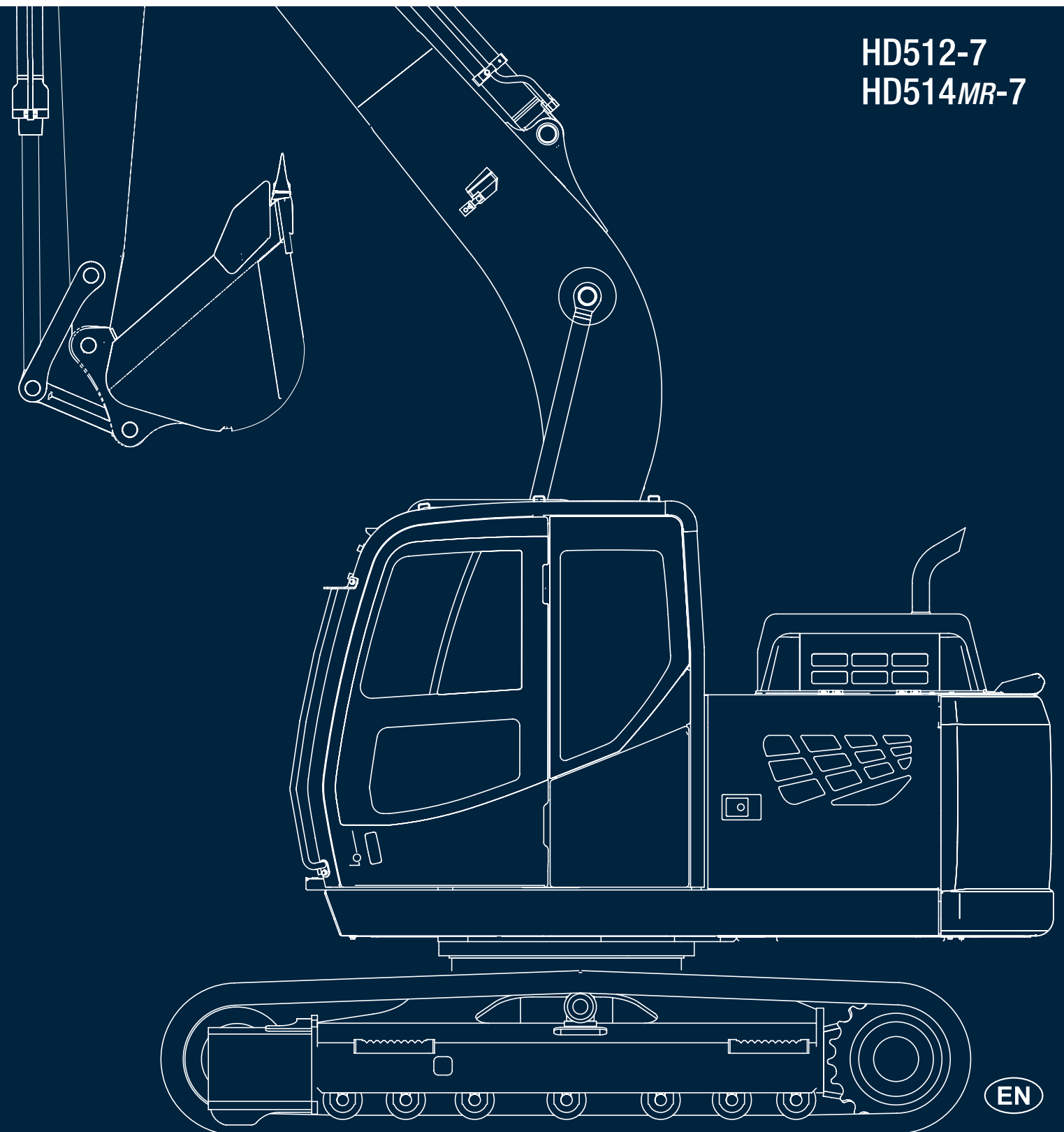


EXCAVATORS

13 / 15 TONS

HD512-7
HD514MR-7



HD512-7

KATO EXCAVATOR WITH HIGH PERFORMANCES BUT ENVIRONMENTALLY FRIENDLY

HD512-7 is a high performance excavator that with a max bucket digging force of 94 kN / 98 kN stands at the top of the machines in its segment.

Powered by the three-litre Isuzu engine which, equipped with an SCR system, reduces NOx emissions by 88%.

