# 580 SN

# LOADER / BACKHOE TIER 4 INTERIM CERTIFIED

#### **ENGINE**

Model	Case F5C Diesel,		
Tier 4 Interi	m Emissions Certified		
Type 4	-stroke, turbocharged		
Cylinders	4		
Bore/Stroke	3.9 in x 4.33 in (99 mm x 110 mm)		
Displacement	207 in <sup>3</sup> (3.4 L)		
Fuel injection	Direct high pressure common rail (HPCR)		
Fuel	Diesel		
Fuel filter	w/ water trap		
Air intake	Cross-flow		
Cooling	Liquid		
Engine speeds* Rated speed, full load Low idle High idle, no load	RPM 2200 900 – 1000 2330 – 2430		
Horsepower @ 2200 RPM			
Gross Net w/ viscous fan** Net	97 hp (72 kW) 95 hp (71 kW) 90 hp (67 kW)		
Maximum torque @ 1400	RPM:		

326 lb·ft (442 N·m) Net Torque rise at rated speed 45% NOTE: \*Engine speeds with standard transmission.

334 lb·ft (453 N·m)

333 lb·ft (452 N·m)

Meets federal emission regulations.

\*\* Viscous fan included with Cab Convenience package.

Gross

Net w/ viscous fan\*\*

Hadiator:	
Core size area	486 in <sup>2</sup> (3145 cm <sup>2</sup> )
Rows of tubes/with AC	3/5

39 degree fan:

7 blade suction Style Diameter 19.65 in (499 mm) 33°/39° Angle - std./opt. Ratio 1.1:1 Water pump style Integral

Engine oil pump:

Deep sump plate cooler w/ pressurized under-piston nozzles

Pump operating angle ratings:

Side-to-side Rated 35° Fore and aft Rated 35° Oil filtration Replaceable, full-flow cartridge

## **POWERTRAIN**

Transmission - optional:

4F-4R Power Shuttle Synchromesh transmission manual gear shift, fully synchronized

Transmission - standard:

Powershift S-Type, 4F-3R fully synchronized

NOTE: Specifications below apply to both Power Shuttle and Powershift S-Type transmission unless otherwise indicated

#### POWERTRAIN (CONT.)

Gear ratios	Forward/Reverse
1st	5.603/4.643
2nd	3.481/2.884
3rd	1.584/1.313
4th	0.793/0.657*

NOTE: \*4R not available on Powershift S-Type.

#### Travel speeds:

	Forward	Reverse
	mph (km/h)	mph (km/h)
1st	3.8 (6.1)	4.5 (7.3)
2nd	6.0 (9.7)	7.2 (11.6)
3rd	12.8 (20.6)	15.4 (24.7)
4th	24.0 (38.6)	28.8* (46.3)

NOTE: Travel speeds at 2293 engine RPM with 19.5 L x 24 tires. Speeds decrease with 17.5 L x 24 rear tires. 4R not available on Powershift S-Type.

Transmission - optional:

Powershift H-Type, 4F-3R hydraulic clutch shifting with auto function

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

## Travel speeds:

	Forward	Reverse
	mph (km/h)	mph (km/h)
1st	3.9 (6.2)	4.6 (7.4)
2nd	6.3 (10.1)	7.5 (12.1)
3rd	13.3 (21.4)	16.0 (25.7)
4th	23.6 (38.0)	_

NOTE: Travel speeds at 2312 engine RPM with 19.5 L x 24 tires. Speeds decrease with 17.5 L x 24 rear tires.

