

# 319D L and 319D LN

## Hydraulic Excavators



### Features

Excellent controllability and reliability, impressive lift capacity, better fuel efficiency, simplified service and a redesigned operator station to increase your productivity and lower your operating costs.

**Engine.** The Cat® C4.2 engine with ACERT™ Technology is built for power, reliability, efficiency and high performance in all applications. It provides low exhaust emissions to meet EU Stage IIIA emission regulations, with exceptional performance capabilities and proven reliability.

**Hydraulics.** The open-center, two-pump hydraulic system features higher pressure, providing more lifting power, swing torque and breakout force. Flow control system improves fuel efficiency, reduces sound and extends component life.

**Front Linkage.** Built for performance and long service life, Cat booms and sticks are large, welded, box-section structures with thick, multi-plate fabrications in high stress areas. Two types of booms and four sticks are available for a wide range of applications.

**Operator Comfort.** Provides maximum space, wider viewing area and easy access to switches. The monitor is a full-color graphical display that allows the operator to understand the machine information easily.

**Serviceability.** Fast, easy service has been designed in with extended service intervals, advanced filtration, convenient filter access and user-friendly electronic diagnostics for increased productivity and reduced maintenance costs.

**CATERPILLAR®**

# 319D L and 319D LN Specifications

## Engine

Horsepower (hp) are metric

Model	Cat C4.2 ACERT
Net Power ISO 9249 at 1800 rpm	93 kW/126 hp
Bore	102 mm
Stroke	130 mm
Displacement	4.2 liter

## Drive

Maximum Travel Speed	5 km/h
Maximum Drawbar Pull	207 kN

## Swing Mechanism

Swing Speed	11.3 rpm
Swing Torque	50.8 kNm

## Service Refill Capacities

Liter

Fuel Tank	300
Cooling System	11
Diesel Engine	18.5
Swing Drive (each)	3
Final Drive (each)	5
Hydraulic system (including tank)	190
Hydraulic tank	106

## Cab/FOGS

Cab/FOGS meets ISO 10262

## Hydraulic System

Main System	
Maximum flow	2 x 176 l/min
Maximum pressure	
Normal	350 bar
Travel	360 bar
Swing	230 bar
Pilot System	
Rated flow	26.7 l/min
Rated pressure	41 bar
Boom Cylinder	
Bore	120 mm
Stroke	1193 mm
Stick Cylinder	
Bore	130 mm
Stroke	1364 mm
Bucket Cylinder for 2700 and 3200 mm sticks	
Bore	110 mm
Stroke	1048 mm
Bucket Cylinder for 1800 and 2200 mm sticks	
Bore	120 mm
Stroke	1030 mm

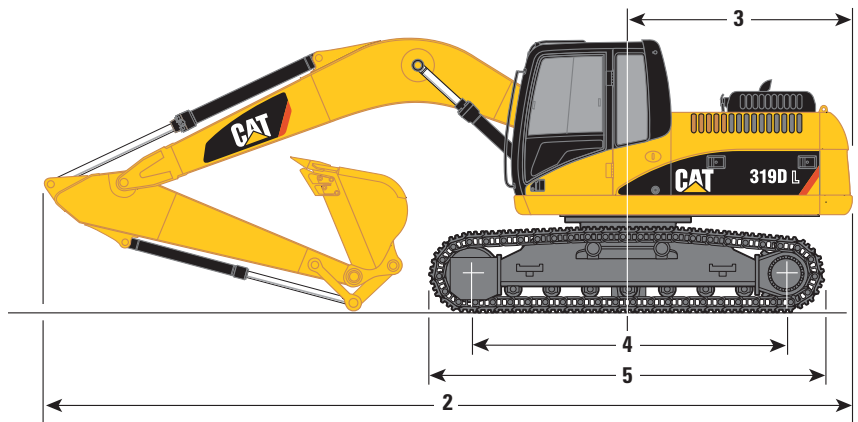
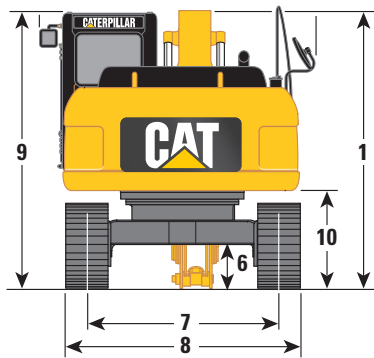
## Track Shoes

