

Volvo ECR88D in detail

Engine

The new Tier 4f/Stage IIIB compliant diesel engine is equipped with in-line, turbocharged and water cooled.

Model	Volvo	D2.6H
Max. power at	r/min	2 000
Net (ISO 9249/SAEJ1349)	kW	41
	hp	56
Gross (SAE J1995)	kW	43
	hp	58
Max. torque	Nm	220
at engine speed	r/min	1 300
No. of cylinders		4
Displacement	l	2.62
Bore	mm	87
Stroke	mm	110

Electrical system

Voltage	V	12
Batteries	V	1 x 12
Battery capacity	Ah	100
Alternator	V/Ah	12/70
Starter motor output	V - kW	12 - 2.5

Hydraulic system

Closed-Center Load-Sensing (CCLS) system with load independent functions.

Main pump: Variable-displacement pump		
Maximum flow	l/min	1 x 169
Pilot pump: Gear pump		
Maximum flow	l/min	1 x 14
Relief valve setting pressure		
Implement	MPa	29.4
Travel circuit	MPa	29.4
Swing circuit	MPa	24.5
Pilot circuit	MPa	3.4

Swing system

Direct drive swing with radial piston motor-maintenance free and automatic holding brake anti-rebound valve.

Max. swing speed	r/min	9.3
Max. swing torque	kNm	22.9

Undercarriage

Robust X-shaped frame with sealed and greased track chains.			
Track shoes			2 x 39
Link pitch	mm		154
Shoe width - steel	mm	450 / 600	
Shoe width - rubber	mm		450
Bottom rollers			2 x 5
Top rollers			2 x 1

Travel System

Each track is powered by an automatic two-speed shift travel motor. The track brakes are multi-disc, spring-applied and hydraulic released.			
Travel speed low	km/h		2.6
Travel speed high	km/h		4.9
Max. drawbar pull	kN		65
Gradeability	°		35

Service Refill

Fuel tank	l	110
Hydraulic system, total	l	140
Hydraulic tank	l	84
Engine oil	l	10
Engine coolant	l	9.3
Travel reduction unit	l	2 x 1.6

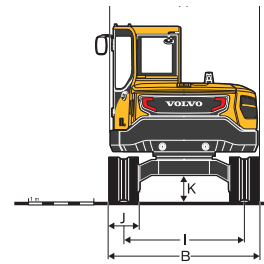
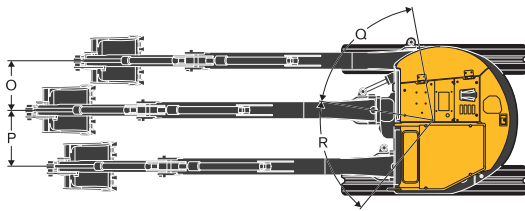
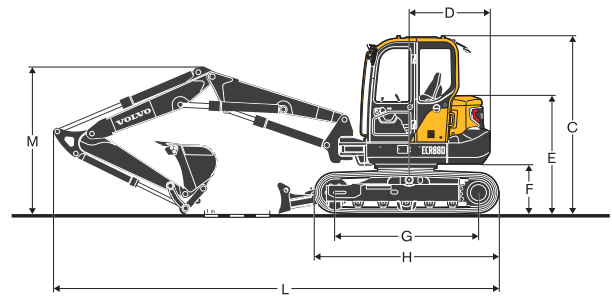
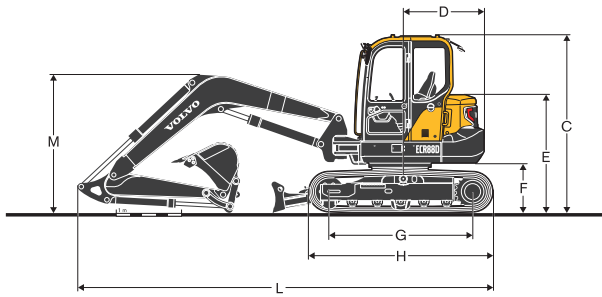
Sound Level

