

Operator's Manual

ZAXIS

250LC(N)-7

Type HE15LD
Type HE18LD

300LC(N)-7

Type HE15LD
Type HE18LD

350LC(N)-7

Type HE15LD
Type HE18LD
Type HE20LD
Type HE22

Super Long Front

Serial No.
ZX250-7 Class 70001 and up
ZX300-7 Class 80001 and up
ZX350-7 Class 90001 and up

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URL:<http://www.hcme.com>

INTRODUCTION

For All Machine Users

- This instruction manual describes the basic knowledge for the operation and inspection and maintenance procedures applied when a super long front is mounted to the hydraulic excavator (main system).
This manual contains only the additional information related to the Super Long Front operation that differ from the parts in the Operation Manual for the standard Hydraulic Excavator. Be sure to thoroughly read and understand the Operator's manual for the standard machine (base machine) before operating this machine.
Contents described in this manual have priority.
Before starting to operate the machine, read this manual thoroughly and understand the contents.
Operate and service the machine safely and correctly.
- Keep the operator's manual at the operating seat so that an operator can check the content anytime he/she needs. Any operation that does not conform to contents of this manual will lead to serious accidents and/or system failure.
- In addition, when you are replacing consumable parts, refer to the list of consumable parts before ordering them. Also, always use Hitachi genuine parts. Using other than genuine parts will lead to serious accidents and/or system failure.
- If you have any questions regarding the machine, provide the Model/type (model name) and the PIN (Product Identification Number) of your machine.
Model/type and PIN are marked on the nameplate at the front side of the main frame.
Confirm the information beforehand and make a note in the blank after "PIN indication" on the first page of this manual.
- This manual is an important part of this machine. If you hand over your machine, surely attach this manual to the machine for the new user. Any operation that does not conform to contents of this manual will lead to serious accidents and/or system failure.
- Due to modifications of the machine, contents of this manual and delivered machine may partially differ from each other.
If you have any questions or find any part that concerns you, contact our branch office or our sales office nearest to you.
- This manual mainly applies SI (international) units for descriptions of amounts and quantities. In addition, it provides a numeric value in traditional (MKS) or conventional unit as a reference value in parenthesis followed as needed.
Ex. 25.0 MPa (255 kgf/cm²)
- Be sure to use fuel that complies with JIS K-2204, EN-590 or ASTM D-975 which contains 15 ppm or lower sulfur. Also use fuel that complies with solid contamination level of class 18/16/13 of ISO4406-1999 (solid contamination includes dust). If the fuel specified above is not used, exhaust gas that exceeds the regulation values may be discharged, causing serious problem on the engine. Consult your authorized dealer.

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INTENDED USE

Intended Use

This machine is designed and intended to be used light to moderate excavating and slope finishing with bucket. Risk assessment related to the specific application and working conditions of the machine may require additional safety measures such as protective guards, safety glazing, filtration of cabin air, etc. to be installed, enabling the machine to be operated safely under the specific conditions. Consult your authorized dealer for further information on possibilities to adapt the machine accordingly.

This machine can be used for lifting applications that are within the lifting capacity of the machine. Use approved lifting points and lifting devices and follow the instructions provided in this manual.

Local regulations and instructions must be respected when using the machine. Using this machine and its equipment for operations other than those intended or approved by the manufacturer, are prohibited.

Modifications

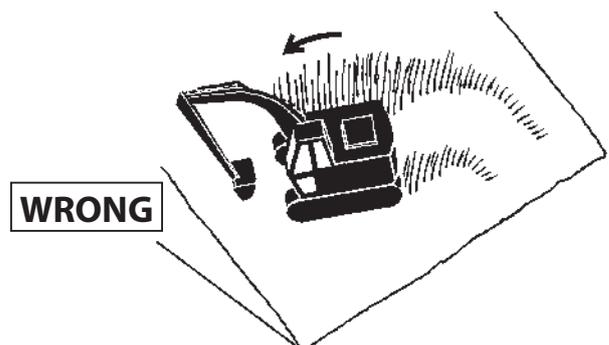
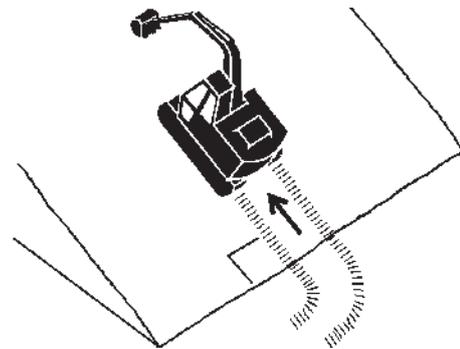
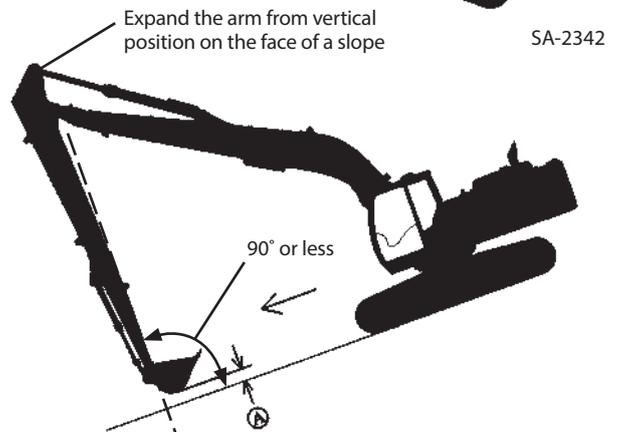
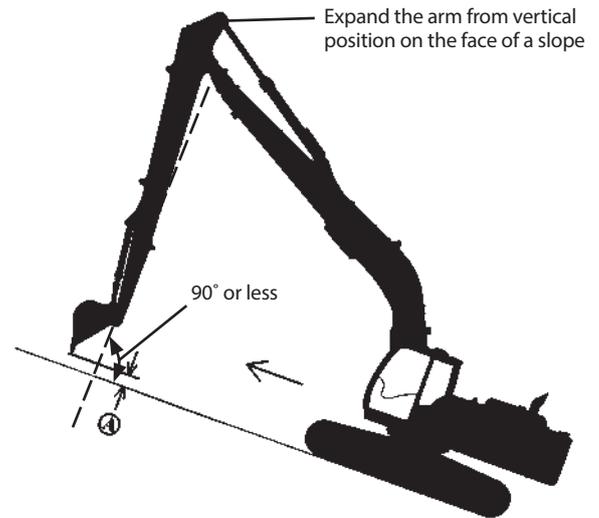
No modification affecting the intended use or structural integrity and therefore safety of the machine should be made without written approval of the manufacturer. Modifications which are not approved include the use of unauthorized accessories, assemblies, parts or attachments, including but not limiting to those connected with a coupling device. Any legal or natural person performing unapproved modifications to the machine assumes all liability directly or indirectly related to the modification.

The manufacturer reserves the right to reject any warranty claim arising from or related to unapproved modifications.

SAFETY

Drive Machine Safely

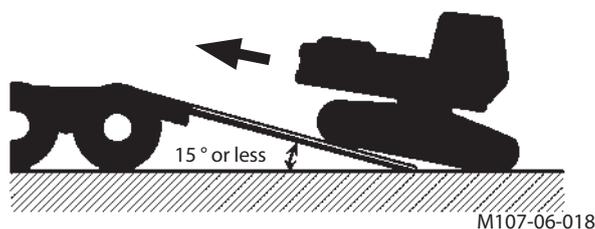
- Before driving the machine, always confirm that the travel levers/pedals direction corresponds to the direction you wish to drive.
- Be sure to detour around any obstructions.
- Avoid traveling over obstructions. Soil, fragments of rocks, and/or metal pieces may scatter around the machine. Do not allow personnel to stay around the machine while traveling.
- Driving on a slope may cause the machine to slip or overturn, possibly resulting in serious injury or death.
- Never attempt to ascend or descend 30 degrees or steeper slopes.
- Be sure to fasten the seat belt.
- When driving up or down a slope, keep the bucket facing the direction of travel, approximately 0.2 to 0.3 m (A) above the ground. Expand the arm from vertical position on the face of a slope.
- If the machine starts to skid or becomes unstable, immediately lower the bucket to the ground and stop.
- Forbid swinging on a slope. Or it may cause the machine to skid or turnover. If the direction must be changed, move the machine to level ground, then, change the direction to ensure safe operation.



SAFETY

Transport Safely

- Take care the machine may turn over when loading or unloading the machine onto or off of a truck or trailer.
 - Observe the related regulations and rules for safe transportation.
 - Select an appropriate truck or trailer for the machine to be transported.
 - Be sure to use a signal person.
 - Always follow the following precautions for loading or unloading:
 - 1) Select solid and level ground.
 - 2) Always use a ramp or deck strong enough to support the machine weight. Loading docks must have an incline of less than 15 degrees.
 - 3) Turn the auto-idle switch OFF.
 - 4) Always select the slow speed mode with the travel mode switch.
 - 5) Never steer the machine while on the ramp. If the traveling direction must be changed while the ramp, unload the machine from the ramp, reposition the machine on the ground, then try loading again.
 - 6) The top end of the ramp where it meets the flatbed is a sudden bump. Take care when traveling over it.
 - 7) Place blocks in front of and behind the tires. Securely hold the machine to the truck or trailer deck with wire ropes.



Be sure to further follow the details described in the TRANSPORTING section.

SAFETY

Avoid Rapid Machine Operation

Quick operation may cause the machine to tip over. Especially never attempt to do quick travel or boom lowering operation.



SA-2344

Avoid Work Other than Specified

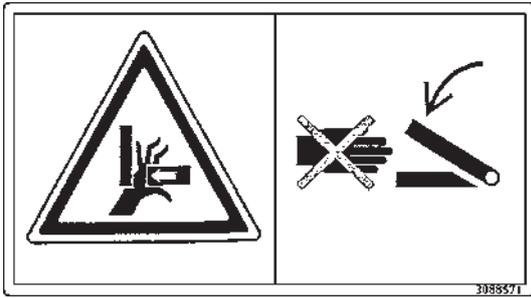
This machine increases in weight of the counterweight and has dedicated hydraulic system to operate the super long front attachment.

Therefore, the standard front attachment can not be installed on this machine.

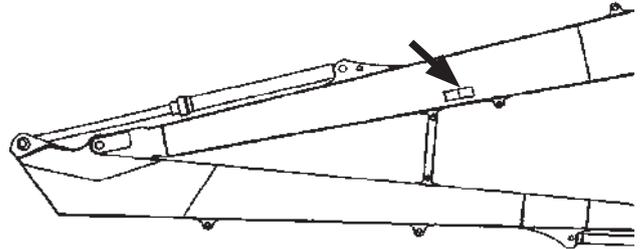
Never install the front attachment of this machine to another machine and never install front attachment of another machine to this machine. Failure to do so may cause machine turnover or damage, serious injury or death may result.

Be sure to use a bucket that has specified capacity, weight and width. Otherwise, serious personal injury or death may result.

SAFETY



SS3088571



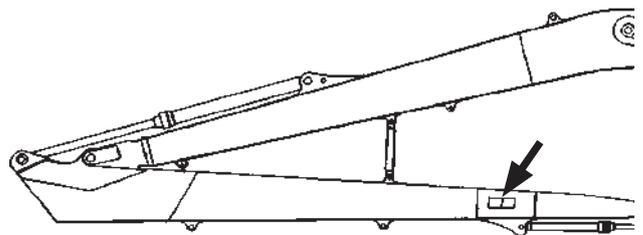
SS-2285

- Take extra care when removing the stay pin. If the pin of stay is removed, the stay will suddenly drop, your fingers may be pinched by the stay.

- Sign indicates a hazard of being hit by the working device of the machine. Keep away from machine during operation.



SS3092124



SS-2286

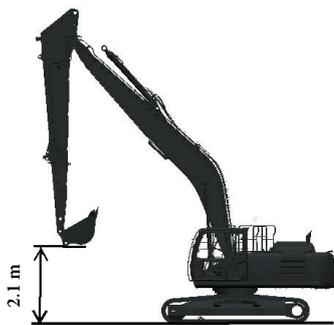
SAFETY

Visibility Map for Machine Model ZX250LC-7, ZX250LCN-7 with HE15LD Super Long Front Personal Hazard

This machine complies with the essential health and safety requirements for visibility set out by Machinery Directive 2006/42/EC. The map shows the residual maskings (blind spots) observed by a seated operator (wearing the recommended seat restraint) in the cab using direct vision and the standard visual aids supplied with the machine. Additionally, operators are encouraged to adjust the mirrors provided to the machine to show the area as shown below. This map shows an approximation of the residual masking. This can be used as a guide when conducting a site risk assessment, utilized for site management and to consider additional visual aids.

Conditions: Driver's visibility on 1mRB and VTC are evaluated under ISO 5006

Test Height (on 1mRB):	1.2 m
(1mRB to VTC/on VTC):	Ground Level
Operator eye Height:	1.2 m from the cab floor
Machine Configuration:	HE15LD Super Long Front
Machine Position:	Travel Position (For the detail position, see the image below)
Applicable visual aids:	1. standard mirror (s) 2. standard camera (s)



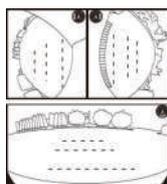
Machine Position Image

- ⊗ : Operator's eye point
- A : 1 m Rectangular Boundary (1mRB)
- B : 12 m Visibility Test Circle (VTC)
- ⊖ : Standard Mirror (s)
- Ⓞ : Standard camera (s)

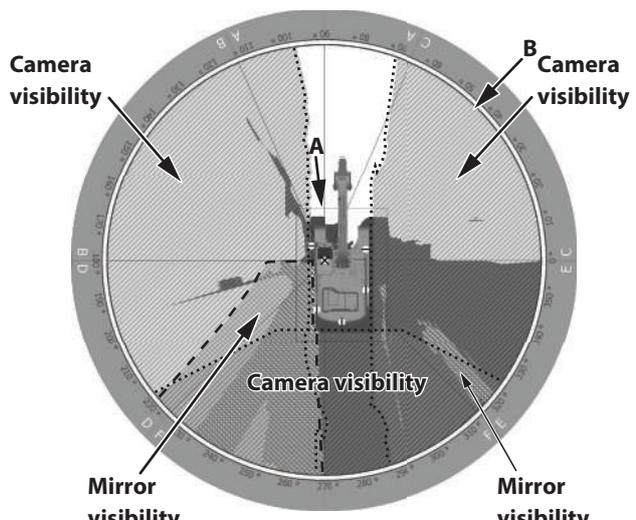
- : Masking area
- ▭ : Mirror visibility
- ▨ : Camera visibility



Monitor display
Surrounding Image



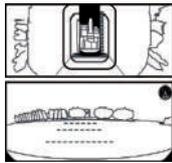
Monitor display
Image to Left Side + Image to Right Side + Image to Rear



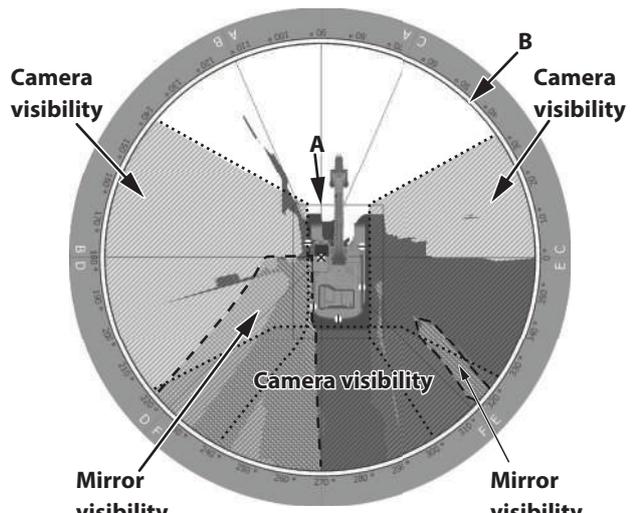
Visibility Map
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ENMDFY-ENSL1-VM-022

SAFETY

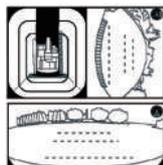


Monitor display
Surrounding Image + Image to Rear

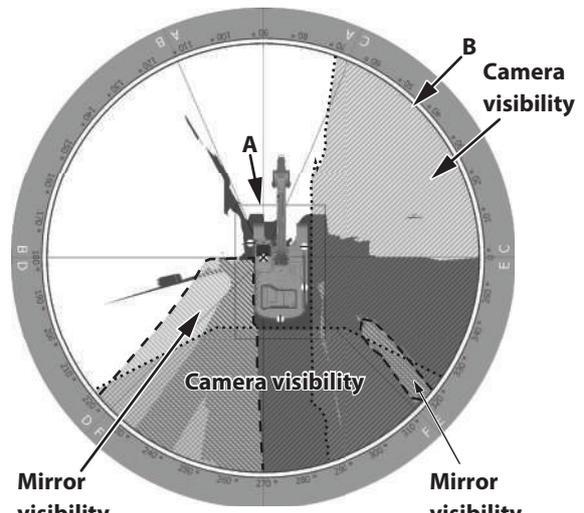


Visibility Map
"Surrounding Image + Image to Rear"

ENMDFY-ENSL1-VM-023

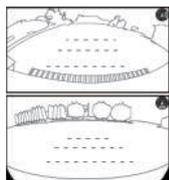


Monitor display
Surrounding Image + Image to Right Side
+ Image to Rear



Visibility Map
"Surrounding Image + Image to Right Side + Image to Rear"
"Image to Right Side + Image to Rear"

ENMDFY-ENSL1-VM-024



Monitor display
Image to Right Side + Image to Rear

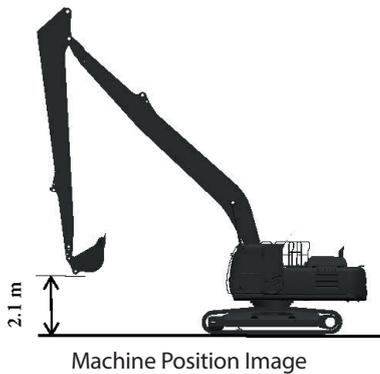
SAFETY

Visibility Map for Machine Model ZX250LC-7, ZX250LCN-7 with HE18LD Super Long Front Personal Hazard

This machine complies with the essential health and safety requirements for visibility set out by Machinery Directive 2006/42/EC. The map shows the residual maskings (blind spots) observed by a seated operator (wearing the recommended seat restraint) in the cab using direct vision and the standard visual aids supplied with the machine. Additionally, operators are encouraged to adjust the mirrors provided to the machine to show the area as shown below. This map shows an approximation of the residual masking. This can be used as a guide when conducting a site risk assessment, utilized for site management and to consider additional visual aids.

