

A – Reach from swing centerline for bucket hook  
 B – Bucket hook height above/below ground  
 C – Lifting capacities in kilograms

ED160 Blade Runner Arm: 2.38m Bucket: 0.50m <sup>3</sup> ISO heaped 380kg Shoe: 500mm Blade; Front side and Blade up												
		1.5m		3.0m		4.5m		6.0m		At Max. Reach		Radius
B	A	Rating over front	Rating over side or 360 degrees	Rating over front	Rating over side or 360 degrees	Rating over front	Rating over side or 360 degrees	Rating over front	Rating over side or 360 degrees	Rating over front	Rating over side or 360 degrees	
7.5m	kg									*1,520	*1,520	4.17m
6.0m	kg					*2,980	*2,980			*1,260	*1,260	5.77m
4.5m	kg					*3,320	3,290	2,270	1,960	*1,210	*1,210	6.65m
3.0m	kg			*6,030	5,920	3,610	3,040	2,170	1,870	*1,250	*1,250	7.11m
1.5m	kg			6,660	5,120	3,310	2,760	2,040	1,750	*1,380	1,260	7.23m
G.L.	kg			6,310	4,830	3,100	2,580	1,950	1,660	1,500	1,290	7.02m
-1.5m	kg	*5,570	*5,570	6,300	4,820	3,030	2,520	1,910	1,630	1,710	1,470	6.45m
-3.0m	kg	*8,490	*8,490	*6,350	4,950	3,090	2,570			2,320	1,970	5.40m

ED160 Blade Runner Arm: 2.84m Bucket: 0.38m <sup>3</sup> ISO heaped 340kg Shoe: 500mm Blade; Front side and Blade up														
		1.5m		3.0m		4.5m		6.0m		7.5m		At Max. Reach		Radius
B	A	Rating over front	Rating over side or 360 degrees	Rating over front	Rating over side or 360 degrees	Rating over front	Rating over side or 360 degrees	Rating over front	Rating over side or 360 degrees	Rating over front	Rating over side or 360 degrees	Rating over front	Rating over side or 360 degrees	
7.5m	kg					*2,060	*2,060					*1,400	*1,400	4.92m
6.0m	kg					*2,510	*2,510	*1,830	*1,830			*1,180	*1,180	6.33m
4.5m	kg					*2,860	*2,860	2,240	1,940			*1,120	*1,120	7.14m
3.0m	kg			*5,080	*5,080	3,600	3,030	2,120	1,830	1,350	1,170	*1,140	*1,140	7.57m
1.5m	kg			6,700	5,170	3,250	2,720	1,970	1,690	1,290	1,110	1,240	1,060	7.68m
G.L.	kg			6,170	4,730	3,000	2,490	1,850	1,570			1,250	1,070	7.48m
-1.5m	kg	*4,730	*4,730	6,060	4,640	2,890	2,390	1,790	1,520			1,410	1,200	6.95m
-3.0m	kg	*7,300	*7,300	6,160	4,730	2,910	2,410	1,830	1,550			1,830	1,560	6.00m
-4.5m	kg			*4,280	*4,280							*2,730	*2,730	4.33m

### STANDARD EQUIPMENT

- ROPS cab
- 4.68m STD boom
- 2.38m HD STD arm
- 0.5m<sup>3</sup> bucket
- N&B piping
- Boom & arm safety valve
- Rear view camera
- Suspension seat
- 500mm bent shoe
- Geoscan IT system

### OPTIONAL EQUIPMENT

- 2.84m long arm
- 600mm bent shoe
- Multi control lever
- Top guard
- Air suspension seat

1. Do not attempt to lift or hold any load that is greater than these lift capacities at their specified lift point radius and heights. Weight of all accessories must be deducted from the above lift capacities.
2. Lift capacities are based on machine standing on level, firm, and uniform ground. User must make allowance for job conditions such as soft or uneven ground, out of level conditions, side loads, sudden stopping of loads, hazardous conditions, experience of personnel, etc.
3. Bucket lift hook is defined as lift point.

4. The above lifting capacities are in compliance with SAE J/ISO 10567. They do not exceed 87 % of hydraulic lifting capacity or 75 % of tipping load. Lifting capacities marked with an asterisk (\*) are limited by hydraulic capacity rather than tipping load.
5. Operator should be fully acquainted with the Operator's and Maintenance Instructions before operating this machine. Rules for safe operation of equipment should be adhered to at all times.
6. Lift capacities apply to only machines as originally manufactured and normally equipped by KOBELCO CONSTRUCTION MACHINERY CO., LTD.

