

Costruzioni

Macchine Mezzi d'opera Attrezzature



Operating weight (opt) 3,675 kg
Net power 17.5 kW
Breakout force 2,912 daN



KATO IMER

V Four
HD35

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WALKAROUND

The pluses by **Costruzioni**

There is no equal on the market. Thanks to the extendable undercarriage up to 1,800 mm, the Kato Imer HD 35V4 provides incredible stability. With the load handling option, it becomes pick and carry





1

In the range of mini-excavators from 3 to 4 t, there is no mini with an extendable undercarriage from 1,550 to 1,800 mm. It is a unique machine

2

It has a very high stability. To lower the centre of gravity, in addition to the undercarriage, there is a heavy blade and the diesel tank

3

The boom has a very clean design and it is hinged very close to the fifth wheel thanks to the compact design of the swing system

4

The “load handling device” option allows this mini to be used as a pick and carry crane

5

Yanmar TNV88 3-cylinder engine with electronic control that reduces consumption by 26% compared to the previous model

6

Hydraulic components all made in Japan and hydraulic oil filtering at the end of the machine assembly. Great reliability

7

Cab with high habitability and finished with care. Glasses can be opened on both sides. Built in Italy (spare parts availability)

8

Aux hydraulic line with standard proportional control and two pre-selected flows (60 and 37.4 l/min). 2nd and 3rd lines are optional

9

The engine signals operating anomalies on the dashboard as well as the presence of water in the diesel fuel. Simple and effective

10

It is fitted as standard with the latest generation of rubber tracks with a reinforcing single spiral metal core with spiral pattern

Variable compact

Kato Imer HD 35V4

It has upper-structure, hydraulics, engine and blade of the brother 30V4 but it differs due to the sturdy extendable undercarriage and the longer boom. The HD 35V4 offers much higher performance compared to a minimum rotation space of only 170 mm higher than 30V4



With the extended undercarriage, it is compared with bigger zero tail swing



DOUBLE PERSONALITY

With extended or retracted undercarriage, the HD 35V4 is a particularly stable mini, as the centre of gravity is lowered by the sturdy undercarriage, the blade and the diesel tank under the operator's feet.



Offset rear pillar - visibility

VERSATILITY SPACE

The cab has considerable internal dimensions in proportion to the 3.6 t operating weight. The hydraulically extendable undercarriage helps to dig close to walls even more easily than with the younger brother HD 30V4. The hydraulic layout of the boom is very "clean". Protected pipes and visibility of the digging area.



Sliding side windows

Well arranged hydraulic pipes - good visibility of the digging area



THE PERFORMANCE OF THE NEW HD 35V4

- **BREAKOUT FORCE** **2,912 daN**
- **DIGGIN FORCE*** **1,709 Mpa**
- **TECHNICALLY HIGHER STATIC OF THE CATEGORY**

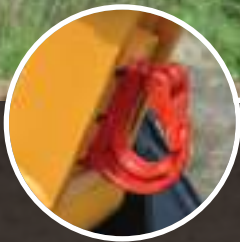
* Note: with 1,200 mm arm.



80° right swing angle
50° left swing angle



300 Kg



AVAILABLE LIFTING KIT
 The "load handling device" option consists of safety valves for lifting cylinders and arm and functional hook on the bucket return plate.



Unparalleled stability



The extendable undercarriage makes the HD 35V4 unique compared to other mini-excavators. It lowers the centre of gravity and offers a footprint on the ground as mini of over 4 tons operating weight

UP TO 2,000 KG FRONT AND 1,000 SIDE* The option for the load handling turns the HD 35V4 in a pick and carry vehicle. At 3,000 mm from the fifth wheel centre, it raises 1,500 kg on the front and 500 on the side. Always on the side, at the maximum reach of more than 5 m, it moves 200 kg (in the picture it is raising 300 kg at over 4,500 mm). At the maximum front reach, it raises 400 kg.

* Note: capacity declared at 2,000 mm from the fifth wheel centre at ground level.



