

# E485 EVOLUTION



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**Net flywheel power**                    250 kW - 340 hp

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**Maximum operating weight**    **E485LCH**    **E485BEH**  
50 250 kg    49 600 kg

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**Bucket capacity**                    **E485LCH**    **E485BEH**  
1.66-2.26 m<sup>3</sup> 1.66-2.60 m<sup>3</sup>

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EVOLVING TECHNOLOGY

# E485 *EVOLUTION*

- **Evolution in technology**
- **Evolution in productivity and consumption**
- **Evolution in comfort and safety**
- **Evolution in accessibility and service**
- **Evolution in equipment and versatility**
- **Evolution in reliability**



## PRODUCTIVITY:

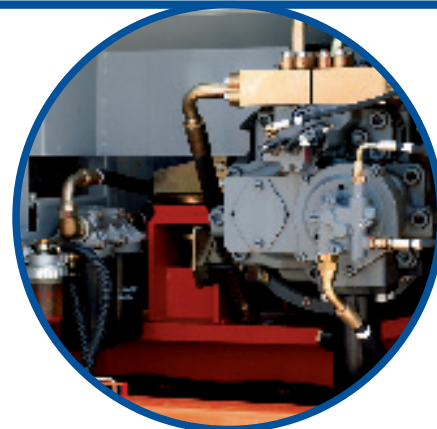
The perfect match between the top engine performances and the great delivery of hydraulic pumps lands to a productivity which is 8% higher than in the previous model.



### New last generation ISUZU engine

The new engine has an adequate displacement to supply a high torque same time featuring low fuel consumption.

Its conformity to the European Rules 97/68/CE TIER 2, highly respecting the environment, does not effect the exceptional power output.



### Hydraulic system

The new hydraulic system S.H.S. (Smart Hydraulic System) features an electronic management of pumps delivery and of main control valve spools actuation. Precisely and promptly following manipulators strokes, the onboard computer grants an outstanding controllability and simultaneous movements.



**HD track chains and severe service dippersticks**

Higher class trackchains with 6% increased link pitch if compared to the previous model, grant an outstanding strength and durability on all kind of rough terrain. Moreover, special external reinforcement and wear plates are standard welded on dippersticks, thus providing maximum integrity even when digging tough grounds or handling rocks.



**Automatic centralised lubrication**

A standard automatic centralised lubrication system which can be programmed in advance in terms of timing, frequency and quantity of grease released, grants the necessary lubrication of all specific points. This means shorter maintenance time, no risk of abnormal wear and greater operator comfort.



**“High Space” cab**

Perfect visibility in all directions thanks to the wide glass surface and transparent cab roof. The extremely low noise level thanks to elasto-viscous connection to the upperstructure and a deep study of the best ergonomical solutions make this cab really innovative and comfortable. It offers also an optimised safety package (optional) designed, tested and homologated to be fitted with a FOPS canopy along with a front windshield protective grid.

# Specifications



## Tier-2 emissioned engine

Net flywheel power (ISO 14396).....250 kW/340 hp  
 Rated rpm .....1950  
 Make and model .....ISUZU AA-6SD1XQY  
 Type.....Diesel, 4 strokes, direct injection, turbocharged  
 Total Displacement.....9.8 l  
 Number of cylinders.....6  
 Bore x stroke .....120 x 145 mm  
 Maximum torque at 1600 rpm.....1275 Nm

**Remote location engine oil filter and water/fuel separator** for easy replacement

**Engine rpm electronic control** with knob selector.

**Automatic idling return selector** with "Auto-idling" controls in neutral  
**Start at -15°** outside temperature as standard equipment (-25° as an optional device)

*The engine conforms to 97/68/CE STAGE 2*



## Electrical system

Operating voltage .....24 V  
 Alternator .....50 Amp  
 Starter motor .....5.5 kW  
 Standard maintenance-free batteries .....2  
 Capacity .....160 Ah



