



## ENGINE

Model	: ISUZU AI-4JJ1X
Type	: Water cooled, A cycle, A cylinders, line type direct injection, turbocharger, intercooler, electronic diesel engine
Power	: 113 HP / 2200 rpm / SAE J1349 (Net) : 123 HP / 2200 rpm / SAE J1995 (Gross)
Max. Torque	: 393 Nm / 1800 rpm (Net) : 420 Nm / 1800 rpm (Gross)
Displacement	: 2999 cc
Bore and Stroke	: 95,4 mm x 104,9 mm
This engine complies with the Emission Regulations U.S. EPA Tier III, and EU Stage III-A, 97/68 EC	

## LOWER STRUCTURE (CHASSIS)

Chassis	: Box shaped, reinforced lower chassis, front dozer blade and rear outriggers (stabilizers) as standard figures.
Axles	: The pivot pin mounted front axle allows two options: 8° in each direction for best matching conditions, or could be locked at any desired position for perfect stability.
Tires	: 9,00-20 TT (14PR) : 18R 19,5 XF (Optional) : 10,00-20 16 TT PR (Optional)

## CAB

- Improved operator's all round visibility
- Increased cabin internal space
- Use of six viscomount cabin mountings that dampen the vibrations
- High capacity A/C
- Opera Control System
- Cooled storage room
- Glass holder, book and object storage pockets
- Pool type floor mat
- Improved operator's comfort through versatile adjustable seat
- Ergonomically redesigned cabin through relocated switch board, and re-styled travel pedals and levers

## SWING SYSTEM

Swing Motor	: Axial piston type integrated with shock absorber valves.
Reduction	: 2 stage planetary gear box.
Swing Brakes	: Hydraulic multi disc type.
Swing Speed	: 13 rpm

## TRAVEL AND BRAKES

Travel	: Fully hydrostatic.
Travel Motors	: Axial piston type.
Reduction	: 2 stage planetary gear.
<b>Travel Speed</b>	
High Speed	: 32 km/h
Low Speed	: 8 km/h
Max. Drawbar Pull	: 7.715 kgf
Gradeability	: 29° (%56)
Service Brake	: Independent front/rear style (double circuit) hydraulic power brake system. Pressure engaged/spring released type. Located "on hub" for ideal stability and safety.

## HYDRAULIC SYSTEM

<b>Main Pump</b>	
Type	: Double variable displacement axial piston pumps.
Max. Flow	: 2 x 155 lt/min
Pilot Pump	: Gear, 20 lt/min
<b>Relief Valves</b>	
Attachment (Boom, Arm, Bucket)	: 330 kgf/cm <sup>2</sup>
Power Boost	: 360 kgf/cm <sup>2</sup>
Travel	: 360 kgf/cm <sup>2</sup>
Swing	: 260 kgf/cm <sup>2</sup>
Pilot	: 40 kgf/cm <sup>2</sup>
<b>Cylinders</b>	
Main Boom	: 2 x ø 110 x ø 75 x 940 mm
Stick Cylinder	: 1 x ø 115 x ø 80 x 1.225 mm
Bucket Cylinder	: 1 x ø 100 x ø 70 x 910 mm
Additional boom cylinder	: 1 x ø 150 x ø 90 x 680 mm

## Opera Control System

- |   |   |
|---|---|
| • Easy-to-use control panel and menus                     | • Overheat prevention and protection system without interrupting the work                   |
| • Improved fuel economy and productivity                  | • Automatic powerboost switch-on and switch-off   |
| • Automatic electric power-off                            | • Maintenance information and warning system  |
| • Selection of multi-language on control panel            | • Rear-view, arm-view camera (Optional)   |
| • Maximum efficiency by selection of power and work modes | • Possibility to register 26 different operating hours                                      |
| • Automatic preheating                                    | • Error mode registry and warning system  |
| • Anti-theft system with personal code                    |   |
| • Hidromek Smartlink (Optional)                           | • Real time monitoring of operational parameters such as pressure, temperature, engine load |
| • Cruise control travel speed                             |   |
| • Auto-idle and automatic deceleration system             |   |

## STEERING SYSTEM

The "orbitrol" type steering system controls a steering cylinder located on the front axle. Minimum turning radius is 6,800 mm.

## CAPACITY

Fuel Tank	: 270 lt	Transmission	: 2,5 lt
Hydraulic Tank	: 120 lt	Engine Oil	: 16 lt
Hydraulic System	: 235 lt	Radiator	: 21 lt
Swing Reduction	: 2,4 lt	Front/Rear axles	: 14,5/17,4 lt

## ELECTRICAL SYSTEM

Voltage	: 24 V
Battery	: 2 x 12 V / 100 Ah
Alternator	: 24 V / 50 A
Starting Motor	: 24 V / 4,0 kw

