

WHEELED EXCAVATORS

ZAXIS

DASH-5

ZX190W-5

ZX230W-5



HITACHI

BY NOT BUILDING EVERYTHING, WE COMPROMISE ON NOTHING.

EXCAVATOR FOCUSED. NO DISTRACTIONS.

At Hitachi, we don't get sidetracked building every kind of construction equipment. Instead, we build excavators. It's that kind of focus, combined with our legacy of meeting demanding mining applications, that results in highly efficient, reliable and durable machines.

Mobile and maneuverable, Hitachi Dash-5 Wheeled Excavators are ready to roll on your jobsites. The ZX190W-5 and ZX230W-5 quietly go about their business with powerful, fuel-efficient EPA Interim Tier 4 (IT4)/EU Stage IIIB Isuzu diesel engines that meet rigid emission standards. Operators are more comfortable, productive and safer in a redesigned cab that includes an LCD monitor displaying a wealth of machine information. Features such as auto-idle and auto-shutdown help save fuel and minimize machine wear. And maintenance is made easy with centrally located filters and automatic exhaust filter cleaning.

It all leads to lower operating costs and higher jobsite performance. When you choose Hitachi, you get wheeled excavators that roll with the punches...

AND OUTLAST THEM.



SPECIALISTS



ZX190W-5 / ZX230W-5

ZAXIS | DASH-5 WHEELED EXCAVATORS





ROLL OVER **TOUGH JOBS.**

LESS EFFORT, POWERFUL PERFORMANCE.

Dash-5 Wheeled Excavators deliver the smooth responsiveness and multifunction capability that every operator wants. Our HIOS III hydraulic system perfectly balances engine performance with hydraulic flow. Its hydraulic boost system and enhanced boom recirculation generate aggressive boom and arm speed — returning the arm to dig faster, so you can move more dirt in a day.

Armed with an IT4/Stage IIIB Isuzu engine, these excavators combine power and finesse for maximum productivity on any job from roadside construction projects to utility work. Choose from three work modes to fit the task. High Productivity (HP) delivers more power and faster hydraulic response. Power (P) delivers a balance of power and speed, plus fuel economy for normal operation. Economy (E) maximizes fuel efficiency while delivering an enhanced level of productivity.

Have a need for speed? Our pavement-friendly wheeled excavators cruise around quickly at speeds up to 35 km/h (21.7 mph), depending on the model. Need even more? Customize your machine with a variety of boom, blade, bucket and outrigger options.

WORK ANYWHERE, ANYTIME.

- The powerful IT4/Stage IIIB Isuzu engine gets the most out of every drop of fuel.

- Switching between three work modes is effortless with the push of a button.

- The power dig function gives you an extra dose of hydraulic pressure to muscle through tough jobs.

- Get even more jobsite visibility with the standard rearview camera.

- The refined parallelogram blade better handles backfill and cleanup duties, while serving as a third stabilizer during digging.

COMFORTABLE CABS MAKE FOR PRODUCTIVE OPERATORS.

COMFORTABLE, SAFE AND EFFICIENT.

Our ergonomic cabs are designed for comfort, safety and productivity. A refined, multifunction LCD monitor easily provides machine performance information and convenience functions and features. Operators will appreciate the wide entryway, adjustable steering tilt and high-back sculpted seat, lots of storage and generous legroom. Unmatched visibility, low-effort joysticks, a highly efficient HVAC system, plus other features allow your operators to...

FOCUS ON PRODUCTIVITY.



■ Multilanguage LCD monitor with integrated radio and HVAC provides easy access to maintenance alerts, diagnostics, rearview camera visual display and more.



■ Ergonomically correct short-throw pilot levers provide smooth, precise control with less effort.

- The Forward-Neutral-Reverse (F-N-R) switch is conveniently located on the left pilot lever.
- Pushbuttons on the right lever allow fingertip control of auxiliary hydraulic flow for operating attachments.
- The durable, redesigned cab meets the ISO standard for rollover protective structure (ROPS) certification.

COMFORT



EFFICIENT



■ Auto-idle, which reduces engine speed when hydraulics aren't in use, and auto-shutdown contribute to fuel efficiency.

■ Centralized lube banks place difficult-to-lube zerks within easy reach, for faster greasing with less mess.

■ Fresh-air cab filter is quickly serviced from outside the cab, so it's more likely to get done.

SIMPLIFIED MAINTENANCE. MORE UPTIME.

LOWER OPERATING COSTS.

The ZX190W-5 and ZX230W-5 are loaded with time- and money-saving advantages — from grouped service points to centralized filters. Easy-access, remote-mount oil and fuel filters minimize downtime for periodic maintenance. Scheduled maintenance is easy to track using ZXLink™ and the in-cab diagnostic monitor. All of these features mean less time messing with maintenance so you...

GET MORE WORK DONE.



■ Easy-to-navigate LCD monitor issues scheduled maintenance alerts and displays diagnostic information, which helps decrease downtime.



■ Centrally located engine oil filter, pilot and steering filters, and fuel filters allow for quick and easy servicing. Automatic exhaust filter cleaning saves you even more time.



■ Large service doors provide wide-open access to components.

DURABILITY YOU CAN DEPEND ON.

BUILT-IN TOUGHNESS.

Rugged and reliable, the ZXI90W-5 and ZX230W-5 aren't intimidated by tough jobs or uneven terrain. Built with the power of focus, they're armed with everything you need — and more. D-channel side frames house and protect the highly efficient coolers and the IT4/Stage IIIB Isuzu diesel engine. Toughness is built into the dual tires, specially designed for Hitachi by Bridgestone. Welded bulkheads within the boom resist torsional stress, and tungsten-carbide thermal-coated arm surfaces and oil-impregnated bushings further enhance durability. Booms, arms and mainframes are so tough, they're warranted for three years or 10,000 hours, whichever comes first. Add it all up and our Dash-5 Wheeled Excavators...

ROLL OVER THE COMPETITION.

■ Wider axles result in increased stability for the ZX230W-5, and the short wheelbase of the ZXI90W-5 is perfect in tight quarters.

■ Dual Bridgestone tires come with a spacer ring to help keep out dirt and debris.

■ Oil-impregnated bushings enhance durability and extend lube intervals to 500 hours for the arm-and-boom joint and 100 hours for the bucket joint.

■ Reinforced D-channel side frames provide maximum cab and component impact protection.

■ Tungsten-carbide-coated wear surfaces protect the critical bucket-to-arm joint.

■ Reinforced resin thrust plates and an exclusive double-seal swing bearing deliver rock-solid durability.



