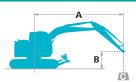
Lifting Capacities







Rating over side or 360 degrees

- A Reach from swing centerline for arm top
- B Arm top height above/below ground C – Lifting capacities in kilograms
- * Max. discharge pressure: 34.3 MPa

ED160 Blade Runner Standard Arm: 2.38 m Bi			ucket: without	t Shoe: 600 m								
	Α	1.5	m	3.0	m	4.5	m	6.0) m	At Max.	Reach	
В		<u> </u>		4		4		4		4		Radius
7.5 m	kg									*2,190	*2,190	3.94 m
6.0 m	kg					*3,490	*3,490			*1,770	*1,770	5.61 m
4.5 m	kg			*4,540	*4,540	*3,810	3,660	2,620	2,290	*1,650	*1,650	6.52 m
3.0 m	kg			*6,840	6,370	4,030	3,420	2,530	2,210	*1,650	*1,650	6.99 m
1.5 m	kg			*5,320	*5,320	3,750	3,170	2,420	2,100	*1,750	1,630	7.11 m
G. L.	kg			*6,340	5,480	3,580	3,020	2,340	2,030	1,910	1,670	6.89 m
-1.5 m	kg	*5,550	*5,550	7,100	5,500	3,540	2,970	2,320	2,010	2,170	1,880	6.31 m
-3.0 m	kg	*9,140	*9,140	*6,160	5,630	3,610	3,040			2,900	2,490	5.23 m

- 1. Do not attempt to lift or hold any load that is greater than these lifting capacities at their specified lift point radius and heights. Weight of all accessories must be deducted from the above lifting capacities.
- 2. Lifting 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. Arm top defined as lift point.

- 4. The above lifting capacities are in compliance with 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. Lifting capacities apply to only machine as originally manufactured and normally equipped by KOBELCO CONSTRUCTION MACHINERY CO., LTD.

STANDARD EQUIPMENT

- Engine, ISUZU 4JJ1XDTRA, Diesel engine with turbocharger and Intercooler (Tier IV-compliant engine)
- Auto Idle Stop
- Automatic engine deceleration
- Batteries (2 x12V 80 Ah)
- Starting motor (24 V 5kW), 50 amp alternator
- Engine oil pan drain cock
- Double element air cleaner ■ Refueling pump
- CONTROL
- Working mode selector (H-mode, S-mode and ECO-mode)
- Extra N&B piping (proportional hand controlled)
- Boom and arm safety valves
- **SWING SYSTEM & TRAVEL SYSTEM** ■ Swing rebound prevention system
- Straight propel systemTwo-speed travel with automatic shift down
- Sealed & lubricated track links
- 600mm track shoes
- Grease-type track adjusters
- Automatic swing brake
- Curved track ■ 6 way dozer blade
- MIRRORS, LIGHTS and CAMERAS
- Rear view mirrors
- Three front working lights (two for boom and one for right storage box)

- Air suspension seat with heater
- Note: Standard and optional equipment may vary. Consult your KOBELCO dealer for specifics.

- CAB & CONTROL
- Two control levers, pilot-operated
- Horn, electric
- Integrated left-right slide-type control box
- Cab light (interior)
- Coat hook
- Large cup holder
- Detachable two-piece floor mat
- Retractable seatbelt
- Headrest
- Handrails
- Intermittent windshield wiper with double-spray washer
- Skylight
- Top guard (ISO 10262 : 1998)
- Tinted safety glass
- Pull-up type front window and removable lower window
 Easy-to-read multi-display monitor
 Automatic air conditioner

- Emergency escape hammer ■ EU radio (AUX & USB & Bluetooth)
- 12V converter
- Mechanical suspension seat
- Remote machine monitoring system "GEOSCAN" OTHERS
- Lower under cover

OPTIONAL EQUIPMENT

- Various optional arms
- Wide range of shoes
- Front-guard protective structure (may interfere with bucket action)

- Cab additional light
- Rain visor (may interfere with bucket action)
- Travel alarm
- Right side camera

Note: This catalog may contain attachments and optional equipment that are not available in your area. And it may contain photographs of machines with specifications that differ from those of machines sold in your areas. Please consult your nearest KOBELCO distributor for those items you require. Due to our policy of continuous product improvements all designs and specifications are subject to change without advance notice. Copyright by KOBELCO CONSTRUCTION MACHINERY CO., LTD. No part of this catalog may be reproduced in any manner without notice.