Undercarriage with triple grouser shoes	
Long (L)	500 mm, 600 mm, 700 mm
Long Narrow (LN)	500 mm, 600 mm

## Machine and Major Component Weights

		Reach boom 5300 mm				VA boom			
		R1.8	R2.2	R2.7	R3.2	R1.8	R2.2	R2.7	R3.2
Stick type									
Stick length	mm	1800	2250	2700	3200	1800	2250	2700	3200
Bucket weight	kg	638	638	638	638	638	638	638	638
Bucket capacity	m <sup>3</sup>	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Bucket width/type	mm	1100/X	1100/X	1100/X	1100/X	1100/X	1100/X	1100/X	1100
Operating weight*									
319D L (600 mm shoes)	kg	19 480	19 460	19 460	19 550	19 980	19 960	19 960	20 060
319D LN (500 mm shoes)	kg	19 190	19 170	19 160	19 260	19 690	19 670	19 670	19 760
Ground pressure									
319D L (600 mm shoes)	bar	0.44	0.44	0.44	0.45	0.46	0.46	0.46	0.46
319D LN (500 mm shoes)	bar	0.53	0.53	0.53	0.53	0.54	0.54	0.54	0.54
Stick weight (with bucket cylinder)	kg	1002	981	980	1075	1002	981	980	1075
Boom weight (with stick cylinder)	kg	1600				2100			
Upperstructure (without counterweight)	kg	9080				9080			
Undercarriage									
319D L (600 mm shoes)	kg	7160				7160			
319D LN (500 mm shoes)	kg	6860				6860			
Counterweight									
319D L (600 mm shoes)	kg	3600				3600			
319D LN (500 mm shoes)	kg	3900				3900			

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## Dimensions

1 Shipping height (with bucket)		2 Shipping length		3 Tail swing radius	
Reach boom	mm	Reach boom		4 Length to centers of idler	3650
1800 mm stick	3075	1800 mm stick	9000	5 Track length	4450
2250 mm stick	3150	2250 mm stick	8820	6 Ground clearance	463
2700 mm stick	3085	2700 mm stick	8775	7 Track gauge	
3200 mm stick	3525	3200 mm stick	8765	319D L	2200
VA boom		VA boom		319D LN	1995
1800 mm stick	3130	1800 mm stick	9000	8 Transport width	
2250 mm stick	3280	2250 mm stick	8820	319D L (600 mm shoes)	2800
2700 mm stick	3075	2700 mm stick	8775	319D LN (500 mm shoes)	2495
3200 mm stick	3431	3200 mm stick	8765	9 Cab height	2870
				10 Counterweight clearance	1027

## Working Ranges

Stick Type		Reach boom				VA boom			
		R1.8	R2.2	R2.7	R3.2	R1.8	R2.2	R2.7	R3.2
Stick Length	mm	1800	2250	2700	3200	1800	2250	2700	3200
Maximum Digging Depth	mm	-5520	-5970	-6420	-6920	-4804	-5293	-6773	-6314
Maximum Reach at Ground Level	mm	8410	8860	9300	9820	8140	7085	9036	9569
Maximum Cutting Height	mm	8620	8960	9270	9680	-	-	-	-
Maximum Loading Height	mm	5840	6110	6410	6810	6690	7087	7487	8005
Minimum Loading Height	mm	3210	2760	2300	1810	3733	3362	2826	2448
Maximum Digging Depth 2.5 m Level Bottom	mm	-5210	-5720	-6210	6750	4804	-5267	-6732	6257
Maximum Vertical Wall Digging Depth	mm	-4000	-5090	-5520	-6170	-3713	-4538	-5027	-5555
Bucket Tip Radius	mm	1461	1461	1461	1461	1461	1461	1461	1461
Bucket Forces (ISO 6015)	kN	148	146	124	126	148	146	124	126
Stick Forces (ISO 6015)	kN	125	108	92	82	125	108	92	82

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