

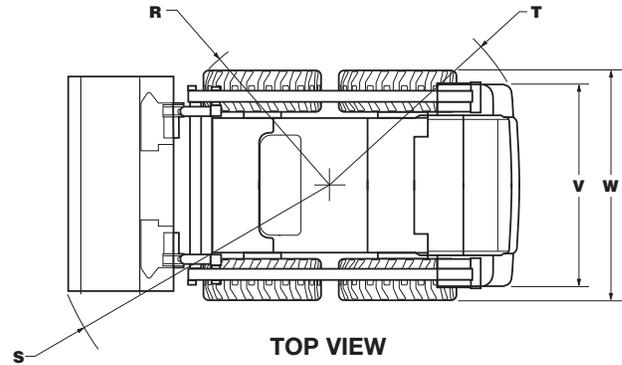
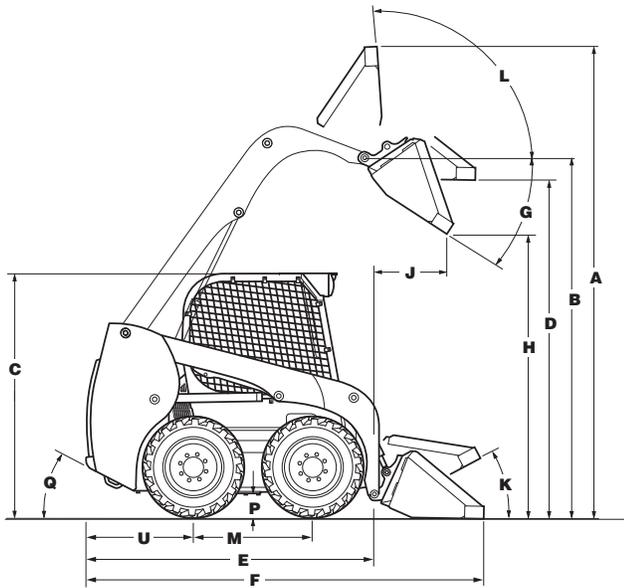
SKID STEERS/COMPACT TRACK LOADERS

**L213****L216****L218****L220****L221****L223****L225****L230****C227****C232****C238**

- Industry leading breakout forces and dump height
- Patented Super Boom® technology offers maximum reach at full height
- Comfortable sealed and pressurized cabs
- Superior serviceability for daily checks and routine maintenance



Skid Steer Specifications (Radial Lift)



DIMENSIONS		L213	L216	L221
Overall operating height				
A.	with foundry/excavating bucket short lip, in (mm)	141.4 (3591)	141.4 (3591)	154.3 (3920)
A.	with low profile/standard lip bucket, in (mm)	146.9 (3732)	146.9 (3732)	158.3 (4050)
A.	with low profile extended/long lip bucket, in (mm)	152 (3859)	152 (3859)	163.2 (4146)
Height to				
B.	Bucket hinge pin, in (mm)	112 (2845)	112 (2845)	123 (3124)
C.	Top of ROPS, in (mm)	75.5 (1919)	75.5 (1919)	78.7 (1998)
D.	Bottom of level bucket, fully raised, in (mm)	105.6 (2682)	105.6 (2682)	116.1 (2950)
Overall length				
E.	without attachment with coupler, in (mm)	95.9 (2435)	95.9 (2435)	105.1 (2669)
F.	with foundry excavation bucket on ground, in (mm)	119.2 (3028)	119.2 (3028)	129.6 (3292)
F.	with low profile bucket, in (mm)	125 (3175)	125 (3175)	133.7 (3397)
F.	with low profile extended bucket, in (mm)	129.8 (3297)	129.8 (3297)	138.8 (3525)
Dump				
G.	Dump angle, degrees	40	40	40
H. Dump height				
	with foundry/excavating bucket short lip, in (mm)	88.4 (2246)	88.4 (2246)	98.2 (2495)
	with low profile/standard lip bucket, in (mm)	84.8 (2154)	84.8 (2154)	95.6 (2428)
J.	Dump reach (max height), in (mm)	18.5 (469)	18.5 (469)	20.3 (517)
Maximum attachment rollback				
K.	Bucket on ground, degrees	26	26	31
L.	Bucket at full height, degrees	95	95	99
Wheelbase and Clearance				
M.	Wheelbase, in (mm)	37 (941)	37 (941)	44.4 (1128)
P.	Ground clearance (bottom of belly pan), in (mm)	7 (178)	7 (178)	8 (203)
Q.	Angle of departure, degrees	22	22	25
Clearance circle				
R.	without bucket, in (mm)	48.7 (1237)	48.7 (1237)	50.7 (1289)
S.	with 60" inch foundry bucket in carry position, in (mm)	73.3 (1862)	73.3 (1862)	79.9 (2031)
S.	with 60" inch low profile bucket on ground, in (mm)	78.5 (1994)	78.5 (1994)	83.1 (2112)
S.	with 60" inch extended low profile on ground, in (mm)	83.1 (2112)	83.1 (2112)	87.7 (2228)
T.	Clearance circle rear, in (mm)	56.4 (1433)	56.4 (1433)	62.9 (1599)
U.	Rear axle to bumper, in (mm)	33.8 (858)	33.8 (858)	36.4 (924)
V.	Tread width, in (mm)	49.2 (1248)	49.2 (1248)	56.9(1448)
W.	Overall width, in (mm)	59.8 (1518)	59.8 (1518)	69.1 (1755)

Skid Steer Specifications (Radial Lift)