## Hydraulic system

**New S.H.S. (Smart Hydraulic System)** for outstanding controllability and complete simultaneous movements.

New generation **A.I. (Artificial Intelligence)** on-board computer

**A.P.S. (Automatic Priority System device)**

**Hydraulic valve, rod opening and pump delivery computerised control** according to manipulator travel

**E.S.S.C. (Engine Speed Sensing Control) device** for total use of installed hydraulic power

**High definition E.T.U. (Easy to Use) multifunction monitor** incorporating:

- Maintenance programme
- Self Diagnosis System
- Operating Data Storage

**Mechatronic Work Selector (M.W.S.):**

- **Standard Mode (W)** - Standard operating mode

- **Heavy/Mechatronic Mode (H/M)** - Maximum hydraulic power for top productivity. In this function, the machine "learns" the work cycle it operates after 2 cycles and automatically selects maximum efficiency/speed and operating precision with the A.P.S. Automatic Priority System device.

- **Attachments Mode (A)** - Possible selection and storage of supplementary implement delivery from the cab

Continuous untimed insertion **Power Boost Device**. Continuous insertion of the device, when selected, ensures maximum digging performance and productivity in the toughest applications.

**Double delivery device supplied standard**

**Piping pressure release push button:** to facilitate tooling change without oil loss from piping

**Hammer/two-directional pincer system**

Main pumps:

two variable delivery pumps with electronic delivery adjustment

With controls on neutral, the pumps automatically move to displacement position "0".

Maximum delivery.....2 x 370 l/min

Piloting circuit gear type pump

Maximum delivery .....28 l/min

Maximum operating pressure:

Equipment .....31.4 MPa  
 Power Boost .....34.3 MPa  
 Travel.....34.3 MPa  
 Swing .....25.0 MPa  
 Hydraulic cylinders.....double effect  
 - Lift (2) - Bore x Stroke.....170 x 1589 mm  
 - Penetration (1) - Bore x Stroke.....190 x 1970 mm  
 - Bucket (1) - Bore x Stroke.....170 x 1300 mm



## Transmission

Type .....two-speed hydrostatic  
 Motors.....axial pistons double displacement type, collapsible into track carriage

Brakes .....oil bath disc type, automatically applied and hydraulically released

Final drives.....oil bath, planetary reduction

Maximum slope.....70% (35°) continuous

Travel speeds:

slow .....0 to 3.5 km/h

high .....0 to 5.6 km/h

**"Automatic DownShift" device:** with selector on "fast" in case of need for more traction force adjusts travel motors to maximum displacement.



## Swing

Swing motors.....two, axial piston type

Swing brake.....oil bath disc type, automatically applied and hydraulically released

Final drive .....oil bath, planetary reduction

Circle .....grease bath type

Swing speed .....9.0 rpm



## Cab and controls

Transparent opening roof.

Standard automatic conditioning

Controls .....piloted

Two cross travel levers control all equipment movements and superstructure swing.

Two pedals with hand levers control all track movements, counter-rotation included.

A safety lever neutralises the piloting circuit completely.



