HITACHI

ZAXIS 160LC-3

- **Engine Net Power:** 121 hp (90.2 kW) @ 2,200 rpm
- **Operating Weight:** 37,908 lb. (17 195 kg)
- **Backhoe Bucket:** 0.81 cu. yd. (0.62 m^3)

ZAXIS 160LC-3 SPECIFICATIONS

Engine

Manufacturer and Model	Isuzu AI-4JJ1X certified to EPA Tier-3 emissions
Net Power (ISO9249)	121 hp (90.2 kW) @ 2,200 rpm
Cylinders	4
Displacement	183 cu. in. (2.99 L)
Aspiration	turbocharged, air-to-air charge air cooler
Off-Level Capacity	70% (35 deg.)

Powertrain

Maximum Travel Speed

Low	2.1 mph (3.4 km/h)
High	3.3 mph (5.3 km/h)
Drawbar Pull	38,030 lb. (17 250 kg)

Hydraulics

Open center, load sensing; auxiliary hydraulic flow adjustable through monitor

Main Pumps	2 variable-displacement axial-piston pumps
Maximum Rated Flow	2 x 50.4 gpm (2 x 191 L/min.)
Pilot Pump	one gear
Maximum Rated Flow	8.87 gpm (33.6 L/min.)
Pressure Setting	570 psi (3930 kPa)

System Operating Pressure

Implement Circuits	4,980 psi (34 336 kPa)
Travel Circuits	4,980 psi (34 336 kPa)
Swing Circuits	4,250 psi (29 300 kPa)
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
Boom (2)	4.33 in. (110 mm)	3.15 in. (80 mm)	43.70 in. (1110 mm)
Arm (1)	4.72 in. (120 mm)	3.54 in. (90 mm)	53.74 in. (1365 mm)
Bucket (1)	4.13 in. (105 mm)	2.95 in. (75 mm)	36.81 in. (935 mm)

Electrical

Batteries	2 x 12 volt
Alternator	50 amp
Lights	halogen (one mounted on boom, one mounted on frame)

Undercarriage

Carrier Rollers (per side)	2
Track Rollers (per side)	7
Shoes (per side)	43

Track

Adjustment	hydraulic
Chain	sealed and lubricated

Swing Mechanism

Swing Speed	13.3 rpm
Swing Torque	32,353 lb.-ft. (44 000 Nm)

Ground Pressure

Triple Semi-Grouser Shoes

24 in. (600 mm)	5.83 psi (40.2 kPa)
28 in. (700 mm)	5.11 psi (35.2 kPa)

Serviceability

Refill Capacities

Fuel Tank .....85 gal. (320.0 L)
Cooling System .....23 qt. (22.0 L)
Engine Oil with Filter .....16 qt. (15.0 L)
Hydraulic Tank.....33 gal. (125.0 L)
Hydraulic System .....52.0 gal. (196.8 L)

Gearbox

Propel (each) .....5.0 qt. (4.7 L)
Swing .....6.0 qt. (5.7 L)

Operating Weights

With Full Fuel Tank; 175-lb. (79 kg) Operator; 36-in. (914 mm), 0.81-cu.-yd. (0.62 m^3),
1,373-lb. (623 kg) Heavy-Duty Bucket; 10-ft. 2-in. (3.10 m) Arm; 7,275-lb. (3300 kg) Counterweight;
12-ft. 10-in. (3.92 m) Undercarriage Length; and Triple Semi-Grouser Shoes

24 in. (600 mm).....37,436 lb. (16 981 kg)
28 in. (700 mm).....37,908 lb. (17 195 kg)

Optional Components

Undercarriage with Triple Semi-Grouser Shoes

24 in. (600 mm).....13,911 lb. (6316 kg)
28 in. (700 mm).....14,383 lb. (6530 kg)

Upperstructure with Full Fuel Tank (less front attachments
and 7,275-lb. [3300 kg] counterweight).....8,997 lb. (4081 kg)
One-Piece Boom (with arm cylinder) .....2,864 lb. (1300 kg)