Nachi PVH 3B drive motors



Cast idler wheel



Easy to clean structure



High tractive force



The only extendable undercarriage of the category

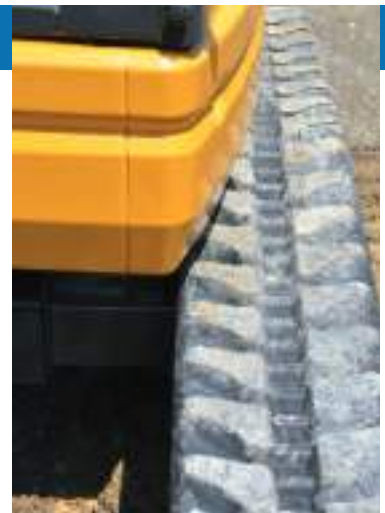
300 MM HEAVY DUTY

This mini is provided with the new ultra-durable rubber tracks launched by Bridgestone. They are called Toughtrack and are characterized by a single steel cable that runs in a spiral along the whole track from an external profile to an internal profile.

from 1,550 mm to 1,800 mm

NARROW WHEN IT IS USEFUL

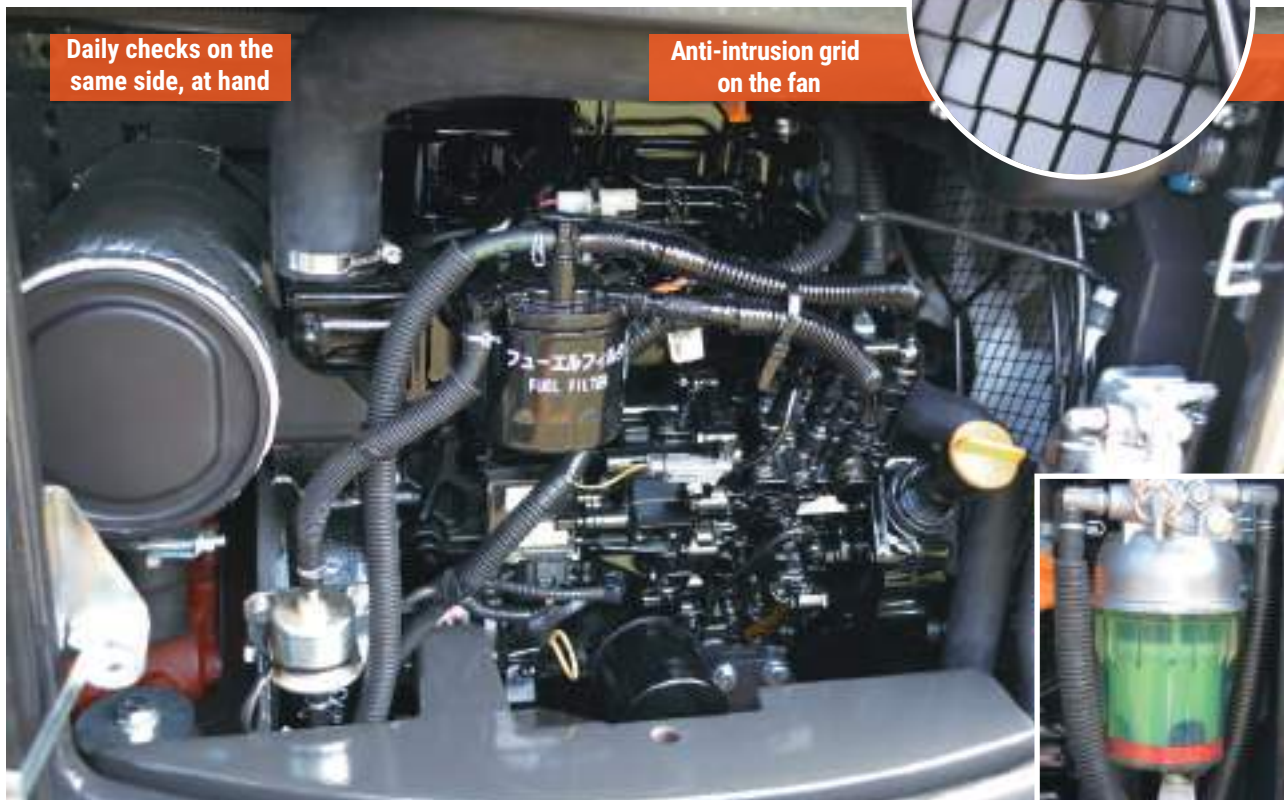
The stability of HD 35V4 is appreciated immediately and working with an extended undercarriage at 1,800 mm is the rule. In practice, the undercarriage is retracted to 1,550 mm for the narrowest passages and to transport the machine.