## Undercarriage

Type .....variable gauge

X-design undercarriage

Sealed bushing reinforced track HD chain

Chain link pitch .....229 mm

**E485LCH-E485BEH**

Track rollers (each side) 9

Carrier rollers (each side) 3

Length of track on ground (mm) 4 400

Minimum gauge (mm) 2390

Maximum gauge (mm) 2 890

Shoes available (mm) 600-700

800-900



## Capacities

Engine litres

Lube oil.....38

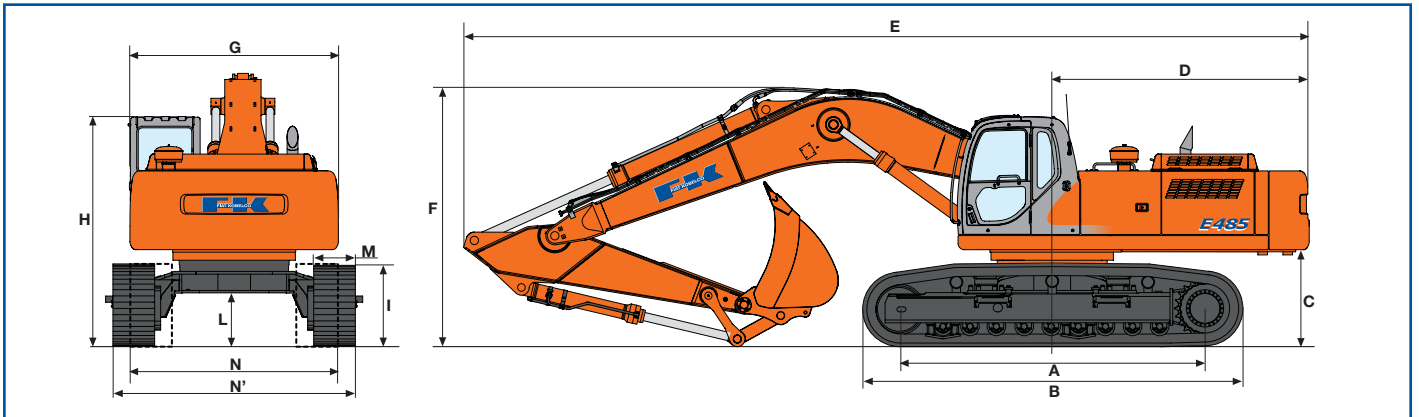
Antifreeze mixture .....39

Fuel .....663

Hydraulic tank.....300

# E485LCH

## Dimensions (mm) - Operating weights

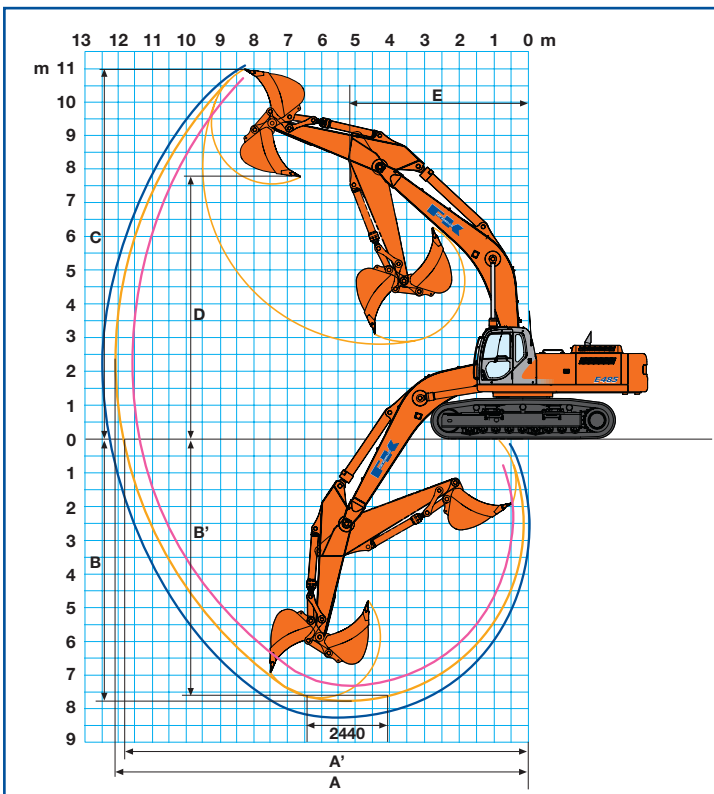


Version	A	B	C	D	E	F	G	H	I	L
					(1) 12175	(1) 3730				
<b>E485LCH</b>	4400	5470	1394	3342	(2) 12110	(2) 3590	3000	3310	1203	775
					(3) 12120	(3) 3610				

