

**Town of Freedom
Selectmen's Meeting
Monday, February 23, 2026**

Present: Selectmen Les Babb, Alan Fall, Gary Williams and Stacy Bolduc, Admin. Assistant, who recorded the minutes. This meeting was held at the Town Office. Babb called the meeting to order at 6:30 p.m.

Absent:

Also present: Rob Cunio, Rich Lafarrier, Scott Brooks, Brian Fontain, Alan Libby, Sue Hoople, Don Johnson

Gary made a motion to accept the minutes 2/9/2026, motion seconded by Alan; motion passed unanimously.

The STR's were reviewed and signed. 39 Huckins Rd. and 123 E Danforth were not signed due to missing information and rental days that needed to be verified.

Department Head Updates:

Transfer Station- Alan Libby reported everything is running smoothly at the transfer station.

Fire- Chief Cunio reported the following:

- 4 medical aids, 1 mutual aid fire, 1 fire alarm.
- The hose nozzles have been ordered.
- Warden's training is March 12th in Conway.
- Joint training with Effingham has been scheduled.
- The snowmobile club event this past Saturday went well.
- Chief wants to purchase four new ice suits from the gift account \$4,015.00.

Selectmen signed deputy warden reappointments. Jim Stone was added.

Alan made a motion to purchase four new ice suits from the gift account, motion seconded by Les; Motion carried.

Zoning- Brian proposed updated fees for solar ground mounted installations and is reviewing other fees for alignment with staff time and salary. A brief discussion was held on charging for repeat inspections.

Police- Chief Laferriere updated the board he will not be looking to hire anyone until April. The body cameras lease did not get into the budget. He may have a candidate for the position if they pass the PT test March 4th. Corporal Cyr and K9 Boca have made three arrests this year related to drugs. The firearm purchase for Jamie Mullen will be completed tomorrow.

Highway- Scott reported that the new truck remains at the dealership due to ongoing engine code issues since January 27. Repairs are expected soon.

New Business

February 23, 2026

Don Johnson came before the board to discuss town meeting. Items discussed:

- Election set up coordinated with Mark McKinley.
- White Mountain Audio contracted for PA services.
- Wireless microphones arranged.
- Offer from Steve Brooks to provide PA equipment briefly discussed.
- Police presence and no-parking signs required.
- Election workers will park at the school and be shuttled to the Town Hall.
- Polls open 9:00 am -7:00 pm.
- Selectmen will be present for the voting.
- Discussion of petitioner warrant article presenter.
- Don will do the dedication and remembrance's
- Les cannot count ballots due to being on the ballot.
- Rules and procedures in the town book.

Don closed his update stating that the general election in November may be a big election and the school may need to be considered.

Don left the meeting.

Loader Bids- Loader bids from Milton Cat and Case were reviewed. The quote to fix the current loader does not cover everything wrong with it. Please see attached for bid specs.

The board agreed that Cat was the best buy. Scott questioned the warranty. Alan L. responded that it was not discussed. Les asked Stacy to call Michelle Clark at DRA regarding appropriate funding procedures at Town Meeting or via special meeting. For the grant the amount of \$157,900 will be used. The terms of the grant is the Town has to buy it first then the grant will reimburse an approved amount.

Promotion for Rich Lafarrier

Les made a motion to promote Rich to Police Chief; Alan F. seconded the motion; motion carried.

Stacy will arrange the swearing in ceremony with Libby.

Consent Agenda:

Payroll Manifest – week ending – 2/18/2026	Approved
Accounts Payable Manifest – week ending 2/20/2026	Approved
Meeting Minutes 2/9/2026	Approved

Correspondence:

Matt Surge email Re: Deed	Reviewed
Carroll County NH Monarch	Reviewed
Carroll County Commission Minutes	Reviewed
Time off Request Employee	Signed
STR 34 Chick Dr	Signed
STR 130 Berry Bay Rd	Signed

February 23, 2026

STR 30 Pauli Point Rd	Signed
STR 32 Old West Ossipee Rd	Signed
STR 42 Old West Ossipee RD	Signed
STR 43 Pleasant Dr	Signed
STR 39 Huckins Rd	Not Signed
STR 123 E Danforth Rd	Not Signed
J Kelly Email Re: STR	Reviewed
Jore Dean email	Reviewed
Library Trustee	Reviewed
Milton Cat Loader Quote	Reviewed
Case 580S Loader Quote	Reviewed
Case 590SN Loader Quote	Reviewed
Verdantas LLC Contract	Not Signed

Being no further input, Babb made a motion to adjourn. Williams seconded. All in favor, the motion passed. Adjourned at 9:00 pm.

Respectfully submitted,
Stacy Bolduc, Town Administrator

Approved by the Board of Selectmen on _____:

Leslie R. Babb

Alan G. Fall

Gary R. Williams

February 23, 2026

Milton



Mr. Alan Libby
Town of Freedom
PO Box 227
Freedom, NH 03836

February 23, 2026

Dear Alan,

I want to thank you for allowing Milton Cat, one of the leading Caterpillar dealers in North America the opportunity to provide you with a Quote on a new Caterpillar 420 Loader Backhoe, as per your requested specifications.

Milton Cat highly values your business and you can be assured of unmatched service and dealer support on machines that are second to none in the industry.

Specifications and pricing are only a part of the decision on the purchase of a new Loader Backhoe and it does not describe the machine design, reliability and operational advantages, nor does it describe the product support you will receive from your dealer. These factors are extremely important when you are deciding on major purchases such a Loader Backhoe which you will be relying on for the next ten (10) to fifteen (15) years. Milton Cat, as well as I feel confident that should you choose this quote for your upcoming needs in that you will receive unmatched product support, productivity and reliability from the Caterpillar line of Loader Backhoes.

Pursuant to your request, please find enclosed a Quote on a new Caterpillar 420 Loader Backhoe, as per your specifications, needs and desires.