ENGINE	L213	L216	L221
Manufacturer/model	ISM / N844L	ISM / N844LT	FPT/F5H FL463
Type	Diesel 4-stroke, I.D.I.	Diesel 4-stroke, T, I.D.I.	Diesel 4-stroke, Turbo, D.I.
Cylinder	4	4	4
Bore/stroke, in (mm)	3.31 x 3.94 (84 x 100)	3.31 x 3.94 (84 x 100)	3.9x4.3 (99x110)
Displacement, in³ (L)	135.2 (2.216)	135.2 (2.216)	207 (3.4)
Fuel injection	Indirect	Indirect	HPCR Direct
Fuel	#2 diesel	#2 diesel	#2 diesel
Fuel filter	Pre-filter spin on @ 14 microns Main-filter spin on @ 10 microns	Pre-filter spin on @ 14 microns Main-filter spin on @ 10 microns	Pre-spin on 30 microns Main-spin on 4 microns
Air intake	Naturally aspirated	Turbocharged with external EGR	Turbocharged with CEGR external
Cooling	Liquid	Liquid	Liquid
Engine speeds			
High idle - no load, rpm	2825 +/- 25	2825 +/- 25	2500 +/-25
Rated - full load, rpm	2800	2800	2500
Low idle, rpm	1200 +/-50	1200 +/-50	1150 +/-25
Horsepower per SAE J1349			
Gross hp (kW)	49 (36) @ 2800 rpm	60 (45) @ 2800 rpm	74 (55) @2500 rpm
Net hp (kW)	46 (34) @ 2800 rpm	57 (42) @ 2800 rpm	68 (51) @ 2500 rpm
Peak torque, lb-ft (N•m)	105.5 (143) @ 1800 rpm	139 (188) @ 1800 rpm	232 (314) @ 1400 rpm

POWER TRAIN	L213	L216	L221
Drive pump mechanical			
Pump to engine ratio	1:1	1:1	1:1
Displacement, in ³ (cc)	2.14 (35)	2.14 (35)	2.81 (46)
Flow, gpm (Lpm)	25.1 (95)	25.1 (95)	29.4 (111)
Charge pressure, psi (bar)	360 (25)	360 (25)	360 +/-10 (24.5 +/-0.5)
System relief, psi (bar)	5000 (345)	5000 (345)	5220 (360)
Control	Direct mechanical or Electro Hydraulic	Direct mechanical or Electro Hydraulic	Direct mechanical or electro hydraulic
Drive motors			
Max displacement, in ³ (cc)	19.83 (325)	19.83 (325)	28.7 (470)
Speed @ high idle engine rpm	313	313	241
Speed @ optional high speed, rpm	NA	NA	355
Torque @ max displ. and relief pressure, ft-lbs (N•m)	1315 (1783)	1315 (1783)	1987 (2694)
Travel speed with spec tires			
Low range, mph (km/h)	7.4 (11.9)	7.4 (11.9)	7.8 (12.5)
High range (optional), mph (km/h)	NA	NA	11.4 (18.3)
Final drive	Single-reduction chain drive	Single-reduction chain drive	Single-reduction chain drive
Drive chain			
Size	ASA #80	ASA #80	ASA #100
Axles			
Diameter, in (mm)	2 (50.8)	2 (50.8)	2.44 (61.9)
Length, in (mm)	13.2 (346)	13.2 (346)	15.7 (399)
Parking brake			
Type	Spring applied, hydraulic release multiple disk	Spring applied, hydraulic release multiple disk	Spring applied, hydraulic release multiple disk
Engagement	Depress on/off brake button on instrument panel, disconnect lap- belt, get off seat, or stop engine	Depress on/off brake button on instrument panel, disconnect lap- belt, get off seat, or stop engine	Depress on/off brake button on instrument panel, disconnect lap- belt, get off seat, or stop engine

Skid Steer Specifications (Radial Lift)

HYDRAULIC SYSTEM	L213	L216	L221
Pumps			
Type	Gear	Gear	Gear
Displacement standard aux., in ³ (cc)	1.45 (23.8)	1.52 (24.9)	2.23 (36.6)
Displacement high flow aux., in ³ (cc)	N/A	N/A	0.84 (13.8)
Pump flow, gpm (Lpm)	17.5 (66.2)	18.4 (69.7)	24.2 (91.5)
Optional high flow, gpm (Lpm)	N/A	N/A	33.2 (125.7)
Loader control valve			
Type	3 Spool / open center / series	3 Spool / open center / series	3 spool / open center / series
Relief pressure, psi (bar)	3046 (210)	3046 (210)	3046 (210)
Hydraulic filter	4 microns / spin on	4 microns / spin on	4 microns / spin on

CYLINDERS	L213	L216	L221
Lift cylinder			
Bore diameter, in (mm)	2.25 (57)	2.25 (57)	2.5 (63.5)
Rod diameter, in (mm)	1.38 (35)	1.38 (35)	1.75 (44.45)
Stroke, in (mm)	25.4 (645)	25.4 (645)	31.69 (804.9)
Closed length, in (mm)	38.9 (989)	38.9 (989)	45.59 (1158)
Bucket cylinders			
Bore diameter, in (mm)	2.25 (57)	2.5 (63.5)	2.75 (69.9)
Rod diameter, in (mm)	1.25 (32)	1.38 (34.9)	1.38 (34.9)
Stroke, in (mm)	14.6 (370)	14.6 (370)	16.14 (410)
Closed length, in (mm)	23.4 (594)	23.4 (594)	24.02 (610)

WEIGHTS	L213	L216	L221
Operating weight , lbs (kg)	5070 (2300)	5510 (2505)	6970 (3160)
Shipping weight , lbs (kg)	4770 (2160)	5210 (2370)	6670 (3025)

SERVICE CAPACITIES	L213	L216	L221
Fuel tank , gal (L)	16 (60.5)	16 (60.5)	19.5 (73.8)
Engine oil with filter , qt (L)	7.5 (7.1)	7.5 (7.1)	10 (9.4)
Hydraulic system			
System capacity with filter, qt (L)	30.9 (29.2)	30.9 (29.2)	34 (32.2)
Chain tanks (per side) , qt (L)	6.6 (6.25)	6.6 (6.25)	27.5 (26)

