

# SKID STEERS/COMPACT TRACK LOADERS

**L213**

**L216**

**L218**

**L220**

**L221**

**L223**

**L225**

**L230**

**C227**

**C232**

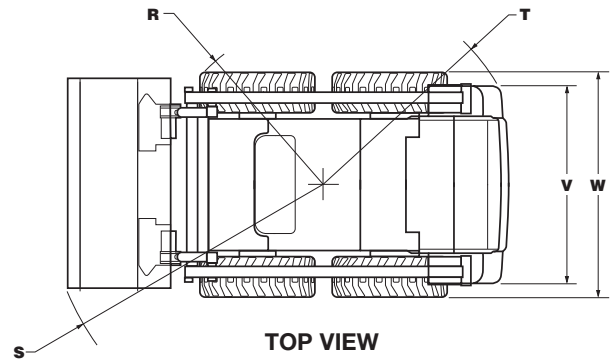
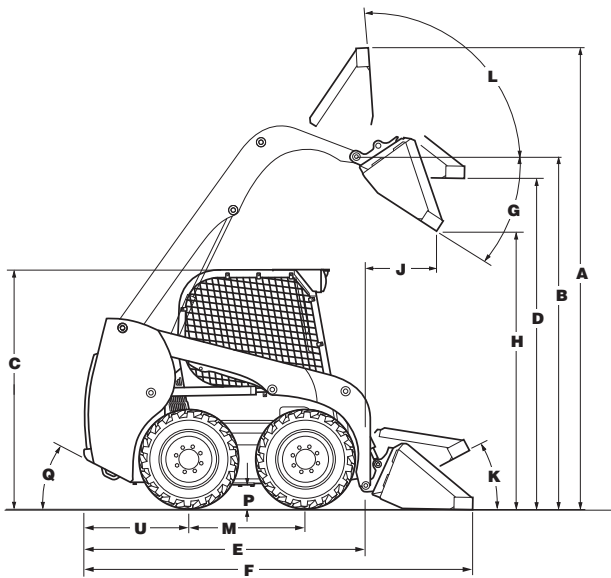
**C238**



- 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
<b>Overall operating height</b>				
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)
<b>Height to</b>				
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)
<b>Overall length</b>				
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)
<b>Dump</b>				
G.	Dump angle, degrees	40	40	40
<b>Dump height</b>				
	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)
<b>Maximum attachment rollback</b>				
K.	Bucket on ground, degrees	26	26	31
L.	Bucket at full height, degrees	95	95	99
<b>Wheelbase and Clearance</b>				
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
<b>Clearance circle</b>				
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
<b>Manufacturer/model</b>	ISM / N844L	ISM / N844LT	FPT/F5H FL463
<b>Type</b>	Diesel 4-stroke, I.D.I.	Diesel 4-stroke, T, I.D.I.	Diesel 4-stroke, Turbo, D.I.
<b>Cylinder</b>	4	4	4
<b>Bore/stroke, in (mm)</b>	3.31 x 3.94 (84 x 100)	3.31 x 3.94 (84 x 100)	3.9x4.3 (99x110)
<b>Displacement, in<sup>3</sup> (L)</b>	135.2 (2.216)	135.2 (2.216)	207 (3.4)
<b>Fuel injection</b>	Indirect	Indirect	HPCR Direct
<b>Fuel</b>	#2 diesel	#2 diesel	#2 diesel
<b>Fuel filter</b>	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
<b>Air intake</b>	Naturally aspirated	Turbocharged with external EGR	Turbocharged with CEGR external
<b>Cooling</b>	Liquid	Liquid	Liquid
<b>Engine speeds</b>			
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
<b>Horsepower per SAE J1349</b>			
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
<b>Peak torque, lb-ft (N•m)</b>	105.5 (143) @ 1800 rpm	139 (188) @ 1800 rpm	232 (314) @ 1400 rpm

POWER TRAIN	L213	L216	L221
<b>Drive pump mechanical</b>			
Pump to engine ratio	1:1	1:1	1:1
Displacement, in <sup>3</sup> (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
<b>Drive motors</b>			
Max displacement, in <sup>3</sup> (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)
<b>Travel speed with spec tires</b>			
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
<b>Drive chain</b>			
Size	ASA #80	ASA #80	ASA #100
<b>Axles</b>			
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)
<b>Parking brake</b>			
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
<b>Pumps</b>			
Type	Gear	Gear	Gear
Displacement standard aux., in <sup>3</sup> (cc)	1.45 (23.8)	1.52 (24.9)	2.23 (36.6)
Displacement high flow aux., in <sup>3</sup> (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)
<b>Loader control valve</b>			
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
<b>Lift cylinder</b>			
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)
<b>Bucket cylinders</b>			
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
<b>Operating weight, lbs (kg)</b>	5070 (2300)	5510 (2505)	6970 (3160)
<b>Shipping weight, lbs (kg)</b>	4770 (2160)	5210 (2370)	6670 (3025)

