

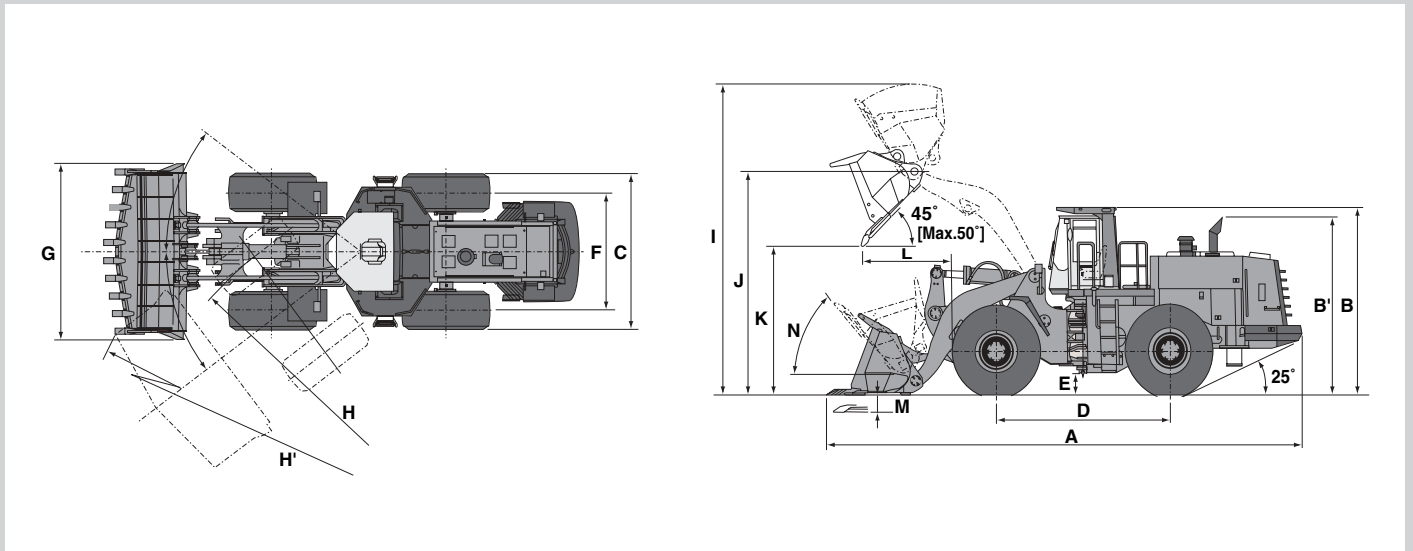
LX450

HITACHI

LX450

W H E E L L O A D E R

- Engine Rated Power : 331 kW (450 PS)
- Operating Weight : 46 600kg
- Bucket Capacity : ISO Heaped 5.7 m³ — 6.0 m³



Unit : mm

	LX450-7
A Overall length	11 250
B Height to top of cab	4 230
B' Height to top of exhaust	4 000
C Width over tires	3 700
D Wheel base	4 100
E Ground clearance	490
F Tread	2 750
G Bucket width	4 050
H Turning radius (Centerline of outside tire)	7 650
H' Loader clearance circle, bucket in carry position	8 930
I Overall operating height	6 985
J Height to hinge pin, fully raised	5 030
K Dumping clearance 45 degree, full height	3 330
L Reach, 45 degree dump, full height	2 025
Reach, 45 degree dump, 7 ft (2.13 m) clearance	2 730
M Digging depth (Horizontal digging angle)	135
N Max. roll back at carry position	50 deg.
Tire size	35/65 - 33 - 24PR (L4)

Note: 6.0 m³ spade nose rock bucket with teeth and bolt-on segments.