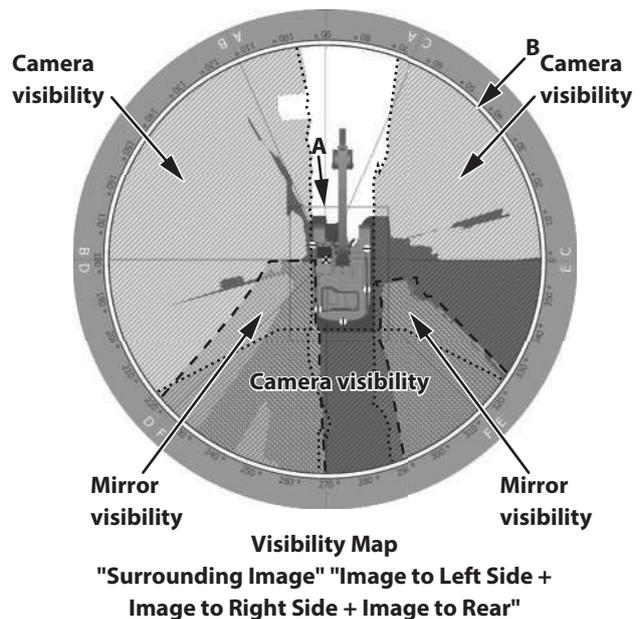
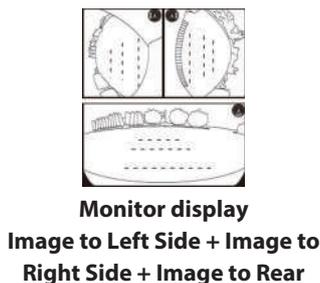
Conditions: Driver's visibility on 1mRB and VTC are evaluated under ISO 5006

Test Height (on 1mRB):	1.2 m
(1mRB to VTC/on VTC):	Ground Level
Operator eye Height:	1.2 m from the cab floor
Machine Configuration:	HE18LD Super Long Front
Machine Position:	Travel Position (For the detail position, see the image below)
Applicable visual aids:	1. standard mirror (s) 2. standard camera (s)

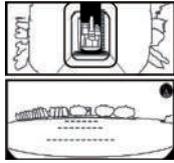


- ⊗ : Operator's eye point
- A : 1 m Rectangular Boundary (1mRB)
- B : 12 m Visibility Test Circle (VTC)
- ⊖ : Standard Mirror (s)
- ⊕ : Standard camera (s)

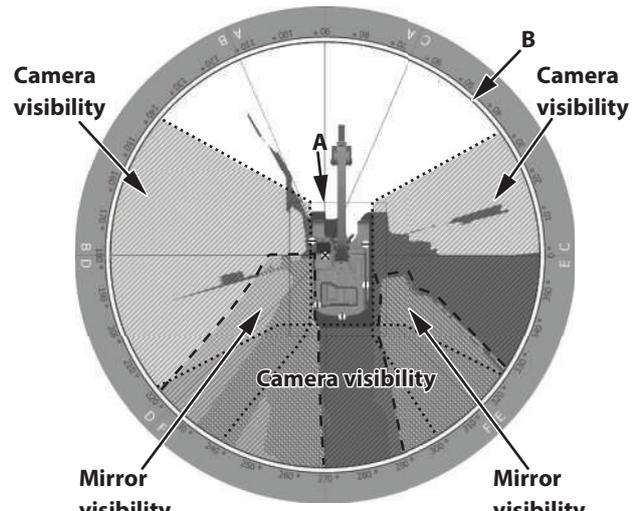
- : Masking area
- ▭ : Mirror visibility
- ▨ : Camera visibility



SAFETY

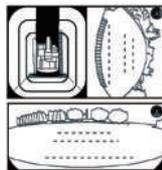


Monitor display
Surrounding Image + Image to Rear

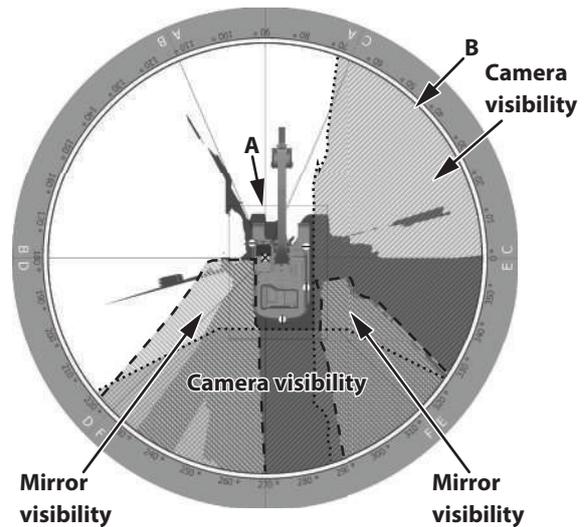


Visibility Map
"Surrounding Image + Image to Rear"

ENMDFY-ENSL1-VM-008

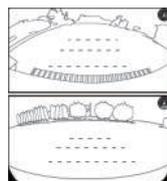


Monitor display
Surrounding Image + Image to Right Side
+ Image to Rear



Visibility Map
"Surrounding Image + Image to Right Side + Image to Rear"
"Image to Right Side + Image to Rear"

ENMDFY-ENSL1-VM-009



Monitor display
Image to Right Side + Image to Rear

SAFETY

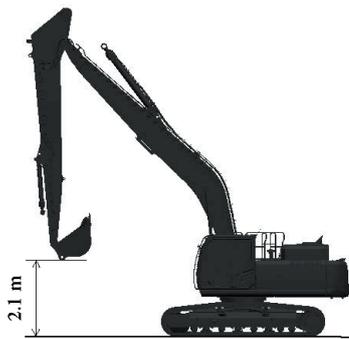
Visibility Map for Machine Model ZX300LC-7, ZX300LCN-7 with HE15LD Super Long Front Personal Hazard

This machine complies with the essential health and safety requirements for visibility set out by Machinery Directive 2006/42/EC. The map shows the residual maskings (blind spots) observed by a seated operator (wearing the recommended seat restraint) in the cab using direct vision and the standard visual aids supplied with the machine. Additionally, operators are encouraged to adjust the mirrors provided to the machine to show the area as shown below.

This map shows an approximation of the residual masking. This can be used as a guide when conducting a site risk assessment, utilized for site management and to consider additional visual aids.

Conditions: Driver's visibility on 1mRB and VTC are evaluated under ISO 5006.

Test Height (on 1mRB):	1.2 m
(1mRB to VTC/on VTC):	Ground Level
Operator eye Height:	1.2 m from the cab floor
Machine Configuration:	HE15LD Super Long Front
Machine Position:	Travel Position (For the detail position, see the image below)
Applicable visual aids:	1. standard mirror (s) 2. standard camera (s)



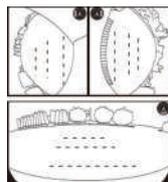
Machine Position Image

- ⊗ : Operator's eye point
- A : 1 m Rectangular Boundary (1mRB)
- B : 12 m Visibility Test Circle (VTC)
- ⊖ : Standard Mirror (s)
- ⊕ : Standard camera (s)

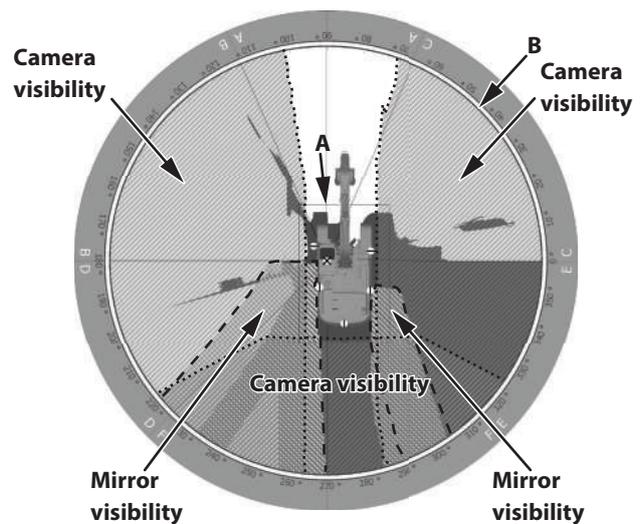
- : Masking area
- : Mirror visibility
- : Camera visibility



Monitor display
Surrounding Image



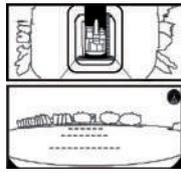
Monitor display
Image to Left Side + Image to Right Side + Image to Rear



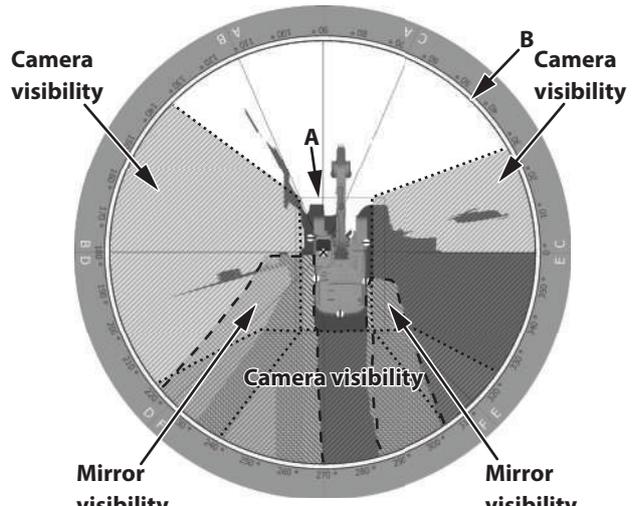
Visibility Map
"Surrounding Image" "Image to Left Side + Image to Right Side + Image to Rear"

ENMDFY-ENSL1-VM-001

SAFETY

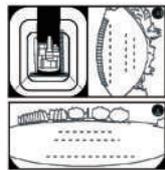


Monitor display
Surrounding Image + Image to Rear

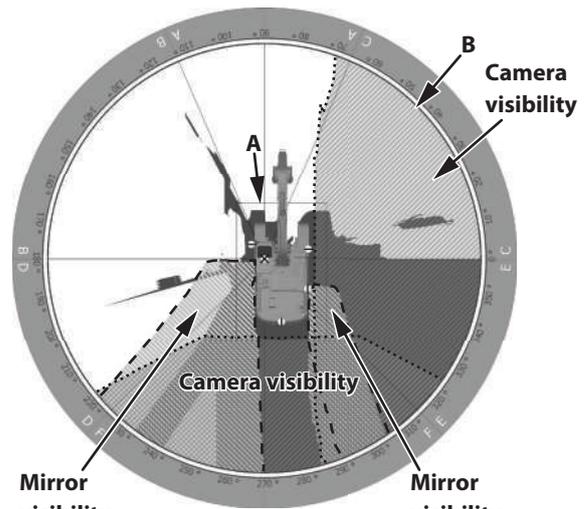


Visibility Map
"Surrounding Image + Image to Rear"

ENMDFY-ENSL1-VM-002

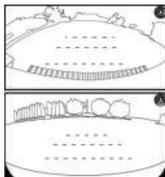


Monitor display
Surrounding Image + Image to Right Side
+ Image to Rear



Visibility Map
"Surrounding Image + Image to Right Side + Image to Rear"
"Image to Right Side + Image to Rear"

ENMDFY-ENSL1-VM-003



Monitor display
Image to Right Side + Image to Rear

SAFETY

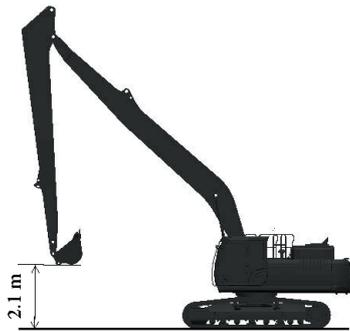
Visibility Map for Machine Model ZX300LC-7, ZX300LCN-7 with HE18LD Super Long Front Personal Hazard

This machine complies with the essential health and safety requirements for visibility set out by Machinery Directive 2006/42/EC. The map shows the residual maskings (blind spots) observed by a seated operator (wearing the recommended seat restraint) in the cab using direct vision and the standard visual aids supplied with the machine. Additionally, operators are encouraged to adjust the mirrors provided to the machine to show the area as shown below.

This map shows an approximation of the residual masking. This can be used as a guide when conducting a site risk assessment, utilized for site management and to consider additional visual aids.

Conditions: Driver's visibility on 1mRB and VTC are evaluated under ISO 5006.

Test Height (on 1mRB):	1.2 m
(1mRB to VTC/on VTC):	Ground Level
Operator eye Height:	1.2 m from the cab floor
Machine Configuration:	HE18LD Super Long Front
Machine Position:	Travel Position (For the detail position, see the image below)
Applicable visual aids:	1. standard mirror (s) 2. standard camera (s)



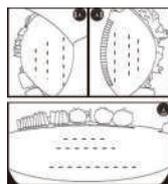
Machine Position Image

- ⊗ : Operator's eye point
- A : 1 m Rectangular Boundary (1mRB)
- B : 12 m Visibility Test Circle (VTC)
- ⊖ : Standard Mirror (s)
- ⊕ : Standard camera (s)

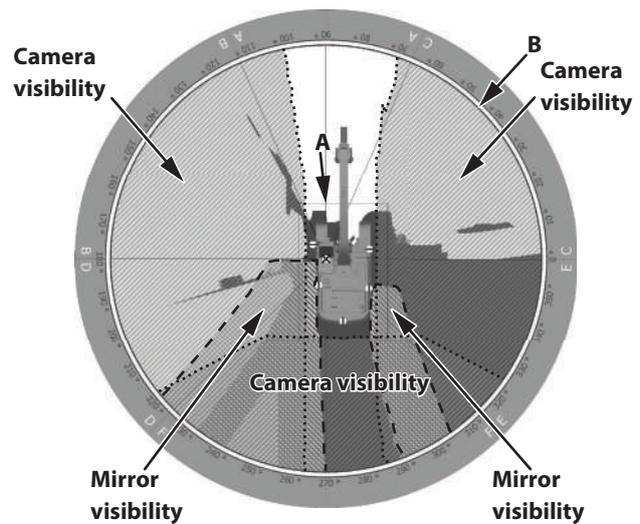
- : Masking area
- ▭ : Mirror visibility
- ▨ : Camera visibility



Monitor display
Surrounding Image



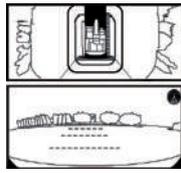
Monitor display
Image to Left Side + Image to Right Side + Image to Rear



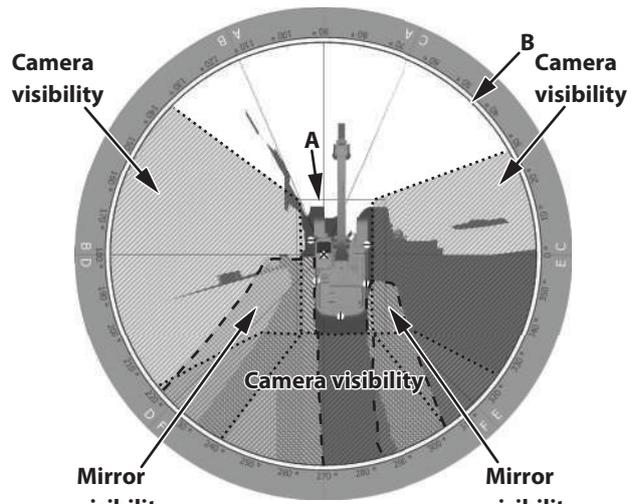
Visibility Map
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ENMDFY-ENSL1-VM-004

SAFETY

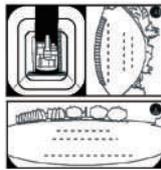


Monitor display
Surrounding Image + Image to Rear

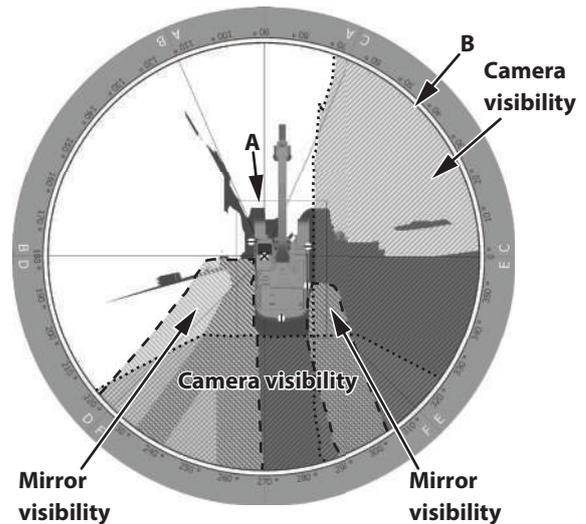


Visibility Map
"Surrounding Image + Image to Rear"

ENMDFY-ENSL1-VM-005

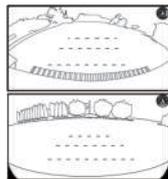


Monitor display
Surrounding Image + Image to Right Side
+ Image to Rear



Visibility Map
"Surrounding Image + Image to Right Side + Image to Rear"
"Image to Right Side + Image to Rear"

ENMDFY-ENSL1-VM-006



Monitor display
Image to Right Side + Image to Rear

SAFETY

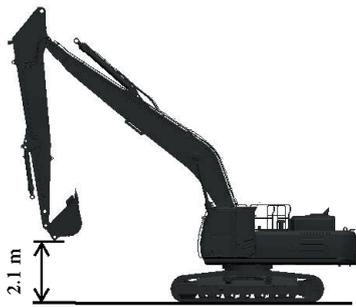
Visibility Map for Machine Model ZX350LC-7, ZX350LCN-7 with HE15LD Super Long Front Personal Hazard

This machine complies with the essential health and safety requirements for visibility set out by Machinery Directive 2006/42/EC. The map shows the residual maskings (blind spots) observed by a seated operator (wearing the recommended seat restraint) in the cab using direct vision and the standard visual aids supplied with the machine. Additionally, operators are encouraged to adjust the mirrors provided to the machine to show the area as shown below.

This map shows an approximation of the residual masking. This can be used as a guide when conducting a site risk assessment, utilized for site management and to consider additional visual aids.

Conditions: Driver's visibility on 1mRB and VTC are evaluated under ISO 5006.