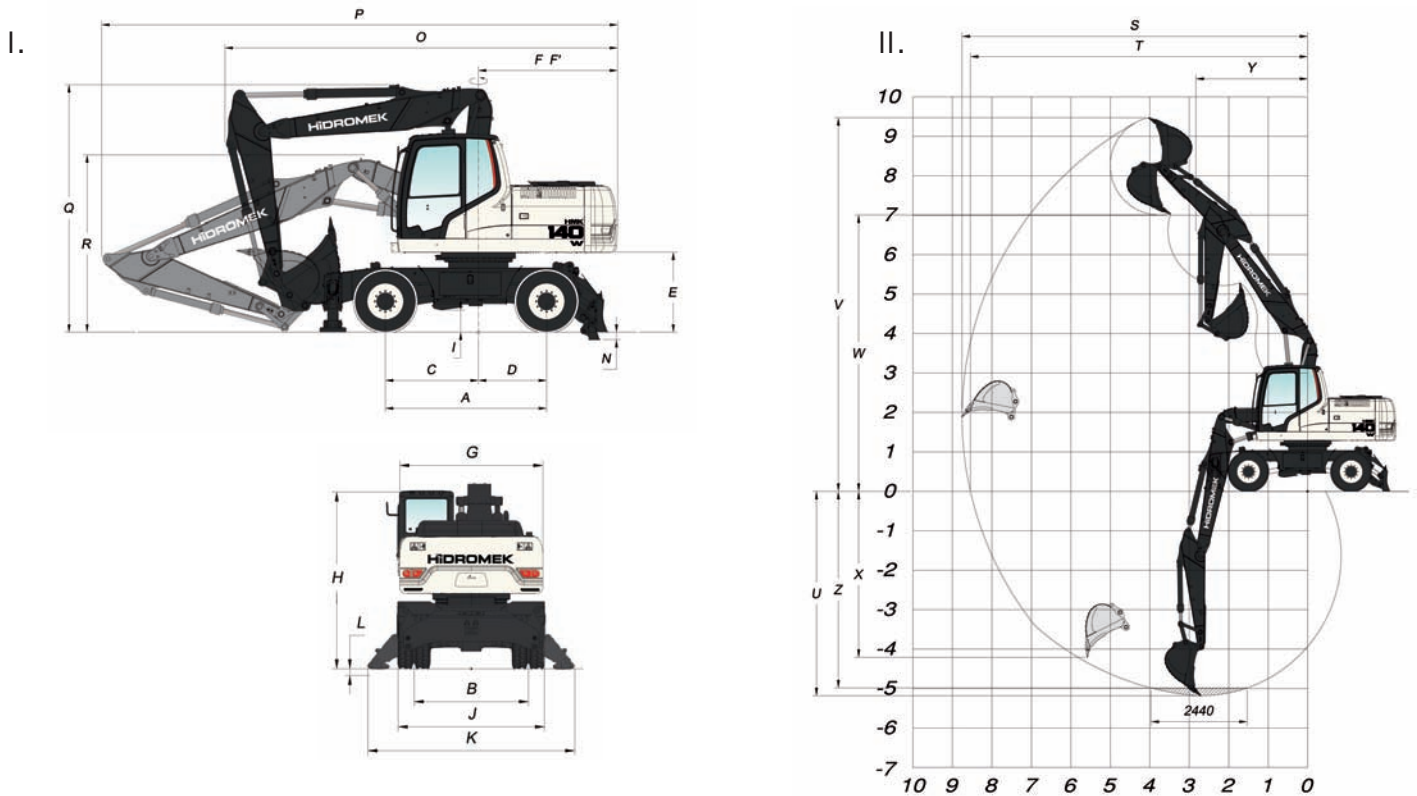
## LUBRICATION

Centralized lubrication system is provided for lubrication all difficult-to-reach parts on the components, such as boom and arm.

## WEIGHT

Standard machine operating weight	: 16.250 kg
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# HMK 140W



## I. GENERAL DIMENSIONS

Boom Dimension	5.090 mm		
Arm Dimension	2.000 mm	* 2.300 mm	2.600 mm
A Axle Distance		2.600 mm	
B Thread		1.944 mm	
C Rotation Axis – Front Axle Distance		1.500 mm	
D Rotation Axis – Rear Axle Distance		1.100 mm	
E Upper Chassis to Ground Clearance		1.295 mm	
F Counterweight Distance		2.250 mm	
F' Countweight Turning Radius		2.340 mm	
G Upper Frame Width		2.500 mm	
H Cab Height		3.280 mm	
I Outrigger Ground Clearance		330 mm	
J Width at Tires (9,0-20/18R19,5/10,0-20)		*2.494 / 2.491 / 2.555 mm	
K Outrigger Width (Overall)		3.620 mm	
L Outrigger Digging Depth		125 mm	
M Dozer Blade Ground Clearance		450 mm	
N Dozer Blade Digging Depth		120 mm	
O Overall Length / Travel	6.400 mm	6.340 mm	6.320 mm
P Overall Length/ Transport	8.350 mm	8.370 mm	8.370 mm
Q Boom Height / Travel	3.990 mm	3.990 mm	3.990 mm
R Boom Height / Transport	2.920 mm	2.980 mm	3.100 mm

## II. WORKING DIMENSIONS

S Maximum Digging Reach	8.460 mm	8.750 mm	9.050 mm
T Maximum Digging Reach at Ground Level	8.240 mm	8.540 mm	8.850 mm
U Maximum Digging Depth	4.910 mm	5.210 mm	5.510 mm
V Maximum Digging Height	9.230 mm	9.450 mm	9.720 mm
W Maximum Dumping Clearance	6.770 mm	6.990 mm	7.240 mm
X Maximum Vertical Didding Depth	3.850 mm	4.190 mm	4.540 mm
Y Minimum Swing Radius	2.950 mm	3.030 mm	3.120 mm
Z Maximum Digging Depth (2440 mm level)	4.800 mm	5.110 mm	5.410 mm

## III. DIGGING PERFORMANCE

Standard Bucket Capacity	0,60 m <sup>3</sup> (SAE)	0,52 m <sup>3</sup> (SAE)	0,45 m <sup>3</sup> (SAE)
Bucket Digging Force [Power Boost] ISO	10.000 (10.900) kgf	10.000 (10.900) kgf	10.000 (10.900) kgf
Arm Crowd Force [Power Boost] ISO	7.900 (8.600) kgf	7.200 (7.800) kgf	6.600 (7.200) kgf

\* Standard

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**Notice:**  
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