Pipes protected with a sheath



ALL OUT When the undercarriage is fully extended, the track juts out from the upper-structure side by only 125 mm, while in rotation the upper-structure is perfectly zero tail swing despite the standard 200 kg external ballast sheet (optional for the smaller models of the range).



Daily checks on the same side, at hand

Anti-intrusion grid on the fan

Electronic soul

The engine used is the 1.64-liter Yanmar 3TNV88 3-cylinder engine calibrated to supply 17.5 kW at 2,200 rpm (it could supply up to 26.9 kW) and in electronically controlled version. The HD 35V4 consumes up to 26% less diesel than the previous generation model

DIESEL UNDER CONTROL

Double diesel filter, one of which with tank and light to see the impurities, drain tap and electric supply pump for the restart.

- 1** **MAXIMUM RELIABILITY**
This three-cylinder unit combines a direct injection system with an electronic management. This is a generation of optimized monoblocs in the cooling circuit.
- 2** **SIMPLE AND EFFECTIVE ECO MODE**
Eco mode is enabled by means of a button that limits the engine speed 300 rpm below the level of maximum power. The torque curve does not vary as well the hydraulic curves do not change.
- 3** **STANDARD AUTO IDLE, IT CAN BE DISABLED**
When the keys are idle for 4 seconds, the Auto Idle reduces the engine speed to idle. As the controls are touched lightly, the speed increases again. A button enables and disables it.



WALKAROUND by **Costruzioni**



MADE TO HAVE A LONG LIFE

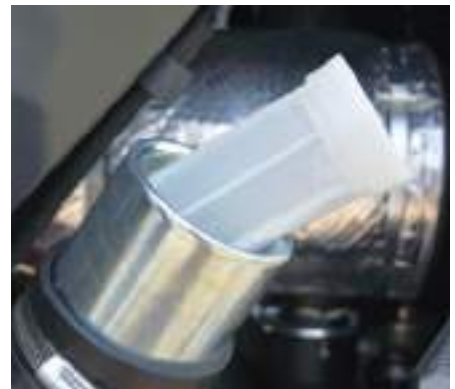
The diesel tank is made of plastic to prevent corrosion that may result from condensation due to technical exchange. At the base of the tank there is a primary fuel filter. The tank can be easily removed to be washed.

1,100 mm



Plastic diesel tank under the cab floor

KEY AND IMPURITY FILTER Refueling is easy thanks to the reduced height of the filler from the ground. The cap can be opened with the same key used for the engine start.



WELL PROTECTED ECU The electronic engine control unit is mounted in the cab on elastic supports. Removing the protection on which it is mounted, it is possible to adjust the belt tension by acting on the adjustable support of the 40 A alternator.



FUSES IN THE CAB Even the fuse box is in the cab, behind the operator's feet, well accessible and protected. In this position the main circuits are shown and on the cover of the box there is a useful legend of the functions of each fuse. The relays are on a dedicated support above the 55 Ah battery.



Cooling and supply air intake



Coolant radiator

Hydraulic oil radiator

ENVIRONMENT-FRIENDLY DISCHARGE Radiators are located in a locked compartment. A tap connected to a discharge pipe under the upper-structure allows coolant to be discharged. Maintenance is carried out without wasting a single drop.