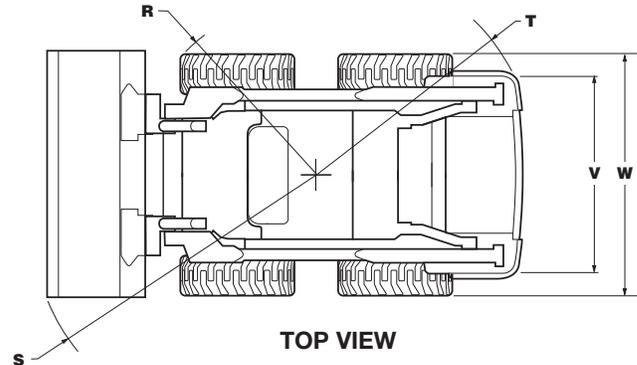
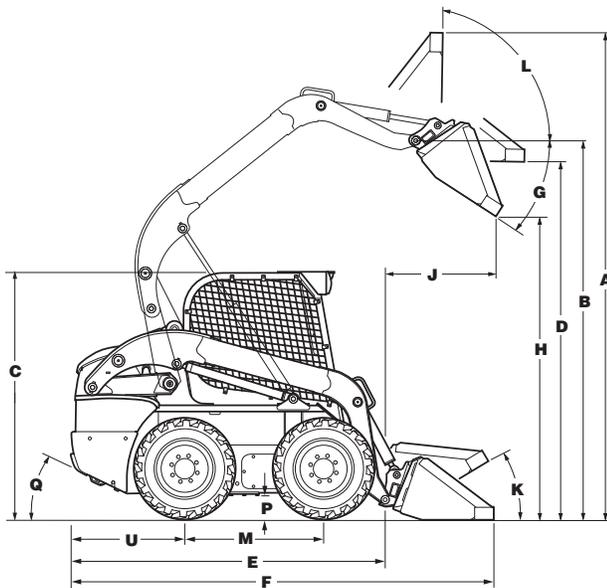
PERFORMANCE SPECS	L213	L216	L221
Rated operating load			
50% tip, lbs (kg)	1300 (590)	1600 (725)	2100 (905)
Tipping load, lbs (kg)	2600 (1179)	3200 (1455)	4000 (1814)
Breakout forces			
Lift cylinder, lbs (kN)	2850 (12.7) Tip Limit	3310 (14.7) Tip Limit	4570 (20.3)
Bucket cylinder, lbs (kN)	4180 (18.6)	5270 (23.4)	7270 (32.3)
Cycle times			
Raise, sec	3.2	3.2	3.6
Lower, sec	2.0	2.0	1.8
Dump, sec	1.8	1.8	2.2
Roll back, sec	1.3	1.3	1.7

For all Dimensions and Performance Metrics, unless otherwise specified:

L213 – Equipped with 175 lb operator, 60" Dirt & Foundry Bucket and 10 x 16.5 tires

L216 – Equipped with 175 lb operator, 60" Dirt & Foundry Bucket and 10 x 16.5 tires

Super Boom® Skid Steer Specifications (Vertical Lift)



DIMENSIONS		L218	L220	L223	L225	L230
Overall operating height						
A.	with foundry/excavating bucket short lip, in (mm)	150.4 (3820)	151.4 (3845)	159.7 (4056)	159.7 (4056)	161.3 (4096)
A.	with low profile/standard lip bucket, in (mm)	154.6 (3927)	155.6 (3952)	163.7 (4159)	163.7 (4159)	165.3 (4199)
A.	with low profile extended/long lip bucket, in (mm)	159.6 (4055)	160.6 (4080)	168.8 (4287)	168.8 (4287)	170.4 (4327)
Height to						
B.	Bucket hinge pin, in (mm)	120 (3048)	121 (3073)	129.4 (3287)	129.4 (3287)	131.1 (3327)
C.	Top of ROPS, in (mm)	77.7 (1974)	78.7 (1998)	78.8 (2002)	78.8 (2002)	80.4 (2042)
D.	Bottom of level bucket, fully raised, in (mm)	113.3 (2877)	114.3 (2902)	122.6 (3115)	122.6 (3115)	124.2 (3155)
Overall length						
E.	without attachment with coupler, in (mm)	105.7 (2697)	105.7 (2697)	117.8 (2993)	117.8 (2993)	117.6 (2986)
F.	with foundry excavation bucket on ground, in (mm)	131.9 (3352)	131.4 (3338)	142.9 (3631)	142.9 (3631)	142.7 (3624)
F.	with low profile bucket, in (mm)	136.1 (3456)	135.4 (3440)	147 (3734)	147 (3734)	146.7 (3727)
F.	with low profile extended bucket, in (mm)	141.1 (3585)	140.5 (3569)	152.1 (3863)	152.1 (3863)	151.8 (3856)
Dump						
G.	Dump angle, degrees	52	52	55	55	55
H. Dump height						
	with foundry/excavating bucket short lip, in (mm)	93.7 (2380)	94.5 (2402)	102.9 (2615)	102.9 (2615)	104.5 (2655)
	with low profile/standard lip bucket, in (mm)	90.7 (2305)	91.7 (2330)	100 (2541)	100 (2541)	101.6 (2581)
J.	Dump reach (max height), in (mm)	30.8 (783)	29.8 (758)	32.3 (821)	32.3 (821)	30.7 (781)
Maximum attachment rollback						
K.	Bucket on ground, degrees	35	34	34	34	33
L.	Bucket at full height, degrees	88	88	85	85	85
Wheelbase and Clearance						
M.	Wheelbase, in (mm)	44.4 (1128)	44.4 (1128)	52 (1322)	52 (1322)	52 (1322)
P.	Ground clearance (bottom of belly pan), in (mm)	7 (178)	8 (203)	8 (203)	8 (203)	9.5 (243)
Q.	Angle of departure, degrees	23	25	24	24	27
Clearance circle						
R.	without bucket, in (mm)	50.7 (1289)	50.7 (1289)	56.2 (1428)	56.2 (1428)	56.2 (1428)
S.	with foundry bucket in carry position, in (mm)	79.6 (2021)	80.9 (2055)	80.3 (2039)	80.3 (2039)	84.8 (2155)
	with 66" bucket		with 72" bucket	with 72" bucket	with 72" bucket	with 78" bucket
S.	with low profile bucket on ground, in (mm)	83.9 (2132)	84.6 (2150)	87 (2210)	87 (2210)	88.4 (2246)
	with 66" bucket		with 72" bucket	with 72" bucket	with 72" bucket	with 78" bucket
S.	with extended low profile on ground, in (mm)	88.6 (2250)	89.3 (2268)	91.5 (2323)	91.5 (2323)	92.6 (2352)
	with 66" bucket		with 72" bucket	with 72" bucket	with 72" bucket	with 78" bucket
T.	Clearance circle rear, in (mm)	62.9 (1599)	62.9 (1599)	70.4 (1789)	70.4 (1789)	70.4 (1789)
U.	Rear axle to bumper, in (mm)	36.4 (924)	36.4 (924)	40.7 (1034)	40.7 (1034)	40.7 (1034)
V.	Tread width, in (mm)	53.9 (1371)	56.9 (1448)	56.9 (1448)	56.9 (1448)	62.2 (1580)
	with 10" x 16.5" tires		with 12" x 16.5" tires	with 12" x 16.5" tires	with 12" x 16.5" tires	with 14" x 17.5" tires
W.	Overall width, in (mm)	66.1 (1678)	69.1 (1755)	69.6 (1768)	69.6 (1768)	76 (1930)

