

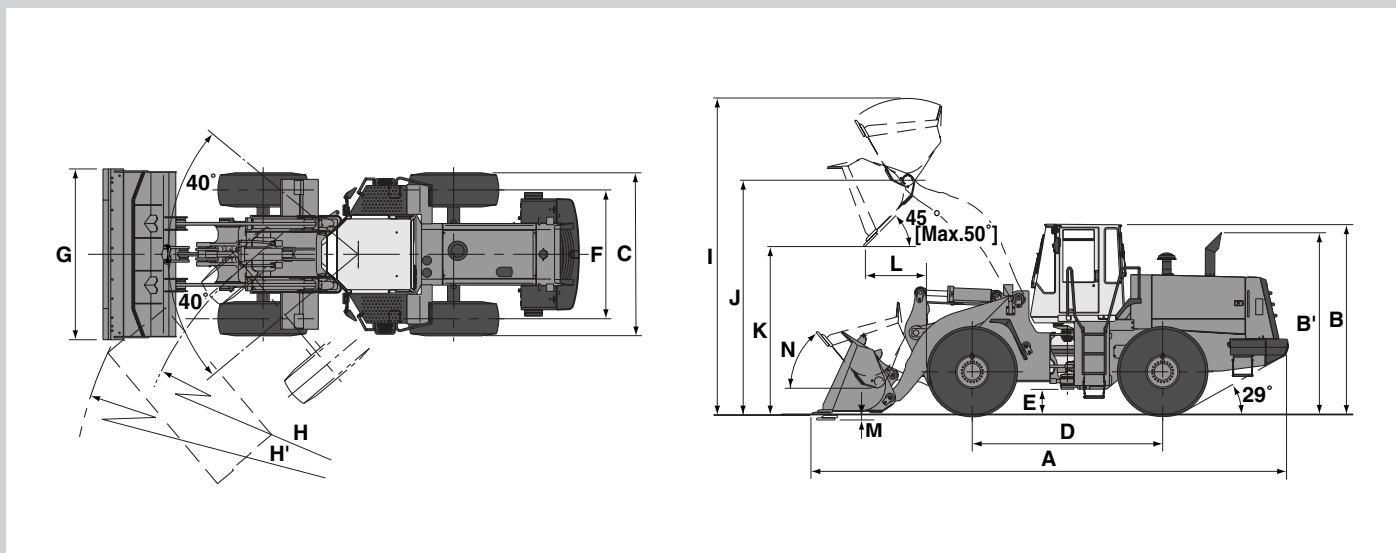
LX190

HITACHI

# LX190

W H E E L L O A D E R

- Engine Rated Power : 165 kW (225 PS)
- Operating Weight : 19 770 kg
- Bucket Capacity : ISO Heaped  
2.8 m<sup>3</sup> – 3.5 m<sup>3</sup>



Unit : mm

	LX190-7
A Overall length	8 510
B Height to top of cab	3 410
B' Height to top of exhaust	3 250
C Width over tires	2 930
D Wheel base	3 400
E Ground clearance	460
F Tread	2 300
G Bucket width	3 050
H Turning radius (Centerline of outside tire)	5 820
H' Loader clearance circle, bucket in carry position	6 800
I Overall operating height	5 640
J Height to bucket hinge pin, fully raised	4 180
K Dumping clearance 45 degree, full height	2 985
L Reach, 45 degree dump, full height	1 135
Reach, 45 degree dump, 7 ft (2.13 m) clearance	1 765
M Digging depth (Horizontal digging angle)	100
N Max. roll back at carry position	50 deg.
Tire size	23.5 - 25 - 16PR (L3)

Note: General purpose bucket with bolt on cutting edges.



## ENGINE

Model ..... Mitsubishi 6D24TL  
 Type ..... 4-cycle water cooled, direct injection  
 Aspiration ..... Turbocharger and intercooler  
 No. of cylinders ..... 6  
 Rated power  
 DIN 6 272,net ..... 165 kW (225 PS) at 2 100 min<sup>-1</sup> (2 100 rpm)  
 SAE J1349,net ..... 165 kW (221 HP) at 2 100 min<sup>-1</sup> (2 100 rpm)  
 Bore and stroke ..... 130 mm x 150 mm  
 Piston displacement ..... 11.945 L  
 Electrical system ..... 24 V with 0.96 kW, 50 A alternator  
 Starting system ..... 24 V x 7.0 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 .....	7.5 / 8.5
2nd .....	13.0 / 14.5
3rd .....	21.0 / 23.0
4th .....	34.5 / 37.0

*\*With 23.5-25-16PR (L3) 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 torque proportional differential  
 Oscillation angle ..... ±12° ; total 24°  
 Final drives ..... Heavy-duty planetary, mounted inboard



