# **LOADER / BACKHOE TIER 4 INTERIM CERTIFIED**

#### **ENGINE**

Model	Case F5C,	
Tier 4 Inter	im Emissions Certified	
Type Diesel 4	Diesel 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	
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 875 – 1025 2300 – 2450	
Horsepower @ 2200 RPM: Gross Net w/ viscous fan** Net	85 hp (63 kW) 83 hp (62 kW) 78 hp (59 kW)	
Maximum torque @ 1400 I	RPM:	
Gross Net w/ viscous fan Net	276 lb·ft (374 N·m) 274 lb·ft (372 N·m) 268 lb·ft (364 N·m)	
Torque rise at rated speed	36%	
Radiator: Core type Core size area Rows of tubes	Square wave 486 in² (3145 cm²) 4	
39 degree fan: Style Diameter Ratio	7 blade suction 19.65 in (499 mm) 1.1:1	
Water pump style	Integral	
Engine oil pump:  Deep sump plate cooler	w/ pressurized	

Side to side

under-piston nozzles

Pump operating angle ratings: Rated 35° Fore and aft Rated 35° Oil filtration Replaceable, full flow spin on

NOTE: \*Meets federal emission regulations. \*\*Viscous fan included w/ Cab Convenience package.

#### **POWERTRAIN**

Transmission - standard:

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

Transmission - optional:

Gear ratios

1st

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

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

2nd		3.481/2.884
3rd		1.584/1.313
4th		0.793/0.657*
Travel speeds	Forward mph (kph)	Reverse mph (kph)
1st	3.8 (6.1)	4.5 (7.3)
2nd	6.1 (9.8)	7.3 (11.7)
3rd	12.9 (20.8)	15.5 (24.9)
4th	24.3 (39.1)	29.1 (46.9)*

NOTE: Travel speeds at 2293 engine RPM w/ 19.5 L x 24.0 tires. Speeds decrease w/ 17.5 L x 24.0 rear tires. \*4R not available on Powershift S-Type.

Torque converter ratio	3.2
Differential lock	On-the-go push-button activation
Front 4WD/Rear axle: Differential ratio	2.0/2.5

# Service brakes:

Planetary hub ratio

Total reduction ratio

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

Disc area	384 in² (0.25 m²)
Parking brakes	Trans Mounted
	spring-applied
	hydraulic release – SAHR

# **ELECTRICAL**

Voltage	12 Volts, negative ground
Alternator	120 amp
Battery	850 cold-cranking amps
Opt. batteries (2)	850 cold-cranking amps
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 mirror, convex 3.54 in (90 mm) wide x 10.83 in (275 mm) high; Non-suspension seat – 180° swivel – Vinyl; 2 in (50 mm) retractable seat belt; Cup holder/ storage tray mounted on left-hand fender; Right-hand storage compartment w/lid.

#### Gauges:

Forward/Reverse

5.603/4.643

6.0/6.4

12.0/16.0

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

# Warning lights:

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

#### Audible alarms:

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

Horn dual switched front and rear

# **OPERATING WEIGHT**

# Configuration 1 - SAE Transport:

82 in (2.08 m) LL bucket, 2WD, 17.5 L x 24.0 rear tires, standard dipper, 24 in (610 mm) Trenching bucket, standard cast stabilizer pads, ROPS canopy, vinyl-suspension seat, dual battery, no operator, fully fueled:

14,564 lb (6607 kg)

# Configuration 2 - SAE Transport:

82 in (2.08 m) bucket, 4WD, 19.5 L x 24.0 rear tires, Extendahoe®, 24 in (0.61 m) HD bucket, flip stabilizer pads, 1,100 lb (500 kg) counterweight, ROPS cab, cloth, air-suspension seat, dual battery, no operator, mechanical backhoe quick coupler and 40 gal (151 L) plastic fuel tank:

17,454 lb (7917 kg)

Add-on weights:	
Cab – over canopy	0 lb (0 kg)
Fabricated stabilizer pads	141 lb (64 kg)
Counterweights	700 lb (318 kg)
Extendahoe®	285 lb (129 kg)
4WD w/ driveshaft guard	283 lb (128 kg)
Buckets:	