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

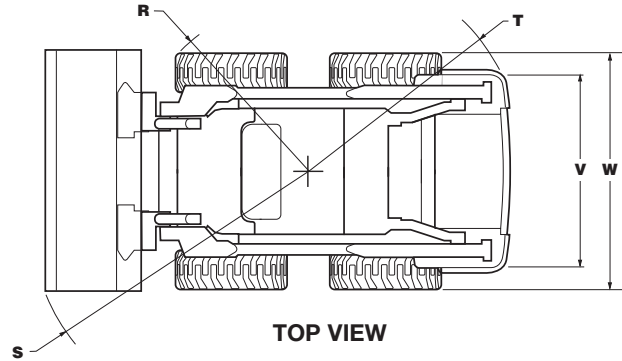
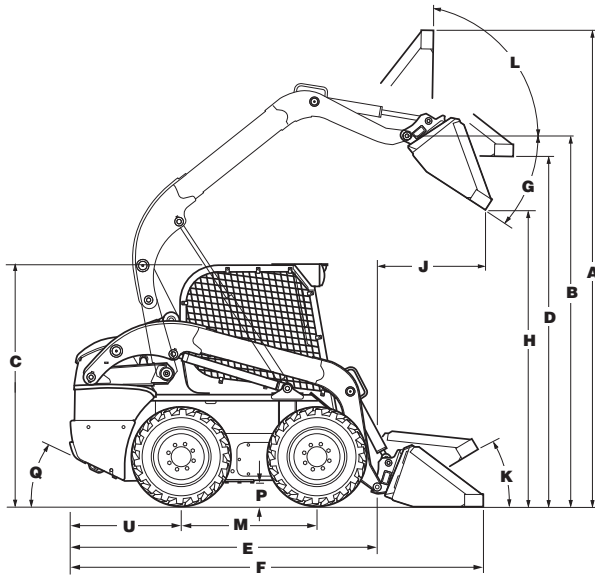
PERFORMANCE SPECS	L213	L216	L221
<b>Rated operating load</b>			
50% tip, lbs (kg)	1300 (590)	1600 (725)	2100 (905)
Tipping load, lbs (kg)	2600 (1179)	3200 (1455)	4000 (1814)
<b>Breakout forces</b>			
Lift cylinder, lbs (kN)	2850 (12.7) Tip Limit	3310 (14.7) Tip Limit	4570 (20.3)
Bucket cylinder, lbs (kN)	4180 (18.6)	5270 (23.4)	7270 (32.3)
<b>Cycle times</b>			
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
<b>Overall operating height</b>						
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)
<b>Height to</b>						
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)
<b>Overall length</b>						
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)
<b>Dump</b>						
G.	Dump angle, degrees	52	52	55	55	55
<b>H.</b> 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)
<b>Maximum attachment rollback</b>						
K.	Bucket on ground, degrees	35	34	34	34	33
L.	Bucket at full height, degrees	88	88	85	85	85
<b>Wheelbase and Clearance</b>						
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
<b>Clearance circle</b>						
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
<b>Manufacturer/model</b>	ISM / N844LTA	ISM / N844LTA	FPT / F5H FL463	FPT / F5H FL413	FPT / F5H413
<b>Type</b>	Diesel 4-stroke, Turbo, D.I.	Diesel 4-stroke, Turbo, D.I.	Diesel 4-stroke, Turbo, D.I.	Diesel 4-stroke, Turbo, D.I.	Diesel 4-stroke, Turbo, D.I.
<b>Cylinder</b>	4	4	4	4	4
<b>Bore/stroke, in (mm)</b>	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)
<b>Displacement, in³ (L)</b>	135 (2.2)	135 (2.2)	195 (3.2)	195 (3.2)	207.5 (3.4)
<b>Fuel injection</b>	HPCR Direct	HPCR Direct	HPCR Direct	HPCR Direct	HPCR Direct
<b>Fuel</b>	#2 diesel	#2 diesel	#2 diesel	#2 diesel	#2 diesel
<b>Fuel filter</b>	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
<b>Air intake</b>	Turbocharged Aftercooled with external EGR	Turbocharged Aftercooled with external EGR	Turbocharged with external CEGR	Turbocharged Aftercooled with external CEGR	Turbocharged Aftercooled with external CEGR
<b>Cooling</b>	Liquid	Liquid	Liquid	Liquid	Liquid
<b>Engine speeds</b>					
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
<b>Horsepower per SAE J1349</b>					
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
<b>Peak torque, lb-ft (N•m)</b>	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
<b>Drive pump mechanical</b>					
Pump to engine ratio	1:1	1:1	1:1	1:1	1:1
Displacement, in³ (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
<b>Drive pump electro hydraulic</b>					
Pump to engine ratio	1:1	1:1	1:1	1:1	1:1
Displacement, in³ (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
<b>Drive motors</b>					
Max displacement, in³ (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)
<b>Travel speed with spec tires</b>					
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
<b>Drive chain</b>					
Size	ASA #80	ASA #80	ASA #100	ASA #100	ASA #100
<b>Axles</b>					
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)
<b>Parking brake</b>					
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
<b>Pumps</b>					
Type	Gear	Gear	Gear	Gear	Gear
Displacement standard aux., in <sup>3</sup> (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 <sup>3</sup> (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)
<b>Loader control valve</b>					
Type	3 spool / open center / series	3 spool / open center / series	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)	3046 (210)	3046 (210)
Hydraulic filter	4 microns / spin on	4 microns / spin on	4 microns / spin on	4 microns / spin on	4 microns / spin on

