

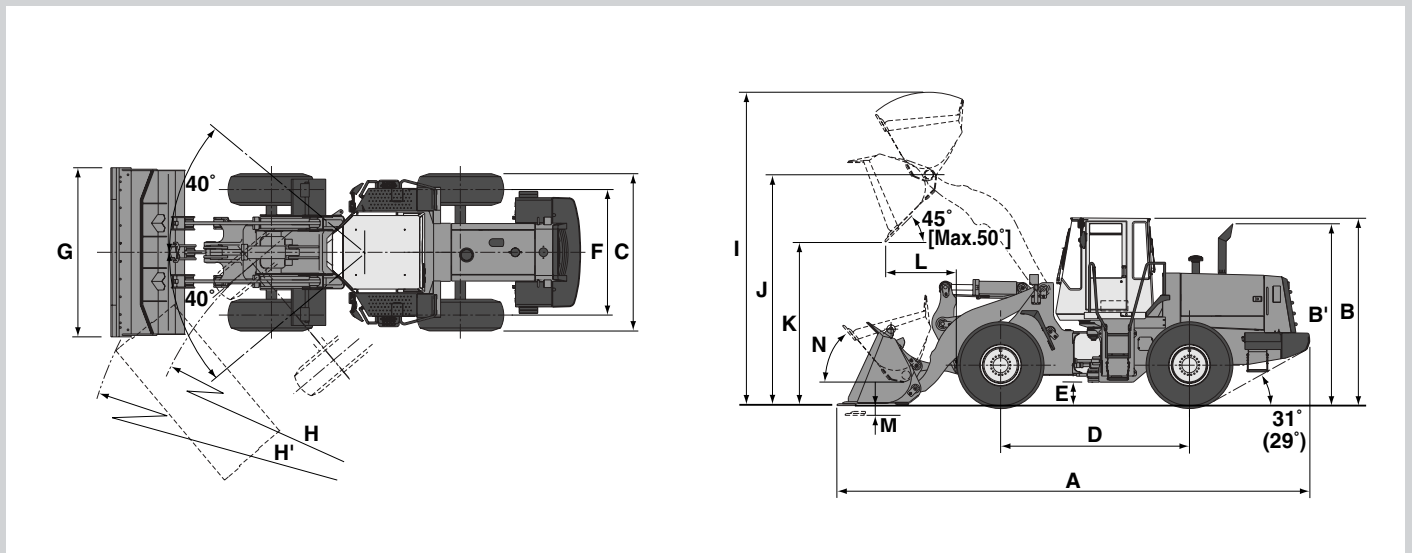
LX160

HITACHI

LX160

W H E E L L O A D E R

- Engine Rated Power : 143 kW (195 PS)
- Operating Weight : 17 070 kg / 16 290 kg
- Bucket Capacity : ISO Heaped
2.4 m³ – 3.5 m³



Note: Values shown in () are for optional 20.5 - 25 - 16PR tires.

Unit : mm

	LX160-7
A Overall length	8 080 / 8 135
B Height to top of cab	3 305 / 3 240
B' Height to top of exhaust	3 170 / 3 105
C Width over tires	2 810 / 2 720
D Wheel base	3 250
E Ground clearance	470 / 405
F Tread	2 160
G Bucket width	2 910
H Turning radius (Centerline of outside tire)	5 560
H' Loader clearance circle, bucket in carry position	6 530
I Overall operating height	5 460 / 5 395
J Height to bucket hinge pin, fully raised	4 040 / 3 975
K Dumping clearance 45 degree, full height	2 875 / 2 810
L Reach, 45 degree dump, full height	1 180 / 1 240
Reach, 45 degree dump, 7 ft (2.13 m) clearance	1 715 / 1 750
M Digging depth (Horizontal digging angle)	100 / 165
N Max. roll back at carry position	50 deg.
Tire size	23.5 - 25 - 16PR (L3) / 20.5 - 25 - 16PR (L3)

Note: General purpose bucket with bolt on cutting edges.