Arm with Bucket Cylinder and Linkage

8 ft. 6 in. (2.60 m) .....1,735 lb. (788 kg)
10 ft. 2 in. (3.10 m) .....1,925 lb. (874 kg)

Boom Lift Cylinders (2) Total Weight.....675 lb. (306 kg)
36-in. (914 mm), 0.81-cu.-yd. (0.62 m^3)
Heavy-Duty Bucket .....1,373 lb. (623 kg)
Counterweight (standard) .....7,275 lb. (3300 kg)

Lifting Capacities

Boldface italic type indicates hydraulic-limited capacities; lightface type indicates stability-limited capacities, in lb. (kg). Ratings are at bucket lift hook, using standard counterweight, situated on firm, level, uniform supporting surface. Figures do not exceed 87 percent of hydraulic capacity or 75 percent of weight needed to tip machine.

Load Point Height	5 ft. (1.52 m)		10 ft. (3.05 m)		15 ft. (4.57 m)		20 ft. (6.10 m)		25 ft. (7.62 m)	
	Over Front	Over Side	Over Front	Over Side	Over Front	Over Side	Over Front	Over Side	Over Front	Over Side
With 8-ft. 6-in. (2.60 m) arm, 0.78-cu.-yd. (0.60 m^3) bucket, and 24-in. (600 mm) triple semi-grouser shoes										
20 ft. (6.10 m)							***5,470 (2481)***	***5,470 (2481)***		
15 ft. (4.57 m)							***6,568 (2979)***	6,411 (2908)		
10 ft. (3.05 m)					***9,265 (4203)***	***9,265 (4203)***	***7,684 (3485)***	6,107 (2770)	***5,803 (2632)***	4,073 (1847)
5 ft. (1.52 m)					***12,523 (5680)***	8,920 (4046)	***9,160 (4155)***	5,733 (2600)	6,443 (2922)	3,922 (1779)
Ground Line					14,137 (6412)	8,388 (3805)	8,959 (4064)	5,438 (2467)	6,300 (2858)	3,789 (1719)
–5 ft. (–1.52 m)			***13,758 (6241)***	***13,758 (6241)***	13,949 (6327)	8,226 (3731)	8,810 (3996)	5,302 (2405)		
–10 ft. (–3.05 m)	***18,000 (8165)***	***18,000 (8165)***	***16,758 (7601)***	16,167 (7333)	14,052 (6374)	8,315 (3772)	8,875 (4026)	5,361 (2432)		
–15 ft. (–4.57 m)			***15,450 (7008)***	***15,450 (7008)***	***10,825 (4910)***	8,315 (3772)				
With 8-ft. 6-in. (2.60 m) arm, 0.78-cu.-yd. (0.60 m^3) bucket, and 28-in. (700 mm) triple semi-grouser shoes										
20 ft. (6.10 m)							***5,470 (2481)***	***5,470 (2481)***		
15 ft. (4.57 m)							***6,568 (2979)***	6,507 (2952)		
10 ft. (3.05 m)					***9,265 (4203)***	***9,265 (4203)***	***7,684 (3485)***	6,202 (2813)	***5,803 (2632)***	4,146 (1881)
5 ft. (1.52 m)					***12,523 (5680)***	9,057 (4108)	***9,160 (4155)***	5,829 (2644)	6,552 (2972)	3,995 (1812)
Ground Line					14,356 (6512)	8,525 (3867)	9,105 (4130)	5,534 (2510)	6,410 (2908)	3,862 (1752)
–5 ft. (–1.52 m)			***13,758 (6241)***	***13,758 (6241)***	14,169 (6427)	8,363 (3793)	8,956 (4062)	5,398 (2448)		
–10 ft. (–3.05 m)	***18,000 (8165)***	***18,000 (8165)***	***16,798 (7619)***	16,411 (7444)	***14,174 (6429)***	8,452 (3834)	9,021 (4092)	5,457 (2475)		
–15 ft. (–4.57 m)			***15,450 (7008)***	***15,450 (7008)***	***10,825 (4910)***	8,832 (4006)				

Lifting Capacities

Boldface italic type indicates hydraulic-limited capacities; lightface type indicates stability-limited capacities, in lb. (kg). Ratings are at bucket lift hook, using standard counterweight, situated on firm, level, uniform supporting surface. Figures do not exceed 87 percent of hydraulic capacity or 75 percent of weight needed to tip machine.