Test Height (on 1mRB):	1.2 m
(1mRB to VTC/on VTC):	Ground Level
Operator eye Height:	1.2 m from the cab floor
Machine Configuration:	HE15LD Super Long Front
Machine Position:	Travel Position (For the detail position, see the image below)
Applicable visual aids:	1. standard mirror (s) 2. standard camera (s)



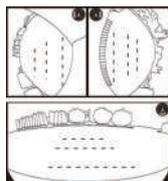
Machine Position Image

- ⊗ : Operator's eye point
- A : 1 m Rectangular Boundary (1mRB)
- B : 12 m Visibility Test Circle (VTC)
- ⊖ : Standard Mirror (s)
- ⊕ : Standard camera (s)

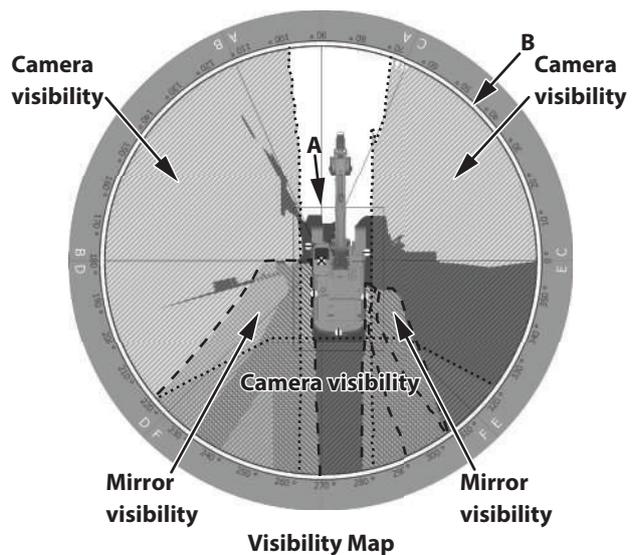
- : Masking area
- : Mirror visibility
- : Camera visibility



Monitor display Surrounding Image

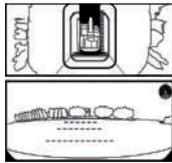


Monitor display Image to Left Side + Image to Right Side + Image to Rear

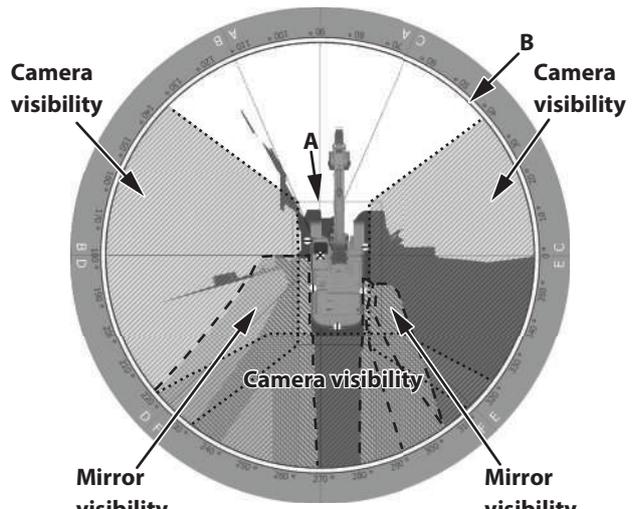


Visibility Map "Surrounding Image" "Image to Left Side + Image to Right Side + Image to Rear"

SAFETY

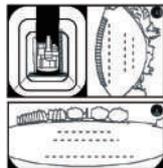


Monitor display
Surrounding Image + Image to Rear

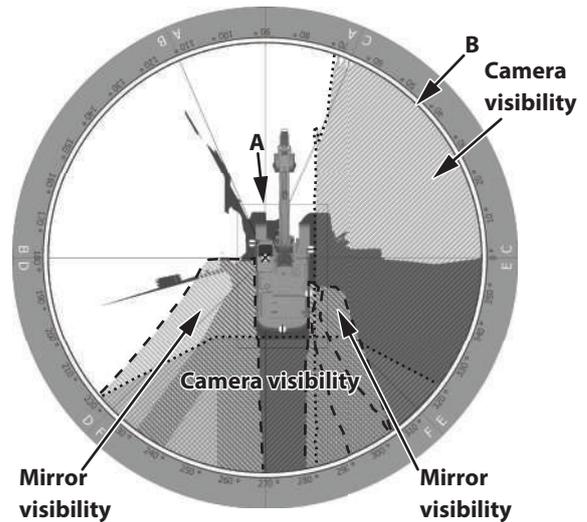


Visibility Map
"Surrounding Image + Image to Rear"

ENMDFY-ENSL1-VM-020

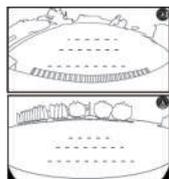


Monitor display
Surrounding Image + Image to Right Side
+ Image to Rear



Visibility Map
"Surrounding Image + Image to Right Side + Image to Rear"
"Image to Right Side + Image to Rear"

ENMDFY-ENSL1-VM-021



Monitor display
Image to Right Side + Image to Rear

SAFETY

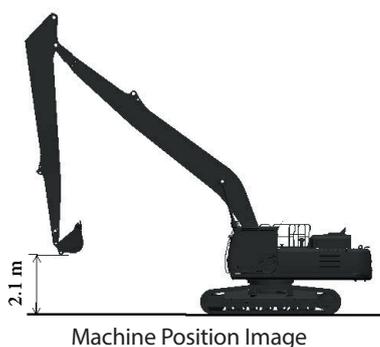
Visibility Map for Machine Model ZX350LC-7, ZX350LCN-7 with HE18LD Super Long Front Personal Hazard

This machine complies with the essential health and safety requirements for visibility set out by Machinery Directive 2006/42/EC. The map shows the residual maskings (blind spots) observed by a seated operator (wearing the recommended seat restraint) in the cab using direct vision and the standard visual aids supplied with the machine. Additionally, operators are encouraged to adjust the mirrors provided to the machine to show the area as shown below.

This map shows an approximation of the residual masking. This can be used as a guide when conducting a site risk assessment, utilized for site management and to consider additional visual aids.

Conditions: Driver's visibility on 1mRB and VTC are evaluated under ISO 5006.

Test Height (on 1mRB):	1.2 m
(1mRB to VTC/on VTC):	Ground Level
Operator eye Height:	1.2 m from the cab floor
Machine Configuration:	HE18LD Super Long Front
Machine Position:	Travel Position (For the detail position, see the image below)
Applicable visual aids:	1. standard mirror (s) 2. standard camera (s)

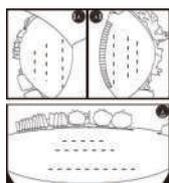


- ⊗ : Operator's eye point
- A : 1 m Rectangular Boundary (1mRB)
- B : 12 m Visibility Test Circle (VTC)
- ⊖ : Standard Mirror (s)
- ⊕ : Standard camera (s)

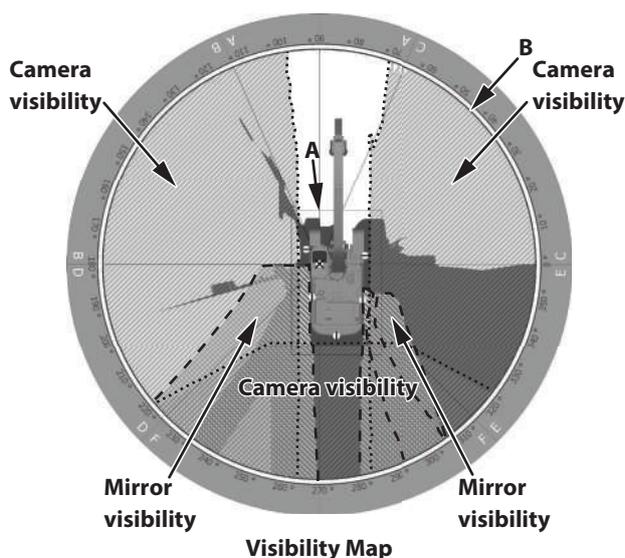
- : Masking area
- : Mirror visibility
- : Camera visibility



**Monitor display
Surrounding Image**



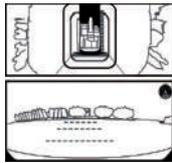
**Monitor display
Image to Left Side + Image to Right Side + Image to Rear**



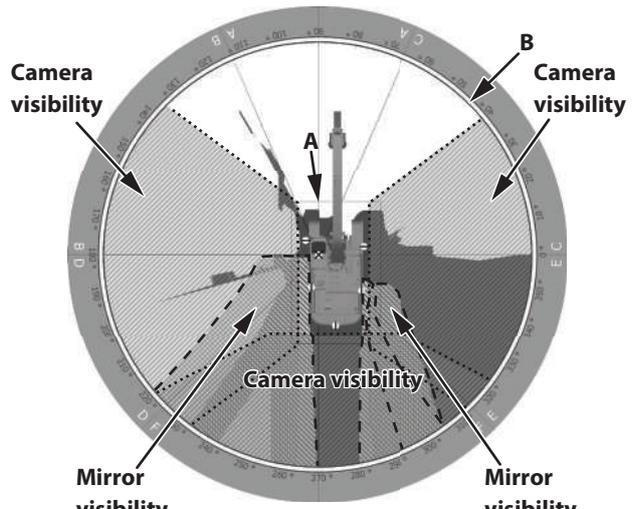
**Visibility Map
"Surrounding Image" "Image to Left Side +
Image to Right Side + Image to Rear"**

ENMDFY-ENSL1-VM-010

SAFETY

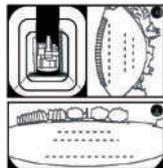


Monitor display
Surrounding Image + Image to Rear

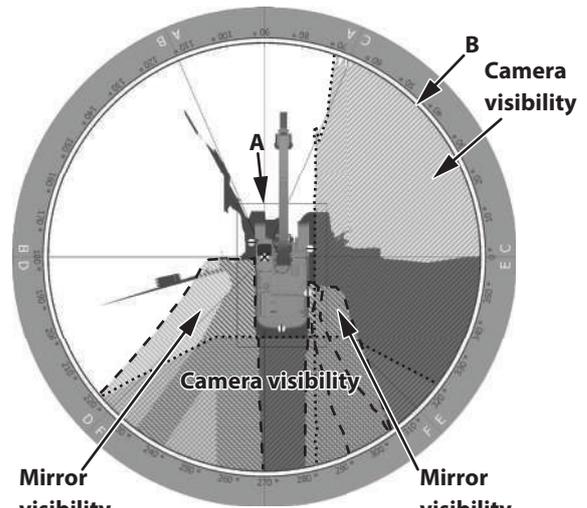


Visibility Map
"Surrounding Image + Image to Rear"

ENMDFY-ENSL1-VM-011

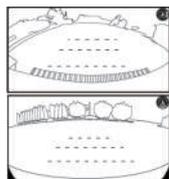


Monitor display
Surrounding Image + Image to Right Side
+ Image to Rear



Visibility Map
"Surrounding Image + Image to Right Side + Image to Rear"
"Image to Right Side + Image to Rear"

ENMDFY-ENSL1-VM-012



Monitor display
Image to Right Side + Image to Rear

SAFETY

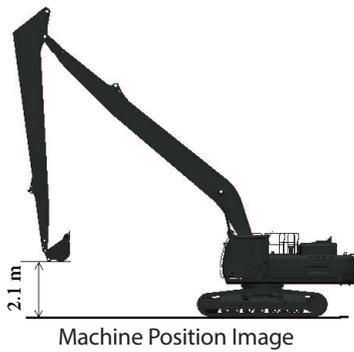
Visibility Map for Machine Model ZX350LC-7, ZX350LCN-7 with HE20LD Super Long Front Personal Hazard

This machine complies with the essential health and safety requirements for visibility set out by Machinery Directive 2006/42/EC. The map shows the residual maskings (blind spots) observed by a seated operator (wearing the recommended seat restraint) in the cab using direct vision and the standard visual aids supplied with the machine. Additionally, operators are encouraged to adjust the mirrors provided to the machine to show the area as shown below.

This map shows an approximation of the residual masking. This can be used as a guide when conducting a site risk assessment, utilized for site management and to consider additional visual aids.

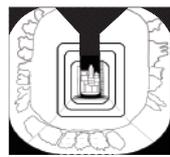
Conditions: Driver's visibility on 1mRB and VTC are evaluated under ISO 5006.

Test Height (on 1mRB):	1.2 m
(1mRB to VTC/on VTC):	Ground Level
Operator eye Height:	1.2 m from the cab floor
Machine Configuration:	HE20LD Super Long Front
Machine Position:	Travel Position (For the detail position, see the image below)
Applicable visual aids:	1. standard mirror (s) 2. standard camera (s)

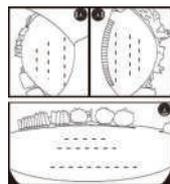


- ⊗ : Operator's eye point
- A : 1 m Rectangular Boundary (1mRB)
- B : 12 m Visibility Test Circle (VTC)
- ⊖ : Standard Mirror (s)
- ⊕ : Standard camera (s)

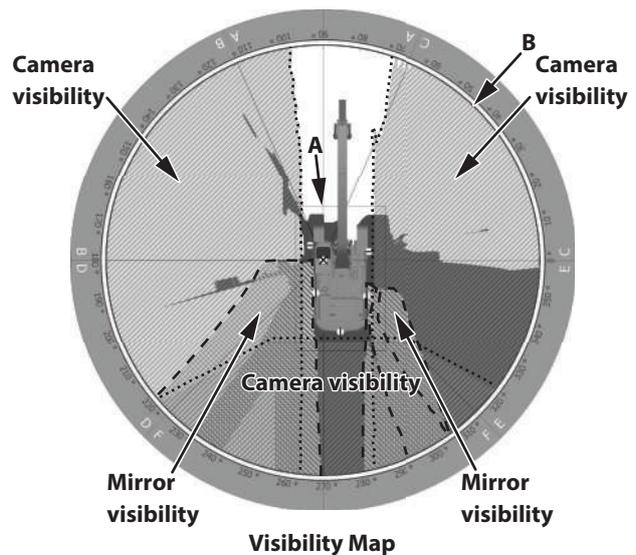
- : Masking area
- : Mirror visibility
- : Camera visibility



**Monitor display
Surrounding Image**

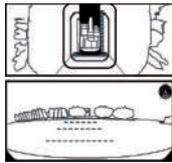


**Monitor display
Image to Left Side + Image to Right Side + Image to Rear**

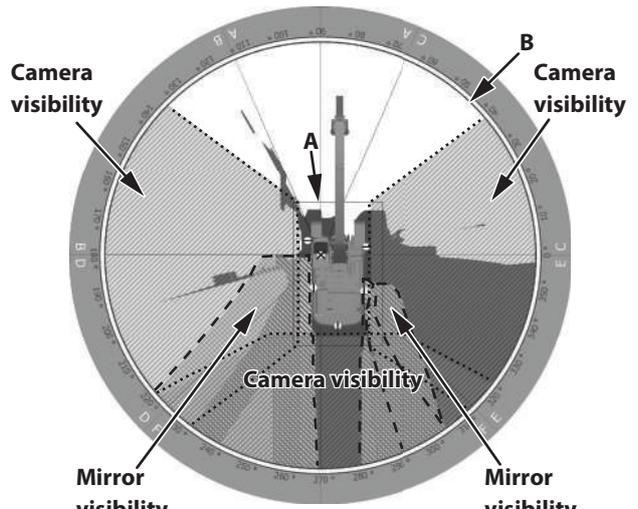


ENMDFY-ENSL1-VM-013

SAFETY

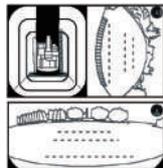


Monitor display
Surrounding Image + Image to Rear

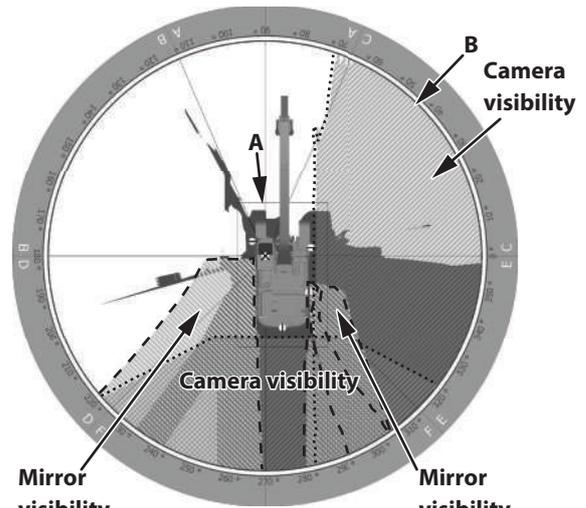


Visibility Map
"Surrounding Image + Image to Rear"

ENMDFY-ENSL1-VM-014

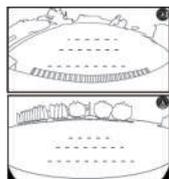


Monitor display
Surrounding Image + Image to Right Side
+ Image to Rear



Visibility Map
"Surrounding Image + Image to Right Side + Image to Rear"
"Image to Right Side + Image to Rear"

ENMDFY-ENSL1-VM-015



Monitor display
Image to Right Side + Image to Rear

SAFETY

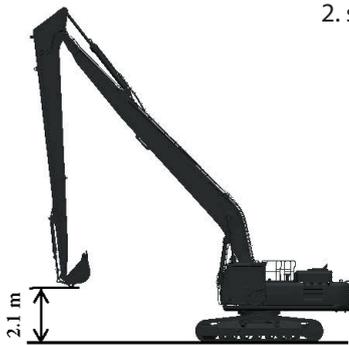
Visibility Map for Machine Model ZX350LC-7, ZX350LCN-7 with HE22 Super Long Front Personal Hazard

This machine complies with the essential health and safety requirements for visibility set out by Machinery Directive 2006/42/EC. The map shows the residual maskings (blind spots) observed by a seated operator (wearing the recommended seat restraint) in the cab using direct vision and the standard visual aids supplied with the machine. Additionally, operators are encouraged to adjust the mirrors provided to the machine to show the area as shown below.

This map shows an approximation of the residual masking. This can be used as a guide when conducting a site risk assessment, utilized for site management and to consider additional visual aids.

Conditions: Driver's visibility on 1mRB and VTC are evaluated under ISO 5006.