KOBELCO CONSTRUCTION MACHINERY CO., LTD.

5-15, Kitashinagawa 5-chome, Shinagawa-ku, Tokyo 141-8626 JAPAN Tel: +81 (0) 3-5789-2146 Fax: +81 (0) 3-5789-2135 www.kobelco-kenki.co.jp/english_index.html

Inquiries To:

ED160BR-5 **KOBELCO** ■ Bucket Capacity: 0.5 m³ ISO heaped **■** Engine Power : ED 160 Promer 78.5 kW/2,000 min⁻¹ (ISO14396) Operating Weight : 16,600 kg



Revolutionary Double Offset Duct Design Cuts Engine Noise

By redesigning the iNDr configuration KOBELCO has come up with a stylish machine with great visibility from the cab, despite the larger engine compartment needed to ensure compliance with TIER IV Final emission standards.

The iNDr system absorbs sound energy by sealing the engine compartment and channeling air to cool the engine through a complex duct. Now equipped with a selective catalytic reduction (SCR) unit for cleaner emissions, the new model features two offset ducts with ample capacity to absorb engine noise, for a much quieter machine.







Wide, clear view to the rear

Even with the larger engine compartment, the design minimizes hood height, ensuring an excellent direct view to the rear. In addition, the operator can monitor conditions behind the machine with clear, wide-angle images from the rear-view camera, which comes as standard equipment.



The Results Are Exceptional. The Big Merits:

"Ultimate Low Noise" achieved by minimizing sound leakage

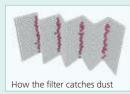
Noise from the engine and cooling fan is absorbed by the duct, so the machine far surpasses legal requirements. Kobelco calls this system, which exceeds all noise standards, "Ultimate Low Noise," and it reduces noise to 95dB(A).



Eliminating dust maintains cooling system performance

The high-density 60-mesh filter* traps dust from the intake air. The waveform filter allows air through the tops of the waves while concentrating dust at the bottom, ensuring smooth airflow. With no

clogging, the cooling system and air cleaner easily maintain peak performance.



* "60-mesh" means that there are 60 holes formed by horizontal and vertical wires in every square inch of filter.



Easy filter cleaning simplifies maintenance

A simple daily visual check of the iNDr filter identifies when it requires cleaning. It is easily removed for washing without special tools.



New Environmentally-Friendly Engine

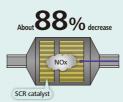
New Tier IV compliant engine



The new type of Tier IV Compliant engine is fitted with a diesel oxidation catalyst (DOC) and an SCR device to control emissions without using a diesel particulate filter (DPF). It has a large-capacity DEF/Urea tank, extending intervals between fill-ups.



NOx reduction rate (Compared to previous models)

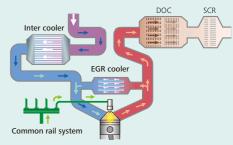


construction machineryThe new ISUZU engine is renowned for its outstanding environmental

Newly developed engine raises the bar for

performance, and has been tuned specifically for use in KOBELCO machines. This environmentally friendly engine changes conventional wisdom on balancing

powerful performance with eco-friendliness. And eliminating the DPF makes maintenance faster and easier, too.



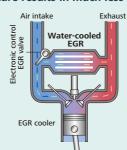


At high temperatures, nitrogen and oxygen combine to produce nitrous oxides (NOx).

Reducing the amount of oxygen and lowering the combustion temperature results in much less NOx.

EGR cooler

While ensuring sufficient oxygen for combustion, cooled emission gases are mixed with the intake air and re-circulated into the engine. This reduces oxygen content and lowers combustion temperature.





Particulate matter (PM) is mostly soot resulting from incomplete combustion; Improved combustion efficiency reduces PM emissions.

