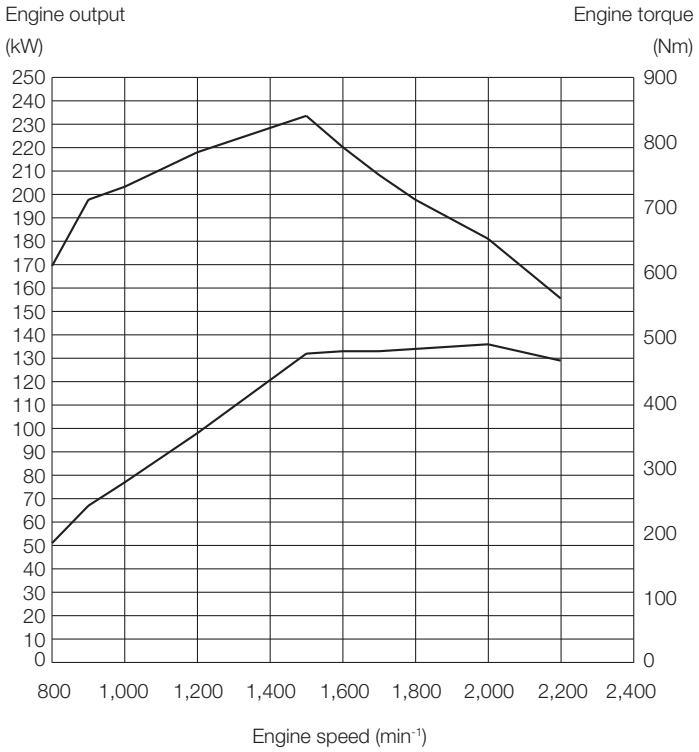
SPECIFICATIONS

ENGINE

Model	CUMMINS QSB6.7
Type	4-cycle water-cooled, direct injection
Aspiration	Turbocharger and intercooled
Aftertreatment	DOC and SCR system
No. of cylinders	6
Maximum rated power	
ISO 14396, gross	173 HP (129 kW) at 2200 min^{-1} (rpm)
ISO 9249, net	168 HP (125 kW) at 2200 min^{-1} (rpm)
Maximum torque	841 Nm at 1 500 min^{-1} (rpm)
Bore and stroke	4.2 in x 4.8 in (107 mm X 124 mm)
Piston displacement	408.2 in^3 (6.690 L)
Batteries	2 x 12 V
Air cleaner	Two element dry type with restriction indicator
Emission	Complies with EU stage IV and US EPA Tier 4 Final



POWERTRAIN

Transmission	Torque converter, countershaft type powershift with computer-controlled automatic shift and manual shift features included.
Torque converter	Three elements, single stage, single phase
Main clutch	Wet hydraulic, multi-disc type
Cooling method	Forced circulation type
Travel speed* Forward/(Reverse)	
1st	5.9/3.66 km/mph (6.3/3.9 km/mph)
2nd	11.5/7.14 km/mph (12.2/7.58 km/mph)
3rd	17.4/10.8 km/mph (18.5/11.5 km/mph)
4th	25.3/— km/mph (27.0/— km/mph)
5th	38.5/— km/mph (38.5/— km/mph)

*With 20.5 R25 (L3) tires
( ): Data in Power Mode

AXLE AND FINAL DRIVE

Drive system	Four-wheel drive system
Front & rear axle	Semi-floating
Front	Fixed to the front frame
Rear	Trunnion support
Reduction and differential gear	Two stage reduction with limited slip differential
Oscillation angle	Total 20° (+10°, -10°)
Final drives	Heavy-duty planetary, mounted inboard

BRAKES

Service brakes	Inboard mounted fully hydraulic 4 wheel wet disc brakes. Front & rear independent brake circuit
Parking brakes	Spring applied, hydraulically released, dry disc type with external output shaft

STEERING SYSTEM

Type	Articulated frame steering
Steering angle	Each direction 40°; total 80°
Cylinders	Double-acting piston type
No. x Bore x Stroke	2 x 2.8 in x 17.4 in (2 x 70 mm x 442 mm)

HYDRAULIC SYSTEM

Arm and bucket are controlled by independent control lever

Arm controls	Four position valve; Raise, hold, lower, float

Bucket controls with automatic bucket return-to-dig control

	Three position valve; Roll back, hold, dump

Main pump (Serve as steering pump)

	Variable Displacement Axial Plunger Pump
Maximum flow	55.5 gal/min (210 L/min) at 2 200 min^{-1} (rpm)
Maximum pressure	27.4 MPa

Fan pump

	Fixed Displacement Gear Pump
Maximum flow	14.5 gal/min (54.8 L/min) at 2 200 min^{-1} (rpm)
Maximum pressure	18.2 MPa

ZW180-6 Hydraulic cylinders

Type	Double acting type
No. x Bore x Stroke	Arm: 2 x 4.9 in x 30.1 in (2 x 125 mm x 765 mm) Bucket: 2 x 5.9 in x 19.5 in (2 x 150 mm x 495 mm)

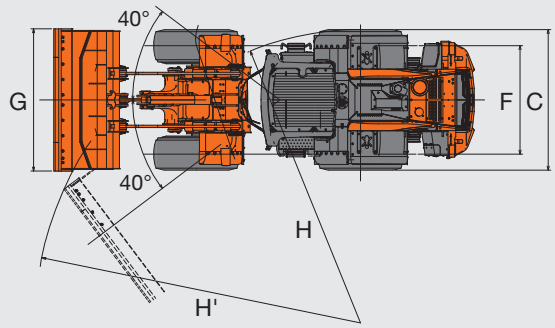
Hydraulic cycle times	ZW180-6
Lift arm raise	5.9 s (5.7 s)
Lift arm lower	3.6 s (3.6 s)
Bucket dump	1.3 s (1.3 s)
Total	10.8 s (10.6 s)