Super Boom® Skid Steer Specifications (Vertical Lift)

ENGINE	L218	L220	L223	L225	L230
Manufacturer/model	ISM / N844LTA	ISM / N844LTA	FPT / F5H FL463	FPT / F5H FL413	FPT / F5H413
Type	Diesel 4-stroke, Turbo, D.I.	Diesel 4-stroke, Turbo, D.I.			
Cylinder	4	4	4	4	4
Bore/stroke, in (mm)	3.31 x 3.94 (84 x 100)	3.31 x 3.94 (84 x 100)	3.9 x 4.1 (99 x 110)	3.9 x 4.1 (99 x 110)	3.9 x 4.1 (99 x 110)
Displacement, in³ (L)	135 (2.2)	135 (2.2)	195 (3.2)	195 (3.2)	207.5 (3.4)
Fuel injection	HPCR Direct	HPCR Direct	HPCR Direct	HPCR Direct	HPCR Direct
Fuel	#2 diesel	#2 diesel	#2 diesel	#2 diesel	#2 diesel
Fuel filter	Pre-filter spin on @ 30 microns Main-filter spin on @ 4 microns	Pre-filter spin on @ 30 microns Main-filter spin on @ 4 microns	Pre-filter spin on @ 30 microns Main-filter spin on @ 4 microns	Pre-filter spin on @ 30 microns Main-filter spin on @ 4 microns	Pre-filter 99.8% @ 30 microns Main filter 95% @ 4 microns
Air intake	Turbocharged Aftercooled with external EGR	Turbocharged Aftercooled with external EGR	Turbocharged with external CEGR	Turbocharged Aftercooled with external CEGR	Turbocharged Aftercooled with external CEGR
Cooling	Liquid	Liquid	Liquid	Liquid	Liquid
Engine speeds					
High idle - no load, rpm	2825 +/- 25	2825 +/- 25	2500 +/- 25	2500 +/- 25	2500 +/- 25
Rated - full load, rpm	2800	2800	2500	2500	2500
Low idle, rpm	1200 +/- 50	1200 +/- 50	1150 +/- 25	1150 +/- 25	1150 +/- 25
Horsepower per SAE J1349					
Gross hp (kW)	60 (45) @ 2800 rpm	67 (50) @ 2800 rpm	74 (55) @ 2500 rpm	82 (61) @ 2500 rpm	90 (67) @ 2500 rpm
Net hp (kW)	57 (42) @ 2800 rpm	64 (47.7) @ 2800 rpm	68 (51) @ 2500 rpm	76 (57) @ 2500 rpm	84 (63) @ 2500 rpm
Peak torque, lb-ft (N•m)	135 (183) @ 1800 rpm	153 (208) @ 1800 rpm	232 (314) @ 1400 rpm	257 (349) @ 1400 rpm	282 (383) @ 1400 rpm

POWER TRAIN	L218	L220	L223	L225	L230
Drive pump mechanical					
Pump to engine ratio	1:1	1:1	1:1	1:1	1:1
Displacement, in ³ (cc)	2.14 (35)	2.14 (35)	46 (2.81)	46 (2.81)	46 (2.81)
Flow at rated engine rpm @100% eff., gpm (Lpm)	25.1 (95)	25.1 (95)	29.4 (111)	29.4 (111)	29.4 (111)
Charge pressure, psi (bar)	360 (24.5)	360 (24.5)	360 (24.5)	360 (24.5)	360 (24.5)
System relief, psi (bar)	5000 (345)	5000 (345)	5220 (360)	5220 (360)	5220 (360)
Control	Direct mechanical	Direct mechanical	Mechanical servo	Mechanical servo	Mechanical servo
Drive pump electro hydraulic					
Pump to engine ratio	1:1	1:1	1:1	1:1	1:1
Displacement, in ³ (cc)	2.14 (35)	2.14 (35)	2.75 (45)	2.75 (45)	2.75 (45)
Flow, gpm (Lpm)	25.1 (95)	25.1 (95)	28.8 (109)	28.8 (109)	28.8 (109)
Charge pressure, psi (bar)	362 (25)	362 (25)	362 (25)	362 (25)	362 (25)
System relief, psi (bar)	5220 (360)	5220 (360)	5220 (360)	5220 (360)	5220 (360)
Control	Electro hydraulic	Electro hydraulic	Electro hydraulic	Electro hydraulic	Electro hydraulic
Drive motors					
Max displacement, in ³ (cc)	19.83 (325)	19.83 (325)	28.7 (470)	28.7 (470)	28.7 (470)
Speed @ high idle engine rpm	313	313	237	237	237
Speed @ optional high speed, rpm	443	443	355	355	355
Torque @ max displ. and relief pressure, lb-ft (N•m)	1315 (1783)	1315 (1783)	1987 (2694)	1987 (2694)	1987 (2694)
Travel speed with spec tires					
Low range, mph (km/h)	7.4 (11.9)	7.8 (12.5)	7.0 (11.3)	7.0 (11.3)	7.7 (12.4)
High range (optional), mph (km/h)	10.8 (17.4)	11.4 (18.3)	10.5 (16.9)	10.5 (16.9)	11.5 (18.5)
Final drive	Single-reduction chain drive	Single-reduction chain drive	Single-reduction chain drive	Single-reduction chain drive	Single-reduction chain drive
Drive chain					
Size	ASA #80	ASA #80	ASA #100	ASA #100	ASA #100
Axles					
Diameter, in (mm)	2 (50.8)	2 (50.8)	2.44 (62)	2.44 (62)	2.44 (62)
Length, in (mm)	15.1 (384)	15.1 (384)	15.6 (396)	15.6 (396)	15.6 (396)
Parking brake					
Type	Spring applied, hydraulic release disc				
Engagement	Depress on/off brake button on instrument panel, disconnect lapbelt, get off seat, or stop engine				