ENGINE

Model Isuzu BB-6HK1T
 Type 4-cycle water-cooled, direct injection
 Aspiration Turbocharger
 No. of cylinders 6
 Rated power
 DIN 6 272, net 141 kW (192 PS) at 2 200 min⁻¹ (2 200 rpm)
 SAE J1349, net 143 kW (192 HP) at 2 200 min⁻¹ (2 200 rpm)
 Bore and stroke 115 mm x 125 mm
 Piston displacement 7.790 L
 Electrical system 24 V with 0.96 kW, 50 A alternator
 Starting system 24 V x 5.0 kW electric motor
 Batteries 2 x 12 V / 916 CCA, 270-min. rated reserve
 Air cleaner Two element dry type with restriction indicator



POWER TRAIN

Transmission Torque converter, countershaft type powershift with computer-controlled automatic shift and manual shift features included.
 Torque converter Three element, single stage, single phase
 Main clutch Wet hydraulic, multi-disc type
 Cooling method Forced circulation type
 Travel speed* : km/h

	Forward / Reverse	
1st	7.0 /	7.5
2nd	11.5 /	13.0
3rd	20.5 /	22.5
4th	32.5 /	35.0
	<i>*With 20.5-25-16PR (L3) tires</i>	
	Forward / Reverse	
1st	7.5 /	8.5
2nd	12.5 /	14.0
3rd	22.5 /	24.5
4th	34.5 /	37.0
	<i>*With 23.5-25-16PR (L3) tires</i>	



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 torque proportional differential
 Oscillation angle ± 12° ; total 24°
 Final drives Heavy-duty planetary, mounted inboard



TIRES (tubeless, nylon body)

Standard 20.5-25-16PR (L3)
 Optional Refer to standard & optional equipment list



BRAKES

Service brakes Inboard mounted fully hydraulic 4 wheel wet disc brake.
 Front & rear independent brake circuit
 Parking brake Wet multiple disc mechanical type built in transmission



STEERING SYSTEM

Type Articulated frame steering
 Steering mechanism Full hydraulic power steering with orbitrol
 Steering angle Each direction 40° ; total 80°
 Relief pressure 18.6 MPa (190 kgf/cm²)
 Cylinders Two double-acting piston type
 No. x Bore x Stroke 2 x 80 mm x 422 mm
 Minimum turning radius at
 the centerline of outside tire 5.56 m



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 Gear type 107 L/min
 @2 200 min⁻¹ (rpm) at 16 180 KPa (165 kgf/cm²)
 Steering pump Gear type 192 L/min
 @2 200 min⁻¹ (rpm) at 20 590 KPa (210 kgf/cm²)
 Brake and assist pump Gear type 28 L/min
 @2 200 min⁻¹ (rpm) at 6 370 KPa (65 kgf/cm²)
 Charging pump Double gear type with two discharge ports
 Front pump Front 84 L/min
 @2 200 min⁻¹ (rpm) at 2 450 KPa (25 kgf/cm²)
 Rear pump Rear 50 L/min
 @2 200 min⁻¹ (rpm) at 490 KPa (5 kgf/cm²)
 Relief pressure setting 20 590 KPa (210 kgf/cm²)
 Hydraulic cylinders
 Type Two arm and one bucket, double acting type
 No. x Bore x Stroke Arm : 2 x 150 mm x 880 mm
 Bucket : 1 x 190 mm x 505 mm
 Filters Full-flow 15 micron return filter in reservoir
 Hydraulic cycle times
 Lift arm raise 6.0 s
 lower 3.3 s
 Bucket dump 1.4 s
 Total 10.7 s



SERVICE REFILL CAPACITIES

Fuel tank 265 L
 Engine coolant 63 L
 Engine oil 19 L
 Torque convertor & transmission 40 L
 Front axle differential & wheel hubs 32 L
 Rear axle differential & wheel hubs 32 L
 Hydraulic reservoir 97 L



DIMENSIONS & SPECIFICATIONS

Arm type			Standard arm					
			General purpose			Rock bucket		Light material handling
			With bolt-on cutting edges	With bolt-on teeth	With bolt-on teeth & segments	With bolt-on teeth	With bolt-on teeth & segments	With bolt-on cutting edges
Bucket type								
Bucket capacity	ISO heaped	m ³	3.2	3.1	3.2	2.5	2.5	3.5
	ISO struck	m ³	2.8	2.6	2.7	2.1	2.2	3.0
Bucket width		mm	2 910	2 910	2 910	2 910	2 910	2 910
Working range								
Dumping clearance 45 degree, full height		mm	2 875	2 770	2 770	2 850	2 850	2 835
Reach, 45 degree dump, full height		mm	1 180	1 255	1 255	1 170	1 170	1 220
Reach, 45 degree dump, 7 ft (2.13 m) clearance		mm	1 715	1 735	1 735	1 695	1 695	1 735
Reach with arm horizontal and bucket level		mm	2 590	2 725	2 725	2 610	2 610	2 650
Digging depth (Horizontal digging angle)		mm	100	115	115	115	115	100
Overall operating height		mm	5 460	5 460	5 460	5 380	5 380	5 520
Overall length (Bucket on ground)		mm	8 080	8 225	8 225	8 110	8 110	8 140
Loader clearance circle, bucket in carry position		mm	6 530	6 570	6 570	6 540	6 540	6 540
Static tipping load *	Straight	kgf	15 200	13 400	13 250	12 850	12 700	13 250
	Full 40 degree turn	kgf	11 700	11 550	11 400	11 000	10 900	11 400
Breakout force		kN (kgf)	154 (15 700)	167 (17 000)	159 (16 200)	184 (18 800)	175 (17 900)	147 (15 000)
Operating weight *		kgf	17 000	16 920	17 040	17 440	17 560	17 050