Torque converter ratio	2.6
Differential lock	On-the-go
	push-button activation

Front 4WD/Rear axle: Differential ratio 2.0/2.5 Planetary hub ratio 6.0/6.4

12.0/16.0

Service brakes:

Total reduction ratio

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

Disc area 384 in<sup>2</sup> (.25 m<sup>2</sup>)

Parking brakes:

Trans Mounted spring applied hydraulic release (SAHR)

# ELECTRICAL

Voltage	12 Volts, negative ground
Alternator	120 amp
Battery	850 cold-cranking amps

#### ELECTRICAL (CONT.)

Opt. batteries (2)	850 cold-cranking amps
Power plugs (2)	30 amps total

#### OPERATOR ENVIRONMENT

ROPS/FOPS canopy: Key start: Hydrostatic steering; Vinyl mechanical suspension seat w/ 180° swivel; Seat turn around; Electronic hand and foot throttles; Ergonomic loader control lever w/ push-button activation of differential lock and transmission de-clutch: Backhoe footswing w/3 lever control; (2) Accessory power plugs (30 amp); Anti-vandalism covers (canopy only); Cup holder; Coat hook w/ tether strap (cab only); Interior rearview mirror; 2 in (51 mm) retractable seat belt; Storage compartment w/lid; Left side storage tray.

Vehicle Control Module w/ menu driven options and onboard diagnostics:

Foot throttle sensitivity; Cold weather idle settings; Maintenance settings.

#### Gauges:

Engine water temperature; Converter oil temperature; Fuel; Tachometer/hourmeter; Voltmeter.

# Warning lights:

Air cleaner restriction: Alternator: A/C high pressure; Cold start; Engine oil pressure; Hydraulic oil filter bypass; Parking brake; I ow fuel.

Audible alarms w/ diagnostics:

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

Horn - dual switched front & rear.

### **OPERATING WEIGHT**

# Configuration 1 - SAE Transport:

82 in (2.08 m) LL bucket, 4WD, 19.5 L x 24 rear tires, standard dipper, 24 in (610 mm) HD bucket, flip stabilizer pads, ROPS cab, nonsuspension seat, dual battery, no operator: 16,239 lb (7366 kg)

# Configuration 2 - SAE Transport:

82 in (2.08 m) loader bucket, 4WD, 19.5 L x 24 rear tires. Extendahoe. 24 in (610 mm) HD bucket, flip stabilizer pad, 700 lb (318 kg) CWT, ROPS cab, cloth seat, dual battery, mechanical backhoe coupler, no operator, power synchro-transmission:

17.226 lb (7814 ka)

Add-on weights:	
Cab (over canopy)	0 lb (0 kg)
Counterweights	700 lb (318 kg)
Extendahoe®	286 lb (130 kg)
4WD w/ driveshaft guard	283 lb (128 kg)

#### **HYDRAULICS**

_		
$\mathbf{p}_{\mathbf{i}}$	m	n.

Bosch Rexroth Series 31 Variable Displacement Axial Piston Pump

## 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:

40 gpm @ 2,340 psi (151.4 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 with proportional thumb switch w/ detent on loader control handle:

0 to 31.5 gpm (0 to 119 L/min)

Backhoe flow @ rated engine RPM:

40 gpm @ 3,100 psi (151.4 L/min @ 161 bar)

### Manual backhoe control valve:

Six or seven monoblock open center control valve. Features "Pro-Control" which includes custom designed spools for each individual function along with "swing cushioning" valve for zero-wag swing control. Basic control valve has an open center parallel circuit for all functions.

# Pilot backhoe control valve:

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

# Unidirectional auxiliary hydraulics:

Unidirectional hydraulic valve is equipped with 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

## SERVICE CAPACITY

Fuel tank	42 gal (159 L)
Hydraulic system:	
Total	126 qt (119.2 L)
w/ Extendahoe®	132 qt (124.9 L)
Reservoir w/ filter	58 qt (54.5 L)
Reservoir w/o filter	56 qt (52.6 L)
Transmission – total system:	
2WD Standard	18 qt (17 L)
2WD Powershift S-Type	23 qt (21.7 L)
4WD Standard	21 qt (19.4 L)
4WD Powershift S-Type	22 qt (20.7 L)
4WD Powershift H-Type	19 qt (18 L)
Front axle:	
4WD Differential	8.1 qt (7.7 L)
4WD Planetaries (each)	0.5 qt (0.5 L)
Rear axle:	
Differential & Planetaries	14.4 qt (13.6 L)
Engine oil w/ filter	14.4 qt (13.6 L)
Cooling system:	
w/ heater	19 qt (18 L)
w/o heater	18.3 qt (17.3 L)
Window washer reservoir	3.0 qt (2.8 L)

