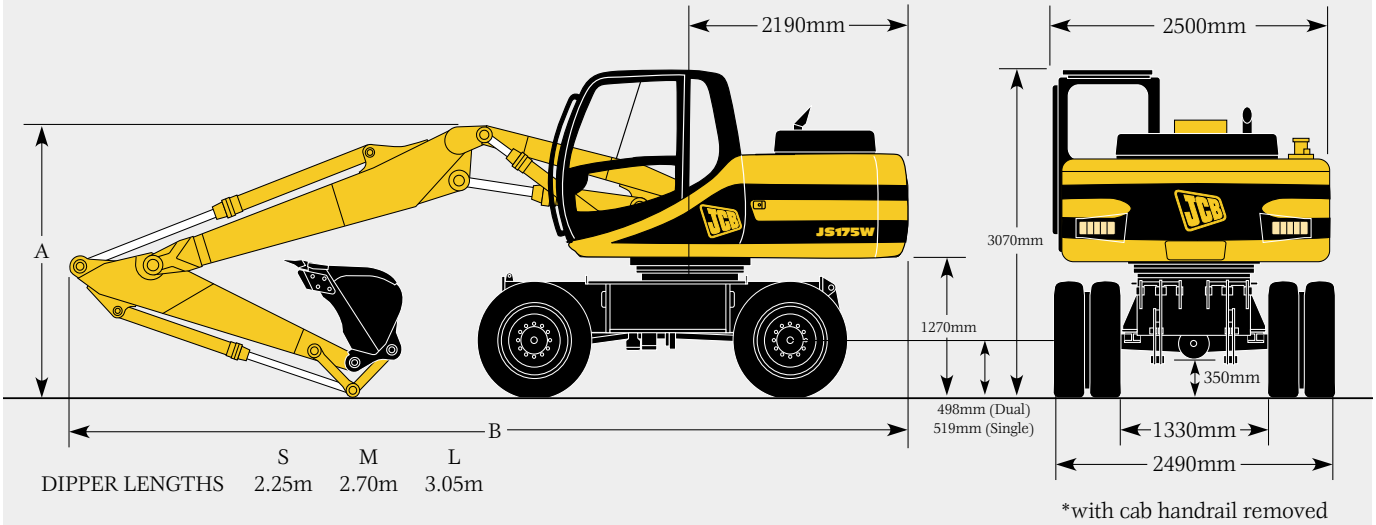
JCB JS175W

WHEELED EXCAVATOR

MAX. OPERATING WEIGHT: 17970 kg
NETT ENGINE POWER: 95 kW (128 hp)

STATIC DIMENSIONS



*with cab handrail removed

BOOM							
DIPPER ARM		S	M	L	S	M	L
A	mm	2765	2765	3240	2806	2874	3136
B	mm	8145	8135	8306	8123	8118	8083

OPERATING WEIGHTS

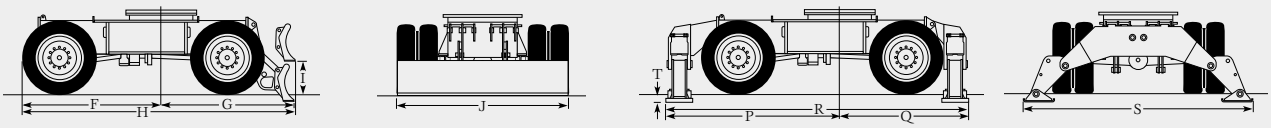
CHASSIS						
	kg	15,610	16,050	16,490	17,030	17,370
	kg	16,210	16,650	17,090	17,630	17,970

Machine equipped with excavating bucket and dual wheels. For single wheels subtract 400kg.

CHASSIS OPTIONS

A	Centre of slew ring to front axle	mm	1500
B	Centre of slew ring to rear axle	mm	1000
C	Wheelbase	mm	2500
D	Length including rear stabilizers	mm	3950
E	Width over stabilizers (raised)	mm	2480

K	Centre of slew ring to front dozer blade (lowered)	mm	2530
L	Length including stabilizers and dozer blade (raised)	mm	4460
M	Ground level to bottom of front dozer blade (raised)	mm	450
N	Dozer blade dig depth	mm	130
O	Dozer blade height	mm	500

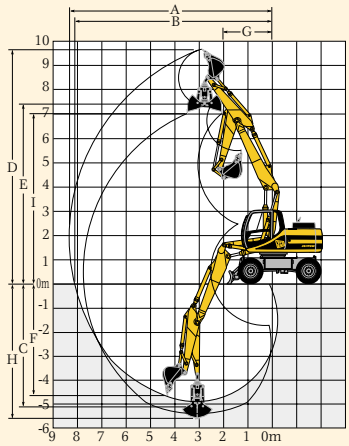


F	Centre of slew ring to face of front tyre	mm	1990
G	Centre of slew ring to rear dozer blade (lowered)	mm	2090
H	Length including rear dozer blade (raised)	mm	4050
I	Ground level to bottom of rear dozer blade (raised)	mm	450
J	Dozer blade width	mm	2480

