

HITACHI

DASH 3



ZAXIS 240LC-3

- Engine Rated Power: 177 SAE net hp (132 kW) @ 2,000 rpm
- Operating Weight: 54,654 lb. (24 791 kg)
- Backhoe Bucket: 1.38 cu. yd. (1.06 m³), 42 in. (1065 mm)

ZAXIS 240LC-3 SPECIFICATIONS

Engine

Model	Isuzu AH-4HK1XYSA-01
	meets EPA and CARB emissions non-road regulations
Type	4-cycle water-cooled, direct injection
Aspiration	turbocharged, intercooled
No. of Cylinders	4
Rated Power	
SAE J1349, net	H/P mode: 177 hp (132 kW) at 2,000 rpm (min ⁻¹)
Piston Displacement.....	317 cu. in. (5.193 L)
Bore and Stroke	4.5 in. x 4.9 in. (115 mm x 125 mm)
Electrical System	24 volt with 50-amp alternator

Hydraulic System

Main Pumps	two variable-displacement axial-piston
Maximum Flow	2 x 59.2 gpm (2 x 224 L/min.)
Pilot Pump	one gear
Maximum Flow	8.9 gpm (34 L/min.)
Pressure Setting	580 psi (4000 kPa)
System Operating Pressure	
Implement Circuits	4,980 psi (34 300 kPa)
Travel Circuits	4,980 psi (34 300 kPa)
Swing Circuits	4,700 psi (32 400 kPa)
Power Boost	5,260 psi (36 300 kPa)
Oil Filtration	one 10-micron full-flow return filter with by-pass / one pilot oil filter

Cylinders

	Bore	Rod Diameter	Stroke
Boom (2)	4.9 in. (125 mm)	3.5 in. (90 mm)	54.7 in. (1390 mm)
Arm (1).....	5.5 in. (140 mm)	3.9 in. (100 mm)	63.4 in. (1610 mm)
Bucket (1).....	5.1 in. (130 mm)	3.5 in. (90 mm)	42.3 in. (1075 mm)

Swing Mechanism

Swing Speed.....	0-13.5 rpm
Swing Torque	54,857 lb.-ft. (74 433 Nm)

Undercarriage

Carrier Rollers (per side)	2
Track Rollers (per side)	9
Shoes, Triple Semi-Grouser (per side)	51
Track Guides.....	front and center
Track Adjustment	hydraulic
Travel Speed	
Low	0-2.1 mph (0-3.4 km/h)
High.....	0-3.4 mph (0-5.5 km/h)
Drawbar Pull.....	49,920 lb. (22 650 kg)

Ground Pressure Data

Average Ground Pressure

28-in. (700 mm) Triple Semi-Grouser Shoes (recommended for rocky terrain/stumps)	6.02 psi (41.5 kPa)
32-in. (800 mm) Triple Semi-Grouser Shoes (recommended for general/soft terrain).....	5.34 psi (36.8 kPa)

SAE Operating Weights

With Full Fuel Tank; 175-lb. (79 kg) Operator; 1.38-cu.-yd. (1.06 m³), 42-in. (1065 mm), 2,195-lb. (996 kg) Bucket; 11-ft. 10-in. (3.61 m) Arm; 11,904-lb. (5400 kg) Counterweight; and 32-in. (800 mm) Triple Semi-Grouser Shoes54,654 lb. (24 791 kg)

Capacities (U.S.)

Fuel Tank	132 gal. (500 L)
Cooling System	27.5 qt. (26 L)
Engine Lubrication, Including Filter	24.3 qt. (23 L)
Hydraulic Tank	39 gal. (147.6 L)
Hydraulic System	63.4 gal. (240 L)
Propel Gearbox (each)	6.5 qt. (6.2 L)
Swing Drive	7.5 qt. (7 L)

Component Weights

Undercarriage

28-in. (700 mm) Triple Semi-Grouser Shoes	18,650 lb. (8460 kg)
32-in. (800 mm) Triple Semi-Grouser Shoes	19,277 lb. (8744 kg)
One-Piece Boom (with arm cylinder)	4,868 lb. (2208 kg)