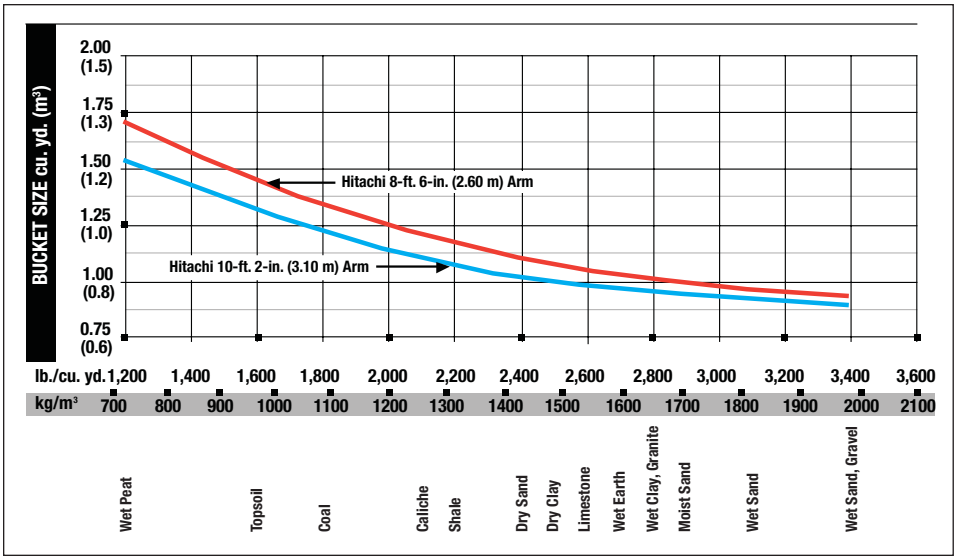
Load Point Height	5 ft. (1.52 m) Over Front	5 ft. (1.52 m) Over Side	10 ft. (3.05 m) Over Front	10 ft. (3.05 m) Over Side	15 ft. (4.57 m) Over Front	15 ft. (4.57 m) Over Side	20 ft. (6.10 m) Over Front	20 ft. (6.10 m) Over Side	25 ft. (7.62 m) Over Front	25 ft. (7.62 m) Over Side
With 10-ft. 2-in. (3.10 m) arm, 0.52-cu.-yd. (0.40 m³) bucket, and 24-in. (600 mm) triple semi-grouser shoes										
20 ft. (6.10 m)							***5,363 (2433)***	***5,363 (2433)***		
15 ft. (4.57 m)							***5,699 (2585)***	***5,699 (2585)***	***4,315 (1957)***	4,217 (1913)
10 ft. (3.05 m)					***7,960 (3611)***	***7,960 (3611)***	6,893 (3127)	6,180 (2803)	***6,172 (2800)***	4,100 (1860)
5 ft. (1.52 m)					***11,372 (5158)***	9,078 (4118)	***8,485 (3849)***	5,768 (2616)	6,441 (2922)	3,912 (1774)
Ground Line			***9,772 (4433)***	***9,772 (4433)***	***13,961 (6333)***	8,410 (3815)	8,948 (4059)	5,418 (2458)	6,254 (2837)	3,739 (1696)
–5 ft. (–1.52 m)	***7,754 (3517)***	***7,754 (3517)***	***14,078 (6386)***	***14,078 (6386)***	13,860 (6287)	8,133 (3689)	8,732 (3961)	5,222 (2369)	6,158 (2793)	3,649 (1655)
–10 ft. (–3.05 m)	***14,934 (6774)***	***14,934 (6774)***	***18,032 (8179)***	15,836 (7183)	13,869 (6291)	8,141 (3693)	8,719 (3955)	5,210 (2363)		
–15 ft. (–4.57 m)			***17,678 (8019)***	16,342 (7413)	***12,257 (5560)***	8,409 (3814)				
With 10-ft. 2-in. (3.10 m) arm, 0.52-cu.-yd. (0.40 m³) bucket, and 28-in. (700 mm) triple semi-grouser shoes										
20 ft. (6.10 m)							***5,363 (2433)***	***5,363 (2433)***		
15 ft. (4.57 m)							***5,699 (2585)***	***5,699 (2585)***	***4,315 (1957)***	4,290 (1946)
10 ft. (3.05 m)					***7,960 (3611)***	***7,960 (3611)***	***6,893 (3127)***	6,276 (2847)	***6,172 (2800)***	4,174 (1893)
5 ft. (1.52 m)					***11,372 (5158)***	9,216 (4180)	***8,485 (3849)***	5,864 (2660)	6,550 (2971)	3,985 (1808)
Ground Line			***9,772 (4433)***	***9,772 (4433)***	***11,372 (5158)***	8,547 (3877)	9,094 (4125)	5,513 (2501)	6,364 (2887)	3,812 (1729)
–5 ft. (–1.52 m)	***7,754 (3517)***	***7,754 (3517)***	***14,078 (6386)***	***14,078 (6386)***	13,961 (6333)	8,271 (3752)	8,878 (4027)	5,317 (2412)	6,268 (2843)	3,723 (1689)
–10 ft. (–3.05 m)	***14,934 (6774)***	***14,934 (6774)***	***18,032 (8179)***	16,080 (7294)	14,079 (6386)	8,279 (3755)	8,865 (4021)	5,305 (2406)		
–15 ft. (–4.57 m)			***17,678 (8019)***	16,586 (7523)	***12,257 (5560)***	8,547 (3877)				