Sound level in cab according to ISO 6396		
LpA	dB(A)	73
External sound level according to ISO 6395 and EU Noise Directive 2000/14/EC		
LwA	dB(A)	97

Buckets

	Width	Weight	Capacity
	mm	kg	l
Direct bucket	300	111	79
	450	139	143
	600	162	200
	750	182	266
	900	205	333
Quick coupler bucket	450	132	143
	600	156	200
	700	171	244
	850	191	310

Specifications

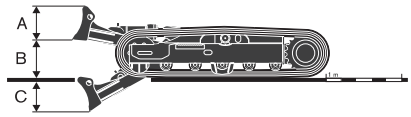
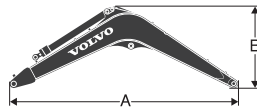


DIMENSIONS

Machine		ECR88D				
Boom		3.55 (mono)		3.85 (2pcs)		
Arm		1.7	2.1	1.7	2.1	
A	Overall width of upper structure	mm	2 210	2 210	2 213	2 213
B	Overall width	mm	2 300	2 300	2 300	2 300
C	Overall height of cab	mm	2 715	2 715	2 715	2 715
D	Tail swing radius	mm	1 290	1 290	1 320	1 320
E	Overall height of engine hood	mm	1 180	1 180	1 180	1 180
F	Counterweight clearance *	mm	760	760	760	760
G	Tumbler length	mm	2 200	2 200	2 200	2 200
H	Track length	mm	2 830	2 830	2 830	2 830
I	Track gauge	mm	1 850	1 850	1 850	1 850
J	Shoe width	mm	450	450	450	450
K	Min. ground clearance *	mm	405	405	405	405
L	Overall length	mm	6 370	6 420	6 810	6 860
M	Overall height of boom	mm	2 115	2 230	2 247	2 455
O	Boom swing distance	mm	760	760	756	756
P	Boom swing distance	mm	860	860	863	863
Q	Boom swing angle	°	70		70	
R	Boom swing angle	°	60		60	

* Without shoe grouser

Specifications



Boom and Arm

			Boom		Arm	
			3.55 m (mono)	3.85 m (2pcs)	1.7 m	2.1 m
A	Length	mm	3 690	4 030	2 283	2 684
B	Height	mm	1 244	983	518	562
	Width	mm	335	340	305	305
	Weight	kg	530	774	280	340

Boom: Includes cylinder, piping and pin, excludes boom cyl. Pin.