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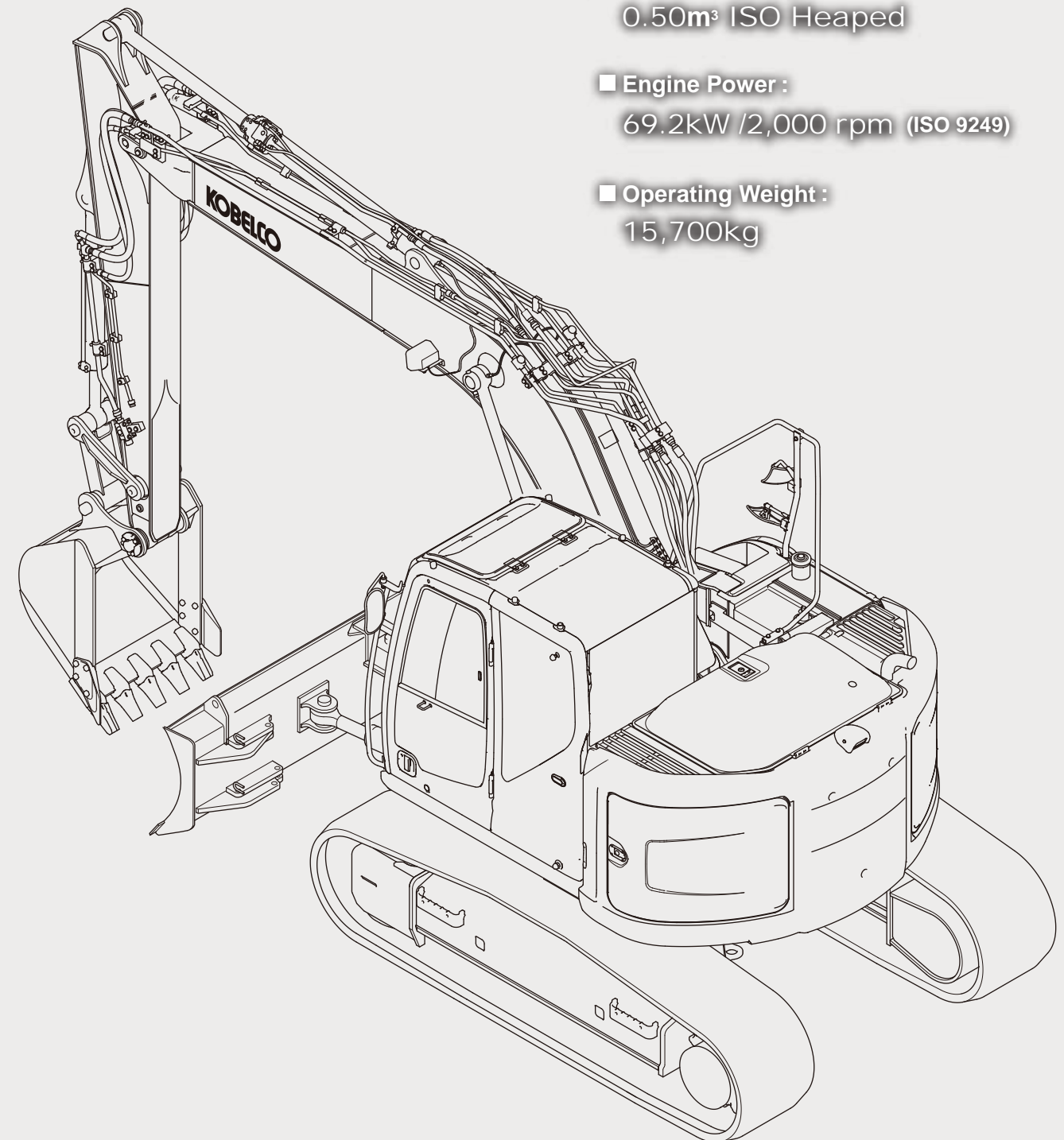
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### Hydraulic Excavators

# ED160 Blade Runner

- Bucket Capacity :  
0.50m<sup>3</sup> ISO Heaped
- Engine Power :  
69.2kW /2,000 rpm (ISO 9249)
- Operating Weight :  
15,700kg