The HD512-7 excavator offers improved comfort with a new ISO 12117-2 and ISO 10262 certified, spacious cab that ensures operator safety. Operational functionality is controlled by a new APC touchscreen for intelligent operation with dedicated machine maintenance warnings.

New Undercarriage

New X-shaped lower frame, new idler with integrated shock absorber, drive motor supply tubes integrated in the frame. Increased durability and performance.

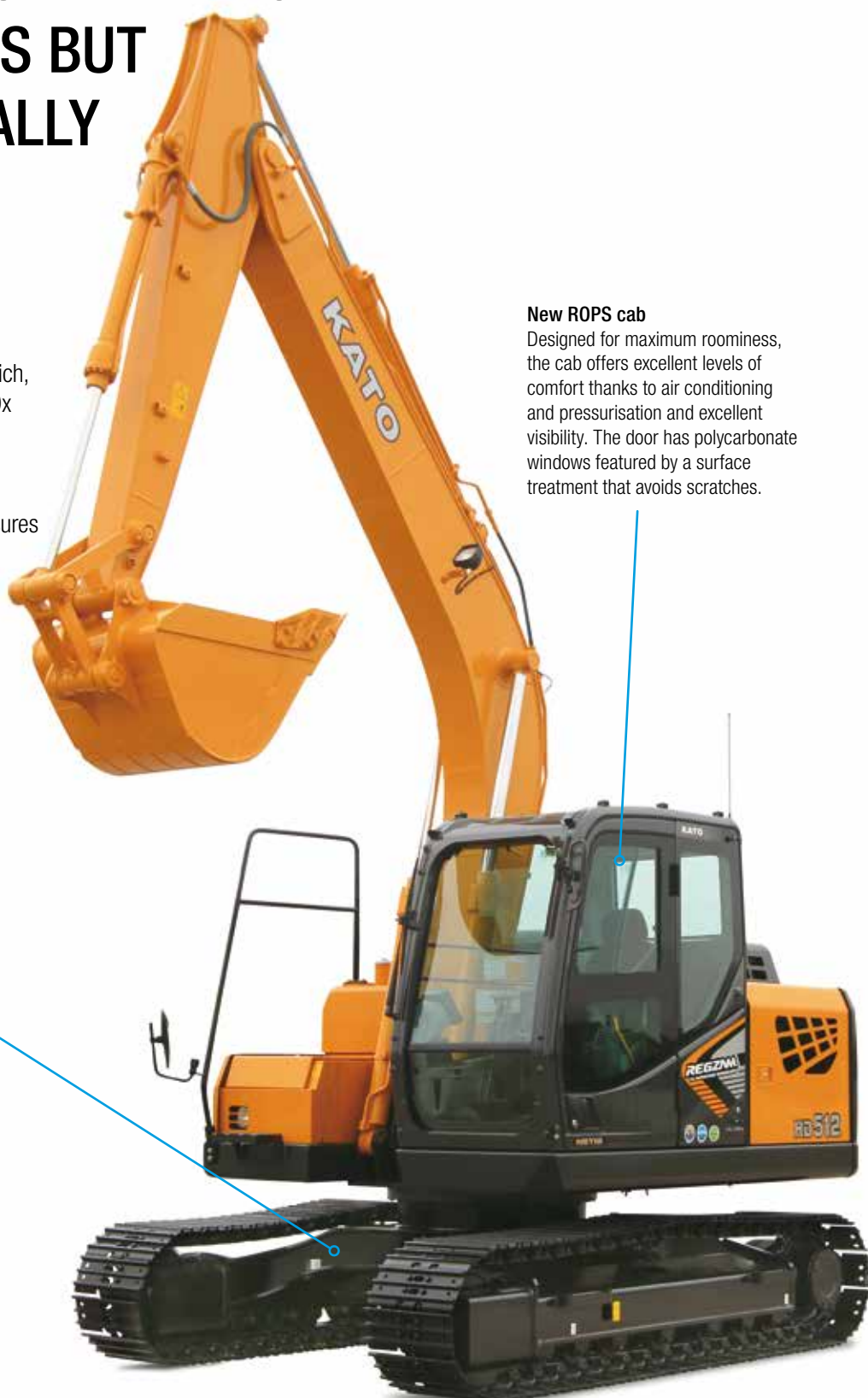


DOZER BLADE

Standard dozer blade.

New ROPS cab

Designed for maximum roominess, the cab offers excellent levels of comfort thanks to air conditioning and pressurisation and excellent visibility. The door has polycarbonate windows featured by a surface treatment that avoids scratches.