Dipperstick: (1) 2 900 mm - (3) 3 450 - (4) 4 040 mm

		E485LCH			
<b>M - Shoe width</b>	mm	600	700	800	900
<b>N - Minimum width</b>	mm	2990	3090	3190	3290
<b>N' - Maximum width</b>	mm	3490	3590	3690	3790
<b>Operating weight</b>	kg	48600	49150	49700	50250
<b>Specific ground pressure</b>	bar	0.90	0.78	0.70	0.62

## Digging performance



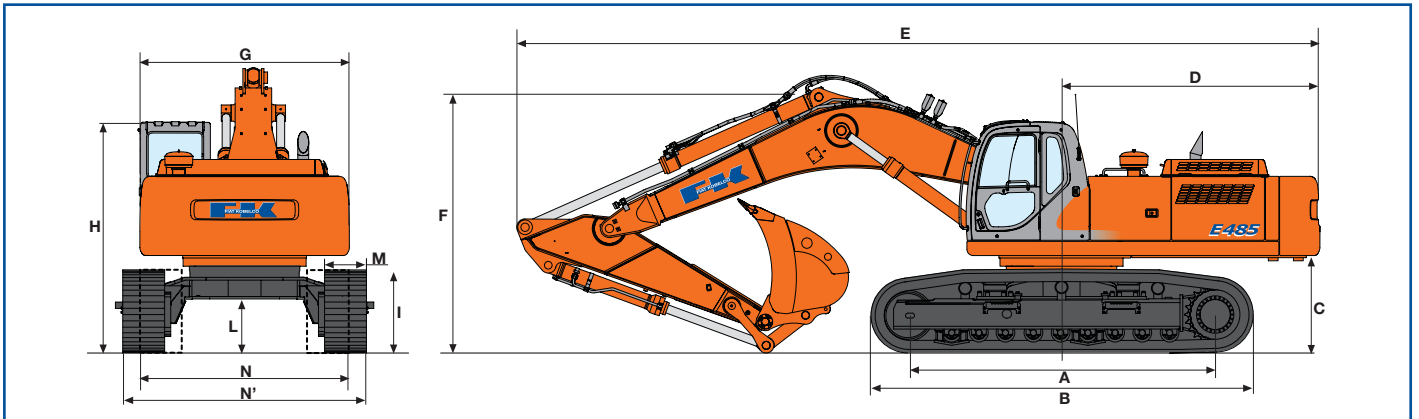
Dipperstick	mm	2900	3450	4040
<b>A</b>	mm	11553	12079	12577
<b>A'</b>	mm	11308	11845	12353
<b>B</b>	mm	7226	7770	8366
<b>B'</b>	mm	7061	7626	8237
<b>C</b>	mm	10707	10969	11032
<b>D</b>	mm	7531	7767	7884
<b>E</b>	mm	5237	5173	5187

<b>Breakout force:</b>				
Bucket	daN	24800	24800	24800
Dipperstick	daN	22800	18000	15200

<b>With "Power Boost" on:</b>				
Bucket	daN	27000	27000	27000
Dipperstick	daN	25200	19900	16900

