

ENGINE

Model	FPT NEF4
Emissions Certification	Tier 4 Final/Stage V
Fuel	Requires ultra-low sulfur fuel B5 biodiesel tolerant
Type	Water-cooled, 4-cycle diesel, 4-cylinder in line, high pressure common rail system – electric control. Fixed geometry turbocharger w/ air cooled intercooler, ATS, EGR-free
Cylinders	4-cylinder in-line
Displacement	274 in ³ (4.49 L)
Bore/Stroke	4.09 x 5.2 in (104 x 132 mm)
Fuel injection	High pressure common rail system – electronic
Fuel filter	Replaceable, full flow spin-on cartridge
Air filter	Dry type dual element w/ warning restriction indicator
Oil filter	Replaceable, full flow spin-on cartridge
Engine gradeability:	
Side-to-side	35°
Fore and aft	35°

Net horsepower – SAE J1349 @ 2200 RPM:
121 hp (90.4 kW)

Gross horsepower – ISO 14396 @ 2200 RPM:
130 hp (97 kW)

Net max. torque – SAE J1349 @ 1600 RPM:
336 lbf-ft (456 N-m)

Cooling operating range:
109° to -13°F (43° to -25°C)

Oil Requires low-ash oil CJ-4

DRIVETRAIN

Travel control	Dual stage relief/ counter balance design
Brakes	Mechanical disc
Two speed travel:	
Max. high speed	3.2 mph (5.2 km/h)
Max. low speed	1.9 mph (3.0 km/h)
Automatic downshift	
Drawbar pull	36,200 lbf (161 kN)
Gradeability	70% – 35° Slope

ELECTRICAL

Voltage	24 Volts
Alternator rating	90 amp
Batteries	2 x 12 Volt
Battery reserve capacity	72 Ah/5 hour
Work lights – 4	24 Volt/70 watt
1 boom, 1 upper, 2 cab	

OPERATOR ENVIRONMENT

Air conditioner output	18,100 BTU/hr
Heater output	20,150 BTU/hr
Sound level inside cab – ISO6395	70 dBA
Electrical outlet	12 Volt
Cab interior light	10 watt
Rear and side view cameras	

Operator's Cab:
Smooth and round shape design cab; Safety glass for all windows; Shock-less cab suspension by 4-point fluid mounting; Sliding front window w/ auto lock; 10" Full-color LCD monitor display; Membrane switch on monitor display; Switch panel (including throttle dial w/ eco-mode switch); Windshield wiper & washer; AM/FM/Bluetooth Radio w/ hands-free phone; Sectioned floor mat; Polycarbonate roof hatch & Sun shade; Auto air conditioner; Roll-over protective structure (ROPS); Top guard OPG level 1 (in cab structure).

Seat:
Low frequency air suspension w/ air springs and double acting hydraulic damper; Manual weight adjustment; Backrest angle adjustment; Seat height adjustment; Adjustable armrest (Angle and height); Adjustable headrest; Retractable seat belt; Adjustable lumbar support; Console mount on suspension; Control consoles adjust independently of seat.

ATTACHMENT

Boom	16 ft 11 in (5 150 mm)
Arm options	8 ft 7 in (2.62 m) 10 ft 0 in (3.05 m)
Bucket digging force*	25,200 lbf (112 kN)
w/ auto power up	26,500 lbf (118 kN)

NOTE: *Digging force ratings based on ISO6015.

OPERATING WEIGHT

Operating weight	38,400 lb (17 400 kg)
w/ shoes	2 ft 0 in (600 mm)
w/ boom	16 ft 11 in (5 150 mm)
w/ arm	8 ft 7 in (2.62 m)
w/ bucket	1,067 lb (484 kg)
w/ counterweight	6,720 lb (3 050 kg)

NOTE: W/ operator/full fuel/standard equipment.

