

DEVELON

Crawler Excavator

DX1000LC-7



Engine

Make	Perkins
Model	2806J
Number of cylinders	6
Rated power, gross (hp per SAE J1995)	628.9 hp (469.0 kW) @ 2000 rpm
Rated power, net (hp per SAE J1349)	629.0 hp (469.0 kW) @ 2000 rpm
Max. torque, gross (SAE J1995)	2176.5 ft.-lbf. (2951.0 Nm) @ 1300 rpm
Piston displacement	1104.5 in. ³ (18.1 L)
Bore and stroke	5.7" x 7.2" (145 mm x 183 mm)
Starter	24 V, 12.0 hp (9.0 kW)
Battery	2 x 12 V, 200 AH
Alternator	24 V, 115 A
Air cleaner	Three-stage

Hydraulics

Main pumps	3 x 138.2 gpm (3 x 523.0 L/min.)
Pilot pump (gear design)	15.9 gpm (60.0 L/min.)

Working Pressure

Boom/arm/bucket (normal mode)	5221.0 psi (360.0 kg/cm ²)
Boom/arm/bucket (power boost)	-
Travel	5221.0 psi (360.0 kg/cm ²)
Swing	5221.0 psi (360.0 kg/cm ²)
Pilot	586.0 psi (40.8 kg/cm ²)

Undercarriage

Upper rollers (each track)	3
Lower rollers (each track)	9
Number of shoes (links per side)	51

Swing Mechanism

Swing speed	0 – 6.1 rpm
Swing torque	284474.3 lbf.-ft. (39330.0 kgf-m)

Drive System

Travel speed (low – high)	1.8 – 2.8 mph (2.8 – 4.5 km/h)
Traction force, max. (drawbar pull)	173550.5 lbf. (78722.0 kgf)
Max. grade (limited by engine lub)	70% (35°)

Environment

Sound level (2000/14/EC)	109 dB(A)
Cabin sound level (ISO 6396)	71 dB(A)

Refill Capacities

Fuel tank	300.6 gal. (1138.0 L)
DEF tank	12.4 gal. (47.0 L)
Cooling system (radiator capacity)	27.5 gal. (105.1 L)
Engine oil (with filter)	17.2 gal. (65.0 L)
Swing drive	2 x 2.1 gal. (2 x 8.0 L)
Final drive (each side)	2 x 6.6 gal. (2 x 25.0 L)
Hydraulic system	232.7 gal. (881.0 L)
Hydraulic tank	140.8 gal. (533.0 L)

All capacities are approximate values. Always refer to the machine's OM for exact refill levels. Check the dipstick, level eye, level plug, etc., to achieve the correct level.

Hydraulic Cylinders

Boom ¹ (2) bore x rod diameter x stroke	Mono boom	8.4" x 5.9" x 75.0" (215 mm x 150 mm x 1910 mm)
	Mass boom	8.4" x 5.9" x 75.2" (215 mm x 150 mm x 1910 mm)
Arm ^{1,2} (1) bore x rod diameter x stroke	Mono front	9.4" x 6.69" x 79.5" (240 mm x 170 mm x 2020 mm)
	Mass front	9.4" x 6.69" x 79.5" (240 mm x 170 mm x 2020 mm)
Bucket ¹ (1) bore x rod diameter x stroke	Mono front	8.62" x 5.7" x 60.2" (210 mm x 145 mm x 1530 mm)
	Mass front	8.8" x 6.29" x 60.2" (225 mm x 160 mm x 1530 mm)