CYLINDERS	L218	L220	L223	L225	L230
<b>Lift cylinder</b>					
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)
<b>Bucket cylinders</b>					
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
<b>Operating weight, lbs (kg)</b>	5930 (2690)	6470 (2930)	7400 (3350)	7900 (3580)	8300 (3765)
<b>Shipping weight, with bucket, lbs (kg)</b>	5630 (2550)	6170 (2795)	7065 (3200)	7565 (3430)	7965 (3610)

SERVICE CAPACITIES	L218	L220	L223	L225	L230
<b>Fuel tank, gal (L)</b>	19.5 (73.8)	19.5 (73.8)	25.5 (96.5)	25.5 (96.5)	25.5 (96.5)
<b>Engine oil with filter, qt (L)</b>	7.5 (7.1)	7.5 (7.1)	10 (9.4)	10 (9.4)	10 (9.4)
<b>Hydraulic system</b>					
System capacity with filter, qt (L)	34 (32.2)	34 (32.2)	47 (44.5)	47 (44.5)	47 (44.5)
<b>Chain tanks (per side), qt (L)</b>	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
<b>Rated operating load</b>					
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)
<b>Breakout forces</b>					
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)
<b>Cycle times</b>					
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



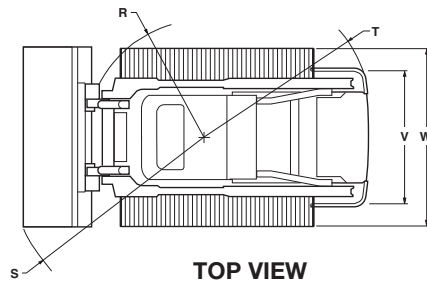
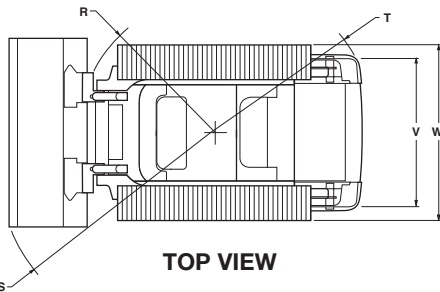
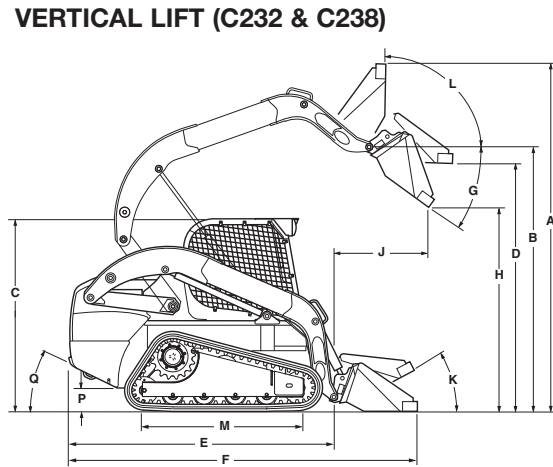
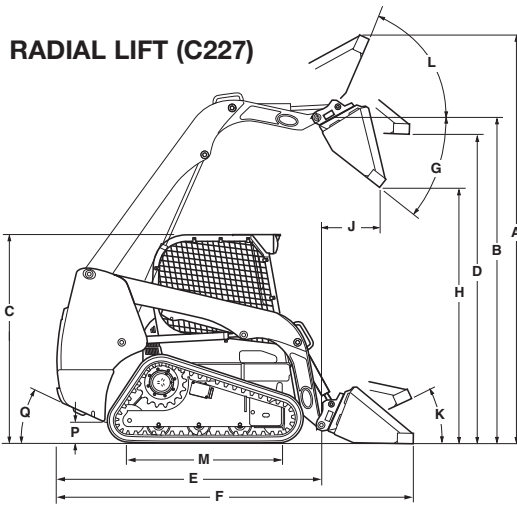
# 200 Series Skid Steer Tire Options