Arm type			High-lift arm	
			General purpose	
			With bolt-on cutting edges	With bolt-on teeth
Bucket type				
Bucket capacity	ISO heaped	m ³	2.6	2.5
	ISO struck	m ³	2.2	2.1
Bucket width		mm	2 910	2 910
Working range				
Dumping clearance 45 degree, full height		mm	3 430	3 325
Reach, 45 degree dump, full height		mm	1 190	1 265
Reach, 45 degree dump, 7 ft (2.13 m) clearance		mm	2 100	2 130
Reach with arm horizontal and bucket level		mm	2 845	2 980
Digging depth (Horizontal digging angle)		mm	200	215
Overall operating height		mm	5 730	5 730
Overall length (Bucket on ground)		mm	8 435	8 580
Loader clearance circle, bucket in carry position		mm	6 690	6 740
Static tipping load *	Straight	kgf	11 300	11 400
	Full 40 degree turn	kgf	9 750	9 800
Breakout force		kN (kgf)	161 (16 400)	175 (17 900)
Operating weight *		kgf	17 370	17 290

Notes: 1. All dimensions, weight and performance data based on ISO 6746-1:1987, ISO 7131:1997 and ISO 7546:1983

2. Static tipping load and operating weight marked with * include 23.5-25-16PR (L3) tires (No ballast) with lubricants, coolant, full fuel tank and operator. Machine stability and operating weight depend on counterweight, tire size and other attachments.