¹ Cushion on rod end

² Cushion on base end

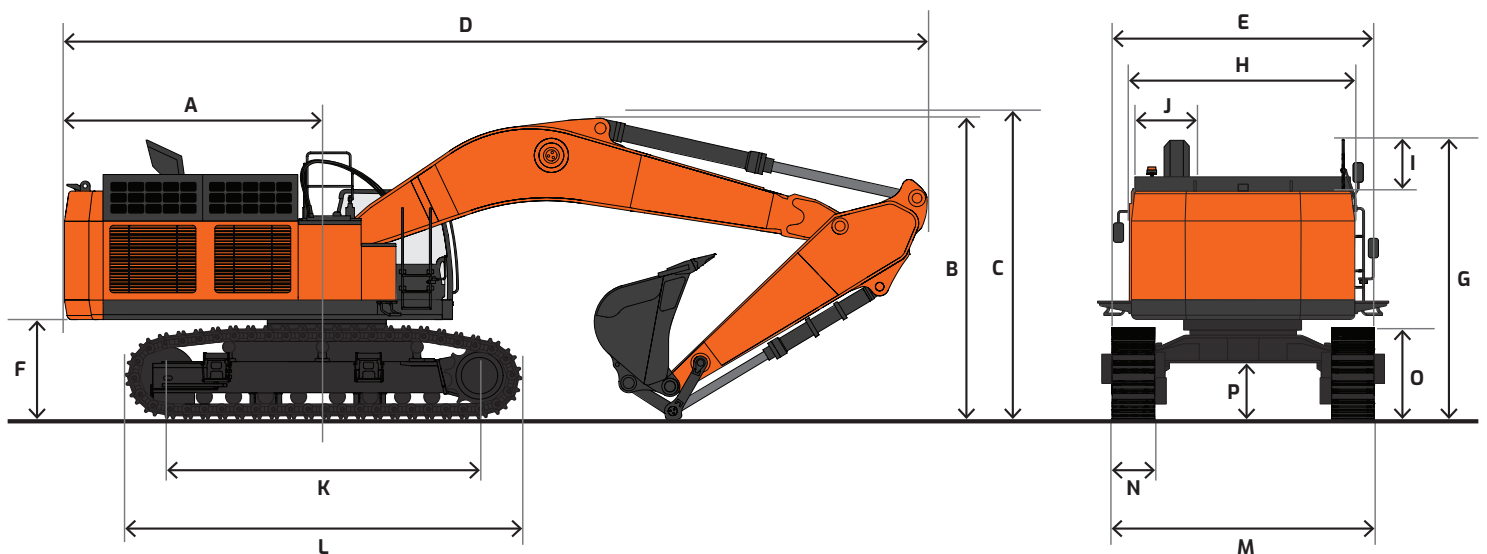
The piston rods and cylinder bodies are made of high-strength steel. A shock-absorbing mechanism is fitted in all cylinders to ensure shock-free operation and extended piston life.

NOTE: Where applicable, dimensions are in accordance with Society of Automotive Engineers (SAE) and ISO standards. Specifications and design are subject to change without notice. All dimensions are given for DEVELON excavators equipped with standard tracks and the standard front as listed. Pictures of DEVELON excavators may show other than standard equipment. All dimensions are shown in inches. Respective metric dimensions are enclosed by parentheses. DEVELON equipment is manufactured with a Quality Management System that is in compliance with ISO 9001:2008.

Dimensions

		Standard Front 35.4" (900 mm) DG Shoe (US20)	Mass Front 35.4" (900 mm) DG Shoe (US40)
Boom length		27' 6.7" (8400 mm)	23' 9.4" (7250 mm)
Arm length		12' 3.6" (3750 mm)	9' 6.2" (2900 mm)
Bucket size (SAE)		7.1 yd ³ (5.4 m ³)	8.9 yd ³ (6.8 m ³)
Tail swing radius	A	15' 1.8" (4620 mm)	
Shipping height (boom)	B	17' 10.6" (5450 mm)	16' 8.4" (5090 mm)
Shipping height (hose)	C	18' 2.5" (5550 mm)	16' 10.8" (5150 mm)
Shipping length	D	47' 8.8" (14550 mm)	45' 3.3" (13800 mm)
Shipping width	E	11' 3.4" (3440 mm)	
Counterweight clearance*	without catwalks	F 5' 1.4" (1560 mm)	
	with catwalks	F 5' 3.6" (1615 mm)	
Cabin height	G	10' 11.9" (3350 mm)	
Upper structure width	without catwalks	H 11' 2.25" (3410 mm)	
	with catwalks	H 14' 7.2" (4450 mm)	
Cabin height above house	I	-1' 5.3" (-170 mm)	
Cabin width	J	3' 3.8" (1010 mm)	
Tumbler distance	K	16' 8.8" (5100 mm)	
Overall track length	L	20' 9.6" (6341 mm)	
Undercarriage width	retracted	M 12' 2.9" (3732 mm)	
	extended	M 15' 6.7" (4742 mm)	
Track shoe width	N	35.4" (900 mm)	
Track height*	O	4' 7.3" (1405 mm)	
Car body clearance*	P	2' 9.9" (860 mm)	