**Engine**

Model	MITSUBISHI D04EG-TAA
Type:	Direct injection, water-cooled, 4-cycle diesel engine With turbocharger, intercooler
No. of cylinders:	4
Bore and stroke:	94 mm x 120 mm
Displacement:	3.331 L
Rated power output:	69.2kW /2,000 min <sup>-1</sup> (ISO9249)
Max. torque:	359N·m /1,600 min <sup>-1</sup> (ISO9249)

**Hydraulic System**

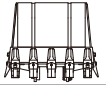
Pump	
Type:	Two variable displacement pumps + 2 gear pump
Max. discharge flow:	2 x 130L/min, 1 x 20L/min, 1 x 55L/min
Relief valve setting	
Boom, arm and bucket:	37.8MPa
Dozer blade, angle and tilt:	27.4MPa
Travel circuit:	34.3MPa
Swing circuit:	28.0MPa
Control circuit:	5.0MPa
Pilot control pump:	Gear type
Main control valves:	8-spool
Oil cooler:	Air cooled type

**Swing System**

Swing motor:	Axial piston motor
Parking brake:	Oil disc brake, hydraulic operated automatically
Swing speed:	11.0 min <sup>-1</sup> {rpm}
Swing torque:	39.9 kN·m (SAE)
Tail swing radius:	1,490 mm
Min. front swing radius:	2,000mm

**Attachments**

Backhoe bucket and arm combination

Use	Backhoe bucket	
	Normal digging	
		
Bucket capacity	ISO heaped	m <sup>3</sup>
	Struck	m <sup>3</sup>
Opening width	With side cutter	mm
	Without side cutter	mm
No. of bucket teeth		
Bucket weight		kg
Combinations	2.38 m arm	⊙
	2.84 m arm	—

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**Travel System**

Travel motors:	2 x axial piston, two-speed motors
Parking brakes:	Oil disc brake per motor
Travel shoes:	40 each side
Travel speed:	4.8 / 2.4 km/h
Drawbar pulling force:	196 kN (SAE J 1309)
Gradeability:	70 % {35°}

**Cab & Control**

Cab	
All-weather, sound-suppressed steel cab mounted on the silicon-sealed viscous mounts and equipped with a heavy, insulated floor mat.	
Control	
Two hand levers and two foot pedals for travel	
Two hand levers for excavating and swing	
Electric rotary-type engine throttle	

**Boom, Arm & Bucket**

Boom cylinder:	100 mm x 1,092 mm
Arm cylinder:	115 mm x 1,120 mm
Bucket cylinder:	95 mm x 903 mm

**Dozer Blade, Angle & Tilt**

Dozer cylinder:	114mm x 210mm	
Angle cylinder:	102mm x 552mm	
Tilt cylinder:	102mm x 127mm	
Dimension:	3,260mm (width) x 815mm (height)	
Working range:	Digging depth x Lift height	790mm x 600mm
	Maximum tilt height	445mm
	Maximum angle	25°

**Refilling Capacities & Lubrications**

Fuel tank:	200 L
Cooling system:	13 L
Engine oil:	11.5 L
Travel reduction gear:	2 x 5.3 L
Swing reduction gear:	1.65 L
Hydraulic oil tank:	85.2 L tank oil level
	126.7 L hydraulic system