00 in (0 00 m) 4 INI 1®	1 4E1 lb (CEO O Ica)
82 in (2.08 m) 4 IN 1®	1,451 lb (658.0 kg
82 in (2.08 m) Long Lip	683 lb (310.0 kg
93 in (2.36 m) Long Lip	1,188 lb (539.0 kg
24 in (0.61 m) Heavy-Duty	y Universal:
	427 lb (193.5 kg

#### **HYDRAULICS**

#### Pump:

Parker P330 Single Section Gear Pump

Standard main relief pressure:

3,350 +/- 50 psi @ 28.5 gpm (231 +/- 3.5 bar @ 108 L/min)

# Filtration:

7 micron, return line, full flow, spin on element, condition indicator light for filter.

Oil cooler	Heavy-duty
------------	------------

Loader flow @ rated engine RPM:

28.5 gpm @ 3,000 psi (108 L/min @ 207 bar)

#### Loader control valve:

Two- or three-spool open center monoblock valve. Two- and three-spool valves have a single lever manual control for lift and tilt functions. 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. System Main Relief valve is single stage w/ Manual Backhoe Controls, dual stage relief valve w/ Pilot Backhoe Controls.

Loader auxiliary hydraulics proportional thumb switch w/ detent on loader control handle. Loader auxiliary hydraulics w/ full available flow:

0 - 28.5 gpm (0 - 108 L/min)

Backhoe flow @ rated engine RPM:

28.5 gpm @ 3,000 psi (108 L/min @ 207 bar)

#### Manual backhoe control valve:

Six- or seven-spool monoblock open 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 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 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.

#### **Unidirectional Auxiliary Hydraulics:**

Unidirectional 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

#### **SERVICE CAPACITY**

Fuel tank	42.0 gal (159 L)
Hydraulic system:	
Total	112 qt (106.0 L)
w/ Extendahoe®	118 qt (111.7 L)
Reservoir w/ filter	58 qt (55.0 L)
Reservoir w/o filter	56 qt (53.0 L)
Transmission – total system:	
2WD Standard	18 qt (17.0 L)
2WD Powershift	23 qt (21.7 L)
4WD Standard	21 qt (19.4 L)
4WD Powershift	22 qt (20.7 L)
4WD Front axle:	
Differential	8.1 qt (7.7 L)
Planetaries – each	0.5 qt (0.5 L)
Rear axle:	
Differential and planetaries	14.4 qt (13.6 L)
Engine oil w/ filter	14.4 qt (13.6 L)
Cooling system:	
w/ heater	17.8 qt (16.8 L)
w/o heater	17.0 qt (16.1 L)
Window washer reservoir	3.0 qt (2.8 L)

#### OTHER SPECIFICATIONS

Front tires:	
2WD	11.0 L x 16.0, 10-ply rating
4WD	12.0 L x 16.5, 8-ply rating
Rear tires:	
2/4WD	19.5 L x 24.0, 10-ply rating
2/4WD	17.5 L x 24.0, 10-ply rating
2/4WD	16.9 L x 28.0, 10-ply rating

#### Loader:

Bucket position indicator; Lifting lugs on standard bucket; Single lever control w/ selfleveling 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.

#### Loader bucket sizes:

Width	Weight	Struck	Heaped	
Long	Long Lip Bucket w/o bolt-on edge			
82 in	683 lb	0.87 yd <sup>3</sup>	1.03 yd <sup>3</sup>	
(2.08 m)	(310 kg)	(0.67 m <sup>3</sup> )	(0.79 m <sup>3</sup> )	
93 in	1,188 lb*	1.07 yd <sup>3</sup>	1.25 yd <sup>3</sup>	
(2.36 m)	(539 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 yd³	1.04 yd <sup>3</sup>	
(2.08 m)	(658 kg)	(0.65 m <sup>3</sup> )	(0.80 m <sup>3</sup> )	

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

#### OTHER SPECIFICATIONS (cont.)

Turning diameter*:	
2WD:	
Brakes on	10 ft 8 in (3.24 m)
Brakes off	12 ft 4 in (3.79 m)
4WD – engaged:	
Brakes on	11 ft 4 in (3.45 m)
Brakes off	13 ft 10 in (4.21 m)
4WD – disengaged:	
Brakes on	11 ft 0 in (3.36 m)
Brakes off	12 ft 3 in (3.72 m)