## **OTHER SPECIFICATIONS**

# Front tires:

2WD – 11 L x 16, 10-ply rating 4WD – 12 L x 16.5, 8-ply rating

#### Rear tires

2/4WD - 19.5 L x 24, 10-ply rating 2/4WD - 17.5 L x 24, 10-ply rating

# Loader:

Single-lever control for lift and tilt; Positive hold float; Return-to-dig; Automatic self-leveling; In-line, reverse linkage; Dual parallel dump cylinders; Clutch disconnect button on loader control and shift levers; Bucket position indicator.

# Loader bucket sizes:

	0.101 0.200.				
Width	Weight	Struck	Heaped		
	Long L	ip Bucket			
82 in w/o bolt-on edge / 93 w/bolt-on edge					
82 in	664 lb	0.88 yd <sup>3</sup>	1.01 yd³		
(2.08 m)	(392 kg)	(0.67 m <sup>3</sup> )	(0.77 m <sup>3</sup> )		
93 in	933 lb*	1.07 yd <sup>3</sup>	1.25 yd³		
(2.36 m)	(423 kg)	(0.82 m <sup>3</sup> )	(0.96 m <sup>3</sup> )		
4 IN 1 <sup>®</sup> Bucket w/ bolt-on edge					
82 in	1,451 lb*	0.85 yd <sup>3</sup>	1.04 yd³		
(2.08 m)	(658 kg)	(0.65 m <sup>3</sup> )	(0.80 m <sup>3</sup> )		

NOTE: \*Weight of 4IN1 bucket includes edges, cylinders, and tube lines.

## **OTHER SPECIFICATIONS**

(CONTINUED)

Turning diameter:	
2WD:	
Brakes on	10 ft 8 in (3.24 m)
Brakes off	12 ft 4 in (3.76 m)
4WD - engaged:	
Brakes on	11 ft 0 in (3.36 m)
Brakes off	14 ft 2 in (4.31 m)
4WD – disengaged:	
Brakes on	10 ft 12 in (3.35 m)
Brakes off	12 ft 8 in (3.85 m)

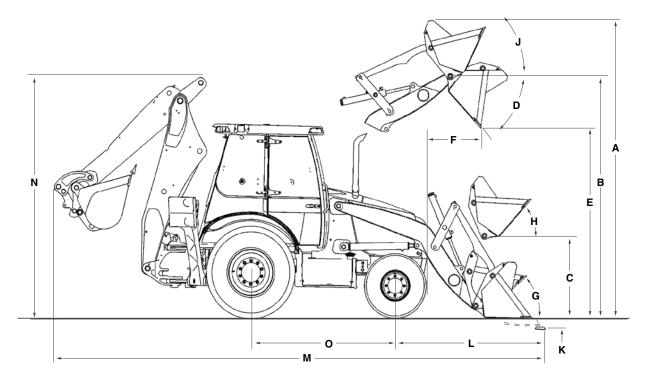
NOTE: Turning radius dimensions curb to curb w/ 17.5 L x 24 tires.

#### Backhoe:

Over center design, Fabricated "S" boom; Pro-Control System; Dipperstick integrated serrated grip teeth; 17,940 lb·ft (24 370 N·m) swing torque; Case attachment coupler; Foot-swing w/ 3 lever control; Wing stabilizers w/ cleated dirt pad.