DURABILITY



ZXI90W-5

Engine	ZXI90W-5		
Manufacturer and Model	Isuzu 4HKI		
Non-Road Emission Standard	EPA Interim Tier 4/EU Stage IIIB		
Net Rated Power (ISO 9249)	119 kW (159 hp) @ 2,000 rpm		
Cylinders	4		
Displacement	5.2 L (317 cu. in.)		
Off-Level Capacity	67% (34 deg.)		
Aspiration	Turbocharged, air-to-air charge-air cooler		
Cooling	High-efficiency, direct-drive suction-type fan		
Powertrain	2-speed propel with creeper mode and automatic shift		
Travel Speed (Maximum)			
Creeper	2.6 km/h (1.6 mph)		
Low	8.6 km/h (5.3 mph)		
High	35.0 km/h (21.7 mph)		
Front Axle	All-wheel drive; can be locked hydraulically in any position		
Oscillation	±7 deg.		
Brakes	Maintenance-free wet-disc brakes on front and rear axles; fully hydraulic service brakes		
Tires	Standard size, dual-traction-type 10.00-20 I4PR		
Drawbar Pull	9534 kgf (20,570 lbf)		
Hydraulics			
Main Pumps	2 variable-displacement axial-piston pumps		
Pump Flow (maximum x 2)	165 L/m (43.6 gpm)		
System Operating Pressure			
Circuits			
Implement	34 300 kPa (4,975 psi)		
Travel	34 800 kPa (5,047 psi)		
Swing	33 400 kPa (4,844 psi)		
Power Boost	36 300 kPa (5,265 psi)		
Controls	Pilot levers, short-stroke, low-effort hydraulic pilot controls with shutoff lever		
Cylinders	Heat treated, chrome-plated, polished cylinder rods, hardened steel (replaceable bushings) pivot pins		
	Bore	Rod Diameter	Stroke
Monoblock Boom (2)	120 mm (4.7 in.)	85 mm (3.3 in.)	1050 mm (41.3 in.)
2-Piece Boom (2)	120 mm (4.7 in.)	85 mm (3.3 in.)	980 mm (38.6 in.)
Positioning, 2-Piece Boom (1)	170 mm (6.7 in.)	105 mm (4.1 in.)	670 mm (26.4 in.)
Arm (1)	125 mm (4.9 in.)	90 mm (3.5 in.)	1371 mm (54.0 in.)
Bucket (1)	105 mm (4.1 in.)	75 mm (3.0 in.)	1060 mm (41.7 in.)
Electrical			
Voltage	24 volt		
Number of Batteries (12 volt)	2		
Alternator Rating	50 amp		
Lights (6)	Headlights (2), top of cab (2), rear of cab (1), and boom (1)		
Driving Lights	Headlights (2), turn signals and hazard lights, brake lights and side marker lights		
Swing Mechanism			
Swing Speed	12.2 rpm		
Swing Torque	53 000 Nm (39,091 lb.-ft.)		

SPECS

Serviceability ZX190W-5

Refill Capacities

Fuel Tank	290 L (77 gal.)
Engine Coolant	25 L (7 gal.)
Engine Oil with Filter	23 L (6 gal.)
Hydraulic Tank	100 L (26 gal.)
Hydraulic System	180 L (48 gal.)
Swing Drive	6.2 L (6.6 qt.)
Transmission	2.5 L (2.6 qt.)
Axle	
Front	9.5 L (2.5 gal.)
Rear	14 L (3.7 gal.)
Front and Rear Hubs	2.5 L x 2 (2 x 2.6 qt. x 2)

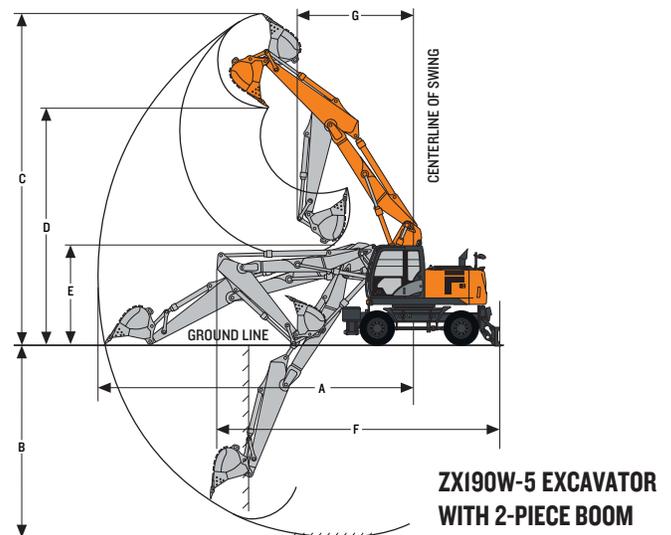
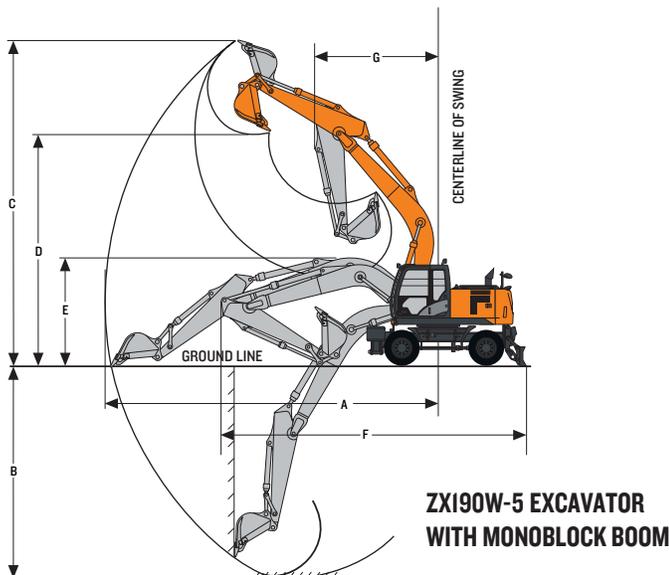
Operating Weights

With full fuel tank; 79-kg (175 lb.) operator; 0.7-m³ (0.92 cu. yd.), 900-mm (35 in.), 610-kg (1,345 lb.) bucket; 2.71-m (8 ft. 11 in.) arm; standard gauge, and 4000-kg (8,818 lb.) counterweight

	Monoblock Boom	2-Piece Boom
Front Outrigger and Rear Outrigger	20 200 kg (44,530 lb.)	20 550 kg (45,300 lb.)
Front Blade and Rear Outrigger	19 960 kg (44,000 lb.)	20 310 kg (44,780 lb.)

Operating Dimensions

	Monoblock Boom	2-Piece Boom
Arm Digging Force		
SAE	87 kN (19,558 lb.)	87 kN (19,558 lb.)
ISO	91 kN (20,458 lb.)	91 kN (20,458 lb.)
Bucket Digging Force		
SAE	107.0 kN (24,055 lb.)	107.0 kN (24,055 lb.)
ISO	123.0 kN (27,651 lb.)	123.0 kN (27,651 lb.)
A Maximum Reach	9.58 m (31 ft. 5 in.)	9.48 m (31 ft. 1 in.)
B Maximum Digging Depth	5.83 m (19 ft. 2 in.)	5.93 m (19 ft. 5 in.)
C Maximum Cutting Height	9.25 m (30 ft. 4 in.)	9.85 m (32 ft. 4 in.)
D Maximum Dumping Height	6.45 m (21 ft. 2 in.)	6.95 m (22 ft. 10 in.)
E Overall Height	3.13 m (10 ft. 3 in.)	3.21 m (10 ft. 6 in.)
F Overall Length		
Front Outrigger and Rear Outrigger	9.54 m (31 ft. 4 in.)	9.36 m (30 ft. 9 in.)
Front Blade and Rear Outrigger	9.48 m (31 ft. 1 in.)	9.30 m (30 ft. 6 in.)
G Minimum Swing Radius	3.48 m (11 ft. 5 in.)	3.00 m (9 ft. 10 in.)