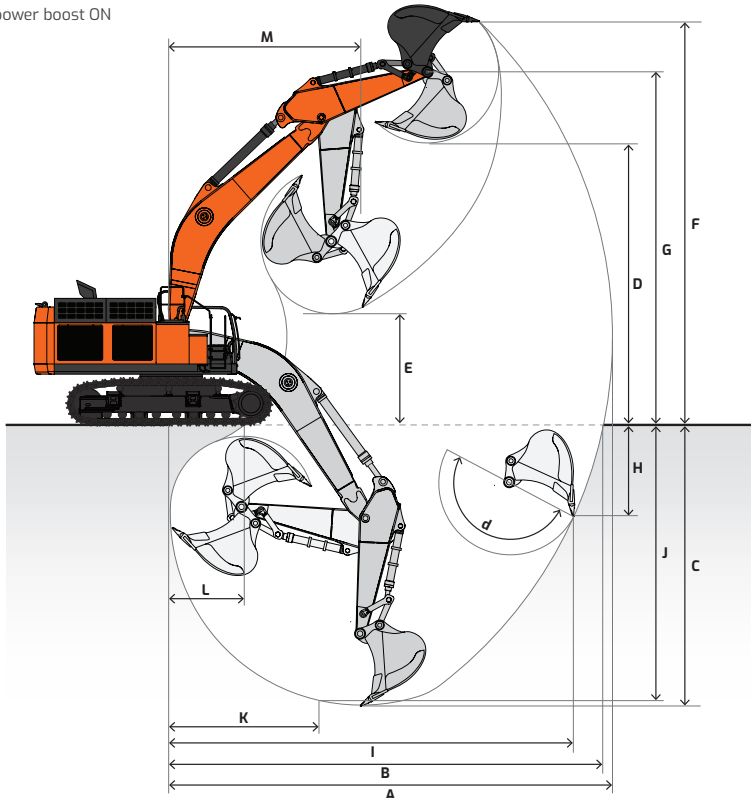
*Without shoe grouser



Working Range

		Standard Front 35.4" (900 mm) DG Shoe (US20)	Mass Front 35.4" (900 mm) DG Shoe (US40)
Boom length		27' 6.7" (8400 mm)	23' 9.4" (7250 mm)
Arm length		12' 3.6" (3750 mm)	9' 6.2" (2900 mm)
Bucket size (SAE)		7.1 yd ³ (5.4 m ³)	8.9 yd ³ (6.8 m ³)
Counterweight		24912 lb. (11300 kg)	
Track type		Manually retractable/extended position	
Max. digging reach	A	46' 10.0" (14275 mm)	40' 9.3" (12430 mm)
Max. digging reach (ground)	B	45' 11.2" (14000 mm)	39' 8.8" (12110 mm)
Max. digging depth	C	28' 10.3" (8795 mm)	23' 9.8" (7260 mm)
Max. loading height	D	30' 11.7" (9440 mm)	26' 6.9" (8100 mm)
Min. loading height	E	13' 0.7" (4210 mm)	12' 9.9" (3910 mm)
Max. digging height	F	44' 2.7" (13480 mm)	40' 9.2" (12425 mm)
Max. bucket pin height	G	38' 11.0" (11862 mm)	34' 6.0" (10515 mm)
Max. vertical wall depth	H	14' 8.0" (4470 mm)	9' 8.7" (2965 mm)
Max. radius vertical	I	40' 2.9" (12265 mm)	36' 0.9" (10995 mm)
Max. depth to 8' line	J	28' 5.1" (8665 mm)	23' 3.9" (7110 mm)
Min. radius to 8' line	K	17' 4.3" (5290 mm)	14' 5.6" (4410 mm)
Min. digging reach	L	11' 0.4" (3365 mm)	6' 5.6" (1970 mm)
Min. swing radius	M	20' 7.8" (6295 mm)	17' 6.4" (5345 mm)
Bucket angle (DEG)	d	143.8°	145.3°
Digging force, bucket*	ISO	94709.6 lbf. (42960 kgf)	106261.7 lbf. (48200 kgf)
Digging force, arm*		80975.0 lbf. (36730 kgf)	89947.7 lbf. (40800 kgf)
Operating weight		221280 lb. (100372 kg)	219935 lb. (99762 kg)
Ground pressure		14.4 psi (1.012 kg/cm ²)	14.3 psi (1.006 kg/cm ²)