P	Centre of slew ring to front stabilizers	mm	2520
Q	Centre of slew ring to rear stabilizers	mm	1960
R	Length including front and rear stabilizers	mm	4480
S	Width over stabilizers (lowered)	mm	3550
T	Stabilizer lift height	mm	130

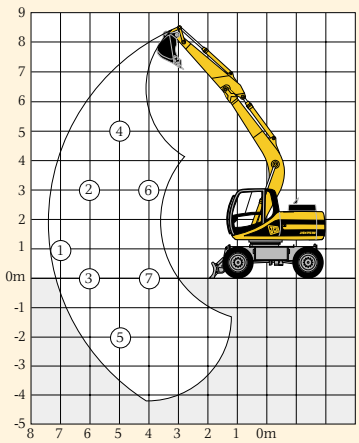
WORKING RANGES

BOOM							
DIPPER ARM		2.25m	2.70m	3.05m	2.25m	2.70m	3.05m
A Max digging reach	mm	8655	9075	9455	8600	9025	9350
B Max digging reach (on ground)	mm	8455	8875	9275	8400	8850	9195
C Max digging depth	mm	5425	5875	6225	5300	5750	6100
D Max digging height	mm	9195	9625	10025	9700	10000	10235
E Max loadover height	mm	6405	6775	7145	7000	7325	7575
F Max vertical wall cut depth	mm	4490	5050	5610	4450	4900	5250
G Min swing radius	mm	3000	3000	3000	2725	2675	2635
H Max digging depth with grab	mm	5835	6285	6635	5710	6160	6510
I Max dumping height with grab	mm	5995	6365	6735	6590	6915	7165
Bucket rotation		183°	183°	183°	183°	183°	183°
Dipper tearout	kgf	9333	7778	6884	8327	6940	6142
Dipper tearout with boost	kgf	10128	8442	7465	8847	7465	6668
Bucket tearout	kgf	10400	10400	10400	10400	10400	10400
Bucket tearout with boost	kgf	10740	10740	10740	10740	10740	10740



MONOBOOM LIFT CAPACITIES

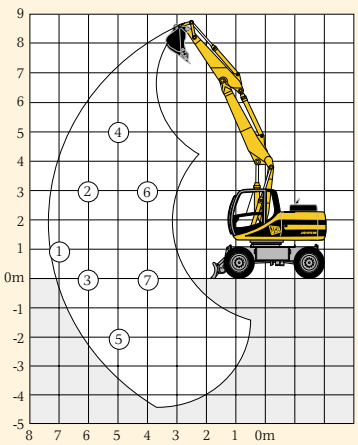
CHASSIS													
DIPPER ARM		2.25m	2.70m	3.05m	2.25m	2.70m	3.05m	2.25m	2.70m	3.05m	2.25m	2.70m	3.05m
1	O/E	2835	2850	2830	2935	2950	2930	3915	3935	3915	4040	4060	4040
	360°	1675	1685	1665	2030	2045	2020	2625	2640	2615	3050	3065	3040
2	O/E	3840	3900	3905	3965	4020	4025	5250	5315	5325	5405	5470	5480
	360°	2355	2410	2410	2805	2860	2860	3560	3615	3620	4105	4165	4170
3	O/E	3555	3565	3550	3680	3685	3675	4945	4955	4945	5100	5110	5100
	360°	2100	2100	2085	2535	2545	2530	3280	3290	3275	3820	3825	3815
4	O/E	5575	5685	—	5730	5845	—	7585	7710	—	7790	7915	—
	360°	3520	3620	—	4125	4230	—	5165	5276	—	5925	6040	—
5	O/E	4705	4665	4635	4865	4820	4795	6635	6590	6565	6840	6795	6770
	360°	2750	2710	2680	3330	3285	3260	4325	4280	4250	5050	5010	4980
6	O/E	7565	7735	7850	7785	7960	8075	10755	10955	11090	11050	11250	11385
	360°	4520	4465	4755	5385	5535	5635	6920	7085	7195	8075	8245	8365
7	O/E	6830	6830	6875	7055	7050	7095	9925	9925	9980	10220	10220	10275
	360°	3895	3890	3920	4730	4725	4760	6215	6215	6255	7335	7332	7375