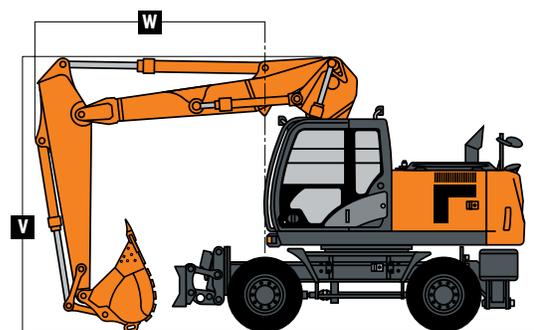
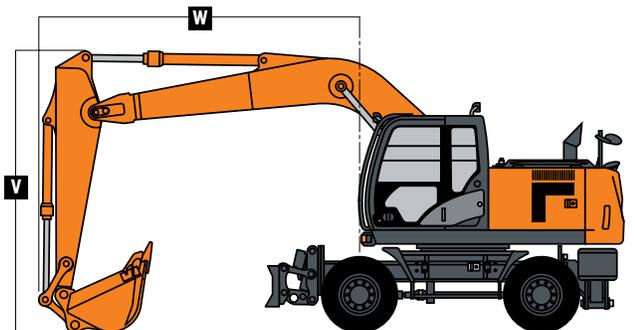
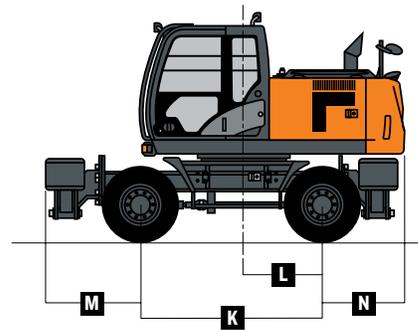
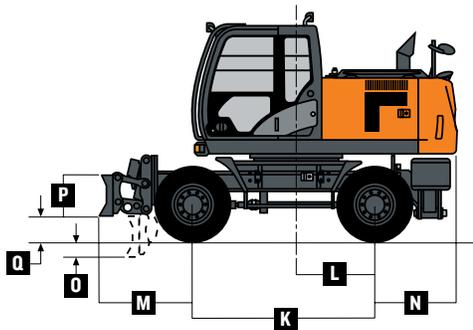
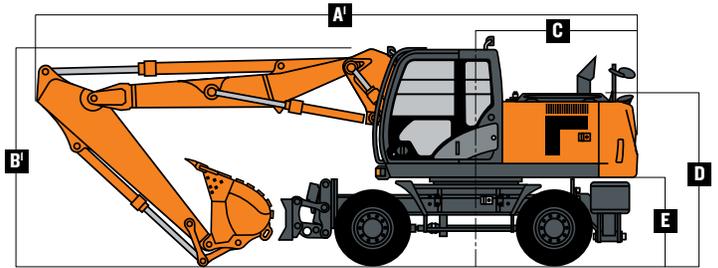
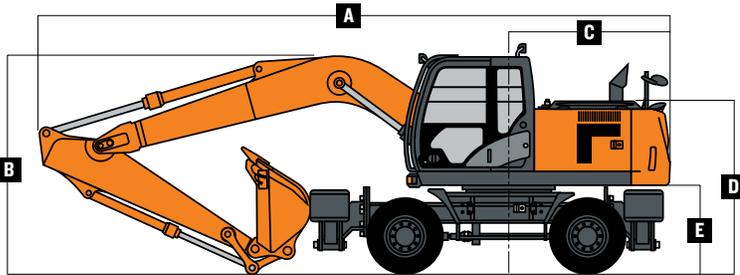
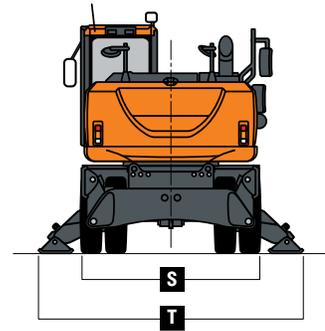
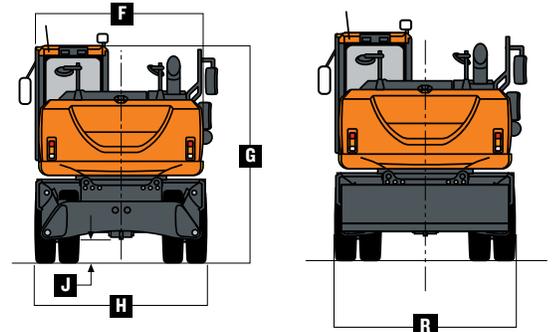


Machine Dimensions

ZXI90W-5

With standard gauge and 2.71-m (8 ft. 11 in.) arm; dimensions are provided for both the front and rear outrigger configuration, and for the front blade and rear outrigger configuration

	Monoblock Boom	2-Piece Boom
A Overall Length	8.98 m (29 ft. 6 in.)	
A' Overall Length		8.80 m (28 ft. 10 in.)
B Overall Height	3.13 m (10 ft. 3 in.)	
B' Overall Height		3.21 m (10 ft. 6 in.)
C Rear-End Swing Radius	2.32 m (7 ft. 7 in.)	2.32 m (7 ft. 7 in.)
D Engine Cover Height	2.48 m (8 ft. 2 in.)	2.48 m (8 ft. 2 in.)
E Counterweight Clearance	1.24 m (4 ft. 1 in.)	1.24 m (4 ft. 1 in.)
F Overall Width of Upperstructure	2.45 m (8 ft. 0 in.)	2.45 m (8 ft. 0 in.)
G Overall Height of Cab	3.13 m (10 ft. 3 in.)	3.13 m (10 ft. 3 in.)
H Overall Width of Tires	2.55 m (8 ft. 4 in.)	2.55 m (8 ft. 4 in.)
J Minimum Ground Clearance	0.35 m (14 in.)	0.35 m (14 in.)
K Wheelbase	2.65 m (8 ft. 8 in.)	2.65 m (8 ft. 8 in.)
L Swing Center to Rear Axle	1.15 m (3 ft. 9 in.)	1.15 m (3 ft. 9 in.)
M Front Overhang		
Front Outrigger and Rear Outrigger	1.38 m (4 ft. 6 in.)	1.38 m (4 ft. 6 in.)
Front Blade and Rear Outrigger	1.32 m (4 ft. 4 in.)	1.32 m (4 ft. 4 in.)
N Rear Overhang	1.09 m (3 ft. 7 in.)	1.09 m (3 ft. 7 in.)
O Maximum Blade Lower	0.22 m (9 in.)	0.22 m (9 in.)
P Overall Height of Blade	0.59 m (23 in.)	0.59 m (23 in.)
Q Maximum Blade Raise	0.37 m (15 in.)	0.37 m (15 in.)
R Overall Width of Blade	2.53 m (8 ft. 4 in.)	2.53 m (8 ft. 4 in.)
S Overall Width with Outrigger Retracted	2.47 m (8 ft. 1 in.)	2.47 m (8 ft. 1 in.)
T Overall Width with Outrigger Extended	3.44 m (11 ft. 3 in.)	3.44 m (11 ft. 3 in.)
V Overall Height of Boom (traveling)	4.00 m (13 ft. 1 in.)	4.00 m (13 ft. 1 in.)
W Front Overhand (traveling)	3.33 m (10 ft. 11 in.)	3.33 m (10 ft. 11 in.)



SPECS

Lift Charts

ZX190W-5

Boldface type indicates hydraulically limited capacities; **lightface type** indicates stability-limited capacities, in kg (lb.). Ratings at bucket lift hook; machine equipped with 600-kg (1,323 lb.) bucket, 2.71-m (8 ft. 11 in.) arm, and standard counterweight; and situated on firm, level, uniform supporting surface. Figures do not exceed 87% of hydraulic capacity or 75% of weight needed to tip machine. All lift capacities are based on ISO 10567.