## TIRES (tubeless, nylon body)

Standard ..... 23.5-25-16PR (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  
 Steering angle ..... Each direction 40°; total 80°  
 Relief pressure ..... 18.6 MPa (190 kgf/cm<sup>2</sup>)  
 Cylinders ..... Two double-acting piston type  
 No. x Bore x Stroke ..... 2 x 80 mm x 542 mm  
 Minimum turning radius at the centerline of outside tire ..... 5.82 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 129 L/min @2 100 min<sup>-1</sup> (rpm) at 17 160 KPa (175 kgf/cm<sup>2</sup>)  
 Steering pump ..... Gear type 205 L/min @2 100 min<sup>-1</sup> (rpm) at 20 590 KPa (210 kgf/cm<sup>2</sup>)  
 Brake and assist pump ..... Gear type 27 L/min @2 100 min<sup>-1</sup> (rpm) at 6 370 KPa (65 kgf/cm<sup>2</sup>)  
 Charging pump ..... Double gear type with two discharge ports  
 Front pump ..... Front 82 L/min @2 100 min<sup>-1</sup> (rpm) at 2 450 KPa (25 kgf/cm<sup>2</sup>)  
 Rear pump ..... Rear 92 L/min @2 100 min<sup>-1</sup> (rpm) at 490 KPa (5 kgf/cm<sup>2</sup>)  
 Relief pressure setting ..... 20 590 KPa (210 kgf/cm<sup>2</sup>)  
 Hydraulic cylinders  
 Type ..... Two arm and one bucket, double acting type  
 No. x Bore x Stroke ..... Arm : 2 x 150 mm x 980 mm  
 Bucket : 1 x 190 mm x 545 mm  
 Filters ..... Full-flow 15 micron return filter in reservoir  
 Hydraulic cycle times  
 Lift arm raise ..... 6.2 s  
 lower ..... 3.3 s  
 Bucket dump ..... 1.5 s  
 Total ..... 11.0 s



## SERVICE REFILL CAPACITIES

Fuel tank ..... 320 L  
 Engine coolant ..... 80 L  
 Engine oil ..... 38 L  
 Torque convertor & transmission ..... 40 L  
 Front axle differential & wheel hubs ..... 48 L  
 Rear axle differential & wheel hubs ..... 48 L  
 Hydraulic reservoir ..... 124 L



## DIMENSIONS & SPECIFICATIONS

Arm type			Standard arm				
			General purpose			Rock bucket	
Bucket type			With bolt-on cutting edges	With bolt-on teeth	With bolt-on teeth & segments	With bolt-on teeth	With bolt-on teeth & segments
			Bucket capacity	ISO heaped	m <sup>3</sup>	3.5	3.3
ISO struck	m <sup>3</sup>	3.0		2.8	3.0	2.5	2.5
Bucket width		mm	3 050	3 050	3 050	3 050	3 050
Working range							
Dumping clearance 45 degree, full height		mm	2 985	2 855	2 855	2 920	2 920
Reach, 45 degree dump, full height		mm	1 135	1 230	1 230	1 165	1 165
Reach, 45 degree dump, 7 ft (2.13 m) clearance		mm	1 765	1 795	1 795	1 765	1 765
Reach with arm horizontal and bucket level		mm	2 655	2 830	2 830	2 735	2 735
Digging depth (Horizontal digging angle)		mm	100	110	110	110	110
Overall operating height		mm	5 640	5 640	5 640	5 600	5 600
Overall length (Bucket on ground)		mm	8 510	8 695	8 695	8 600	8 600
Loader clearance circle, bucket in carry position		mm	6 800	6 850	6 850	6 820	6 820
Static tipping load *	Straight	kgf	15 300	15 450	15 250	15 000	14 800
	Full 40 degree turn	kgf	13 400	13 350	13 150	12 900	12 700
Breakout force		kN	166	179	171	195	184
		(kgf)	(16 900)	(18 300)	(17 400)	(19 900)	(18 800)
Operating weight *		kgf	19 700	19 640	19 820	20 190	20 370

Arm type			High-lift arm	
			General purpose	
Bucket type			With bolt-on cutting edges	With bolt-on teeth
			Bucket capacity	ISO heaped
ISO struck	m <sup>3</sup>	2.6		2.4
Bucket width		mm	3 050	3 050
Working range				
Dumping clearance 45 degree, full height		mm	3 565	3 435
Reach, 45 degree dump, full height		mm	1 050	1 150
Reach, 45 degree dump, 7 ft (2.13 m) clearance		mm	2 110	2 155
Reach with arm horizontal and bucket level		mm	2 880	3 055
Digging depth (Horizontal digging angle)		mm	100	110
Overall operating height		mm	6 030	6 030
Overall length (Bucket on ground)		mm	8 820	9 000
Loader clearance circle, bucket in carry position		mm	6 940	7 000
Static tipping load *	Straight	kgf	13 800	13 900
	Full 40 degree turn	kgf	11 900	12 000
Breakout force		kN	172	187
		(kgf)	(17 500)	(19 100)
Operating weight *		kgf	20 310	20 230