*With power boost ON



Lifting Capacity

Rating over front Rating over side or 360°

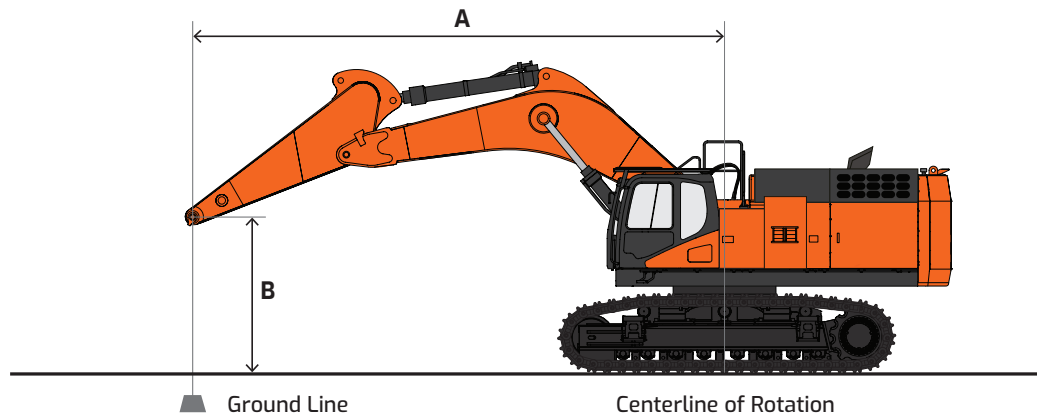
DX1000LC-7 US20

Boom: 27' 6.7" (8400 mm) | Arm: 12' 3.6" (3750 mm) | Counterweight: 24912 lb. (11300 kg) | 35.4" (900 mm) DG Shoes | No Dozer | Bucket: None | Unit: lb. (kg)

A (ft. or m) B (ft. or m)	15' (4.5 m)		20' (6.0 m)		25' (7.5 m)		30' (9.0 m)		35' (10.5 m)		Max. Reach		
												A	
35' (10.5 m)							* 33690 (* 15280)	* 33690 (* 15280)			* 32320 (* 14660)	29.70' (9.05 m)	
30' (9.0 m)							* 35690 (* 16190)	* 35690 (* 16190)			* 30690 (* 13920)	33.36' (10.17 m)	
25' (7.5 m)					* 40750 (* 18480)	* 40750 (* 18480)	* 36950 (* 16760)	* 36950 (* 16760)	* 34770 (* 15770)	33860 (15360)	* 30070 (* 13640)	* 30070 (* 13640)	35.98' (10.97 m)
20' (6.0 m)					* 45060 (* 20440)	* 45060 (* 20440)	* 39280 (* 17820)	* 39280 (* 17820)	* 35710 (* 16200)	33070 (15000)	* 30160 (* 13680)	28030 (12710)	37.75' (11.50 m)
15' (4.5 m)					* 50010 (* 22680)	* 50010 (* 22680)	* 42110 (* 19100)	40830 (18520)	* 37200 (* 16870)	31990 (14510)	* 30880 (* 14010)	26120 (11850)	38.80' (11.83 m)
10' (3.0 m)					* 54500 (* 24720)	50790 (23040)	* 44840 (* 20340)	38970 (17670)	* 38730 (* 17570)	30870 (14000)	* 32270 (* 14640)	25090 (11380)	39.21' (11.95 m)
5' (1.5 m)					* 57540 (* 26100)	48520 (22010)	* 46890 (* 21270)	37450 (16990)	* 39880 (* 18090)	29920 (13570)	* 34450 (* 15630)	24840 (11270)	38.98' (11.88 m)
Ground Level					* 58650 (* 26600)	47190 (21410)	* 47800 (* 21680)	36430 (16520)	* 40200 (* 18230)	29270 (13280)	* 35460 (* 16090)	25380 (11510)	38.11' (11.62 m)
-5' (-1.5 m)			* 72260 (* 32780)	65470 (29700)	* 57710 (* 26180)	46680 (21170)	* 47200 (* 21410)	35970 (16320)	* 39150 (* 17760)	29050 (13180)	* 35800 (* 16240)	26880 (12190)	36.55' (11.14 m)
-10' (-3.0 m)	* 83060 (* 37670)	* 83060 (* 37670)	* 67280 (* 30520)	66050 (29960)	* 54530 (* 24730)	46870 (21260)	* 44530 (* 20200)	36110 (16380)			* 35850 (* 16260)	29760 (13500)	34.19' (10.42 m)
-15' (-4.5 m)	* 72150 (* 32730)	* 72150 (* 32730)	* 59330 (* 26910)	* 59330 (* 26910)	* 48350 (* 21930)	47780 (21680)	* 38320 (* 17380)	37040 (16800)			* 35180 (* 15960)	35030 (15890)	30.88' (9.41 m)
-20' (-6.0 m)			* 46610 (* 21140)	* 46610 (* 21140)	* 36590 (* 16600)	* 36590 (* 16600)					* 32550 (* 14760)	* 32550 (* 14760)	26.19' (7.98 m)