7-blade plastic cooling fan



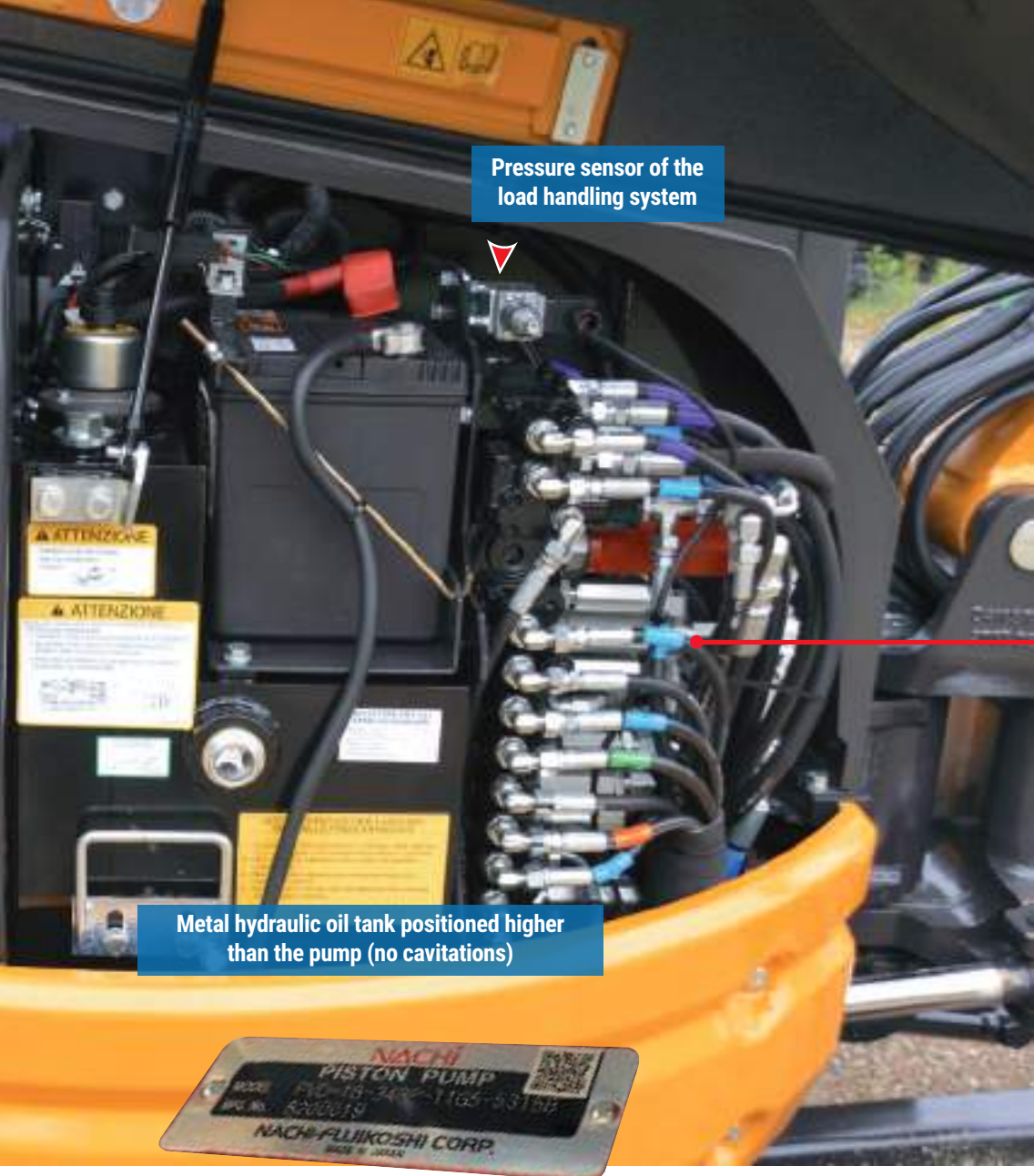
Air filter with obstruction warning light

Aspiring cooling

PARALLEL RADIATORS ON ELASTIC SUPPORTS

From the side hood it is possible to reach a double compartment for air intake and hydraulic management. The heat exchangers are well accessible, not fixed directly to the machine frame to protect them from vibrations and free to expand to avoid cracks.





Pressure sensor of the load handling system

Metal hydraulic oil tank positioned higher than the pump (no cavitations)



KAYABA VALVE The open centre valve is mounted vertically and in parallel to the cab heating. In summer it does not heat the operator's feet and in winter it makes heating more efficient.