ENGINE

Model Mitsubishi S6A3-Y2TAA1
 Type 4-cycle water-cooled, direct injection
 Aspiration Turbocharger
 No. of cylinders 6
 Rated power
 DIN 6271,net 331 kW (450 PS) at 2 050 min⁻¹ (2 050 rpm)
 SAE J1349, net 331 kW (444 hp) at 2 050 min⁻¹ (2 050 rpm)
 Bore and stroke 150 mm x 175 mm
 Piston displacement 18.56 L
 Electrical system 24 volt with 1.2 kW, 110 A alternator
 Starting system 24 V x 8.0 kW electric motor
 Batteries 2 x 12 V/ 924 CCA, 421-min. rated reserve
 Air cleaner Single stage dry type with restriction indicator



POWER TRAIN

Transmission Solenoid, full power shift, planetary gear- full modulation type 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 (mph)
 Forward / Reverse
 1st 7.0 / 7.5
 2nd 12.0 / 13.0
 3rd 20.5 / 22.0
 4th 33.0 / 34.0
 * With 35/65-33-24PR (L4) tires



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 spiral bevel gear reduction
 Oscillation angle ± 12° ; total 24°
 Final drivers Heavy duty, planetary final drive



TIRES

Standard 35/65-33-24PR (L4)



BRAKES

Service brakes Inboard mounted fully hydraulic 4 wheel wet disc brake
 Front & rear independent brake circuit
 Parking brake Front axle input braking
 Multi disc type with spring cylinder



STEERING SYSTEM

Type Articulated frame steering
 Steering mechanism Full hydraulic power steering with orbitrol
 Steering angle Each direction 37° ; total 74°
 Relief pressure 20.7 MPa (210 kgf/cm²)
 Cylinders Two double-acting piston type
 No. x Bore x Stroke 2 x 120 mm x 600 mm
 Minimum turning radius at the centreline of outside tire 7.65 m



HYDRAULIC SYSTEM

Arm and bucket are controlled by mechanical single 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
 (Load) Gear type 359 L/min
 @ 2 050 min⁻¹ (rpm) at 17 650 KPa (180 kgf/cm²)
 (steer) Gear type 316 L/min
 @ 2 050 min⁻¹ (rpm) at 20 590 KPa (210 kgf/cm²)
 Charging pump gear type
 Brake Gear type 98 L/min
 @ 2 050 min⁻¹ (rpm) at 9 320 KPa (95 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 230 mm x 1 110 mm
 Bucket : 1 x 290 mm x 710 mm

Filters
 Hydraulic cycle times
 Lift arm Raise 8.5 s
 Lower 4.0 s
 Bucket dump 2.3 s
 Total 14.8 s



SERVICE REFILL CAPACITIES

Fuel tank 680 L
 Engine coolant 156 L
 Engine oil 83 L
 Front axle differential & wheel hubs 180 L
 Rear axle differential & wheel hubs 180 L
 Torque convertor & transmission 85 L
 Hydraulic reservoir 280 L



DIMENSIONS & SPECIFICATIONS

Arm type	Standard arm		
	Rock bucket		
Bucket type	With bolt-on teeth	With teeth and bolt-on segments	
Bucket capacity	ISO heaped m ³	5.7	6.0
	ISO struck m ³	4.8	5.0
Bucket width	mm	4 050	4 050
Working range			
Dumping clearance 45 degree, full height	mm	3 330	3 330
Reach, 45 degree dump, full height	mm	2 025	2 025
Reach, 45 degree dump, 7 ft (2.13 m) clearance	mm	2 730	2 730
Reach with arm horizontal and bucket level	mm	3 750	3 750
Digging depth (Horizontal digging angle)	mm	135	135
Overall operating height	mm	6 985	6 985
Overall length (Bucket on ground)	mm	11 250	11 250
Loader clearance circle, bucket in carry position	mm	8 930	8 930
Static tipping load *	Straight kgf	30 890	30 200
	Full 40 degree turn kgf	27 780	27 100
Breakout force	kN	400	400
Operating weight *	kg	46 230	46 600

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 35/65-33-24PR (L4) tires (no ballast) with lubricants, coolant, full fuel tank and operator.
 Machine stability and operating weight depend on counterweight, tire size and other attachments.