GROUND PRESSURE

@ Standard operating weight 5.9 psi (0.41 bar)
w/ 23.6 in (600 mm) triple semi-grouser shoes

HYDRAULICS

System design	Open center
Main pumps	Two-variable displacement/ axial piston pumps w/ regulating system
Max. rated flow x 2	
	42 gpm (159 L/min) @ 2,200 RPM

System pressures:	
Boom, arm and bucket	4,970 psi (343 bar)
w/ Auto Power Up	5,260 psi (363 bar)
Travel circuits	4,970 psi (343 bar)
Swing circuits	4,050 psi (279 bar)

Pilot pump	1 x gear design
Max. capacity	5.8 gpm (22 L/min)

Pilot system working pressure:
570 psi (39 bar, 40 kgf/cm²)

Control valve w/ boom/arm holding valve:
Right track travel, bucket, boom and
arm acceleration. 1 x Four-spool section
Left track travel, auxiliary, swing, boom and
arm acceleration. 1 x Five-spool section

Work mode selections	SP – Mode Power – Mode Eco – Mode Lift – Mode
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Swing motor	Fixed displacement axial piston
Swing final drive	Planetary gear reduction
Travel motor	Two-speed independent travel/axial piston

HYDRAULIC CYLINDERS

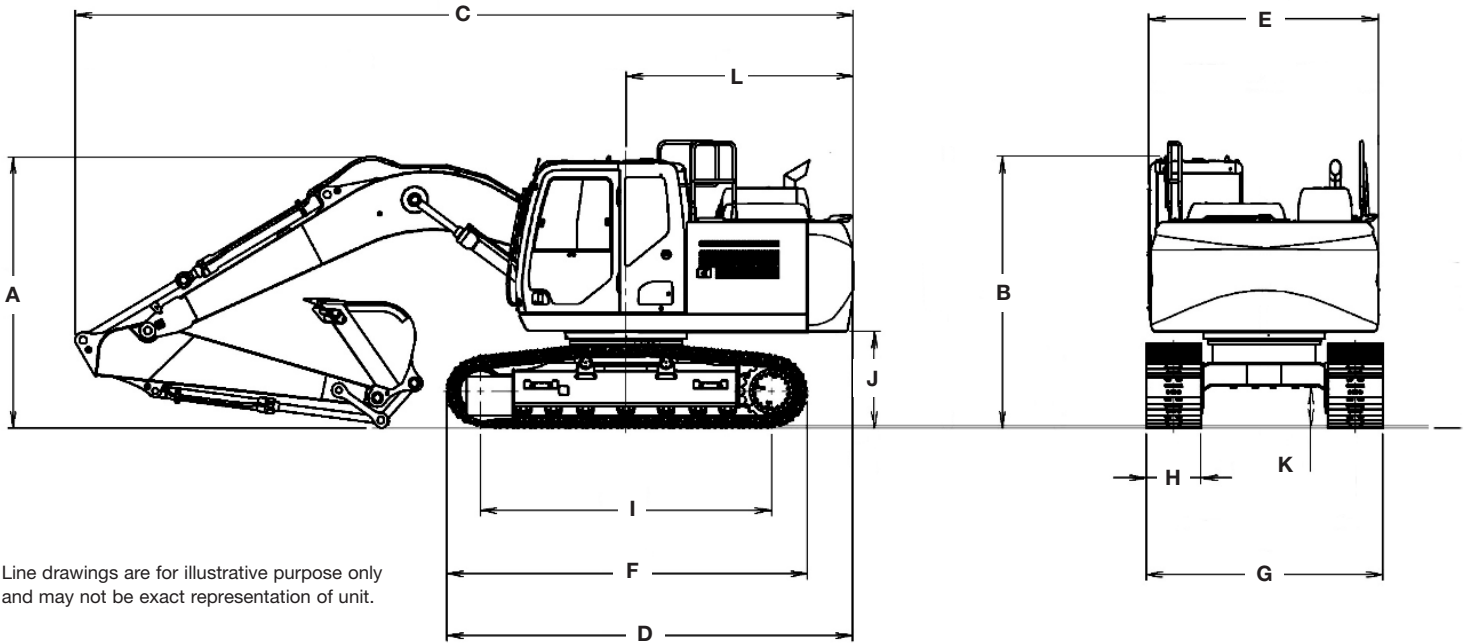
Boom cylinders	Two (2)
Cylinder bore	4.5 in (115 mm)
Cylinder rod diameter	3.1 in (80 mm)
Cylinder stroke	46.4 in (1 179 mm)
Arm cylinder	One (1)
Cylinder bore	4.9 in (125 mm)
Cylinder rod diameter	3.5 in (90 mm)
Cylinder stroke	50.4 in (1 280 mm)
Bucket cylinder	One (1)
Cylinder bore	4.1 in (105 mm)
Cylinder rod diameter	3.0 in (75 mm)
Cylinder stroke	38.8 in (985 mm)