A Distance from center of rotation
B Height

NOTE: Lifting capacities are in compliance with SAE 1097 and ISO 10567. Machine in lifting mode with power boost turned on. Load point is the end of the arm. Rated loads shown do not exceed 75% of minimum tipping loads or 87% of hydraulic capacities. Rated loads marked with an asterisk (*) are limited by hydraulic capacities. The least stable position is over the side. The total mass of machine includes the mass of the boom, arm, counterweight, all operating fluids and 165 lb. (75 kg) operator.













Lifting Capacity

 Rating over front  Rating over side or 360°

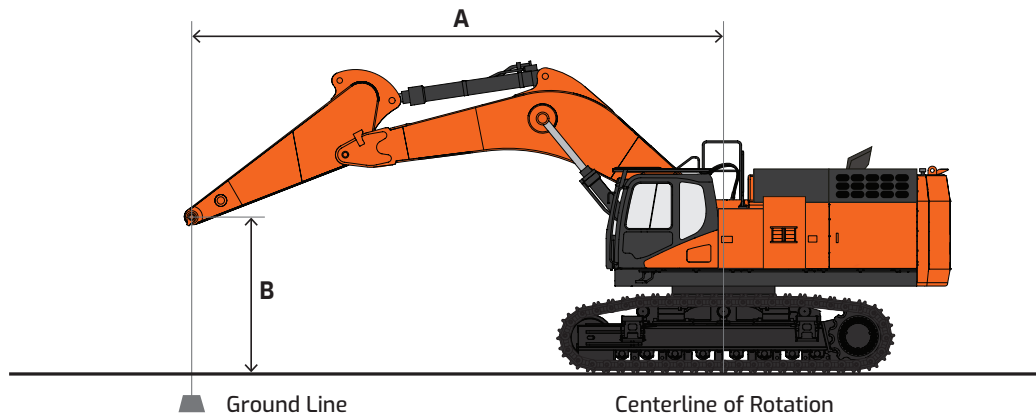
DX1000LC-7 US40

Boom: 23' 9.4" (7250 mm) | Arm: 9' 6.2" (2900 mm) | Counterweight: 24912 lb. (11300 kg) | 35.4" (900 mm) DG Shoes | No Dozer | Bucket: None | Unit: lb. (kg)