Buckets

A full line of buckets is offered to meet a wide variety of applications. Digging forces are with power boost. Replaceable cutting edges are available through Hitachi parts. Optional side cutters add 6 inches (150 mm) to bucket widths. Capacities are SAE heaped ratings.

Type Bucket	Bucket Width in.	Bucket Width mm	Bucket Capacity* cu. yd.	Bucket Capacity* m³	Weight lb.	Weight kg	Bucket Dig Force lb.	Bucket Dig Force kN	Arm Dig Force 8 ft. 6 in. (2.60 m) lb.	Arm Dig Force 8 ft. 6 in. (2.60 m) kN	Arm Dig Force 10 ft. 2 in. (3.10 m) lb.	Arm Dig Force 10 ft. 2 in. (3.10 m) kN	Bucket Tip Radius in.	Bucket Tip Radius mm	No. Teeth
General-Purpose	24	610	0.54	0.41	1,081	491	20,920	93.1	18,804	83.6	16,808	74.8	57.61	1463	4
High Capacity	30	760	0.72	0.55	1,253	569	20,920	93.1	18,804	83.6	16,808	74.8	57.61	1463	4
	36	915	0.91	0.70	1,443	655	20,920	93.1	18,804	83.6	16,808	74.8	57.61	1463	5
	42	1065	1.11	0.85	1,615	733	20,920	93.1	18,804	83.6	16,808	74.8	57.61	1463	5
Heavy Duty	24	610	0.48	0.37	1,086	493	22,697	101.0	19,352	86.1	17,243	76.7	53.10	1349	4
	30	760	0.65	0.50	1,221	554	22,697	101.0	19,352	86.1	17,243	76.7	53.10	1349	4
	36	915	0.81	0.62	1,373	623	22,697	101.0	19,352	86.1	17,243	76.7	53.10	1349	5
	42	1065	0.99	0.76	1,508	685	22,697	101.0	19,352	86.1	17,243	76.7	53.10	1349	5
Ditching	60	1524	0.83	0.63	1,066	484	32,741	145.6	21,630	96.2	19,020	84.6	36.81	935	0