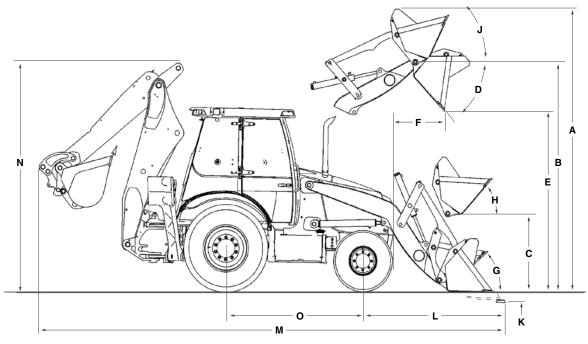
#### Backhoe:

Over center design, fabricated "S" boom; Open-center hydraulics – pro control system; 15,700 lb·ft (21 297 N·m) swing torque; 198° bucket rotation; Foot-swing w/ 3-lever control; Wing stabilizers w/ cleated dirt pad.

### Backhoe bucket sizes:

Width	Weight Heape	
General	Purpose Trenching	Buckets
18 in	231.5 lb	4.70 ft <sup>3</sup>
(457 mm)	(105.0 kg)	(0.13 m <sup>3</sup> )
24 in	272.0 lb	6.26 ft <sup>3</sup>
(610 mm)	(123.4 kg)	(0.18 m³)
	<b>Universal Buckets</b>	
12 in	294.5 lb	3.40 ft <sup>3</sup>
(305 mm)	(133.6 kg)	(0.10 m <sup>3</sup> )
18 in	356.3 lb	5.30 ft <sup>3</sup>
(457 mm)	(161.6 kg)	(0.15 m³)
24 in	426.6 lb	7.70 ft <sup>3</sup>
(610 mm)	(193.5 kg)	(0.22 m³)
30 in	489.4 lb	10.20 ft <sup>3</sup>
(762 mm)	(222.0 kg)	(0.29 m³)
36 in	552.3 lb	12.70 ft <sup>3</sup>
(914 mm)	(250.5 kg)	(0.36 m <sup>3</sup> )
Hi	gh Capacity Bucke	ts
24 in	446.7 lb	8.50 ft <sup>3</sup>
(610 mm)	(202.6 kg)	(0.24 m <sup>3</sup> )
NOTE #T		

NOTE: \*Turning diameter dimensions curb to curb w/ 17.5 L x 24.0 rear tires and 4 IN 1<sup>®</sup> bucket.



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

# **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:		
B. Bucket hinge pin fully raised	11 ft 3 in (3.42 m)	11 ft 3 in (3.42 m)
C. Bucket hinge pin at SAE carry	13.6 in (345 mm)	13.6 in (345 mm)
<b>D.</b> Dump angle at full height	47°	47°
<b>E.</b> Dump clearance at full height, 45° dump:		
Bucket	8 ft 10 in (2.69 m)	8 ft 11 in (2.71 m)
Clam open	_	9 ft 8 in (2.96 m)
F. Dump reach at full height, 45° dump:		
Bucket	31.5 in (801 mm)	29.1 in (738 mm)
Clam open	_	15.3 in (388 mm)
Bucket rollback:		
G. @ Groundline	42°	42°
H. @ SAE carry	42°	42°
J. @ Full height	Adjustable	Adjustable
K. Digging depth below grade:		
Bucket flat	6.1 in (155 mm)	4.8 in (122 mm)
Clam open – dozing	_	4.1 in (103 mm)
L. Reach from front axle centerline – bucket on ground	6 ft 1 in (2.08 m)	6 ft 1 in (2.03 m)
Lift capacity to full height	6,803 lb (3086 kg)	6,454 lb (2930 kg)
Breakout force:		
Lift cylinders	9,506 lb (4228 daN)	9,276 lb (4126 daN)
Dump cylinders	10,622 lb (4724 daN)	11,312 lb (5032 daN)
Bucket cutting edge width	82.5 in (2.09 m)	82.0 in (2.08 m)
Maximum grading angle	114°	114°
Maximum clam opening	<del>-</del>	38.3 in (972 mm)
Moldboard height	_	36.8 in (934 mm)
Raising time to full height	4.6 sec	4.6 sec
Bucket dumping time	1.1 sec	1.1 sec
Lowering time:		
Power down	2.6 sec	2.6 sec
Return-to-dig	3.6 sec	3.6 sec
Clam:		
Open time	_	1.0 sec
Close time	_	1.0 sec

NOTE: \*Loader dimensions taken with 4WD, 19.5 L x 24.0 rear tires.