SERVICE CAPACITIES

Fuel tank	79 gal (300 L)
Hydraulic system	45 gal (170 L)
Hydraulic tank	22 gal (82 L)
Engine oil w/ filter	2.9 gal (10.8 L)
Swing drive	1.3 gal (5 L)
Final drive	1.4 gal (5.3 L)
Cooling system	5.4 gal (20.5 L)
DEF tank	16 gal (60 L)

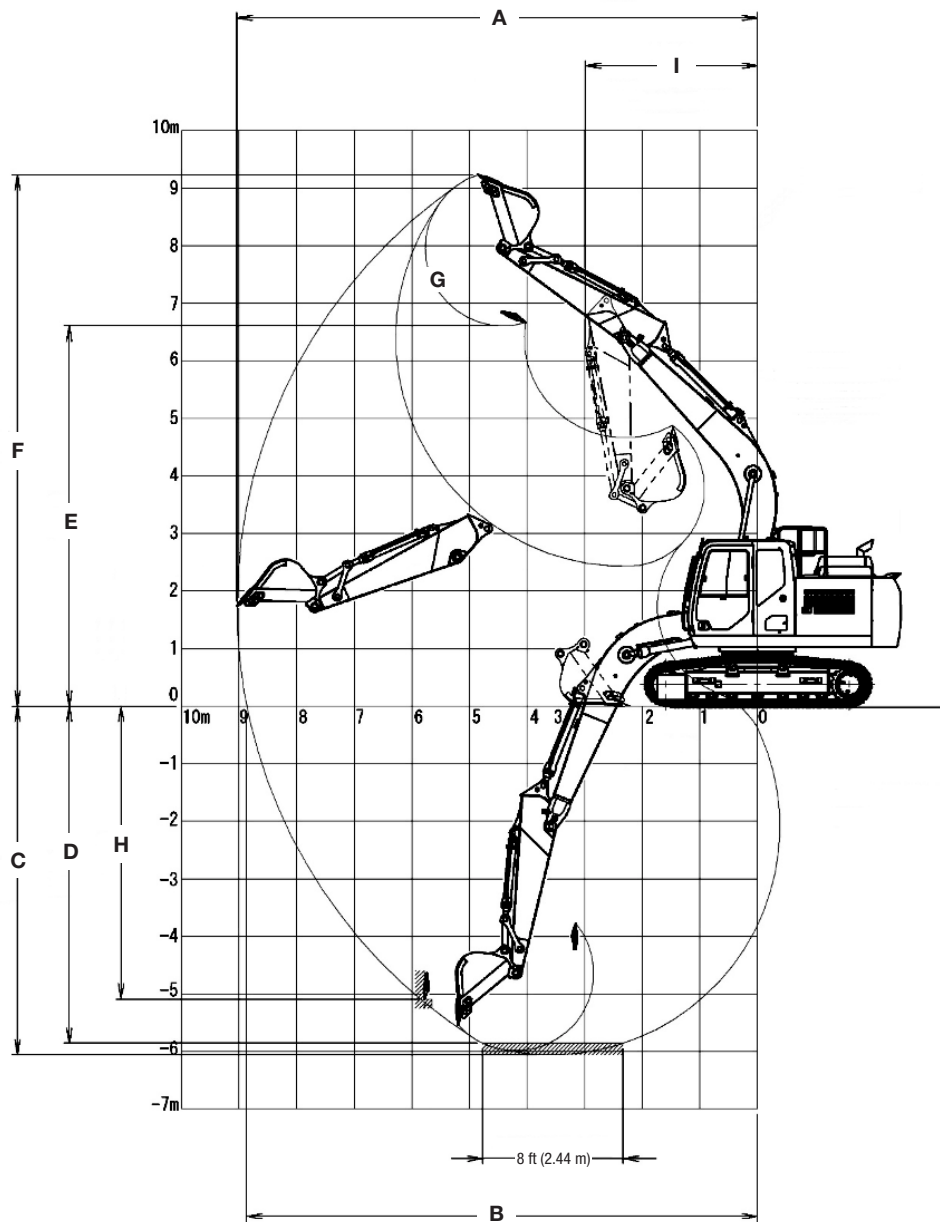
OTHER SPECIFICATIONS

Swing speed	11.8 RPM
Swing torque	33,300 lbf-ft (45.1 kN-m)
Swing brake	Mechanical disc
Undercarriage:	
Length	13 ft 1 in (3 990 mm)
Track gauge	6 ft 6 in (1 990 mm)
Carrier rollers – each side	2
Track rollers – each side	7
Shoes – triple grouser – each side	44
Shoe width – std.	2 ft 0 in (600 mm)
Link pitch	8 in (190 mm)
Track:	
Chain	Grease lubricated/strutted
Guides	Single
Adjustment	Hydraulic



DIMENSIONS

	8 ft 7 in (2.62 m) Arm	10 ft 0 in (3.04 m) Arm
A. Overall height	9 ft 9 in (2 960 mm)	10 ft 3 in (3 130 mm)
B. Cab height	10 ft 1 in (3 050 mm)	10 ft 1 in (3 050 mm)
C. Overall length – with attachment	27 ft 11 in (8 520 mm)	28 ft 1 in (8 570 mm)
D. Overall length – without attachment	14 ft 8 in (4 480 mm)	14 ft 8 in (4 480 mm)
E. Width of upper structure	8 ft 3 in (2 520 mm)	8 ft 3 in (2 520 mm)
F. Track overall length	13 ft 1 in (3 990 mm)	13 ft 1 in (3 990 mm)
G. Track overall width with 23.6 in (600 mm) shoes	8 ft 6 in (2 590 mm)	8 ft 6 in (2 590 mm)
H. Track shoe width	2 ft 0 in (600 mm)	2 ft 0 in (600 mm)