Tires and Options	Change in operating weight	Change in tipping load	
		Straight	Full turn
	kg	kg	kg
35/65-33-24PR (L4) Bias ply	0	0	0
35/65-33-24PR (L4) Bias ply, Steel breaker	160	110	100
35/65-33-24PR (L5) Bias ply, Steel breaker	640	450	410
35/65 R33 (L5 type) Radial ply	292	210	190



BUCKET SELECTION GUIDE

Standard arm	Rock bucket	Bucket Capacity	Material density kg/m ³							
			1 000	1 200	1 400	1 600	1 800	2 000		
	With bolt-on teeth	5.7 m ³								
	With teeth and bolt-on segments	6.0 m ³								

% Bucket Fill Factor

STANDARD & OPTIONAL EQUIPMENT

ENGINE	<ul style="list-style-type: none"> <input checked="" type="checkbox"/> Coolant recovery tank <input checked="" type="checkbox"/> Fan safety guard <input checked="" type="checkbox"/> Muffler, under hood with large exhaust stack <input checked="" type="checkbox"/> Environmentally friendly engine oil drain <input checked="" type="checkbox"/> Engine oil cooler <input checked="" type="checkbox"/> Quick-release fuel filter and water separator <input checked="" type="checkbox"/> Engine air-heater (For cold start) <input checked="" type="checkbox"/> Air filter double element <input checked="" type="checkbox"/> Air pre-cleaner (Strata type) <input checked="" type="checkbox"/> Wide fin radiator <input checked="" type="checkbox"/> Fuel double filter 	<ul style="list-style-type: none"> <input checked="" type="checkbox"/> Digital instrument: Hour-meter <input checked="" type="checkbox"/> Operator warning lights: Engine oil pressure / Engine air filter / Brake pressure <input checked="" type="checkbox"/> Alternator voltage (Charge) off <input checked="" type="checkbox"/> Indicator lights: Turn signals / Warning flashers / High beam of driving light / Work lights / Park brake / Gear shift / Clutch cut off <input checked="" type="checkbox"/> Indicator lights: Emergency steering (If Emergency steering is equipped) <input checked="" type="checkbox"/> 24-volt AM/FM stereo radio with clock <input type="checkbox"/> 24-volt AM/FM stereo radio with cassette player and clock <input checked="" type="checkbox"/> Radio-ready cab, fused 24-volt radio electrical lead, speaker (2), and antenna* 	BUCKETS AND ATTACHMENTS	<ul style="list-style-type: none"> <input checked="" type="checkbox"/> Full line of Hitachi pin on buckets with selection of bolt-on cutting edges, and teeth-segmented bolt-on edges* <input type="checkbox"/> Rock bucket with bolt-on teeth: 5.7 m³ <input checked="" type="checkbox"/> Rock bucket with bolt-on teeth and segments: 6.0 m³ <input type="checkbox"/> Quick coupler and hydraulic control system for quick coupler locking pins, includes all controls in the cab, lines, and valves* <input type="checkbox"/> Full line of Hitachi buckets for quick coupler with selection of bolt-on cutting edges, and teeth-segmented bolt-on edges* <input type="checkbox"/> Full line of construction utility forks, pallet forks, and attachments*
POWER TRAIN	<ul style="list-style-type: none"> <input checked="" type="checkbox"/> TC/PS transmission, computer-controlled automatic shift and manual shift features included <input checked="" type="checkbox"/> DSS (Down Shift Switch) and USS (Up Shift Switch) <input checked="" type="checkbox"/> Torque proportioning differentials, front and rear LSD 		OPERATOR'S STATION	<ul style="list-style-type: none"> <input checked="" type="checkbox"/> ROPS** / FOPS*** / Multi-plane isolation mounted for noise/vibration reduction <input checked="" type="checkbox"/> Cab mounted for noise/vibration reduction / Front and rear windshield washers / Safety glass <input checked="" type="checkbox"/> Sun visor <input checked="" type="checkbox"/> Heater / Defroster (Cab model only) <input checked="" type="checkbox"/> Less Heater & Defroster (Cab model only) <input checked="" type="checkbox"/> Air conditioning (Factory or dealer installed) <input checked="" type="checkbox"/> Seat belt, 50 mm (2 in.) <input checked="" type="checkbox"/> Seat belt, 76 mm (3 in.), with retractor <input checked="" type="checkbox"/> Seat, fabric covered, high back, mechanical suspension, adjustable for weight-height, fore-aft position, backrest tilt, and armrest angle <input type="checkbox"/> Seat, fabric covered, high back, air suspension, adjustable for weight-height, fore-aft position, backrest tilt, and armrest angle* <input checked="" type="checkbox"/> Seat backrest extension <input checked="" type="checkbox"/> Compartment storage box <input checked="" type="checkbox"/> Rubber floor mat <input checked="" type="checkbox"/> Tilt steering <input checked="" type="checkbox"/> Steering wheel, textured with spinner knob <input checked="" type="checkbox"/> Rear view mirrors, outside (2) and inside (2) <input checked="" type="checkbox"/> Handholds and steps, ergonomically located and slip resistant <input checked="" type="checkbox"/> Cool box (Air-conditioner is necessary)