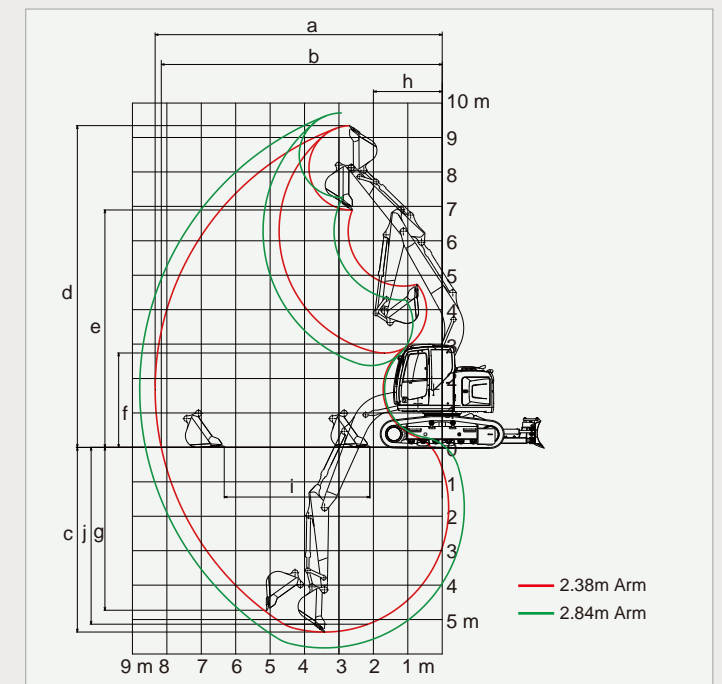
**Working Ranges**

Range	Boom	
	Arm	4.68m
a- Max. digging reach	2.38m	2.84m
b- Max. digging reach at ground level	2.38m	2.84m
c- Max. digging depth	2.38m	2.84m
d- Max. digging height	2.38m	2.84m
e- Max. dumping clearance	2.38m	2.84m
f - Min. dumping clearance	2.38m	2.84m
g- Max. vertical wall digging depth	2.38m	2.84m
h- Min. swing radius	2.38m	2.84m
i - Horizontal digging stroke at ground level	2.38m	2.84m
j - Digging depth for 8 feet flat bottom	2.38m	2.84m
Bucket capacity ISO heaped m <sup>3</sup>	2.38m	2.84m

Digging Force		Unit: kN	
Arm length		2.38m	2.84m
Bucket digging force	ISO	90.1	89.3
Arm crowding force	ISO	64.4	58.1

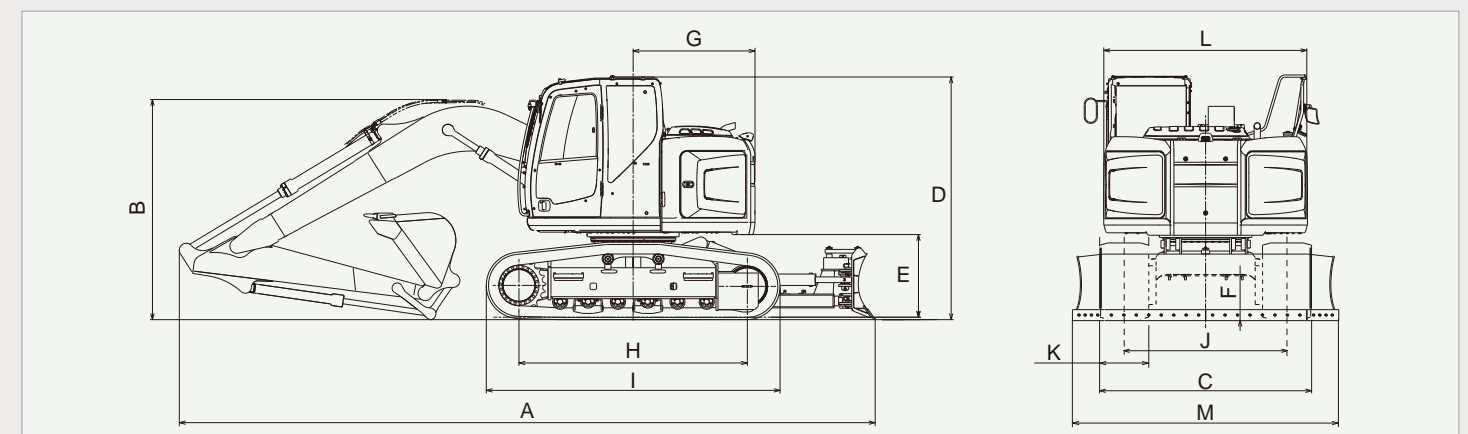
**Dimensions**

Arm length	2.38m	2.84m
A Overall length	8,530	8,620
B Overall height (to top of boom)	2,700	3,130
C Overall width of crawler	2,490	
D Overall height (to top of cab)	2,980	
E Ground clearance of rear end*	1,010	
F Ground clearance*	455	



Dimensions		Unit: mm
G Tail swing radius		1,490
H Tumbler distance		2,800
I Overall length of crawler		3,600
J Track gauge		1,990
K Shoe width		500
L Overall width of upperstructure		2,490
M Overall Width		3,260

\* Without including height of shoe lug



**Operating Weight & Ground Pressure**

In standard trim, with standard boom, 2.38m arm, 0.50m<sup>3</sup> ISO heaped bucket

Shaped		Triple grouser shoes (even height)	
Shoe width	mm	500	
Overall width of crawler	mm	2,490	
Ground pressure	kPa	50	
Operating weight	kg	15,700	