Corporate

100 Quarry Drive
Milford, MA 01757
508.634.3400

84 Concord Street
North Reading, MA 01864
978.276.2400

14 Kendrick Road, Rt. 28
Wareham, MA 02571
508.291.1200

2158 Plainfield Pike
Cranston, RI 02920
401.946.6350

30 Industrial Drive
Londonderry, NH 03053
603.665.4500

One Cat Lane, Rt. 2
Richmond, VT 05477
802.434.4228

79 Robertson Boulevard
Brewer, ME 04412
207.989.1890

16 Pleasant Hill Road
Scarborough, ME 04074
207.883.9586

500 Commerce Drive
Clifton Park, NY 12065
518.877.8000

294 Ainsley Drive
Syracuse, NY 13210
315.476.9981

4610 E. Saile Drive
Batavia, NY 14020
585.815.6200

55 Industrial Park Drive
Binghamton, NY 13904
607.772.6500

Mr. Alan Libby

Page 2

MILTON CAT

One (1) Caterpillar 420 Wheel Loader Backhoe, With 0 Hours

Standard and Optional Equipment, Town of Freedom, NH

420 Wheel Loader Backhoe

Caterpillar C3.6, 4 Cylinder, 110 (SAEJ1995) Horsepower Tier 4f Engine

Engine Pre-Cleaner, Engine Pre-Heater, Engine Coolant Heater

Extended Life Coolant Antifreeze, Silicone Engine Hoses

12 Volt Electrical System, 150 Amp Alternator, Dual 850 CCA Heavy Duty Batteries

6 Speeds Forward/4 Speeds Reverse Transmission, with Autoshift Feature

51,808# Front Axle, Mechanical Front Wheel Drive, with Driveshaft Guard

58,422# Rear Axle, with Rear Differential Lock

Multi Wet Disc Hydraulic Brake, with Dual Pedals and Interlock, Four Wheel Braking

340/80-18 Michelin Bib Load Radial Front Tires

500/70-24 Michelin Bib Load Radial Rear Tires

Rear Fenders

Deluxe Cab, with Climate Control, Interior Lighting, Interior Rearview Mirror

AM/FM Bluetooth Radio

Access Platforms and Steps Both Sides of Cab

Front/Rear Windshield Wiper/Washers

Deluxe Fabric Air Suspension Heated Seat, with 2" Belt

Deluxe Gauges/Display/Monitor/Alarm System

Coat Hook, Lunch Box Holder, Beverage Holder, Tilt Steering Column

Front and Rear/Side Mounted LED Work Lights

Rear Mounted Stop/Tail Lights, Front/Rear Directional/Hazard Lights

3-12 Volt Powerpoints, Backup Alarm

Variable Flow, Axial Piston, Load Sensing/Flow Sharing, Closed Center 49.4 gpm

Hydraulic System, with Hydraulic Oil Cooler

Caterpillar XT-3 Hoses, O-Ring Flat Face Seal Hydraulic Fittings

Ride Control

Pilot Style Hydraulic Backhoe Controls (Excavator Style), with Pattern Changer

Boom and Stick Drift Reduction Valves, Anti-Swing Valve, Boom Protection Plate

Vandalism Locks, Tool Box

Hydrostatic Power Steering

Single Tilt Style Front Loader, with IT Coupler

Aux Front Hydraulics

1.5 Cubic Yard GP Bucket, with BOE

54" Pallet Forks

Curved Style Boom, Extendable Dipperstick

Caterpillar 24" HD Rock Dig Bucket

Caterpillar Hydraulic Thumb

Rear Aux. Hydraulics for Thumb

Auto Up Stabilizers, Stabilizer Guards, Reversible Stabilizer Pads

7 Year/3000 Hour Premier Warranty

1000 Hour Filter Kits

Mr. Alan Libby
Page 3

\$157,900.00 Caterpillar 420 Quote, per specifications listed on page 2
\$ 40,000.00 Less Trade on 2014 Caterpillar 420F*
\$117,900.00 Net Trade*

***To receive this trade in value, repairs as outlined in Service Estimate SCQT204651 must be completed. Deduct \$12,000.00 from Trade Value if repairs are not completed, Net Trade of \$129,900.00.**

Should the Town of Freedom wish to enter into a Lease/Purchase agreement for the Loader Backhoe; Caterpillar Financial, as well as other lending institutions offer municipalities' leases for up to Seven (7) years on Loader Backhoes. These municipal leases can be structured with monthly, quarterly, semi-annual or annual payments, both upfront and in arrears. For your review, I have listed below 7-Year Annual Up Front Lease Purchase Payments, based on the Net Trade cost of \$117,900.00, as well as \$129,900.00. I would be more than happy to provide you with Lease/Purchase Payments for any lease terms or amounts, should you so desire.

\$117,900.00 Net Trade

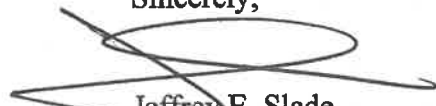
7 Year Annual Up-Front Lease/Purchase Payment \$19,466.00

\$129,900.00 Net Trade

7 Year Annual Up-Front Lease/Purchase Payment \$21,441.00

Again, I want to thank you for the opportunity to provide you with this information and I look forward to discussing this with you further.

Sincerely,



Jeffrey E. Slade
Territory Manager
Governmental Accounts
New Hampshire/Vermont/
Southern Maine

JES
dell2/freedomnh420quote26



PREMIER

Our most comprehensive coverage includes powertrain and hydraulic components, as well as additional electrical and structural components. Powertrain components produce, transmit or control engine horsepower for moving the machine. Hydraulic components are associated with steering and implement control.

Learn more:

Contact your local Cat® dealer today or visit

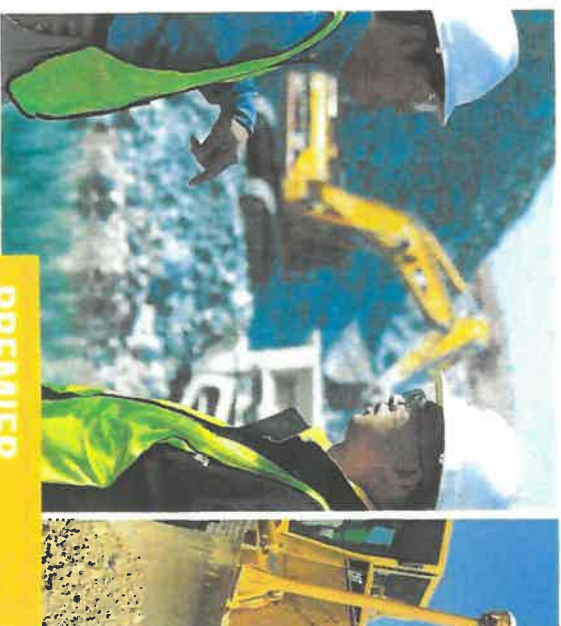
www.cat.com/epp

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**THE RIGHT
MACHINE
THE RIGHT
PLAN**

Cat® Equipment Protection Plan



PREMIER

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CAT®

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CAT®

CONTROL YOUR COSTS MINIMIZE YOUR RISKS

This plan safeguards your investments in new and Cat Certified Used* machines beyond the standard warranty period. It includes parts and labor to protect you against covered failures caused by defects in materials and workmanship. With the Premier Equipment Protection Plan, you can increase the predictability of service and maintenance costs—and reduce unplanned downtime.

*Product availability varies by region.