Common rail system

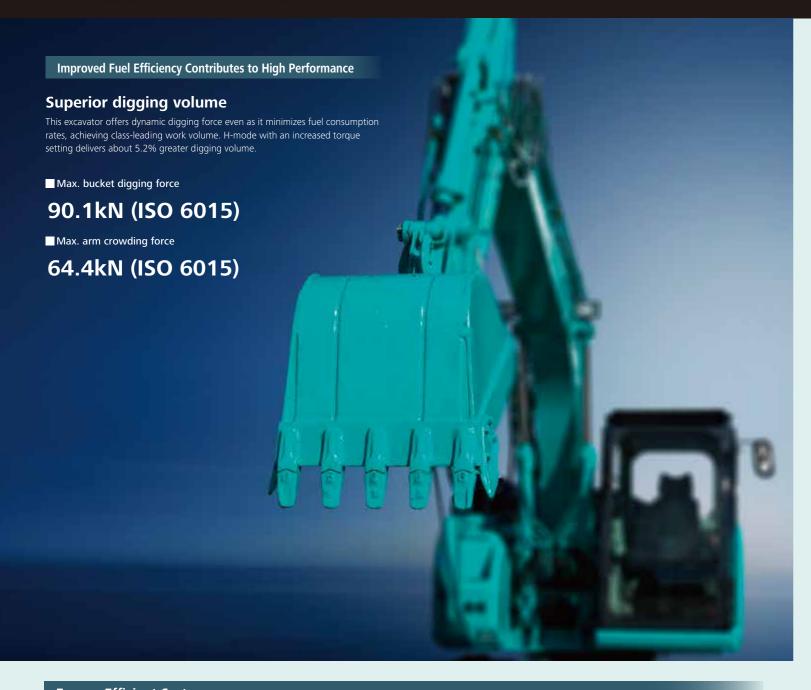
High-pressure injection atomizes the fuel, and more precise injection improves combustion efficiency. This also contributes to better fuel economy.



Common rail system
mesh" means that there are 60 holes formed by horizontal and

Unbeatable Cost Performance

Greater Work Capacity: Exceeding Expectations in Productivity



Energy-Efficient System

Eco-mode: engineered for economy

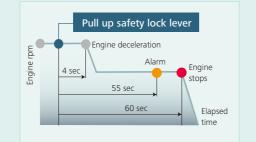
Kobelco's ECO-mode maximizes the operating efficiency of the engine and other components to achieve much greater fuel efficiency. Just press a button to choose the operation mode best suited to the task at hand and the working conditions

Optimal operation with three modes



ode • • • Ideal balance of productivity and fuel efficiency for a range of urban engineering projects

ECO-mode • • • Minimum fuel consumption for



AIS (Auto Idle Stop)

If the safety lock lever is left up, the engine will stop automatically.

This eliminates wasteful idling during standby, saving fuel and reducing CO2 emissions as well.

Large capacity dozing

Dual Purpose from the Start

ED160 Blade Runner is fitted with a large dozing blade 3,260 mm wide and 815 mm high, and can readily shift large volumes of earth, working to a height of 790 mm and a depth of 600 mm. With 196 kN of drawbar pulling force, the ED160 has the power to doze and backfill in all recommended operating positions.

Dimensions:

3,260mm (width) x **815mm** (height)

Working Ranges:

790mm (height), **600mm** (depth)

Drawbar Pulling Force: 196kN

Dozer Capacity: 1.6m³

Power, Angle and Tilt capability (PAT)



The 6-way dozer blade has Power, Angle and Tilt capability (PAT) operated from the cab. With a single control lever, the blade can be angled 25 degrees to the left or right for dispensing earth and materials away for the operator's path. The blade also tilts up on the left and right sides by 455 mm for slope grading, culverts and ditches.



Single dozer lever

A conveniently located single dozer lever controls all blade hydraulic function.



Exclusive dozer circuit

The dedicated dozer circuit has a relief valve setting of 27.4 MPa. Steady and powerful dozing is unaffected by digging, swinging, travel or other machine function.

Curved track shoes

The curved shape of the crawler shoes improves maneuverability with good grip and gives crisp travel minimizing damage to ground surfaces.

Plenty of ground clearance

Excellent ground clearance ensures unhindered travel



Great swing power, short cycle times

Powerful swing power and top-class swing speed.

