

SKID STEER LOADER

CASE

CONSTRUCTION

SINCE 1842.

SR220B

ENGINE

Brand	CASE/FPT
Model	F5C E5454B*A005
Type	4-stroke, turbocharged, Tier 3 certified
Cylinders	4
Bore x Stroke	99 x 104 mm (3.9 x 4.1")
Displacement	3,200 cm ³ (195 in ³)
Fuel injection	Direct
Fuel	Diesel
Fuel filter	In-line filter
Air inlet	Turbocharged with external EGR
Cooling system	Liquid
Motor speed (rpm)	
High - no load	2,675 ± 75
Rated - full load	2,500
Low - no load	1,075 ± 75
Power at 2,500 rpm	
Gross SAE J1995	82 hp (61 kW)
Net SAE J1349	76 hp (57 kW)
Maximum torque at 1,400 rpm	305 N.m (225 lbf.ft)

ENGINE

COOLING SYSTEM

Radiator	
Core type	Fully aluminum
Core area	0.266 m ²
Rows of tubes	44
Pressure on the lid	1.1 ± 0.1 bar (16 ± 2 psi)
Fan	
Diameter	518 mm (20.4")
Ratio	0.96:1
Water pump	
Type	Centrifuge
Flow	110 l/min (29 gpm)
Engine lubrication	
Pump	Rotor pump with sump pan depth, plate cooler and pressurized nozzles under the piston

Pump operational angles	
Side by side	45°
Raised bucket	35°
Lowered bucket	45°
Oil filtration	Full flow cartridge, disposable

POWER TRAIN

Drive Pump - Mechanical	
Pump / motor ratio	1:1
Displacement	46 cm ³ (2.81 in ³)
Pump flow rate with motor at rated rotation of	111 l/min (29.4 gpm)
Charging pressure	24.5 bar (360 psi)
System relief pressure	360 bar (5,220 psi)
Servo Control	mechanical

Drive pump - Electrohydraulic (EH)	
Pump / motor ratio	1:1
Displacement	45 cm ³ (2.75 in ³)
Pump flow rate with motor at rated rotation of	109 l/min (28.8 gpm)
Charging pressure	25 bar (363 psi)
System relief pressure	360 bar (5,220 psi)
Control	Electrohydraulic

Traction engines	
Maximum displacement	470 cm ³ (28.68 in ³)
Optional displacement - High speed	282 cm ³ (17.21 in ³)
Speed at rated motor rotation	241 rpm
Speed at optional high rotation	355 rpm
Torque at full flow and relief pressure	2,694 N.m (1,987 lbf.ft)

Displacement speed	
Low	11.3 km/h (7.0 mph)
High (optional)	16.9 km/h (10.5 mph)

Final reduction	Chain drive with single reduction
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Drive chain	
Size	ASA #100
Tensile strength	133.4 kN (30,000 lbf)

Axles	
Maximum torque at full flow and relief pressure	8,975 N.m (6,620 lbf.ft)
Diameter	62 mm (2.44")
Length	396 mm (15.6")

Parking break	
Type	Spring applied, hydraulic disc release
Actuation	Application of the parking brakes by actuating the brake knob on the hand control or on the instrument panel, by raising the safety bar of the operator's seat, when the operator rises from the seat or by switching off the engine

HYDRAULIC SYSTEM

Standard pump	
Type	Gear pump
Displacement	
Standard	34.1 cm ³ (2.08 in ³)
Optional High Flow	20.4 cm ³ (1.24 in ³)
Pump flow at rated motor rotation	85 l/min (22.5 gpm)
Flow with optional High Flow with motor at rated motor rotation	142.5 l/min (37.6 gpm)
Skid Steer control valve	
3 spools / Open Center / In-line	
Relief pressure	210 bar (3,046 psi)
Relief pressures	
Arm lift	225 bar (3,263 psi)
Bucket discharge	260 bar (3,770 psi)
Bucket retraction	80 bar (1,160 psi)
Hydraulic oil cooler	
Flaps numbers	3.94 per centimeter
Number of tubes	11
Area	843 cm ² (130.7 in ²)
Hydraulic filter	6 microns / Threaded

INSTRUMENT PANEL

Indicators

- Digital hour meter
- LCD fuel level bar graph with low level alarm

Warning lights with alarms

- High engine coolant temperature
- Low engine oil pressure
- Engine malfunction
- Low hydraulic charging pressure
- Hydraulic oil filter restriction
- High hydraulic oil temperature

Alert alarms

- Low battery voltage (including indicator light)

Indicator lights

- Engine pre-heating
- Parking break
- Notice to place the safety bar

ELECTRIC SYSTEM

Alternator	120 A
Starting motor	3.2 kW
Battery	12 V, low maintenance, 925 CCA for cold cranking at -18 °C (0 °F)

