

# 590SN

BACKHOE LOADER
TIER 4 FINAL CERTIFIED



#### **ENGINE**

Ratio

Side to side

Fore and aft

Oil filtration

ENGINE	
Model	FPT F5BFL413A
Emissions Certification	Tier 4 Final
Type Diesel 4	4-stroke, Turbocharged
Cylinders	4
Bore/Stroke	3.90 x 4.33 in (99 x 110 mm)
Displacement	207 in <sup>3</sup> (3.4 L)
Fuel injection	Direct, high pressure common rail – HPCR
Fuel	Diesel
Engine speeds* Rated speed – full load Low idle High idle – no load	RPM 2200 900 – 1000 2320 – 2430
Horsepower @ 2200 RPM Gross Net	1: 110 hp (82 kW) 108 hp (81 kW)
Maximum torque @ 1400 Gross Net	RPM: 339 lb·ft (460 N·m) 338 lb·ft (459 N·m)
Torque rise at rated spee	d 29% +/- 5%
Radiator: Core type Core size area Rows of tubes	Square wave 486 in <sup>2</sup> (3 145 cm <sup>2</sup> ) 4
Viscous Fan: Style 9 Diameter	9 blade viscous suction 19.68 in (500 mm)

NOTE: \*Engine speeds w/ standard transmission. Meets federal emission regulations.

Pump operating angle ratings:

1.4:1

Rated 35°

Rated 35°

Replaceable, full flow cartridge

## DRIVETRAIN

Transmission - standard:

PowerDrive H-Type, 4F-4R hydraulic clutch shifting w/ auto shift mode and direct drive

Transmission - standard:

PowerDrive H-Type, 4F-4R hydraulic clutch shifting w/ auto shift mode

Gear ratios	Forward/Reverse
1st	5.533/4.549
2nd	3.359/2.762
3rd	1.533/1.260
4th	0.811/0.667

Travel Speeds - H-Type PowerDrive				
DD Transmission	Forward	Reverse		
	mph (kph)	mph (kph)		
1st	4.0 (6.5)	4.8 (7.7)		
2nd	6.6 (10.6)	7.8 (12.6)		
3rd w/ DD Feature Off	13.7 (22.0)	16.4 (26.4)		
3rd w/ DD	14.4 (23.1)	16.4 (26.4)		
4th w/ DD Feature Off	23.0 (37.0)	27.6 (44.4)		
4th w/ DD	25.0 (40.2)	27.6 (44.4)		

Differential lock:

On-the-go push-button activation

Front 4WD/Rear axle:
Differential ratio

Torque converter ratio

Differential ratio 2.1/2.5
Planetary hub ratio 6.0/6.4
Total reduction ratio 12.8/16.0

Service brakes:

Individually applied, power assisted, hydraulically actuated, maintenance-free, self-adjusting, outboard mounted, wet disc, 2 per side.

Total disc area 384 in² (0.25 m²)

Parking brakes Trans Mounted spring-applied hydraulic release – SAHR

NOTE: Travel speeds at 2306 engine RPM specified: w/ 21.0 L x 24.0 tires.

## **ELECTRICAL**

Voltage	12 Volts, negative ground
Alternator	160 amp
Dual batteries:	
	850 cold-cranking amps each

Power plugs – 2 30 amps total

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## **OPERATOR ENVIRONMENT**

ROPS/FOPS certified protective canopy; Anti-vandalism cover for dash – w/ canopy only; Rear fenders extensions; Coat hook w/ garment strap; Interior rearview convex mirror; Mechanical suspension seat – 180° swivel – Vinyl; 3 in (76 mm) retractable seat belt; Cup holder/ storage tray mounted on left-hand fender; Right-hand storage compartment w/ lid, tilt-steering wheel on cab models.

## Gauges:

2.2

Engine water temperature; Converter oil temperature; Fuel level; Tachometer/hourmeter; DEF level.

#### Warning lights:

Air cleaner restriction; Alternator; A/C high pressure; Cold start; Engine oil pressure; Hydraulic oil filter bypass; Parking brake engagement; Low fuel; Water in fuel; Low DEF.