WHAT WE DO

- Perform necessary inspections to confirm eligibility
- Install parts approved by Caterpillar on covered repairs
- Validate your enrollment in the program

WHAT YOU DO

- Operate equipment according to the Cat® Operation & Maintenance Manual (OMM)
- Have recommended preventive maintenance performed at intervals specified in the OMM
- Upon request, provide proof of preventive maintenance compliance (receipts, copies of work orders, invoices)
- Promptly provide the machine for repair in the event of a covered failure

COVERED COMPONENTS

<p>Engine & Accessories</p> <ul style="list-style-type: none"> Engine - Internal Components Oil Cooler Radiator Exhaust / Muffler Manifolds Fan Motor Water Pump Fuel Injection Pumps Injectors Lift / Transfer Pump Senders / Solenoids / Sensors Thermostat Flywheel & Torque Converter Engine Oil Filter Mount Turbocharger Starter Alternator AC Compressor / Condenser Electronic Control Modules Governor / Speed Controls & Linkages Fuel Lines Fuel Tank & Assoc. Parts Water Piping Oil Hoses / Lines (non-hydraulic) Cylinder Block Piston Piston Rings Piston & Connecting Rod Crankshaft, Main Bearings & Rod Bearings Camshaft & Camshaft Bearings Timing / Accessory Gears Timing Chain / Belt Cylinder Head Inlet / Exhaust Valve Valve Cover & Base Valve Spring & Guide Rocker Arm Rocker Shaft Assembly Push Rod 	<p>Balancer</p> <ul style="list-style-type: none"> Fuel Pump / Governor Drive Oil Pump Oil Pan Group Fan & Fan Drive <p>Transmission</p> <ul style="list-style-type: none"> Transmissions Transmission Oil Lines Hydraulic Controls Transmission Oil Filter Base Transmission Gears Final Drives / Planetary Drive Shafts Transfer Case Wet Brake Assemblies Hydrostatic Pumps & Drive Motors Linkage / Lines Connected to Hystat Pump Drive (pilot/en) Control Valves Senders / Sensors Powertrain Transmission Lines / Hoses Transmission Oil Tank Drive Train Oil Lines Bevel and Transfer Case 	<p>Steering</p> <ul style="list-style-type: none"> Steering Clutch Steering Clutch & Brake Control Valve Steering Gear & Valve Power Steering Logic Module Steering Linkage Steering Column Steering Console Tie Rod <p>Hydraulic Systems</p> <ul style="list-style-type: none"> Hydraulic / Steering Hoses & Lines Hydraulic Cylinders Hydraulic Valves & Controls Hydraulic Accumulators Hydraulic Oil Coolers Hoses and Lines Hydraulic Swivels Hydraulic Oil Filter Mount Hydraulic Oil Temperature Sensor Hydraulic Oil Filter Base Hydraulic Tanks 	<p>Braking System</p> <ul style="list-style-type: none"> Brake Master Cylinder Vacuum Pump Wheel Cylinder Brake Caliper, Head Assembly Control Valves Brake Lines Accumulator <p>Electrical & Alternator</p> <ul style="list-style-type: none"> Gauges / Indicators / Instruments Wiring harnesses Switches Relays / Circuit breakers Generator Alternator / Generator Battery Charger Main Power Relay Start Switch Fuse / Circuit Breaker Panel Circuit Board 	<p>Chassis & Lanes</p> <ul style="list-style-type: none"> Chassis / Implement Frames Weldment Carbody Main Frame <p>Undercarriage</p> <ul style="list-style-type: none"> Track Roller Frame Track Adjuster Recoil Spring
<p>Drive Line/Drive Axle</p> <ul style="list-style-type: none"> Axles Axle Seals Final Drive & Wheel Final Drive Case / Bore Final Drive Chain Final Drive Gears Axle Shaft Drive Axle Oil Pump Universal Joint 	<p>Suspension</p> <ul style="list-style-type: none"> Automatic Grade Control Axle Spring Bogie Suspension Cross Slope Control Equalizer Bar Equalizer Bar Center Pin Support Equalizer Bar Support Stabilizer Suspension Control Suspension Control Valve Suspension Cylinder 			

EXCLUSIONS

If a component is not listed, it may not be included in the plan. Other exclusions include:

- > Improper or abusive use of the machine
- > Lubricating oil, antifreeze, filters, consumables and other maintenance items replaced during the covered component repair, unless such items are rendered unusable by a covered component failure
- > Failures caused by normal wear-out
- > Freight charges for parts shipments
- > Travel time and mileage involved in getting to a job site
- > Hauling costs and / or retrieval costs
- > Overtime labor costs
- > Repair costs resulting from the failure of any non-covered components
- > Downtime loss
- > Equipment rental charges
- > Any incidental / consequential damages or costs incurred as a result of a covered component failure.
- > Modifications unless approved by Caterpillar

Examples of covered and excluded components or items are listed here. The actual dealer contract will govern. For a complete list of included components and more information on Cat Equipment Protection Plans, contact your local Cat dealer.



Presque Isle

260 Missile St
207-498-3196

Maine

BANGOR

59 Contractor Dr
207-848-2050

SCARBOROUGH

14 Gibson Rd
207-885-0600

KNOX

3 Knox Ridge Rd S
207-568-3245

NH

CONCORD

231 Sheep Davis
(603) 225-6621

VT

COLCHESTER

28 Jasper Mine Rd
(802)893-1555

Quotation

Date:

2/13/2026

To: **Town of Freedom**
PO BOX 227
Freedom, NH 03836

Phone **603-539-6323**
Cell Phone
E-Mail

Attn: **Alan Libby**

County **Carroll**

Equip: **CASE 580SNWT Loader Backhoe**

NB9354

Spec: CAB 2 DOOR/AC, AM-FM-BLUETOOTH RADIO, AIR SUSP, HEATED SEAT, COMFORT STEER, PILOT CONTROLS W/HEAVYLIFT,, H-TYPE POWERSHIFT TRANSMISSION, 4WD WIDE TRACK, FRONT, FENDERS, LED LIGHT PKG, 12.5/80x18 / 21LX24 TIRES,, EXTENDAHOE, FRONT AUX HYD, FRONT HYD COUPLER, REAR COMBO, AUX HYDS, RIDE CONTROL, HEAVY COUNTER WEIGHT,, 93"/24"BUCKET, BACKHOE HYDRAULIC COUPLER, BLOCK HEATER,, DUAL BATTERIES, REVERSIBLE STABILIZER, PADS, ,108 NET HP,

Options **CASE 580/590 Hyd Thumb - Fork Attachment - BKT Tires**
Incl

	Purchase Price	\$164,500.00
	Less Trade In: 2014 CAT 420F Serial # CAT0420FHSKR03429	-\$30,000.00
	Sub Total	\$134,500.00
	Misc Total	\$134,500.00

84 months /3000 hour Premiere Warranty

TRAVEL AND MILEAGE EXPENSES ARE NOT COVERED BY THESE PLANS

Finance

Lease

Term in Months	_____	Lease Term	_____
Interest Rate*	_____	Annual Hours	_____
Payoff Amount	_____	Advance Payt	_____
Down Payment	_____	<input type="checkbox"/> RV	_____
Monthly Pay't	_____	Payment	_____

* Interest Rates quoted are subject to change without notice.