# E485BEH

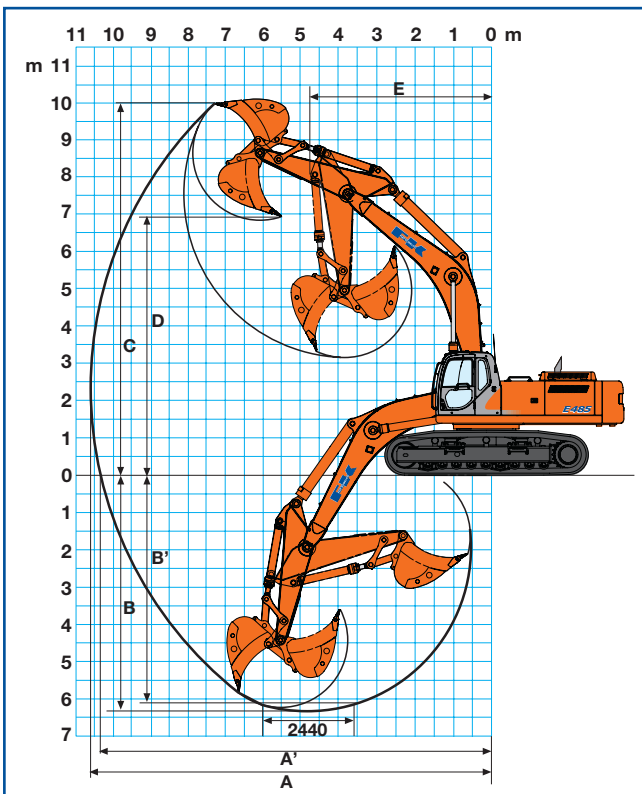
## Dimensions (mm) - Operating weights



Version	A	B	C	D	E	F	G	H	I	L
E485BEH	4400	5470	1394	3700	11500	3980	3000	3310	1203	775

		E485BEH			
M - Shoe width	mm	600	700	800	900
N - Minimum width	mm	2990	3090	3190	3290
N' - Maximum width	mm	3490	3590	3690	3790
Operating weight	kg	47950	48500	49050	49600
Specific ground pressure	bar	0.89	0.77	0.68	0.61

## Digging performance



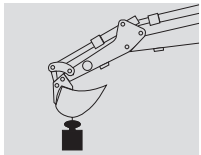
Dipperstick	mm	2600
A	mm	10633
A'	mm	10366
B	mm	6343
B'	mm	6171
C	mm	9997
D	mm	6856
E	mm	4721

Breakout force:		
Bucket	daN	24800
Dipperstick	daN	26500

With "Power Boost" on:		
Bucket	daN	27000
Dipperstick	daN	28100

# E485 Evolution - Lifting capacity

Values are expressed in tonnes



Radius of load																
1.5 m		3.0 m		4.5 m		6.0 m		7.5 m		9.0 m		10.5 m		At max reach		Reach m
Front	Side	Front	Side	Front	Side	Front	Side	Front	Side	Front	Side	Front	Side	Front	Side	

## E485LCH - Dipperstick 2 900 mm

Height	1.5 m		3.0 m		4.5 m		6.0 m		7.5 m		9.0 m		10.5 m		At max reach		Reach m
+7.5 m															8.6 *	8.6 *	8.5
+6.0 m									9.2 *	9.2 *	8.7 *	8.4			8.7 *	7.9	9.3
+4.5 m					16.0 *	16.0 *	12.1 *	12.1 *	10.2 *	10.2 *	9.2 *	8.2			8.9 *	7.1	9.8
+3.0 m					20.4 *	20.4 *	14.3 *	14.3 *	11.4 *	10.4	9.8 *	7.9			9.2 *	6.7	10.0
+1.5 m					21.3 *	21.1	16.1 *	13.8	12.5 *	10.0	10.4 *	7.7			9.5 *	6.5	10.0
0 m					23.7 *	20.7	17.1 *	13.4	13.2 *	9.7	10.9 *	7.5			10.0 *	6.7	9.7
-1.5 m			17.3 *	17.3 *	23.4 *	20.7	17.3 *	13.3	13.4 *	9.6	10.9 *	7.4			10.5 *	7.2	9.2
-3.0 m			26.0 *	26.0 *	21.9 *	20.9	16.6 *	13.3	12.9 *	9.6					11.1 *	8.2	8.4
-4.5 m			25.9 *	25.9 *	19.2 *	19.2 *	14.7 *	13.6							11.7 *	10.4	7.2
-6.0 m															13.7 *	13.7 *	5.4