Arm with Bucket Cylinder and Linkage

9 ft. 9 in. (2.96 m)	2,855 lb. (1295 kg)
11 ft. 10 in. (3.61 m)	3,075 lb. (1395 kg)
Boom Lift Cylinders (2) Total Weight	957 lb. (434 kg)
1.38-cu.-yd. (1.06 m ³), 42-in. (1065 mm) Heavy-Duty Plate-Lip Bucket	2,195 lb. (996 kg)
Counterweight	11,904 lb. (5400 kg)

Lifting Capacities

Boldface italic type indicates hydraulic-limited capacities; lightface type indicates stability-limited capacities, in lb. (kg). Ratings at bucket lift hook; machine equipped with 1.38-cu.-yd. (1.06 m³), 42-in. (1065 mm), 2,195-lb. (996 kg) bucket; 11,904-lb. (5400 kg) counterweight; standard gauge; and situated on firm, uniform supporting surface. Total load includes weight of cables, hook, etc. Figures do not exceed 87 percent of hydraulic capacities or 75 percent of weight needed to tip machine. All lift capacities are based on SAE J1097.

Load Point Height	10 ft. (3.05 m)		15 ft. (4.57 m)		20 ft. (6.10 m)		25 ft. (7.62 m)		30 ft. (9.15 m)	
	Over Front	Over Side	Over Front	Over Side	Over Front	Over Side	Over Front	Over Side	Over Front	Over Side
<i>With 11-ft. 10-in. (3.61 m) arm and 32-in. (800 mm) triple semi-grouser shoes</i>										
20 ft. (6.10 m)							7,549 (3424)	7,549 (3424)		
15 ft. (4.57 m)					8,518 (3864)	8,518 (3864)	8,607 (3904)	8,607 (3904)	6,261 (2840)	6,261 (2840)
10 ft. (3.05 m)			14,688 (6662)	14,688 (6662)	11,557 (5242)	11,557 (5242)	10,049 (4558)	8,879 (4027)	8,091 (3670)	6,289 (2853)
5 ft. (1.52 m)			20,756 (9415)	18,889 (8568)	14,486 (6571)	12,098 (5488)	11,624 (5273)	8,385 (3803)	9,678 (4390)	6,038 (2739)
Ground Line			24,563 (11 142)	17,619 (7992)	16,877 (7655)	11,347 (5147)	12,785 (5799)	7,956 (3609)	9,457 (4290)	5,809 (2635)
-5 ft. (-1.52 m)	13,061 (5924)	13,061 (5924)	25,705 (11 660)	17,163 (7785)	17,903 (8121)	10,923 (4955)	12,480 (5661)	7,678 (3483)	9,308 (4222)	5,670 (2572)
-10 ft. (-3.05 m)	22,506 (10 209)	22,506 (10 209)	25,004 (11 342)	17,154 (7781)	17,768 (8060)	10,804 (4901)	12,387 (5619)	7,593 (3444)		
-15 ft. (-4.57 m)	29,633 (13 441)	29,633 (13 441)	22,540 (10 224)	17,460 (7920)	16,709 (7579)	10,961 (4972)	12,307 (5582)	7,768 (3524)		
-20 ft. (-6.10 m)			17,275 (7836)	17,275 (7836)	12,097 (5487)	11,532 (5231)				
<i>With 11-ft. 10-in. (3.61 m) arm and 28-in. (700 mm) triple semi-grouser shoes</i>										
20 ft. (6.10 m)							7,549 (3424)	7,549 (3424)		
15 ft. (4.57 m)					8,518 (3864)	8,518 (3864)	8,607 (3904)	8,607 (3904)	6,261 (2840)	6,261 (2840)
10 ft. (3.05 m)			14,688 (6662)	14,688 (6662)	11,557 (5242)	11,557 (5242)	10,049 (4558)	8,775 (3980)	8,091 (3670)	6,206 (2815)
5 ft. (1.52 m)			20,756 (9415)	18,696 (8480)	14,486 (6571)	11,961 (5425)	11,624 (5273)	8,282 (3757)	9,578 (4345)	5,955 (2701)
Ground Line			24,563 (11 142)	17,417 (7900)	16,877 (7655)	11,210 (5085)	12,627 (5728)	7,853 (3562)	9,332 (4233)	5,726 (2597)
-5 ft. (-1.52 m)	13,061 (5924)	13,061 (5924)	25,705 (11 660)	16,960 (7693)	17,687 (8023)	10,786 (4892)	12,322 (5589)	7,574 (3436)	9,183 (4165)	5,587 (2534)
-10 ft. (-3.05 m)	22,506 (10 209)	22,506 (10 209)	25,004 (11 342)	16,952 (7689)	17,551 (7961)	10,666 (4838)	12,229 (5547)	7,489 (3397)		
-15 ft. (-4.57 m)	29,633 (13 441)	29,633 (13 441)	22,540 (10 224)	17,257 (7828)	16,709 (7579)	10,824 (4910)	12,307 (5582)	7,664 (3476)		
-20 ft. (-6.10 m)			17,275 (7836)	17,275 (7836)	12,097 (5487)	11,395 (5169)				
<i>With 9-ft. 9-in. (2.96 m) arm and 32-in. (800 mm) triple semi-grouser shoes</i>										
20 ft. (6.10 m)							8,237 (3736)	8,237 (3736)		
15 ft. (4.57 m)					10,540 (4781)	10,540 (4781)	9,885 (4484)	9,122 (4138)		
10 ft. (3.05 m)			17,515 (7945)	17,515 (7945)	13,047 (5918)	12,726 (5772)	11,074 (5023)	8,728 (3959)	7,205 (3268)	6,196 (2810)
5 ft. (1.52 m)			23,155 (10 503)	18,262 (8284)	15,755 (7146)	11,858 (5379)	12,482 (5662)	8,288 (3759)	9,206 (4176)	6,004 (2723)
Ground Line			25,634 (11 628)	17,416 (7900)	17,721 (8038)	11,241 (5099)	12,744 (5781)	7,930 (3597)	9,235 (4189)	5,837 (2648)
-5 ft. (-1.52 m)	12,761 (5788)	12,761 (5788)	25,654 (11 637)	17,248 (7824)	17,922 (8129)	10,954 (4969)	12,530 (5684)	7,734 (3508)		
-10 ft. (-3.05 m)	19,352 (8778)	19,352 (8778)	24,124 (10 943)	17,398 (7892)	17,921 (8129)	10,953 (4968)	12,548 (5692)	7,750 (3515)		
-15 ft. (-4.57 m)	27,603 (12 521)	27,603 (12 521)	20,730 (9403)	17,836 (8090)	15,487 (7025)	11,247 (5102)				