Tom Hutchinson

Customer



Presque Isle

260 Missile St
207-498-3196

Maine

BANGOR

59 Contractor Dr
207-848-2050

SCARBOROUGH

14 Gibson Rd
207-885-0600

KNOX

3 Knox Ridge Rd S
207-568-3245

NH

CONCORD

231 Sheep Davis
(603) 225-6621

VT

COLCHESTER

28 Jasper Mine Rd
(802)893-1555

Quotation

Date:

2/13/2026

To: **Town of Freedom**
PO BOX 227
Freedom, NH 03836

Phone **603-539-6323**
Cell Phone
E-Mail

Attn: **Alan Libby**

County **Carroll**

Equip: **CASE 590SN Loader Backhoe**

NB9391

Spec: 2 DOOR/AC,AM-FM/BLUETOOTH, DELUXE CAB, HEATED AIR SEAT,, PILOT CONTROLS,H-TYPE PSHIFT TRANS, 4WD,14X17.5/21LX24, TIRES, RIDE CONTROL, COMFORT STEER, EXTHOE HEAVY CTW,, FRONT AUX HYD, FRONT HYD QC, 93"/30" BUCKETS, REAR COMBO, AUX, REAR HYD COUPLER, BLOCK HEATER, DUAL BATTERIES, LED, LIGHT PACKAGE, FLIP STABILIZER PADS, FRONT FENDERS. 110, HP, 19'6" DIG DEPTH.

Options **CASE 580/590 Hyd Thumb - Fork Attachment - BKT Tires**
Incl

	Purchase Price	\$174,000.00
	Less Trade In: 2014 CAT 420F Serial # CAT0420FHSKR03429	-\$30,000.00
	Sub Total	\$144,000.00
	Misc	
	Total	\$144,000.00

84 months /3000 hour Premiere Warranty

TRAVEL AND MILEAGE EXPENSES ARE NOT COVERED BY THESE PLANS

Finance

Lease

Term in Months _____
Interest Rate* _____
Payoff Amount _____
Down Payment _____
Monthly Pay't _____

Lease Term _____
Annual Hours _____
Advance Payt _____
 RV
Payment _____

* Interest Rates quoted are subject to change without notice.

Tom Hutchinson

Customer



ENGINE

Model	FPT F5BFL413A
Emissions Certification	Tier 4 Final
Type	Diesel 4-stroke, Turbocharged
Cylinders	4
Bore/Stroke	3.90 x 4.33 in (99 x 110 mm)
Displacement	207 in ³ (3.4 L)
Fuel injection	Direct, high pressure common rail – HPCR
Fuel	Diesel
Engine speeds*	RPM
Rated speed – full load	2200
Low idle	900 – 1000
High idle – no load	2320 – 2430
Horsepower @ 2200 RPM:	
Gross	110 hp (82 kW)
Net	108 hp (81 kW)
Maximum torque @ 1400 RPM:	
Gross	339 lb-ft (460 N-m)
Net	338 lb-ft (459 N-m)
Torque rise at rated speed	29% +/- 5%
Radiator:	
Core type	Square wave
Core size area	486 in ² (3 145 cm ²)
Rows of tubes	4
Viscous Fan:	
Style	9 blade viscous suction
Diameter	19.68 in (500 mm)
Ratio	1.4:1
Pump operating angle ratings:	
Side to side	Rated 35°
Fore and aft	Rated 35°
Oil filtration	Replaceable, full flow cartridge

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

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)
Torque converter ratio	2.2	
Differential lock: On-the-go push-button activation		
Front 4WD/Rear axle:		
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 in ² (0.25 m ²)	
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

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:

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, 4WD, 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.

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 qt (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.

SERVICE CAPACITIES

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)

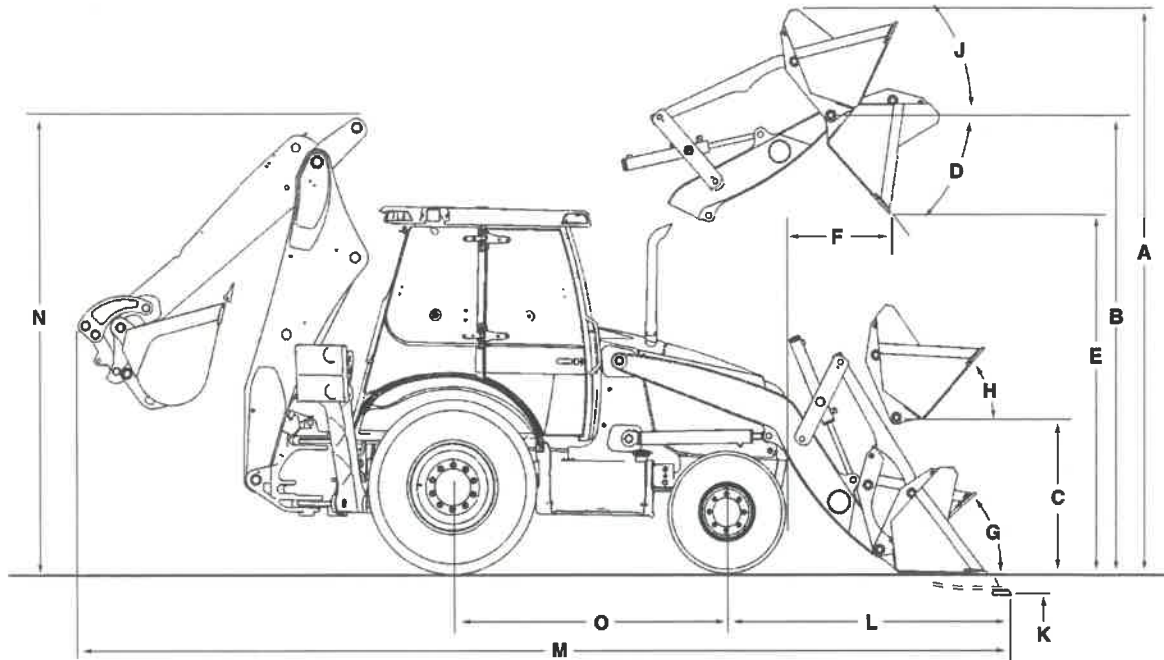
LOADER BUCKET SIZES

Type	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 ³ (0.84 m ³)	1.3 yd ³ (0.99 m ³)
	96 in (2.44 m)	1,415 lb (642 kg)	1.27 yd ³ (0.97 m ³)	1.5 yd ³ (1.15 m ³)
4 IN 1® Bucket	93 in (2.36 m)	1,685 lb* (764 kg)	1.0 yd ³ (0.76 m ³)	1.20 yd ³ (0.92 m ³)

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

BACKHOE BUCKET SIZES

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



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

LOADER DIMENSIONS

	Long Lip Bucket	4 IN 1° Bucket
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°
E. 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)
F. 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:		
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°	106°
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.