BUCKET WEIGHT 564kg

TRIPLE ARTICULATION LIFT CAPACITIES

CHASSIS													
DIPPER ARM		2.25m	2.70m	3.05m	2.25m	2.70m	3.05m	2.25m	2.70m	3.05m	2.25m	2.70m	3.05m
1	O/E	2735	2760	2745	2835	2860	2845	3670*	3615*	3510*	3670*	3615*	3510*
	360°	1540	1565	1545	1905	1930	1915	2515	2540	2525	2950	2975	2960
2	O/E	3785	3755*	3565*	3905	3755*	3565*	3940*	3755*	3565*	3940*	3755*	3565*
	360°	2125	2330	2345	2715	2790	2810	3490	3570	3565*	3940*	3755*	3565*
3	O/E	3425	3440	3433	3550	3565	3555	4395*	4360*	4290*	4395*	4360*	4290*
	360°	1930	1940	1930	2380	2395	2385	3140	3155	3150	3690	3705	3700
4	O/E	3835*	3535*	3245*	3835*	3535*	3245*	3835*	3535*	3245*	3835*	3535*	3245*
	360°	3505	3535*	3245*	3835*	3535*	3245*	3835*	3535*	3245*	3835*	3535*	3245*
5	O/E	4530	4480	4450	4690	4640	4610	4890*	5085*	5170*	4890*	5085*	5170*
	360°	2530	2485	2455	3120	3075	3045	4135	4090	4055	4865	4830	4800
6	O/E	5880*	5440*	5065*	5880*	5440*	5065*	5880*	5440*	5065*	5880*	5440*	5065*
	360°	4445	4640	4765	5330	5430	5065*	5880*	5440*	5065	5880*	5440*	5065*
7	O/E	6570	6585	6650	6790	6810	6870	6965*	6950*	6905*	6965*	6950*	6905*
	360°	3590	3605	3650	4440	4450	4500	5945	5960	6020	6965*	6950*	6905*



BUCKET WEIGHT 525kg

Unit: kg

O/E = Lift capacity over least stable end. 360° = Lift capacity full circle.

Notes:
1. Lifting capacities are based on the ISO standard, that is: 75% of minimum tipping load or 87% of hyraulic lift capacity, whichever is the less. Lifting capacities marked * are based on hydraulic capacity.
2. Lift capacities assume that the machine is on firm, level ground, stabilized and equipped with twin tyres, an approved lifting point and bucket.
3. Lift capacities may be limited by local regulations. Please refer to your dealer.

STANDARD EXCAVATING BUCKETS

All buckets are JCB – Esco fully welded steel, with sealed, hardened steel pivot pins and replaceable wear parts.

Max Width mm (in.)	Capacity (SAE heaped) cu.m (cu.yd)	Weight kg (lb)
600 (24)	0.35 (0.46)	426 (937)
750 (30)	0.49 (0.64)	480 (1056)
900 (36)	0.62 (0.81)	525 (1155)
1000 (40)	0.72 (0.94)	564 (1240)
1100 (44)	–	–
1200 (48)	0.90 (1.18)	633 (1392)

DIGGING GRABS

cu.m	mm	mm	mm	mm	WEIGHT kg
0.20	300	1660	1325	1735	650
0.27	400	1660	1325	1735	670
0.34	500	1660	1325	1735	690
0.40	600	1660	1325	1735	710
0.47	700	1660	1325	1735	780
0.54	800	1660	1325	1735	810

When grab is used a suspension link is required. The additional length of the link should be taken into account.

CHASSIS

Structure: high strength flanged 'u' section.
Chassis Options
Dozer Blade: front or rear pin mount.
Stabilisers: front or rear pin mount, independently operable – plus combinations.
Grab Stowage: heavy duty, pin mounted stowage bar.
Transmission: hydrostatic drive via piston motor and powershift transmission.

Travel speed:	Low ratio	14kph
	High ratio	35kph
Creep speed		3.8kph

Axles: four wheel drive. Front steering axle oscillates for rough ground mobility.

Axle load capacity:	32 tonnes
Axle oscillation:	+/- 8.5 degrees
Ground clearance	350mm

Steering: fully hydraulic system.

Turning radius:	
To outside of tyres	5.45m
To outer edge of front mounted dozer blade	6.06m

Brakes: all hydraulic, dual circuit brake system.
Parking Brake: built into the transmission .

ENGINE

Standard Engine: Isuzu A-6BG1TQB-04.
Type: Water cooled, 4-stroke, 6-cylinder in-line, direct injection, turbocharged diesel.
Net Power: (SAE J1349 and 80/1269/EC) 95kW (128hp) at 1950 RPM.
Piston displacement: 6.494 litres
Starting system: 24 volt.
Batteries: 2 x 12 volt Heavy Duty.
Alternator: 24 volt 40 amp.