STANDARD & OPTIONAL EQUIPMENT

ENGINE		Indicator lights: Turn signals / Warning flashers / High beam of driving light / Work lights / Park brake / Clutch cut off / Gear shift / Engine preheat	●	Rock bucket with bolt on teeth: 2.5 m ³ (ISO heaped)	□
Coolant recovery tank	●	Indicator lights: Emergency steering (If Emergency steering is equipped)	□	Rock bucket with bolt on teeth and segments: 2.5 m ³ (ISO heaped)	□
Fan guard	●	24-volt AM/FM stereo radio with clock	●	Light material handling bucket with bolt on cutting edges : 3.5 m ³ (ISO heaped)	□
Muffler, under hood with large exhaust stack	●	24-volt AM/FM stereo radio with cassette player and clock	□	Quick coupler and hydraulic control system for quick-coupler locking pins, includes all controls in the cab, lines, and valves	□
Environmentally friendly engine oil drain	●	Radio-ready cab, fused 24-volt radio electrical lead, speaker (2), and antenna*	□	Full line of Hitachi buckets for quick coupler with selection of bolt-on cutting edges, and bolt-on teeth*	□
Engine oil cooler	●	OPERATOR'S STATION		General purpose bucket with bolt on cutting edges : 2.6 m ³ (ISO heaped)	□
Quick-release fuel filter and water separator	●	Canopy*		General purpose bucket with bolt on teeth: 2.4 m ³ (ISO heaped)	□
Glow system (For cold start)	●	FRP roof / Multiplane isolation mount for noise/vibration reduction	□	Full line of construction utility forks, pallet forks, and attachments*	□
Air filter double element	●	Cab		Lumber and pallet fork : Max load 7 000 kg (Pin on type)	□
Air pre-cleaner	●	ROPS** / FOPS*** / Multi-plane isolation mounted for noise/vibration reduction / Front and rear windshield washers / Safety grass	●	Log grapple : Max load 7 000 kg (Pin on type)	□
Wide fin radiator	□	Sun visor	●	Lumber grapple : Max load 7 000 kg (Pin on type)	□
Fuel double filter	□	Heater / Defroster (Cab model only)	●	TIRES	
POWER TRAIN		Less Heater & Defroster (Cab model only)*	□	Bias ply :	
TC/PS transmission, computer-controlled automatic shift and manual shift features included	●	Air conditioning (Factory or dealer installed)	□	20.5-25-16 PR (L2)	□
DSS (Down Shift Switch) and USS (Up Shift Switch)	●	Seat belt, 50 mm (2")	●	20.5-25-16 PR (L3)	□
Torque proportioning differentials, front and rear	●	Seat belt, 76 mm (3"), with retractor*	□	20.5-25-16 PR (L4)	□
Auto transmission 3 mode selection switch	●	Seat, close covered , high back, mechanical suspension, adjustable for weight-height, fore-aft position, backrest tilt, and armrest angle	□	20.5-25-16 PR (L5)	□
HYDRAULIC SYSTEM		Seat, fabric covered, high back, air suspension, adjustable for weight-height, fore-aft position, backrest tilt, and armrest angle*	□	23.5-25-16 PR (L2)	□
Automatic bucket return-to-dig control	●	Seat backrest extension	□	23.5-25-16 PR (L3)	●
Automatic arm height kickout control	●	Lunch box tray	□	23.5-25-16 PR (L4)	□
Automatic arm return-to-carry control* (GSS: Ground Stop System)	□	Rubber floor mat	●	Radial ply :	
Reservoir sight gauge	●	Tilt steering	●	20.5R25 (L3 type)	□
Hydraulic filters, vertical mounting	●	Steering wheel, textured with spinner knob	●	20.5R25 (L5 type)	□
Two-function hydraulic valve with joystick control (Pilot controlled)*	□	Rear view mirrors, outside (2) and inside (2)	●	23.5R25 (L3 type)	□
Two-function hydraulic valve with two levers	●	Handholds and steps, ergonomically located and slip resistant	●	23.5R25 (L5 type)	□
Adjustable wristrest	●	Cool box (Air-conditioner is necessary)	□	Multi-piece rims	●
Three-function hydraulic valve with two levers control and auxiliary lever for third function	□	Rear defroster (Cab model only)	□	OTHERS	
Ride control, automatic type	□	LOADER LINKAGE		Fenders, front and rear	●
ELECTRICAL		Z-bar loader linkage provides (High bucket breakout)	●	Articulation locking bar	●
24-volt electrical system	●	High-lift arm*	□	Anti-vandal protection, includes lockable engine enclosure, and fuel fill	●
Standard batteries (2), 12 volt with 916 CCA, 270-min. rated reserve	●	BUCKETS AND ATTACHMENTS		Counterweight, built-in	●
High-capacity batteries (2), 12 volt with 1045 CCA, 304-min. rated reserve	●	Full line of Hitachi pin on buckets with selection of bolt-on cutting edges, and teeth-segmented bolt on edges*		Counterweight, extra duty*	□
Alternator, 50 amps and 24 volts	●	General purpose bucket with bolt on cutting edges : 3.2 m ³ (ISO heaped)	●	Drawbar, with rocking pin	●
Alternator, high capacity, 90 amps and 24 volts	●	General purpose bucket with bolt on teeth: 3.1 m ³ (ISO heaped)	□	Bottom guards, front frame and transmission	□
Lights	●	General purpose bucket with bolt on teeth and segments : 3.2 m ³ (ISO heaped)	□	Bottom guards, engine*	□
Driving with guards / Turn signals and flashers / Stop, tail and back-up lights	●			Lift and tie-down hooks	●
Work lights on cab, front (2)	●			Fire extinguisher (Dealer installed)	□
Work lights, rear (2)	●			Emergency steering*	□
Horn, with push button in center of steering wheel	●			Open type rear grill*	□
Reverse warning alarm	●			Tropical pack* (For the hot weather condition)	□
Monitor and alarm system, multi-function electronic Audible and visual warning include	●				
Analog instruments: Engine coolant temperature / Transmission oil temperature / Fuel level / Speedometer	●				
Digital instrument: Hour-meter	●				
Operator warning lights: Engine oil pressure / Engine air filter / Engine preheat	●				
Alternator voltage (Charge)	●				

Note: ● Standard equipment □ Optional or special equipment

* : Please consult your Hitachi dealer for further information

** : ROPS (Roll Over Protective Structure) Conforms to ISO 3471;1994

*** : FOPS (Falling Objects Protective Structure) Conforms to ISO 3449; 1992 Level II

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*These specifications are subject to change without notice.
Illustrations and photos show the standard models, and may or may not include optional
equipment, accessories, and all standard equipment with some differences in color and features.
Before use, go through Operators Manual for proper operation.*

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