A (ft. or m) B (ft. or m)	15' (4.5 m)		20' (6.0 m)		25' (7.5 m)		30' (9.0 m)		Max. Reach		
											A
-35' (-10.5 m)									* 43780 (* 19860)	* 43780 (* 19860)	20.99' (6.40 m)
30' (9.0 m)					* 46570 (* 21120)	* 46570 (* 21120)			* 39360 (* 17850)	* 39360 (* 17850)	25.93' (7.90 m)
25' (7.5 m)					* 47040 (* 21340)	* 47040 (* 21340)			* 37570 (* 17040)	* 37570 (* 17040)	29.23' (8.91 m)
20' (6.0 m)			* 58870 (* 26700)	* 58870 (* 26700)	* 50180 (* 22760)	* 50180 (* 22760)	* 45440 (* 20610)	* 45440 (* 20610)	* 37210 (* 16880)	* 37210 (* 16880)	31.39' (9.57 m)
15' (4.5 m)			* 67560 (* 30640)	* 67560 (* 30640)	* 54530 (* 24730)	* 54530 (* 24730)	* 47320 (* 21460)	44400 -20140	* 37940 (* 17210)	37730 -17110	32.67' (9.96 m)
10' (3.0 m)			* 75130 (* 34080)	* 75130 (* 34080)	* 58720 (* 26640)	56260 -25520	* 49410 (* 22410)	43040 -19520	* 39750 (* 18030)	36120 -16380	33.15' (10.10 m)
5' (1.5 m)			* 79020 (* 35840)	75140 -34080	* 61510 (* 27900)	54350 -24650	* 50790 (* 23040)	41910 -19010	* 42890 (* 19460)	35950 -16310	32.88' (10.02 m)
Ground Level			* 78850 (* 35770)	73900 -33520	* 62030 (* 28140)	53250 -24160	* 50560 (* 22930)	41260 -18720	* 45810 (* 20780)	37280 -16910	31.84' (9.70 m)
-5' (-1.5 m)	* 95130 (* 43150)	* 95130 (* 43150)	* 75010 (* 34030)	73820 -33480	* 59610 (* 27040)	53010 -24050	* 47190 (* 21400)	41350 -18750	* 46020 (* 20870)	40640 -18430	29.94' (9.13 m)
-10' (-3.0 m)	* 83510 (* 37880)	* 83510 (* 37880)	* 66940 (* 30360)	* 66940 (* 30360)	* 52700 (* 23900)	* 52700 (* 23900)			* 45320 (* 20560)	* 45320 (* 20560)	27.00' (8.23 m)
-15' (-4.5 m)	* 64800 (* 29390)	* 64800 (* 29390)	* 51600 (* 23410)	* 51600 (* 23410)					* 41910 (* 19010)	* 41910 (* 19010)	22.61' (6.89 m)

A Distance from center of rotation
B Height

NOTE: Lifting capacities are in compliance with SAE 1097 and ISO 10567. Machine in lifting mode with power boost turned on. Load point is the end of the arm. Rated loads shown do not exceed 75% of minimum tipping loads or 87% of hydraulic capacities. Rated loads marked with an asterisk (*) are limited by hydraulic capacities. The least stable position is over the side. The total mass of machine includes the mass of the boom, arm, counterweight, all operating fluids and 165 lb. (75 kg) operator.



Standard & Optional Equipment

■ Standard ● Optional

Engine

Emissions (EPA), T4f	■
High-pressure common-rail (HPCR)	■
Variable geometry (VGT)	■
Cooled exhaust gas recirculation (CEGR)	■
Exhaust brake	■
Diesel oxidation catalyst (DOC)	■
Selective catalytic reduction (SCR)	■
Diesel exhaust fluid (DEF)	■
Fuel filter with water separator	■
Coolant expansion tank	■
Dual element dry-type air filter with evacuator	■
Precleaner	■
Electronic engine control (ECU)	■
Auto idle	■
Auto shutdown (time-adjustable)	■
Overheat & low oil pressure engine protection	■
Block heater (110 V)	●
Water separator with heater	■
Fuel filler pump	●

Hydraulic

Mechatronics Design	■
Variable axis single main pump (3 tandem)	■
Cross-sensing pump control	■
Pilot-operated control valves	■
Gear pilot pump	■
D-ECOPOWER™ system	■
Smart Power Control (SPC)	■
Variable-speed hydraulic cooling fan	■
Axial piston swing motor	■
Spring-applied hydraulic release brake	■
Axial piston travel motor (high/low, auto)	■
Auxiliary hydraulics, one- & two-way piping	●
Auxiliary hydraulics, tilt/rotate piping	●
Adjustable auxiliary flow & pressure, 10 presets	■

Controls

Joystick controls	■
Pattern control change valve (SAE, ISO)	■
Joystick attachment control, switches/buttons - Right (one-way, two-way, power boost) - Left (tilt/rotate, horn, one-touch decel)	●
Foot pedal attachment control	■
Control stands - Height adjustable - Sliding (fore/aft) - Tilting armrests	■
Engine speed control dial	■
Travel pedals with hand levers	■
Straight travel pedal	●
Switches, console-mounted - Starter button switch - Travel speed selector - Work light - Auxiliary mode switch	●
Emergency stop switch	■
Power modes (P+, P, S, E)	■
Work modes (digging, lifting, breaker, shear)	■
Smart Power Control (SPC)	■
Jog dial display control	■
Wiper control panel	■
Audio control panel	■

