KTEG

Powered by Hitachi Construction Machinery

OPERATING TIME
Up to 8 h

OPERATING WEIGHT
14,550 kg

BATTERY CAPACITY
300 kWh

OPERATING VOLTAGE
800 V

ZE135

Electric excavator

About KTEG

We think and act in terms of holistic system solutions

Our team has been developing and manufacturing specialised solutions for over 20 years – tailored to the unique characteristics of each industry. We address new and recurring challenges by developing comprehensive system solutions in seven business segments. Our vision is to be the leading innovator for key machines and technologies on the construction site.

HITACHI & KTEG
The groundbreaking joint venture between Hitachi Construction Machinery and KTEG combines the best of two worlds: the reliable machines and comprehensive expertise of Hitachi and the agility and market proximity of KTEG. Together we set new benchmarks in the industry.

HITACHI | KTEG
KTEG

BRINGING TOGETHER THE BEST OF TWO WORLDS

KTEG ...
- is Hitachi's European research and development centre.
- is used as a secondary brand alongside Hitachi.
- can implement customer requirements in steel & bytes within a short time.
- focuses on progressive customers who seek innovative, highly developed technology solutions that give them a competitive edge.

1

Research & development

2

Machines for the construction, material handling and compact machinery industries

3

System solutions for zero emissions

4

Custom solutions for the construction, material handling and compact machinery industries

5

Digital assistance systems

6

Quick-coupler systems

7

Attachments

360° VIEW AND A FOCUS ON THE CUSTOMER
Thanks to our expertise in product marketing, development, production, sales and service, we have an all-round view of the needs of our customers and apply our competence along the entire product life cycle.

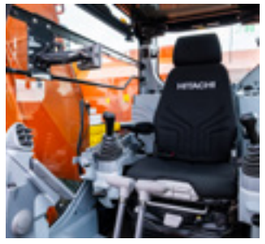
YOUR DEALER NETWORK
KTEG system solutions for sales, rental and service are available from Kiesel in Germany, Austria and Switzerland.

More than 40 dealers in over 25 countries sell KTEG machine and system solutions.

Find your dealer now!

Moving the future with zero emissions

POWERFUL
Work without output losses. Electrical loads are fed from the battery. The full power of the engine is available to operate the hydraulic system.



AS COMFORTABLE AS THE ZX135US-7
The same cab – and therefore the same level of comfort as the ZX135US-7. The Grammer comfort seat with air springs and heating absorbs impacts and provides warmth on cold winter days.

EMISSION-FREE
Completely without emissions and extremely quiet. For healthier working and more sustainable construction sites.

Ø 6 H AT FULL POWER
The ZE135 comes with a battery capacity of 300 kWh, sufficient for six hours of average use. In fast-charging mode, it is ready to work again after around two hours.

LOW-MAINTENANCE
Engine maintenance is a thing of the past. The electric powertrain and batteries are maintenance-free and require little daily inspection. This saves you time and money.

Highlights of the KTEG ZE135

Emission-free operation

15 tonnes of pure electric power

WORKING WITH ZERO EMISSIONS

Environmentally friendly and sustainable construction projects are more important today than ever before. The ZE135 electric excavator lets you work efficiently and protect the environment at the same time. It offers the same performance as conventional diesel-powered models, but without the harmful emissions. Thanks to the electric drive, you can work in environmentally sensitive areas such as city centres without affecting the air quality. Our electric excavator offers the advantage of both emission-free and low-noise operation. By minimising noise pollution, it ensures the safety of personnel on the construction site and the comfort of those living or working nearby.

YOUR BENEFITS

- Your golden ticket to city centre construction projects
- Reduced stress on the construction site due to lower noise levels – and thereby increased safety
- No compromises in terms of performance compared to conventionally powered machines

LEVERAGE YOUR EMISSION-FREE CAPABILITIES

Municipalities worldwide are taking climate and health protection seriously. Calls for tender now systematically include reductions in carbon and noise emissions. In some countries, the use of construction machines powered by combustion engines is no longer permitted. Construction companies that recognise these specifications as an opportunity can quickly set themselves apart from competitors and add future-proof services to their range. With the ZE135, you have the right cards in your hand.

Long operating time

300 kWh battery capacity

STATE-OF-THE-ART TECHNOLOGY

Our electric excavator is equipped with the latest battery technology based on lithium-ion cells. This innovative approach provides maximum performance and efficiency to meet your requirements. The use of lithium-ion cells achieves a high energy density, allowing more power to be stored in a compact space. In the ZE135, this results in a battery capacity of up to 300 kWh. You can rely on the fact that our electric excavator is equipped with the best available battery technology to deliver outstanding performance for you.