Super Boom® Skid Steer Specifications (Vertical Lift)

HYDRAULIC SYSTEM	L218	L220	L223	L225	L230
Pumps					
Type	Gear	Gear	Gear	Gear	Gear
Displacement standard aux., in ³ (cc)	1.7 (27.8)	1.7 (27.8)	2.23 (36.6)	2.23 (36.6)	2.23 (36.6)
Displacement high flow aux., in ³ (cc)	.84 (13.8)	.84 (13.8)	1.24 (20.4)	1.24 (20.4)	1.24 (20.4)
Pump flow, gpm (Lpm)	20.6 (78)	20.6 (78)	24.2 (91.5)	24.2 (91.5)	24.2 (91.5)
Optional high flow, gpm (Lpm)	30.7 (116.2)	30.7 (116.2)	37.6 (142.5)	37.6 (142.5)	37.6 (142.5)
Loader control valve					
Type	3 spool / open center / series				
Relief pressure, psi (bar)	3046 (210)	3046 (210)	3046 (210)	3046 (210)	3046 (210)
Hydraulic filter	4 microns / spin on				

CYLINDERS	L218	L220	L223	L225	L230
Lift cylinder					
Bore diameter, in (mm)	2.25 (57)	2.5 (63.5)	2.5 (63.5)	2.5 (63.5)	2.75 (68.85)
Rod diameter, in (mm)	1.38 (34.9)	1.75 (44.45)	1.75 (44.45)	1.75 (44.45)	2.0 (50.8)
Stroke, in (mm)	26.8 (681)	26.8 (681)	33.5 (851.9)	33.5 (851.9)	33.4 (847.9)
Closed length, in (mm)	38.7 (982)	38.7 (982)	46.9 (1192)	46.9 (1192)	47.1 (1196)
Bucket cylinders					
Bore diameter, in (mm)	2.5 (63.5)	2.75 (69.9)	3.0 (76.2)	3.0 (76.2)	3.0 (76.2)
Rod diameter, in (mm)	1.38 (34.9)	1.38 (34.9)	1.5 (38.1)	1.5 (38.1)	1.5 (38.1)
Stroke, in (mm)	16.1 (410)	16.1 (410)	16.4 (410)	16.4 (410)	16.4 (410)
Closed length, in (mm)	24 (610)	24 (610)	24 (610)	24 (610)	24 (610)

WEIGHTS	L218	L220	L223	L225	L230
Operating weight , lbs (kg)	5930 (2690)	6470 (2930)	7400 (3350)	7900 (3580)	8300 (3765)
Shipping weight , with bucket, lbs (kg)	5630 (2550)	6170 (2795)	7065 (3200)	7565 (3430)	7965 (3610)

SERVICE CAPACITIES	L218	L220	L223	L225	L230
Fuel tank , gal (L)	19.5 (73.8)	19.5 (73.8)	25.5 (96.5)	25.5 (96.5)	25.5 (96.5)
Engine oil with filter , qt (L)	7.5 (7.1)	7.5 (7.1)	10 (9.4)	10 (9.4)	10 (9.4)
Hydraulic system					
System capacity with filter, qt (L)	34 (32.2)	34 (32.2)	47 (44.5)	47 (44.5)	47 (44.5)
Chain tanks (per side) , qt (L)	7.9 (7.4)	7.9 (7.4)	29.5 (27.9)	29.5 (27.9)	29.5 (27.9)

PERFORMANCE SPECS	L218	L220	L223	L225	L230
Rated operating load					
50% tip, lbs (kg)	1800 (818)	2000 (905)	2250 (1020)	2500 (1135)	3000 (1360)
Tipping load, lbs (kg)	3600 (1633)	4000 (1814)	4500 (2045)	5000 (2268)	6000 (2722)
Breakout forces					
Lift cylinder, lbs (kN)	2620 (11.7)	3450 (15.3)	5080 (22.6)	5080 (22.6)	6350 (28.2)
Bucket cylinder, lbs (kN)	5550 (24.7)	7300 (32.5)	8620 (38.3)	8620 (38.3)	8620 (38.3)
Cycle times					
Raise, sec	2.8	3.5	3.8	3.8	4.5
Lower, sec	2.3	2.3	2.4	2.4	2.6
Dump, sec	2.1	2.6	2.6	2.6	2.6
Roll back, sec	1.5	2.0	2.0	2.0	2.0

For all Dimensions and Performance Metrics, unless otherwise specified:

L218 – Equipped with 175 lb operator, 66" Dirt & Foundry Bucket with 10 x 16.5 tires

L220 – Equipped with 175 lb operator, 66" Dirt & Foundry Bucket with 12 x 16.5 tires

L223 – Equipped with 175 lb operator, 72" Dirt & Foundry Bucket with 12 x 16.5 tires

L225 – Equipped with 175 lb operator, 72" Dirt & Foundry Bucket with 12 x 16.5 tires

L230 – Equipped with 175 lb operator, 78" Dirt & Foundry Bucket with 14 x 17.5 tires