Lifting Capacities

Boldface italic type indicates hydraulic-limited capacities; lightface type indicates stability-limited capacities, in lb. (kg). Ratings at bucket lift hook; machine equipped with 1.38-cu.-yd. (1.06 m³), 42-in. (1065 mm), 2,195-lb. (996 kg) bucket; 11,904-lb. (5400 kg) counterweight; standard gauge; and situated on firm, uniform supporting surface. Total load includes weight of cables, hook, etc. Figures do not exceed 87 percent of hydraulic capacities or 75 percent of weight needed to tip machine. All lift capacities are based on SAE J1097.

Load Point Height	10 ft. (3.05 m)		15 ft. (4.57 m)		20 ft. (6.10 m)		25 ft. (7.62 m)		30 ft. (9.15 m)		
	Over Front	Over Side	Over Front	Over Side	Over Front	Over Side	Over Front	Over Side	Over Front	Over Side	
<i>With 9-ft. 9-in. (2.96 m) arm and 28-in. (700 mm) triple semi-grouser shoes</i>											
20 ft. (6.10 m)								8,237 (3736)	8,237 (3736)		
15 ft. (4.57 m)					10,540 (4781)	10,540 (4781)	9,885 (4484)	9,018 (4091)			
10 ft. (3.05 m)			17,515 (7945)	17,515 (7945)	13,047 (5918)	12,589 (5710)	11,074 (5023)	8,625 (3912)	7,205 (3268)	6,113 (2773)	
5 ft. (1.52 m)			23,155 (10 503)	18,059 (8192)	15,755 (7146)	11,721 (5317)	12,482 (5662)	8,184 (3712)	9,206 (4176)	5,921 (2686)	
Ground Line			25,634 (11 628)	17,213 (7808)	17,721 (8038)	11,104 (5037)	12,586 (5709)	7,826 (3550)	9,235 (4189)	5,753 (2610)	
-5 ft. (-1.52 m)	12,761 (5788)	12,761 (5788)	25,654 (11 637)	17,045 (7732)	17,706 (8031)	10,817 (4907)	12,372 (5612)	7,630 (3461)			
-10 ft. (-3.05 m)	19,352 (8778)	19,352 (8778)	24,124 (10 943)	17,196 (7800)	17,705 (8031)	10,816 (4906)	12,389 (5620)	7,646 (3468)			
-15 ft. (-4.57 m)	27,603 (12 521)	27,603 (12 521)	20,730 (9403)	17,634 (7999)	15,487 (7025)	11,110 (5039)					