Bucket Selection Guide*

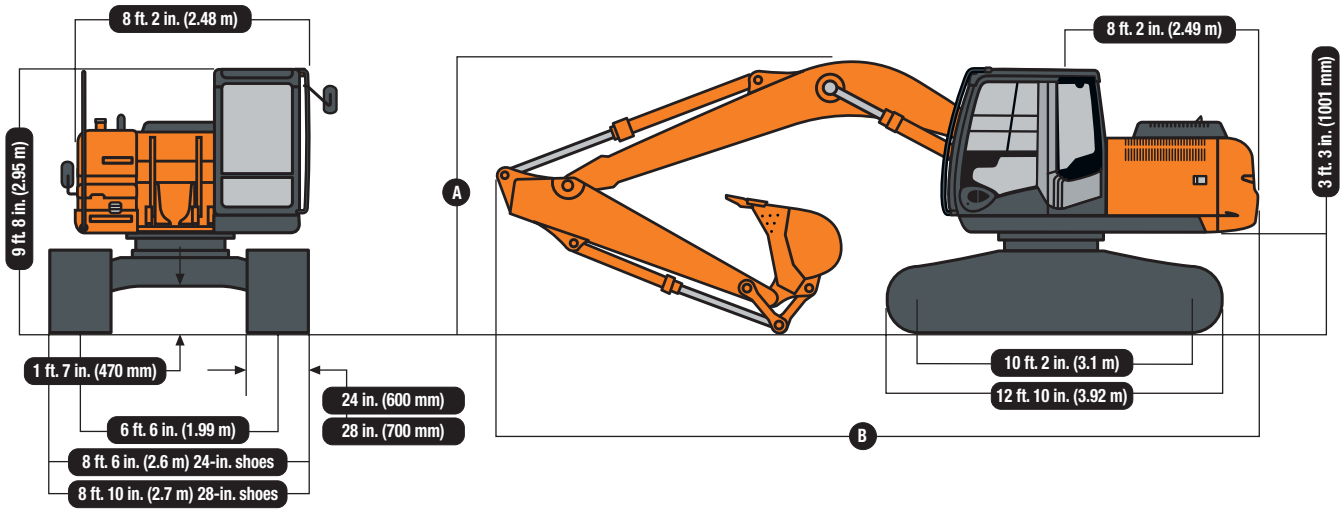


*Contact your Hitachi dealer for optimum bucket and attachment selections. These recommendations are for general conditions and average use. Does not include optional equipment such as thumbs or couplers. Larger buckets may be possible when using light materials, for flat and level operations, less compacted 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

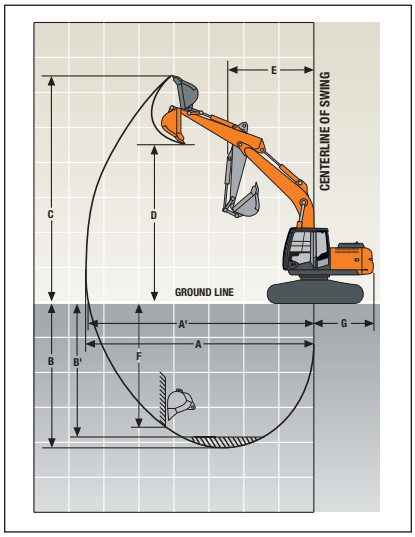
A 8-ft. 6-in. (2.60 m) arm .....9 ft. 5 in. (2.87 m)
10-ft. 2-in. (3.01 m) arm .....10 ft. 2 in. (3.11 m)
B 8-ft. 6-in. (2.60 m) arm .....28 ft. 1 in. (8.55 m)
10-ft. 2-in. (3.01 m) arm .....28 ft. 2 in. (8.58 m)