DIMENSIONS

		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

	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® 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

BACKHOE LIFT CAPACITIES

Extendahoe®					
		Retracted		Extended	
		Standard	Power Lift	Standard	Power Lift
Boom Lift	Lift Capacity lb (kg)	Lift Capacity lb (kg)		Lift Capacity lb (kg)	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

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.

STANDARD EQUIPMENT

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

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
Rear tires:
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

CaseCE.com

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CASE Construction Equipment is biodiesel-friendly. NOTE: All engines meet current EPA emissions regulations. All specifications are stated in accordance with SAE Standards or Recommended Practices, where applicable.



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.

Form No. CCE202012590SN
Replaces Form No. CCE201810590SN

590SN

7 of 7

CASE

CONSTRUCTION

580SN WT

BACKHOE LOADER
TIER 4 FINAL CERTIFIED



ENGINE

Model	FPT F5BFL413B
Emissions Certification	Tier 4 Final
Type	Diesel 4-stroke, Turbocharged
Cylinders	4
Bore/Stroke	3.90 x 4.33 in (99 x 110 mm)
Displacement	207 in ³ (3.4 L)
Fuel injection	Direct, high pressure common rail – HPCR
Fuel	Diesel
Engine speeds*	RPM
Rated speed – full load	2200
Low idle	900 – 1000
High idle – no load	2330 – 2430
Horsepower @ 2200 RPM:	
Gross	110 hp (82 kW)
Net	108 hp (81 kW)
Maximum torque @ 1400 RPM:	
Gross	339 lb-ft (460 N-m)
Net	338 lb-ft (459 N-m)
Torque rise at rated speed	29% +/- 5%
Radiator:	
Core type	Square wave
Core size area	486 in ² (3 145 cm ²)
Rows of tubes	4
Viscous fan:	
Style	9 blade viscous suction
Diameter	19.68 in (500 mm)
Ratio	1.4:1
Pump operating angle ratings:	
Side to side	Rated 35°
Fore and aft	Rated 35°
Oil filtration	Replaceable, full flow cartridge

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

DRIVETRAIN

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

Gear ratios	Forward/Reverse	
1st	5.533/4.549	
2nd	3.359/2.762	
3rd	1.532/1.260	
4th	0.811/0.667	

Travel speeds – Standard 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)

Torque converter ratio 2.2

Limited slip differential – 4WD

Front 4WD/Rear axle:

Differential ratio	2.3/2.5
Planetary hub ratio	6.0/6.4
Total reduction ratio	13.7/16.0

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 2295 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

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:

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, 2 Door
Cab w/ Heat and AC, 1,100 lb counter weight,
Fully fueled, Heavy Lift, PowerDrive transmission,
air seat, ride control, pilot backhoe controls,
4WD w/driveshaft guard, 21 L – 24 Rear tires.
20,760 lb (9 417 kg)

Add-on weights:

Cab-over canopy	309 lb (140 kg)
Fabricated stabilizer pads	141 lb (64 kg)
Extendahoe®	286 lb (130 kg)

HYDRAULICS

Pump: Bosch Rexroth Series 31 Variable Displacement Axial Piston Pump	
Main relief pressure:	
Standard	3,450 +/- 50 psi (238 +/- 3.5 bar)
Power Lift	3,780 +/- 50 psi (261 +/- 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: 41 gpm @ 2,340 psi (156.2 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 – 41 gpm (0 – 156.2 L/min)	
Backhoe flow @ rated engine RPM: 41 gpm @ 3,100 psi (156.2 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.

Front axle:	
4WD Differential	9.1 qt (8.6 L)
4WD Planetaries – each	1.1 qt (1.0 L)
Rear axle:	
Differential and planetaries	19.7 qt (18.6 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 qt (2.8 L)

OTHER SPECIFICATIONS

Front tires:	
4WD	12.5/80 x 18.0, 10-ply rating
Rear tires:	
4WD	21.0 L x 24.0, 10-ply rating
Turning radius*: Curb to Curb:	
4WD – engaged:	
Brakes on	12 ft 0 in (3.65 m)
Brakes off	14 ft 11 in (4.54 m)
4WD – disengaged:	
Brakes on	11 ft 3 in (3.43 m)
Brakes off	13 ft 6 in (4.11 m)

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

SERVICE CAPACITIES

Fuel tank	35.0 gal (132.0 L)
DEF tank	3.6 gal (13.5 L)
Hydraulic system:	
Total w/ Extendahoe®	131 qt (123.6 L)
Reservoir w/ filter	55.4 qt (52.4 L)
Reservoir w/o filter	53.4 qt (50.5 L)
Transmission – total system:	
4WD PowerDrive H-Type	19 qt (18.0 L)