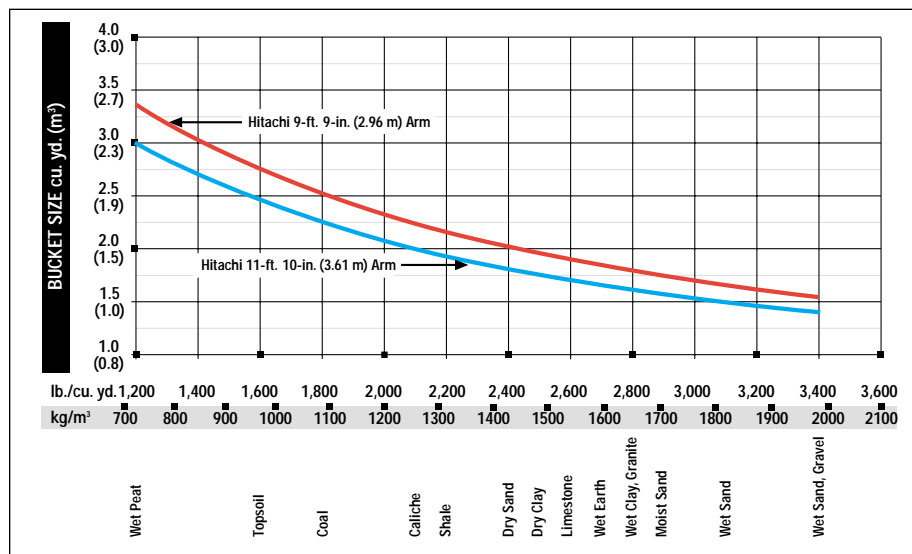
Buckets

A full line of buckets is offered to meet a wide variety of applications. Digging forces are with power boost. Tooth selection includes either the John Deere Fanggs®, Standard, Tiger, Twin Tiger, Abrasion panel, or Flare tooth, or the ESCO (Vertalok) Standard, Tiger, Twin Tiger, or Flare tooth. Replaceable cutting edges are available through John Deere parts. Optional side cutters add 6 inches (150 mm) to bucket widths.

Type Bucket	Bucket Width		Bucket Capacity*		Weight		Bucket Dig Force		Arm Dig Force 9 ft. 9 in. (2.96 m)		Arm Dig Force 11 ft. 10 in. (3.61 m)		Bucket Tip Radius		No. Teeth
	in.	mm	cu. yd.	m ³	lb.	kg	lb.	kN	lb.	kN	lb.	kN	in.	mm	
Heavy-Duty Plate Lip	42	1065	1.38	1.06	2,195	996	37,676	167.0	27,640	122.9	24,020	106.8	56.5	1435	5
	48	1220	1.60	1.22	2,359	1070	37,676	167.0	27,640	122.9	24,020	106.8	56.5	1435	6
	54	1370	1.82	1.39	2,507	1137	37,676	167.0	27,640	122.9	24,020	106.8	56.5	1435	6
Heavy-Duty High Capacity	24	610	0.92	0.70	1,765	801	35,846	159.4	26,710	118.8	23,313	103.7	62.5	1588	3
	30	760	1.20	0.92	2,010	912	35,846	159.4	26,710	118.8	23,313	103.7	62.5	1588	4
	36	915	1.48	1.13	2,133	968	35,846	159.4	26,710	118.8	23,313	103.7	62.5	1588	4
	42	1065	1.75	1.34	2,279	1034	35,846	159.4	26,710	118.8	23,313	103.7	62.5	1588	5
	48	1200	2.03	1.55	2,505	1136	35,846	159.4	26,710	118.8	23,313	103.7	62.5	1588	6
Severe-Duty Plate Lip	30	760	0.95	0.73	2,080	943	37,676	167.0	27,640	122.9	24,020	106.8	56.5	1435	4
	36	915	1.16	0.89	2,179	988	37,676	167.0	27,640	122.9	24,020	106.8	56.5	1435	4
	42	1065	1.38	1.06	2,345	1064	37,676	167.0	27,640	122.9	24,020	106.8	56.5	1435	5
Ditching	60	1525	1.34	1.02	1,562	709	45,273	201.4	29,244	130.1	25,225	112.2	47.0	1194	0

*All capacities are SAE heaped ratings and with side cutters.