ZAXIS 160LC-3



Operating Information

	Arm Length 8 ft. 6 in. (2.60 m)	*Arm Length 10 ft. 2 in. (3.10 m)*
Arm Force with 36-in. (914 mm), 0.81-cu.-yd. (0.62 m³) Heavy-Duty Bucket with Power Boost	19,352 lb. (86.1 kN)	17,243 lb. (76.7 kN)
Bucket Digging Force with 36-in. (914 mm), 0.81-cu.-yd. (0.62 m³) Heavy-Duty Bucket with Power Boost	22,697 lb. (101.0 kN)	22,697 lb. (101.0 kN)
Lifting Capacity Over Front at Ground Level 20-ft. (6.1 m) Reach with Power Boost	9,105 lb. (4134 kg)	9,094 lb. (4129 kg)
A Maximum Reach	29 ft. 1 in. (8.87 m)	30 ft. 7 in. (9.33 m)
A' Maximum Reach at Ground Level	28 ft. 7 in. (8.70 m)	30 ft. 1 in. (9.16 m)
B Maximum Digging Depth	19 ft. 7 in. (5.98 m)	21 ft. 4 in. (6.49 m)
B' Maximum Digging Depth at 8-ft. (2.44 m) Flat Bottom	18 ft. 10 in. (5.74 m)	20 ft. 7 in. (6.27 m)
C Maximum Cutting Height	29 ft. 2 in. (8.88 m)	29 ft. 11 in. (9.13 m)
D Maximum Dumping Height	20 ft. 3 in. (6.17 m)	21 ft. 0 in. (6.40 m)
E Minimum Swing Radius	9 ft. 7 in. (2.91 m)	9 ft. 7 in. (2.92 m)
F Maximum Vertical Wall	16 ft. 11 in. (5.16 m)	18 ft. 8 in. (5.69 m)
G Tail Swing Radius	8 ft. 2 in. (2.49 m)	8 ft. 2 in. (2.49 m)



Equipment

Key ● Standard Equipment ▲ Optional or Special Equipment

Engine

- ● Certified to EPA Tier-3 emissions
- ● 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
- ● Glow-plug start aid
- ● 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, 24 in. (600 mm)
- ▲ Triple semi-grouser shoes, 28 in. (700 mm)

Upperstructure

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

Front Attachments

- ● Centralized lubrication system
- ● Dirt seals on all bucket pins
- ● Less boom and arm
- ● HN bushings
- ● Reinforced resin thrust plates
- ● Tungsten carbide thermal coating on arm-to-bucket joint
- ▲ Arm, 8 ft. 6 in. (2.60 m)
- ▲ Arm, 10 ft. 2 in. (3.10 m)
- ▲ Attachment quick-couplers
- ▲ Boom cylinder with plumbing to mainframe for less boom and arm
- ▲ Buckets: Ditching / Heavy duty / Heavy-duty high capacity / 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
- ▲ 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
- ▲ ZXLink™

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.

Component life-cycle data – gives you vital information on the projected life span of components and lets you make informed decisions on machine maintenance by telling you approximately how many hours of use you can expect from an engine, transmission, or hydraulic pump. This information can be used to preempt catastrophic downtime by servicing major components at about 80 percent of their life cycle.

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 costs. Whether you work in a severe-service setting or just want to spread the risk of doing business, this is a great way to custom-fit coverage for your operation. And an extended coverage contract also travels well because it's backed by Hitachi and is honored by all Hitachi construction dealers.

Customer Support Advisors (CSAs) – Hitachi believes 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 test conditions per ISO9249. No derating is required up to 10,000-ft. (3050 m) 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 a unit with 28-in. (700 mm) triple semi-grouser shoes; 10-ft. 2-in. (3.10 m) arm; 36-in. (914 mm), 0.81-cu. yd. (0.62 m^3), 1,373-lb. (623 kg) heavy-duty bucket; 7,275-lb. (3300 kg) counterweight; full fuel tank; and 175-lb. (79 kg) operator.

HITACHI

DKAZX160HT Litho in U.S.A. (07-03)