# **DIMENSIONS**

	2WD with 19.5 L x 24.0 tires	4WD with 19.5 L x 24.0 tires
M. Overall transport length:		
Long Lip bucket with Quick Coupler	23 ft 5 in (7.14 m)	23 ft 4 in (7.10 m)
4 IN 1 <sup>®</sup> bucket with Quick Coupler	23 ft 3 in (7.07 m)	23 ft 1 in (7.04 m)
Long Lip bucket with Straight Links	23 ft 6 in (7.15 m)	23 ft 4 in (7.12 m)
4 IN 1 <sup>®</sup> bucket with Straight Links	23 ft 3 in (7.09 m)	23 ft 2 in (7.06 m)
Overall transport width – rear tires	6 ft 10 in (2.07 m)	6 ft 10 in (2.07 m)
Height:		
To top of canopy	8 ft 9 in (2.66 m)	8 ft 9 in (2.66 m)
To top of cab	8 ft 11 in (2.72 m)	8 ft 11 in (2.72 m)
To top of exhaust stack	8 ft 7 in (2.62 m)	8 ft 7 in (2.61 m)
N. Transport	10 ft 10 in (3.30 m)	11 ft 1 in (3.37 m)
Ground clearance at backhoe frame	15.0 in (380 mm)	15.0 in (380 mm)
Angle of departure	15.3°	19.0°
Front wheel tread:		
11.0 L x 16.0	67.5 in (1.71 m)	67.5 in (1.71 m)
12.0 L x 16.5	67.7 in (1.72 m)	67.7 in (1.72 m)
Rear wheel tread:		
17.5 L x 24.0	63.1 in (1.60 m)	63.1 in (1.60 m)
19.5 L x 24.0	61.2 in (1.55 m)	61.2 in (1.55 m)
Width over tires:		
11.0 L x 16.0	79.3 in (2.01 m)	79.3 in (2.01 m)
12.0 L x 16.5	81.1 in (2.06 m)	81.1 in (2.06 m)
17.5 L x 24.0	81.7 in (2.07 m)	81.7 in (2.07 m)
19.5 L x 24.0	81.4 in (2.07 m)	81.4 in (2.07 m)
O. Wheelbase	84.0 in (2.13 m)	84.5 in (2.15 m)

# **CYLINDERS**

	Bore Diameter	Rod Diameter	Stroke	Closed Length
Loader:				
Lift (2)	3.25 in (82.6 mm)	1.75 in (44.5 mm)	28.86 in (733.0 mm)	41.81 in (1062.0 mm)
Dump (2)	3.00 in (76.2 mm)	1.50 in (38.1 mm)	20.33 in (516.5 mm)	30.31 in (769.9 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	4.50 in (114.3 mm)	2.25 in (57.2 mm)	38.22 in (971.5 mm)	52.82 in (1341.6 mm)
Dipperstick	4.25 in (108.0 mm)	2.25 in (57.2 mm)	25.14 in (628.5 mm)	39.65 in (1007.0 mm)
Bucket	3.25 in (82.6 mm)	2.25 in (57.2 mm)	35.35 in (897.9 mm)	48.17 in (1223.6 mm)
Extendahoe®	3.00 in (76.2 mm)	1.75 in (44.5 mm)	42.05 in (1068.0 mm)	56.22 in (1428.0 mm)
Swing (2)	3.75 in (95.3 mm)	2.00 in (50.8 mm)	11.50 in (292.0 mm)	24.44 in (620.8 mm)
Stabilizer (2)	4.25 in (108.0 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)
Oscillation – front axle	22° total – 11% side to side	_	22° total – 11% side to side