## E485LCH - Dipperstick 3 450 mm

Height	1.5 m		3.0 m		4.5 m		6.0 m		7.5 m		9.0 m		10.5 m		At max reach		Reach m
+7.5 m											7.8 *	7.8 *			7.8 *	7.8 *	9.2
+6.0 m											8.0 *	8.0 *			7.9 *	7.1 *	9.9
+4.5 m									9.5 *	9.5 *	8.6 *	8.2			8.2 *	6.4	10.3
+3.0 m					18.7 *	18.7 *	13.4 *	13.4 *	10.7 *	10.5	9.3 *	7.9	8.4 *	6.1	8.4 *	6.1	10.5
+1.5 m					22.0 *	21.3	15.3 *	13.9	11.9 *	10.0	10.0 *	7.6	8.8 *	6.0	8.8 *	5.9	10.5
0 m			9.7 *	9.7 *	23.5 *	20.7	16.6 *	13.3	12.8 *	9.6	10.5 *	7.4			9.2 *	6.0	10.3
-1.5 m	11.7 *	11.7 *	15.8 *	15.8 *	23.5 *	20.5	17.1 *	12.6	13.3 *	9.4	10.8 *	7.3			9.7 *	6.4	9.8
-3.0 m	17.5 *	17.5 *	22.6 *	22.6 *	22.5 *	20.6	16.8 *	13.1	13.0 *	9.4	10.3	7.3			10.2 *	7.2	9.1
-4.5 m			28.4 *	28.4 *	20.3 *	20.3 *	15.4 *	13.3	11.8 *	9.6					10.8 *	8.8	8.0
-6.0 m					16.2 *	16.2 *	12.1 *	12.1 *							11.2 *	11.2 *	6.3

## E485LCH - Dipperstick 4 040 mm

Height	1.5 m		3.0 m		4.5 m		6.0 m		7.5 m		9.0 m		10.5 m		At max reach		Reach m
+7.5 m											6.9 *	6.9 *			6.7 *	6.7 *	9.8
+6.0 m											7.3 *	7.3 *			6.8 *	6.5	10.4
+4.5 m									8.7 *	8.7 *	7.9 *	7.9 *	7.5 *	6.3	7.0 *	5.9	10.8
+3.0 m			13.6 *	13.6 *	16.8 *	16.8 *	12.3 *	12.3 *	10.0 *	10.0 *	8.7 *	7.9	7.9 *	6.1	7.4 *	5.6	11.0
+1.5 m			7.9 *	7.9 *	20.7 *	20.7 *	14.4 *	14.1 *	11.3 *	10.1	9.4 *	7.6	8.4 *	5.9	8.0 *	5.4	11.0
0 m	6.0 *	6.0 *	10.7 *	10.7 *	22.8 *	20.8	16.0 *	13.4	12.4 *	9.6	10.0 *	7.3	8.7 *	5.8	8.5 *	5.5	10.8
-1.5 m	10.7 *	10.7 *	15.1 *	15.1 *	23.5 *	20.4	16.8 *	13.1	13.0 *	9.4	10.6 *	7.2			8.9 *	5.8	10.3
-3.0 m	15.5 *	15.5 *	20.6 *	20.6 *	23.0 *	20.4	16.8 *	12.9	13.1 *	9.3	10.5 *	7.1			9.5 *	6.4	9.7
-4.5 m	21.0 *	21.0 *	27.6 *	27.6 *	21.3 *	20.6	15.9 *	13.0	12.3 *	9.4					10.1 *	7.7 *	8.6
-6.0 m			25.4 *	25.4 *	18.1 *	18.1 *	13.6 *	13.4							10.8 *	10.4	7.2