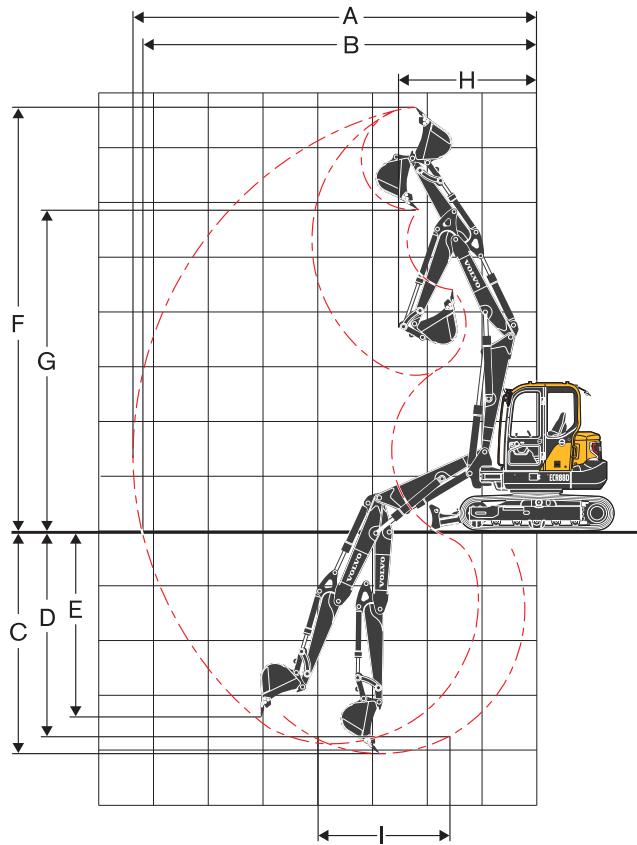
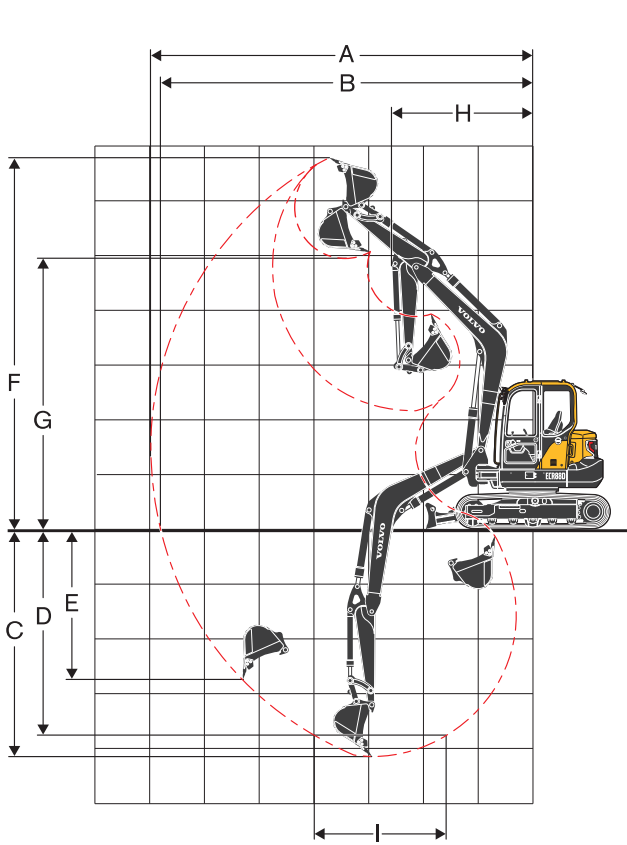
Arm: Includes cylinder, linkage and pin.

Dozer blade

A	Height	mm	470
	Width	mm	2 300
B	Lifting height	mm	518
C	Digging depth	mm	433

MACHINE WEIGHTS AND GROUND PRESSURE

	Shoe width	Operating weight	Ground pressure
	mm	kg	kPa
Mono boom 3.55 m, Arm 1.7 m, Bucket 188 kg (266 l), Counterweight 1 480 kg			
Steel track	450	9 010	40.5
	600	9 180	30.9
Rubber track	450	8 810	39.6
Rubber pad	450	9 030	40.4
Mono boom 3.55 m, Arm 2.1 m, Bucket 188 kg (266 l), Counterweight 1 480 kg			
Steel track	450	9 090	40.9
	600	9 260	31.2
Rubber track	450	8 890	40.0
Rubber pad	450	9 110	40.8
2pcs boom 3.85 m, Arm 1.7 m, Bucket 188 kg (266 l), Counterweight 1 690 kg			
Steel track	450	9 380	42.2
	600	9 550	32.2
Rubber track	450	9 180	41.3
Rubber pad	450	9 400	42.1
2pcs boom 3.85 m, Arm 2.1 m, Bucket 188 kg (266 l), Counterweight 1 690 kg			
Steel track	450	9 460	42.5
	600	9 630	32.5
Rubber track	450	9 260	41.6
Rubber pad	450	9 480	42.5