Up to 8 h on a single charge

ALWAYS READY TO WORK

With a full battery charge, our electric excavator offers an impressive average operating time of six hours. Depending on the workload, this can be increased to eight hours without any problems. This long battery life allows you to work continuously without worrying about frequent charging cycles. Furthermore, our electric excavator is optimised for opportunity charging, as explained in the following chapter. This ensures machine availability for an entire workday, enabling you to carry out your projects efficiently and without interruptions.

YOUR BENEFITS

- Dependable workflows ensured by continuous machine availability
- A sustainable investment in high-quality, state-of-the-art technology

Charging options

Flexible charging options

FAST-CHARGING CAPABILITY THANKS TO CCS2 INTERFACE

Flexibility and speed are critical factors when it comes to charging electric excavators. The ZE135 offers versatile charging options to meet the requirement for the shortest possible charging times. This is achieved thanks to DC charging via the excavator's CCS2 interface, enabling the machine to achieve a full recharge in around two hours. Opportunity charging during breaks is also possible without compromising battery lifespan, ensuring seamless integration of the ZE135 into your construction site workflows.

YOUR BENEFITS

Flexible charging options allow machine operation with a variety of existing charging solutions

Fast-charging interface for minimal charging times and maximum availability

YOUR INDEPENDENT POWER SUPPLY – THE KTEG POWERTREE

The KTEG Powertree serves as a mobile fast-charging station, providing the necessary charging infrastructure for electric machines like the ZE135 on construction sites. Alongside an 800 V system with a 120 kWh buffer battery, it features a fast-charging station equipped with CCS2 standard connectors. Housed in a 10-foot steel container, the KTEG Powertree can withstand all weather conditions and even some rough handling. It can be commissioned without an electrician and is very easy to operate.

Within just 40 minutes, the Powertree's battery capacity is sufficient to increase the ZE135's charge level by 40%, providing two hours of additional working time. By recharging during breaks, this ensures machine availability for a full working day.

HARNESS THE AVAILABLE POWER ON SITE

Depending on the available electrical connections, the ZE135 utilises currents of either 32 or 63 A.

If the electrical infrastructure supports it, the machine can be charged using two 63 A connections. At this rate, the ZE135's lithium-ion batteries can achieve a full charge in 155 minutes. The design incorporates advanced features such as a heat pump that maintains optimal battery temperature in both cold and hot conditions. This ensures high reliability and efficiency while extending the battery's lifespan.

CHARGE AND WORK AT THE SAME TIME

With a power cable if required. If there is no CCS connection for fast charging on the site, you can also operate this electric excavator with a power cable and charge it at the same time. For dual mode, simply connect it to the normal CEE three-phase current that is usually available at construction sites. To recharge the batteries, you only need a 400-V CEE mains connection. Tethered operation is safe due to plugs equipped with a self-ejecting function, i.e. the connector is released under strong tension. This ensures that neither the cable nor the machine is damaged.

CHARGING TYPE	MAX. CHARGING CAPACITY	CHARGING DURATION (0 - 100 %)
CCS2 fast charging	150 kW	135 minutes
CEE 400 V 2 x 63 A	2 x 44 kW	165 minutes
CEE 400 V 63 A	44 kW	330 minutes
CEE 400 V 32 A	22 kW	660 minutes

YOUR BENEFITS

Availability is always guaranteed thanks to dual-mode operation with a cable connection

The machine can be configured according to the available charging infrastructure

High-quality and low-maintenance

DESIGNED FOR RUGGED EVERYDAY USE
The ZE135 is a compact and agile 15-tonne electric excavator based on one of Hitachi's most powerful crawler excavators, the ZX135US-7. With its 74 kW electric motor, it uncompromisingly achieves the same high performance standard as its diesel-driven counterpart. Unlike construction machines with combustion engines, the electric powertrain requires zero maintenance. This guarantees a high level of machine availability.

ADVANCED TECHNOLOGY
The ZE135's 800 V lithium-ion battery and air-conditioning system are widely used technologies. Higher battery voltage has many advantages. Alongside significantly faster charging, this technology makes it possible to dispense with thicker, heavier cables. In turn, this reduces heat loss, machine mass and space requirements.