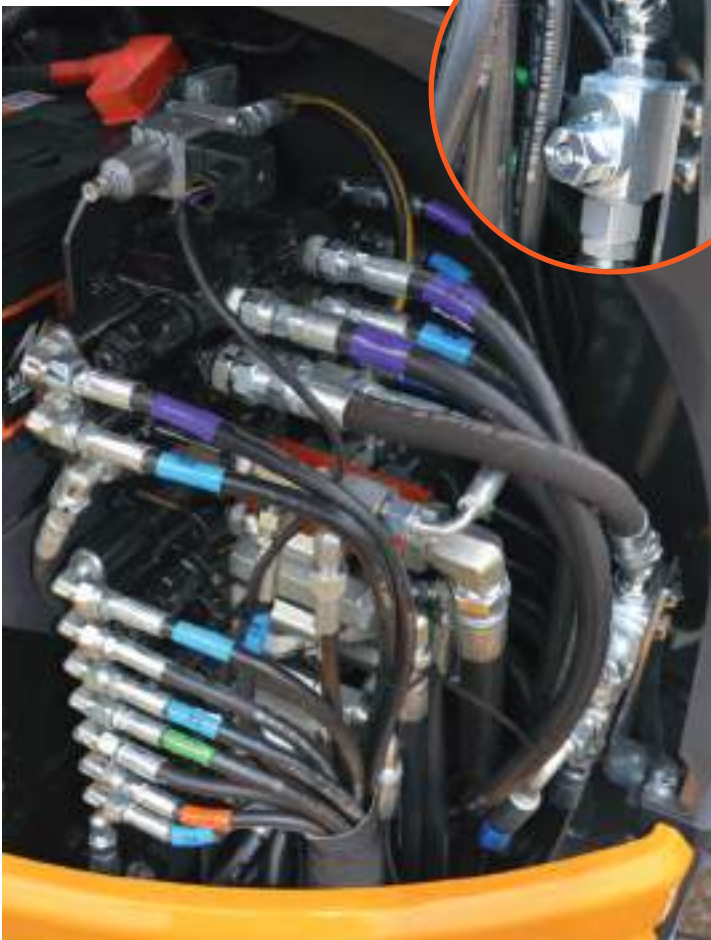
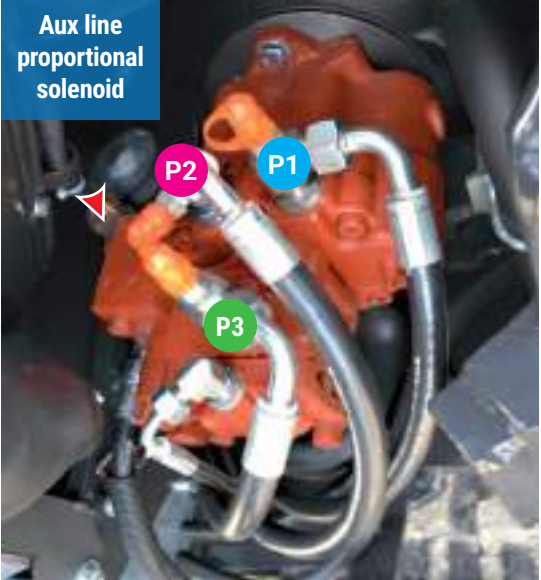
EACH ONE HAS ITS COLOUR
All the ends of the hydraulic pipes can be identified by name and colour. Extraordinary maintenance is easier and faster.

SINGLE OR DOUBLE EFFECT Next to the valve there is the by-pass to adjust the aux line with double supply or supply on one line and return on the other one.

DOUBLE NACHI WITH VARIABLE FLOW
The choice of a double parallel variable flow pump (P1 - P2) allows you to gain space. The P1 controls bucket, boom and right travel, the P2 controls arm, left travel and services. The P3 with gears controls blade, rotation and swing. Also the swing motor is Nachi.



Aux line proportional solenoid



Long and compact boom

Height at bucket pin: 4,180 mm
(4,270 mm with long arm)

300 mm longer boom available

COMPACT AND CAST SWING SYSTEM

340 mm

Standard protection

PROTECTED LIGHT
The mounted in-line halogen work light illuminates the digging area well.

PROTECTED AND LINEAR HYDRAULIC PIPES

A LAYOUT WHICH IS SIGN OF EXPERIENCE How the arm opens completely aligning itself to the boom becomes immediately clear. Another important feature is the layout (but also the design) of the swing unit integral with a slightly pronounced "nose" upper-structure. The result is a boom that at maximum height is very close to the cab and the rotation diameter underlines it.



BOXED BLADE
 The blade design is simple but sturdy and the side members have cast ends near the hinging to the frame. The pipes (protected by a metal spiral) are modular to simplify any replacement. Unexceptionable.



1ST STANDARD PROPORTIONAL AUX LINE

The HD 35V4 has a proportionally controlled double-acting auxiliary 60 litres/min hydraulic line with 24.5 MPa of maximum pressure. With a button in the cab (picture on the left) you can select two different preset flow rates at 60.5 litres and 37.4 litres per minute. A second and third line are available.



PRODUCED IN ITALY

The Kato Imer HD 35V4 is the largest mini produced in the San Gimignano (SI) plant. In the coming years the Tuscan plant will implement the production of mini excavators.