#### Backhoe bucket sizes:

Width	Weight	Heaped
	Universal Buckets	S
12 in	295 lb	3.40 ft <sup>3</sup>
(305 mm)	(134 kg)	(0.10 m <sup>3</sup> )
18 in	356 lb	5.30 ft <sup>3</sup>
(457 mm)	(162 kg)	(0.15 m³)
24 in	427 lb	7.70 ft <sup>3</sup>
(610 mm)	(194 kg)	(0.22 m <sup>3</sup> )
30 in	489 lb	10.20 ft <sup>3</sup>
(762 mm)	(222 kg)	(0.29 m³)
36 in	552 lb	12.70 ft <sup>3</sup>
(914 mm)	(251 kg)	(0.36 m <sup>3</sup> )
Hig	gh Capacity Buck	ets
24 in	447 lb	8.50 ft <sup>3</sup>
(610 mm)	(203 kg)	(0.24 m <sup>3</sup> )
30 in	502 lb	10.60 ft <sup>3</sup>
(762 mm)	(228 kg)	(0.30 m <sup>3</sup> )



# **LOADER DIMENSIONS**

	Long Lip Bucket*	4 IN 1 <sup>®</sup> Bucket
A. Overall operating height – fully raised	13 ft 9 in (4.18 m)	13 ft 8 in (4.16 m)
Height to:		
Bucket hinge pin fully raised	11 ft 3 in (3.42 m)	11 ft 3 in (3.42 m)
Bucket hinge pin @ SAE carry	13.6 in (345 mm)	13.6 in (345 mm)
D. Dump angle @ full height	47°	47°
Dump clearance @ full height, 45° dump:		
Bucket	8 ft 10 in (2.69 m)	8 ft 11 in (2.71 m)
Clam open	NA	9 ft 8 in (2.96 m)
Dump reach @ full height, 45° dump (from bumper):		
Bucket	31.5 in (801 mm)	29.1 in (738 mm)
Clam open	NA	15.3 in (388 mm)
Bucket rollback:		
G. @ groundline	42°	42°
<b>1.</b> @ SAE carry	42°	42°
l. @ full height	Adjustable	Adjustable
C. Digging depth below grade:		
Bucket flat	6.1 in (155 mm)	4.8 in (122 mm)
Clam open (dozing)	NA	4.1 in (103 mm)
Reach from front axle centerline – bucket on ground	6 ft 8 in (2.09 m)	6 ft 7 in (2.04 m)
ift capacity to full height (calculated values)	7,044 lb (3195 kg)	6,703 lb (3040 kg)
Breakout force (calculated values):		
Lift cylinders	9,833 lbf (4460 daN)	9,610 lbf (4359 daN)
Dump cylinders	10,947 lbf (4965 daN)	11,658 lbf (5288 daN)
Bucket cutting edge width	82.5 in (2.09 m)	82 in (2.08 m)
Maximum grading angle	114°	114°
Maximum clam opening	NA	38.3 in (972 mm)
Moldboard height	NA	36.8 in (934 mm)
Raising time to full height – manual/pilot controls	3.4/3.6 sec	3.4/3.6 sec
Bucket dumping time	1.8/2.0 sec	1.8/2.0 sec
owering time:		
Power down	2.5/2.6 sec	2.5/2.6 sec
Return-to-dig	3.6/2.8 sec	3.6/2.8 sec
Clam:		
Open time	NA	1.3 sec
Close time	NA	1.1 sec

NOTE: \*Loader dimensions taken with 4WD, 19.5 L x 24 rear tires.