# **BACKHOE LIFT CAPACITIES**

	Standard Backhoe	Exten	Extendahoe®	
		Retracted	Extended	
Boom Lift	Lift Capacity	Lift Capacity	Lift Capacity	
	lb (kg)	lb (kg)	lb (kg)	
+16 ft (4.87 m)	_	_	1,693 (768)	
+14 ft (4.27 m)	2,472 (1121)	2,271 (1030)	1,979 (897)	
+12 ft (3.66 m)	2,857 (1296)	2,644 (1199)	2,124 (964)	
+10 ft (3.05 m)	2,966 (1345)	2,748 (1246)	2,172 (985)	
+8 ft (2.44 m)	2,983 (1353)	2,761 (1252)	2,169 (984)	
+6 ft (1.83 m)	2,963 (1344)	2,739 (1242)	2,173 (985)	
+4 ft (1.22 m)	2,929 (1329)	2,701 (1225)	2,165 (982)	
+2 ft (0.61 m)	2,892 (1312)	2,662 (1207)	2,153 (977)	
Ground Level	2,858 (1297)	2,625 (1191)	2,153 (977)	
-2 ft (0.61 m)	2,834 (1285)	2,598 (1178)	2,145 (973)	
-4 ft (1.22 m)	2,827 (1282)	2,588 (1174)	2,143 (972)	
-6 ft (1.83 m)	2,853 (1294)	2,609 (1183)	2,154 (977)	
-8 ft (2.44 m)	2,949 (1338)	2,698 (1224)	2,189 (993)	
-10 ft (3.05 m)	3,319 (1506)	3,053 (1385)	2,270 (1030)	
-12 ft (3.66 m)	_	_	2,429 (1102)	
-14 ft (4.27 m)	_	_	3,115 (1413)	
Dipper Lift:				
+14 ft (4.27 m)	_	_	3,154 (1431)	
+12 ft (3.66 m)	4,343 (1970)	4,139 (1877)	2,981 (1352)	
+10 ft (3.05 m)	4,027 (1827)	3,826 (1735)	2,823 (1281)	
+8 ft (2.44 m)	4,112 (1865)	3,910 (1774)	2,855 (1295)	
+6 ft (1.83 m)	4,563 (2070)	4,357 (1976)	3,010 (1365)	
+4 ft (1.22 m)	5,398 (2449)	5,177 (2348)	2,948 (1337)	
+2 ft (0.61 m)	_	_	3,486 (1581)	

# **BACKHOE OPERATIONAL DATA**

	Standard Backhoe	Exter	ndahoe®
		Retracted	Extended
Digging depth:			
Maximum	14 ft 10 in (4.50 m)	14 ft 9 in (4.50 m)	18 ft 3 in (5.55 m)
2 ft (610 mm) flat bottom	14 ft 8 in (4.46 m)	14 ft 8 in (4.46 m)	18 ft 1 in (5.52 m)
8 ft (2.44 m) flat bottom	13 ft 8 in (4.16 m)	13 ft 8 in (4.16 m)	17 ft 4 in (5.29 m)
Overall reach from:			
Rear axle centerline Swing pivot	21 ft 11 in (6.68 m) 18 ft 4 in (5.57 m)	21 ft 11 in (6.68 m) 18 ft 4 in (5.57 m)	25 ft 4 in (7.72 m) 21 ft 8 in (6.60 m)
Loading height	11 ft 9 in (3.59 m)	11 ft 9 in (3.59 m)	14 ft 1 in (4.30 m)
Loading reach – dipper retracted	6 ft 9 in (2.04 m)	6 ft 9 in (2.04 m)	9 ft 4 in (2.84 m)
Swing arc	180°	180°	180°
Bucket rotation:			
Straight links Mechanical coupler	175.6° 198.0°	175.6° 198.0°	175.6° 198.0°
Stabilizer spread – centers			
Flip pad Cast Pad	9 ft 5 in (2.87 m) 9 ft 9 in (2.97 m)	9 ft 5 in (2.87 m) 9 ft 9 in (2.97 m)	9 ft 5 in (2.87 m) 9 ft 9 in (2.97 m)
Digging force:			
Bucket cylinder Dipper cylinder	11,334 lb (50 414 N) 6,710 lb (29 484 N)	11,334 lb (50 414 N) 6,710 lb (29 484 N)	11,334 lb (50 414 N) 4,887 lb (21 738 N)
Leveling angle:			
Flip pad Cast pad	12.8° 13.8°	12.8° 13.8°	12.8° 13.8°