WORKING RANGES

Description	Unit	3.55 (mono)		3.85 (2pcs)	
Boom	m				
Arm	m	1.7	2.1	1.7	2.1
A Max. digging reach	mm	6 970	7 350	7 380	7 790
B Max. digging reach on ground	mm	6 800	7 180	7 220	7 640
C Max. digging depth	mm	4 130	4 530	4 090	4 480
D Max. digging depth (l=2 440mm level)	mm	3 750	4 200	3 790	4 220
E Max. vertical wall digging depth	mm	2 820	3 200	3 430	3 870
F Max. cutting height	mm	6 790	7 050	7 720	8 240
G Max. dumping height	mm	4 960	5 220	5 840	6 380
H Min. front swing radius	mm	2 560	2 640	2 530	2 700

Digging forces with direct fit bucket

Breakout force (bucket)	SAE J1179	kN	50.7	50.4	50.7	50.4
	ISO 6015	kN	57.2	56.8	57.2	56.8
Tearout force (arm)	SAE J1179	kN	38.9	33.8	38.9	33.8
	ISO 6015	kN	39.8	34.4	39.8	34.4
Rotation angle, bucket		°	190		190	

Specifications

LIFTING CAPACITY ECR88D

Lifting capacity at the arm end without bucket.

For lifting capacity including bucket. Simply subtract actual weight of the direct fit bucket or the bucket with quick coupler from the following values.