YOUR BENEFITS

- Savings on maintenance costs for the drivetrain
- Safe handling of the machine with easily accessible maintenance points for the driver and service personnel
- Cost savings thanks to durable and maintenance-free electrical components

As comfortable as possible

A MOTIVATING WORKPLACE
Hitachi designed the cab of the ZX135US-7 to make working in it thoroughly enjoyable. As the ZE135 is based on its diesel-driven counterpart, operators are assured of the same extraordinary cab experience in this electric excavator.

An extra step assists the driver when entering the sound-insulated cab through the large driver's door. On the Grammer comfort seat featuring air springs, hydraulic support and a seat belt, even large drivers have more than enough room. Automatic air conditioning electronically regulates the cab temperature, creating a good working climate. With seat heating, the winter stays outside and it is cosy and warm inside. Relaxed, sustained work is possible here.

EVERYTHING SAFELY AT HAND
All operating elements, shelves and storage compartments are arranged ergonomically and designed to be operated intuitively and sensitively. The proportional auxiliary functions integrated into the multifunction joystick enable the precise, infinitely variable control of attachments. The two multifunction monitors make it easy to see all machine-relevant data as well as the feed from the rear view camera, even under poor lighting conditions. And thanks to the panoramic glazing, the driver always has a clear view of the work environment. For all-around safe working.

YOUR BENEFITS

- Outstanding driver comfort thanks to a comfortable workplace, efficient air conditioning and an ergonomic joystick arrangement
- Safe handling of the machine with optimum visibility of the entire work area

Multifunctional use

DESIGNED FOR FULL POWER
The ZE135 is suitable for a wide range of projects including demolition, civil and traffic route engineering, and landscaping tasks: breaking up base layers, excavating and moving earth masses, laying utility lines, levelling terrain, placing boulders, removing roots, compacting soil, demolishing walls, smoothing over concrete surfaces or – with the right tool – even milling through rocky substrates, and much more besides. Its electric powertrain also makes it the ideal machine for special-purpose dismantling work in closed spaces such as factory buildings. And for infrastructure projects in low-noise zones.

USING FULLY HYDRAULIC ATTACHMENTS
On the ZE135, hydraulic attachments are ideally operated via the QilQuick OQ65 quick coupler. This quick coupler works with up to five hydraulic couplings in parallel. As well as backhoe buckets, it allows the use of numerous hydraulic attachment tools for the 15-tonne class. These include grippers, swivel-mounted ditch-cleaning buckets, cutters, attachment compactors, bucket separators and many more.

YOUR BENEFITS

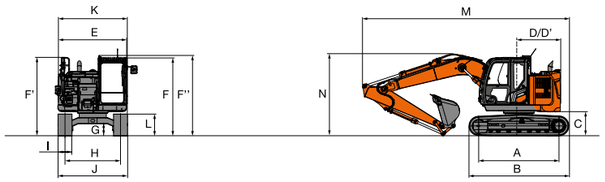
- Cost savings through optimum machine utilisation
- Cost optimisation thanks to the machine's flexible application options
- Cost savings through reduced maintenance and repair work thanks to powerful telematics

STATE-OF-THE-ART TELEMATICS SYSTEM INCLUDED
Machine capacity utilisation. Energy consumption. Maintenance schedule. Early detection of possible failures. Over-the-air service. Intelligent sabotage management. And much more. The integrated telematics system functions via the cloud. It transforms data into valuable information. And turns the ZE135 into an e-connected machine for optimising your processes.

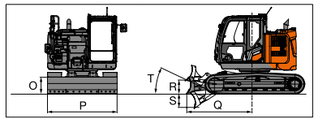
Technical data

ZE135
Dimensions:

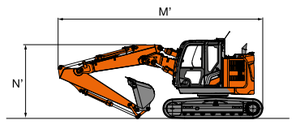
Monoblock boom



Blade (optional) Units: mm



Adjustable boom



A	Distance from chain wheel centre to guide wheel centre	2,880
B	Undercarriage length	3,580
C *1	Clearance under counterweight	830
D	Tail swing	1,840
D'	Rear length	1,490
E	Overall width of upper structure	2,480
F	Overall height above cab	2,790
F'	Overall height of handrail	2,810
F''	Overall height of handrail (on cab)	2,870
G *1	Minimum ground clearance	410
H	Track	1,990
I	Grouser plate width	G 500
J	Undercarriage width	2,490
K	Overall width	2,490
L *1	Track height with three-bar grouser plates	790