Swing Speed: 11.0min⁻¹{rpm}

Swing Torque: 39.9kN



utility projects and other work

Hydraulic system engineered

to reduce energy loss

Kobelco's proprietary hydraulic systems offer

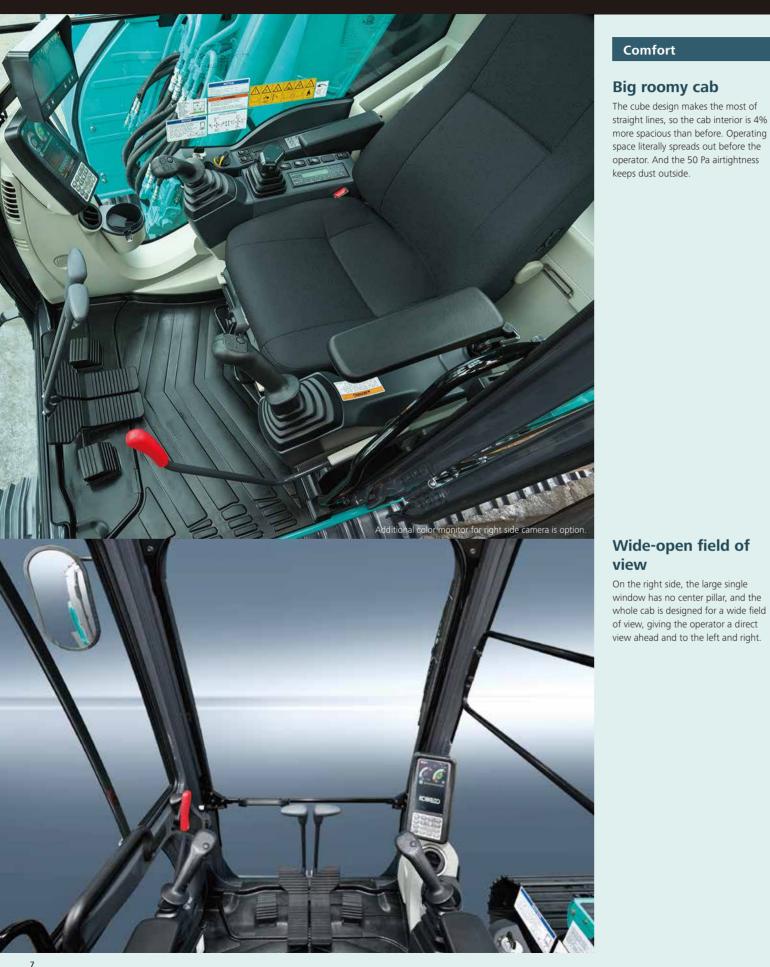
hydraulic line positioning that reduces friction

minimizing energy loss throughout the system.

resistance and valves designed for higher efficiency,

Cab Design That Puts the Operator First

Wide and open, the cab's interior overflows with features that streamline operation



Comfort

Big roomy cab

The cube design makes the most of straight lines, so the cab interior is 4% more spacious than before. Operating space literally spreads out before the operator. And the 50 Pa airtightness keeps dust outside.

Wide doors and ample head More comfortable seat means higher productivity clearance mean smooth entry The cab interior offers a host of operator comforts. The seat guarantees comfort whether on the job or at rest, and everything is ergonomically planned and laid out for smooth, stress-free operation and exit

The control box and safety lock lever tilt up at a larger angle, and the door handle height is positioned for easy cab entry and exit.



Equipment designed for comfort and convenience





Bluetooth installed to allow connections with iPhones and other devices.



conditioner

air conditioner that maintains a comfortable interior



Also standard is an automatic environment all year around.







Safety

ROPS cab

ROPS (Roll-Over-Protective Structure)-compliant cab clears ISO standards (ISO-12117-2: 2008) and ensures greater safety for the operator should the





Mounting brackets for vandalism guards are standard equipment (contact your KOBELCO dealer to fit vandalism or front rock guards)

Expanded field of view for greater safety







Right side camera is available as an option

Further to the existing rear-view camera, a camera for the right side is available as an option for easy safety checks all









Quality that Keeps on Shining. Valuable Assets Take Your Business to the Next Level.