EXCAVATORS 13 / 15 TONS

High productivity and operating comfort

Boom digging force 72 kN
Bucket digging force 98 kN

Digging reach 8300 mm
Digging depth 5590 mm
Digging height 8740 mm



INCREASED EFFICIENCY

The diameter of the boom cylinder flexible pipes has increased, reducing pressure drops and increasing the available power.



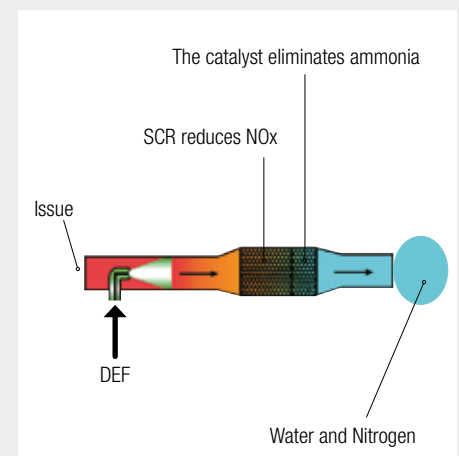
NEW CONTROL VALVE

The excellence of the hydraulic components and their optimal dimensioning, provide the machine with outstanding versatility. The system is powered by two variable displacement pumps with a flow rate of 126 litres/minute and a maximum pressure of 31.4 MPa. The new control valve guarantees the best operability, particularly appreciated in levelling operations, increasing productivity.



HIGH PERFORMANCE WITH RESPECT FOR THE ENVIRONMENT

The Isuzu 4JJ1X engine, is a three-litre net four-cylinder engine capable of delivering 78.5 kW at 2000 rpm with a really impressive torque of 375 Nm; this power is capable of withstanding even heavy workloads. For the treatment of pollutant emissions Kato has chosen a proven solution that combines exhaust gas recirculation, selective catalytic reduction and particulate filter. EGR (water-cooled) and SCR + Adblue are the solution for managing NOx and PM, allowing to keep their levels within the Stage IV thresholds, while ensuring a good management economy; the average level of urea consumption is in fact around one full tank (55 litres capacity) for every five full diesel fuel tanks containing 220 litres each, keeping the additive consumption around 5%.



Safer cab for maximum comfort and ergonomics

The cab, characterized by a modern and original design, is certified ISO 12117-2 (safety casing in case of tipping over) and ISO 10262 (against falling objects). Designed for maximum roominess, the cab offers excellent levels of comfort thanks to air conditioning, pressurisation and excellent visibility.

LED COURTESY LIGHT



REAR AND SIDE CAMERA



NEW FOOTREST ARRANGEMENT

The position of the footrest is optimal. The mat removal and cleaning has become easier.



NEW CONTROL JOYSTICKS

The ergonomically shaped handle ensures maximum manoeuvrability, the structure is sturdy and guarantees an optimal feeling. The control switches are arranged for easy and intuitive operation.



FRONT WINDOW

The large glass surface offers an excellent visibility to the digging edge. The window opening is facilitated by the wiper rest position integrated in the right front pillar.



ACCESS TO THE CAB

The entrance door is featured by a polycarbonate window with a protective coating that guarantees resistance to both impacts and scratches. Access to the cab (both in entry and exit) is easy and safe thanks to the shape and position of the handles and steps.



SAFETY LOCK LEVER

The new locking mechanism improves safety. The engine is only active when the safety lever is in the locked position. In this position the hydraulic movements are blocked. Raising the lever further activates the armrest tilting for comfortable access to the cab.



OTHER CAB FEATURES

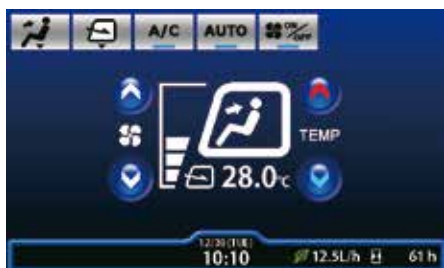
The cab maximum comfort is guaranteed by the care of additional and numerous details: transparent roof; compartment for 6 thermo-insulated bottles, wide space for luggage, safety helmet hook, radio with 2 speakers, USB port, sunshade, numerous storage compartments and more.



HANDRAIL AND SAFETY STEP

A non-slip step and a handrail have been designed to prevent falls and allow the operator to access the upper structure safely.

New APC touchscreen for easy operation



The touchscreen multifunction system is available to control the main functions of the machine. The advanced SW is intuitive, assists the operator in managing the air conditioning system, maintenance and much more.