	Lifting point	1.0 m		2.0 m		3.0 m		4.0 m		5.0 m		6.0 m		Max. reach		
		Along	Across	Along	Across	Along	Across	Along	Across	Along	Across	Along	Across	Along	Across	mm
Boom 3.55m	5.0 m kg							*1 520	*1 520					*1 600	*1 600	4 585
Arm 1.7m	4.0 m kg							*1 580	*1 580	*1 540	1 390			*1 560	1 230	5 345
Shoe 450mm	3.0 m kg					*2 490	*2 490	*1 890	*1 890	*1 640	1 360			*1 540	1 060	5 789
CWT 1 480kg	2.0 m kg					*3 700	2 830	*2 330	1 840	*1 830	1 310	*1 590	980	*1 580	980	6 003
Dozer blade down	1.0 m kg							*2 690	1 750	*2 000	1 260	*1 630	960	*1 620	950	6 014
	0.0 m kg					*3 800	2 640	*2 810	1 700	*2 070	1 230			*1 670	990	5 825
	-1.0 m kg			*3 560	*3 560	*3 840	2 640	*2 690	1 690	*1 970	1 220			*1 700	1 100	5 410
	-2.0 m kg			*4 790	*4 790	*3 200	2 690	*2 270	1 710					*1 710	1 370	4 695
	-3.0 m kg					*1 880	*1 880							*1 500	*1 500	3 433
Boom 3.55m	5.0 m kg							*1 520	*1 520					*1 600	1 520	4 850
Arm 1.7m	4.0 m kg							*1 580	*1 580	*1 540	1 320			*1 470	1 160	5 345
Shoe 450mm	3.0 m kg					*2 490	*2 490	*1 890	1 850	1 630	1 290			*1 270	1 000	5 789
CWT 1 480kg	2.0 m kg					3 440	2 650	2 210	1 740	1 580	1 240	1 180	920	*1 180	920	6 003
Dozer blade up	1.0 m kg							2 120	1 640	1 530	1 190	1 160	900	*1 160	900	6 014
	0.0 m kg					3 240	2 460	2 070	1 590	1 490	1 160			*1 200	930	5 825
	-1.0 m kg	*2 460	*2 460	*3 560	*3 560	3 250	2 470	2 050	1 580	1 480	1 150			*1 330	1 030	5 410
	-2.0 m kg			*4 790	*4 790	*3 200	2 510	2 080	1 610					*1 650	1 280	4 695
	-3.0 m kg					*1 880	*1 880							*1 500	*1 500	3 433
Boom 3.55m	6.0 m kg													*1 510	*1 510	3 965
Arm 2.1m	5.0 m kg									*1 380	*1 380			*1 320	*1 320	5 095
Shoe 450mm	4.0 m kg									*1 340	*1 340			*1 230	1 070	5 776
CWT 1 480kg	3.0 m kg							*1 650	*1 650	*1 470	1 370	*1 390	990	*1 210	940	6 184
Dozer blade down	2.0 m kg					*3 160	2 900	*2 100	1 850	*1 680	1 310	*1 470	970	*1 240	870	6 382
	1.0 m kg					*3 630	2 660	*2 520	1 740	*1 890	1 250	*1 560	940	*1 320	850	6 393
	0.0 m kg					*3 940	2 580	*2 730	1 670	*2 010	1 200	*1 590	920	*1 480	870	6 217
	-1.0 m kg	*2 660	*2 660	*3 090	*3 090	*4 000	2 570	*2 720	1 640	*2 000	1 180			*1 550	950	5 835
	-2.0 m kg	*3 980	*3 980	*4 940	*4 940	*3 490	2 600	*2 440	1 650	*1 720	1 200			*1 580	1 140	5 192
	-3.0 m kg			*3 870	*3 870	*2 510	*2 510	*1 650	*1 650					*1 530	*1 530	4 133
Boom 3.55m	6.0 m kg													*1 510	*1 510	3 965
Arm 2.1m	5.0 m kg									*1 380	1 330			*1 320	1 280	5 095
Shoe 450mm	4.0 m kg									*1 340	1 330			*1 230	1 010	5 776
CWT 1 480kg	3.0 m kg							*1 650	*1 650	*1 470	1 290	1 200	930	*1 130	880	6 184