Extra large cab

The radio predisposition is standard as well as the courtesy light and the hanger.

ONLY
79 dB(A)
IN THE CAB

Blue-coloured glasses to lower solar radiation

Offset rear left pillar to allow a better $\frac{3}{4}$ visibility

Grammer seat with mechanical suspension and inertia-reel seat-belt

1,000 mm



12V socket

Acoustic and luminous overload warning

Split mat with air cushion



ANTI-FOG WINDSHIELD

The upper part of the windshield opens and conceals itself above the operator's head, while the lower part can be tilted internally to let fresh air enter even in case of rain.

ITALIAN QUALITY

The cab is signed Italcab, therefore maximum availability for each spare part. The laminated upper glass is beautiful and reassuring; its inclination acts as a slide for the rainwater which is recovered by a drip profile so as not to let it run on the windscreen.



High upper visibility

TOPS, ROPS. FOPS AVAILABLE

The HD 35V4 is available in a version with a simple canopy (150 kg lighter) or with a cab as the machine described. In any case, the structure is certified Tops and Rops. On the cab it is possible to mount the Fops grid. In the two versions the dashboard does not change. Some lights indicate the two-speed mode activation (standard with automatic transmission), the wrong machine starting with safety lever down, the engine overheating and the presence of water inside the diesel fuel.



INDICATES ANOMALIES The analogue dashboard has the digital hour counter at its foot. In the same box the Ecu indicates anomalies with numerical codes.



Halogen front lights available.

With a single key, it is possible to open the cab and the hoods and the engine is started.



Cab on 4 elastic supports

HEATING CAN BE SWITCHED OFF

The heating module (standard) is suspended on the right-hand side of the cab and can be controlled with a button. A by-pass of the cooling circuit does not allow hot water to circulate in the cab in summer.



590 mm



Kato Imer HD 35V4 in numbers

Operating weight with cab	3,675	tons
Power	17.5	kW
Yanmar engine	3TNV88	
Displacement	1.64	l
Cylinders	3	
Bore x stroke	88 x 90	mm
Rated rpm	2,200	rpm
Piston speed	6.6	m/s
Cylinder valves	2	
Cams	conventional	
Injection	direct	
Injection phases	1	
EGR electronic control	no	
Exhaust gas aftertreatment	silencer	
Air feed	intake	
Pumps	2 variable flow	
Flow	2x 37.4 + 23.1	l/min
Pump regulation	conventional	
Directional control valve	conventional	
Maximum pressure	24.5	MPa
Digging depth (long)	3,080 - 3,380	mm
Vertical digging depth (long)	2,470 - 2,750	mm
Digging reach (long)	5,130 - 5,420	mm
Loading height (long)	3,430 - 3,540	mm
Breakout force	2,912	daN
Digging force	1,709	daN
Travel speed	2.7 - 4.5	km/h
Swing speed	9	rpm
Wheel base/track length	1,810/2,260	mm
Track rollers	4	
Undercarriage width	1,550 var 1,800	mm
Track width	300	mm
Rear overhang	865	mm
Offset (L/R)	80°-50°	
Transport length (long boom)	4,750	mm
Transport height	2,470	mm
Blade (W-H)	1,550 - 380	mm
Blade up/down	385 - 430	mm
Blade distance	1,650	mm
Battery	55	Ah
Alternator	40	
Fuel tank	42	l
Hydraulic system/tank	50/33	l

* Note: the long boom option includes additional ballast. Weight 3.625 kg.



Kato Imer joins the Design for Environment movement. The attention to the impact that a machine

will have on the environment is very important since the design phase. The manufacturer evaluates how his machines, during the entire life cycle, can reduce the impact on health and environment.

Classic maintenance

JUST REFINED ENOUGH

Kato Imer recommends the use of motor and hydraulic oil with excellent specifications without using the expensive long-life products. Oil changes every 250 hours, therefore, but without high costs. Accessibility is good and it does not affect ordinary maintenance costs.

MAINTENANCE INTERVALS

- **ENGINE OIL AND FILTER CHANGE 250 HOURS**
- **DIESEL FUEL FILTER CHANGE 250 HOURS**
- **HYDRAULIC OIL FILTER CHANGE 1,000 HOURS**
- **HYDRAULIC OIL CHANGE 1,000 HOURS**
- **COOLANT CHANGE 1,000 HOURS**



Discover the Kato Imer world by watching its Youtube channel