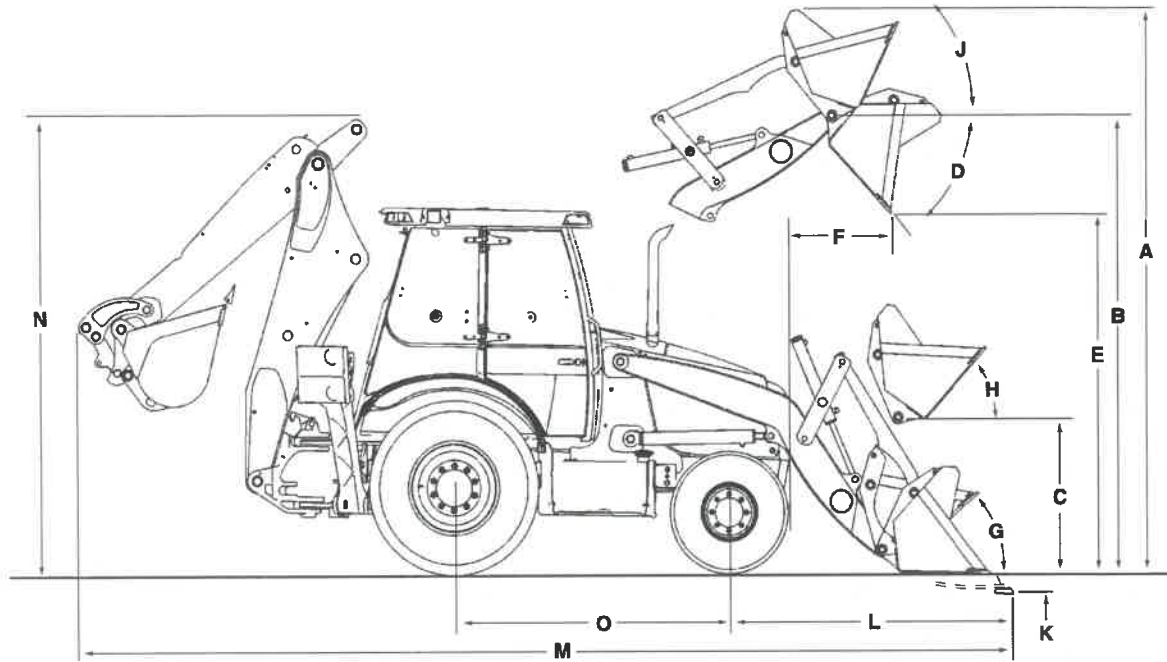
LOADER BUCKET SIZES

Type	Width	Weight	Struck	Heaped Capacity
Long Lip Bucket with bolt-on edge	93 in (2.36 m)	1,188 lb (539 kg)	1.1 yd ³ (0.84 m ³)	1.29 yd ³ (0.99 m ³)
4 IN 1® Bucket with bolt-on edge	93 in (2.36 m)	1,685 lb* (764 kg)	1.0 yd ³ (0.76 m ³)	1.20 yd ³ (0.92 m ³)

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

BACKHOE BUCKET SIZES

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



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

LOADER DIMENSIONS

	Long Lip Bucket	4 IN 1° Bucket
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	12.75 in (324 mm)	12.75 in (324 mm)
D. Dump angle at full height	45°	45°
E. Dump clearance at full height, 43° dump:		
Bucket	8 ft 11 in (2.73 m)	9 ft 1 in (2.77 m)
Clam open	—	9 ft 11 in (3.01 m)
F. Dump reach at full height, 45° dump – from bumper:		
Bucket	27.0 in (685 mm)	27.0 in (685 mm)
Clam open	—	13.9 in (353 mm)
Bucket rollback:		
G. @ Groundline	40°	41°
H. @ SAE carry	46°	46°
J. @ Full height	Adjustable	Adjustable
K. Digging depth below grade:		
Bucket flat	6.1 in (156 mm)	5.9 in (151 mm)
Clam open – dozing	—	3.5 in (88 mm)
L. Reach from front axle centerline – bucket on ground	6 ft 9 in (2.05 m)	6 ft 6 in (1.99 m)
Lift capacity to full height – calculated values	8,425 lb (3 822 kg)	8,025 lb (3 640 kg)
Breakout force:		
Lift cylinders	11,450 lb (5 093 daN)	11,241 lb (5 000 daN)
Dump cylinders	10,873 lb (4 837 daN)	11,674 lb (5 193 daN)
Bucket cutting edge width	94.2 in (2.39 m)	93.0 in (2.36 m)
Maximum grading angle	106°	106°
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 – manual controls/pilot controls	3.6 sec	3.0 sec
Clam:		
Open time	—	1.3 sec
Close time	—	1.1 sec

NOTE: Loader dimensions taken with 4WD, 21.0 L x 24.0 rear tires.

DIMENSIONS

	Extendahoe®	
	Retracted	Extended
M. Overall transport length:		
Long Lip bucket	23 ft 4 in (7.11 m)	–
4 IN 1® bucket	23 ft 1 in (7.04 m)	–
Overall transport width	8 ft 6 in (2.59 m)	–
Height – 4WD with 21.0 L x 24.0 tires:		
To top of canopy	8 ft 11 in (2.70 m)	8 ft 11 in (2.70 m)
To top of cab	8 ft 11 in (2.73 m)	8 ft 11 in (2.73 m)
To top of exhaust stack	8 ft 9 in (2.67 m)	8 ft 9 in (2.67 m)
N. Transport	11 ft 7 in (3.53 m)	–
Ground clearance at backhoe frame	14.8 in (377 mm)	14.8 in (377 mm)
Angle of departure	18.6°	18.6°
Wheel tread:		
12.5/80 x 18.0	75.6 in (1.92 m)	75.6 in (1.92 m)
21.0 L x 24.0	69.6 in (1.77 m)	69.6 in (1.77 m)
Width over tires:		
12.5/80 L x 18.0	88.2 in (2.24 m)	88.2 in (2.24 m)
21.0 L x 24.0	91.8 in (2.33 m)	91.8 in (2.33 m)
O. Wheelbase:		
21.0 L x 24.0	84.5 in (2.15 m)	84.5 in (2.15 m)

CYLINDERS

	Bore Diameter	Rod Diameter	Stroke	Closed Length
Loader:				
Lift – 2	3.50 in (88.9 mm)	1.88 in (47.6 mm)	29.13 in (740.0 mm)	41.54 in (1 055.0 mm)
Dump – 2	3.00 in (76.2 mm)	1.50 in (38.1 mm)	20.33 in (516.5 mm)	29.90 in (759.5 mm)
4 IN 1® 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	5.00 in (127.0 mm)	2.50 in (63.5 mm)	38.25 in (971.6 mm)	52.82 in (1 341.6 mm)
Dipperstick	4.75 in (120.7 mm)	2.50 in (63.5 mm)	25.14 in (628.5 mm)	39.65 in (1 007.0 mm)
Bucket	3.50 in (88.9 mm)	2.50 in (63.5 mm)	35.35 in (897.9 mm)	48.17 in (1 223.6 mm)
Extendahoe®	3.00 in (76.2 mm)	1.75 in (44.5 mm)	42.05 in (1 068.0 mm)	56.22 in (1 428.0 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