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





# Compact Track Loader Specifications



DIMENSIONS		C227	C232	C238
<b>Overall operating height</b>				
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)
<b>Height to</b>				
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)
<b>Overall length</b>				
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)
<b>Dump</b>				
G.	Dump angle, degrees	40	55	55
<b>H.</b> 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)
<b>Maximum attachment rollback</b>				
K.	Bucket on ground, degrees	31	33	33
L.	Bucket at full height, degrees	99	85	85
<b>Track and Clearance</b>				
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
<b>Clearance circle</b>				
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) with 72" bucket	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
<b>Manufacturer/model</b>	FPT / F5H FL463A	FPT / F5H FL413H	FPT / F5H FL413CL
<b>Type</b>	Diesel 4-stroke, turbo, D.I.	Diesel 4-stroke, turbo, D.I.	Diesel 4-stroke, Turbo, D.I.
<b>Cylinder</b>	4	4	4
<b>Bore/stroke, in (mm)</b>	3.9 x 4.3 (99 x 109)	3.9 x 4.3 (99 x 109)	3.9 x 4.3 (99 x 109)
<b>Displacement, in<sup>3</sup> (L)</b>	207 (3.4)	207 (3.4)	207 (3.4)
<b>Fuel injection</b>	HPCR Direct	HPCR Direct	HPCR Direct
<b>Fuel</b>	#2 diesel	#2 diesel	#2 diesel
<b>Fuel filter</b>	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
<b>Air intake</b>	Turbocharged with external EGR	Turbocharged Aftercooled with external EGR	Turbocharged Aftercooled with external EGR
<b>Cooling</b>	Liquid	Liquid	Liquid
<b>Engine speeds</b>			
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
<b>Horsepower per SAE J1349</b>			
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
<b>Peak torque, lb-ft (N•m)</b>	223 (314) @ 1400 rpm	257 (349) @ 1400 rpm	282 (383) @ 1400 rpm

POWER TRAIN	C227	C232	C238
<b>Drive pump electro hydraulic</b>			
Pump to engine ratio	1:1	1:1	1:1
Displacement, in <sup>3</sup> (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
<b>Drive motors</b>			
Effective Max displacement, in <sup>3</sup> (cc)	67 (1098)	67 (1098)	67 (1098)
Effective Displacement opt high speed, in <sup>3</sup> (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)
<b>Travel speed</b>			
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
<b>Parking brake</b>			
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
<b>System</b>	High drive offset tread pattern	High drive offset tread pattern	High drive offset tread pattern
<b>Idlers / rollers per side</b>	2/3	2/4	2/4
<b>Ground pressure</b>			
PSI (with spec belt)	5.9	4.2	4.4







# Compact Track Loader Specifications

HYDRAULIC SYSTEM	C227	C232	C238
<b>Pumps</b>			
Type	Gear	Gear	Gear
Displacement standard aux., in <sup>3</sup> (cc)	2.23 (36.6)	2.23 (36.6)	2.23 (36.6)
Displacement high flow aux., in <sup>3</sup> (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)
<b>Loader control valve</b>			
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
<b>Lift cylinder</b>			
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)
<b>Bucket cylinders</b>			
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
<b>Operating weight, lbs (kg)</b>	8270 (3750)	9630 (4370)	10,100 (4581)
<b>Shipping weight, lbs (kg)</b>	7970 (3615)	9300 (4220)	9765 (4430)

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

CYLINDERS	C227	C232	C238
<b>Rated operating load</b>			
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)
<b>Breakout forces</b>			
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)
<b>Cycle times</b>			
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
<b>Dirt &amp; Foundry Bucket</b>											
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
<b>Low Profile Bucket</b>											
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		
<b>Low Profile Extended Bucket</b>											
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
<b>Light Material Bucket</b>											
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
<b>Manure &amp; Slurry Bucket</b>											
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
<b>Heavy Duty Dirt Bucket</b>											
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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