Structural strength and proven reliability mean these machines can deal with heavy work loads and perform in rigorous site environments. From the lifecycle viewpoint, these machines maintain their value throughout their service lives.



Maintenance information display

Easy, on-the-spot maintenance VEW



INTO DE 5000 4997 -- |-- |-

Urea tank Urea filler cap is placed on the step for easy access.



Record function of previous breakdowns including irregular and transient malfunction

Engine maintenance Setting up maintenance area one step down allows easy to access to the engine.



Handhold

The handrail is placed on the boom side. In addition, the distance between the current handrails was increased to allow easier access to the maintenance

Maintenance work, daily checks, etc., can be done from ground level

The layout allows for easy access from the ground for many daily checks and regular maintenance tasks.









Fast maintenance requires only a few procedures



Washer fluid tank is located under the cab



Engine oil guick-drain valve can be turned



Fuel tank features bottom flange and large

Improved Filtration System Reliability

Clean, contaminant-free fuel and hydraulic fluid are essential to stable performance. The improved filtration systems reduce the risk of mechanical trouble and enhance longevity and durability.

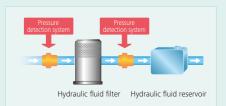
Hydraulic fluid filter Wew

Recognized as the best in the industry, our super-fine filter separates out even the smallest particles. New cover prevents contamination when changing filters.



Hydraulic fluid filter clog detector

Pressure sensors at the inlet and outlet of the hydraulic fluid filter monitor differences in pressure to determine the degree of clogging If the difference in pressure exceeds a predetermined level, a warning appears on the multi-display, so any contamination can be removed from the filter before it reaches the hydraulic fluid reservoir.





Large fuel filter **WEW**

The large fuel filter with built-in water separator maximizes filtering performance.

Double-element

The large-capacity element features

a double-filter structure that keeps

the engine running clean even in

industrial environments.

air cleaner

Easy cleaning saves time



Detachable two-piece floor mat has handles for easy

The mat's raised edges trap dirt and grit for easy



Special crawler frame design makes it easy to clean off mud.



Long-interval maintenance

Long-life hydraulic oil reduces cost and labor.

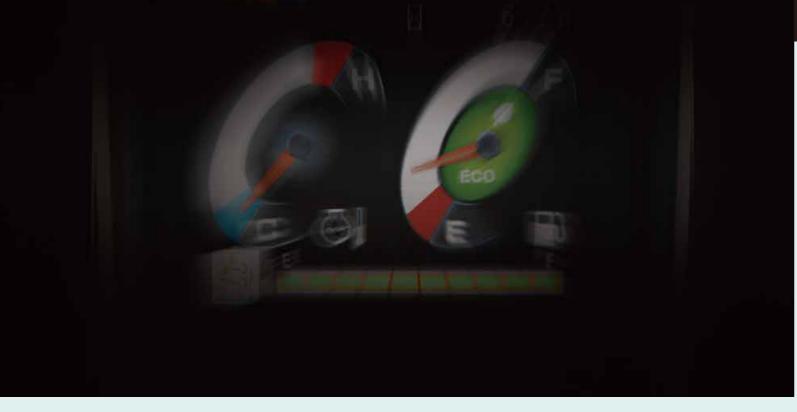


Highly durable super-fine filter

The high-capacity hydraulic oil filter incorporates glass fiber with superior cleaning power and durability.

Comprehensive Safety and Intuitive Operation

User-friendly design and enhanced safety means greater efficiency and productivity.



Operator-friendly Features Include Controls that Are Easy to See, Easy to Use



Multi-display in color

Brilliant colors and graphic displays are easy to recognize on the LCD multi-display in the console. The display shows fuel consumption, maintenance intervals, and more.

- 1 Analog gauge provides an intuitive reading of fuel level and engine water temperature
- 2 Green indicator light shows low fuel consumption during operation
- Urea tank level gauge
- 4 Fuel consumption
- 6 Digging mode switch
- 6 Monitor display switch

One-touch attachment mode switch

A simple flick of a switch converts the hydraulic circuit and flow amount to match attachment changes. Icons help the operator to confirm the proper configuration at a glance.