# **DIMENSIONS**

	2WD w/ 17.5 L x 24 rear tires	4WD w/ 19.5 L x 24 rear tires
M. Overall transport length:		
Long Lip bucket w/ Quick Coupler	23 ft 5 in (7.14 m)	23 ft 4 in (7.10 m)
4 in 1® bucket w/ Quick Coupler	23 ft 3 in (7.07 m)	23 ft 1 in (7.04 m)
Long Lip bucket w/ Straight Links	23 ft 6 in (7.15 m)	23 ft 4 in (7.12 m)
4 in 1 <sup>®</sup> bucket w/ Straight Links	23 ft 3 in (7.09 m)	23 ft 2 in (7.06 m)
Overall transport width	7 ft 2 in (2.17 m)	7 ft 2 in (2.17 m)
Height:		
To top of canopy	8 ft 8 in (2.64 m)	8 ft 9 in (2.66 m)
To top of cab	8 ft 9 in (2.68 m)	8 ft 11 in (2.72 m)
To top of exhaust stack	8 ft 5 in (2.58 m)	8 ft 7 in (2.62 m)
N. Transport	10 ft 10 in (3.29 m)	11 ft 1 in (3.37 m)
Ground clearance at backhoe frame	12 in (304 mm)	15 in (381 mm)
Angle of departure	15.3°	19°
Front wheel tread:		
11 L x 16	67.5 in (1.72 m)	
12 L x 16.5	67.7 in (1.72 m)	
19.5 L x 24	61.2 in (1.55 m)	
17.5 L x 24	63.1 in (1.60 m)	
Width across tires:		
11 L x 16	79.3 in (2.02 m)	
12 L x 16.5	81.1 in (2.06 m)	
19.5 L x 24	81.4 in (2.07 m)	
17.5 L x 24	81.7 in (2.07 m)	
	2WD	4WD
O. Wheelbase:		
19.5 L x 24	84 in (2.13 m)	84.5 in (2.15 m)
17.5 L x 24	84 in (2.13 m)	84.5 in (2.15 m)

# **CYLINDERS**

	Bore Diameter	<b>Rod Diameter</b>	Stroke	Closed Length
Loader:				
Lift (2)	3.25 in (82.6 mm)	1.75 in (44.5 mm)	28.86 in (733 mm)	42.95 in (1062 mm)
Dump (2)	3.0 in (76.2 mm)	1.5 in (38.1 mm)	20.33 in (516.5 mm)	29.9 in (759.5 mm)
4 IN 1 <sup>®</sup> clam (2)	3.0 in (76.2 mm)	1.75 in (44.5 mm)	9.08 in (230.6 mm)	19.62 in (498.3 mm)
Backhoe:				
Boom	5.0 in (127 mm)	2.5 in (63.5 mm)	38.25 in (971.6 mm)	52.82 in (1341.6 mm)
Dipperstick	4.75 in (120.7 mm)	2.5 in (63.5 mm)	25.14 in (628.5 mm)	39.65 in (1007 mm)
Bucket	3.5 in (88.9 mm)	2.5 in (63.5 mm)	35.35 in (897.9 mm)	48.17 in (1223.6 mm)
Extendahoe®	3.0 in (76.2 mm)	1.75 in (44.5 mm)	42.05 in (1068 mm)	56.22 in (1428 mm)
Swing (2)	4.0 in (101.6 mm)	2.0 in (50.8 mm)	11.5 in (292 mm)	24.44 in (620.8 mm)
Stabilizer (2)	4.5 in (114.3 mm)	2.25 in (57.2 mm)	21.37 in (542.9 mm)	33.87 in (860.2 mm)

# **AXLE RATINGS**

	Front – 2WD	Rear	Front – 4WD
Maximum static	70,821 lb (32 124 kg)	90,145 lb (40 889 kg)	64,613 lb (29 308 kg)
Dynamic operating	44,261 lb (20 076 kg)	56,200 lb (25 492 kg)	39,328 lb (17 839 kg)
Static operating	17,704 lb (8030 kg)	22,480 lb (10 197 kg)	15,732 lb (7136 kg)