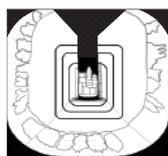
Test Height (on 1mRB):	1.2 m
(1mRB to VTC/on VTC):	Ground Level
Operator eye Height:	1.2 m from the cab floor
Machine Configuration:	HE22 Super Long Front
Machine Position:	Travel Position (For the detail position, see the image below)
Applicable visual aids:	1. standard mirror (s) 2. standard camera (s)



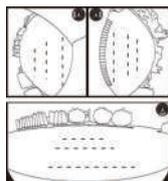
Machine Position Image

- ⊗ : Operator's eye point
- A : 1 m Rectangular Boundary (1mRB)
- B : 12 m Visibility Test Circle (VTC)
- ⊖ : Standard Mirror (s)
- ⊕ : Standard camera (s)

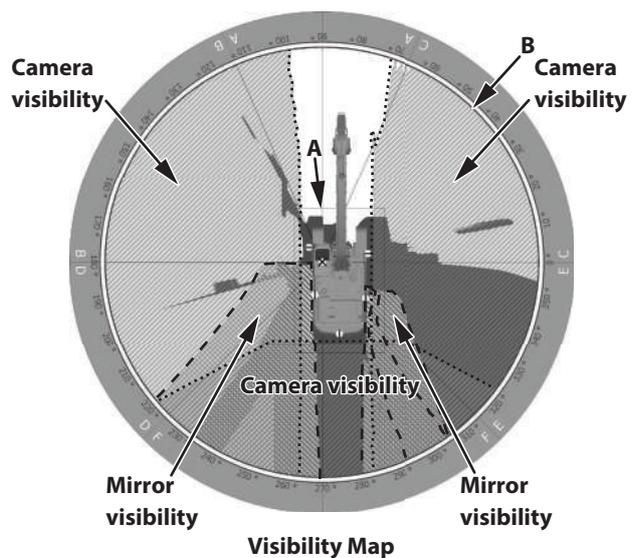
- : Masking area
- : Mirror visibility
- : Camera visibility



Monitor display Surrounding Image



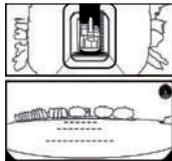
Monitor display Image to Left Side + Image to Right Side + Image to Rear



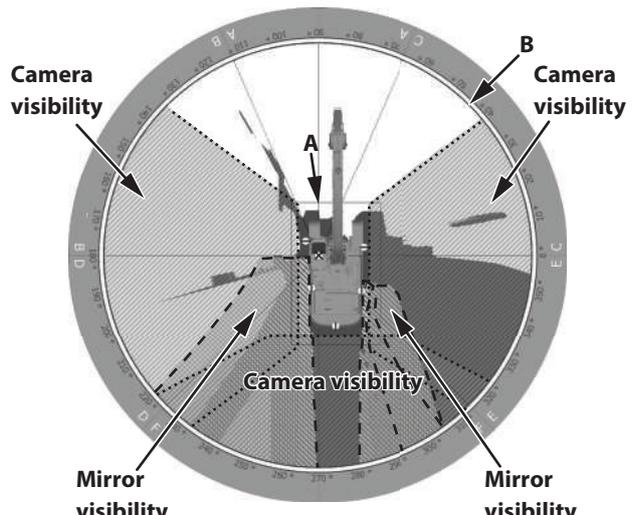
Visibility Map "Surrounding Image" "Image to Left Side + Image to Right Side + Image to Rear"

ENMDFY-ENSL1-VM-016

SAFETY

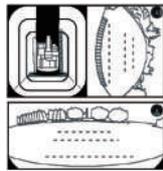


Monitor display
Surrounding Image + Image to Rear

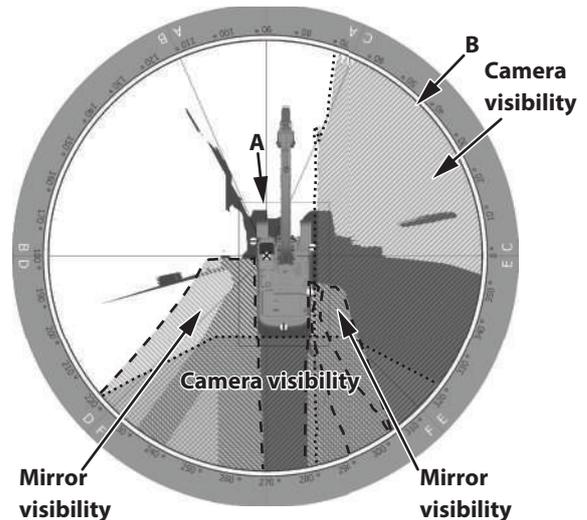


Visibility Map
"Surrounding Image + Image to Rear"

ENMDFY-ENSL1-VM-017

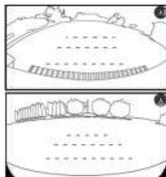


Monitor display
Surrounding Image + Image to Right Side
+ Image to Rear



Visibility Map
"Surrounding Image + Image to Right Side + Image to Rear"
"Image to Right Side + Image to Rear"

ENMDFY-ENSL1-VM-018



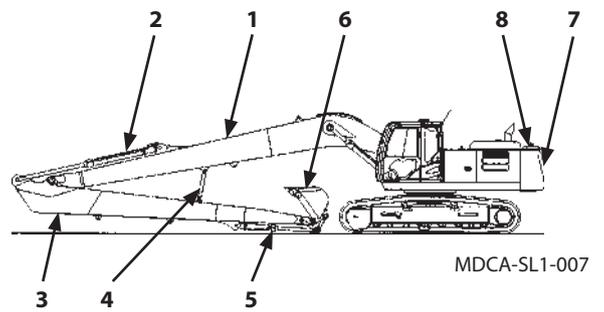
Monitor display
Image to Right Side + Image to Rear

COMPONENTS NAME

Components Name

Super Long Front Attachment

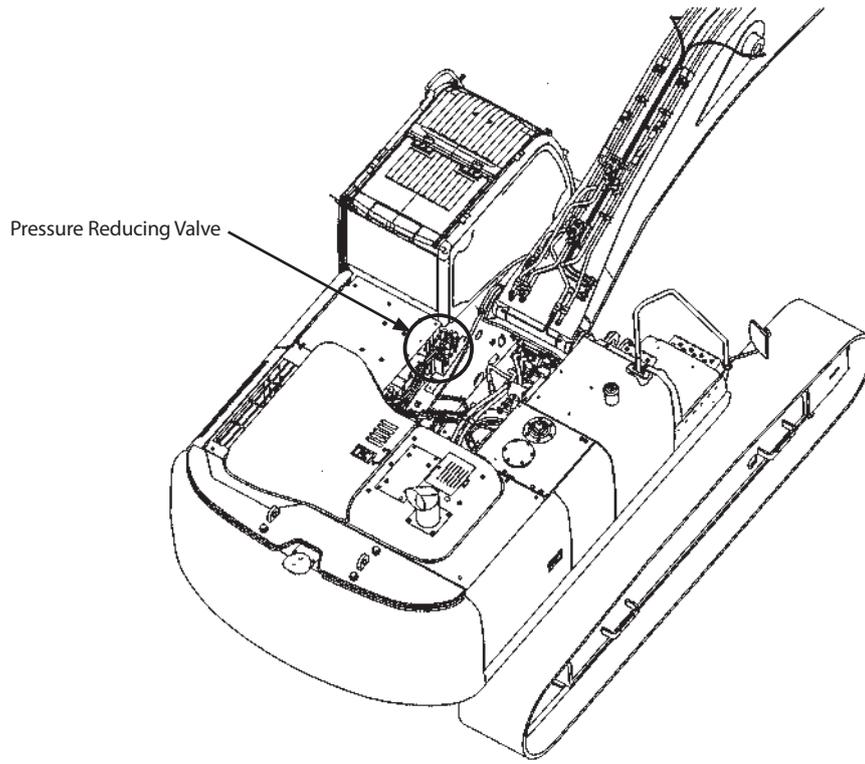
- 1- Boom
- 2- Arm Cylinder
- 3- Arm
- 4- Stay
- 5- Bucket Cylinder
- 6- Bucket
- 7- Counterweight
- 8- Additional Counterweight



Super Long Front Attachment

COMPONENTS NAME

Additional Devices for the Super Long Front Attachment

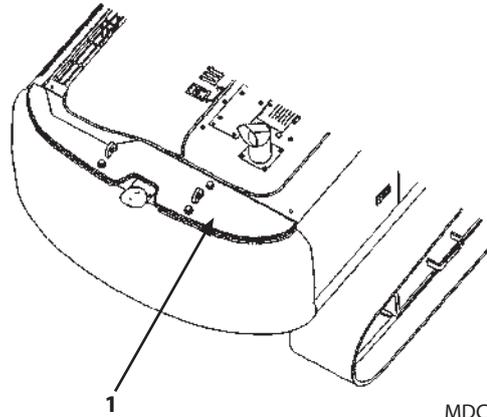


 **NOTE:** A typical model is shown in the figure. Some parts may differ depending on the model of the machine.

OPERATING THE MACHINE

Increase in Counterweight

- ⚠ WARNING:** Warning: As the super long front attachment is heavier than the backhoe front attachment, additional counterweight is needed to secure machine stability. Operating the machine without additional counterweight may cause the machine turnover. Do not attempt to perform forced operation that gives strong impact on the machine, operation using free-fall of the front attachment and a sudden stop. Failure to do so will damage the machine frame.



MDCA-SL1-031

OPERATING THE MACHINE

Operating Backhoe (Super Long Front Attachment)

- This machine is designed exclusively for light to moderate excavation work. Use the standard front attachment for general excavation work.
- This machine is designed for the super long front attachment. Don't replace the front attachment with the standard front attachment.
- Never remove the additional counterweight (if installed).
- Install appropriate bucket for the work. (Refer to the "Bucket Types and Applications" in the Specifications section.)
- Pull the bucket toward the machine for main digging force.
- When soil sticks to the bucket, remove it by moving the arm and/or bucket rapidly back and forth.
- Place the bucket teeth on the ground with the bottom of the bucket at a 45 degree angle to the ground. When working on solid ground, unstiffen the ground by using standard front attachment, and then use super long front attachment for loading.
- When trenching a straight line, position the tracks parallel to the trench. After digging to the desired depth, move the machine as required to continue the trench.
- When operating the arm, avoid bottoming the cylinder to prevent cylinder damage.
- Never attempt to excavate ground using swing power or to engage in grading work. Failure to do so may result in damaging the front attachment.
- Operate the boom and arm as slow as possible. Failure to do so may cause the machine to loose stability.
- The "Boom-down" and "Arm-roll-in" operation are set at reduced speed to secure lifetime of the front attachment and machine stability.
- When the armcylinder is fully extended, if the arm sways, the arm may come in contact with the boom.
- Operate the arm as slow as possible when the armcylinder is extended close to the stroke end.
- Avoid sudden swing operation, possibly creating safety hazards.



MDCA-SL1-047

IMPORTANT:

- **When digging at an angle, avoid striking the tracks with the bucket teeth.**
- **When digging at an angle, avoid striking the tracks with the bottom of the boom.**
- **When lowering the boom, avoid sudden stops that may cause shock load damage to the machine.**
- **When digging a deep excavation, avoid striking the boom or bucket cylinder hoses against the ground.**

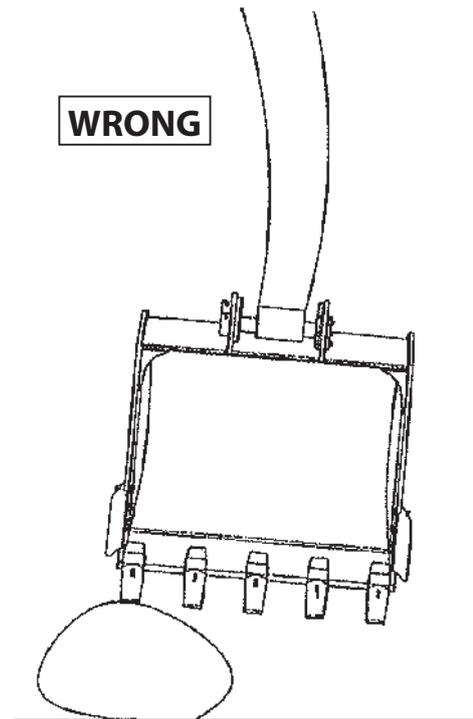
OPERATING THE MACHINE

Avoid one side operation

If load is applied only on one side of wide bucket such as a slope-finishing bucket, the front attachment may be twisted and the parts may be damaged.

Avoid using bucket other than specified

- Do not use a bucket heavier or with capacity larger than specified. Failure to do so may cause machine turnover or damage the front attachment. Select a bucket having capacity and weight with maximum allowable loading weight taken into account.
- Allowable bulk density depends on the size of the bucket. (Refer to the "Bucket Types and Applications" in the Specifications section.)
- Never attempt to install the attachment other than the bucket on this machine. Tipping over of the machine and/or damage to the front attachment may result.



MDCA-SL1-034

Do Not Operate Machine on Rough Ground

Wide track shoe is installed as a standard on this machine. Never use wide track shoes on rough ground such as rocks, sand or gravel.

Failure to do so may result in shoe bending and/or shoe bolt loosening, and may damage other undercarriage components such as track link and rollers.

DISASSEMBLING • ASSEMBLING

Precautions for Disassembling/Assembling

1. Secure a sufficient solid and level space for disassembling/assembling work.
2. Ensure that the ground is solid. Properly reinforce a soft ground, and ensure the machine is leveled by using a leveler.
3. Disassembly and assembly work is dangerous . Adequate preparation and tools are required for this work. Prepare devices and tools listed below.

Devices and tools to be used.

- (1) An auxiliary crane that has enough lifting capacity.
- (2) Wire ropes to hoist the front attachment.
- (3) Shackle
- (4) Protectors
- (5) Wooden Blocks
- (6) Large Hammer (10 pound)
- (7) Standard Tools
- (8) Grease

DISASSEMBLING • ASSEMBLING

4. Precautions for tightening Bolts

- Tighten bolts with the specified torque by using a torque wrench.
- After tightening the bolts with specified torque, mark the bolts to prevent miss tightening.
- Use Hitachi genuine bolts.
If the bolt length is too long or too short, it can not be tightened properly, causing serious accident.
Refer to the Maintenance section for bolt tightening torque.

5. Worker's Clothing

- (1) Wear protective clothing for the work.
- (2) Wear goggles or safety glasses, and safety equipment appropriate to the job.

6. Confirm Work Sequence

Explain work sequence, roll of each person and precautions thoroughly to all people involved to ensure safety.

7. Determine signs, signal person and commander.

Allocate only one signal person for work. Multiple signal persons will confuse workers, causing accident.

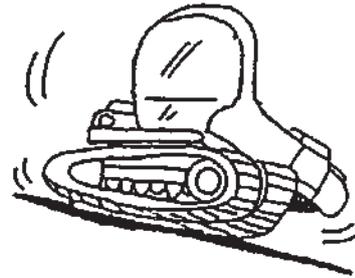
DISASSEMBLING • ASSEMBLING

Precautions for Installation /Removal Front Attachment

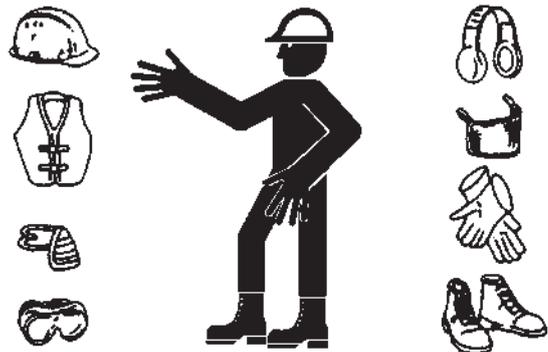
⚠ CAUTION: Remove counterweight if swinging without the boom.

Failure to do so may result in machine turnover.

1. Perform disassembly/assembly on a firm, level surface.
2. Align the center of the front attachment with the crawler center. Position the travel motors in the rear.
3. Remove the front attachment only after removing the bucket.
4. Remove counterweight if swinging without the boom. Failure to do so may result in machine turnover.
5. Never allow any person to enter the area below the machine during work.
ALWAYS use blocks to securely support the machine in the case where work must be carried out under the machine.
6. There may be residual pressure remaining in the pipe lines. Before removing any plug from the pipe line, slowly loosen the plug to check that the residual pressure is completely relieved.
Clean the removed plug and store it in the tool box.
When the machine is hot immediately after use, hot oil may spurt out, possibly causing severe burns. Wait for the oil to cool before starting any maintenance work.
7. NEVER insert your fingers into pin holes when aligning the pin holes.
8. To prevent personal injury, do not allow any person under the boom cylinder rod before inserting the pin.
9. When a hammer is used, metal pieces may fly off possibly causing injury. Wear safety glasses, a hard hat and any other necessary safety gear.



M16J-06-017



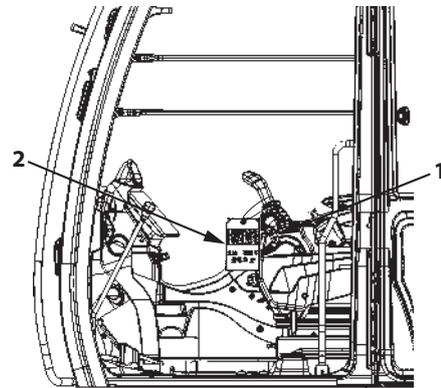
SA-438

DISASSEMBLING • ASSEMBLING

Preparation for Work

Before performing the maintenance procedures given in the following chapters, park the machine as described below, unless otherwise specified.

1. Refer to section on "Disassembling Procedure" to select and prepare a crane with sufficient capacity.
2. Park the machine on a solid and level surface.
3. Turn the auto-idle switch OFF.
4. Move the engine control dial to the slow idle position. Run the engine for 5 minutes to cool the engine.
5. Turn the key switch OFF to stop the engine. Remove the key. In case the machine must be serviced with the engine kept running, use a signal person.
6. Be sure to place pilot control shut-off lever (1) to the LOCK position.
7. After putting a tag (2) for "Under Serving" on the easy-to-see cab door or control lever, begin the work.



MDFY-07-060-1 ja

IMPORTANT:

- **Be sure to coat the pins with grease before installing them.**
- **Correctly close/open the stop valve and connect the coupler.**
If the front attachment is operated with the stop valve kept closed or with the coupler loosened, damage to either the cylinders or the pipe lines may result.
- **When installing the front attachment, if the front attachment is operated without installing the attached shims, damage to the pin holes may result.**
- **Be sure to clean the joints before connecting the pipes.**
Check if the O-ring to be installed in the joint is free from any damage and is seated correctly.
- **Tighten the hose connector with the specified torque. Refer to the "Operator's Manual for Hitachi Excavator" for tightening torque.**
- **Securely put plugs into the separated hose and pipe ends so that dust does not enter the hydraulic system.**

DISASSEMBLING • ASSEMBLING

Precautions for Slings Work

1. Determination of signs and commander

Determine signs between operator and signal person.
Allocate only one signal person for work.
Multiple signal persons will confuse workers, causing accident.

2. Installing Protectors

Install protectors before placing a wire rope on an object to prevent damage on wire rope and the object to be hoisted.