MAINTENANCE





GEOSCAN

Excavator Remote Monitoring System



Remote monitoring for peace of mind

GEOSCAN uses satellite communication and internet to relay data, and therefore can be deployed in areas where other forms of communication are difficult.

When a hydraulic excavator is fitted with this system, data on the machine's operation, such as operating hours, location, fuel consumption, and maintenance status can be obtained remotely.

Direct Access to Operational Status

Location data

· Accurate location data can be obtained even from sites where communications are difficult.



Operating hours

•A comparison of operating times of machines at multiple locations shows • Data on fuel consumption and which locations are busier and more profitable

• Operating hours on site can be accurately recorded, for running time calculations needed for rental machines, etc.



Fuel consumption

idling times can be used to indicate



Graph of work content

•The graph shows how working hours are divided among different operating categories, including digging, idling, traveling and optional operations.

Maintenance Data and Warning Alerts

Machine maintenance data

- Provides maintenance status of separate machines operating at multiple sites.
- Maintenance data is also relayed to KOBELCO service personnel, for more efficient planning of periodic

Model	Serial No.	Hoter Heter	Engine Oil
MEDICALE:	0.36/0.35	73610	43
SKIZKIPLO- S/SKIANIRL	10:67:00789 01:36/9:35	39 to	40
9039009	7002-10454 0.8/0.7	590 W	(18
SKIIIDLE-9	1012-10HS 8-8/17	56919	
5K755R-	+706-30334		

Warning alerts

•This system warns an alert if an anomaly is sensed, preventing damage that could result in machine

Alarm information can be received through E-mail

•Alarm information or maintenance notice can be received through E-mail, using a computer or cell



Alarm messages can be received

Daily/Monthly reports

•Operational data downloaded onto a computer helps in formulating daily and monthly reports.

Security system Engine start alarm

•The system can be set an alarm if the machine is operated outside designated time.



gine start alarm outside prescribed work time

Area alarm

•It can be set an alarm if the machine is moved out of its designated area to another location.



Alarm for outside of reset area





Engine

Model	ISUZU 4JJ1XDTRA	
Туре	Direct injection, water-cooled, 4cycle diesel engine with intercooler, turbocharge (complies with EPA Tier IV Final)	
No. of cylinders	4	
Bore and stroke	95.4 mm x 104.9 mm	
Displacement	2.999 L	
Rated power output	73.9kW/2,000 min ⁻¹ (ISO 9249)	
Tates porter output	78.5kW/2,000 min ⁻¹ (ISO 14396)	
Max. torque	357N·m/1,800 min ⁻¹ (ISO 9249)	
	375N·m/1,800 min ⁻¹ (ISO 14396)	

Hydraulic System

Pump	
Туре	Two variable displacement piston pumps + Two gear pumps
Max. discharge flow	2 x 130 L/min, 1 x 20 L/min, 1 x 55 L/min
Relief valve setting	
Boom, arm and bucket	34.3 MPa {350 kgf/cm ² }
Travel circuit	34.3 MPa {350 kgf/cm ² }
Swing circuit	28.0 MPa {285 kgf/cm²}
Dozer circuit	27.4 MPa {280 kgf/cm²}
Control circuit	5.0 MPa {50 kgf/cm ² }
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 ⁻¹
Swing torque	39.9 kN⋅m
Tail swing radius	1,490 mm
Min. front swing radius	2,000 mm

Travel System

Travel motors	2 × Axial piston , two speed motors	
Parking brakes	Oil disc brake per motors	
Travel shoes	40 each side	
Travel speed	4.8/2.4 km/h	
Drawbar pulling force	196 kN (ISO 7464)	
Gradeability	70 % {35 deg}	
Ground clearance	455 mm	

Cab & Control

All-weather, sound-suppressed steel cab mounted on the silicon-sealed suspension mounts and equipped with a heavy, insulated floor mat.