HYDRAULIC SYSTEM	<ul style="list-style-type: none"> <input checked="" type="checkbox"/> Automatic bucket return-to-dig control <input checked="" type="checkbox"/> Automatic arm height kickout control <input checked="" type="checkbox"/> Automatic arm return-to-carry control (GSS: Ground Stop System) <input checked="" type="checkbox"/> Reservoir sight gauge <input checked="" type="checkbox"/> Hydraulic filters, vertical mounting <input checked="" type="checkbox"/> Two-function hydraulic valve with two levers <input checked="" type="checkbox"/> Adjustable wristrest <input type="checkbox"/> Three-function hydraulic valve with two levers control and auxiliary lever for third function* <input type="checkbox"/> Ride control, automatic type 		TIRES	<ul style="list-style-type: none"> <input checked="" type="checkbox"/> Bias ply : 35/65-33-24 PR (L4) <input type="checkbox"/> 35/65-33-24 PR (L4) Steel breaker <input type="checkbox"/> 35/65-33-24 PR (L5) Steel breaker <input checked="" type="checkbox"/> Radial ply : <input type="checkbox"/> 35/65 R25 (L5 type) <input checked="" type="checkbox"/> Multi-piece rims
ELECTRICAL	<ul style="list-style-type: none"> <input checked="" type="checkbox"/> 24-volt electrical system <input checked="" type="checkbox"/> High-capacity batteries (2), 12 volt with 1045 CCA, 304-min. rated reserve <input checked="" type="checkbox"/> Alternator, 110 amps and 24 volts <input checked="" type="checkbox"/> Lights <ul style="list-style-type: none"> <input checked="" type="checkbox"/> Driving with guards / Turn signals and flashers / Stop, tail and buck-up lights / Conform to SAE 99 <input checked="" type="checkbox"/> Work lights, front (2) <input checked="" type="checkbox"/> Work lights, rear (2) <input checked="" type="checkbox"/> Horn, with push button in center of steering wheel <input checked="" type="checkbox"/> Reverse warning alarm <input checked="" type="checkbox"/> Monitor and alarm system, multifunction electronic <ul style="list-style-type: none"> <input checked="" type="checkbox"/> Audible and visual warning include <input checked="" type="checkbox"/> Analog instruments: Engine coolant temperature / Transmission oil temperature / Fuel level / Speedometer 		OTHERS	<ul style="list-style-type: none"> <input type="checkbox"/> Fenders, front and rear <input checked="" type="checkbox"/> Articulation locking bar <input checked="" type="checkbox"/> Conforms to SAE J276 <input checked="" type="checkbox"/> Vandal protection, includes lockable engine enclosure, and fuel fill <input checked="" type="checkbox"/> Counterweight, built-in <input type="checkbox"/> Counterweight, extra duty* <input checked="" type="checkbox"/> Drawbar, with rocking pin <input checked="" type="checkbox"/> Bottom guards, front frame and transmission <input type="checkbox"/> Bottom guards, engine* <input checked="" type="checkbox"/> Lift and tie-down hooks <input type="checkbox"/> Fire extinguisher (Dealer installed) <input type="checkbox"/> Emergency steering* <input type="checkbox"/> Open type rear grill* <input checked="" type="checkbox"/> Floating pins <input checked="" type="checkbox"/> Tropical package* (For the hot weather condition) <ul style="list-style-type: none"> <input type="checkbox"/> Engine fan speed increase <input type="checkbox"/> Tropical type side covers, etc <input type="checkbox"/> Special tropical package* <input checked="" type="checkbox"/> Cooling performance increase from tropical package <input type="checkbox"/> Logging package*
		LOADER LINKAGE		
		<ul style="list-style-type: none"> <input checked="" type="checkbox"/> Z-bar loader linkage <input checked="" type="checkbox"/> High-lift arm* 		

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

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 Operator's Manual for proper operation.

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