Audible alarms w/ diagnostics:

Coolant temperature; Engine oil pressure; Parking brake engagement; Converter oil temperature; Shuttle engagement/seat position; Backup alarm; Low DEF.

Horn Dual switched front and rear

## **OPERATING WEIGHT**

## Configuration - SAE Transport:

No Operator, 4:1 Loader Bucket, E-hoe, Cab w/ Heat and AC, Ride Control, Fully fueled, 24 in HD BH Bucket 4 WD, Boom Guard, 1,100 lb front counterweight, Quick Couple BH, BH aux., Pilot BH Controls, 14-17.5 @ 50 psi front tires, 21 L – 24 @ 28 psi Rear Tires. 21,325 lb (9 673 kg)

## Add-on weights:

Cab-over canopy 309 lb (140 kg) Fabricated stabilizer pads 141 lb (64 kg)

#### **HYDRAULICS**

## Pump:

Bosch Rexroth Series 31 Variable Displacement Axial Piston Pump, dual mode torque regulation, mode selected by solenoid

Main relief pressure:

Standard 3,450 +/- 50 psi (238 +/- 3.5 bar)

Power Lift 3,625 +/- 50 psi (250 +/- 3.5 bar)

#### Filtration:

7-micron, full flow replaceable cartridge on return line, condition indicator light for filter.

Oil cooler Heavy-duty

Loader flow @ rated engine RPM:

43 gpm @ 2,340 psi (162.6 L/min @ 161 bar)

Loader control valve w/ pilot or manual backhoe controls:

Two or three-spool closed center sectional control valve. Single lever manual control for lift and tilt functions. The three-spool valve uses a proportional Electro-Hydraulic control for the auxiliary function. The lift lever has a positive hold "Float" position and a "return-to-dig" feature.

Loader auxiliary hydraulics w/ proportional thumb switch w/ detent on loader control handle:

0 - 43 gpm (0 - 162.6 L/min)

Backhoe flow @ rated engine RPM:

43 gpm @ 3,100 psi (162.6 L/min @ 214 bar)

## Manual backhoe control valve:

Seven-spool monoblock open center control valve w/ eighth spool bolt-on sections. Features "Pro-Control" which includes custom designed spools for each individual function along w/ "swing cushioning" valve for zero-wag swing control. Basic control valve has an open center parallel circuit for all functions.

Pilot backhoe control valve:

Seven or eight spool sectional closed center control valve. Features "Pro-Control" which includes custom designed spools for each individual function along w/ "swing cushioning" valve for zero-wag swing control. Basic control valve is closed center, w/ circuits in parallel w/ a post-compensated, flow sharing feature for simultaneous operation of all circuits.

#### 1-way flow auxiliary hydraulics:

1-way flow hydraulic valve is equipped w/ an adjustable LS relief valve to control attachment pressure and a 6 position flow control selector for 6 detented, distinct flow settings.

Actuation:

Manual backhoe controls – cab floor pedal Pilot controls – left-hand joystick

## 2-way flow auxiliary hydraulics:

Actuation:

Activate the 2-way flow switch located on the rear console

Manual shift – 2-way flow linkage on far right of backhoe tower

Pilot controls - left-hand joystick.

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Fuel tank	35.0 gal (132.0 L)
DEF tank	3.6 gal (13.5 L)
Hydraulic system:	
Total	138 qt (130.7 L)
Extendahoe®	144 qt (135.7 L)
Reservoir w/ filter	55 qt (52.4 L)
Reservoir w/o filter	53 qt (50.5 L)

Transmission – total system:

4WD PowerDrive H-Type 19 qt (18.0 L)

Front axle: 4WD Differential	9.1 qt (8.6 L)
4WD Planetaries – each	1.1 qt (1.0 L)
Rear axle:	
Differential and planetaries	14.4 qt (13.6 L)
Engine oil w/ filter	8.5 qt (8.0 L)
Cooling system:	
w/ heater	19.0 qt (18.0 L)
w/o heater	18.3 qt (17.3 L)
Window washer reservoir	3.0 at (2.8 L)

## **OTHER SPECIFICATIONS**

Front tires:

4WD 14.0 L x 17.5, 10-ply SGL SS

Rear tires:

4WD 21.0 L x 24.0, 10-ply R4

Turning radius\*: Curb to Curb:

4WD - engaged:

Brakes on 12 ft 6 in (3.81 m) Brakes off 14 ft 4 in (4.36 m)

4WD - disengaged:

Brakes on 11 ft 8 in (3.55 m) Brakes off 12 ft 8 in (3.86 m)

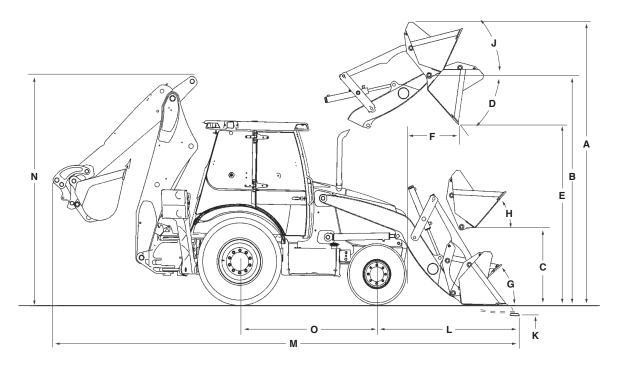
NOTE: \*Turning radius dimensions curb to curb w/ 21.0 L x 24.0 rear tires.

LOADER BUCKET SIZES				
Туре	Width	Weight	Struck	Heaped Capacity
Long Lip Bucket with lift points and bolt-on cutting edge	93 in (2.36 m)	1,188 lb (539 kg)	1.1 yd <sup>3</sup> (0.84 m <sup>3</sup> )	1.3 yd <sup>3</sup> (0.99 m <sup>3</sup> )
	96 in (2.44 m)	1,415 lb (642 kg)	1.27 yd <sup>3</sup> (0.97 m <sup>3</sup> )	1.5 yd <sup>3</sup> (1.15 m <sup>3</sup> )
4 IN 1 <sup>®</sup> Bucket	93 in (2.36 m)	1,685 lb* (764 kg)	1.0 yd <sup>3</sup> (0.76 m <sup>3</sup> )	1.20 yd <sup>3</sup> (0.92 m <sup>3</sup> )

NOTE: \*Weight of 4 IN 1® bucket includes edges, cylinders and tube lines.

BACKHOE BUCKET SIZES			
Туре	Width	Weight	Heaped Capacity
Universal Buckets	12 in (305 mm)	295 lb (134 kg)	3.40 ft <sup>3</sup> (0.10 m <sup>3</sup> )
	18 in (457 mm)	356 lb (162 kg)	5.30 ft <sup>3</sup> (0.15 m <sup>3</sup> )
	24 in (610 mm)	427 lb (194 kg)	7.70 ft <sup>3</sup> (0.22 m <sup>3</sup> )
	30 in (762 mm)	489 lb (222 kg)	10.20 ft <sup>3</sup> (0.29 m <sup>3</sup> )
	36 in (914 mm)	552 lb (251 kg)	12.70 ft <sup>3</sup> (0.36 m <sup>3</sup> )
High Capacity Buckets	24 in (610 mm)	447 lb (203 kg)	8.50 ft <sup>3</sup> (0.24 m <sup>3</sup> )
	30 in (762 mm)	502 lb (228 kg)	10.60 ft <sup>3</sup> (0.30 m <sup>3</sup> )