Cabin

Steel, all-weather & sound-suppressed	■
ROPS (ISO 12117-2:2008)	■
Viscous mount with spring reinforcement	■
Front window with wiper/washer	■
Tinted safety glass	■
Skylight top hatch with sun screen	■
Front window with sun screen	■
Pull-up type top front window	■
Removable lower front window with storage behind seat	■
Wiper, lower window	■
Adjustable sliding side door window	■
Defrost, front window	■
Lockable doors	■
Seat - Heated - Air-suspension - 2" (51 mm) seat belt - Adjustable height & recline - Adjustable fore/aft - Adjustable armrests	■
Leatherette seat - Heating & cooling - Air-suspension - 2" (51 mm) seat belt - Adjustable height & recline - Adjustable fore/aft - Adjustable armrests	●
Control stands - Height adjustable - Mounted to seat base	■
Storage for operator's manuals	■
Mirrors	■
Fully automatic HVAC with radiant energy photo sensor	■
8" multi-function LCD interactive display monitor	■
Cigarette lighter	■
Digital Bluetooth® & MP3 radio with cell phone integration	■
Speakers (2)	■
Antenna, roof-mounted	■
Emergency breakout tool	■
Hot/cold beverage compartment	■
Power socket, 12 V & 24 V	■
Cup holder	■
Interior light	■
Coat hanger	■
Rain shield	●
FOG guard	●
Front window guard	●

Electrical

System voltage – 24 V	■
Alternator – 24 V, 115 A	■
2 x 12 V batteries, 200 AH reserve capacity, 1300 CCA	■
Blade-type fuse panel	■
Main circuit breaker	■
Lights, work (LED): machine (2), boom (2)	■
Rotating beacon	■
Overload warning alarm	●
Hour meter	■
Engine restart prevention system	■
Rearview camera	■
Side view camera, right side	●
Around view camera	●
Microphone & speaker	●
Laptop service port	■
Self-diagnostics system	■
Smart Key (remote ignition key)	■
MY DEVELON (telematics)	■

Display Monitor & Warnings

Indicators - Power modes - Work modes - User/Service menu	■
Gauges - Fuel level - DEF level - Engine coolant temperature - Hydraulic oil temperature - Engine rpm - Battery voltage - Hydraulic pump pressure - ECO - Digital clock - Trip meter - Hour meter - Fuel consumption	■
Warning & indicator lights - Seat belt - Error code - SCR warning - Check engine - Engine oil pressure - Engine pre-heat engaged - Radiator coolant level & temperature - Air filter - Fuel level - DEF level – low - Water in fuel - Battery charge - Work lights on - Hydraulic oil temperature - Hydraulic charge pressure - Hydraulic pilot filter - Hydraulic return filter	■
Swing alarm	■
Travel alarm	■
Buzzer - Engine oil pressure - Coolant temperature	■

Undercarriage

Variable track width	■
Track guards & chains with adjusters	■
Track rollers, upper	3
Track rollers, lower	9
In-shoe motor protection	■
Shoes, double grouser – 650 mm	●
Shoes, double grouser – 750 mm	●
Shoes, double grouser – 900 mm	■

Frame

Counterweight, fixed	●
Counterweight, retractable	■
Catwalks	■

Other

Centralized lubrication - Boom - Arm - Swing	■
Handrails & service platforms	■
Skid-resistant steps & service platforms	■
Manuals - Operation & Maintenance - AEM Safety Manual	■
MY DEVELON 3-year subscription (telematics)	■
Vandalism protection - Lockable panels - Lockable fluid fill points - Anti-theft protection (password)	■
Vandalism window cover mount	●
Air compressor	●

Certain specification(s) are based on engineering calculations and are not actual measurements. Specification(s) are provided for comparison purposes only and are subject to change without notice. Specification(s) for your individual DEVELON equipment will vary based on normal variations in design, manufacturing, operating conditions, and other factors. Pictures of DEVELON units may show other than standard equipment.

Powered by Innovation

DEVELON

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