200 Series Skid Steer Tire Options

SKID STEER TIRE OFFERING		L213	L216	L218	L220	L221	L223	L225	L230
8501207	10 X 16.5 Heavy Duty (59 OTW)	Standard	Standard						
8501507	27 X 10.5 - 15 Premium (64 OTW)	X	X						
8501307	10 X16.5 Premium (59 OTW)	X	X						
8501707	10 X 16.5 Heavy Duty (64 OTW)			Standard	X	X			
8501807	10 X 16.5 Premium (64 OTW)			X	X	X			
8501907	10 X 16.5 Premium Liner (64 OTW)			X	X	X			
8502007	10 X 16.5 Severe Duty (64 OTW)			X	X	X			
8502107	10 X 16.5 Non- Pneumatic (64 OTW)	X	X	X	X	X			
8503107	12 X 16.5 Heavy Duty (70 OTW)			X	Standard	Standard	Standard	Standard	X
8503207	12 X 16.5 Premium (70 OTW)			X	X	X	X	X	X
8503307	12 X 16.5 Premium-Liner (70 OTW)			X	X	X	X	X	X
8503407	12 X 16.5 Severe Duty (70 OTW)				X	X	X	X	X
8503607	12 X 16.5 Non-Pneumatic (70 OTW)					X	X	X	X
8505107	14 X 17.5 Premium (76 OTW)						X	X	Standard



Heavy Duty

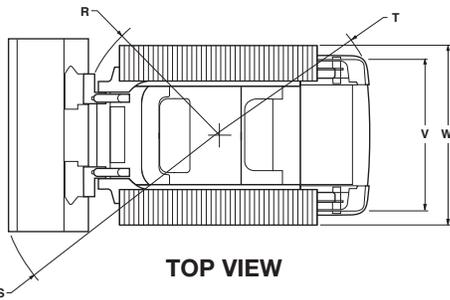
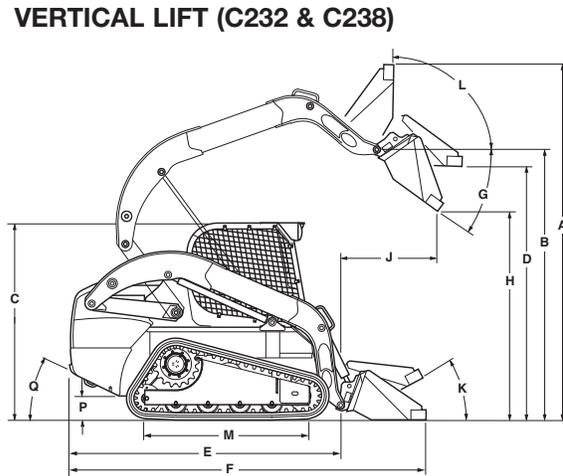
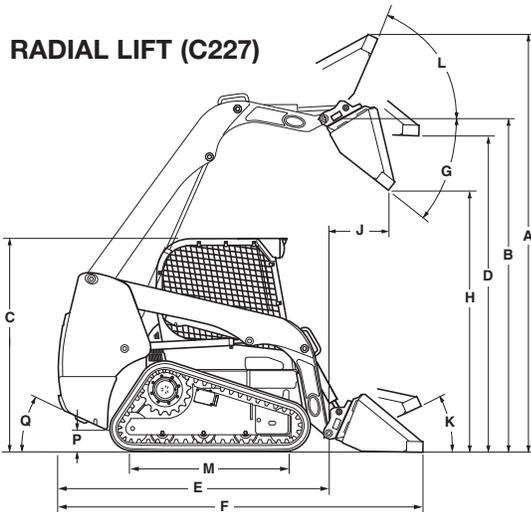
Premium & Premium (with Liner)

Severe Duty

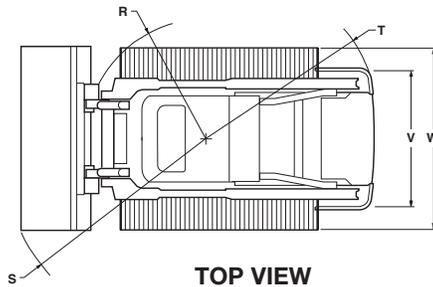
Non-Pneumatic



Compact Track Loader Specifications



TOP VIEW



TOP VIEW

DIMENSIONS		C227	C232	C238
Overall operating height				
A.	with foundry/excavating bucket short lip, in (mm)	154.3 (3920)	161.3 (4096)	161.3 (4096)
A.	with low profile/standard lip bucket, in (mm)	158.3 (4020)	165.3 (4199)	165.3 (4199)
A.	with low profile extended/long lip bucket, in (mm)	163.2 (4146)	170.4 (4327)	170.4 (4327)
Height to				
B.	Bucket hinge pin, in (mm)	123 (3124)	131.1 (3330)	131.1 (3330)
C.	Top of ROPS, in (mm)	78.7 (1998)	80.4 (2043)	80.4 (2043)
D.	Bottom of level bucket, fully raised, in (mm)	116.1 (2950)	124.2 (3155)	124.2 (3155)
Overall length				
E.	without attachment with coupler, in (mm)	105.1 (2669)	117.8 (2993)	117.6 (2986)
F.	with foundry excavation bucket on ground, in (mm)	129.6 (3292)	142.9 (3631)	142.7 (3624)
F.	with low profile bucket, in (mm)	133.7 (3397)	147 (3734)	146.7 (3727)
F.	with low profile extended bucket, in (mm)	138.8 (3525)	152.1 (3863)	151.8 (3856)
Dump				
G.	Dump angle, degrees	40	55	55
H. Dump height				
	with foundry/excavating bucket short lip, in (mm)	98.2 (2495)	104.5 (2655)	104.5 (2655)
	with low profile/standard lip bucket, in (mm)	95.6 (2428)	101.6 (2581)	101.6 (2581)
J.	Dump reach (max height), in (mm)	22.3 (568)	34.4 (875)	34.4 (875)
Maximum attachment rollback				
K.	Bucket on ground, degrees	31	33	33
L.	Bucket at full height, degrees	99	85	85
Track and Clearance				
M.	Track on ground, in (mm)	55.9 (1419)	63.1 (1602)	63.1 (1602)
P.	Ground clearance (bottom of belly pan), in (mm)	8 (203)	9.5 (243)	9.5 (243)
Q.	Angle of departure, degrees	32	32	32
Clearance circle				
R.	without bucket, in (mm)	50.7 (1289)	56.2 (1428)	56.2 (1428)
S.	with foundry bucket in carry position, in (mm)	79.9 (2031)	84.8 (2155) with 78" bucket	84.8 (2155) with 78" bucket
S.	with low profile bucket on ground, in (mm)	83.1 (2112) with 72" bucket	88.4 (2246) with 78" bucket	88.4 (2246) with 78" bucket
S.	with extended low profile on ground, in (mm)	87.7 (2228) with 72" bucket	92.6 (2353) with 78" bucket	92.6 (2353) with 78" bucket
T.	Clearance circle rear, in (mm)	62.9 (1599)	70.4 (1789)	70.4 (1789)
V.	Track gauge, in (mm)	53.4 (1356)	58.3 (1480)	58.3 (1480)
W.	Overall width, in (mm)	65.9 (1676)	76 (1930)	76 (1930)