## E485BEH - Dipperstick 2 600 mm

Height	1.5 m		3.0 m		4.5 m		6.0 m		7.5 m		9.0 m		10.5 m		At max reach		Reach m
+7.5 m															10.3 *	10.3 *	7.4
+6.0 m									10.3 *	10.3 *					10.2 *	9.3	8.2
+4.5 m					11.4 *	11.4 *	11.3 *	11.3 *	10.8 *	10.7					10.3 *	8.2	8.7
+3.0 m					12.1 *	12.1 *	12.1 *	12.1 *	11.5 *	10.0					10.6 *	7.6	9.0
+1.5 m					13.3 *	13.3 *	12.1 *	11.7	12.3 *	9.5					10.9 *	7.5	9.0
0 m					15.2 *	12.4	14.3 *	10.9	13.0 *	9.3					11.3 *	7.8	8.7
-1.5 m			18.8 *	14.9	17.1 *	13.0	15.3 *	11.3	13.1 *	9.5					11.7 *	8.6	8.1
-3.0 m			20.8 *	20.8 *	17.9 *	15.9	15.1 *	12.8							12.0 *	10.4	7.2
-4.5 m					15.6 *	15.6 *									11.7 *	11.7 *	5.8

As per ISO 10567 with excavator equipped with bucket. The indicated load is no more than 87% of hydraulic system lift capacity or 75% of static tipping load. Value marked with an asterisk are limited by the hydraulic system.

## Standard equipment

2600 Dipperstick (BEH version)  
 2900 Dipperstick (LCH version)  
 Anti-leakage main spool hydraulic control valve  
 Auto-Idling  
 Cell phone holder with charge socket  
 Centralised automatic lubrication  
 Cyclone prefilter  
 Double delivery  
 Double travel speed with Automatic DownShift  
 Engine rpm electronic control  
 Fuel transfer electrical pump  
 Grease bath circle  
 Hammer/pincer system predisposition  
 Hammer piping on booms  
 HD sealed type tracks chains and 229 mm pitch link  
 Horn  
 Hydraulic piping and connections with front seals  
 Hydraulic travel end cylinders

Hydraulically suspended cab with transparent opening roof and automatic air conditioning system  
 Maintenance-free batteries  
 Mechanically suspended heated operator seat  
 Mechatronic Mode Selector  
 Multi-function electronic instrument panel  
 Pedal or lever travel control  
 Power Boost  
 Radio set  
 Shoes: 600 mm  
 Smart Hydraulic System  
 Swing and travel motors with automatic disc brakes  
 New TIER 2 emission diesel engine  
 Tool kit  
 Two-speed intermittent windshield wiper  
 Variable gauge undercarriage  
 Version LCH or BEH

## Optional equipment

3450 mm Dipperstick (LCH version)  
 4040 mm Dipperstick (LCH version)  
 Antidrop valves on dipper stick cylinder  
 Antidrop valves on lift cylinders  
 Compressed air suspended heated seat  
 Fops protection on cab roof and front window grid  
 Fuel transfer electrical pump  
 Grab bucket/grass cutter bucket low delivery supplementary hydraulic function predisposition

Heavy duty, rock and special buckets with bucket/boom setting device  
 Hydraulic quick coupler predisposition  
 Mechanical quick coupler  
 Northern country equipment  
 Overhead load handling  
 Piping on booms for supplementary low delivery function  
 Shoes LCH/BEH: 700 mm - 800 mm - 900 mm  
 Supplementary lights on cab

**Note: standard and optional equipment may vary by country. Consult your FIAT KOBELCO dealer for specific details.**

### Buckets

SAE Capacity	CECE heaped capacity	Width	Weight
1.66 m <sup>3</sup>	1.48 m <sup>3</sup>	1320 mm	1231 kg
1.83 m <sup>3</sup>	1.63 m <sup>3</sup>	1420 mm	1328 kg
2.05 m <sup>3</sup>	1.82 m <sup>3</sup>	1550 mm	1409 kg
2.26 m <sup>3</sup>	2.00 m <sup>3</sup>	1670 mm	1468 kg
2.60 m <sup>3*</sup>	2.31 m <sup>3*</sup>	1740 mm*	1850 kg*

\* Only for E485BEH

AT YOUR OWN DEALERSHIP

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EVOLVING TECHNOLOGY



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 CNH: THE TOTAL SOLUTIONS CHOICE FOR YOUR SPECIFIC BUSINESS NEEDS.