Side guards for rear frame
License plate brackets, front and rear
12 mph (20 kph) maximum speed control
Wide fenders with right hand and left hand steps

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Always read the Operator's Manual before operating any equipment. Inspect equipment before using it, and be sure it is operating properly. Follow the product safety signs and use any safety features provided.