3. Precautions for Lifting Object

- (1) Use a hook with lock.
- (2) Select and use ropes and chains that have sufficient strength.
- (3) Never let the lifted object move or swing above anyone.
- (4) Do not allow anyone under the lifted object.
- (5) To prevent accidents, care should be taken to ensure that any part of your body will not be caught in the object to be lifted.

4. Adjustment of Wire Rope

Correct twisted or bent wire rope after use. Store them at the specified location.
Check wire rope for kink or breakage.

DISASSEMBLING • ASSEMBLING

Super Long Front Attachment Installation Procedure

Boom Installation

WARNING:

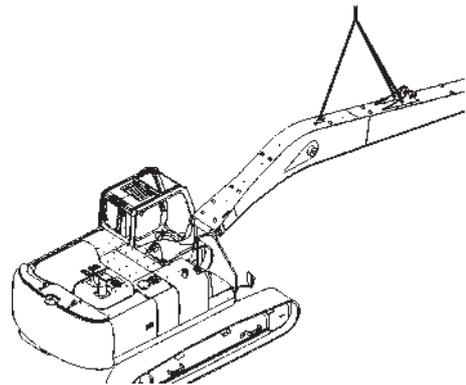
- NEVER insert your fingers into pin holes when aligning the pin holes.
- Guard against injury from flying pieces of metal. Wear goggles or safety glasses, and safety equipment appropriate to the job.
- To prevent personal injury, do not allow any person under the boom cylinder rod before inserting the pin.

IMPORTANT: Bleed air from the hydraulic oil tank before starting work.

1. Hoist the boom by using a crane.

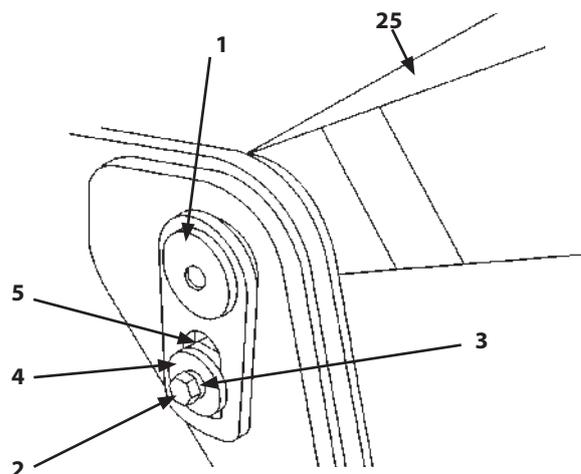
Boom Weight

Model	Type	Boom Weight
ZX250LC(N)-7	HE15LD	3070 kg
	HE18LD	3280 kg
ZX300LC(N)-7	HE15LD	3340 kg
	HE18LD	3440 kg
ZX350LC(N)-7	HE15LD	3700 kg
	HE18LD	4070 kg
	HE20LD	4110 kg
	HE22	4110 kg



MDCA-SL1-003

2. Adjust the boom hoisting height with the crane to align pin holes. Install boom foot pin (1).
3. Install the anti-extraction bolt (2), washer (3), plate (4) and block (5) in this order.
Wrench size : 32mm
Tightening torque : 750 N·m (77 kgf·m)
4. Slowly lower the boom end onto the ground.



MDCA-SL1-002

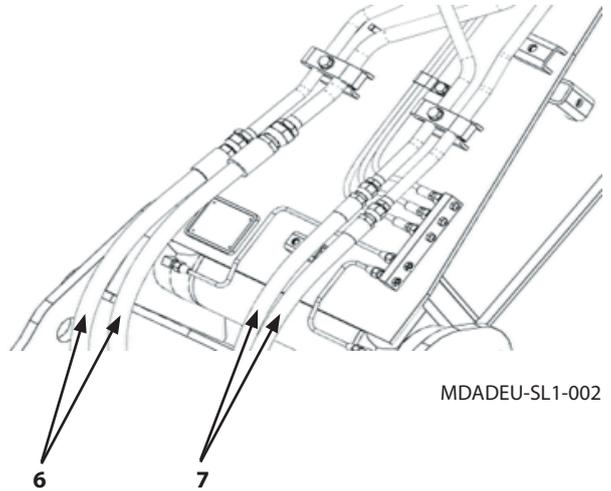
DISASSEMBLING • ASSEMBLING

Installing hoses between the base machine and the boom

1. Release remaining pressure from the piping before installing hoses.
Refer to the "Operator's Manual for Hitachi Excavator" for releasing remaining pressure.
2. Install arm cylinder hose (6) and bucket cylinder hose (7).

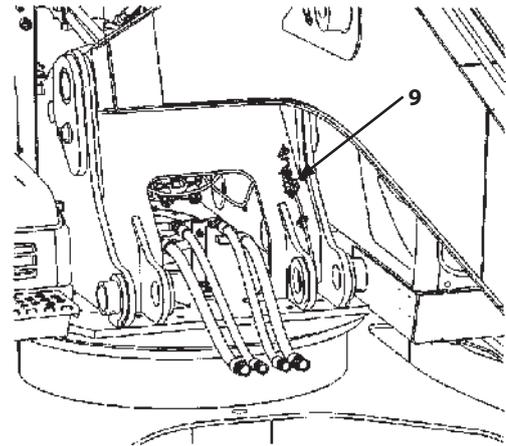
Wrench size : 36 mm
41 mm

Tightening torque : 180 N·m (18 kgf·m)
210 N·m (21 kgf·m)



MDADEU-SL1-002

3. Connect the harness connector (9) of the front attachment to the electric wiring of the boom light.
4. Store the removed plug for assembly.



MDCA-SL1-015

DISASSEMBLING • ASSEMBLING

Boom Cylinder Installation

⚠ WARNING:

- **NEVER** insert your fingers into pin holes when aligning the pin holes.
- **Guard against injury from flying pieces of metal. Wear goggles or safety glasses, and safety equipment appropriate to the job.**
- **To prevent personal injury, do not allow any person under the boom cylinder rod before inserting the pin.**

1. Bleed air from the boom cylinder mounted on the machine body.
Run the engine at slow idle speed; operate the boom control lever to fully extract and retract the piston rod. Repeat this procedure the piston rod moves smoothly.

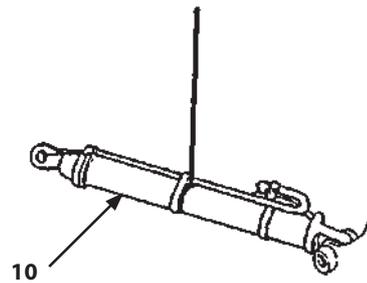
⚠ CAUTION: Take care that both left and right boom cylinders (10) moves at a time. Do not let the boom cylinder hit obstacles when it extends.

2. Hoist and hold boom cylinder (10). Install thrust plate (11), pin (12) and boom cylinder (10) in this order.
3. Install stopper (13), bolt (14) and nuts (15) (2 used) to pin (12).
Wrench size : 30 mm

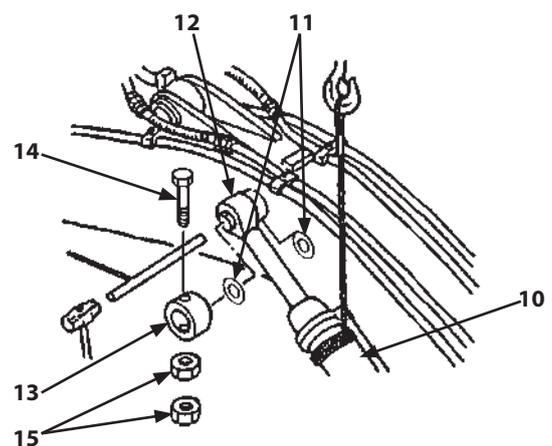
Tightening Torque:

Model	Type	Tightening Torque
ZX250LC(N)-7	HE15LD	400 N·m (40kgf·m)
	HE18LD	
ZX300LC(N)-7	HE15LD	
	HE18LD	
ZX350LC(N)-7	HE15LD	
	HE18LD	
	HE20LD	
	HE22	

4. Install right boom cylinder to the boom in the same manner.



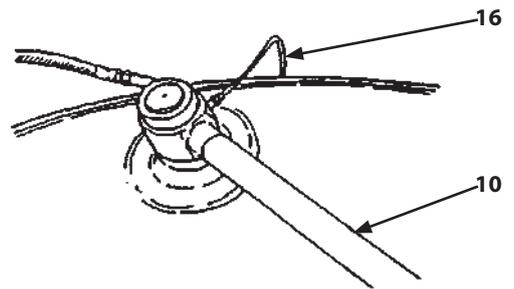
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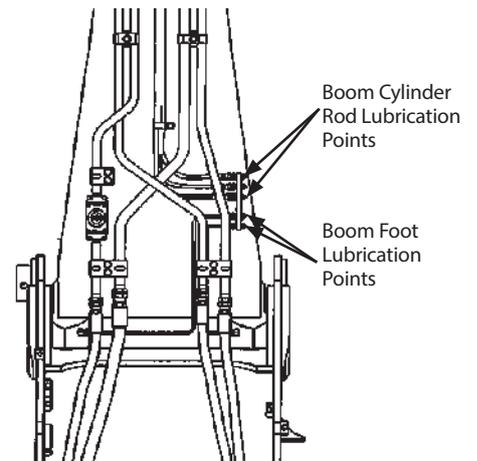
W178-04-01-004

DISASSEMBLING • ASSEMBLING

5. Install lubrication piping (16) to the rod side adapter on boom cylinder (10). (2 positions on left and right side)
Wrench size : 19 mm
Tightening torque : 30 N·m (3.0 kgf·m)
6. Lubricate rod side, bottom side and foot side of boom cylinders (10) (2 used).



W105-04-01-002



MDCA-SL1-016

DISASSEMBLING • ASSEMBLING

Counterweight Installation

ZX250LC(N)-7

ZX300LC(N)-7

Counterweight:

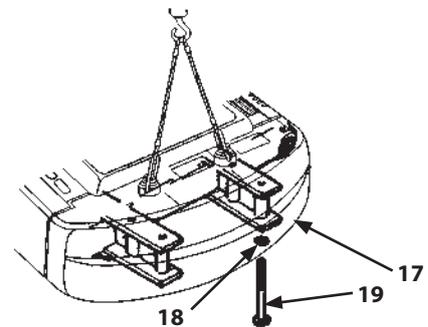
Model	Type	Counterweight
ZX250LC(N)-7	HE15LD	7750 kg
	HE18LD	
ZX300LC(N)-7	HE15LD	7200 kg
	HE18LD	

- Lift the counterweight (17) by using a crane and install the counterweight on the frame. Install the washer (18). Temporarily tighten the bolt (19).
- Remove the wire ropes. Tighten the counterweight mounting bolts by using a power wrench and a torque wrench.

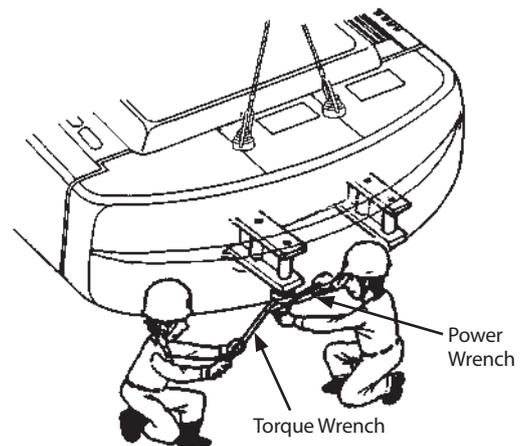
Tightening Torque:

Model	Type	Tightening Torque
ZX250LC(N)-7	HE15LD	1950 ⁺⁴⁰⁰ ₋₁₀₀ N·m (195 ⁺⁴⁰ ₋₁₀ kgf·m)
	HE18LD	
ZX300LC(N)-7	HE15LD	2360 ⁺⁴⁰⁰ ₋₁₀₀ N·m (236 ⁺⁴⁰ ₋₁₀ kgf·m)
	HE18LD	

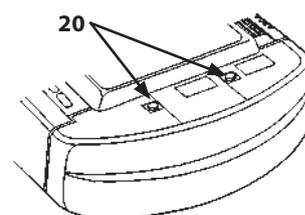
- Remove the freno link bolt. Install the cap (20).



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DISASSEMBLING • ASSEMBLING

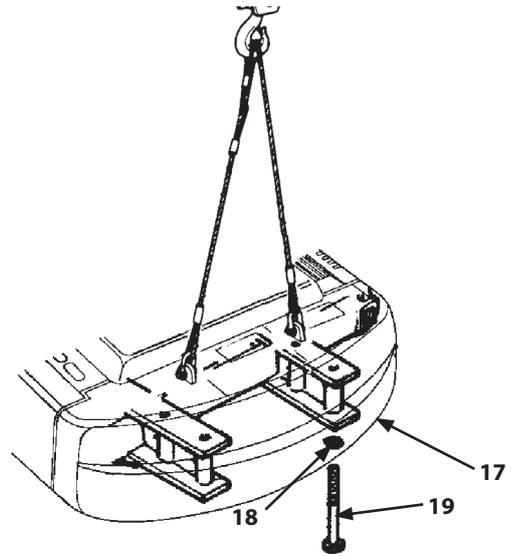
Counterweight Installation

ZX350LC(N)-7

Counterweight:

Model	Type	Counterweight
ZX350LC(N)-7	HE15LD	8870 kg
	HE18LD	
	HE20LD	
	HE22	

- Lift the counterweight (17) by using a crane and install the counterweight on the frame. Install the washer (18). Temporarily tighten the bolt (19)

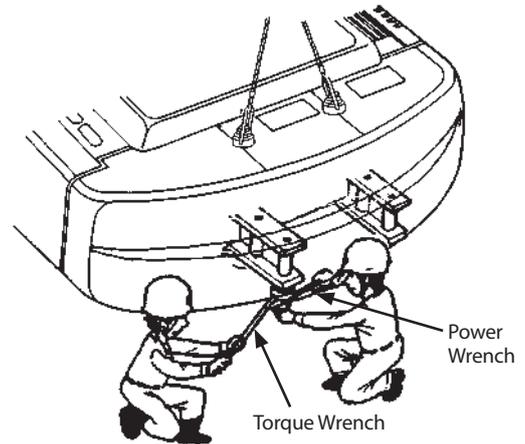


W1V7-02-02-002

- Remove the wire ropes. Tighten the counterweight mounting bolts by using a power wrench and a torque wrench.

Tightening torque:

Model	Type	Tightening torque
ZX350LC(N)-7	HE15LD	2840 ⁺⁴⁰⁰ ₋₁₀₀ N·m (284 ⁺⁴⁰ ₋₁₀ kgf·m)
	HE18LD	
	HE20LD	
	HE22	



W178-02-02-004

DISASSEMBLING • ASSEMBLING

Additional Counterweight Installation Procedure

Lift up additional counterweight (2) by using a crane. Slowly lower it onto the mounting holes of counterweight (1). Apply lubrication oil onto bolts (3) (3 used on ZX300-7, 4 used on ZX350-7) and install them.

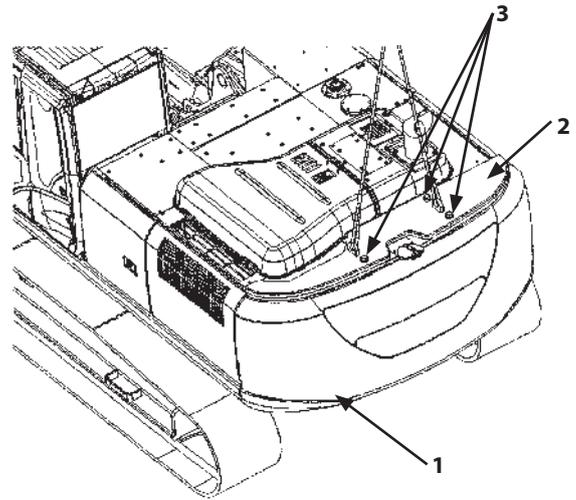
Lower the counterweight and tighten bolts (3).

Wrench size : 46 mm

Tightening torque : 1950 N·m(195 kgf·m)

Additional Counterweight Weights:

Model	Type	Counterweight
ZX250LC(N)-7	HE15LD	0 kg
	HE18LD	
ZX300LC(N)-7	HE15LD	550 kg
	HE18LD	
ZX350LC(N)-7	HE15LD	1430 kg
	HE18LD	
	HE20LD	1070kg
	HE22	



MDCA-SL1-036

CAUTION: Before tightening bolts, prepare footholds to support operators.

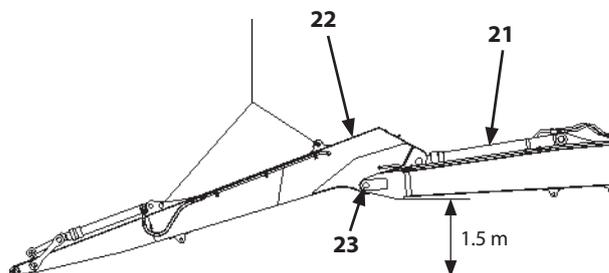
DISASSEMBLING • ASSEMBLING

Arm Installation

⚠ WARNING:

- **NEVER** insert your fingers into pin holes when aligning the pin holes.
- **Guard against injury from flying pieces of metal. Wear goggles or safety glasses, and safety equipment appropriate to the job.**
- **To prevent personal injury, do not allow any person under the arm before inserting the pin.**

1. Set the boom end at 1.5 m above the ground by operating the boom control lever.
2. Bleed air from arm cylinder (21). Run the engine at slow idle speed; slowly operate the arm control lever to fully extend and retract arm cylinder (21). Repeat this procedure until arm cylinder (21) moves smoothly.



M1T1-SL1-003

⚠ CAUTION: Do not let the piston rod hit obstacles when it extends.