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

LOADER DIMENSIONS	Levelle B. J. J.	4 101 40 5
	Long Lip Bucket	4 IN 1® Bucke
A. Overall operating height – fully raised	13 ft 11 in (4.24 m)	13 ft 10 in (4.22 m
Height to:		
B. Bucket hinge pin fully raised	11 ft 6 in (3.50 m)	11 ft 6 in (3.50 m
C. Bucket hinge pin at SAE carry	12.8 in (325 mm)	12.8 in (325 mm)
D. Dump angle at full height	45°	45°
<b>E.</b> Dump clearance at full height, 45° dump:		
Bucket	8 ft 11 in (2.72 m)	9 ft 1 in (2.77 m
Clam open		9 ft 10 in (3.01 m
<b>F.</b> Dump reach at full height, 45° dump – from bumper:		
Bucket	29.2 in (741 mm)	27.8 in (707 mm)
Clam open		13.8 in (351 mm
Bucket rollback:		
G. @ Groundline	40°	41°
H. @ SAE carry	46°	46
J. @ Full height	Adjustable	Adjustable
K. Digging depth below grade:	0.0 : (457	5.0 1 (4.50
Bucket flat	6.2 in (157 mm)	5.9 in (150 mm)
Clam open – dozing		3.5 in (89 mm)
L. Reach from front axle centerline – bucket on ground	6 ft 7 in (2.05 m)	6 ft 5 in (1.99 m)
Lift capacity to full height – calculated values	8,202 lb (3 721 kg)	7,807 lb (3 541 kg
Breakout force - calculated values:		
Lift cylinders	11,463 lb (5 099 daN)	11,225 lb (4 993 daN
Dump cylinders	12,776 lb (5 683 daN)	13,717 lb (6 102 daN)
Bucket cutting edge width	92.7 in (2.36 m)	93.0 in (2.36 m)
Maximum grading angle	106°	1069
Maximum clam opening	_	38.3 in (972 mm
Moldboard height	_	36.8 in (934 mm
Raising time to full height	3.7 sec	3.7 sec
Bucket dumping time	2.0 sec	2.0 sec
Lowering time:		
Power down	2.5 sec	2.5 sec
Return-to-dig	3.8 sec	3.8 sec
Clam:		
Open time	_	1.3 sec
Close time	_	1.1 sec

NOTE: Loader dimensions taken with 4WD.

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	Extendahoe®		
	Retracted	Extended	
M. Overall transport length:			
Long Lip bucket	23 ft 10 in (7.25 m)	_	
4 IN 1® bucket	23 ft 7 in (7.20 m)	_	
Overall transport width	7 ft 9 in (2.36 m)	-	
Height:			
To top of canopy	8 ft 9 in (2.68 m)	8 ft 9 in (2.68 m)	
To top of cab	8 ft 11 in (2.71 m)	8 ft 11 in (2.71 m)	
To top of exhaust stack	8 ft 9 in (2.67 m)	8 ft 9 in (2.67 m)	
N. Transport	11 ft 8 in (3.54 m)	_	
Ground clearance at backhoe frame	14.2 in (360 mm)	14.2 in (360 mm)	
Angle of departure	18.7°	18.7°	
Front wheel tread:			
14.0 L x 17.5 Industrial Rib	74.3 in (1.89 m)	_	
14.0 L x 17.5	74.3 in (1.89 m)	_	
Rear wheel tread:			
21.0 L x 24.0	69.6 in (1.77 m)	_	
O. Wheelbase:			
2WD	84.0 in (2.13 m)	_	
4WD	84.5 in (2.15 m)		

NOTE: Dimensions taken with 21.0 L x 24.0 rear tires and 14.5/75.0 L x 16.1 front tires except that data marked 4WD is taken with 14.0 L x 17.5 front tires.

CYLINDERS CONTROL OF THE CONTROL OF					
	Bore Diameter	Rod Diameter	Stroke	Closed Length	
Loader:					
Lift – 2	3.50 in (88.9 mm)	1.875 in (47.6 mm)	29.13 in (740.0 mm)	41.54 in (1 055.0 mm)	
Dump – 2	3.25 in (82.6 mm)	1.75 in (44.5 mm)	20.33 in (516.5 mm)	30.78 in (781.8 mm)	
4 IN 1 <sup>®</sup> clam – 2	3.00 in (76.2 mm)	1.75 in (44.5 mm)	9.08 in (230.6 mm)	19.62 in (498.3 mm)	
Backhoe:					
Boom	5.50 in (139.7 mm)	2.75 in (69.9 mm)	40.57 in (1 030.5 mm)	57.05 in (1 449.0 mm)	
Dipperstick	5.25 in (133.4 mm)	2.75 in (69.9 mm)	23.53 in (597.7 mm)	38.49 in (977.7 mm)	
Bucket	3.50 in (88.9 mm)	2.50 in (63.5 mm)	38.95 in (989.4 mm)	51.78 in (1 315.2 mm)	
Extendahoe®	3.00 in (76.2 mm)	1.75 in (44.5 mm)	48.03 in (1 220.0 mm)	64.02 in (1 626.0 mm)	
Swing – 2	4.00 in (101.6 mm)	2.00 in (50.8 mm)	11.50 in (292.0 mm)	24.44 in (620.8 mm)	
Stabilizer – 2	5.25 in (133.4 mm)	2.50 in (63.5 mm)	20.40 in (518.1 mm)	33.57 in (852.7 mm)	