SERVICE CAPACITIES

Fuel tank	240lt
Engine coolant	25.5lt
Engine oil	19.5lt
Swing reduction gear	2.2lt
Hydraulic system	124lt
Hydraulic tank	73lt
Transmission	3.4lt
Axle differentials (each)	R-12, F-14lt
Axle hubs (each)	2.0lt

TYRES

Twins: 10.00 x 20 tyres (16PR) with spacer ring.
Singles: 18R x 19.5 tyres (Radials).

SWING SYSTEM

Drive train: axial piston motor and planetary reduction final drive.
Swing brake: Hydraulic braking plus automatic spring applied disc type parking brake.
Swing speed: 11.3RPM
Swing gear: Large diameter, internally toothed fully sealed grease bath lubricated.
Swing lock: Multi position switchable brake and mechanical lock.

MAIN HYDRAULIC SYSTEM

System Load-sensed hydraulic system with twin variable flow piston pumps providing flow-on-demand for maximum efficiency.
Main pumps: 2 variable displacement axial piston type

Maximum flow	2 x 156l/min
Main circuit pressure	314 bar
With power boost	343 bar

Servo pump: gear type

Maximum flow	27 l/min
Servo pressure	40 bar

Optional Circuits
Hammer: includes automatic engine speed setting and return filter.

Maximum flow	138 l/min
Maximum pressure	314 (343) bar (pre-set to 180 bar)

Grab operation:

Maximum flow	138 l/min
Maximum pressure for grab ram operation	314 (343) bar

Low Flow Pipework: two options available, one with 20L/min flow and a second with an adjustable flow of 27-45L/min.
Hydraulic Cylinders with hardened, chromed piston rods and end cushioning on boom, dipper and bucket crowd cylinder.
Filtration
In tank: 150 micron, suction strainer.
Main return line: 10 micron, fibreform element.
Pilot line: 10 micron, paper element.
Nephron by pass line: 1.5 micron paper element.
Hydraulic hammer return: 10 micron, reinforced microform element.

INSTRUMENTATION

AMS - Advanced Management System
The JCB Advanced Management System matches engine power and pump output to optimise machine performance in each of the four selectable work modes –
H (Heavy) 100% engine and hydraulic power for maximum output
S (Standard) 90% engine and hydraulic power for good economical output
L (Light) 70% engine and hydraulic power for precision finishing and low fuel consumption
F (Fine) 70% power with permanent power boost for maximum lifting ability.
The system monitors all critical machine functions and operator selections which are shown on the display panel, conveniently mounted in the operators line of site. The diagnostic function built into the system constantly monitors machine usage and performance, as well as providing the service engineer with valuable information on any machine fault.

CAB

Frame: Pressed steel cab with high strength rolled section frame conforming to ISO dimensional standards, noise and vibration isolated by six hydraulically damped resilient mountings.

EXCAVATOR END

Booms: Monoboom or triple articulation boom with choice of dipper lengths to match the requirements of reach, lift capacity and tearout.
Bucket tipping links: fabricated type with choice of 1 tonne lift, max capacity lift and no-lift point - with link stowage lock (grab work).

STANDARD/OPTIONAL EQUIPMENT

Auto engine warm up	Std
Double element air cleaner	Std
Radiator fine mesh grille	Std
Heavy duty alternator	Std
Electrics isolator	Std
Heavy duty batteries	Std
Tinted safety glass	Std
Radio & cassette player	Std
Operators storage box	Std
Removable floormat	Std
Windscreen wash/wipe	Std
Plug-in power socket	Std
Power boost	Std
Auto-idle	Std
One-touch engine speed control	Std
Hydraulic cushion control	Std
Nephron hydraulic oil filtration	Std
Grouped HSP pressure test points	Std
Auxiliary pipework mounting brackets	Std
Work lights – boom & mainframe mounted	Std
Upper structure under covers	Std
External mirrors	Std
Handrail & nonslip pads	Std
Creep speed	Std
Tipping link with stowage lock	Std
Load holding valves (lift)	Std
On the move gear change	Std
Oscillating axle lock	Std
Adjustable steer column	Std
Spring assisted opening screen	Std
Auto engine/hydraulics warm up	Std
Hose burst check valves &	
Overload warning system	Opt
Tipping link mounted lift points	Opt
General purpose buckets	Opt
Ditch/grading buckets	Opt
Quickhitch buckets	Opt
Hydraulic hammers	Opt
Hammer pipework	Opt
Low flow (grab rotate/weedcutter) pipework	Opt
Bucket to grab changeover pipework	Opt
Air conditioning	Opt
Cab mounted & rear work lights	Opt
Rotating beacon	Opt
Opening roof window	Opt
Additional toolbox	Opt
Grab stowage bar	Opt

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