3. Hoist arm (22) by using a crane.

Arm weight:

Model	Type	Arm Weight	Pin Weight
ZX250LC(N)-7	HE15LD	1780 kg	38 kg
	HE18LD	1760 kg	
ZX300LC(N)-7	HE15LD	1950 kg	43 kg
	HE18LD	1970 kg	
ZX350LC(N)-7	HE15LD	2060 kg	49 kg
	HE18LD	2130 kg	
	HE20LD	2310 kg	
	HE22	2330 kg	

4. Align the hole on arm (22) and hole on the boom. Install shims and pin (23), and then install the retaining bolt.

Tightening Torque:

Model	Type	Tightening Torque
ZX250LC(N)-7	HE15LD	400 N·m (40 kgf·m)
	HE18LD	
ZX300LC(N)-7	HE15LD	750 N·m (75 kgf·m)
	HE18LD	
ZX350LC(N)-7	HE15LD	
	HE18LD	
	HE20LD	
	HE22	

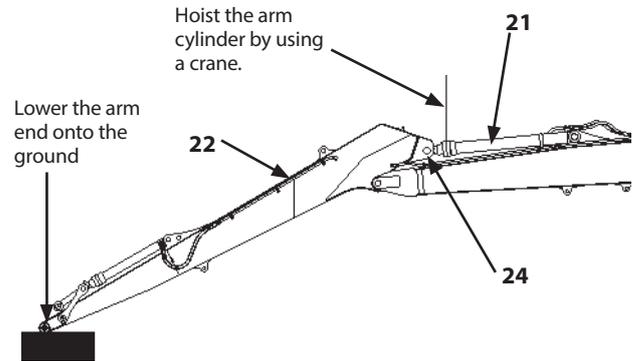
IMPORTANT: Take care not to damage the dust seals in this procedure. If the shims are not installed, it generates play on left and right side, which can damage the pin and holes.

DISASSEMBLING • ASSEMBLING

5. Slowly lower arm (22) end onto the ground.
6. Align the hole on arm (21) and hole on the arm cylinder by extending/retracting arm cylinder. Install shims and pin (24), and then install the retaining bolt.

Tightening Torque:

Model	Type	Tightening Torque
ZX250LC(N)-7	HE15LD	400 N·m (40 kgf·m)
	HE18LD	
ZX300LC(N)-7	HE15LD	
	HE18LD	
ZX350LC(N)-7	HE15LD	
	HE18LD	
	HE20LD	
	HE22	



M1T1-SL1-001

IMPORTANT: If the shims are not installed, it generates play on left and right side, which can damage the pin and holes.

DISASSEMBLING • ASSEMBLING

Installing hoses between the boom and arm

1. Release remaining pressure from the piping before installing hoses.
Refer to the "Operator's Manual for Hitachi Excavator" for bleeding air.

 **CAUTION: Do not release pressure from the hydraulic circuit of the boom and arm cylinders. Releasing pressure is dangerous as the boom and arm may fall down under its own weight.**

2. Installing hoses between the boom and arm.
Be sure to clean the joints before connecting the pipes.
Check if the O-ring to be installed in the joint is free from any damage and is seated correctly.
Tighten the hose connector with the specified torque.
Refer to the "Operator's Manual for Hitachi Excavator" for tightening torque.

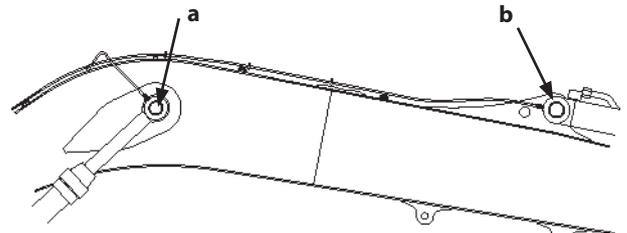
DISASSEMBLING • ASSEMBLING

Connecting Lubrication Hose and Lubricate

1. Install lubrication hoses between the boom and arm.

Boom lubrication hose: At the end of the boom cylinder (a)
 hose: (2 positions on left and right side)

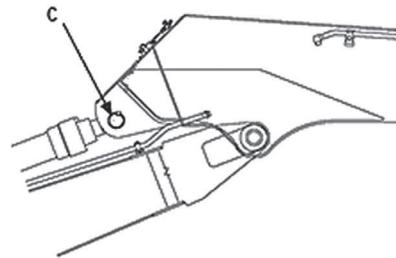
Arm lubrication hose: At the bottom of the arm cylinder (b)
 Arm lubrication: At the top of the arm cylinder (c)



M1T1-SL1-006

Tightening Torque:

Model	Type	Tightening Torque
ZX250LC(N)-7	HE15LD	29.5 N·m (3.0 kgf·m)
	HE18LD	
ZX300LC(N)-7	HE15LD	
	HE18LD	
ZX350LC(N)-7	HE15LD	
	HE18LD	
	HE20LD	
	HE22	



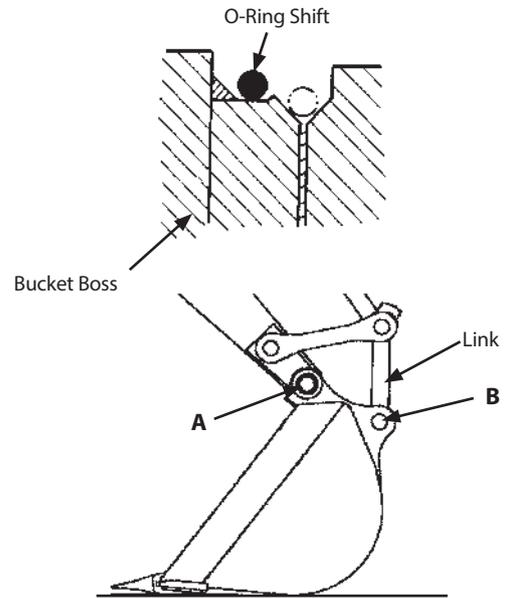
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2. Apply grease on the connecting pins.
 Before lubricating the boom foot pin and boom cylinder pin, slightly jack up the main body.
3. Operate the boom and arm several times to spread grease.
 Failure to do so may cause seizure and generate abnormal noise.

DISASSEMBLING • ASSEMBLING

Bucket Installation

1. Clean the pins and pin bores. Apply sufficient grease to the pins and pin bores.
2. Place the new bucket in stable position as shown in the figure.
3. Fit the arm and alternate bucket. Be sure the bucket will not roll. Install bucket pins A and B.
4. Install the locking pins and snap rings on pins A and B.
5. Install o-ring at the specified place.
6. Apply grease to each pin.
7. Start the engine and run at slow idle. Slowly operate the bucket in both directions to check for any interference in bucket movement.



M1U1-SL4-028

DISASSEMBLING • ASSEMBLING

Super Long Front Attachment Removal Procedure

Bucket Removal

CAUTION: When driving the connecting pins in or out, guard against injury from flying pieces of metal or debris. Wear goggles or safety glasses, hard hat and face shield.

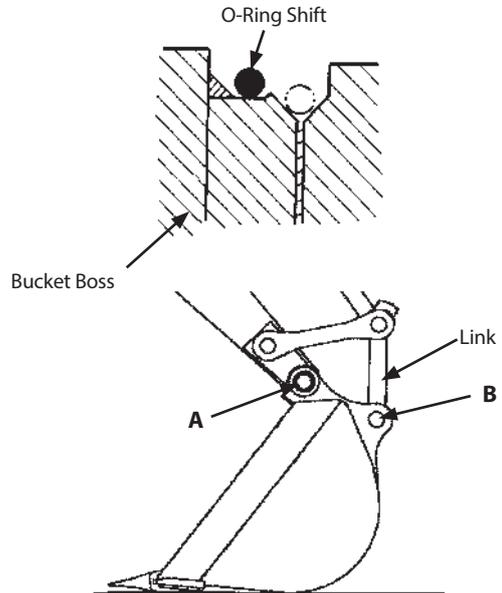
Before starting converting work, keep bystanders clear of the machine.

Slowly move the front attachment. When using a signal person, coordinate hand signals before starting.

1. Place the bucket in a stable position.
2. Slide the O-rings out of the way, as shown.
3. Remove bucket pins A and B to separate the arm and bucket.

Remove Lubrication Hose

Remove the lubrication hoses between the boom and arm.



M1U1-SL4-028

DISASSEMBLING • ASSEMBLING

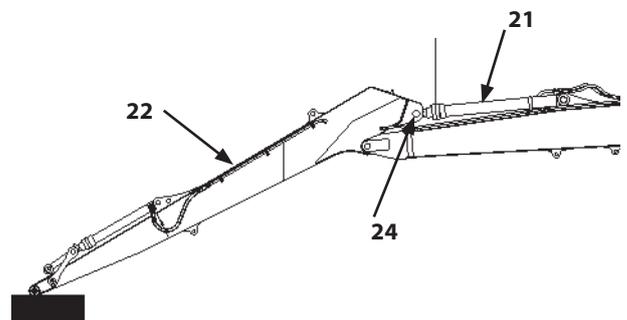
Removing Hoses between the Boom And Arm

IMPORTANT: Bleed air from the hydraulic oil tank before starting work.

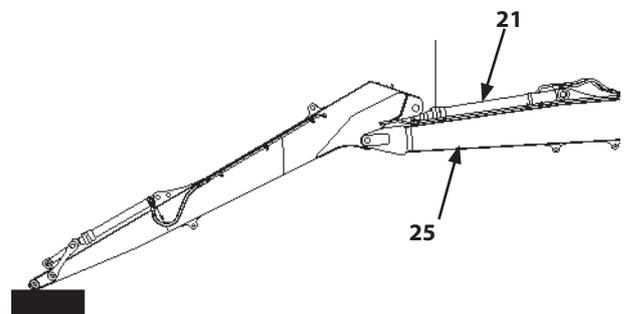
1. Release remaining pressure from the piping before removing hoses. Refer to the "Operator's Manual for Hitachi Excavator" for releasing pressure.
2. Disconnect hoses between the boom and arm.
3. Plug the open end of hoses and pipes to prevent dust from entering the hydraulic system.

Arm cylinder Removal

1. Operate arm cylinder (21) until it becomes slightly longer than the fully retracted state.
2. Lower the boom and rest the end of the arm on the ground.
3. Hoist and hold arm cylinder (21) with ropes. Lightly support the cylinder without pulling on the crane rope too tightly at this time. Take care not to allow wire rope to slide on the cylinder.
4. Release remaining pressure from the piping of arm cylinder (21). Refer to the "Operator's Manual for Hitachi Excavator" for releasing pressure.
5. Remove pin (24) connecting arm cylinder (21) and arm (22).
6. Fully extend arm cylinder (21).
7. Slightly hoist wire rope. Place a wooden block on boom (25). Slowly lower arm cylinder (21) onto the block.



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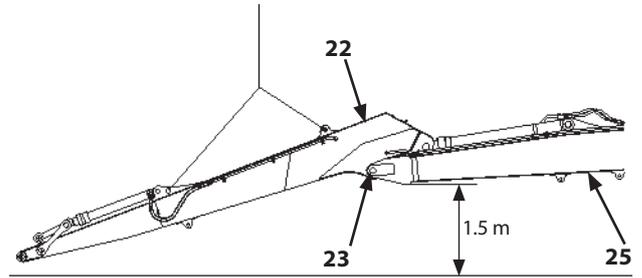
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DISASSEMBLING • ASSEMBLING

Arm Removal

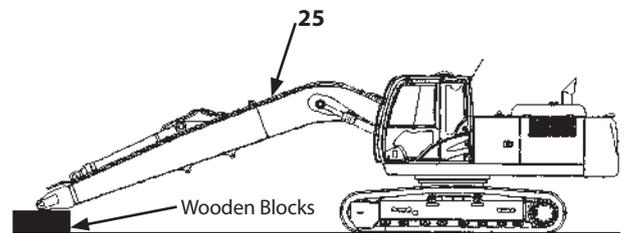
1. Hoist arm (22) by using a crane.

Model	Type	Arm Weight	Pin Weight
ZX250LC(N)-7	HE15LD	1780 kg	38 kg
	HE18LD	1760 kg	
ZX300LC(N)-7	HE15LD	1950 kg	43 kg
	HE18LD	1970 kg	
ZX350LC(N)-7	HE15LD	2060 kg	49 kg
	HE18LD	2130 kg	
	HE20LD	2310 kg	
	HE22	2330 kg	



M1T1-SL1-003

2. Adjust position of boom (25) and arm (22) with a crane to align pin hole. Remove arm mounting pin (23).
3. Hoist arm (22) and slowly place on the ground. Position arm (22) and secure it to prevent the arm from falling.
4. Place the end of boom on the wooden block.



MDCA-SL1-037

DISASSEMBLING • ASSEMBLING

Additional Counterweight Removal Procedure

Attach a wire rope to the upper part of additional counterweight (2).

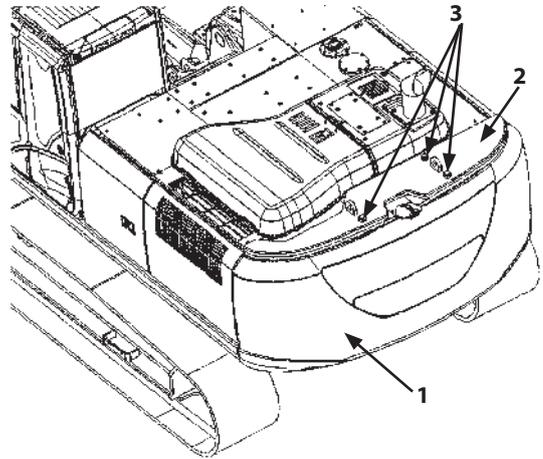
Slightly lift the wire rope with a crane to remove wire slackness. Remove mounting bolts (3) (3 used in ZX300-7, 4 used in ZX350-7).

Hoist and remove the additional counterweight by using a crane.

Wrench size : 46 mm

Additional Counterweight Weight

Model	Type	Counterweight
ZX250LC(N)-7	HE15LD	0 kg
	HE18LD	
ZX300LC(N)-7	HE15LD	550 kg
	HE18LD	
ZX350LC(N)-7	HE15LD	1430 kg
	HE18LD	
	HE20LD	1070 kg
	HE22	



MDCA-SL1-018

DISASSEMBLING • ASSEMBLING

Counterweight Removal

ZX250LC(N)-7

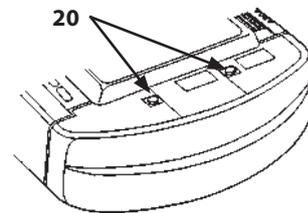
ZX300LC(N)-7

Counterweight:

Model	Type	Counterweight
ZX250LC(N)-7	HE15LD	7750 kg
	HE18LD	
ZX300LC(N)-7	HE15LD	7200 kg
	HE18LD	

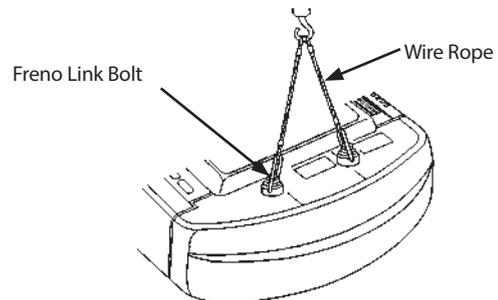
⚠ WARNING: When the front attachment is removed, also remove the counterweight. Otherwise, the machine has a risk of turnover.

1. Remove cap (20) at the top of the counterweight. Install the freno link bolt.



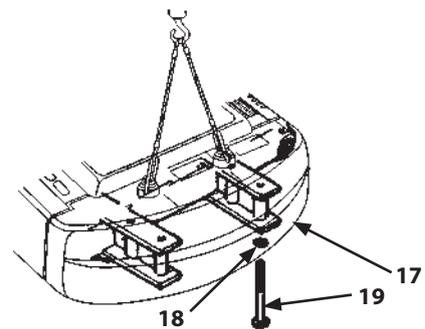
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2. Attach wire ropes on the freno link bolt. Slightly hoist the wire and remove the slackness of the wire.



W178-02-02-002

3. Remove the bolts (19). Hoist and remove the counterweight (17).



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DISASSEMBLING • ASSEMBLING

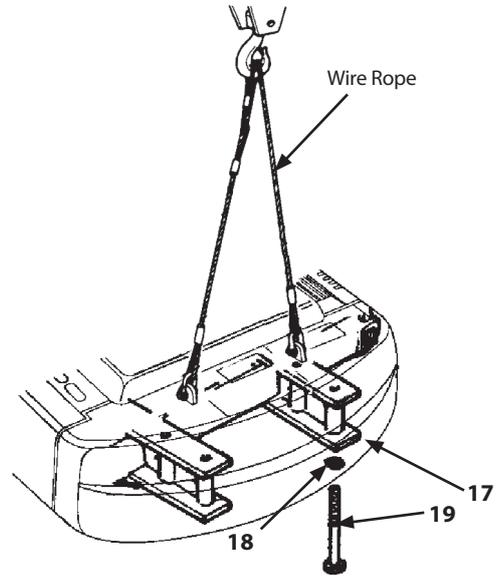
Counterweight Removal

ZX350LC(N)-7

Counterweight:

Model	Type	Counterweight
ZX350LC(N)-7	HE15LD	8870 kg
	HE18LD	
	HE20LD	
	HE22	

1. Attach wire ropes on the upper bracket of the counterweight. Slightly hoist the wire and remove the slackness of the wire.



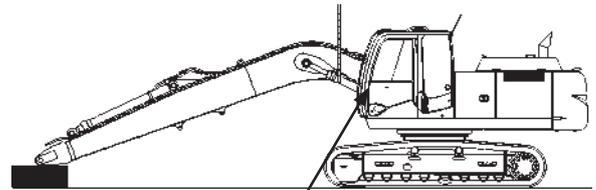
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2. Remove the bolts (19) and the washer (18). Hoist and remove the counterweight (17).

DISASSEMBLING • ASSEMBLING

Remove boom cylinder from Boom

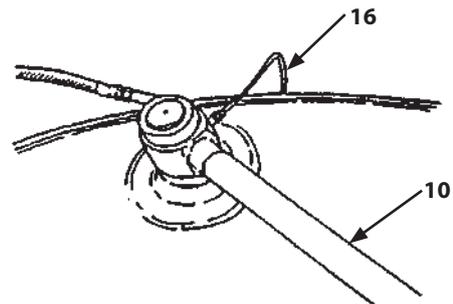
1. Ensure that the boom end is placed on a wooden block.
2. Release remaining pressure from the piping of boom cylinder (10).
Refer to the "Operator's Manual for Hitachi Excavator" for releasing pressure.



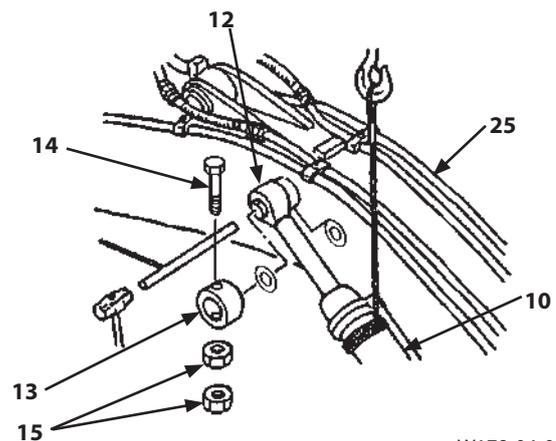
10

MDCA-SL1-038

3. Remove lubrication piping (16) to the rod side adapter on boom cylinder (10).
Wrench size : 19 mm
Boom cylinder (10) weight: : 290 kg
4. Hoist and hold boom cylinder (10).
Remove nuts (15) (2 used), bolt (14) and stopper (13) from boom cylinder rod end pin (12). (2 positions on left and right side)
Wrench size: 30 mm
5. Loosen the rope and lower boom cylinder (10) gently.
Place a protector at the contact position of boom cylinder (10) and the frame to prevent the cylinder from being damaged.
6. Remove boom cylinder (10) at other side (right) from the boom in the same procedures.
7. Fully retract boom cylinder (10).