I. Center to center – idler to sprocket	10 ft 6 in (3 190 mm)	10 ft 6 in (3 190 mm)
J. Upper structure ground clearance	3 ft 5 in (1 030 mm)	3 ft 5 in (1 030 mm)
K. Minimum ground clearance	1 ft 5 in (420 mm)	1 ft 5 in (420 mm)
L. Rear tail swing radius	8 ft 3 in (2 520 mm)	8 ft 3 in (2 520 mm)



PERFORMANCE SPECS

	8 ft 7 in (2.62 m) Arm	10 ft 0 in (3.04 m) Arm
A. Maximum dig radius	29 ft 8 in (9 040 mm)	30 ft 9 in (9 380 mm)
B. Dig radius at groundline	29 ft 1 in (8 870 mm)	30 ft 3 in (9 220 mm)
C. Maximum dig depth	19 ft 11 in (6 060 mm)	21 ft 4 in (6 490 mm)
D. Dig depth – 8 ft 0 in (2.44 m) level bottom	19 ft 2 in (5 850 mm)	20 ft 8 in (6 290 mm)
E. Dump height	21 ft 8 in (6 610 mm)	21 ft 11 in (6 690 mm)
F. Maximum reach height	30 ft 4 in (9 240 mm)	30 ft 6 in (9 290 mm)
G. Bucket rotation	178°	178°
H. Maximum vertical wall dig depth	16 ft 8 in (5 090 mm)	17 ft 2 in (5 230 mm)
I. Minimum swing radius	9 ft 10 in (2 990 mm)	10 ft 0 in (3 050 mm)
Arm digging force:		
Standard	17,800 lbf (79 kN)	16,200 lbf (72 kN)
Auto Power Up	18,800 lbf (84 kN)	17,300 lbf (77 kN)
Bucket digging force:		
Standard	25,200 lbf (112 kN)	25,200 lbf (112 kN)
Auto Power Up	26,500 lbf (118 kN)	26,500 lbf (118 kN)

LIFT CAPACITIES

8 ft 7 in (2.62 m) Arm Lift capacities calculated using a 1,050 lb (476 kg) bucket, 7,650 lb (3 470 kg) counterweight.