Compact Track Loader Specifications

ENGINE	C227	C232	C238
Manufacturer/model	FPT / F5H FL463A	FPT / F5H FL413H	FPT / F5H FL413CL
Type	Diesel 4-stroke, turbo, D.I.	Diesel 4-stroke, turbo, D.I.	Diesel 4-stroke, Turbo, D.I.
Cylinder	4	4	4
Bore/stroke, in (mm)	3.9 x 4.3 (99 x 109)	3.9 x 4.3 (99 x 109)	3.9 x 4.3 (99 x 109)
Displacement, in³ (L)	207 (3.4)	207 (3.4)	207 (3.4)
Fuel injection	HPCR Direct	HPCR Direct	HPCR Direct
Fuel	#2 diesel	#2 diesel	#2 diesel
Fuel filter	Pre-spin on 30 microns Main-spin on 4 microns	Pre-spin on 30 microns Main-spin on 4 microns	Pre-filter 99.8% @ 30 microns Main filter 95% @ 4 microns
Air intake	Turbocharged with external EGR	Turbocharged Aftercooled with external EGR	Turbocharged Aftercooled with external EGR
Cooling	Liquid	Liquid	Liquid
Engine speeds			
High idle - no load, rpm	2500 +/- 25	2500 +/- 25	2500 +/- 25
Rated - full load, rpm	2500	2500	2500
Low idle, rpm	1150 +/- 25	1150 +/- 25	1150 +/- 25
Horsepower per SAE J1349			
Gross hp (kW)	74 (55) @ 2500 rpm	82 (61) @ 2500 rpm	90 (67) @ 2500 rpm
Net hp (kW)	68 (51) @ 2500 rpm	76 (57) @ 2500 rpm	84 (63) @ 2500 rpm
Peak torque, lb-ft (N•m)	223 (314) @ 1400 rpm	257 (349) @ 1400 rpm	282 (383) @ 1400 rpm

POWER TRAIN	C227	C232	C238
Drive pump electro hydraulic			
Pump to engine ratio	1:1	1:1	1:1
Displacement, in ³ (cc)	2.75 (45)	2.75 (45)	2.75 (45)
Flow, gpm (Lpm)	28.8 (109)	28.8 (109)	29.4 (111)
Charge pressure, psi (bar)	362 (24.5)	362 (24.5)	360 (24.5)
System relief, psi (bar)	5220 (360)	5220 (360)	5220 (360)
Control	Electro hydraulic	Mechanical or Electro hydraulic	Mechanical or Electro hydraulic
Drive motors			
Effective Max displacement, in ³ (cc)	67 (1098)	67 (1098)	67 (1098)
Effective Displacement opt high speed, in ³ (cc)	43.6 (714)	43.6 (714)	43.6 (714)
Speed @ high idle engine rpm	103	103	103
Speed @ optional high speed, rpm	156	156	156
Torque @ max displ. and relief pressure, lb-ft (N•m)	4654 (6310)	4654 (6310)	4654 (6310)
Travel speed			
Low range, mph (km/h)	5.1 (8.2)	5.1 (8.2)	5.1 (8.2)
High range (optional), mph (km/h)	7.6 (12.2)	7.6 (12.2)	7.6 (12.2)
Final drive	Planetary Reduction	Planetary Reduction	Planetary Reduction
Parking brake			
Type	Spring applied, hydraulic release disc	Spring applied, hydraulic release disc	Spring applied, hydraulic release disc
Engagement	Depress on/off brake button on instrument panel, disconnect lapbelt, get off seat, or stop engine	Depress on/off brake button on instrument panel, disconnect lapbelt, get off seat, or stop engine	Depress on/off brake button on instrument panel, disconnect lapbelt, get off seat, or stop engine

UNDERCARRIAGE	C227	C232	C238
System	High drive offset tread pattern	High drive offset tread pattern	High drive offset tread pattern
Idlers / rollers per side	2/3	2/4	2/4
Ground pressure			
PSI (with spec belt)	5.9	4.2	4.4



Compact Track Loader Specifications

HYDRAULIC SYSTEM	C227	C232	C238
Pumps			
Type	Gear	Gear	Gear
Displacement standard aux., in ³ (cc)	2.23 (36.6)	2.23 (36.6)	2.23 (36.6)
Displacement high flow aux., in ³ (cc)	.76 (12.5)	1.24 (20.4)	1.24 (20.4)
Pump flow, gpm (Lpm)	24.2 (91.5)	24.2 (91.5)	24.2 (91.5)
Optional high flow, gpm (Lpm)	32.4 (122.6)	37.6 (142.5)	37.6 (142.5)
Loader control valve			
Type	3 spool / open center / series	3 spool / open center / series	3 spool / open center / series
Relief pressure, psi (bar)	3046 (210)	3046 (210)	3046 (210)
Hydraulic filter	6 microns / spin on	6 microns / spin on	6 microns / spin on

CYLINDERS	C227	C232	C238
Lift cylinder			
Bore diameter, in (mm)	2.5 (63.5)	2.5 (63.5)	2.75 (69.8)
Rod diameter, in (mm)	1.75 (44.5)	1.75 (44.5)	2.0 (50.8)
Stroke in, in (mm)	31.69 (804.9)	33.5 (851.9)	33.4 (847.9)
Closed length, in (mm)	45.59 (1158.0)	46.9 (1192)	47.1 (1196)
Bucket cylinders			
Bore diameter, in (mm)	2.75 (69.9)	3.0 (76.2)	3.0 (76.2)
Rod diameter, in (mm)	1.38 (34.9)	1.5 (38.1)	1.5 (38.1)
Stroke, in (mm)	16.14 (410)	16.4 (410)	16.4 (410)
Closed length, in (mm)	24.02 (610)	24.02 (610)	24.02 (610)