Load Point Height	1.5 m (5 ft.)		3.0 m (10 ft.)		4.5 m (15 ft.)		6.0 m (20 ft.)		7.5 m (25 ft.)		9.0 m (30 ft.)	
Horizontal Distance from Centerline of Rotation	Over Front	Over Side	Over Front	Over Side	Over Front	Over Side	Over Front	Over Side	Over Front	Over Side	Over Front	Over Side
With monoblock boom, rear outriggers, and front blade down												
6.0 m (20 ft.)							4420 (9,420)	4420 (9,420)				
4.5 m (15 ft.)					6430 (13,740)	6430 (13,740)	5320 (11,560)	4730 (10,160)	3330	3170		
3.0 m (10 ft.)					7910 (17,040)	7280 (15,660)	5930 (12,850)	4520 (9,730)	4730 (9,870)	3090 (6,630)		
1.5 m (5 ft.)					9060 (19,570)	6820 (14,670)	6470 (14,010)	4310 (9,280)	4620 (9,930)	3000 (6,440)		
Ground Line					9290	6580	6530	4170	4550	2930		
-1.5 m (-5 ft.)			9,010 (9,010)	9,010 (9,010)	20,130 (44,550)	14,140 (31,170)	14,030 (30,920)	8,960 (19,770)	9,770 (21,560)	6,290 (13,870)		
-3.0 m (-10 ft.)			7920 (18,050)	7920 (18,050)	8650 (18,740)	6520 (14,000)	6300 (13,600)	4110 (8,840)				
			9560 (20,680)	9560 (20,680)	7140 (15,380)	6590 (14,150)	5100 (10,810)	4150 (8,950)				
With monoblock boom and 4 outriggers down												
6.0 m (20 ft.)							4420 (9,420)	4420 (9,420)				
4.5 m (15 ft.)					6430 (13,740)	6430 (13,740)	5320 (11,560)	5320 (11,560)	3330	3330		
3.0 m (10 ft.)					7910 (17,040)	7910 (17,040)	5930 (12,850)	5280 (11,350)	4870 (9,870)	3620 (7,760)		
1.5 m (5 ft.)					9060 (19,570)	8100 (17,410)	6470 (14,010)	5060 (10,890)	4830 (10,370)	3520 (7,560)		
Ground Line					9290	7850	6660	4910	4750	3450		
-1.5 m (-5 ft.)			9,010 (9,010)	9,010 (9,010)	20,130 (44,550)	16,850 (37,050)	14,420 (31,780)	10,560 (23,280)	10,210 (22,500)	7,410 (16,330)		
-3.0 m (-10 ft.)			7920 (18,050)	7920 (18,050)	8650 (18,740)	7780 (16,700)	6300 (13,600)	4850 (10,430)				
			9560 (20,680)	9560 (20,680)	7140 (15,380)	7140 (15,380)	5100 (10,810)	4900 (10,550)				

Lift Charts

ZX190W-5

Boldface type indicates hydraulically limited capacities; **lightface type** indicates stability-limited capacities, in kg (lb.). Ratings at bucket lift hook; machine equipped with 600-kg (1,323 lb.) bucket, 2.71-m (8 ft. 11 in.) arm, and standard counterweight; and situated on firm, level, uniform supporting surface. Figures do not exceed 87% of hydraulic capacity or 75% of weight needed to tip machine. All lift capacities are based on ISO 10567.

Load Point Height	1.5 m (5 ft.)		3.0 m (10 ft.)		4.5 m (15 ft.)		6.0 m (20 ft.)		7.5 m (25 ft.)		9.0 m (30 ft.)	
	Over Front	Over Side	Over Front	Over Side	Over Front	Over Side						
With 2-piece boom, rear outriggers and front blade down												
6.0 m (20 ft.)							3980	3980				
							(8,790)	(8,790)				
4.5 m (15 ft.)					4860	4860	4330	4330	2820	2820		
					(10,510)	(10,510)	(9,450)	(9,450)				
3.0 m (10 ft.)			8700	8700	6500	6500	5050	4710	4430	3210		
			(19,130)	(19,130)	(13,970)	(13,970)	(10,960)	(10,130)	(8,980)	(6,840)		
1.5 m (5 ft.)			10 630	10 630	8100	7210	5830	4670	4740	3140		
			(23,330)	(23,330)	(17,470)	(15,500)	(12,630)	(10,070)	(10,190)	(6,700)		
Ground Line	8670	8670	12 770	12 770	9010	7250	6400	4710	4670	3030		
	(19,420)	(19,420)	(28,000)	(28,000)	(19,490)	(15,600)	(13,860)	(10,070)	(9,980)	(6,460)		
-1.5 m (-5 ft.)	13 900	13 900	14 840	14 660	9230	7490	6610	4460				
	(31,210)	(31,210)	(32,210)	(31,430)	(19,990)	(16,090)	(14,310)	(9,530)				
-3.0 m (-10 ft.)	22 710	22 710	15 310	15 260	9590	7130	6220	4280				
	(51,650)	(51,650)	(33,190)	(33,000)	(20,730)	(15,250)	(13,080)	(9,170)				
With two-piece boom and 4 outriggers down												
6.0 m (20 ft.)							3980	3980				
							(8,790)	(8,790)				
4.5 m (15 ft.)					4860	4860	4330	4330	2820	2820		
					(10,510)	(10,510)	(9,450)	(9,450)				
3.0 m (10 ft.)			8700	8700	6500	6500	5050	5050	4430	3730		
			(19,130)	(19,130)	(13,970)	(13,970)	(10,960)	(10,960)	(8,980)	(7,970)		
1.5 m (5 ft.)			10 630	10 630	8100	8100	5830	5310	4770	3660		
			(23,330)	(23,330)	(17,470)	(17,470)	(12,630)	(11,430)	(10,390)	(7,820)		
Ground Line	8670	8670	12 770	12 770	9010	8280	6400	5370	4860	3560		
	(19,420)	(19,420)	(28,000)	(28,000)	(19,490)	(17,820)	(13,860)	(11,600)	(10,410)	(7,610)		
-1.5 m (-5 ft.)	13 900	13 900	14 840	14 840	9230	8490	6610	5230				
	(31,210)	(31,210)	(32,210)	(32,210)	(19,990)	(18,300)	(14,310)	(11,190)				
-3.0 m (-10 ft.)	22 710	22 710	15 310	15 310	9590	8450	6220	5040				
	(51,650)	(51,650)	(33,190)	(33,190)	(20,730)	(18,070)	(13,080)	(10,810)				

SPECS

Buckets

ZX190W-5

A full line of buckets is offered to meet a wide variety of applications. Digging forces are with power boost. Buckets are equipped with TK-Series Bucket Teeth standard. Replaceable cutting edges and a variety of teeth are available through John Deere Parts. Optional side cutters add 150 mm (6 in.) to bucket widths. Capacities are SAE heaped ratings.

Type Bucket	Bucket Width		Bucket Capacity		Bucket Weight		Bucket Dig Force		Arm Dig Force 2.71 m (8 ft. 11 in.)		Bucket Tip Radius		Number of Teeth
	mm	in.	m ³	cu. yd.	kg	lb.	kN	lb.	kN	lb.	mm	in.	
General Purpose, High Capacity	762	30	0.60	0.79	650	1,432	122.7	27,582	91.2	20,512	1473	58.0	4
	914	36	0.76	1.00	735	1,621	122.7	27,582	91.2	20,512	1473	58.0	5
	1067	42	0.93	1.22	812	1,790	122.7	27,582	91.2	20,512	1473	58.0	5
	1219	48	1.09	1.43	896	1,976	122.7	27,582	91.2	20,512	1473	58.0	6
Heavy Duty	610	24	0.40	0.52	543	1,197	123.6	27,780	91.5	20,563	1463	57.61	4
	762	30	0.54	0.71	621	1,369	123.5	27,768	91.5	20,561	1463	57.61	4
	914	36	0.69	0.90	707	1,559	123.5	27,768	91.5	20,561	1463	57.61	5
	1067	42	0.83	1.09	785	1,731	123.5	27,768	91.5	20,561	1463	57.61	5
Heavy Duty, High Capacity	1219	48	0.99	1.29	871	1,921	123.5	27,768	91.5	20,561	1463	57.61	6
	610	24	0.43	0.56	646	1,424	122.7	27,582	91.2	20,512	1473	58.0	4
	762	30	0.58	0.76	723	1,593	122.7	27,582	91.2	20,512	1473	58.0	4
	914	36	0.74	1.00	808	1,782	122.7	27,582	91.2	20,512	1473	58.0	5
Ditching	1067	42	0.91	1.19	885	1,951	122.7	27,582	91.2	20,512	1473	58.0	5
	1219	48	1.06	1.39	577	1,271	122.7	27,582	91.2	20,512	1473	58.0	6
	1524	60	0.87	1.14	577	1,271	170.3	38,280	101.3	22,778	1057	41.62	0
General Purpose, High Capacity	1219	48	1.09	1.43	577	1,271	122.7	27,582	91.2	20,512	1473	57.99	6