Load (Lift Point Height)	MINIMUM REACH			5 ft (1.5 m)		10 ft (3 m)		15 ft (4.5 m)		20 ft (6 m)		25 ft (7.5 m)		MAXIMUM REACH		
	@	END	SIDE	END	SIDE	END	SIDE	END	SIDE	END	SIDE	END	SIDE	@	END	SIDE
+25 ft (7.5 m)	15 ft 3 in (4.7 m)	8,550 lb* (4 030 kg)*	8,550 lb* (4 030 kg)*											16 ft 1 in (5.04 m)	6,850 lb* (3 040 kg)*	6,850 lb* (3 040 kg)*
+20 ft (6 m)	16 ft 2 in (4.9 m)	10,000 lb* (4 540 kg)*	10,000 lb* (4 540 kg)*							7,850 lb* (3 960 kg)*	7,850 lb* (3 960 kg)*			20 ft 9 in (6.38 m)	5,900 lb* (2 680 kg)*	5,900 lb* (2 680 kg)*
+15 ft (4.5 m)	13 ft 8 in (4.1 m)	11,850 lb* (5 490 kg)*	11,850 lb* (5 490 kg)*					11,550 lb* (5 320 kg)*	11,550 lb* (5 320 kg)*	10,800 lb* (4 930 kg)*	8,950 lb (4 150 kg)			23 ft 5 in (7.17 m)	5,650 lb* (2 560 kg)*	5,650 lb* (2 560 kg)*
+10 ft (3 m)	9 ft 2 in (2.82 m)	24,750 lb* (11 290 kg)*	24,750 lb* (11 290 kg)*			22,100 lb* (10 370 kg)*	22,100 lb* (10 370 kg)*	14,700 lb* (6 800 kg)*	13,100 lb (6 070 kg)	12,100 lb* (5 560 kg)*	8,650 lb (4 000 kg)	6,900 lb* (3 130 kg)*	6,327 lb (2 870 kg)	24 ft 10 in (7.59 m)	5,700 lb* (2 580 kg)*	5,700 lb* (2 580 kg)*
+5 ft (1.5 m)	10 ft 1 in (3.08 m)	11,550 lb* (5 190 kg)*	11,550 lb* (5 190 kg)*					18,000 lb* (8 320 kg)*	12,350 lb (5 730 kg)	12,450 lb (5 790 kg)	8,300 lb (3 850 kg)	7,100 lb* (3 290 kg)*	6,050 lb (2 810 kg)	25 ft 3 in (7.69 m)	6,000 lb* (2 730 kg)*	6,000 lb (2 720 kg)
Groundline	8 ft 3 in (2.52 m)	8,600 lb* (3 910 kg)*	8,600 lb* (3 910 kg)*			14,300 lb* (6 210 kg)*	14,300 lb* (6 210 kg)*	18,900 lb (8 800 kg)	11,900 lb (5 520 kg)	12,200 lb (5 660 kg)	8,050 lb (3 800 kg)			24 ft 7 in (7.48 m)	6,700 lb* (3 040 kg)*	6,100 lb (2 760 kg)
-5 ft (-1.5 m)	3 ft 4 in (1.03 m)	12,200 lb* (5 480 kg)*	12,200 lb* (5 480 kg)*	13,050 lb* (5 830 kg)*	13,050 lb* (5 830 kg)*	23,600 lb* (10 340 kg)*	21,900 lb (10 210 kg)	18,750 lb (8 720 kg)	11,750 lb (5 460 kg)	12,100 lb (5 610 kg)	7,950 lb (3 690 kg)			22 ft 9 in (6.95 m)	8,050 lb* (3 640 kg)*	6,750 lb (3 050 kg)
-10 ft (-3 m)	3 ft 9 in (1.13 m)	21,700 lb* (9 660 kg)*	21,700 lb* (9 660 kg)*	23,200 lb* (10 310 kg)*	23,200 lb* (10 310 kg)*	26,500 lb* (12 240 kg)*	22,200 lb (10 350 kg)	18,400 lb* (8 520 kg)*	11,900 lb (5 510 kg)	11,244 lb* (5 100 kg)*	8,267 lb (3 750 kg)			19 ft 7 in (6.01 m)	11,100 lb* (4 970 kg)*	8,350 lb (3 740 kg)
-15 ft (-4.5 m)	9 ft 2 in (2.6 m)	19,950 lb* (9 010 kg)*	19,950 lb* (9 010 kg)*			18,750 lb* (8 660 kg)*	18,750 lb* (8 660 kg)*							14 ft 0 in (4.38 m)	12,950 lb* (5 910 kg)*	12,950 lb* (5 910 kg)*