#### STANDARD EQUIPMENT

#### **OPERATOR ENVIRONMENT**

See page 1

#### **ENGINE**

Case F5C diesel

Cooled FGR

Diesel Particulate Filter

Full flow engine oil filter

Air cleaner – replaceable dry type with radial seal

Aspirated air cleaner

Muffler, non spark arresting

Radiator with de-aeration bottle

Antifreeze to -34° F (-37° C)

Throttles, both hand and foot

Self adjusting belt tensioner

Glow plugs cold start

In line fuel strainer

#### **POWERTRAIN**

Front axle, as selected:

2WD heavy-duty front axle with

11.0 L x 16.0 tires

4WD heavy-duty mechanically driven front axle with 12.0 L x 16.5 tires and drive shaft guard

Rear axle:

2/4WD heavy-duty outboard planetary drive with 17.5 L x 24.0 tires

4F-4R Power Shuttle Synchromesh transmission

Torque converter - 11.8 in (300 mm)

On-the-go electric 4WD control

Electric F/R shuttle control

Electric differential lock control, push-button activation on the loader control lever

Park brake, spring-applied, hydraulic release – SAHR

#### **HYDRAULICS**

Pump 28.5 gal/min @ 3,000 lb/in<sup>2</sup> (107.9 L/min @ 207 bar)

Heavy-duty hydraulic oil cooler

7 micron, spin on oil filter

#### **LOADER**

See page 2

#### **BACKHOE**

See page 2

#### **OTHER**

Forward tilt engine hood

Replaceable, molded front bumpers

Front/Rear tie downs

Reflective logos

Lights - cab and canopy:

2 rear tail/stop

2 front flashers/turn

2 rear flashers/turn

Lights - cab only:

2 front driving lights - 55 W

Adjustable halogen work lights - 55 W:

2 front

2 side - left and right

4 rear

Lights - canopy only:

2 front driving lights - 55 W

Adjustable halogen work lights - 55 W:

2 side - left and right

2 rear

# **OPTIONAL EQUIPMENT**

#### **OPERATOR ENVIRONMENT**

Auto Ride Control - 4WD models

Standard Ride Control - 2WD models

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

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

Cab Convenience Package containing pull-down sun visor, 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 armrests, 180° swivel, cloth or vinyl, adjustable seat and weight, backrest angle, lumbar and cushion angle

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

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

Pull-down sun visor for canopy models

Radio, AM/FM Stereo/WB, MP3 auxiliary input – cab models

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

#### **ENGINE**

Cold Weather Starting Aid with dual 12 Volt batteries

Block heater

#### **POWERTRAIN**

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

Heavy-duty outboard planetary drive without 19.5 L x 24.0 tires

#### **HYDRAULICS**

Auxiliary backhoe unidirectional hydraulics Auxiliary backhoe bidirectional hydraulics:

Hand lever operated for manual controls
Button operated for pilot controls

#### **LOADER**

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

Hydraulic front quick coupler

Bolt-on cutting edges

Loader linkage without 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®

Two-lever controls - 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

Case mechanical quick coupler

Bucket retrofit kits

Buckets - see page 2

#### OTHER

11.0 L x 16.0 10-ply, 12.0 L x 16.5 8-ply or 17.5 L x 24.0 10-ply front tires

19.5 L x 24.0 10-ply rear tires

Rotating beacon

Special paint

Canopy lights – Additional 2 front and 2 rear halogen lights (55 W)

Tool box - bolt-on, step-mounted

Lift hooks - export

Front counterweights:

700 lb and 1,100 lb (318 kg and 500 kg)

Master disconnect switch and remote jump start terminals



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.

Case is a registered trademark of CNH America LLC. Any trademarks referred to herein, in association with goods and/or services of companies other than CNH America LLC, are the property of those respective companies.

Form No. CCE201305580N Replaces form no. CCE201207580N Printed in U.S.A. 580N • Page 7 of 7



www.casece.com

© 2013 CNH America LLC All Rights Reserved