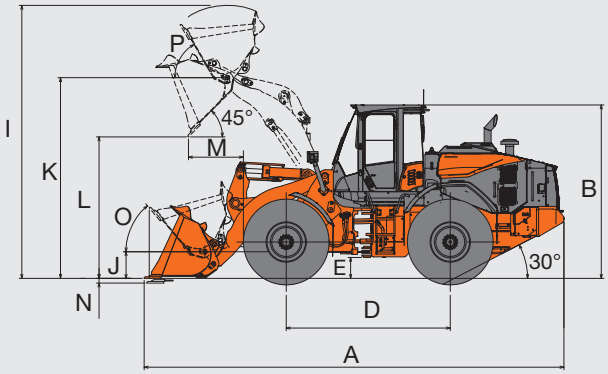
( ): Data in Power Mode

SERVICE REFILL CAPACITIES

Fuel tank	64.7 gal	(245 L)
Engine coolant	8.7 gal	(33 L)
Engine oil	6.6 gal	(25 L)
Torque convertor & transmission	7.9 gal	(30 L)
Front axle differential & wheel hubs	9.0 gal	(34 L)
Rear axle differential & wheel hubs	9.0 gal	(34 L)
Hydraulic oil tank	26.4 gal	(100 L)
DEF/AdBlue® tank	6.6 gal	(25 L)

DIMENSIONS & SPECIFICATIONS ZW180-6





Bucket type			Standard arm				High lift arm
			General Purpose		Material Handling	Quick Coupler	Material Handling
			Straight Edge With Bolt-on Cutting Edge	Straight Edge With Teeth and Segments	Straight Edge With Bolt-on Cutting Edge	Straight Edge With Bolt-on Cutting Edge	Straight Edge With Bolt-on Cutting Edge
Bucket capacity	ISO heaped	yd^3(m^3)	3.7 (2.8)	3.7 (2.8)	4.2 (3.2)	3.4 (2.6)	3.7 (2.8)
	ISO struck	yd^3 (m^3)	3.3 (2.5)	3.3 (2.5)	3.5 (2.7)	3 (2.3)	3.3 (2.5)
A Overall length		ft (mm)	26.3 (8,000)	26.7 (8,120)	26.5 (8,050)	26.7 (8,110)	27.1 (8,500)
B Overall height		ft (mm)	10.9 (3,280)				
C Width over tires		ft (mm)	8.6 (2,610)				
D Wheel base		ft (mm)	10.2 (3,100)				
E Ground clearance		in (mm)	1.3 (395)				
F Tread		ft (mm)	6.8 (2,050)				
G Bucket width		ft (mm)	8.11 (2,730)	9.0 (2,760)	8.11 (2,730)		
H Turning radius (Centerline of outside tire)		ft (mm)	36.3 (11,160)				
H' Loader clearance circle, bucket in carry position		ft (mm)	40.1 (12,460)	41.2 (12,560)	40.1 (12,480)	41.1 (12,520)	42.3 (12,880)
I Overall operating height		ft (mm)	17.3 (5,270)		17.5 (5,320)		18.7 (5,680)
J Carry Height of bucket pin		ft (mm)	410				
K Height to bucket hinge pin, fully raised		ft (mm)	12.1 (3,920)				14.2 (4,320)
L Dumping clearance 45 degree, full height		ft (mm)	9.0 (2,760)	8.9 (2,680)	8.11 (2,730)	8.9 (2,680)	10.4 (3,170)
M Reach, 45 degree dump, full height		ft (mm)	3.7 (1,110)	3.1 (1,190)	3.9 (1,140)	3.1 (1,180)	4.2 (1,260)
N Digging depth (Horizontal digging angle)		ft (mm)	3.5 (90)				6.0 (170)
O Max. roll back at carry position		(deg)	50				
P Roll back angle at full height		(deg)	60				53
Static tipping load*	Straight	lb (kg)	26,680 (12,100)	26,590 (12,060)	26,540 (12,040)	24,600 (11,160)	21,050 (9,550)
	Full 40 degree turn	lb (kg)	23,020 (10,440)	22,950 (10,410)	22,880 (10,380)	21,160 (9,600)	18,060 (8,190)
Breakout force		lbf (kN)	26,530 (118)		25,630 (114)	24,280 (108)	24,500 (109)
Operating weight *		lb (kg)	32,100 (14,560)	32,170 (14,590)	32,280 (14,640)	32,650 (14,810)	32,540 (14,760)

Note: All dimensions,weight and performance data based on ISO 6746-1:1987,ISO 7137:2009 and ISO 7546:1983
: Static tipping load and operating weight marked with include 20.5R25 (L3) tires (No ballast) with lubricants, full fuel tank and operator.
Machine stability and operating weight depend on counterweight, tire size and other attachments.

WEIGHT CHANGE

Option item		Operating weight lb (kg)	Tipping load lb (kg)		Overall width in (mm) (outside tire)	Overall height in (mm)	Overall length in (mm)
			Straight	Full turn			
Remove ROPS cab (for transport only)		-1,140 (-540)	-1,102 (-500)	-992 (-450)		-5 (-140)	
Tires	20.5-25-12PR (L-3)	+265 (+120)	+198 (+90)	+176 (+80)	±0 (±0)	±0 (±0)	±0 (±0)
	23.5-25-16PR (L-2)	+1,400 (+640)	+1,040 (+470)	+930 (+420)	+3 (+90)	+2 (+60)	-2 (-50)
	23.5-25-16PR (L-3)	+1,830 (+830)	+1,340 (+610)	+1,190 (+540)	+3 (+90)	+2 (+60)	-2 (-50)

BUCKET SELECTION GUIDE