10 ft 0 in (3.04 m) Arm Lift capacities calculated using a 950 lb (431 kg) bucket, 7,650 lb (3 470 kg) counterweight.

Load (Lift Point Height)	MINIMUM REACH			5 ft (1.5 m)		10 ft (3 m)		15 ft (4.5 m)		20 ft (6 m)		25 ft (7.5 m)		MAXIMUM REACH		
	@	END	SIDE	END	SIDE	END	SIDE	END	SIDE	END	SIDE	END	SIDE	@	END	SIDE
+25 ft (7.5 m)	16 ft 10 in (5.17 m)	7,400 lb* (3 470 kg)*	7,400 lb* (3 470 kg)*											17 ft 9 in (5.55 m)	5,950 lb* (2 660 kg)*	5,950 lb* (2 660 kg)*
+20 ft (6 m)	17 ft 7 in (5.34 m)	9,000 lb* (4 090 kg)*	9,000 lb* (4 090 kg)*							8,200 lb* (3 880 kg)*	8,200 lb* (3 880 kg)*			22 ft 1 in (6.79 m)	5,300 lb* (2 400 kg)*	5,300 lb* (2 400 kg)*
+15 ft (4.5 m)	15 ft 7 in (4.69 m)	10,200 lb* (4 690 kg)*	10,200 lb* (4 690 kg)*							9,900 lb* (4 520 kg)*	9,000 lb (4 170 kg)	5,467 lb* (2 480 kg)*	5,467 lb* (2 480 kg)*	24 ft 8 in (7.54 m)	5,150 lb* (2 330 kg)*	5,150 lb* (2 330 kg)*
+10 ft (3 m)	8 ft 2 in (2.52 m)	24,000 lb* (10 980 kg)*	24,000 lb* (10 980 kg)*			19,050 lb* (8 940 kg)*	19,050 lb* (8 940 kg)*	13,450 lb* (6 220 kg)*	13,250 lb (6 140 kg)	11,300 lb* (5 200 kg)*	8,650 lb (4 010 kg)	7,700 lb* (3 860 kg)*	6,200 lb (2 870 kg)	26 ft 0 in (7.93 m)	5,200 lb* (2 370 kg)*	5,200 lb* (2 370 kg)*
+5 ft (1.5 m)	9 ft 3 in (2.81 m)	12,250 lb* (5 500 kg)*	12,250 lb* (5 500 kg)*			17,550 lb* (7 340 kg)*	17,550 lb* (7 340 kg)*	17,000 lb* (7 850 kg)*	12,400 lb (5 750 kg)	12,450 lb (5 790 kg)	8,300 lb (3 840 kg)	8,950 lb (4 150 kg)	6,000 lb (2 790 kg)	26 ft 4 in (8.03 m)	5,550 lb* (2 520 kg)*	5,550 lb* (2 520 kg)*
Groundline	7 ft 2 in (2.17 m)	8,150 lb* (3 700 kg)*	8,150 lb* (3 700 kg)*			16,400 lb* (7 140 kg)*	16,400 lb* (7 140 kg)*	18,850 lb (8 780 kg)	11,850 lb (5 500 kg)	12,150 lb (5 630 kg)	8,000 lb (3 700 kg)	8,800 lb (4 080 kg)	5,900 lb (2 730 kg)	25 ft 8 in (7.83 m)	6,200 lb* (2 810 kg)*	5,650 lb (2 570 kg)
-5 ft (-1.5 m)	1 ft 11 in (0.59 m)	11,400 lb* (5 130 kg)*	11,400 lb* (5 130 kg)*	12,650 lb* (5 660 kg)*	12,650 lb* (5 660 kg)*	23,000 lb* (10 100 kg)*	21,600 lb (10 080 kg)	18,600 lb (8 660 kg)	11,600 lb (5 390 kg)	11,950 lb (5 560 kg)	7,850 lb (3 630 kg)			24 ft 0 in (7.33 m)	7,450 lb* (3 360 kg)*	6,200 lb (2 800 kg)
-10 ft (-3 m)	2 ft 3 in (0.68 m)	18,200 lb* (8 140 kg)*	18,200 lb* (8 140 kg)*	20,800 lb* (9 250 kg)*	20,800 lb* (9 250 kg)*	27,850 lb* (12 860 kg)*	21,850 lb (10 180 kg)	18,650 lb (8 680 kg)	11,650 lb (5 410 kg)	12,050 lb (5 580 kg)	7,900 lb (3 650 kg)			21 ft 0 in (6.44 m)	10,100 lb* (4 520 kg)*	7,450 lb (3 340 kg)
-15 ft (-4.5 m)	6 ft 0 in (1.74 m)	31,400 lb* (15 150 kg)*	31,400 lb* (15 150 kg)*			21,650 lb* (10 130 kg)*	21,650 lb* (10 130 kg)*	14,500 lb* (6 880 kg)*	12,050 lb (5 580 kg)					15 ft 11 in (4.95 m)	13,200 lb* (5 990 kg)*	11,100 lb (4 900 kg)