WEIGHTS	C227	C232	C238
Operating weight, lbs (kg)	8270 (3750)	9630 (4370)	10,100 (4581)
Shipping weight, lbs (kg)	7970 (3615)	9300 (4220)	9765 (4430)

SERVICE CAPACITIES	C227	C232	C238
Fuel tank, gal (L)	19.5 (73.8)	25.5 (96.5)	25.5 (96.5)
Engine oil with filter, qt (L)	10 (9.5)	10 (9.4)	10 (9.4)
System Capacity with filter, qt (L)	34 (32.2)	47 (44.5)	47 (44.5)

CYLINDERS	C227	C232	C238
Rated operating load			
50% tip, lbs (kg)	2700 (1225)	3200 (1451)	3800 (1723)
35% tip, lbs (kg)	1890 (860)	2240 (1018)	2660 (1209)
Tipping load, lbs (kg)	5400 (2449)	6400 (2902)	7600 (3447)
Breakout forces			
Lift cylinder, lbs (kN)	6080 (27)	4840 (21.5)	6110 (27.2)
Bucket cylinder, lbs (kN)	7270 (32.3)	7510 (33.4)	7360 (32.7)
Cycle times			
Raise, sec	3.6	3.8	4.5
Lower, sec	1.8	2.4	2.6
Dump, sec	2.2	2.6	2.6
Roll back, sec	1.7	2.0	2.0

For all Dimensions and Performance Metrics, unless otherwise specified:

C227 – Equipped with 175 lb operator, 72” Dirt & Foundry Bucket with 12.6 (320 mm) track belt

C232 – Equipped with 175 lb operator, 78” Heavy Duty Bucket and 17.7 (450 mm) track belt

C238 – Equipped with 175 lb operator, 78” Heavy Duty Bucket and 17.7 (450 mm) track belt

Skid Steer/Compact Track Loader Bucket Options

SKID STEER AND CTL BUCKET OFFERING	L213	L216	L218	L220	L221	L223	L225	L230	C227	C232	C238
Dirt & Foundry Bucket											
60" Dirt & Foundry Bucket (1524 mm), 11.5 cu. ft. Heaped Capacity	X	X									
66" Dirt & Foundry Bucket (1676 mm), 15.2 cu. ft. Heaped Capacity	X	X	X	X	X				X		
72" Dirt & Foundry Bucket (1829 mm), 16.7 cu. ft. Heaped Capacity	X	X	X	X	X	X	X	X	X		
78" Dirt & Foundry Bucket (1981 mm), 18.4 cu. ft. Heaped Capacity			X	X	X	X	X	X	X	X	X
Low Profile Bucket											
60" Low Profile Bucket (1524 mm), 11.5 cu. ft. Heaped Capacity	X	X									
66" Low Profile Bucket (1676 mm), 13.2 cu. ft. Heaped Capacity	X	X	X	X	X				X		
72" Low Profile Bucket (1829 mm), 14.5 cu. ft. Heaped Capacity	X	X	X	X	X	X	X	X	X		
Low Profile Extended Bucket											
60" Low Profile Extended (1524 mm), 14.3 cu. ft. Heaped Capacity	X	X									
66" Low Profile Extended (1676 mm), 15.5 cu. ft. Heaped Capacity	X	X	X	X	X				X		
72" Low Profile Extended (1829 mm), 17.1 cu. ft. Heaped Capacity	X	X	X	X	X	X	X	X	X		
78" Low Profile Extended (1981 mm), 18.6 cu. ft. Heaped Capacity			X	X	X	X	X	X	X	X	X
84" Low Profile Extended (2134 mm), 20.2 cu. ft. Heaped Capacity			X	X	X	X	X	X	X	X	X
Light Material Bucket											
60" Light Material Bucket (1524 mm), 19.7 cu. ft. Heaped Capacity	X	X									
72" Light Material Bucket (1829 mm), 23.7 cu. ft. Heaped Capacity	X	X	X	X	X	X	X	X	X		
84" Light Material Bucket (2134 mm), 27.9 cu. ft. Heaped Capacity			X	X	X	X	X	X	X	X	X
Manure & Slurry Bucket											
60" Manure-Slurry Bucket (1524 mm), 16.7 cu. ft. Heaped Capacity	X	X									
72" Manure-Slurry Bucket (1829 mm), 19.1 cu. ft. Heaped Capacity	X	X	X	X	X	X	X	X	X		
84" Manure-Slurry Bucket (2134 mm), 22.5 cu. ft. Heaped Capacity			X	X	X	X	X	X	X	X	X
Heavy Duty Dirt Bucket											
66" Heavy Duty Dirt Bucket (1676 mm), 13.3 cu. ft. Heaped Capacity	X	X	X	X	X				X		
72" Heavy Duty Dirt Bucket (1829 mm), 14.6 cu. ft. Heaped Capacity			X	X	X	X	X	X	X		
78" Heavy Duty Dirt Bucket (1981 mm), 15.9 cu. ft. Heaped Capacity			X	X	X	X	X	X	X	X	X
84" Heavy Duty Dirt Bucket (2134 mm), 19.4 cu. ft. Heaped Capacity						X	X	X		X	X



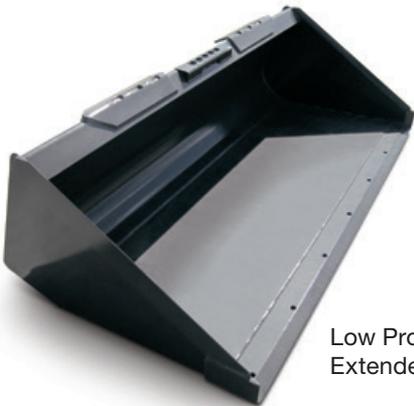
Heavy Duty
Dirt Bucket



Dirt Foundry
Bucket



Light Material
Bucket



Low Profile
Extended Bucket



Manure &
Slurry Bucket

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