ZX230W-5

Engine	ZX230W-5		
Manufacturer and Model	Isuzu 4HK1		
Non-Road Emission Standard	EPA Interim Tier 4/EU Stage IIIB		
Net Rated Power (ISO 9249)	119 kW (159 hp) @ 2,000 rpm		
Cylinders	4		
Displacement	5.2 L (317 cu. in.)		
Off-Level Capacity	60% (31 deg.)		
Aspiration	Turbocharged, air-to-air charge-air cooler		
Cooling	High-efficiency, direct-drive suction-type fan		
Powertrain	2-speed propel with creeper mode and automatic shift		
Travel Speed (Maximum)			
Creeper	2.9 km/h (1.8 mph)		
Low	7.4 km/h (4.6 mph)		
High	27.5 km/h (17.1 mph)		
Front Axle	All-wheel drive; can be locked hydraulically in any position		
Oscillation	±6 deg.		
Brakes	Maintenance-free wet-disc brakes on front and rear axles; fully hydraulic service brakes		
Tires	Standard size, dual-traction-type 11.00-20 I6PR		
Drawbar Pull	11,115 kgf (24,504 lbf)		
Hydraulics			
Main Pumps	2 variable-displacement axial-piston pumps		
Pump Flow (maximum x 2)	189 L/m (49.9 gpm)		
System Operating Pressure			
Circuits			
Implement	34 300 kPa (4,975 psi)		
Travel	35 300 kPa (5,120 psi)		
Swing	30 200 kPa (4,380 psi)		
Power Boost	38 000 kPa (5,511 psi)		
Controls	Pilot levers, short-stroke, low-effort hydraulic pilot controls with shutoff lever		
Cylinders	Heat treated, chrome-plated, polished cylinder rods, hardened steel (replaceable bushings) pivot pins		
	Bore	Rod Diameter	Stroke
Monoblock Boom (2)	125 mm (4.9 in.)	85 mm (3.3 in.)	1241 mm (48.9 in.)
2-Piece Boom (2)	130 mm (5.1 in.)	85 mm (3.3 in.)	1024 mm (40.3 in.)
Positioning, 2-Piece Boom (2)	180 mm (7.1 in.)	110 mm (4.3 in.)	680 mm (26.8 in.)
Arm (1)	135 mm (5.3 in.)	95 mm (3.7 in.)	1475 mm (58.1 in.)
Bucket (1)	115 mm (4.5 in.)	80 mm (3.1 in.)	1060 mm (41.7 in.)
Electrical			
Voltage	24 volt		
Number of Batteries (12 volt)	2		
Alternator Rating	50 amp		
Lights (6)	Headlights (2), top of cab (2), rear of cab (1), and boom (1)		
Driving Lights	Headlights (2), turn signals and hazard lights, brake lights and side marker lights		
Swing Mechanism			
Swing Speed	11.2 rpm		
Swing Torque	61 500 Nm (45,360 lb.-ft.)		

SPECS

Serviceability ZX230W-5

Refill Capacities

Fuel Tank	400 L (106 gal.)
Engine Coolant	25 L (7 gal.)
Engine Oil with Filter	23 L (6 gal.)
Hydraulic Tank	130 L (34 gal.)
Hydraulic System	270 L (71 gal.)
Swing Drive	6.2 L (6.6 qt.)
Transmission	2.5 L (2.6 qt.)
Axle	
Front	11 L (2.9 gal.)
Rear	14.5 L (3.8 gal.)
Front and Rear Hubs	2.5 L x 2 (2 x 2.6 qt. x 2)

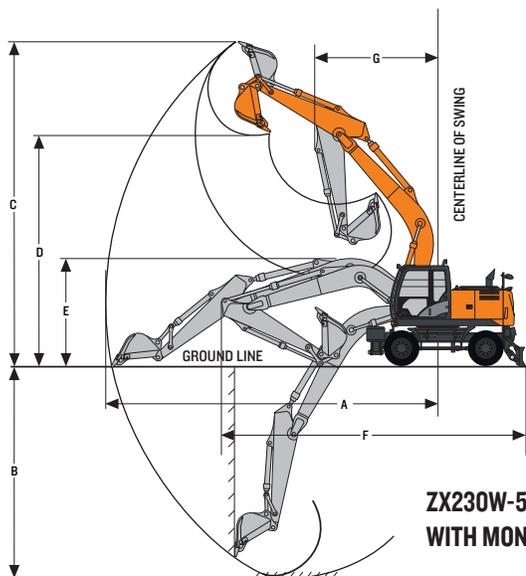
Operating Weights

With full fuel tank; 79-kg (175 lb.) operator; 0.8-m³ (1.04 cu. yd.), 900-mm (35 in.), 660-kg (1,455 lb.) general-purpose bucket; 2.91-m (9 ft. 7 in.) arm; standard gauge and 4500-kg (9,921 lb.) counterweight

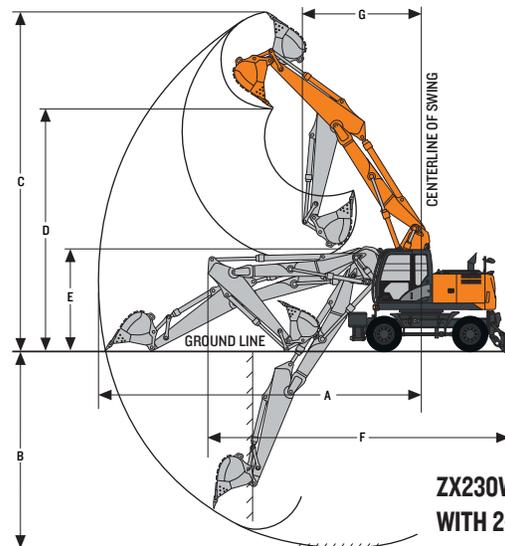
	Monoblock Boom	2-Piece Boom
Front Outrigger and Rear Outrigger	23 600 kg (52,030 lb.)	24 140 kg (53,220 lb.)
Front Blade and Rear Outrigger	23 290 kg (51,350 lb.)	23 830 kg (52,540 lb.)

Operating Dimensions

	Monoblock Boom	2-Piece Boom
Arm Digging Force		
SAE	110 kN (24,729 lb.)	110 kN (24,729 lb.)
ISO	114 kN (25,628 lb.)	114 kN (25,628 lb.)
Bucket Digging Force		
SAE	141.0 kN (31,698 lb.)	141.0 kN (31,698 lb.)
ISO	158.0 kN (35,520 lb.)	158.0 kN (35,520 lb.)
A Maximum Reach	10.28 m (33 ft. 9 in.)	10.03 m (32 ft. 11 in.)
B Maximum Digging Depth	6.31 m (20 ft. 8 in.)	6.14 m (20 ft. 2 in.)
C Maximum Cutting Height	10.25 m (33 ft. 7 in.)	10.36 m (34 ft.)
D Maximum Dumping Height	7.38 m (24 ft. 3 in.)	7.43 m (24 ft. 5 in.)
E Overall Height	3.19 m (10 ft. 6 in.)	3.32 m (10 ft. 11 in.)
F Overall Length		
Front Outrigger and Rear Outrigger	9.96 m (32 ft. 8 in.)	9.64 m (31 ft. 7 in.)
Front Blade and Rear Outrigger	9.96 m (32 ft. 8 in.)	9.64 m (31 ft. 7 in.)
G Minimum Swing Radius	3.55 m (11 ft. 8 in.)	3.42 m (11 ft. 3 in.)