NOTE: *Following number indicates hydraulic capacity

STANDARD EQUIPMENT

ENGINE

FPT NEF4
Tier 4 Final/Stage V Certified
ATS
Selective Catalytic Reduction
on Filter – SCRoF
Four-cylinder turbo-charged diesel
Fixed geometry turbocharger
High pressure common rail
system - electronic
Neutral safety start
Auto-engine warm up
Air intake heater
Fuel Economy Assist System – FEA
Engine Protection Feature – EPF
Dual-stage fuel filtration
Dual element air filter
Remote oil filter
Drain for fuel tank
1,000-hour engine oil/filter interval
24-volt system
Engine oil sample port
Battery disconnect switch
Emergency engine stop
External Fuel and DEF gauges
Fan housing
Fuel cooler
Fuel filter restriction indicator
Fuel shut-off valve
Radiator, oil cooler,
intercooler – protective chaff screen

FUEL ECONOMY SYSTEMS

Engine Idle/Fuel Economy System:
Auto-idle
One-touch idle
Timed engine shut down
BEC – Boom Economy Control
AEC – Auto Economy Control
SWC – Swing Relief Control
SSC – Spool Stroke Control

HYDRAULICS

Boom/Arm/Bucket/Swing:
Pilot pressure control system
(ISO or SAE control pattern)
Work mode select:
1 SP – mode
2 Power – mode
3 Eco – mode
4 Lift – mode
Travel mode select – 2-speed travel with
auto downshift
Attachment cushion control
Hydraulic lock – gate lock, left side tilt console
Single pedal travel
Custom flow balance adjustment:
Arm in vs. boom up
Arm in vs. swing
Multi-function with electronic pressure
and flow control/joystick activated
with electronic configurable
proportional controls