Dozer blade up	2.0 m kg					*3 160	2 720	*2 100	1 750	1 570	1 230	1 170	910	*1 050	810	6 382
	1.0 m kg					3 270	2 480	2 110	1 630	1 510	1 170	1 140	880	*1 030	790	6 393
	0.0 m kg					3 180	2 400	2 030	1 560	1 460	1 130	1 120	860	*1 060	810	6 217
	-1.0 m kg	*2 660	*2 660	*3 090	*3 090	3 170	2 390	2 010	1 540	1 440	1 110			*1 160	890	5 835
	-2.0 m kg	*3 980	*3 980	*4 940	*4 940	3 200	2 420	2 020	1 550	1 460	1 120			*1 390	1 070	5 192
	-3.0 m kg			*3 870	*3 870	*2 510	2 500	*1 650	1 610					*1 530	*1 530	4 133
Boom 3.55m	5.0 m kg							*1 520	*1 520					*1 600	*1 600	4 585
Arm 1.7m	4.0 m kg							*1 580	*1 580	*1 540	1 470			*1 560	1 310	5 345
CWT 1 690kg	3.0 m kg					*2 490	*2 490	*1 890	*1 890	*1 640	1 440			*1 540	1 130	5 789
Dozer blade down	2.0 m kg					*3 700	2 990	*2 330	1 950	*1 830	1 390	*1 590	1 040	*1 580	1 040	6 003
	1.0 m kg							*2 690	1 860	*2 000	1 340	*1 630	1 020	*1 620	1 020	6 014
	0.0 m kg					*3 800	2 800	*2 810	1 810	*2 070	1 310			*1 670	1 050	5 825
	-1.0 m kg			*3 560	*3 560	*3 840	2 810	*2 690	1 790	*1 970	1 300			*1 700	1 170	5 410
	-2.0 m kg			*4 790	*4 790	*3 200	2 850	*2 270	1 820					*1 710	1 450	4 695
	-3.0 m kg					*1 880	*1 880							*1 500	*1 500	3 433
Boom 3.55m	5.0 m kg							*1 520	*1 520					*1 600	*1 600	4 585
Arm 1.7m	4.0 m kg							*1 580	*1 580	*1 540	1 390			*1 550	1 240	5 345
CWT 1 690kg	3.0 m kg					*2 490	*2 490	*1 890	*1 890	*1 640	1 360			*1 340	1 060	5 789
Dozer blade up	2.0 m kg					3 620	2 800	2 330	1 840	1 660	1 310	1 250	980	*1 250	980	6 003
	1.0 m kg							2 230	1 750	1 610	1 270	1 230	960	*1 220	960	6 014
	0.0 m kg					3 410	2 610	2 180	1 700	1 580	1 230			*1 270	990	5 825
	-1.0 m kg			*3 560	*3 560	3 420	2 620	2 170	1 690	1 570	1 230			*1 410	1 100	5 410
	-2.0 m kg			*4 790	*4 790	*3 200	2 660	2 190	1 710					*1 710	1 370	4 695
	-3.0 m kg					*1 880	*1 880							*1 500	*1 500	3 433
Boom 3.55m	6.0 m kg													*1 510	*1 510	3 965
Arm 2.1m	5.0 m kg									*1 380	*1 380			*1 320	*1 320	5 095
CWT 1 690kg	4.0 m kg									*1 340	*1 340			*1 230	1 140	5 776
Dozer blade down	3.0 m kg							*1 650	*1 650	*1 470	1 450	*1 390	1 060	*1 210	1 000	6 184
	2.0 m kg					*3 160	3 060	*2 100	1 960	*1 680	1 390	*1 470	1 030	*1 240	930	6 382
	1.0 m kg					*3 630	2 820	*2 520	1 850	*1 890	1 330	*1 560	1 000	*1 320	900	6 393
	0.0 m kg					*3 940	2 740	*2 730	1 780	*2 010	1 280	*1 590	980	*1 480	930	6 217
	-1.0 m kg	*2 660	*2 660	*3 090	*3 090	*4 000	2 730	*2 720	1 750	*2 000	1 260			*1 550	1 020	5 835
	-2.0 m kg	*3 980	*3 980	*4 940	*4 940	*3 490	2 760	*2 440	1 760	*1 720	1 280			*1 580	1 220	5 192
	-3.0 m kg			*3 870	*3 870	*2 510	*2 510	*1 650	*1 650					*1 530	*1 530	4 133