**ZX230W-5 EXCAVATOR
WITH MONOBLOCK BOOM**



**ZX230W-5 EXCAVATOR
WITH 2-PIECE BOOM**

ZX230W-5 SPECS

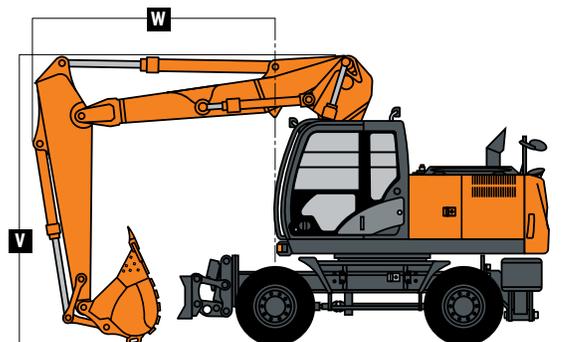
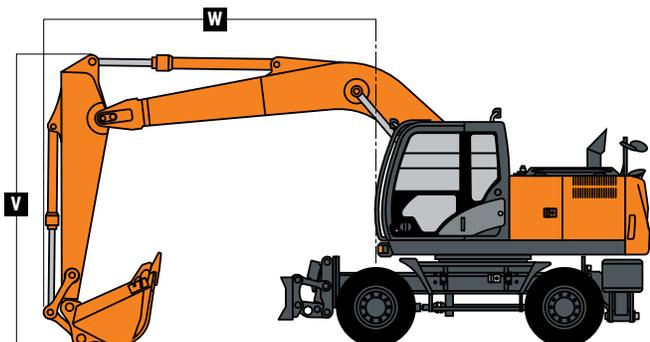
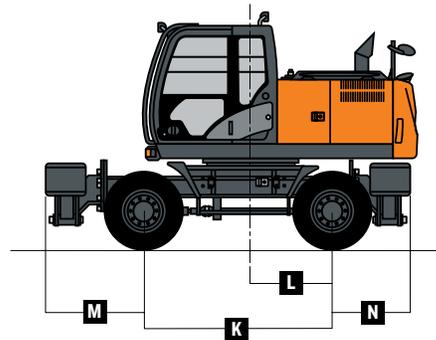
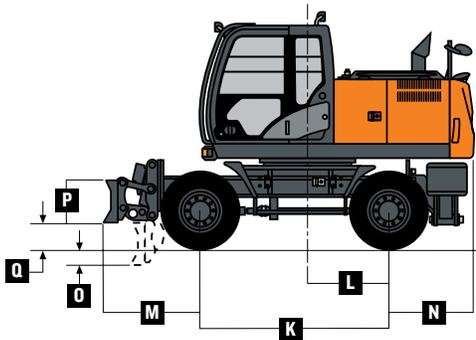
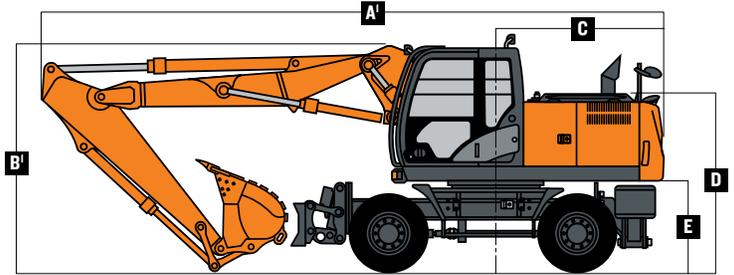
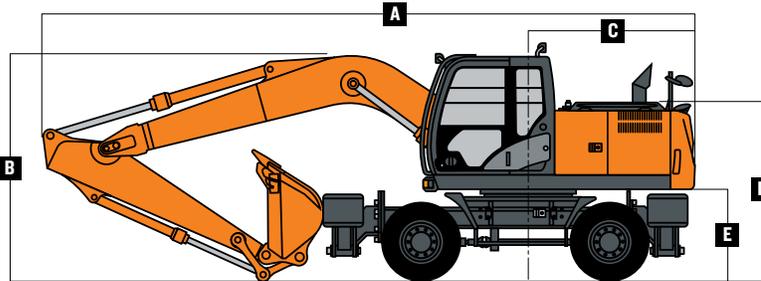
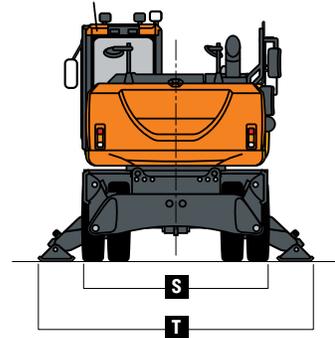
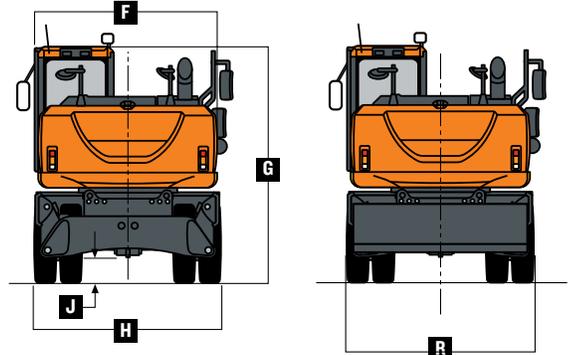
ZAXIS | DASH-5 WHEELED EXCAVATORS

Machine Dimensions

ZX230W-5

With standard gauge and 2.91-m (9 ft. 7 in.) arm; dimensions are provided for both the front and rear outrigger configuration, and for the front blade and rear outrigger configuration

	Monoblock Boom	2-Piece Boom
A Overall Length	9.96 m (32 ft. 8 in.)	
A' Overall Length		9.64 m (31 ft. 8 in.)
B Overall Height	3.19 m (10 ft. 6 in.)	
B' Overall Height		3.32 m (10 ft. 11 in.)
C Rear-End Swing Radius	2.89 m (9 ft. 6 in.)	2.89 m (9 ft. 6 in.)
D Engine Cover Height	2.64 m (8 ft. 8 in.)	2.64 m (8 ft. 8 in.)
E Counterweight Clearance	1.25 m (4 ft. 1 in.)	1.25 m (4 ft. 1 in.)
F Overall Width of Upperstructure	2.73 m (8 ft. 11 in.)	2.73 m (8 ft. 11 in.)
G Overall Height of Cab	3.19 m (10 ft. 6 in.)	3.19 m (10 ft. 6 in.)
H Overall Width of Tires	2.75 m (9 ft. 0 in.)	2.75 m (9 ft. 0 in.)
J Minimum Ground Clearance	0.35 m (14 in.)	0.35 m (14 in.)
K Wheelbase	2.75 m (9 ft. 0 in.)	2.75 m (9 ft. 0 in.)
L Swing Center to Rear Axle	1.35 m (4 ft. 5 in.)	1.35 m (4 ft. 5 in.)
M Front Overhang		
Front Outrigger and Rear Outrigger	1.38 m (4 ft. 6 in.)	1.38 m (4 ft. 6 in.)
Front Blade and Rear Outrigger	1.34 m (4 ft. 5 in.)	1.34 m (4 ft. 5 in.)
N Rear Overhang	1.09 m (3 ft. 7 in.)	1.09 m (3 ft. 7 in.)
O Maximum Blade Lower	0.21 m (8 in.)	0.21 m (8 in.)
P Overall Height of Blade	0.60 m (24 in.)	0.60 m (24 in.)
Q Maximum Blade Raise	0.38 m (15 in.)	0.38 m (15 in.)
R Overall Width of Blade	2.73 m (8 ft. 11 in.)	2.73 m (8 ft. 11 in.)
S Overall Width with Outrigger Retracted	2.74 m (8 ft. 12 in.)	2.74 m (8 ft. 12 in.)
T Overall Width with Outrigger Extended	3.91 m (12 ft. 10 in.)	3.91 m (12 ft. 10 in.)
V Overall Height of Boom (traveling)	3.98 m (13 ft. 1 in.)	3.98 m (13 ft. 1 in.)
W Front Overhand (traveling)	3.49 m (11 ft. 5 in.)	3.49 m (11 ft. 5 in.)