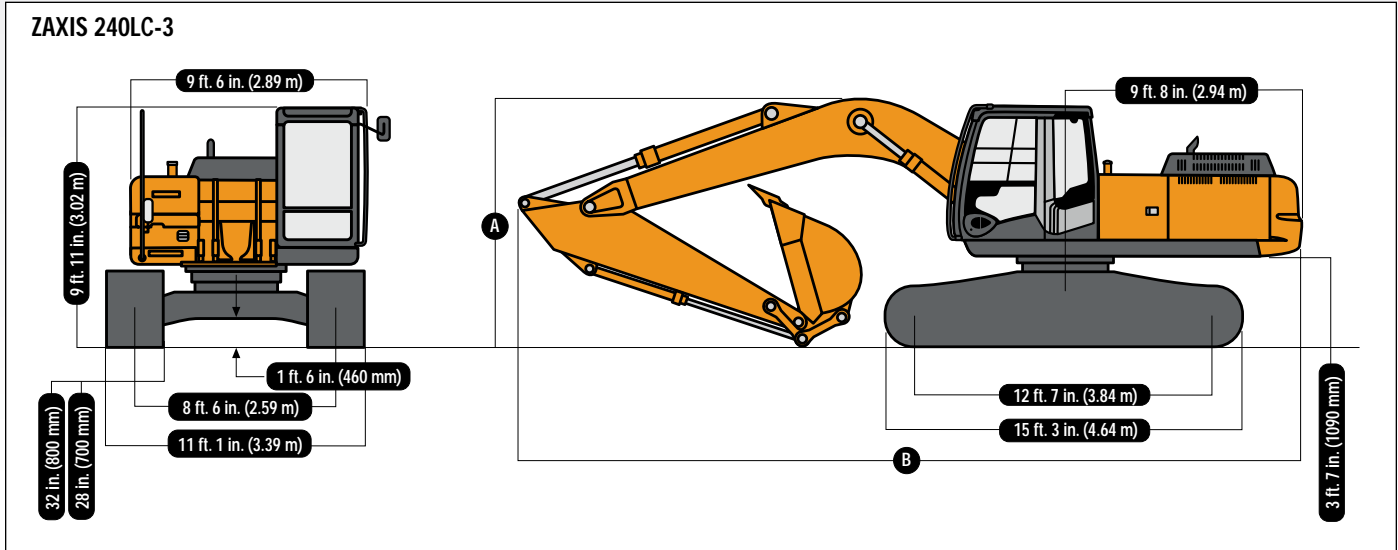
Bucket Selection Guide*



*Contact your Hitachi dealer for optimum bucket and attachment selections. These recommendations are for general conditions and average use. Does not include optional equipment such as thumbs or couplers. Larger buckets may be possible when using light materials, for flat and level operations, less compacted materials, and volume loading applications such as mass excavation applications in ideal conditions. Smaller buckets are recommended for adverse conditions such as off-level applications, rocks, and uneven surfaces. Bucket capacity indicated is SAE heaped.

Dimensions

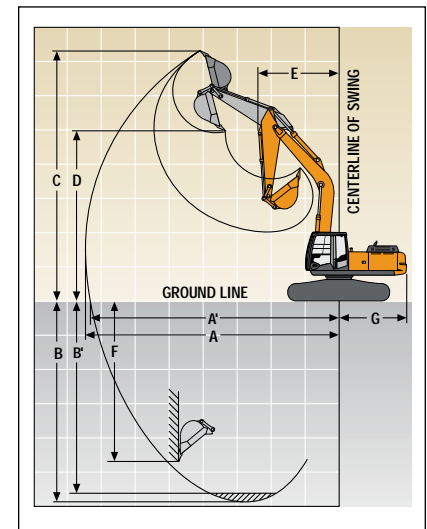
A	9-ft. 9-in. (2.96 m) arm.....	10 ft. 1 in. (3.07 m)
	11-ft. 10-in. (3.61 m) arm.....	10 ft. 4 in. (3.14 m)
B	9-ft. 9-in. (2.96 m) arm.....	33 ft. 4 in. (10.15 m)
	11-ft. 10-in. (3.61 m) arm.....	33 ft. 6 in. (10.21 m)