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

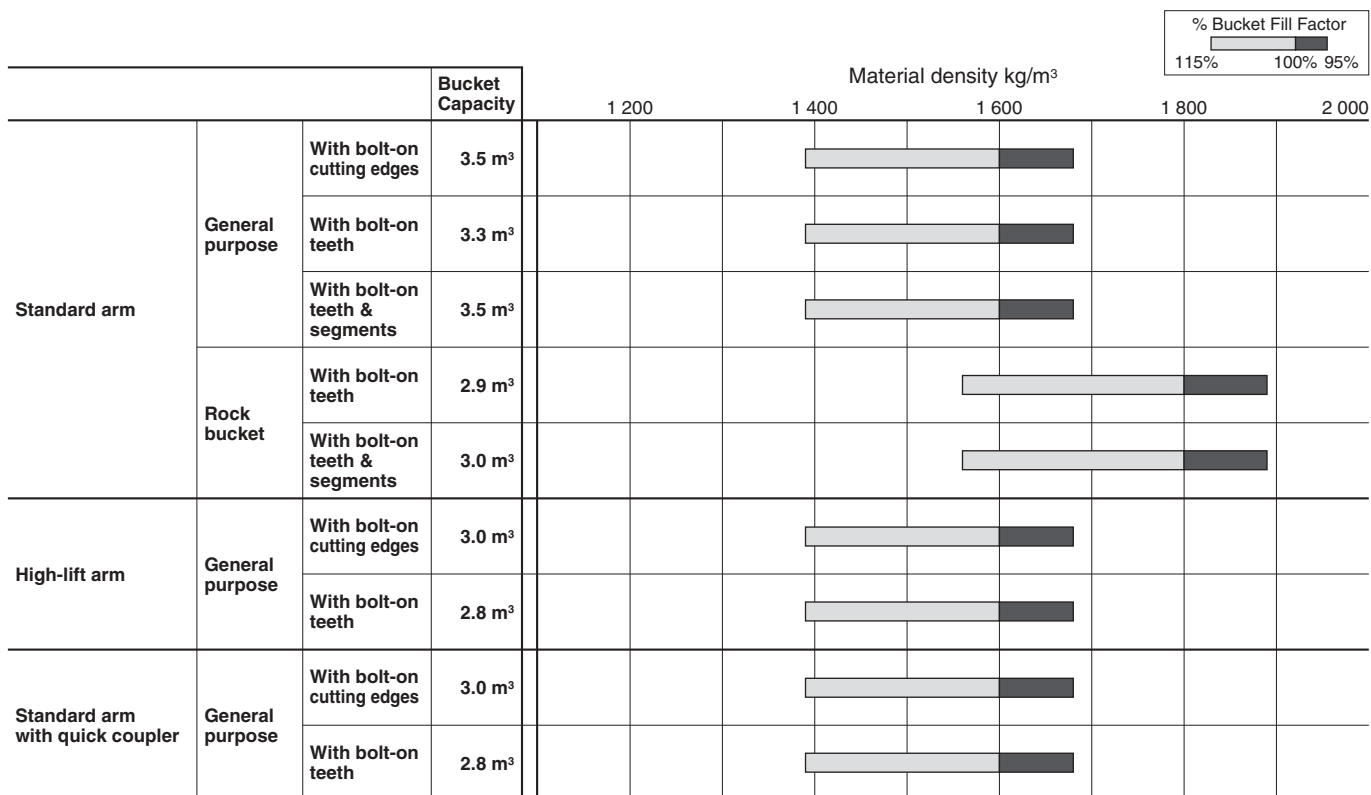
2. Static tipping load and operating weight marked with \* include 23.5-25-16PR (L3) tires (No ballast) with lubricants, coolant, full fuel tank and operator.  
Machine stability and operating weight depend on counterweight, tire size and other attachments.

Tires and Options	Change in operating weight	Change in tipping load	
		Straight	Full turn
	kg	kg	kg
23.5-25-16PR (L2) Bias ply	- 88	- 60	- 60
23.5-25-20PR (L2) Bias ply	- 88	- 60	- 60
23.5-25-20PR (L3) Bias ply	16	20	10
23.5-25-16PR (L4) Bias ply	324	250	220
23.5-25-20PR (L4) Bias ply	356	280	250
23.5-25-16PR (L5) Bias ply	580	460	400
23.5-25-20PR (L5) Bias ply	672	530	470
23.5 R25 (L3 type) Radial ply	308	240	210
23.5 R25 (L5 type) Radial ply	—	—	—
FRP roof canopy (In lieu of ROPS/FOPS cab)	—	—	—
ROPS/FOPS canopy (In lieu of ROPS/FOPS cab)	—	—	—
Lumber and pallet fork (Pin on type)	—	—	—
Log grapple (Pin on type)*	1 880	2 320	2 050
Lumber grapple (Pin on type)	—	—	—
Counterweight, CW*A	960	2 390	2 110
Counterweight, CW*B	220	420	380
Counterweight, CW*045	450	1 550	1 370

Note: \* With counterweight CW\*A, counterweight CW\*B and 23.5-25-24PR (L3) tires



## BUCKET SELECTION GUIDE





 **Hitachi Construction Machinery Co., Ltd.**

**Head Office:** 5-1 Koraku 2-chome, Bunkyo-ku,  
Tokyo 112-8563, Japan

**Telephone:** (03)3830-8050

**Facsimile:** (03)3830-8204

*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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