Notes: 1. The above loads are in compliance with SAE J1097 and ISO 10567 Hydraulic Excavator Lifting Capacity Standards.

2. Rated loads do not exceed 87% of hydraulic lifting capacity or 75% of tipping load. 3. Rated loads marked with an asterisk (*) are limited by hydraulic capacity rather than tipping load.

LIFTING CAPACITY ECR88D

Lifting capacity at the arm end without bucket.

For lifting capacity including bucket. Simply subtract actual weight of the direct fit bucket or the bucket with quick coupler from the following values.

	Lifting point	1.0 m		2.0 m		3.0 m		4.0 m		5.0 m		6.0 m		Max. reach					
		Along	Across	Along	Across	Along	Across	Along	Across	Along	Across	Along	Across	Along	Across	mm			
Boom 3.55m	6.0 m kg															*1 510	*1 510	3 965	
Arm 2.1m	5.0 m kg															*1 320	*1 320	5 095	
CWT 1 690kg	4.0 m kg									*1 340	*1 340					*1 230	1 080	5 776	
Dozer blade up	3.0 m kg								*1 650	*1 650	*1 470	1 370	1 260	1 000	1 200	940	6 184		
	2.0 m kg						*3 160	2 870	*2 100	1 850	1 660	1 310	1 240	970	1 120	870	6 382		
	1.0 m kg						3 440	2 640	2 220	1 740	1 590	1 250	1 210	940	1 090	850	6 393		
	0.0 m kg						3 360	2 560	2 150	1 670	1 550	1 210	1 190	920	1 130	870	6 217		
	-1.0 m kg	*2 660	*2 660	*3 090	*3 090	3 350	2 550	2 120	1 640	1 530	1 190					1 230	960	5 835	
	-2.0 m kg	*3 980	*3 980	*4 940	*4 940	3 380	2 580	2 130	1 650	1 540	1 200					1 470	1 140	5 192	
	-3.0 m kg			*3 870	*3 870	*2 510	*2 510	*1 650	*1 650							*1 530	*1 530	4 133	
Boom 3.85m 2piece	6.0 m kg								*2 060	*2 060						*2 060	2 060	4 029	
Arm 1.7m	5.0 m kg								*1 870	*1 870	*1 710	1 430				*1 690	1 350	5 142	
Shoe 450mm	4.0 m kg						*2 530	*2 530	*1 990	*1 990	*1 700	1 430				*1 540	1 070	5 816	
CWT 1 690kg	3.0 m kg								*2 270	1 970	*1 800	1 380	*1 530	1 000	*1 480	930	6 221		
Dozer blade down	2.0 m kg								*2 570	1 830	*1 920	1 310	*1 550	980	*1 420	870	6 418		
	1.0 m kg								*2 690	1 710	*1 980	1 240	*1 540	940	*1 360	850	6 428		
	0.0 m kg								*2 570	1 660	*1 920	1 210	*1 440	920	*1 280	870	6 254		
	-1.0 m kg						*2 810	2 610	*2 240	1 650	*1 690	1 190				*1 170	960	5 875	
	-2.0 m kg						*2 050	*2 050	*1 680	*1 680	*1 160	*1 160				*950	*950	5 238	
Boom 3.85m 2piece	6.0 m kg								*2 060	*2 060						*2 060	*2 060	4 029	
Arm 1.7m	5.0 m kg								*1 870	*1 870	1 710	1 460				1 610	1 380	5 142	
Shoe 450mm	4.0 m kg						*2 530	*2 530	*1 990	*1 990	*1 700	1 460				1 290	1 100	5 816	
CWT 1 690kg	3.0 m kg								*2 270	2 010	1 650	1 410	1 210	1 030	1 130	950	6 221		
Dozer blade up	2.0 m kg								2 210	1 860	1 580	1 340	1 180	1 000	1 060	880	6 418		
	1.0 m kg								2 090	1 750	1 510	1 270	1 150	970	1 040	860	6 428		
	0.0 m kg								2 040	1 700	1 470	1 230	1 130	950	1 070	890	6 254		
	-1.0 m kg						*2 810	2 680	2 030	1 690	1 460	1 220				*1 170	980	5 875	
	-2.0 m kg						*2 050	*2 050	*1 680	*1 680	*1 160	*1 160				*950	*950	5 238	
Boom 3.85m 2piece	7.0 m kg															*2 370	*2 370	2 906	
Arm 2.1m	6.0 m kg								*1 750	*1 750						*1 540	*1 540	4 679	
Shoe 450mm	5.0 m kg								*1 670	*1 670	*1 530	1 470				*1 300	1 150	5 640	
CWT 1 690kg	4.0 m kg								*1 800	*1 800	*1 560	1 450	*1 410	1 030	*1 200	940	6 251		
Dozer blade down	3.0 m kg						*2 900	*2 900	*2 080	2 010	*1 680	1 390	*1 440	1 010	*1 170	820	6 625		
	2.0 m kg								*2 410	1 840	*1 820	1 310	*1 490	970	*1 170	770	6 809		
	1.0 m kg								*2 620	1 700	*1 920	1 230	*1 510	930	*1 220	750	6 818		
	0.0 m kg						*2 150	*2 150	*2 590	1 630	*1 910	1 180	*1 470	900	*1 170	770	6 656		
	-1.0 m kg						*2 060	*2 060	*3 160	2 520	*2 350	1 600	*1 760	1 150	*1 280	890	*1 080	830	6 305
	-2.0 m kg						*2 970	*2 970	*2 450	*2 450	*1 890	1 620	*1 390	1 160		*930	*930	5 726	
	-3.0 m kg						*1 400	*1 400	*1 090	*1 090						*590	*590	4 816	
Boom 3.85m 2piece	7.0 m kg															*2 370	*2 370	2 906	
Arm 2.1m	6.0 m kg								*1 750	*1 750						*1 540	*1 540	4 679	
Shoe 450mm	5.0 m kg								*1 670	*1 670	*1 530	1 490				*1 300	1 170	5 640	
CWT 1 690kg	4.0 m kg								*1 800	*1 800	*1 560	1 470	1 240	1 050	1 140	960	6 251		
Dozer blade up	3.0 m kg						*2 900	*2 900	*2 080	2 050	1 660	1 410	1 220	1 030	1 010	840	6 625		
	2.0 m kg								2 230	1 880	1 580	1 330	1 180	990	940	780	6 809		
	1.0 m kg								2 080	1 740	1 500	1 260	1 140	950	920	770	6 818		
	0.0 m kg						*2 150	*2 150	2 000	1 670	1 450	1 200	1 110	920	950	780	6 656		
	-1.0 m kg						*2 060	*2 060	3 140	2 590	1 980	1 640	1 420	1 100	910	1 030	850	6 305	
	-2.0 m kg						*2 970	*2 970	*2 450	*2 450	*1 890	1 660	*1 390	1 190		*930	*930	5 726	
	-3.0 m kg						*1 400	*1 400	*1 090	*1 090						*590	*590	4 816	