Operating Information

	Arm Length 9 ft. 9 in. (2.96 m)	Arm Length 11 ft. 10 in. (3.61 m)
Arm Force with 32-in. (800 mm) Triple Semi-Grouser Shoes*	27,640 lb. (122.9 kN)	24,020 lb. (106.8 kN)
Bucket Digging Force with 32-in. (800 mm) Triple Semi-Grouser Shoes*	37,670 lb. (167 kN)	37,670 lb. (167 kN)
Lifting Capacity Over Front @ Ground Level 20-ft. (6.1 m) Reach*	17,721 lb. (8038 kg)	16,877 lb. (7655 kg)
A Maximum Reach	33 ft. 5 in. (10.19 m)	35 ft. 6 in. (10.81 m)
A' Maximum Reach @ Ground Level.....	32 ft. 9 in. (9.99 m)	34 ft. 11 in. (10.64 m)
B Maximum Digging Depth	22 ft. 5 in. (6.84 m)	24 ft. 7 in. (7.49 m)
B' Maximum Digging Depth @ 8-ft. (2.44 m) Flat Bottom	21 ft. 9 in. (6.63 m)	24 ft. 1 in. (7.33 m)
C Maximum Cutting Height	33 ft. 2 in. (10.12 m)	34 ft. 6 in. (10.52 m)
D Maximum Dumping Height	23 ft. 6 in. (7.16 m)	24 ft. 9 in. (7.54 m)
E Minimum Swing Radius	11 ft. 3 in. (3.44 m)	11 ft. 4 in. (3.46 m)
F Maximum Vertical Wall	19 ft. 5 in. (5.91 m)	21 ft. 9 in. (6.63 m)
G Tail Swing Radius	9 ft. 8 in. (2.94 m)	9 ft. 8 in. (2.94 m)

*Digging forces and lift capacities with power boost.



Equipment

Key ● Standard Equipment ▲ Optional or Special Equipment

Engine

- H/P mode control
- E mode control
- 50 A alternator
- Dry-type air filter with evacuator valve (with air filter restriction switch for monitor)
- Cartridge-type engine oil filter
- Cartridge-type fuel double filters
- Air cleaner double filters
- Radiator, oil cooler and intercooler with dust protective net
- Radiator reserve tank
- Fan guard
- Isolation-mounted engine
- Auto-idle system
- Fuel cooler
- Electrical fuel feed pump
- Engine oil drain coupler

Hydraulic System

- Reduced-drift valve for boom down, arm in
- Auxiliary hydraulic valve section
- Spring-applied, hydraulically released automatic swing brake
- Auxiliary hydraulic-flow adjustments through monitor
- Auto power lift
- 5,000-hour hydraulic-oil-change interval
- Hydraulic-oil-sampling valve
- ▲ Auxiliary hydraulic lines
- ▲ Auxiliary pilot and electric controls
- ▲ Hydraulic filter restriction indicator kit
- ▲ Load-lowering control device
- ▲ Single-pedal propel control
- ▲ Control pattern change valve

Undercarriage

- Planetary drive with axial piston motors
- Propel motor shields
- Spring-applied, hydraulically released automatic propel brake
- Track guides, front idler and center
- Two-speed propel with automatic shift
- Upper carrier rollers (2)
- Sealed and lubricated track chain
- ▲ Triple semi-grouser shoes, 28 in. (700 mm)
- ▲ Triple semi-grouser shoes, 32 in. (800 mm)

Upperstructure

- Right- and left-hand mirrors
- Vandal locks with ignition key: Cab door / Fuel cap / Service doors / Toolbox
- Debris-screening side panel
- Remote-mounted engine oil and fuel filters