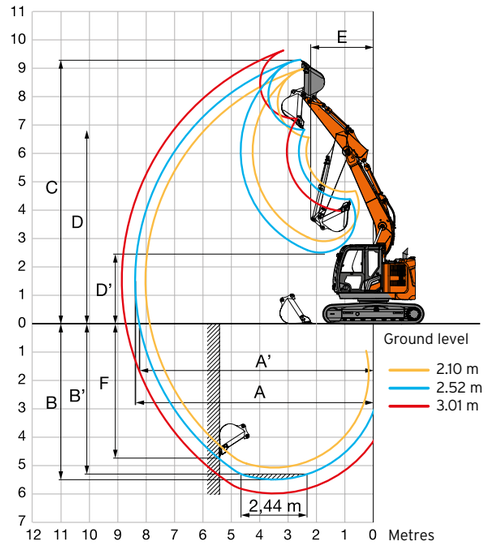
MONOBLOCK BOOM		
M	Overall length	
	With 2.10 m arm	7,370
	With 2.52 m arm	7,370
	With 3.01 m arm	7,400
N	Overall boom height	
	With 2.10 m arm	2,780
	With 2.52 m arm	2,930
*2	With 3.01 m arm	2,850

ADJUSTABLE BOOM		
M'	Overall length	
	With 2.10 m arm	7,330
	With 2.52 m arm	7,310
	With 3.01 m arm	7,310
N'	Overall boom height	
	With 2.10 m arm	2,510
	With 2.52 m arm	2,660
*2	With 3.01 m arm	2,600
O	Blade height	600
P	Blade width	2,490
Q	Distance between the front end of the blade and the axis of rotation	2,430
R	Maximum lift of the blade	460
S	Maximum lowering of the blade	540
T	Blade tilt angle	26 °

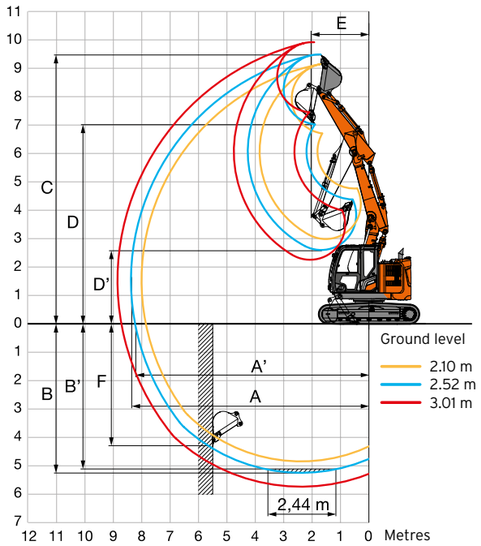
*1 Without track shoe grouser
*2 The dimensions marked with an asterisk are in reference to the transport pin position
G: Three-bar grouser plates

ZE135
Working range:

Monoblock boom
Metres



Adjustable boom
Metres



	Front type	Monoblock boom			Adjustable boom		
	Arm length	2.10 m	2.52 m	3.01 m	2.10 m	2.52 m	3.01 m
A	Max. reach	8,050 mm	8,380 mm	8,850 mm	8,000 mm	8,370 mm	8,850 mm
A'	Max. reach (on ground)	7,900 mm	8,240 mm	8,720 mm	7,850 mm	8,230 mm	8,720 mm
B	Max. digging depth	5,070 mm	5,490 mm	5,980 mm	4,840 mm	5,240 mm	5,730 mm
B'	Max. digging depth at level 2.44 m	4,840 mm	5,270 mm	5,790 mm	4,710 mm	5,120 mm	5,620 mm
C	Max. reach height	9,010 mm	9,290 mm	9,680 mm	9,160 mm	9,480 mm	9,910 mm
D	Max. dumping height	6,550 mm	6,830 mm	7,230 mm	6,710 mm	7,020 mm	7,450 mm
D'	Min. dumping height	2,910 mm	2,510 mm	2,130 mm	2,990 mm	2,600 mm	2,260 mm
E	Min. swing radius	2,100 mm	2,190 mm	2,540 mm	1,850 mm	1,930 mm	2,100 mm
F	Max. digging depth for vertical walls	4,410 mm	4,710 mm	5,170 mm	3,920 mm	4,270 mm	4,750 mm

Without track shoe grouser

ZE135

Loading capacity table:

Units: kg

MONOBLOCK BOOM

Conditions	Load point height m	Outreach 1.5 m		3.0 m		4.5 m		6.0 m		7.5 m		At max. reach		
														Metres
Boom 4.60 m 2.10 m arm Counterweight 3,550 kg	6.0					*4,130	3,640					*2,970	*2,970	5.01
	4.5			*5,020	*5,020	*4,290	3,580	*3,120	2,240			*2,700	2,200	6.07
	3.0			*7,460	*6,270	*5,060	3,390	3,280	2,190			*2,670	1,870	6.62
	1.5					4,890	3,160	3,180	2,100			2,650	1,750	6.79
	0 (ground)			*5,290	*5,290	4,730	3,010	3,110	2,040			2,710	1,790	6.61
	- 1.5	*4,990	*4,990	*8,590	5,470	4,690	2,980	3,100	2,030			3,070	2,010	6.05
	- 3.0			*6,630	5,600	*4,550	3,060					*3,790	2,690	4.98
Boom 4.60 m 2.52 m arm Counterweight 3,550 kg	6.0					*3,640	*3,640					*2,400	*2,400	5.50
	4.5			*3,900	*3,900	*3,880	3,620	3,350	2,260			*2,230	1,970	6.48
	3.0			*6,570	6,430	*4,690	3,410	3,270	2,190			*2,220	1,700	6.99
	1.5			*6,760	5,680	4,900	3,160	3,160	2,080			*2,340	1,590	7.15
	0 (ground)			*6,100	5,380	4,700	2,980	3,070	2,000			2,470	1,610	6.98
	- 1.5	*4,690	*4,690	*9,000	5,360	4,620	2,910	3,040	1,970			2,750	1,790	6.46
	- 3.0	*8,580	*8,580	*7,340	5,470	4,670	2,960					3,530	2,290	5.47
Boom 4.60 m 3.01 m arm Counterweight 3,550 kg	6.0					*3,110	*3,110	*2,330	2,290			*2,060	*2,060	6.10
	4.5					*3,400	*3,400	*3,320	2,290			*1,920	1,740	6.99
	3.0			*5,230	*5,230	*4,240	3,470	3,290	2,200			*1,920	1,510	7.47
	1.5			*8,340	5,830	4,940	3,190	3,160	2,080	2,240	1,460	*2,010	1,420	7.62
	0 (ground)			*6,600	5,370	4,690	2,970	3,050	1,970			2,220	1,440	7.46
	- 1.5	*4,110	*4,110	*8,590	5,270	4,580	2,870	2,990	1,920			2,430	1,570	6.97
	- 3.0	*7,170	*7,170	*8,030	5,330	4,590	2,870	3,020	1,950			2,980	1,920	6.07
	- 4.5			*5,290	*5,290	*3,190	3,040					*3,180	3,030	4.51

2-PIECE BOOM, 6 BATTERIES

Reach	1500	1500	3000	3000	4500	4500	6000	6000	Maximum reach		
Reach height	**0°**	**360°**	**0°**	**360°**	**0°**	**360°**	**0°**	**360°**	**0°**	**360°**	**[m]**
7,500			4.4***	4.4***					3.7***	3.7***	3.7
6,000			4.0***	4.0***	4.0***	3.1			3.0***	2.1	5.5
4,500			4.0***	4.0***	4.3***	3.1	3.0	1.8	2.6	1.6	6.5
3,000	14.0*	14.0*	7.7*	5.4	4.8	3.0	2.9	1.8	2.3	1.3	7
1,500	12.7*	12.7*	8.2*	5.2	4.5	2.8	2.8	1.7	2.1	1.2	7.1
0	9.5***	9.5***	8.1*	4.6	4.4	2.6	2.7	1.6	2.2	1.2	7
- 1,500	12.3***	12.3***	8.3	4.3	4.2	2.3	2.7	1.5	2.4	1.4	6.4
- 3,000	15.3***	15.3***	7.7*	4.2	4.0*	2.3			4.0*	2.3	5.3

MONO, 6 BATTERIES

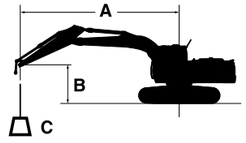
Reach	1500	1500	3000	3000	4500	4500	6000	6000	Maximum reach		
Reach height	**0°**	**360°**	**0°**	**360°**	**0°**	**360°**	**0°**	**360°**	**0°**	**360°**	**[m]**
7,500			4.2*	4.2*					3.5***	3.5***	3.7
6,000					3.6*	3.2			2.8***	2.3	5.5
4,500			4.1***	4.1***	3.8*	3.1	3.1	2.0	2.6***	1.8	6.5
3,000			6.5*	5.4	4.6*	3.0	3.1	1.9	2.4	1.5	7
1,500			7.5***	4.7	4.6	2.7	3.0	1.8	2.3	1.4	7.2
0			6.6***	4.5	4.4	2.6	2.9	1.7	2.3	1.4	7
- 1,500	5.0***	5.0***	8.6	4.5	4.3	2.5	2.8	1.7	2.6	1.6	6.5
- 3,000	9.0***	9.0***	7.0*	4.5	4.3	2.5			3.3	2.0	5.5