Notes: 1. The above loads are in compliance with SAE J1097 and ISO 10567 Hydraulic Excavator Lifting Capacity Standards.

2. Rated loads do not exceed 87% of hydraulic lifting capacity or 75% of tipping load. 3. Rated loads marked with an asterisk (*) are limited by hydraulic capacity rather than tipping load.

Equipment

STANDARD EQUIPMENT

Engine

Low-emission Tier 4f / Stage IIIB compliant diesel engine

Standard cooling system

Two-stage air filter

Fuel filter and water separator

Alternator, 70 A

Electric / Electronic control system

Safe engine start function

Automatic idling system

Halogen working lights:

Cab-mounted 2 (front), Boom-mounted 1

Battery, 12 V / 100 Ah

Start motor, 12 V / 2.5 kW

Monitor and keypad

Master electrical disconnect switch

Frame

1 480kg counterweight

Under cover

Dozer blade

Undercarriage

Greased and sealed track link

450mm rubber track

Hydraulic system

Automatic two speed travel motors

Cylinder cushioning

Hydraulic fluid mineral 46

Cab and interior

Cab, includes:

Glasses

Cup holders

Large storage area

Door locks

Floor mat

Horn

2 inch Seat belt

Heater and air-conditioner

Fabric operator seat with suspension without heater

Control joystick

Travel pedals and hand levers

AM/FM stereo

Master key

OPTIONAL EQUIPMENT

Electric / Electronic control system

Fuel filler pump: 35 l/min, with automatic shut-off

Extra working lights:

Cab-mounted 1 (rear)

2 piece boom

Caretrack

Travel alarm

Anti theft, code-lock

Rotating warning beacon

Undercarriage / Superstructure

450mm, 600mm steel track

450mm rubber pad

Heavy counterweight

Frame

Rearview mirror

Dozer blade with floating function

Hydraulic system

Hydraulic piping:

Breaker & shear (max. flow and pressure: 90lpm, 32.4Mpa)

Slope & rotator (max. flow and pressure: 35lpm, 14.7Mpa)

Grapple

Quick coupler

Pilot control pattern change

Hose rupture valve for boom and arm

Overload warning device

Hydraulic oil, ISO VG 32, 68

Hydraulic oil, biodegradable 46

Hydraulic oil, longlife oil 46

Arm cyl Pipe with HRV 2 piece boom

Cab and interior

Carecab

Canopy

Fabric operator seat with suspension with heater

PVC operator seat with suspension

Control joystick, X3 proportional

Seat belt, 3 inch retractable

AM/FM stereo with CD player and USB input

Mechanical hour meter

Cab mounted FOG (Falling Object Guard)

FOPS (Falling Object Protection Structure)

Sun screen, front/roof

Safety net

Digging Equipment

2pcs boom: 3.85m

Arm: 2.1m

Service

Tool kit, full scale

Spare parts