W105-04-01-002

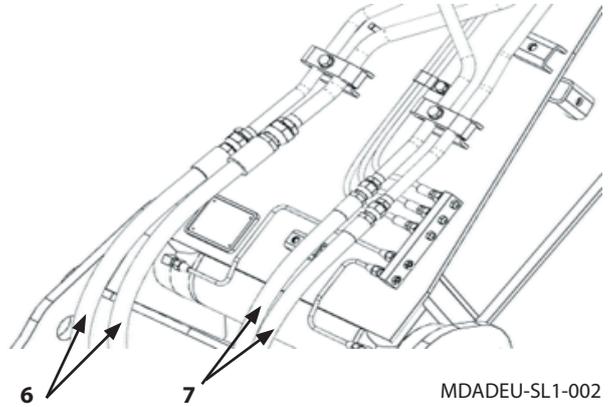


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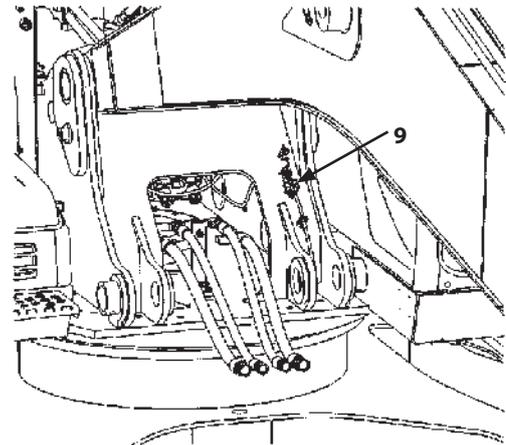
DISASSEMBLING • ASSEMBLING

Removal of Hoses between the Machine and Boom

1. Release remaining pressure from the piping before removing hoses.
Refer to the "Operator's Manual for Hitachi Excavator" for releasing pressure.
2. Remove arm hose (6) and bucket hose (7) between the base machine and the boom.
3. Plug the open end of hoses and pipes to prevent dust from entering the hydraulic system.
4. Disconnect the harness connector (9) of the front attachment to the electric wiring of the boom light.



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MDCA-SL1-015

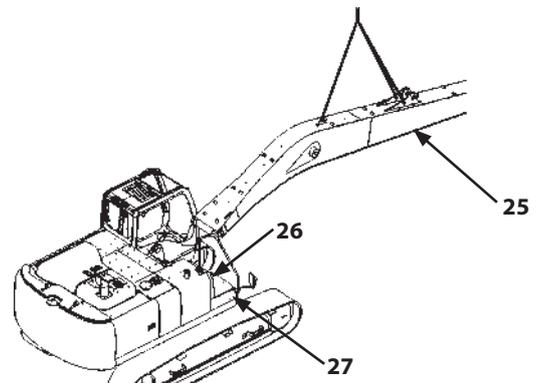
DISASSEMBLING • ASSEMBLING

Boom Removal

1. Remove mounting bolts (8 used) from tool box (26) and cover (27).
Hoist tool box (26) and cover (27) by a crane. Place them in a stable position.
2. Remove bolt (2), spring washer (3), plate (4) and block (5) from the plate of boom foot pin.
Wrench size: 27 mm
3. Attach a wire rope at the gravity center of boom (25).
Lightly hold it by using a crane.

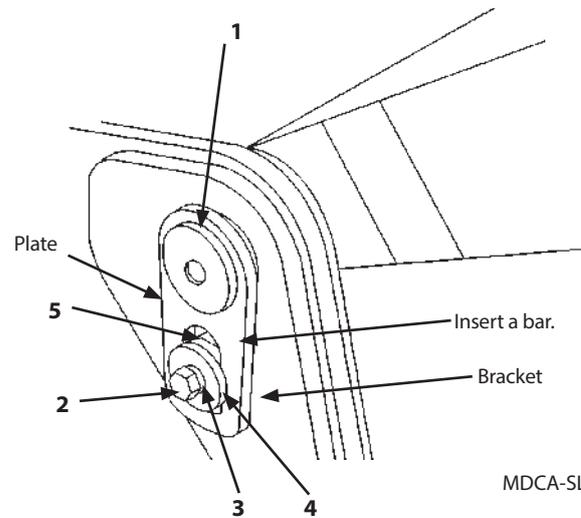
Boom Weight:

Model	Type	Boom Weight
ZX250LC(N)-7	HE15LD	3070 kg
	HE18LD	3280 kg
ZX300LC(N)-7	HE15LD	3340 kg
	HE18LD	3440 kg
ZX350LC(N)-7	HE15LD	3700 kg
	HE18LD	4070 kg
	HE20LD	4110 kg
	HE22	4110 kg

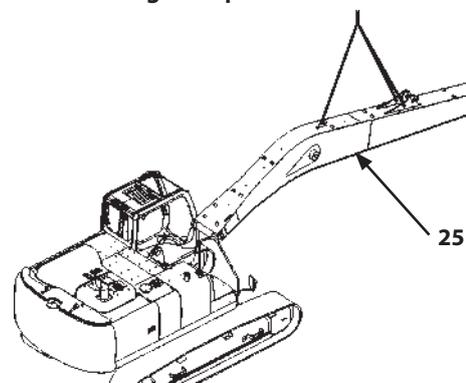


MDCA-SL1-003

4. Adjust the boom position with a crane; insert a bar in between the plate of boom foot pin (1) and the bracket, and pull foot pin (1) half way.
5. Remove boom foot pin (1).
6. Hoist boom (25) by using a crane. Move the machine backward.
7. Place boom (25) onto a wooden block.



MDCA-SL1-002



MDCA-SL1-003

TRANSPORTATION

Transporting by Road

When transporting the machine on public roads, be sure to first understand and follow all local regulations.

1. When transporting using a trailer, check the width, height, length and weight of the trailer with the machine loaded. Note that when transporting, the weight and dimensions may vary depending on the type of frontal attachments installed. Refer to the items detailed in "DIMENSIONS AND WEIGHT WHEN TRANSPORTING" to ensure that you select the correct sized trailer in order to prevent overloading.
2. Investigate beforehand the conditions of the route to be traveled, such as dimensional limits, weight limits, and traffic regulations.
In some cases, disassemble the machine to bring it within dimensional limits or weight limits of local regulations.
3. Notify the nearest dealer that you are transporting the unit.



MDCA-SL1-039

Loading/Unloading

⚠ CAUTION: Follow all rules and regulations concerned when transporting the machine on public roads. Remove the front attachment and the counterweight as necessary.

TRANSPORTATION

Loading/Unloading on a Trailer

Always load and unload the machine on a firm, level surface.

 **WARNING: Be sure to use a loading dock or a ramp for loading/unloading.**

Ramp/Loading Dock:

1. Before loading, thoroughly clean the ramps, loading dock and flatbed. Dirty ramps, loading docks, and flatbeds with oil, mud, or ice on them are slippery and dangerous.
2. Place blocks against the truck and trailer wheels while using a ramp or loading dock.
3. Ramps must be sufficient in width, length, and strength. Be sure that the incline of the ramp is less than 15 degrees.
4. Loading docks must be sufficient in width and strength to support the machine and have an incline of less than 15 degrees.
5. When loading the machine equipped with pat crawler or rubber pad shoes, take sufficient care not to allow the machine to slip since the surface of the rubber pad shoe is flat.

Load the machine only after removing soil or clay adhered to the machine.

TRANSPORTATION

Transporting with Front Attachment (in the job site)

⚠ WARNING: The stay (1) may fall when the pin is removed from the stay (1).

⚠ CAUTION: The bucket may interfere in the stay (1) depending on the type of the bucket. Carefully select the bucket to be installed.

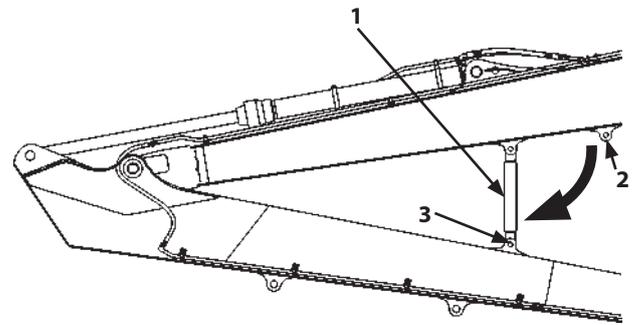
1. Fully extend the bucket cylinder, slowly roll-in the arm (fully extend the arm cylinder) and stop at the end position.

IMPORTANT: Perform this operation on a flat and open field. If the bucket cylinder contacts to obstacles, the cylinder may be damaged.

2. Let the arm tip come in contact with the ground.
3. Remove pin (2) from stay (1). Lower stay (1). Lower the boom (light jack up operation) until pin hole (3) of the arm side aligns with stay (1).
4. When pin hole (3) aligns, install pin (2) to the arm side. Install retainer lock to secure stay (1).

IMPORTANT:

- If the stay is not used, the front attachment may be damaged due to shocks during transporting.
- If the arm is operated with installing stay (1), the boom and arm may be damaged.



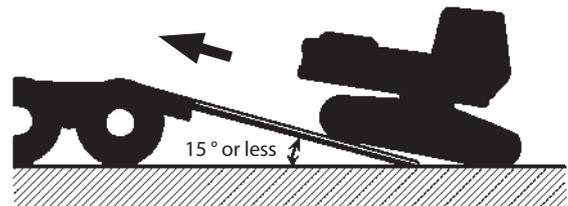
M1U5-SL1-012

TRANSPORTATION

Loading/Unloading

WARNING:

- Always turn the auto-idle switch OFF and turn the power mode switch to (PWR) or (ECO) position when loading or unloading the machine. In the auto-idle mode, speed may automatically increase.
- Always select the slow speed mode with the travel mode switch.
- Never steer while driving up or down a ramp as it is extremely dangerous and may cause the machine to turnover. NEVER attempt to change directions whilst positioned on the ramp. If repositioning is necessary, first move back to the ground or flatbed, modify traveling direction, and begin to drive again.
- The top end of the ramp where it meets the flatbed is a sudden bump. Take care when traveling over it as the balance may be lost. If the front attachment is not fitted, reverse onto the trailer.
- Extreme care must be taken when swinging the upper structure when the machine is on the trailer flatbed. If the front attachment is fitted, swing slowly with the arm fully roll-in underneath the boom being careful not to lose the balance of the machine.
- NEVER attempt to swing the upper structure when the machine is on a trailer flatbed. It is very dangerous and can cause the machine to turnover.
- When the machine is loaded/unloaded without the front attachment, remove counterweight.
- If the front attachment is installed, lower the front attachment as possible before loading/unloading the machine.



M107-06-018

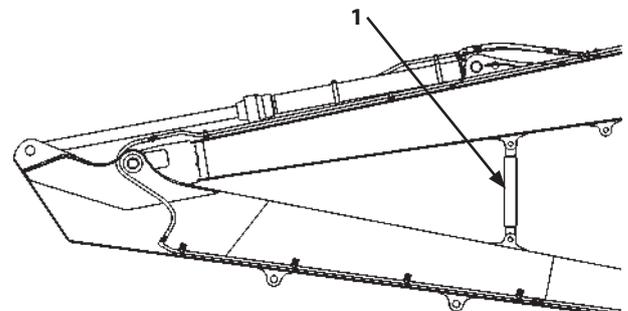


M107-06-014

Loading

Drive the machine in reverse with the front attachment at the rear when loading the machine.

1. Load the machine so that the centerline of the machine aligns with the centerline of the trailer flatbed.
2. Drive the machine reverse, set the boom end 1m or less above the ground. Slowly ascend a slope to load the machine.
3. The top end of the ramp where it meets the flatbed is a sudden bump. Take care when traveling over it as the balance may be lost.
4. Install stay (1) when the front attachment is installed.



M1U5-SL1-012

TRANSPORTATION

Unloading

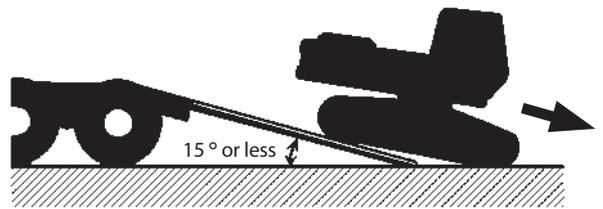
⚠ WARNING: The rear end of the flatbed where it meets the ramp is a sudden bump. Take care when traveling over it.

Drive the machine forward when unloading the machine.

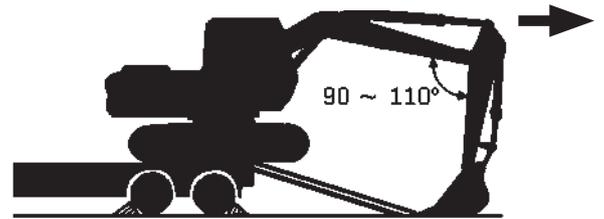
1. Remove stay (1) when the front attachment is installed.
2. When moving the machine from the end of trailer to the ramp, set the boom end 2m off the bed, slowly drive the machine to the ramp.

⚠ WARNING: The top end of the ramp where it meets the flatbed is a sudden bump. Take care when traveling over it as the balance may be lost.

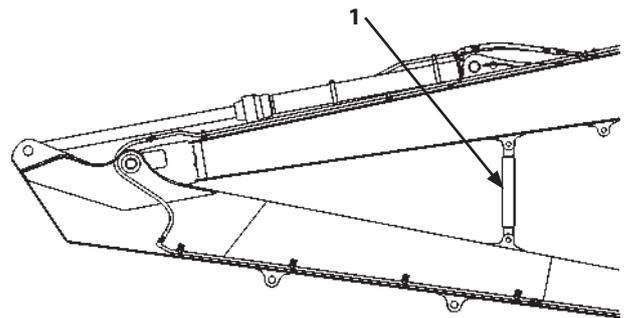
3. When descending the ramp, slowly move the machine forward until the machine base completely leaves the ramp.



M107-06-018



M107-06-014



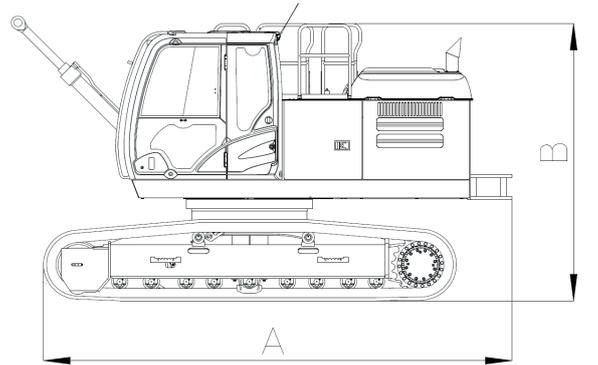
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TRANSPORTATION

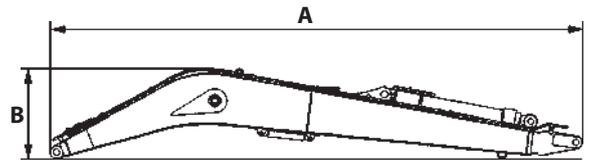
Dimensions and Weight for Transportation

1. Base Machine

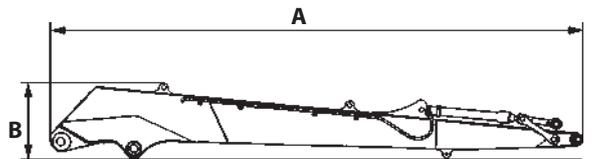
Model		Shoe Width (mm)	A (mm)	B (mm)	Width (mm)	Weight (kg)
ZX250LC-7	HE15LD	600	5210	3180	3190	15600
		700			3290	16000
	HE18LD	800			3390	16300
		900			3490	16800
ZX250LCN-7	HE15LD	600	5210	3180	2990	15600
		700			3090	15900
	HE18LD	800			3190	16200
		900			3290	16700
ZX300LC-7	HE15LD	600	5430	3220	3190	19500
		700			3290	19900
	HE18LD	800			3390	20300
		900			3490	20600
ZX300LCN-7	HE15LD	600	5430	3220	2990	19300
		700			3090	19700
	HE18LD	800			3190	20100
		900			3290	20500
ZX350LC-7	HE15LD	600	5870	3300	3190	21300
		700			3290	21700
	HE20LD	800			3390	22000
		HE22			900	3490
ZX350LCN-7	HE15LD	600	5870	3300	2990	21100
		HE18LD			700	3090
HE20LD	HE22					



MDCA-SL1-022



MDCA-SL1-023



MDCA-SL1-024

2. Boom

Model		A (mm)	B (mm)	Width (mm)	Weight (kg)
ZX250LC(N)-7	HE15LD	8720	1470	880	3070
	HE18LD	10460	1410	880	3280
ZX300LC(N)-7	HE15LD	8920	1360	880	3340
	HE18LD	10460	1410	880	3440
ZX350LC(N)-7	HE15LD	9240	1420	960	3700
	HE18LD	10690	1590	960	4070
	HE20LD	12040	1750	960	4110
	HE22	12540	1550	960	4110

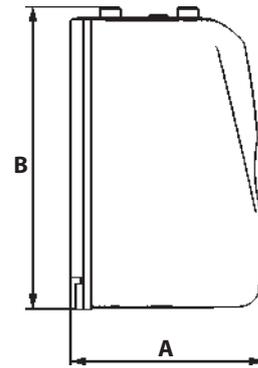
3. Arm

Model		A (mm)	B (mm)	Width (mm)	Weight (kg)
ZX250LC(N)-7	HE15LD	7090	1340	470	1780
	HE18LD	8430	1310	470	1760
ZX300LC(N)-7	HE15LD	7290	1380	500	1950
	HE18LD	8430	1310	500	1970
ZX350LC(N)-7	HE15LD	7140	1350	510	2060
	HE18LD	8270	1350	510	2130
	HE20LD	9420	1550	510	2310
	HE22	10630	1550	510	2330

TRANSPORTATION

4. Counterweight

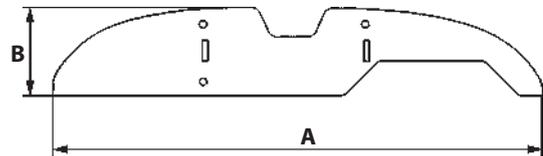
Model		A (mm)	B (mm)	Width (mm)	Weight (kg)
ZX250LC(N)-7	HE15LD	730	1150	2840	7750
	HE18LD				
ZX300LC(N)-7	HE15LD	690	1170	2950	7200
	HE18LD				
ZX350LC(N)-7	HE15LD	760	1260	2950	8870
	HE18LD				
	HE20LD				
	HE22				



MDCA-SL1-025

5. Additional Counterweight

Model		A (mm)	B (mm)	Width (mm)	Weight (kg)
ZX250LC(N)-7	HE15LD	-	-	-	0
	HE18LD				
ZX300LC(N)-7	HE15LD	2520	460	190	550
	HE18LD				
ZX350LC(N)-7	HE15LD	2660	480	280	1430
	HE18LD				
	HE20LD	2660	480	220	1070
	HE22				



MDCA-SL1-026

TRANSPORTATION

Lifting Machine



WARNING:

- **Make sure that you use lifting wire and other lifting tools that are not damaged or deteriorated and that have sufficient capacity required for the work.**
- **Be sure to contact your authorized dealer for correct lifting procedure, and size and kinds of lifting wire ropes and lifting tools.**
- **Pull the pilot control shut-off lever to the LOCK position so that the machine does not accidentally move while being lifted.**
- **Incorrect lifting procedure and/or incorrect wire rope attachment will cause the machine to move (shift) while being lifted, resulting in machine damage and/or personal injury.**
- **NEVER place loads on the lifting cables and tools too quickly.**
- **Do not allow anyone to come close to or under the lifted machine.**
- **The indicated gravity center is for the standard specification machine. The gravity center will vary depending on the kinds of attachments and/or optional equipment to be installed or their position to be taken. Therefore, take care not to lose the balance of the machine while lifting.**

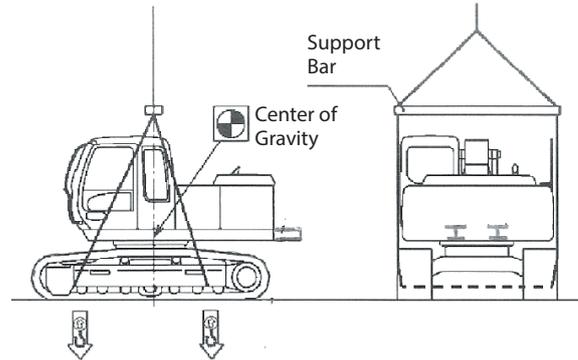
TRANSPORTATION

Do Not Hoist Whole Machine

The machine capable of mounting super long front attachment. Has very long front, so it easily loses balance when the whole machine is hoisted. Never attempt to hoist the whole machine.