HIGH DEFINITION DISPLAY

The high definition display is large with a 7-inch IPS liquid crystal display that offers high quality images.

SAFETY

The camera is on the rear and side.

The large display can also show the rear and side view in a single screen.



MODE SELECTION

The drop-down menu allows the operator to select the operating modes of the machine and the display.



ALARM MESSAGE

The display indicates various alarms including DEF fluid filling times.



Maintenance is quick and easy

The good engineering work carried out by the Kato designers also emerges in terms of daily and periodic maintenance, made particularly simple by the easy accessibility to the main components.



LARGE BOOT CAPACITY

The tool compartment is large and can hold the DEF containers in addition to the tools.



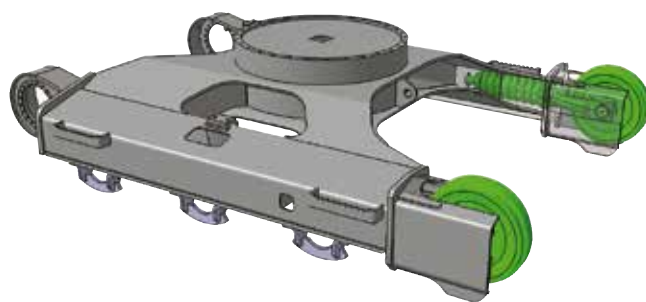
BATTERY SWITCH

The battery can be deactivated in a non-operational status.



ALL IN THE RIGHT PLACE

On the right side the oil and fuel filters can also be inspected and easily replaced from the ground. On the left side, the hoods opening provides access to the radiator cores and the air filter. The machine internal diagnostics supports the operator, signalling anomalies, if any, with maintenance reminders.



THE NEW HEAVY DUTY UNDERCARRIAGE

The undercarriage is featured by a classic X-shaped structure generously dimensioned, equipped with protections for both idle wheels and independent axial piston travel motors. Last but not least, the special conformation of the track guides makes them easy to clean, increasing durability.



TECHNICAL DATA

Engine	ISUZU 4JJ1X 4-stroke turbo diesel intercooler
No. of cylinders / displacement	4 / 2999 cc
Rated output (ISO 14396)	78.5 kW / 2000 rpm
Weight of machine	13800 kg (Dozer)
Max. digging depth	5590 / 6070 mm (with long arm)
Minimum front swing radius	2420 / 2720 mm (with long arm)
Max bucket digging force (ISO 6015)	9592 kgf / 10000 kgf (high power)
Standard bucket width	980 mm (5 teeth, with lateral teeth)
Standard bucket capacity	0.50 m ³

HD514_{MR}-7

THE COMPACT THAT DIDN'T EXIST

HD514_{MR}-7 is a compact model with a swing radius of 1,700 mm, reduced compared to the conventional Model HD512-7, maintaining the same stability. EGR (water-cooled) and SCR systems combined with exhaust gas recirculation + Adblue effectively control NOx and PM allowing to maintain their levels within the Stage IV thresholds. The new hydraulic system control system reduces fuel consumption. Daily cleaning and maintenance are easier.

**Compact
swing radius**

**Easy access
to hydraulic
and mechanical
components**

Minimum front swing radius

Reduced swing radius
configuration
1830 mm with standard boom and
2290 mm with long boom

Standard swing radius
configuration

2410 mm with standard boom and
2770 mm with long boom

Large and safe cab

The driver's seat with air
conditioner is convenient and
the pressurization function
counteracts the entry of dust.



EXCAVATORS 13 / 15 TONS



INCREASED EFFICIENCY

The diameter of the boom cylinder flexible pipes has increased, reducing pressure drops and increasing the available power.



