

**Reliability in Action**

**L959F**



# L959F Wheel Loader



## L959F Standard Features

- Deutz-SDLG SD80F Tier 4 Final with Manual Reversing Cooling Fan
- ZF 4WG200 Manual Powershift
- ZF limited slip axles with outboard-mounted wet disc brakes
- Air Conditioning, In-Cab Temperature Controls (Heat / Cooling)
- Rearview Camera, LED Work Lights, ROPS/FOPS. 12 Volt Charging Outlet, Slide-type windows & AM/FM radio with USB interface
- Joystick with integrated directional control switch & gear selection button
- Hydraulic quick coupler - ISO Interface - in cab actuation switch
- Full powered third function hydraulics
- General purpose bucket - 4.0 yd<sup>3</sup> with bolt-on edge
- 12 Month/2000 hour warranty

## Optional Equipment

- Long Boom (+12" dump height)
- Boom Suspension System
- Quick Attach & Pin On Light Material Buckets
- Quick attach fork lift frame with 49" & 72" fork tines

L959F Wheel Loader			
Specifications			
Bucket Capacity, Standard & Long Boom (yd <sup>3</sup> , m <sup>3</sup> )		4.0	3.0
Operating Weight (lbs, kg)		38,760	17,580
Rated Load (lbs, kg)		11,020	5,000
Bucket Width (in, mm)		119	3,016
Straight Tipping Load (lbs, kg) Hook on bucket	Standard Boom	26,980	12,240
	Long Boom	24,300	11,020
Full Turn Tipping Load (lbs, kg) Hook on bucket	Standard Boom	22,490	10,200
	Long Boom	20,240	9,180
Max breakout force (lbf, kN) Hook on bucket	Standard Boom	34,170	152.0
	Long Boom	31,920	142.0
Straight Tipping Load (lbs, kg) Pin on bucket	Standard Boom	27,650	12,540
	Long Boom	24,960	11,320
Full Turn Tipping Load (lbs, kg) Pin on bucket	Standard Boom	23,150	10,500
	Long Boom	20,900	9,480
Max breakout force (lbf, kN) Pin on bucket	Standard Boom	41,140	183.0
	Long Boom	38,220	170.0
Dimensions			
Height (ft.in, mm)		11' 2"	3,415
Width over Tires (ft.in, mm)		9' 2"	2,799
Length(ft.in, mm) (with bucket at ground level)	Standard Boom	27' 7"	8,415
	Long Boom	28' 5"	8,670
Max Dump Height (ft.in, mm) (at 45 degrees)	Standard Boom	9' 8"	2,945
	Long Boom (+10")	10' 6"	3,210
Max Dump Reach (ft.in, mm) (at 45 degrees)	Standard Boom	4' 3"	1,300
	Long Boom	4' 3"	1,300
Maximum Reach (ft.in, mm) (distance @ pin height) Pin on bucket	Standard Boom	6' 7" @ 3' 5"	2025 @ 1050
	Long Boom	7' 3" @ 3' 5"	2225 @ 1050
Maximum Reach (ft.in, mm) (distance @ pin height) Hook on bucket	Standard Boom	7' 2" @ 2' 10"	2190 @ 884
	Long Boom	7' 10" @ 2' 10"	2390 @ 884
Hinge Pin Height	Standard Boom	13' 8"	4,170
	Long Boom	14' 6"	4,435
Digging Depth (ft. in, mm)		5.1"	130
Tire Tracking Width (ft.in, mm)		7' 3"	2,204
Ground Clearance (in, mm)		16"	423
Wheelbase (ft.in, mm)		10' 6"	3,200
Max Rimpull (lbf, kN)		34,850	155.0
Turning Radius, Outside Bucket (ft.in, mm)		22' 3"	6,775
Turning Radius, Rear Tire (ft.in, mm)		19' 10"	6,046
Max Climbing Angle(°)		28	