# **BACKHOE LIFT CAPACITIES**

	Standard Backhoe		Extendahoe <sup>®</sup>			
			Retracted		Extended	
	Standard	Power Lift	Standard	Power Lift	Standard	Power Lift
Boom Lift	Lift Capacity lb (kg)					
+16 ft (4.87 m)	_	_	_	_	2,115 (959)	2,298 (1043)
+14 ft (4.27 m)	3,039 (1378)	3,285 (1490)	2,837 (1287)	3,083 (1398)	2,395 (1086)	2,603 (1181)
+12 ft (3.66 m)	3,413 (1548)	3,691 (1674)	3,201 (1452)	3,479 (1578)	2,536 (1151)	2,757 (1250)
+10 ft (3.05 m)	3,499 (1587)	3,784 (1716)	3,281 (1488)	3,566 (1618)	2,593 (1176)	2,818 (1278)
+8 ft (2.44 m)	3,485 (1581)	3,768 (1709)	3,263 (1480)	3,546 (1608)	2,564 (1163)	2,786 (1264)
+6 ft (1.83 m)	3,438 (1559)	3,717 (1686)	3,213 (1457)	3,492 (1584)	2,549 (1156)	2,770 (1257)
+4 ft (1.22 m)	3,374 (1530)	3,648 (1655)	3,146 (1427)	3,420 (1551)	2,521 (1144)	2,741 (1243)
+2 ft (0.61 m)	3,307 (1500)	3,575 (1622)	3,077 (1396)	3,345 (1517)	2,489 (1129)	2,706 (1227)
Ground Level	3,251 (1475)	3,513 (1594)	3,018 (1369)	3,280 (1488)	2,489 (1129)	2,706 (1227)
-2 ft (0.61 m)	3,201 (1452)	3,459 (1569)	2,965 (1345)	3,223 (1462)	2.466 (1118)	2.680 (1215)
-4 ft (1.22 m)	3,175 (1440)	3,430 (1556)	2,935 (1331)	3,190 (1447)	2,446 (1109)	2,659 (1206)
-6 ft 1.83 m)	3,182 (1443)	3,437 (1559)	2,938 (1333)	3,193 (1448)	2,443 (1108)	2,656 (1205)
-8 ft (2.44 m)	3,258 (1478)	3,520 (1597)	3,007 (1364)	3,269 (1483)	2,465 (1118)	2,679 (1215)
-10 ft (3.05 m)	3,441 (1561)	3,717 (1686)	3,175 (1440)	3,451 (1565)	2,530 (1148)	2,750 (1248)
-12 ft (3.66 m)	_	_	_	_	2,707 (1228)	2,943 (1335)
-14 ft (4.27 m)	_	_	_	_	3,239 (1469)	3,521 (1597)
Dipper Lift:						
+14 ft (4.27 m)	_	_	-	_	4,281 (1942)	4,281 (1942)
+12 ft (3.66 m)	5,822 (2641)	5,822 (2641)	5,618 (2548)	5,618 (2548)	4,046 (1835)	4,046 (1835)
+10 ft (3.05 m)	5,600 (2540)	5,600 (2540)	5,399 (2449)	5,399 (2449)	3,984 (1807)	3,984 (1807)
+8 ft (2.44 m)	5,562 (2523)	5,562 (2523)	5,360 (2431)	5,360 (2431)	3,913 (1775)	3,913 (1775)
+6 ft (1.83 m)	6,236 (2829)	6,236 (2829)	6,030 (2735)	6,030 (2735)	4,166 (1889)	4,166 (1889)
+4 ft (1.22 m)	7,424 (3368)	7,424 (3368)	7,203 (3267)	7,203 (3267)	4,102 (1861)	4,102 (1861)
+2 ft (0.61 m)	_	_	_	_	4,850 (2200)	4,850 (2200)