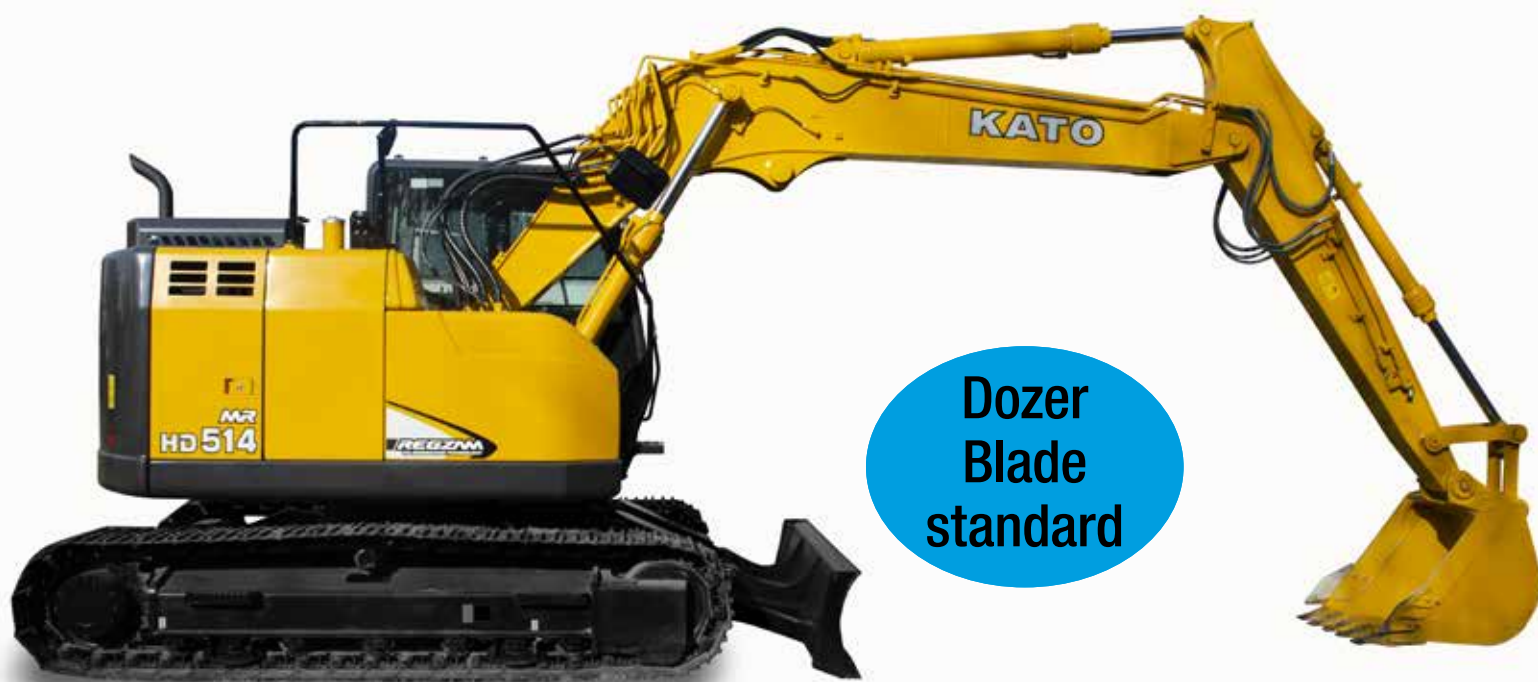
ENGINE

ISUZU 4JJ1X, 4-stroke turbo diesel intercooler with selective catalytic reduction system (SCR) and EGR (exhaust gas recirculation) system. NOx emission are decreased by 88%.

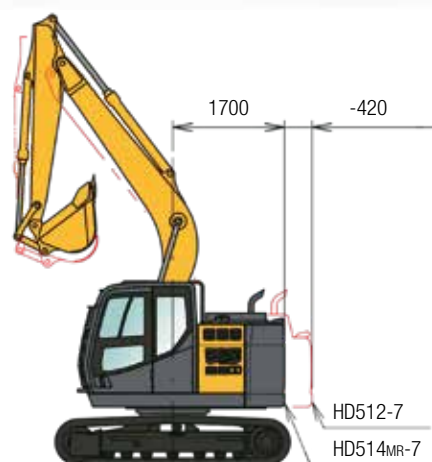


NEW CONTROL VALVE

The well-dimensioned hydraulics are not affected by simultaneous drives. The boom movements speed is remarkable just like the turret rotation. Versatile and compact machine.



Docile and versatile, but when you need it, it shows its strength



MODEL WITH COMPACT TAIL

Its stability is the same as the HD512-7 model but the tail swing radius is 1700 mm (reduced by 420 mm compared to HD512-7)



DOZER BLADE

A new fastening system which simplifies the replacement of the blade cutting edge is available.



EXPANSION TANK

The radiator is equipped with an expansion tank.

Accessibility

The internal components are easily accessible thanks to the large hoods, simplifying daily inspections and maintenance.



MAIN FILTER WITH CARTRIDGE

The filters are located at the right back side of the machine.
A hood encloses the oil and fuel filters, which can also be inspected and easily replaced from the ground.