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

BACKHOE LIFT CAPACITIES

		Extendahoe®			
		Retracted		Extended	
		Standard	Power Lift	Standard	Power Lift
Boom Lift	Lift Capacity lb (kg)	Lift Capacity lb (kg)		Lift Capacity lb (kg)	Lift Capacity lb (kg)
+16 ft (4.87 m)	—	—		2,115 (959)	2,447 (1 110)
+14 ft (4.27 m)	2,837 (1 287)	3,282 (1 489)		2,395 (1 086)	2,769 (1 256)
+12 ft (3.66 m)	3,201 (1 452)	3,701 (1 679)		2,536 (1 151)	2,935 (1 331)
+10 ft (3.05 m)	3,281 (1 488)	3,797 (1 722)		2,593 (1 176)	3,001 (1 361)
+8 ft (2.44 m)	3,263 (1 480)	3,783 (1 716)		2,564 (1 163)	2,972 (1 348)
+6 ft (1.83 m)	3,213 (1 457)	3,732 (1 693)		2,549 (1 156)	2,961 (1 343)
+4 ft (1.22 m)	3,146 (1 427)	3,662 (1 661)		2,521 (1 144)	2,935 (1 331)
+2 ft (0.61 m)	3,077 (1 396)	3,590 (1 628)		2,489 (1 129)	2,904 (1 317)
Ground Level	3,018 (1 369)	3,528 (1 600)		2,489 (1 129)	2,904 (1 317)
-2 ft (0.61 m)	2,965 (1 345)	3,474 (1 576)		2,466 (1 118)	2,882 (1 307)
-4 ft (1.22 m)	2,935 (1 331)	3,446 (1 563)		2,446 (1 109)	2,866 (1 300)
-6 ft (1.83 m)	2,938 (1 333)	3,455 (1 567)		2,443 (1 108)	2,869 (1 301)
-8 ft (2.44 m)	3,007 (1 364)	3,541 (1 606)		2,465 (1 118)	2,899 (1 315)
-10 ft (3.05 m)	3,175 (1 440)	3,685 (1 671)		2,530 (1 148)	2,979 (1 351)
-12 ft (3.66 m)	—	—		2,707 (1 228)	3,187 (1 446)
-14 ft (4.27 m)	—	—		3,239 (1 469)	3,759 (1 705)
Dipper Lift					
+14 ft (4.27 m)	—	—		4,281 (1 942)	4,281 (1 942)
+12 ft (3.66 m)	5,618 (2 548)	5,618 (2 548)		4,046 (1 835)	4,046 (1 835)
+10 ft (3.05 m)	5,399 (2 449)	5,399 (2 449)		3,984 (1 807)	3,984 (1 807)
+8 ft (2.44 m)	5,360 (2 431)	5,360 (2 431)		3,913 (1 775)	3,913 (1 775)
+6 ft (1.83 m)	6,030 (2 735)	6,030 (2 735)		4,166 (1 889)	4,166 (1 889)
+4 ft (1.22 m)	7,203 (3 267)	7,203 (3 267)		4,102 (1 861)	4,102 (1 861)
+2 ft (0.61 m)	—	—		4,850 (2 200)	4,850 (2 200)

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

		Extendahoe®	
		Retracted	Extended
Digging depth:			
Maximum		14 ft 6 in (4.43 m)	18 ft 0 in (5.48 m)
Maximum with hi-capacity bucket		15 ft 1 in (4.59 m)	18 ft 6 in (5.64 m)
2 ft (610 mm) flat bottom		14 ft 5 in (4.39 m)	17 ft 11 in (5.45 m)
8 ft (2.44 m) flat bottom		13 ft 5 in (4.09 m)	17 ft 1 in (5.22 m)
Overall reach from:			
Rear axle centerline		21 ft 11 in (6.68 m)	25 ft 4 in (7.71 m)
Swing pivot		18 ft 3 in (5.56 m)	21 ft 8 in (6.60 m)
Loading height		12 ft 0 in (3.66 m)	14 ft 4 in (4.38 m)
Loading reach		4 ft 8 in (1.42 m)	7 ft 3 in (2.22 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:			
Flip pad		10 ft 9 in (3.28 m)	10 ft 9 in (3.28 m)
Cast pad		11 ft 1 in (3.38 m)	11 ft 1 in (3.38 m)
Digging force:			
Bucket cylinder – SAE rated 3,460 psi		13,795 lb (61 363 N)	13,795 lb (61 363 N)
Bucket cylinder – Power Lift		15,070 lb (67 039 N)	15,070 lb (67 039 N)
Dipper cylinder – SAE rated 3,460 psi		8,657 lb (38 508 N)	6,305 lb (28 045 N)
Dipper cylinder – Power Lift		9,458 lb (42 071 N)	—
Leveling angle:			
Flip pad		11.5°	11.5°
Cast pad		12.4°	12.4°

NOTE: Lift capacities apply straight to the rear of prime mover. Equipped with 24 in (610 mm) Universal heavy-duty trenching bucket and Case coupler except as noted.

STANDARD EQUIPMENT

OPERATOR ENVIRONMENT

See page 1

ENGINE

FPT F5BFL413B diesel
Selective Catalytic Reduction – SCR
Full flow engine oil filter
Aspirated air cleaner – replaceable dual element dry type with radial seal
Fuel filter with water trap
Radiator with overflow 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, limited slip differential and drive shaft guard
Rear axle:
4WD heavy-duty outboard planetary drive, with 21.0 L x 24.0 tires
Torque converter – 12 in (305 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
Drive shaft guard – 4WD models

HYDRAULICS

Ground level remote hydraulic test ports
Variable displacement axial piston pump
Pump:
41 gpm @ 3,000 psi
(156.2 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
Extendahoe®
Cleated dirt stabilizer pads

OTHER

Front tire 12.5/80 x 18.0, 10-PR
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

OPTIONAL EQUIPMENT

OPERATOR ENVIRONMENT

Speed selectable Auto Ride Control
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
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
Hydraulic bucket quick coupler
Universal coupler – CAT/Deere compatible
Flip over stabilizer pads
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:
12.5/80 x 18, 10 PR
Rear tires:
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

CaseCE.com

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CASE Construction Equipment is biodiesel-friendly. NOTE: All engines meet current EPA emissions regulations. All specifications are stated in accordance with SAE Standards or Recommended Practices, where applicable.



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.