**Limited by lifting cylinder
**Limited by adjusting cylinder
***Limited by arm cylinder

Units: kg

ADJUSTABLE BOOM

Conditions	Load point height m	Outreach 1.5 m		3.0 m		4.5 m		6.0 m		7.5 m		At max. reach		
														Metres
Adjustable boom 2.10 m arm Counterweight 3,550 kg	7.5											*4,410	*4,410	2.86
	6.0			*4,780	*4,780	*4,280	3,690					*3,110	3,030	4.99
	4.5			*5,150	*5,150	*4,370	3,770	*3,130	2,220			*2,790	2,180	6.05
	3.0	*10,980	*10,980	*8,560	6,700	*4,940	3,660	3,340	2,230			*2,740	1,840	6.60
	1.5	*7,180	*7,180	*9,360	6,390	5,110	3,550	3,260	2,150			2,640	1,720	6.77
	0 (ground)	*8,830	*8,830	*9,700	6,070	5,100	3,300	3,150	2,050			2,710	1,760	6.59
	- 1.5	*13,340	*13,340	9,870	5,770	4,850	3,080	3,100	2,000			3,080	1,990	5.03
	- 3.0	*16,930	*16,930	*7,970	5,670	*3,700	3,040					*3,320	2,930	4.63
Adjustable boom 2.52 m arm Counterweight 3,550 kg	7.5			*4,270	*4,270							*3,230	*3,230	3.68
	6.0					*3,880	3,750					*2,510	*2,510	5.49
	4.5			*3,890	*3,890	*4,090	3,790	*3,300	2,290			*2,300	1,950	6.47
	3.0			*7,380	6,710	*4,610	3,670	3,360	2,270			*2,270	1,670	6.98
	1.5	*11,640	*11,640	*9,300	*6,400	5,090	3,600	3,290	2,180			*2,370	1,560	7.14
	0 (ground)	*8,880	*8,880	*9,590	6,150	5,120	3,320	3,160	2,050			2,460	1,580	6.97
	- 1.5	*11,850	*11,850	9,730	5,750	4,860	3,090	3,050	1,960			2,750	1,760	6.45
	- 3.0	*14,820	*14,820	*8,990	5,610	4,730	2,970					*2,700	2,320	5.36
Adjustable boom 3.01 m arm Counterweight 3,550 kg	7.5					*2,730	*2,730					*2,600	*2,600	4.56
	6.0					*3,300	*3,300	*2,420	2,280			*2,140	*2,140	6.10
	4.5					*3,480	*3,480	*3,110	2,370			*1,980	1,710	6.99
	3.0			*4,740	*4,740	*4,270	3,700	*3,270	2,350			*1,960	1,490	7.47
	1.5	*11,020	*11,020	*9,120	6,450	5,060	3,520	3,280	2,250	2,230	1,440	*2,030	1,390	7.62
	0 (ground)	*9,370	*9,370	9,500	6,300	4,950	3,370	3,200	2,100			2,210	1,400	7.46
	- 1.5	*10,840	*10,840	*9,580	5,780	4,920	3,130	3,060	1,960			2,420	1,540	6.97
	- 3.0	*13,830	*13,830	*9,640	5,610	4,700	2,940	*2,600	1,920			*2,380	1,900	6.07
	- 4.5											*6,650	*6,650	2.50



A: Outreach
B: Load point height
C: Load bearing capacity

NOTES

- The loading capacity values are specified in tonnes (t).
- Pump pressure 350 bar.
- Information based on ISO 10567.
- The lifting capacity equals max. 75% of the tipping load if the machine is on solid, even ground, or 87% of the full hydraulic capacity.
- The values are valid for an optimum position.
- The load point is the centre line of the bucket pin on the arm.
- For operation with lifting gear, pipe-failure safety mechanisms in accordance with CE Directives are required on the lifting, adjustment and arm cylinders, in addition to an overload warning device.
- Values marked with * are limited by the hydraulic power.
- 0 m = at ground level

To determine the lifting capacity, refer to the "Values for side or 360 degrees" in the table under "Blade above ground", then subtract the weight of the attachment and quick coupler.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