OPERATOR ENVIRONMENT

ROPS / FOPS cab with side screens

Tilting ROPS / FOPS frame

Rear window with emergency exit

Instrument panel

51 mm retractable seat belt (2")

Manual and foot throttle

Alarm package

Cabin roof lining

Solar roof

Cup holder

Power outlet

Foot rest

Storage tray

Ergonomic low effort manual controls

Padded safety bar with integrated armrest

Controls locking system of the loader

Electric parking brake control

Rubber mat for floor protection/cleaning

Suspension vinyl seat

CYLINDERS

Lift cylinder

Cylinder diameter	63.5 mm (2.5")
Stem diameter	44.5 mm (1.75")
Stroke	817.9 mm (32.2")
Closed length	1,158.0 mm (45.6")

Bucket cylinders

Cylinder diameter	76.2 mm (3.0")
Stem diameter	38.1 mm (1.5")
Stroke	410.0 mm (16.1")
Closed length	610.0 mm (24")

OPERATIONAL WEIGHTS

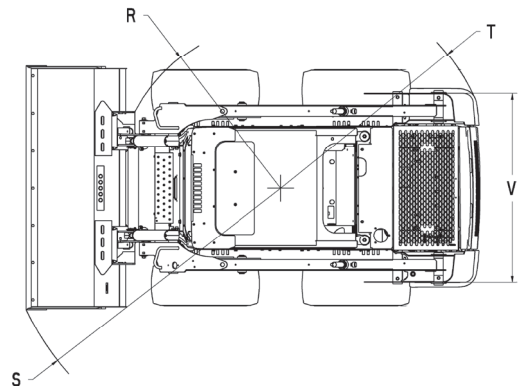
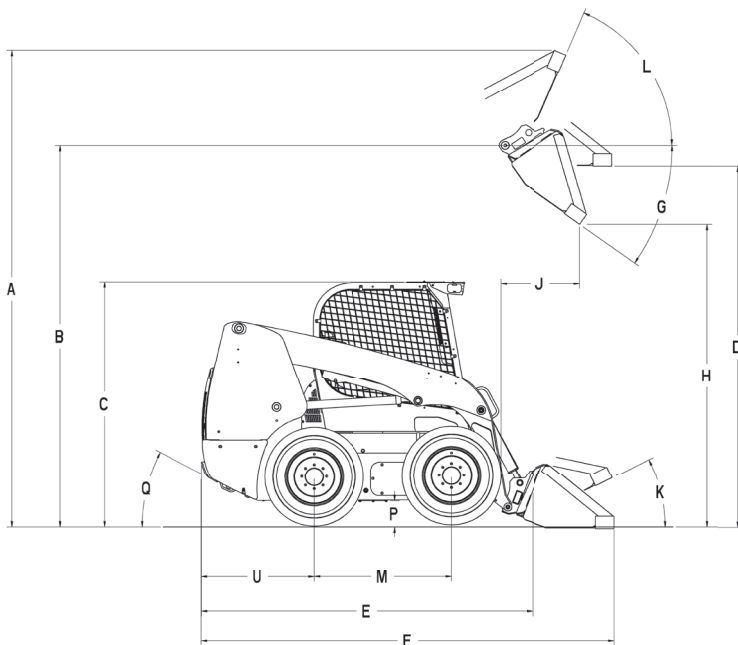
Operational weight	3,350 kg (7,400 lb)
Transport weight	3,200 kg (7,065 lb)
Cab side windows	21.3 kg (46.9 lb)
Lexan®Door	34 kg (75 lb)
Glass door with windshield wiper	34 kg (75 lb)
Suspension seat	10 kg (22.0 lb)

SERVICE CAPACITIES

Fuel tank	96.5 l (25.5 gal)
Engine oil (with filter)	9.5 l (10.0 qt)
Hydraulic system Storage	26.5 l (7 gal)
Storage for chains (on each side)	22.2 l (23.5 qt)

TIRE SELECTION

	Size	Overall width
Galaxy XD 2002 (12x16.5 Heavy Duty (70 OTW))	12x16.5	1,785 mm (5' 10.3")
TWEEL All Terrain (12X16.5 TWEEL 70 OTW)	12x16.5	1,785 mm (5' 10.3")
Galaxy Beef Baby III (14x17.5 Premium (76 OTW))	14x17.5	1,930 mm (6' 4")