# **BACKHOE OPERATIONAL DATA**

		Exte	ndahoe®
	Standard Backhoe	Retracted	Extended
Digging depth:			
Maximum	14 ft 6 in (4.41 m)	14 ft 6 in (4.41 m)	17 ft 11 in (5.47 m)
Maximum w/ hi-capacity bucket	15 ft 0 in (4.51 m)	15 ft 0 in (4.51 m)	18 ft 6 in (5.63 m)
2 ft (610 mm) flat bottom	14 ft 4 in (4.37 m)	14 ft 4 in (4.37 m)	17 ft 10 in (5.43 m)
8 ft (2.44 m) flat bottom	13 ft 4 in (4.06 m)	13 ft 4 in (4.06 m)	17 ft 1 in (5.19 m)
Overall reach from:			
Rear axle centerline	21 ft 10 in (6.66 m)	21 ft 10 in (6.66 m)	25 ft 3 in (7.69 m)
Swing pivot	18 ft 2 in (5.55 m)	18 ft 2 in (5.55 m)	21 ft 7 in (6.58 m)
Loading height	12 ft 1 in (3.67 m)	12 ft 1 in (3.67 m)	14 ft 5 in (4.38 m)
Loading reach	4 ft 7 in (1.41 m)	4 ft 7 in (1.41 m)	7 ft 3 in (2.20 m)
Swing arc	180°	180°	180°
Bucket rotation:			
Straight Links	175.6°	175.6°	175.6°
Mechanical Coupler	198°	198°	198°
Hyd. Coupler – Extendahoe dipper	194.8°	194.8°	194.8°
Hyd. Couple - Standard dipper	198°	198°	198°
Stabilizer spread - operating:			
Flip pad	9 ft 3 in (2.82 m)	9 ft 3 in (2.82 m)	9 ft 3 in (2.82 m)
Cast pad	9 ft 7 in (2.93 m)	9 ft 7 in (2.93 m)	9 ft 7 in (2.93 m)
Digging force:			
Bucket cylinder - SAE rated 3,460 psi	13,576 lbf (60 388 N)	13,576 lbf (60 388 N)	13,576 lbf (60 388 N)
Bucket cylinder – Power Lift	14,223 lbf (63 267 N)	14,223 lbf (63 267 N)	14,223 lbf (63 267 N)
Dipper cylinder - SAE rated 3,460 psi	8,657 lbf (38 508 N)	8,657 lbf (38 508 N)	6,305 lbf (28 045 N)
Dipper cylinder – Power Lift	9,070 lbf (40 345 N)	9,070 lbf (40 345 N)	6,606 lbf (29 382.7 N)
Leveling angle:			
Flip pad	11.8°	11.8°	11.8°
Cast pad	12.8°	12.8°	12.8°

NOTE: Lift capacities apply straight to the rear of prime mover. 4WD with 19.5 L x 24 tires equipped with 24 in (610 mm) Heavy-duty bucket and Case coupler except as noted.

## STANDARD EQUIPMENT

# **OPERATOR ENVIRONMENT**

See page 2.

#### **ENGINE**

Case F5C Interim Tier 4 with CEGR/DPF after treatment turbocharged diesel

IT4 or Tier 4 A Emissions compliant

Full flow engine oil filter

Air cleaner – replaceable dry type with radial seal

Aspirated air cleaner

Muffler, non spark arresting

Fuel filter w/ water trap

Self-adjusting belt tensioner

Balanced engine

High Pressure Common Rail computer controlled injection with diagnostic features

Electronic throttles (foot and rotary hand)

Antifreeze to -34° F (-37° C)

Radiator with de-aeration bottle

#### LOADER

See page 2.

#### **BACKHOE**

See page 2.

# **POWERTRAIN**

Standard Powershuttle, 4F-4R Power Shuttle Synchromesh transmission

Front axle:

2WD heavy-duty front axle w/ 11 L x 16 tires 4WD heavy-duty mechanically driven front axle w/ 12 L x 16.5 tires and drive shaft guard

Rear axle:

2/4WD heavy-duty outboard planetary drive, w/ 17.5 L x 24, 10 PR (R4) tires

11.8 in (300 mm) torque converter

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

Maximum loader capacity:

40 gpm @ 2,340 psi (151.4 L/min @ 161 bar)

Loader torque regulation:

27.4 gpm @ 3,450 psi (103.4 L/min @ 238 bar)