COOLING SYSTEM

On the left side the hoods opening provides access to the radiator cores and the air filter, facilitating routine daily inspection operations.
The water and oil radiators are in parallel configuration and there are special spaces dedicated to cleaning.



ADBLUE LARGE CAPACITY TANK

HD514MR-7 is featured by an increased 55-litre DEF tank which allows to reduce the number of refuelling operations.
The DEF tank can be refuelled from the ground.

There's room in the cab for everything

The cab is air conditioned and pressurized in order to prevent the entry of dust.



ROPS CAB

The cab with its modern and original design is certified ISO 12117-2 (safety casing in case of tipping over) and ISO 10262 (against falling objects). Designed for maximum roominess, the cab offers excellent levels of comfort thanks to air conditioning, pressurisation and excellent visibility.



NEW HIGH-RESOLUTION TOUCHSCREEN DISPLAY

The heart of the instrumentation is the new large, high-resolution touchscreen display, which is the virtual control centre for the machine's operational, safety and maintenance functions.

A dedicated menu allows the operator to select the excavator working mode, which contains a series of presets with dedicated flows and pressures depending on the type of equipment used. The operator will receive all the alarms, status indications and maintenance warnings.



NEW CONTROL JOYSTICKS

The ergonomically shaped handle ensures maximum manoeuvrability, the structure is sturdy and guarantees an optimal feeling. The control switches are arranged for easy and intuitive operation.



TECHNICAL DATA

Engine	ISUZU 4JJ1X
No. of cylinders / displacement	4 / 2999 cc
Rated output (ISO 14396)	78.5 kW / 2000 rpm
Weight of machine	15100 kg
Max. digging depth	5540 / 6040 mm (with long arm)
Reduced swing radius	1830 / 2290 mm
Max bucket digging force (ISO 6015)	9592 kgf / 10000 kgf
Standard bucket width	980 mm (5 teeth, with lateral teeth)
Standard bucket capacity	0.50 m ³

features

KATO IMER S.p.A. reserves the right to change data and measurements without notice.