L959F Wheel Loader			
Engine			
Model		Deutz-SDLG SD80F (Tier 4f)	
Type		4-Stroke, turbocharged, water-cooled, high-pressure common rail fuel injection system	
Max Gross Power, 1800 rpm (hp, kW)		256	191
Max Net Power, 1800 rpm (hp, kW)		248	185
Max Torque, 1450 rpm (lbf.ft, Nm)		922	1250
Rated Power @ 2100 rpm (hp, kW)		236	176
Cylinders		6.0	
Displacement (in3, L)		474	7.8
Bore (in, mm)		4.3	110
Stroke (in, mm)		5.4	136
Drivetrain			
Type	Countershaft		
Speed	Gear	Forward (mph, km/h)	Reverse (mph, km/h)
	1st	4.2, 6.8	4.0, 6.5
	2nd	7.5, 12.0	7.5, 12.0
	3rd	14.3, 23.0	14.3, 23.0
	4th	21.7, 35.0	N/A
Torque Converter	Type	Single Phase, 3 Elements, Single Turbine, Hydraulic Converter	
	Torque Multiplication	2.55 : 1	
	Oil cooling type	Circulation, liquid-cooled	
	Oil Inlet Pressure (PSI, MPa)	123	0.85
	Oil Outlet Pressure (PSI, MPa)	73	0.5
Transmission:	Type	ZF 4WG200 Fixed Axis, Electrohydraulic Shift	
	Control	Powershift, Mechanical Control, Twist Grip with Kickdown. Joystick with integrated directional control switch	
	Pump	Internal Gear Pump	
	Gears	4 Forward, 3 Reverse	
	Working Pressure (PSI, MPa)	232 ~ 261	1.6 ~ 1.8
	Transmission Ratio	Forward, 1st	4.278
		Forward, 2nd	2.368
		Forward, 3rd	1.126
		Forward, 4th	0.648
		Reverse, 1st	4.278
		Reverse, 2nd	2.368
		Reverse, 3rd	1.126
Axles	Main Drive	Type	Single-Stage, Spiral Bevel
		Reduction Gear Ratio	3.7
	Hub Reductions	Type	Single-Stage Planetary
		Reduction Gear Ratio	6.35
	Differential Type	Limited Slip (ZF Brand)	
Static Load Rating (lbf, kN) Front / Rear Axles	71040 / 55977	316 / 249	
Tires	Type	23.5-25 20-Ply Tubeless	
	Tire Pressure	Front (PSI, MPa)	55 ~ 58, 0.38 ~ .40
		Rear (PSI, MPa)	46 ~ 49, 0.32 ~ .34
Brakes:	Service Brake	Hydraulic, Wet-Disc, ZF	
	Parking Brake	Fully Hydraulic, Drum Brake	
	Brake Oil Pressure (PSI, MPa)	800	5.5

L959F Wheel Loader			
Steering System			
Type		Load sensing, fully hydraulic articulated steering	
Priority Valve		VLH-240S-16	
Steering Pump		HPT3-100/P124-16 Gear Pump	
Steering Cylinders	Model Type	HSGL-90x50x480	
	Rod Diameter (in, mm)	2.0	50.0
	Bore (in, mm)	3.5	90.0
	Stroke (in,mm)	18.9	480.0
Steering angle(°)		40	
Steering Pressure, Working (PSI, MPa)		2320	16.0
Steering Flow, Working, 2200 rpm (gpm, lpm)		77 @ 1450psi	289 @ 10Mpa
Hydraulic System			
Type		Hydraulic Pilot Control	
Control, In-Cab		Joystick with integrated directional control switch & 1st gear kickdown. Separate 3rd Function Lever	
Main System Pump		HPT3-63/32 Gear Pump	
Main Control Valve		D32A-18(3 spool)	
Pilot valve		HC-RCL-5A-VIA (3 spool)	
System Pressure, Working (PSI, MPa)		2610	18.0
System Flow, Working, 2200rpm (gpm, lpm)		81 @ 1450psi	308 @ 10Mpa
3rd Function Flow, Max Flow, 700rpm		27 @ 1450psi	102 @ 10Mpa
3rd Function Flow, Max Flow, 2200rpm		81 @ 1450psi	308 @ 10Mpa
Lifting Cylinder (X2)	Model Type	HSGF-170×90×774	
	Rod Diameter (in, mm)	3.5	90.0
	Bore (in, mm)	6.7	170.0
	Stroke (in,mm)	30.4	774.0
Tilt Cylinder (X1)	Model Type	HSGF-200×100×550	
	Rod Diameter (in, mm)	3.9	100.0
	Bore (in, mm)	7.9	200.0
	Stroke (in,mm)	21.6	550.0
Lift Time, Loaded (s)		≤6.69	
Dump Time, Empty (s)		≤1.13	
Lower Time, Empty (s)		≤4.82	
Total Time		≤12.64	
Service			
Fuel Tank (gal, l)		84.5	320.0
DEF Tank (gal, l)		7.9	30.0
Hydraulic Oil Tank, Total (Tanks + Lines) (gal, l)		63.4	240.0
Hydraulic Oil Tank, Tank (gal, l)		55.4	210.0
Engine Oil (gal, l)		5.0	19.0
Engine Coolant (gal, l)		12.7	48.0
Main Drive, Front / Rear Axle (gal, l)		2 X 9.0	2 X 34.0
Hub Reduction, Front / Rear Axle (gal, l)			
Transmission Gearbox (gal, l)		9.2	35.0
Cab Heating Capacity (BTU/hr, Watts)		37530	11000
Cab Cooling Capacity (BTU/hr, Watts)		18090	5300
Internal, Cab Noise Levels, ISO, dB(A)		76.3	
External, Machine Noise Levels, ISO, dB(A)		107.2	
Electrical System			
Voltage (V)		24.0	
Batteries (V)		2 X 12	
Battery Capacity (Ah)		120.0	
Cold Cranking Amps (CCA)		850.0	
Alternator Rating (W, A)		2240, 80	
Starter Motor Output (hp, kW)		7.4, 5.5	



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