Maximum backhoe capacity:

40 gpm @ 3,100 psi (151.4 L/min @ 214 bar)

## HYDRAULICS (CONT.)

Backhoe torque regulation:

35 gpm @ 3,450 psi (132 L/min @ 238 bar)

Heavy-duty oil cooler

7 micron, spin-on oil filter

#### **OTHER**

Forward tilt engine hood

Replaceable, molded front bumpers

Front/rear tie downs

Reflective logos

Lights – cab and canopy:

Rear tail/stop (2)

Front flashers/turn (2)

Rear flashers/turn (2)

# Cab only:

2 front driving lights (55 W)

Adjustable halogen work lights (55 W): 2 front, 2 side (left & right), 4 rear

Canopy only:

2 front driving lights (55 W)

Adjustable halogen work lights (55 W): 2 side (left & right), 2 rear

## **OPTIONAL EQUIPMENT**

# **OPERATOR ENVIRONMENT**

Auto Ride Control - 4WD models

Standard Ride Control - 2WD models

Comfort Steering with momentary latching switch, two speed steering pump and 3rd/4th gear cutout.

ROPS/FOPS certified protective cab w/ rear wipers and floor mat

Cab Convenience Package containing:

Pull-down sunvisor

Window washer, front and rear

Left-hand storage tray

Deluxe interior package

Tilt steering column

Sound Reduction Package for cab models: levels reduced to 72 dB (A)

Right-hand threshold storage box Viscous fan

Air-conditioning for cab models

Mechanical suspension seat with flip-up arm rests, 180° swivel, cloth or vinyl, adjustable seat and weight, backrest angle, lumbar and cushion angle

Air Ride suspension seat with flip-up arm rests, 180° swivel

Electric height adjustment, adjustable back rest and lumbar support – cab units cloth, canopy units vinyl

Pull-down sunvisor for canopy models

Radio, AM/FM Stereo/WB, MP3 aux input (cab models)

3 in (75 mm) seat belt for mechanical and air suspension seat

#### **ENGINE**

Cold Weather Starting Aid w/ dual 12 Volt batteries

Block heater

#### LOADER

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

Hydraulic front quick coupler

Bolt-on cutting edges

Loader linkage w/o loader bucket

Tool portfolio of additional attachments

Buckets (see page 2)

# BACKHOE

Auxiliary hydraulics with flow from 0 to 36 gal/min (0 to 136 L/min)

Extendahoe®

Power Lift

Serrated dipper teeth extensions

Two-lever control (backhoe or Extendahoe)

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

Flip over stabilizer pads

Cemetery/Street pads

Hydraulic bucket quick coupler

Bucket retrofit kit

Buckets (see page 2)

# POWERTRAIN

Powershift S-Type transmission, 4F-3R electronic transmission controller and kick down in loader control lever (2WD or 4WD)

Powershift H-Type transmission, 4F-3R hydraulic clutch shifting with auto function

Rear axle heavy-duty outboard planetary drive w/ 19.5 L x 24 tires either 2WD or 4WD

# HYDRAULICS

Auxiliary backhoe unidirectional hydraulics Auxiliary backhoe bidirectional hydraulics Hand lever operated for manual controls Button operated for pilot controls

#### OTHER

Electrical master disconnect switch and remote jump start

11 L x 16 or 12 L x 16.5 front tires 17.5 L x 24 or 19.5 L x 24 rear tires

Front counterweights:

700 lb and 1,100 lb (318 kg and 500 kg) Rotating beacon This page intentionally left blank.



NOTE: All specifications are stated in accordance with SAE Standards or Recommended Practices, where applicable.

NOTE: All engines meet current EPA emissions requirements.

IMPORTANT: Case Construction Equipment Inc. reserves the right to change these specifications without notice and without incurring any obligation relating to such change. Case Construction Equipment Inc. does not warrant the safety or reliability of attachments from other manufacturers.

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