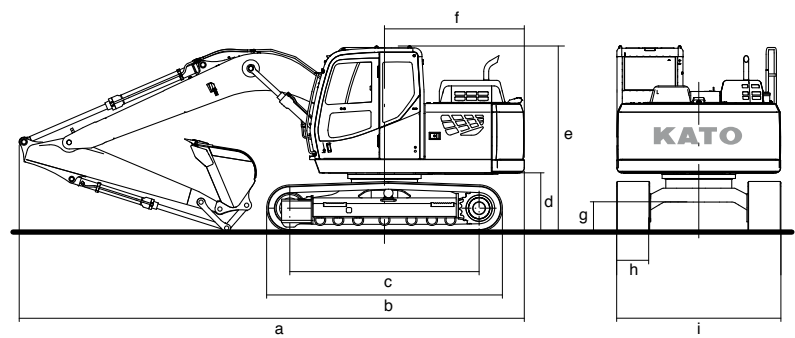
HD512-7

HD514MR-7

GENERAL SPECIFICATIONS		
Standard bucket capacity	0.50 m ³	0.50 m ³
Standard bucket width	980 mm (with lateral teeth)	980 mm (with lateral teeth)
Weight of machine	13800 kg	15100 kg
Operating weight	13875 kg	15175 kg
Transport dimensions	7660 x 2490 x 2820 mm	7470 x 2490 x 2820 mm
Gradeability	35°	35°
Ground pressure RT/IT* Canopy	44 kPa (dozer)	47 kPa (dozer)
Minimum ground clearance	440 mm	440 mm
ENGINE		
Model	ISUZU 4JJ1X	ISUZU 4JJ1X
No. of cylinders and displacement	4 / 2999 cc	4 / 2999 cc
Bore for stroke	95.4 x 104.9 mm	95.4 x 104.9 mm
Rated output ISO 14396	78.5 kW / 2000 rpm (ISO 14396)	78.5 kW / 2000 rpm (ISO 14396)
Engine oil capacity	19.6 L	19.6 L
ELECTRICAL SYSTEM		
Voltage	24 V	24 V
Battery	2 x 12 V	2 x 12 V
Alternator	24 V - 50 A	24 V - 50 A
Starter motor	24 V - 4.0 kW	24 V - 4.0 kW
HYDRAULIC SYSTEM		
Pumps maximum flow rate	126 L / min x 2	126 L / min x 2
Max Pressure / Setting	32.9 MPa / 31.4 MPa	32.9 MPa / 31.4 MPa
Control	3 + 4 multiple section control valves	3 + 4 multiple section control valves
SLEWING SYSTEM		
Maximum swing speed	13 min ⁻¹	13 min ⁻¹
Tail swing radius	2120 mm	1700 mm
Upper structure braking	hydraulic brakes	hydraulic brakes
BUCKET PERFORMANCE		
Max bucket digging force (ISO 6015)	94 / 98 kN (9592 / 10000 kgf)	94 / 98 kN (9592 / 10000 kgf)
Max boom digging force (ISO 6015)	69 / 72 kN (7041 / 7347 kgf)	69 / 72 kN (7041 / 7347 kgf)
LOWER FRAME		
Undercarriage length	3570 mm	3570 mm
Undercarriage length	2490 mm	2490 mm
Track elements	44 each side	44 each side
Shoe tension	tension spring and grease cylinder	tension spring and grease cylinder
Maximum force on drive system	110 kN	109 kN
Brakes	independent parking brake for each side	independent parking brake for each side
Travel speed (1st/ 2nd)	0 - 5.8 / 0 - 3.3 km / h	0 - 5.8 / 0 - 3.3 km / h
CAPACITY		
Fuel Tank Capacity	275 L	220 L
Cooling system capacity	20.8 L	20.8 L
Hydraulic system tank capacity (level / system)	80 / 158 L	78 / 158 L
DEF tank (capacity / supply)	55 / 46 L	55 / 46 L
Track drives	2 x 2.1 L	2 x 2.1 L
OTHER DATA		
Noise level LwA	98 dB	98 dB



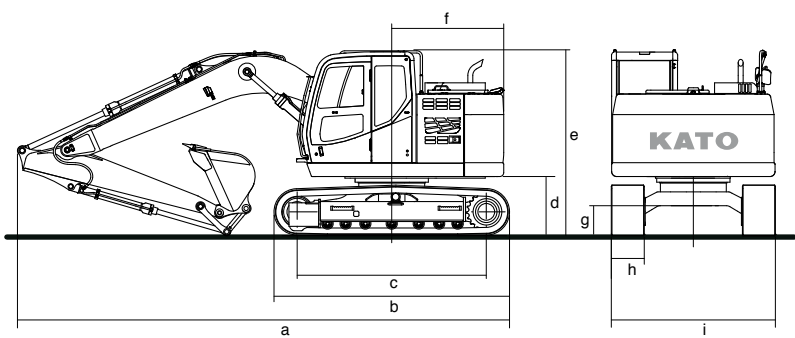
HD512-7



DIMENSIONS (mm)

a	b	c	d	e	f	g	h	i
7660	3570	2870	880	2820	2120 (R)	440	500	2490

HD514MR-7

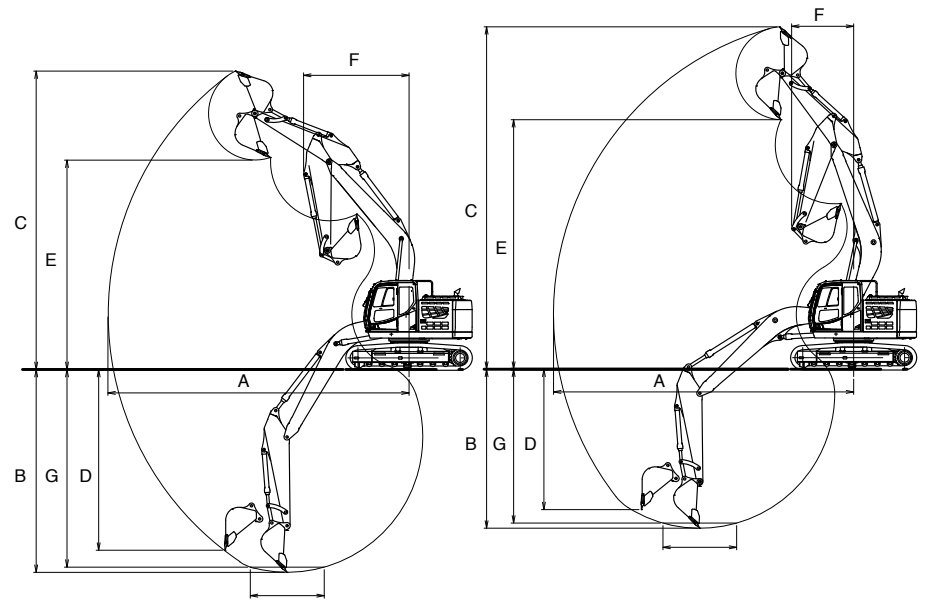


DIMENSIONS (mm)