SPECS

Lift Charts

ZX230W-5

Boldface type indicates hydraulically limited capacities; **lightface type** indicates stability-limited capacities, in kg (lb.). Ratings at bucket lift hook; machine equipped with 666-kg (1,468 lb.) bucket, 2.91-m (9 ft. 7 in.) arm, and standard counterweight; and situated on firm, level, uniform supporting surface. Figures do not exceed 87% of hydraulic capacity or 75% of weight needed to tip machine. All lift capacities are based on ISO 10567.

Load Point Height	1.5 m (5 ft.)		3.0 m (10 ft.)		4.5 m (15 ft.)		6.0 m (20 ft.)		7.5 m (25 ft.)		9.0 m (30 ft.)	
	Horizontal Distance from Centerline of Rotation		Over Front	Over Side								
With monoblock boom, rear outriggers and front blade down												
6.0 m (20 ft.)								5250	5250	4460	4460	
							(11,490)	(11,490)	(8,700)	(8,700)		
4.5 m (15 ft.)					7340	7340	6080	6080	5490	5490		
					(15,750)	(15,750)	(13,190)	(13,190)	(11,990)	(9,720)		
3.0 m (10 ft.)					10 010	10 010	7260	6310	6030	4390		
					(21,440)	(21,440)	(15,690)	(13,580)	(13,100)	(9,450)		
1.5 m (5 ft.)					12 130	9500	8360	6040	6580	4260		
					(26,120)	(20,440)	(18,070)	(13,000)	(14,180)	(9,160)		
Ground Line					12 910	9260	9020	5870	6490	4160		
					(27,900)	(19,890)	(19,500)	(12,620)	(13,950)	(8,960)		
-1.5 m (-5 ft.)			7790	7790	12 610	9220	9040	5810	6460	4130		
			(17,710)	(17,710)	(27,290)	(19,800)	(19,540)	(12,490)	(13,890)	(8,900)		
-3.0 m (-10 ft.)			13 470	13 470	11 360	9320	8230	5860				
			(30,720)	(30,720)	(24,520)	(20,020)	(17,690)	(12,610)				
-4.5 m (-15 ft.)					8620	8620						
					(18,240)	(18,240)						
With monoblock boom and 4 outriggers down												
6.0 m (20 ft.)								5250	5250	4460	4460	
								(11,490)	(11,490)	(8,700)	(8,700)	
4.5 m (15 ft.)					7340	7340	6080	6080	5490	5290		
					(15,750)	(15,750)	(13,190)	(13,190)	(11,990)	(11,370)		
3.0 m (10 ft.)					10 010	10 010	7260	7260	6030	5160		
					(21,440)	(21,440)	(15,690)	(15,690)	(13,100)	(11,090)		
1.5 m (5 ft.)					12 130	11 440	8360	7140	6580	5020		
					(26,120)	(24,570)	(18,070)	(15,370)	(14,270)	(10,800)		
Ground Line					12 910	11 180	9020	6960	6730	4920		
					(27,900)	(23,980)	(19,500)	(14,980)	(14,470)	(10,580)		
-1.5 m (-5 ft.)			7790	7790	12 610	11 140	9040	6900	6700	4890		
			(17,710)	(17,710)	(27,290)	(23,890)	(19,540)	(14,840)	(14,420)	(10,530)		
-3.0 m (-10 ft.)			13 470	13 470	11 360	11 250	8230	6950				
			(30,720)	(30,720)	(24,520)	(24,120)	(17,690)	(14,960)				
-4.5 m (-15 ft.)					8620	8620						
					(18,240)	(18,240)						
With 2-piece boom, rear outriggers and front blade down												
7.5 m (25 ft.)								4340	4340			
								(7,850)	(7,850)			
6.0 m (20 ft.)								5560	5560			
								(12,100)	(12,100)			
4.5 m (15 ft.)					6660	6660	6330	6330	5180	4700		
					(14,390)	(14,390)	(13,770)	(13,770)	(10,650)	(10,060)		
3.0 m (10 ft.)			11 090	11 090	9610	9610	7310	6690	6210	4690		
			(24,530)	(24,530)	(20,660)	(20,660)	(15,840)	(14,410)	(13,540)	(10,020)		
1.5 m (5 ft.)			13 990	13 990	11 700	10 290	8320	6630	6660	4600		
			(30,920)	(30,920)	(25,220)	(22,130)	(18,010)	(14,290)	(14,460)	(9,840)		
Ground Line	8310	8310	16 790	16 790	12 710	10 320	8980	6660	6820	4470		
	(18,590)	(18,590)	(36,730)	(36,730)	(27,490)	(22,180)	(19,450)	(14,340)	(14,610)	(9,570)		
-1.5 m (-5 ft.)	13 890	13 890	20 290	20 290	12 880	10 570	9160	6490	6690	4340		
	(31,150)	(31,150)	(44,280)	(44,280)	(27,880)	(22,690)	(19,830)	(13,910)	(14,150)	(9,290)		
-3.0 m (-10 ft.)	22 540	22 540	21 550	21 550	13 250	10 370	9010	6250				
	(51,050)	(51,050)	(46,640)	(46,640)	(28,770)	(22,180)	(19,160)	(13,400)				
-4.5 m (-15 ft.)	31 020	31 020	19 540	19 540								
	(69,820)	(69,820)	(41,120)	(41,120)								
With 2-piece boom and 4 outriggers down												
7.5 m (25 ft.)								4340	4340			
								(7,850)	(7,850)			
6.0 m (20 ft.)								5560	5560			
								(12,100)	(12,100)			
4.5 m (15 ft.)					6660	6660	6330	6330	5180	5180		
					(14,390)	(14,390)	(13,770)	(13,770)	(10,650)	(10,650)		
3.0 m (10 ft.)			11 090	11 090	9610	9610	7310	7310	6210	5440		
			(24,530)	(24,530)	(20,660)	(20,660)	(15,840)	(15,840)	(13,540)	(11,640)		
1.5 m (5 ft.)			13 990	13 990	11 700	11 700	8320	7600	6660	5360		
			(30,920)	(30,920)	(25,220)	(25,220)	(18,010)	(16,370)	(14,460)	(11,480)		
Ground Line	8310	8310	16 790	16 790	12 710	11 930	8980	7640	6970	5240		
	(18,590)	(18,590)	(36,730)	(36,730)	(27,490)	(25,640)	(19,450)	(16,460)	(15,050)	(11,210)		
-1.5 m (-5 ft.)	13 890	13 890	20 290	20 290	12 880	12 130	9160	7610	6810	5100		
	(31,150)	(31,150)	(44,280)	(44,280)	(27,880)	(26,080)	(19,830)	(16,300)	(14,150)	(10,930)		
-3.0 m (-10 ft.)	22 540	22 540	21 550	21 550	13 250	12 370	9010	7370				
	(51,050)	(51,050)	(46,640)	(46,640)	(28,770)	(26,440)	(19,160)	(15,910)				
-4.5 m (-15 ft.)	31 020	31 020	19 540	19 540								
	(69,820)	(69,820)	(41,120)	(41,120)								

Buckets ZX230W-5

A full line of buckets is offered to meet a wide variety of applications. Digging forces are with power boost. Buckets are equipped with TK-Series Bucket Teeth standard. Replaceable cutting edges and a variety of teeth are available through John Deere Parts. Optional side cutters add 150 mm (6 in.) to bucket widths. Capacities are SAE heaped ratings.