Form No. CCE202012580SNWT
Replaces Form No. CCE201810580SNWT

580SN WT

7 of 7

580N EP | 580N | 580SN | 580SN WT | 590SN

DESIGN ADVANTAGES

CONSISTENT LIFTING ABOVE AND BELOW GRADE WITH THE OVER-CENTER BACKHOE DESIGN

- A minimum 15% of backhoe weight transfers to the front axle for better stability and a smoother ride, while roading
- Raises the bucket higher off the ground than the competition
- The ergonomic foot rest contributes to high-end comfort during long hours on the jobsite

1. What is another benefit of over-center backhoe design?

LOWER OWNING & OPERATING COSTS WITH CASE'S EXCELLENT SERVICEABILITY

- Forward Tilting Hood that gives full, ground level access to all the daily service check points
- Outboard brakes allow full servicing of the brakes without requiring axle removal
- Engine Protection Shutdown prevents engine damage from severe conditions

2. What else does CASE have on the outer portion of the axles?

CASE N SERIES BACKHOE LOADERS PROVIDE OPTIMUM OPERATOR COMFORT

- Rear quarter windows that open 180° for excellent airflow and communication
- Industry exclusive, fully integrated, backhoe hydraulic quick coupler option easily changes buckets without leaving the cab
- For those really cold days, the heated seat option can make work much more enjoyable
- 3-year Advanced SiteWatch™ subscription included

3. How many adjustments are in the Pilot Control Towers to ensure every operator is comfortable?

CUSTOMIZE THE MACHINE TO THE OPERATOR

- CASE offers 3 transmissions: a traditional PowerShuttle, Powershift S-Type or a Powershift H-Type. Both Powershift models have auto shift and SmartClutch rollout control
- A choice of backhoe operating controls: Pilot, CASE Foot Swing or Two Lever
- Stay versatile with the universal bucket coupler option that can be used with any bucket or attachment manufacturer.

4. What are the main differences between the Powershift S-Type and the Powershift H-Type transmissions?

DAY OR NIGHT OPERATION WITH THE COMFORTABLE CASE CAB DESIGN

- Flexlights can be adjusted to give the operator 360° of visibility during nighttime operation
- High illumination easy flex side lights greatly improve nighttime production
- Side lights are optional on the 580N EP

5. Are the Flexlights optional equipment on any models?

PRODUCTIVITY (LOADER FEATURES)

Lift more, grade deeper and dump further into the center of a truck with the CASE Loader design. The increased length of the CASE loader arms and the improved lifting capacities allow operators to be more productive in a day. All of this without sacrificing the traditional CASE loader arm design.



6. Why are longer loader arms beneficial when loading material into dump trucks?

PERFORMANCE (BACKHOE FEATURES)

CASE N Series Backhoe Loaders can out lift our top market place competitors with its Power Lift feature. Power Lift not only increases the lifting performance to a level of a much larger machine, it also increases arm and bucket forces in order to break through tough ground without having to change attachments.

Protected hose routing via the inside of the backhoe boom and arm make the N Series optimally fit for demolition applications as well as improving the transport height.

FUEL SAVINGS PACKAGE

Auto-Idle, Auto-Engine Shutdown and ECO mode all provide additional fuel saving technology.

580N EP EFFICIENT POWER

The 580N EP is an excellent choice for those needing a powerful, reliable unit with a standard feel. Just the basics to get the job done.

The 74 horsepower, 3.4 liter engine uses a Diesel Oxidation Catalyst with a maintenance-free Particulate Matter Catalyst to meet Tier 4 Final emission standards.

A great choice to add to your fleet, or to start it.

GETTING THE MOST OUT OF YOUR DEMO

PRO CONTROL SYSTEM (PCS, if equipped)

1. Be sure the backhoe hydraulics are fully warmed up to operating temperature.
2. Do this by cycling the backhoe through operating movements multiple times.
3. After fully warmed up, have the operator swing the backhoe side to side.
 - A. The Extendahoe® can be extended or retracted.
 - B. Movement must be over 6 inches to get the full effect.
4. At the desired swing point, have them remove their hand from the control lever.
5. The backhoe will stop in that precise location without rebounding from side to side.

IMAGE KEY

- A. Transmission Disconnect
- B. Differential Lock
- C. Powershift Kick-down Button
- D. Proportional Loader Auxiliary Hydraulic Control (by lifting the tab and loosening a screw the thumb control can be rotated and slid up to be locked in for broom applications)



TIER 4 SOLUTIONS



580N, 580SN, 580SN WT & 590SN

- Selective Catalytic Reduction Technology meets Tier 4 Final emission standards with only an SCR Canister. A Diesel Oxidation Catalyst is not used simplifying the design and creating easier access to the engine.
- Added fuel savings with the Fuel Economy Package.

580N EP

- Diesel Oxidation Catalyst and Particulate Matter Catalyst meet Tier 4 Final emission standards.

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BACKHOE OPERATION (POWER LIFT OPTION) (580 Super N and Larger Machines)

1. Perform the "PCS" demonstration first, or be sure the hydraulics are fully warmed up to operating temperature.
2. Obtain an item heavy enough to challenge the model of machine being used, such as a manhole section, and safely secure to the lifting ring on the machine.
 - A. Consult with a local supplier for weights of available structures.
 - B. Review Backhoe lifting capacities as they will vary with model and Extendahoe® position.
3. After fully warmed up, have the operator lift the structure straight up, from grade level or below grade level, as high as safely possible.
 - A. Extendahoe® can be extended or retracted to show varying lifting capabilities.
 - B. Safely lower structure back to the ground.
4. Have the operator activate the Power Lift rocker switch.
 - A. The Power Lift rocker switch is found on the left side console for easy access while the operator is in the rear facing position.
 - B. Notice the machine RPMs will decrease.
 - C. Power Lift is now activated and hydraulic pressures are increased.
 - D. Keep in mind that the slower speeds due to lower RPMs will allow more precise placement of the lifting object.
5. Perform the same lifting and placing operation while Power Lift is activated.
 - A. Higher pressure significantly improves backhoe performance.
 - B. The operator now has the ability to precisely place the object with a steady smooth movement.
6. Power Lift also increases the arm and bucket pressures, which improves overall backhoe performance.

ANSWER KEY

1. *What is another benefit of the over-center backhoe design?*
Answer: *Not only does the over-center design deliver great departure angles and superior roading, it helps CASE realize a more consistent lifting load throughout the full backhoe cycle.*
2. *What else does CASE have on the outer portion of the axles?*
Answer: *CASE also has outboard planetary axles that raise the ground clearance and distributes the torque to the outside of the axles while improving service access.*
3. *How many adjustments are in the Pilot Control Towers to ensure every operator is comfortable?*
Answer: *CASE Pilot Controls can be infinitely adjusted fore/aft, tilting in/out (from/towards) the operator. Adjustments can be made to the wrist rests (raise/lower) as well.*
4. *What are the main differences between the Powershift S-Type and the Powershift H-Type transmissions?*
Answer: *The S-Type transmission uses electronic synchronizers to select gears and the H-Type uses hydraulic fluid.*
5. *Are the Flexlights optional equipment on any models?*
Answer: *Flexlights are optional on the 580N EP only.*
6. *Why are longer loader arms beneficial when loading material into dump trucks?*
Answer: *The load can be distributed more evenly over the truck axles. Trucks can be loaded faster without having to load from both sides to distribute the weight of the load evenly.*