a	b	c	d	e	f	g	h	i
7470	3570	2870	880	2820	1700 (R)	440	500	2490

Working range

the drawing is generic and is only for illustrative purposes



	HD512-7	HD514MR-7	
		standard boom	boom minimum swing
A	Maximum digging height	8300 / 8770* mm	8450 / 8910* mm
B	Max. digging depth	5590 / 6070* mm	5540 / 6040* mm
C	Maximum dumping height	8740 / 9070* mm	9050 / 9380* mm
D	Maximum vertical digging depth	4620 / 5030* mm	4560 / 5000* mm
E	Maximum digging radius	6410 / 6730* mm	6690 / 7030* mm
F	Minimum front swing radius	2420 / 2720* mm	2410 / 2770* mm
G	Maximum digging depth at 2440 mm from ground	5370 / 5880* mm	5320 / 5850* mm
			4420 / 4950* mm

* with 300 mm long dipperstick

equipment

	HD512-7	HD514MR-7
UNDERCARRIAGE		
Track 500 mm	std	std
Dozer Blade	std	std
Coverage on the undercarriage lower part	std	std
Drive motors cover	opt	opt
Roller cover	opt	opt
SAFETY EQUIPMENT		
ISO 12117-2 (FOPS protection from falling objects ISO 10262 LEVEL 1)	std	std
Safety lock lever	std	std
Seatbelt	std	std
Emergency motor stop switch	std	std
Glass-breaking hammer	std	std
Rearview mirrors (left and right)	std	std
Rear camera	std	std
Side camera	std	std
Working lights (on the right side rotary table, and on the boom left side)	std	std
Optional worklight (boom right side)	opt	opt
Fall arrest valves for lifting boom and digging boom	std	std
Automatic brake for swing motor blocking	std	std
Automatic parking brake (rotary table) engaged with safety lever raised	std	std
Automatic brake for travel motors blocking	std	std
Fire protection	std	std
Fall-arrest handrails	std	std
Battery disconnect switch	std	std
Safety labels	std	std
Lower front cab protection	opt	opt
Upper front cab protection	opt	opt
Cab roof top protection	opt	opt
Side step	opt	opt
Fire extinguisher	opt	opt
Additional electric horn	opt	opt
Travel horn	opt	opt
Rotary table block insertion indicator light	opt	opt
Megaphone	opt	opt
SYSTEM		
7-inch APC touchscreen display system (selectable drive mode A, P and E)	std	std
AUX1 mode selection according to the interchangeable accessory	std	std
Minimum automatic endothermic engine	std	std
Drive motors with automatic speed change	std	std
Two travelling speeds	std	std
CAB		
Cab suspension system with 6 viscoelastic shock absorbers	std	std
Liftable front window	std	std
Double-guided operator seat with shock absorber system	std	std
24V power supply socket	std	std
12V power supply socket	opt	opt
Automatic air conditioner with pressurization system	std	std
Defroster	std	std
Large capacity thermal and cold insulation box	std	std
Windscreen wiper	std	std
Sunshade	opt	opt
Sun visor	opt	opt
Rain guard	opt	opt
LED interior light	std	std
Cup holder and helmet hook	std	std
Transparent roof with sunshade	std	std
AM / FM radio with two stereo speakers	std	std
USB port (x2)	std	std
Seat cover	opt	opt
WORKING EQUIPMENT		
Bucket 0.25 m ³	opt	opt
Bucket 0.35 m ³	opt	opt
Bucket 0.50 m ³	std	std
Bucket 0.60 m ³	opt	opt
Bucket teeth closing blade	opt	opt
Boom (2.50 m)	std	std
Boom (3.00 m)	opt	opt
Various types of reinforced boom	opt	opt
Reinforced cover on lower part of the rotary table	std	std
Standard boom (4.65 m)	std	std
Cylinder boom coupling for reduced swing radius (4.65 m)	std	std
PIPING AND OTHER		
Hydraulic service door (1 spool)	std	std
Set of tools	std	std
Double element air filter	std	std
AUX 1 auxiliary system for power supply to demolition cutter and hammer	std	std
AUX 2 auxiliary system for rotator	std	std
AUX 1 operation mode selection system (hammer or demolition cutter)	std	std



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