DIMENSIONS

A. Total operational height	
With foundry / excavation bucket	4.0 m (156.3")
With low profile extended bucket	4.2 m (165.3")
Height up to:	
B. Bucket hinge pin	3.2 m (125")
C. Cabin top	2.0 m (78.8")
D. Leveled bucket bottom with fully raised loader arm	3.0 m (118")
Total length:	
E. Without accessories, with coupling device	3.0 m (117.4")
F. With foundry / excavation bucket at ground level	3.6 m (142.2")
With low-profile extended bucket at ground level	3.8 m (151.3")
G. Dump angle at maximum height	38.1°
H. Dump height - fully raised loader arm	
With foundry / excavation bucket	2.6 m (100.9")
With low profile extended bucket	2.4 m (95.2")
J. Reach - fully raised loader arm	0.7 m (26.7")
Attachment maximum retraction angle:	
K. Bucket at ground level	30.7°
L. Bucket at maximum height	99.7°
M. Wheelbase	1.3 m (52")
P. Ground clearance (bottom of protection plate)	0.2 m (8")
Q. Output angle	23.5°
Front turning radius:	
R. Without the bucket	1.4 m (55.1")
S. With foundry / excavation bucket at ground level	2.1 m (83.5")
With low-profile extended bucket at ground level	2.3 m (91.9")
T. Rear turning radius	1.8 m (70.4")
U. Rear axle to bumper	1.0 m (40.7")
V. Machine gauge, measure between the wheel centers	1.4 m (56.9")

SPECIFICATIONS

Operational weight	1,000 kg (2,200 lb)
with optional counterweight	1,089 kg (2,400 lb)
Dump load	2,000 kg (4,400 lb)
with optional counterweight	2,178 kg (4,800 lb)
Tear force	
Lifting arm	24.4 kN (5,490 lbf)
Bucket	38.7 kN (8,700 lbf)
Cycle times (in seconds)	
To raise arms	3.7
To lower arms	1.9
To unload attachment	2.7
To retract attachment	2.0

OPTIONAL BUCKETS

Type	Width m (in)	Weight kg (lb)	Heaped capacity m ³ (yd ³)
Foundry / excavation	1,83 (72)	190 (420)	0,46 (0,60)
	1,83 (72)	232 (510)	0,50 (0,65)
Extended low profile	1,98 (78)	245 (540)	0,54 (0,71)
	2,13 (84)	262 (575)	0,58 (0,76)
Heavy Duty	1,83 (72)	230 (510)	0,40 (0,52)

STANDARD EQUIPMENT

Operator environment

ROPS / FOPS cab with side screens
Tilting ROPS / FOPS frame
Rear window with emergency exit
Instrument panel
51 mm retractable seat belt (2")
Manual and foot throttle
Alarm package
Cabin roof lining
Suspension vinyl seat
Solar roof
Cup holder
Power outlet
Foot rest
Storage tray
Ergonomic low effort manual controls
Padded safety bar with integrated armrest
Loader controls locking system
Electric parking brake control
Rubber mat for floor protection / cleaning

Loader

Loader arm radial design
Mechanical device of attachment coupling
Lift arm support beam of the loader

Engine

CASE/FPT F5C E5454B*A005 diesel
Overlapped oil heat exchanger and radiator
Glow plug
Integrated oil cooling system of the engine
Fuel filter with water separator
Dual element air filter
120 A alternator
12V 925 CCA battery

Power train

Hydrostatic four-wheel drive
Servo controls
ASA #100HS Drive chain
SAHR parking disc brakes

Hydraulic system

210 bar auxiliary hydraulic system
(3,046 psi) – 85 l/min (22.5 gpm)
Hydraulic circuit pedal lock
ISO flat face couplers mounted on loader arm
Cancellation of auxiliary functions
Operational blocking system of the loader
Loader lift neutralizer
Loader 3-spool control valve
Heavy Duty oil heat exchanger
Loader arm fluctuation position

Others

Lockable maintenance access hood
Single point daily maintenance
Halogen lights, 2 frontal, 2 lateral, 2 rear
Rear lights
Remote oil drain
2 speed drive
Heavy Duty rear door

OPTIONAL EQUIPMENT

Operator environment

Suspension seat Deluxe coated with special fabric, with lumbar support and heating system
Internal mirror
Front auxiliary electric control
Front glass door with windshield wiper and washer
Sliding side windows
76 mm retractable seat belt (3")
Air conditioning and heating
Bluetooth radio
Door for demolition purposes

Loader

Ride Control
Electrohydraulic controls (EH)
Attachment coupling hydraulic device
One-way hydraulic self-leveling (climb)

Hydraulic system

High flow hydraulic system (High Flow) of 210 bar (3,046 psi) – 142.5 l/min (37.6 gpm)
Crankcase drain pipe fittings

Engine

Engine block heater
Battery disconnect key

Others

Deluxe Dashboard
Headlights for highway traffic
Giroflex
Lifting hooks
Special paint
Stickers
Factory installed tires – refer to page 2
Buckets – refer to page 3
Bolt-on bucket cutting blades
Forks to 1.07 m (42") and 1.22 m (48") pallets
Steel tracked
Additional counterweights



Fleet management and monitoring system by satellite or cell phone tracking.

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