Two hand levers and two foot pedals for travel Two hand levers for excavating and swing Electric rotary-type engine throttle External

69 dB (A)

Operator

Boom, Arm & Bucket

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



Dozer Blade

Dozer cylinder	114 mm x 210 mm
Dimensions	3,260 mm (width) x 815 mm (height)
Working ranges	790 mm (up) x 600 mm (down)
Max. tilt height	445 mm
Angle	25 degrees

Refilling Capacities & Lubrications

Fuel tank	190 L
Cooling system	9.0 L
Engine oil	13.0 L
Travel reduction gear	2 × 5.0 L
Swing reduction gear	0.4 L
Hydraulic oil tank	79.3 L tank oil level
riyuraulic oli tarik	168.0 L hydraulic system
DEF/Urea tank	33.9 L

Attachments

Backhoe bucket and combination

backing backer and c	51115111GC1511	
	Use	Backhoe bucket
	USE .	Normal digging
Bucket capacity	ISO heaped m ³	0.5
bucket capacity	Struck m ³	0.38
Opening width	With side cutter mm	1,000
Opening width	Without side cutter mm	900
No. of teeth		5
Bucket weight kg		380
Combination	2.38 m standard arm	©
Combination	2.84 m long arm	>

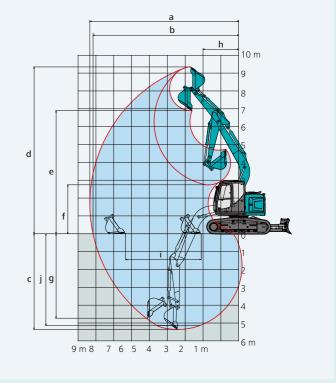
Working Ranges

		Unit: m
MODEL	ED160 Blade Runne	
Boom	4.68 m	
Arm length	Standard 2.38 m	Long 2.84 m
a- Max. digging reach	8.34	8.78
b- Max. digging reach at ground level	8.16	8.61
c- Max. digging depth	5.36	5.82
d- Max. digging height	9.34	9.71
e- Max. dumping clearance	6.90	7.26
f- Min. dumping clearance	2.74	2.38
g- Max. vertical wall digging depth	4.73	5.29
h- Min. swing radius	2.00	2.40
i- Horizontal digging stroke at ground level	4.23	4.72
j- Digging depth for 8' (2.4 m) flat bottom	5.13	5.63
Bucket capacity (ISO heaped)	0.5 m³	0.38 m³
i- Horizontal digging stroke at ground level j- Digging depth for 8' (2.4 m) flat bottom	4.23 5.13	4.72 5.63

Digging Force (ISO 6015)

Unit:	LANI	11
Ullill.	KIV	3 K (

Arm length	Standard 2.38 m	Long 2.84 m
Bucket digging force	90.1{9,190}	89.3 {9,110}
Arm crowding force	64.4 (6,570)	58.1 {5,920}

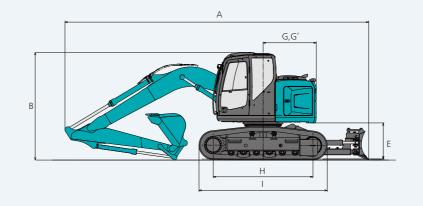


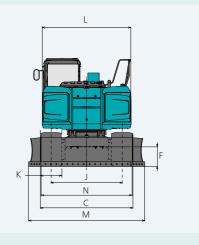
Dimensions

Ar	m length	Standard 2.38 m
Α	Overall length	8,530
В	Overall heigth (to top of boom)	3,030
C	Overall width of crawler (with 600 mm shoe)	2,590
D	Overall height (to top of cab)	3,030
Ε	Ground clearance of rear end*	1,010
F	Ground clearance*	455

		Unit: mm			
G	Tail swing radius	1,490			
G'	Distance from center of swing to rear end	1,490			
Н	Tumbler distance	2,800			
1	Overall length of crawler	3,600			
J	Track gauge	1,990			
K	Shoe Width	600			
L	Overall width of upperstructure	2,490			
M	Overall width (blade wings extended)	3,260			
N	Folding blade width	2,460			

*Without including height of shoe lug.





Operating Weight & Ground Pressure

In standard trim, with standard boom, 2.38 m arm, and 0.5 m³ ISO heaped bucket

,,,,,,,						
Shaped		Curved triple grouser shoes				
Shoe width	mm	500	600			
Overall width of crawler	mm	2,490	2,590			
Ground pressure	kPa	52	44			
Operating weight	kg	16,300	16,600			