AXLE RATINGS	,	
	Rear	Front – 4WD
Maximum static	70,848 lb (32 136 kg)	67,883 lb (30 791 kg)
Dynamic operating	49,494 lb (22 450 kg)	47,426 lb (21 512 kg)
Static operating	19,798 lb (8 980 kg)	18,969 lb (8 604 kg)
Oscillation – front axle	_	22° total – 11° each side

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## Extendahoe®

	Retracted		E	Extended	
	Standard	Power Lift	Standard	Power Lift	
Boom Lift	Lift Capacity lb (kg)				
+18 ft (5.50 m)	_	_	2,548 (1 156)	2,710 (1 229)	
+16 ft (4.87 m)	_	_	2,783 (1 262)	2,961 (1 343)	
+14 ft (4.27 m)	3,688 (1 673)	3,923 (1 779)	2,967 (1 346)	3,156 (1 431)	
+12 ft (3.66 m)	3,898 (1 768)	4,147 (1 881)	3,037 (1 378)	3,231 (1 465)	
+10 ft (3.05 m)	3,937 (1 786)	4,188 (1 900)	3,051 (1 384)	3,246 (1 472)	
+8 ft (2.44 m)	3,908 (1 773)	4,158 (1 886)	3,052 (1 384)	3,247 (1 473)	
+6 ft (1.83 m)	3,853 (1 748)	4,099 (1 859)	3,037 (1 378)	3,231 (1 466)	
+4 ft (1.22 m)	3,785 (1 717)	4,027 (1 827)	3,011 (1 366)	3,203 (1 453)	
+2 ft (0.61 m)	3,720 (1 687)	3,957 (1 795)	2,983 (1 353)	3,174 (1 440)	
Ground Level	3,657 (1 659)	3,891 (1 765)	2,970 (1 347)	3,160 (1 433)	
-2 ft (0.61 m)	3,606 (1 635)	3,836 (1 740)	2,946 (1 336)	3,134 (1 422)	
-4 ft (1.22 m)	3,572 (1 620)	3,800 (1 724)	2,929 (1 329)	3,116 (1 413)	
-6 ft (1.83 m)	3,565 (1 617)	3,793 (1 720)	2,924 (1 326)	3,111 (1 411)	
-8 ft (2.44 m)	3,609 (1 637)	3,839 (1 741)	2,941 (1 334)	3,129 (1 419)	
-10 ft (3.05 m)	3,776 (1 713)	4,017 (1 822)	2,985 (1 354)	3,175 (1 440)	
-12 ft (3.66 m)	3,900 (1 769)	4,149 (1 882)	3,102 (1 407)	3,300 (1 497)	
-14 ft (4.27 m)	_	_	3,307 (1 500)	3,519 (1 596)	
Dipper Lift					
+16 ft (4.87 m)	_	_	4,312 (1 956)	4,312 (1 956)	
+14 ft (4.27 m)	5,853 (2 655)	5,853 (2 655)	4,020 (1 823)	4,020 (1 823)	
+12 ft (3.66 m)	6,409 (2 907)	6,409 (2 907)	5,252 (2 382)	5,252 (2 382)	
+10 ft (3.05 m)	6,650 (3 016)	6,650 (3 016)	4,849 (2 200)	4,849 (2 200)	
+8 ft (2.44 m)	6,903 (3 131)	6,903 (3 131)	4,945 (2 243)	4,945 (2 243)	
+6 ft (1.83 m)	6,928 (3 142)	6,928 (3 142)	4,670 (2 118)	4,670 (2 118)	
+4 ft (1.22 m)	7,953 (3 608)	7,953 (3 608)	4,424 (2 007)	4,424 (2 007)	
+2 ft (0.61 m)	_	_	5,103 (2 315)	5,103 (2 315)	

NOTE: Boom and Dipper Lift Capacities are rated per SAE J31 and are 87% of the maximum hydraulic lift force available with the specified options.