UPPER STRUCTURE

ISO mirrors – 3
Cab ISO-Mounts – fluid and spring
Upper mounted work light – 70 watt
Swivel guard belly pan
Center cover – over main CV
Fuel tank belly pan
Handrail – RH access
ISO guard rails
Lifting eyes for counterweight
Lockable fuel cap, service doors and tool box

ATTACHMENTS

Boom – 16 ft 11 in (5.15 m)
Arm – 8 ft 7 in (2.62 m)
Heavy-duty bucket linkage
Boom mounted work light – 70 watt
Auxiliary pipe brackets
Centralized grease fittings
Attachment cushion valve
Arm and boom regeneration
Bucket anti-clatter device
Chrome pins
Easy Maintenance System (EMS) bushings
Teardrop pin retention keepers

OPERATOR ENVIRONMENT

Operators cab:
Smooth and round shape design cab,
fabricated by press work
Safety glass for all windows
Shock-less cab suspension by 4-point
fluid mounting
Sliding front window with auto lock
10 in Full-color LCD monitor display
Membrane switch on monitor display
with 5 configurable button on bottom
of monitor
Switch panel – including throttle dial with
eco-mode switch
Windshield wiper & washer
AM/FM/Bluetooth Radio with
hands-free phone
Sectioned floor mat
Polycarbonate roof hatch & Sun shade
Auto climate control
Roll-over protective structure – ROPS
Top guard OPG level 1 – in cab structure
Operator's seat:
Low frequency air suspension with
air springs and double acting
hydraulic damper
With following features:
Manual weight adjustment
Backrest angle adjustment
Seat height adjustment
Adjustable armrest – Angle and height
Adjustable headrest
Retractable seat belt
Adjustable lumbar support
Console mount on suspension
Control consoles adjust
independently of seat
Others:
Rear view mirror – Cab side & Right side
Rear & Right-side view Camera

UNDERCARRIAGE

Travel motor	Variable displacement axial piston motor
Brake	Mechanical disc brake
Hydraulic service brake	Brake valve
Final drive	Planetary gear reduction
Travel speeds:	
High	3.2 mph (5.2 km/h) (Automatic travel speed downshifting)
Low	1.9 mph (3.0 km/h)
Drawbar pull	36,200 lbf (161 kN)
Number of carrier rollers	2 – each side
Number of track rollers	7 – each side
Number of shoes	44 – each side
Type of shoe	Triple semi-grouser shoe
Link pitch	7.48 in (190 mm)
Width of shoe	23.6 in (600 mm) S.T.D
Grade-ability	70% (35°)

TELEMATICS

CASE SiteWatch™ Telematics – includes
hardware and a 3-yr Advanced
data subscription for 2-way communication

OPTIONAL EQUIPMENT

ENGINE

Refueling pump
Air pre-cleaner – Cyclone
High ambient temperature cooling package

HYDRAULICS

Auxiliary hydraulics:
Proportionally controlled secondary low-flow auxiliary hydraulics
Hose Burst Check Valve – HBCV

MACHINE CONTROL

Leica iCON iXE2 – 2D System
Leica iCON iXE3 – 3D System

ATTACHMENTS

Long arm – 10 ft 0 in (3.05 m)
Quick coupler/Case multi-pin grabber
Tools:
Heavy-duty/Extreme-duty/Ditching
Buckets; Hammers; Thumbs;
Compaction plates.

UPPER STRUCTURE

Rubber bumper guard – order through
Service Parts

UNDERCARRIAGE

27.6 in (700 mm) steel shoes,
triple semi-grouser
Track guides – triple

OPERATOR ENVIRONMENT

FOPS cab top guard – Level 2
Front grill guard – 2 x 2 in (50.8 x 50.8 mm) screen mesh
Front rock guard – vertical bars
Two piece/OPG 1
Front rock guard – vertical bars
One piece/OPG 2
Vandal guard (front window) with common key
Rain deflector – not available with Front guards
Sun visor
Max View Monitor – 3 cameras with 270-degree view
LED Package:
Includes 6 LED Lights – 2 front cab mounted, 2 rear mounted and 1 mounted on each side