Type Bucket	Bucket Width		Bucket Capacity		Bucket Weight		Bucket Dig Force		Arm Dig Force 2.91 m (9 ft. 7 in.)		Bucket Tip Radius		Number of Teeth
	mm	in.	m ³	cu. yd.	kg	lb.	kN	lb.	kN	lb.	mm	in.	
General Purpose, High Capacity	762	30	0.60	0.79	650	1,432	153.5	34,517	110.6	24,855	1473	58.0	4
	914	36	0.76	1.00	735	1,621	153.2	34,450	110.6	24,855	1473	58.0	5
	1067	42	0.93	1.22	812	1,790	153.2	34,450	110.6	24,855	1473	58.0	5
Heavy Duty	1219	48	1.09	1.43	896	1,976	153.5	34,517	110.6	24,855	1473	58.0	6
	610	24	0.40	0.52	543	1,197	154.6	34,758	110.8	24,913	1463	57.61	4
	762	30	0.54	0.71	621	1,369	154.6	34,751	110.8	24,913	1463	57.61	4
	914	36	0.69	0.90	707	1,559	154.6	34,751	110.8	24,913	1463	57.61	5
Heavy Duty, High Capacity	1067	42	0.83	1.09	785	1,731	154.6	34,751	110.8	24,913	1463	57.61	5
	1219	48	0.99	1.29	871	1,921	154.6	34,751	110.8	24,913	1463	57.61	6
	610	24	0.43	0.56	646	1,424	153.5	34,517	110.6	24,855	1473	58.0	4
	762	30	0.58	0.76	723	1,593	153.5	34,517	110.6	24,855	1473	58.0	4
Ditching	914	36	0.74	1.97	808	1,782	153.5	34,517	110.6	24,855	1473	58.0	5
	1067	42	0.91	1.19	885	1,951	153.5	34,517	110.6	24,855	1473	58.0	5
	1219	48	1.06	1.39	970	2,139	153.5	34,517	110.6	24,855	1473	58.0	6
General Purpose, High Capacity	1524	60	0.87	1.14	577	1,271	214.0	48,102	122.2	27,463	1057	41.62	0
General Purpose, High Capacity	1219	48	1.09	1.43	577	1,271	153.5	34,517	110.6	24,855	1473	57.99	6

SPECS

ADDITIONAL EQUIPMENT

Key: ● Standard ▲ Optional or special kit

190W 230W	Engine
● ●	Auto-idle system
● ●	Automatic belt-tension device
● ●	Batteries (2 – 12 volt)
● ●	Coolant recovery tank
● ●	Dual element dry-type air filter
● ●	Electronic engine control
● ●	Enclosed fan guard (conforms to SAE J1308)
● ●	Engine coolant to –37 deg. C (–34 deg. F)
● ●	Fuel filter with water separator
● ●	Full-flow oil filter
● ●	Turbocharger with charge air cooler
● ●	500-hour engine-oil-change interval
● ●	Programmable auto-shutdown
Hydraulic System	
● ●	Reduced-drift valve for boom down, arm in
● ●	Auxiliary hydraulic valve section
● ●	Spring-applied, hydraulically released automatic swing brake
● ●	Brake valves for travel circuits
● ●	Individual control of outriggers
▲ ▲	Auxiliary hydraulic lines
▲ ▲	Auxiliary pilot and electric controls
● ●	Hydraulic filter restriction indicator
● ●	Low-flow/medium-pressure-assist hydraulics
Undercarriage	
● ●	Brakes, 4 wheel, maintenance free, wet disc
● ●	Creep speed range
● ●	Front axle, oscillating, lockable
▲ ▲	Front blade and rear outriggers (2)
▲ ▲	Outriggers (4)
● ●	Parking brake
● ●	Dual traction-type tires, I0.00-20, I4PR with spacer
● ●	Dual traction-type tires, I0.00-20, I6PR with spacer
● ●	Toolbox on left chassis
Upperstructure	
● ●	Right- and left-hand mirrors
● ●	Vandal locks with ignition key: Cab door / Fuel cap / Service doors

190W 230W	Front Attachments
● ●	5.5-m (18 ft. 0 in.) monoblock boom with 2.71-m (8 ft. 11 in.) arm
● ●	5.68-m (18 ft. 8 in.) monoblock boom with 2.91-m (9 ft. 7 in.) arm
▲	Variable-geometry, 2-piece boom with 2.71-m (8 ft. 11 in.) arm
▲	Variable-geometry, 2-piece boom with 2.91-m (9 ft. 7 in.) arm
● ●	Centralized lubrication system
● ●	Dirt seals on all bucket pins
▲ ▲	Buckets: Ditching / General purpose / General-purpose high capacity / Heavy duty / Heavy-duty high capacity / Side cutters and teeth
Operator's Station	
● ●	Adjustable independent-control positions (levers-to-seat, seat-to-pedals)
● ●	AM/FM radio
● ●	Auto climate control/air conditioner with heater and pressurizer
● ●	Built-in Operator's Manual storage compartment and manual
● ●	Cell-phone power outlet, 12 volt
● ●	Coat hook
● ●	Deluxe suspension cloth seat with 100-mm (4 in.) adjustable armrests
● ●	Floor mat
● ●	Front windshield wiper with intermittent speeds
● ●	Gauges (illuminated): Engine coolant / Fuel/Brake pressure
● ●	Horn, electric
● ●	Hour meter, electric
● ●	Hydraulic shutoff lever, all controls
● ●	Hydraulic warm-up control
● ●	Interior light
● ●	Large cup holder
● ●	Machine Information Center (MIC)
● ●	Mode selectors (illuminated): Power modes – three / Work mode – one

190W 230W	Operator's Station (continued)
● ●	High/low travel mode with creeper range
● ●	Multifunction, color LCD monitor with: Diagnostic capability / Multiple-language capabilities / Maintenance tracking / Clock / System monitoring with alarm features: Auto-idle indicator, Auto-shutdown indicator, brake pressure audible alarm, engine air cleaner restriction indicator light, engine check, engine coolant temperature indicator light with audible alarm, engine oil pressure indicator light with audible alarm, low-alternator-charge indicator light, low-fuel indicator light, fault-code alert indicator, fuel-rate display, water-infuel light, wiper-mode indicator, worklights-on indicator, and work-mode indicator
● ●	Motion alarm with cancel switch (conforms to SAE J994)
● ●	Power-boost switch on right control lever
● ●	SAE 2-lever control pattern
● ●	Seat belt, 51 mm (2 in.), retractable
▲ ▲	Seat belt, 76 mm (3 in.), non-retractable
● ●	Tinted glass
● ●	Transparent tinted overhead hatch
● ●	Tilting steering column
● ●	Sun visor
● ●	Windshield washer/wiper with constant and intermittent speeds
▲ ▲	Window vandal protection covers
Electrical	
● ●	50-amp alternator
● ●	Blade-type multi-fused circuits
● ●	Positive-terminal battery covers
● ●	ZXLink™ Ultimate wireless communication system (available in specific countries; see your dealer for details)
Lights	
● ●	Headlights (2)
● ●	Work lights, top of cab (2), rear of cab (1), and boom (1)
● ●	Turn signals / Hazard lights
● ●	Brake lights
● ●	Side marker lights

See your Hitachi dealer for further information.

Net engine power is with standard equipment including air cleaner, exhaust system, alternator, and cooling fan at test conditions specified per ISO 9249. No derating is required up to 3050-m (10,000 ft.) altitude. Specifications and design subject to change without notice. Wherever applicable, specifications are in accordance with SAE standards. Except where otherwise noted, these specifications are based on units with full fuel tanks and 79-kg (175 lb.) operators; a ZX190W-5 unit with 0.7-m³ (0.92 cu. yd.), 900-mm (35 in.) bucket and 2.71-m (8 ft. 11 in.) arm; and a ZX230W-5 unit with 0.8-m³ (1.04 cu. yd.), 900-mm (35 in.) bucket and 2.91-m (9 ft. 7 in.) arm.

HITACHI

hitachiconstruction.com