BACKHOE	OPERATIONAL DATA
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	Extendahoe◎	
	Retracted	Extended
Digging depth:		
Maximum	15 ft 6 in (4.72 m)	19 ft 6 in (5.94 m)
Maximum with hi-capacity bucket	16 ft 0 in (4.88 m)	20 ft 0 in (6.10 m)
2 ft (610 mm) flat bottom	15 ft 5 in (4.69 m)	19 ft 5 in (5.92 m)
8 ft (2.44 m) flat bottom	14 ft 5 in (4.40 m)	18 ft 8 in (5.63 m)
Overall reach from:		
Rear axle centerline	23 ft 3 in (7.10 m)	27 ft 2 in (8.28 m)
Swing pivot	19 ft 7 in (5.98 m)	23 ft 6 in (7.17 m)
Loading height	13 ft 1 in (4.00 m)	15 ft 9 in (4.81 m)
Loading reach – dipper retracted	5 ft 1 in (1.56 m)	8 ft 1 in (2.47 m)
Swing arc	180°	180°
Bucket rotation:		
Mechanical coupler	198.0°	198.0°
Hydraulic coupler - Extendahoe® dipper	194.8°	194.8°
Hydraulic coupler - standard dipper	198.0°	198.0°
Stabilizer spread – operating – centers:		
Flip pad	10 ft 9 in (3.26 m)	10 ft 9 in (3.26 m)
Cast pad	11 ft 1 in (3.37 m)	11 ft 1 in (3.37 m)
Digging force:		
Bucket cylinder – SAE rated 3,460 psi	15,132 lb (67 310 N)	15,132 lb (67 310 N)
Bucket cylinder – Power Lift	15,853 lb (70 520 N)	15,853 lb (70 520 N)
Dipper cylinder – SAE rated 3,460 psi	10,575 lb (47 041 N)	7,392 lb (32 882 N)
Dipper cylinder – Power Lift	11,080 lb (49 285 N)	7,744 lb (34 450 N)
Leveling angle:		
Flip pad	11.2°	11.2°
Cast pad	12.0°	12.0°

NOTE: Lift capacities apply straight to the rear of prime mover. 4WD equipped with 24 in (610 mm) Universal HD trenching bucket and Case coupler except as noted.

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## **OPERATOR ENVIRONMENT**

See page 1

## **ENGINE**

FPT F5BFL413A diesel

Selective Catalytic Reduction - SCR

Aspirated air cleaner – replaceable dual element dry type with radial seal

Fuel filter with water trap

Radiator with de-aeration bottle

Antifreeze to -34° F (-37° C)

Electronic throttles - foot and rotary hand

Self adjusting belt

High Pressure Common Rail computer controlled injection with diagnostic features

Engine ECO Mode – Detent on backhoe hand throttle, push button switch on dash

Auto Engine Idle

Auto Engine Shutdown

Auto Protection Shutdown

**Electronic Fuel Priming** 

Cold Weather Starting Aid:

Dual 12 volt batteries, glow plugs, engine block heater and heated CCV hose

#### DRIVETRAIN

PowerDrive H-Type transmission, 4F-4R, hydraulic clutch shifting, kick down, transmission disconnect and FNR switch in loader control lever, includes auto shift mode and direct drive

Front axle

4WD heavy-duty mechanically driven front axle with 14.0 L x 17.5 tires and drive shaft guard

Rear axle:

4WD heavy-duty outboard planetary drive, with 21.0 L x 24.0 tires

Torque converter - 11.8 in (300 mm)