Front Attachments

- Centralized lubrication system
- Dirt seals on all bucket pins
- Less boom and arm
- Oil-impregnated bushings
- Reinforced resin thrust plates
- Tungsten carbide thermal coating on arm-to-bucket joint
- ▲ Arm, 9 ft. 9 in. (2.96 m)
- ▲ Arm, 11 ft. 10 in. (3.61 m)
- ▲ Attachment quick-couplers
- ▲ Boom cylinder with plumbing to mainframe for less boom and arm
- ▲ Buckets: Ditching / Heavy duty / Heavy-duty high capacity / Severe-duty plate lip / Side cutters and teeth
- ▲ Material clamps
- ▲ Super-long fronts

Operator's Station

- Adjustable independent control positions (levers-to-seat, seat-to-pedals)
- AM/FM radio
- Auto climate control/air conditioner, 20,000 Btu/hr. (5.9 kW) with heater and pressurizer
- Built-in Operator's Manual storage compartment and manual
- Cell-phone power outlet, 12 volt, 60 watt, 5 amp
- Coat hook
- Deluxe suspension cloth seat with 4-in. (100 mm) adjustable armrests
- Floor mat
- Front windshield wiper with intermittent speeds
- Gauges (illuminated): Engine coolant / Fuel
- Horn, electric
- Hourmeter, 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 / Travel modes – two with automatic shift / Work mode – one
- Multifunction, color LCD monitor with: Diagnostic capability / Multiple-language capabilities / Maintenance tracking / Clock / Theft-deterrent system / System monitoring with alarm features: Auto-idle indicator, 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, wiper-mode indicator, work-lights-on indicator, and work-mode indicator
- ▲ Monitor system with alarm features: Hydraulic oil filter restriction indicator light
- Motion alarm with cancel switch (conforms to SAE J994)
- Power-boost switch on right console lever
- Auxiliary hydraulic control switches in right console lever
- SAE two-lever control pattern
- Seat belt, 2 in. (51 mm), retractable
- ▲ Seat belt, 3 in. (76 mm), non-retractable
- Tinted glass
- Transparent tinted overhead hatch
- Hot/cold beverage compartment
- ▲ Air-suspension heated seat
- ▲ 24- to 12-volt D.C. radio convertors, 10 amp
- ▲ Circulation fan
- ▲ Protection screens for cab front, rear, and side
- ▲ Window vandal protection covers

Electrical

- 50-amp alternator
- Blade-type multi-fused circuits
- Positive terminal battery covers
- ▲ Cab extension wiring harness

Lights

- Work lights: Halogen / One mounted on boom / One mounted on frame

Control Owning and Operating Costs

Customer Personal Service (CPS) is part of Hitachi's proactive, fix-before-fail strategy on machine maintenance that will help control costs, increase profits, and reduce stress. Included in this comprehensive lineup of ongoing programs and services are:

Fluid analysis program – tells you what's going on inside all of your machine's major components so you'll know if there's a problem before you see a decline in performance. Fluid analysis is included in most extended coverage and preventive-maintenance agreements.

Preventive Maintenance (PM) agreements – give you a fixed cost for maintaining a machine for a given period of time. They also help you avoid downtime by ensuring that critical maintenance work gets done right and on schedule. On-site preventive maintenance service performed where and when you need it helps protect you from the expense of catastrophic failures and lets you avoid waste-disposal hassles.

Extended coverage – gives you a fixed cost for machine repairs for a given period of time so you can effectively manage expenses. Whether you work in a severe-service setting, or you just want to spread the risk

of doing business, this is a great way to custom-fit coverage to your operation. An extended coverage contract also travels well because it's backed by the company and is honored by all Hitachi dealers.

Customer Support Advisors (CSAs) – the CSA program lends a personal quality to Customer Personal Service (CPS). Certified CSAs have the knowledge and skills for helping make important decisions on machine maintenance and repair. Their mission is to help you implement a plan that's right for your business and take the burden of machine maintenance off your shoulders.

Net engine power is with standard equipment including air cleaner, exhaust system, alternator, and cooling fan, at standard conditions per SAE J1349 and DIN 6270B, using No. 2-D fuel at 35 API gravity. No derating is required up to 10,000-ft. (3050 m) altitude. Gross power is without cooling fan. 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 a unit with 42-in. (1065 mm) bucket, 32-in. (800 mm) triple semi-grouser shoes, 11,904 lb. (5400 kg) counterweight, full fuel tank, and 175 lb. (79 kg) operator.