On-the-go electric 4WD control

Electric F/R shuttle control

Electric differential lock control, push-button

Park brake, spring-applied hydraulic release – SAHR

## **HYDRAULICS**

Ground level remote hydraulic test ports Variable displacement axial piston pump Pump:

43 gpm @ 3,000 psi (162.6 L/min @ 207 bar) Heavy-duty hydraulic oil cooler 7-micron, spin on oil filter

#### LOADER

Bucket position indicator; Lifting lugs and tie downs on standard bucket; Single lever control with self-leveling and return-to-dig; Hand operated clutch disconnects on loader and shift levers, single lever 4-function loader control: lift, dump, clutch cut-out, differential lock and FNR switch

#### **BACKHOE**

Over center design, Fabricated "S" boom; Pro Control System; Dipperstick integrated serrated gripper teeth; Case mechanical coupler; Power Lift, Power Boost

Cleated dirt stabilizer pads

Extendahoe®

#### OTHER

Front tire 14.0 L x 17.5, 10 PR - 4WD

Rear tire 21.0 L x 24.0, 10 PR

Forward tilt engine hood

Replaceable, molded front bumpers

Front/Rear tie downs

Reflective logos

Signal Lights - cab and canopy:

2 rear tail/stop

2 front flashers/turn

2 rear flashers/turn

Working/Driving Lights - cab and canopy:

Adjustable halogen work lights - 55 W:

4 front

2 side – one left, one right

4 rear

Master disconnect switch and remote

jump-start terminals

Hydrostatic steering

Backup alarm

Vertical spin-on engine oil, fuel and hydraulic filters

Locking DEF/Fuel covers

Tool box - bolt-on, step-mounted

## **TELEMATICS**

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

## WARRANTY

- 1-Year/Unlimited-Hour Full-Coverage Base Limited Warranty
- 2-Year/2,000-Hour Extended Engine Warranty

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#### **OPTIONAL EQUIPMENT**

## **OPERATOR ENVIRONMENT**

Speed selectable Auto Ride Control -4WD models

Comfort Steering with two-speed steering pump and 3rd/4th gear cutout

ROPS/FOPS certified protective cab available in LH Door or 2 door with heat, A/C, defroster, door activated dome light, 4 front, 4 rear and 2 adjustable side lights, floor mat, tinted glass, bluetooth radio, front and rear wiper and fender extensions

Deluxe Cab package included on 2-door cabs includes: deluxe interior, viscous fan, pull-down sun visor and 72 dba sound level

Premium multi-color, hand stitched cloth, heated air suspension seat - not for use with ROPS Canopy option

#### **ENGINE**

Severe Cold Weather Starting Aid: Synthetic transmission, hydraulic and engine oil - order with cold weather starting aid

## LOADER

Auxiliary hydraulics for loader-mounted equipment with thumb-operated proportional control

Hydraulic front quick coupler Loader linkage without loader bucket Tool portfolio of additional attachments Buckets - see page 2

## **BACKHOE**

1-way/2-way Auxiliary backhoe hydraulics for hammers, plate compactors or similar 1-way flow attachments or switch to 2-way flow for thumbs, augers or similar 2-way flow attachments

Bolt-on hardened gripper teeth

Two-lever control

Pilot operated control system:

Fingertip proportional Electro-Hydraulic stabilizer controls

Thumb-operated proportional Electro-Hydraulic Extendahoe® control Thumb-operated horn button Thumb-operated auxiliary hydraulic control

Infinitely adjustable towers In-cab switchable "excavator to backhoe" control pattern change Standard dipper

Flip over stabilizer pads

Hydraulic bucket coupler

Universal coupler - CAT/Deere compatible

Buckets - see page 2

Hydraulic thumb - Includes: 2 replaceable, high strength, bolt on tines with two positions for Universal or Hi-Cap buckets - meshes with Bucket teeth on 18 in & 24 in Buckets

#### **OTHER**

Front tires:

14.0 L x 17.5 10 PR

21 L x 24, 10 PR or 540/70 R24 Michelin

Special paint

LED Working/Driving Light Package:

4 front

4 rear

2 side

Front Fenders

Special Feature Request

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