Always hoist the machine after removing the super long front attachment and the counterweight.

1. Remove the front attachment and counterweight by referring to the Disassembly/Assembly section.
2. Pull the pilot control shut-off lever to the LOCK position.
3. Stop the engine. Remove the key from the key switch.
4. Close and lock all doors and covers.
5. Use wire ropes and support bar of sufficient length so that they do not come in contact with the machine while lifting.
Wrap wire ropes and/or support bar with protector as required to prevent the machine from being damaged.
6. Set a crane in an appropriate position.
7. Thread the wire rope through and under both sides of the track frames as illustrated. Attach the wire ropes to the crane.



MDCA-SL1-040

MAINTENANCE

Maintenance Guide

A. Greasing

Parts		Qty	Interval (hours)						Page		
			8	50	100	250	500	1000		2000	
1.	Front Joint Pins	Others	11	★			★★				6-2
		Bucket and Link Pins	9	★			★★				6-2

★ : In case excavations are performed in water, grease the pin after operation is complete.

Maintenance also required when operating under extremely severe condition.

★★ : 250 hours for only first time.

IMPORTANT: Grease bucket and link pivots every day until break-in operation (50 hours) is complete.

When a bucket which does not have clearance adjustment mechanism such as slope-finishing bucket, or a genuine Hitachi hoe bucket before EX-5 model, or an attachment other than genuine Hitachi bucket is used, grease two pins every 250 hours.

B. Miscellaneous

Parts		Quantity	Interval (Hours)							Page	
			8	50	100	250	500	1000	2000		4500
1.	Tightening and Retightening Torque of Nuts and Bolts	–		★★							6-4

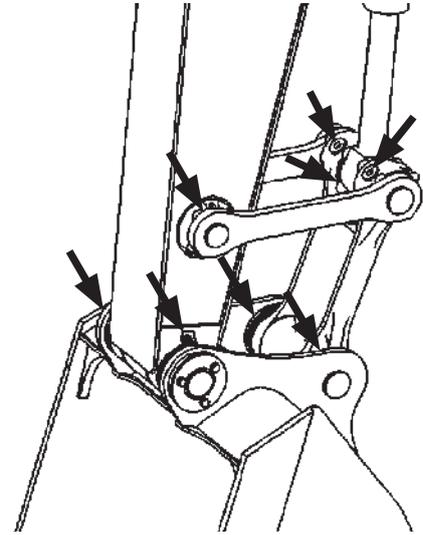
★★ : Maintenance required only during first time check.

MAINTENANCE

A. Greasing

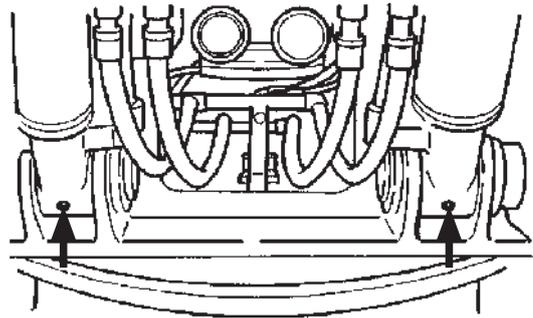
- 1** **Front Joint Pins**
--- every 500 hours
250 hours for only first time.

Lubricate all fittings shown in the figure.



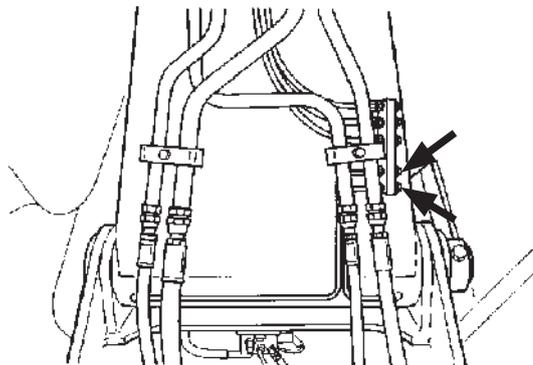
M178-07-007

- Boom Cylinder Bottom Side



M157-07-156

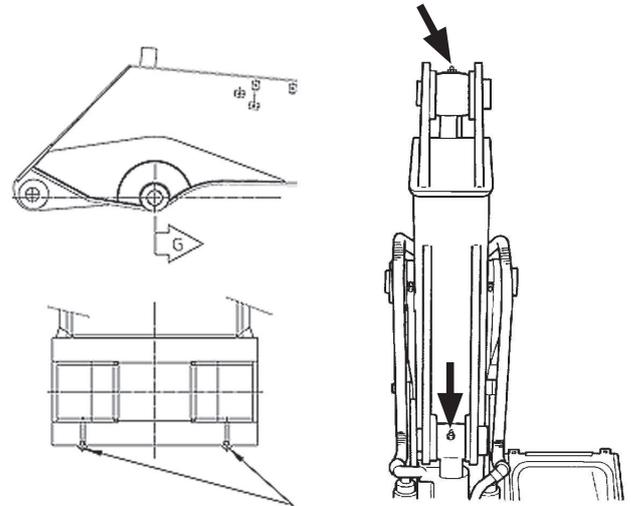
- Boom Foot



M157-07-155

MAINTENANCE

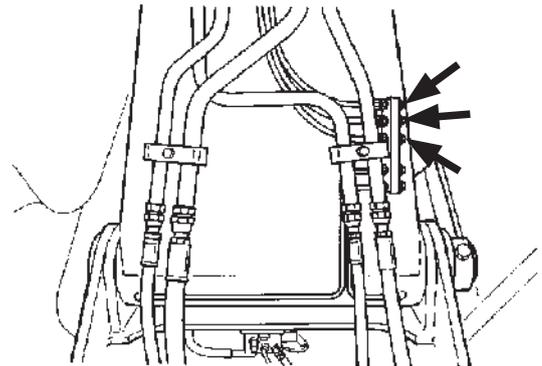
- Boom and Arm Joint Pin, Arm Cylinder Rod Pin and Bucket Cylinder Bottom Pin.



SECTION G

MDCAEU-SL1-002

- Boom Cylinder Rod Pins and Arm Cylinder Bottom Pin.



M157-07-155

MAINTENANCE

B. Miscellaneous

1 Tightening and Retightening Torque of Nuts and Bolts

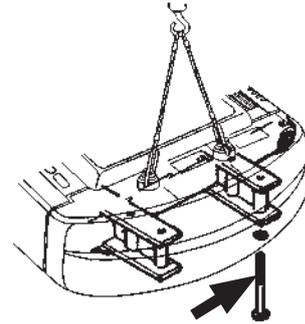
--- every 250 hours (first time after 50 hours)

Tighten to torque shown if any are loose. Bolts and nuts should be replaced with those of the same or higher grade. Check tightness after the first 50 hours then every 250 hours. For tightening nuts and bolts other than specified in the table below, refer to the Tightening Torque Chart at the end of this section.

No.	Descriptions	Machine Type	Bolt Dia	Quantity	Wrench size	Torque	
					mm	N·m	(kgf·m)
1.	Counterweight mounting bolt	ZX250LC(N)-7	M30	4	46	1950	195
		ZX300LC(N)-7	M33		50	2360	236
		ZX350LC(N)-7	M36		55	2840	284
2.	Additional counterweight mounting bolt	ZX250LC(N)-7	-	-	-	-	-
		ZX300LC(N)-7	M30	3	46	1950	195
		ZX350LC(N)-7	M30	4			

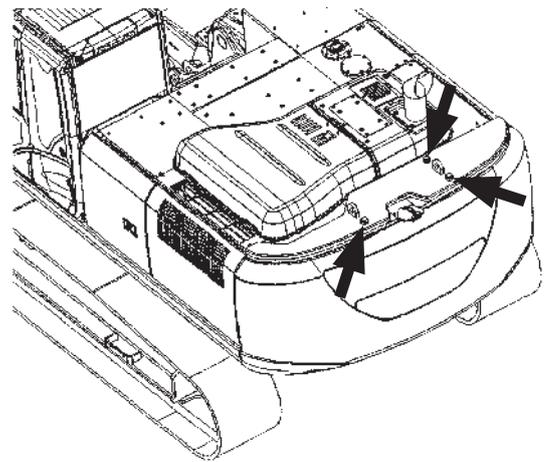
MAINTENANCE

1. Counterweight mounting bolt



W178-02-02-003

2. Additional counterweight mounting bolt



MDCA-SL1-018

TROUBLESHOOTING

Troubleshooting

If any machine trouble has occurred, immediately repair it. Make certain the cause of the trouble and take necessary measures to prevent the reoccurrence of the same trouble. In case troubleshooting is difficult, or measures marked with * must be taken, consult the nearest Hitachi dealer. Never attempt to adjust, disassemble, or repair the hydraulic and/or electrical/electronic parts/components.

IMPORTANT: Never attempt to disassemble or modify the electrical/electronic components.

Only the items that differ from those on the Hitachi hydraulic excavator are described in this section. Refer to the "Operator's Manual for Hitachi Hydraulic Excavator" for other inquiries than described in this section.

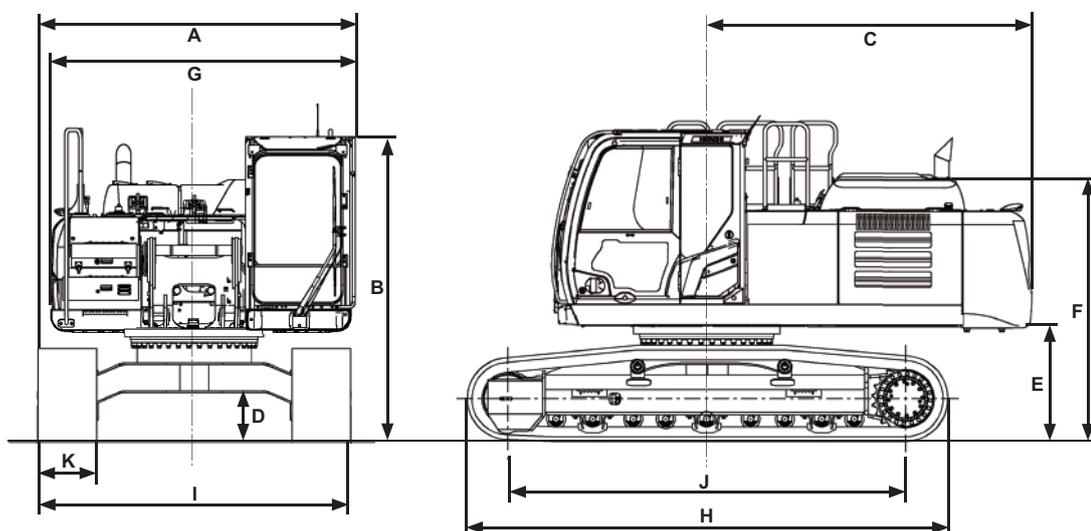
Super long front attachment is installed.

Problem	Cause	Solution
Swing speed becomes faster	Faulty pressure reducing valve	Repair or replace

SPECIFICATIONS

Specifications

ZX250LC-7, 250LCN-7



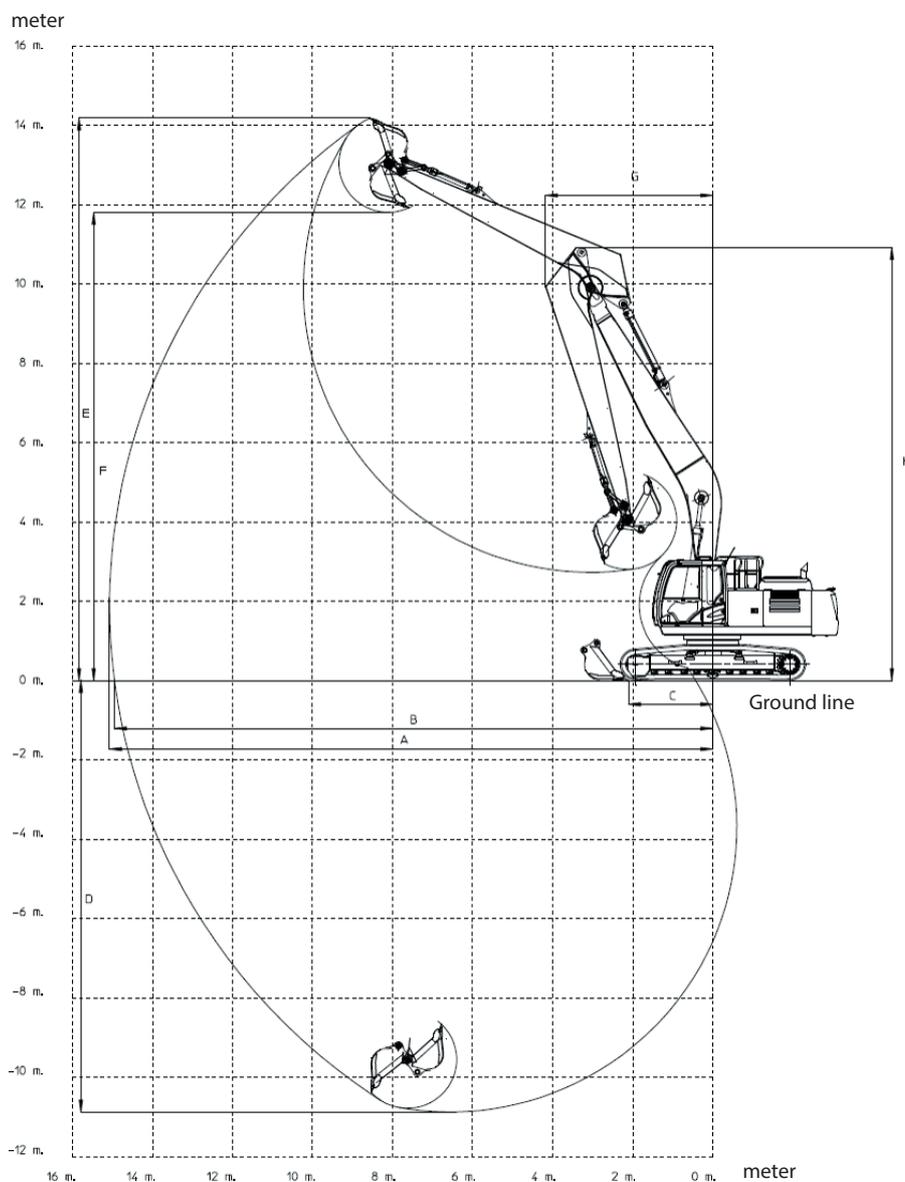
MDFY-12-005-1 ja

Model		ZX250LC-7		ZX250LCN-7	
Type of Front-End Attachment	–	HE15LD	HE18LD	HE15LD	HE18LD
Bucket Capacity Heaped	m ³	0.66	0.40	0.59	0.40
Operating Weight	kg	28700	28900	28700	28800
Engine	–	Isuzu 4HK1 140 kW/2000 min ⁻¹ (ISO 14396)			
A: Overall Width (Excluding back mirrors)	mm	3190		2990	
B: Cab Height	mm	3010			
C: Rear End Swing Radius	mm	3140			
D: Minimum Ground Clearance	mm	*460			
E: Counterweight Clearance	mm	*1050			
F: Engine Cover Height	mm	*2570			
G: Overall Width of Upperstructure	mm	2870			
H: Undercarriage Length	mm	4640			
I: Undercarriage Width	mm	3190		2990	
J: Sprocket Center to Idle Center	mm	3850			
K: Track Shoe Width	mm	600 (Grouser shoe)			
Ground Pressure	kPa	57	58	57	58
Swing Speed	min ⁻¹ (rpm)	7.2 (7.2)			
Travel Speed (fast/slow)	km/h	5.5/3.4			
Gradeability	Degree (%)	30 (58)			

NOTE: * The dimensions do not include the height of the shoe lug.

SPECIFICATIONS

Working Ranges ZX250LC(N)-7 Super Long Front Attachment (Type HE15LD)



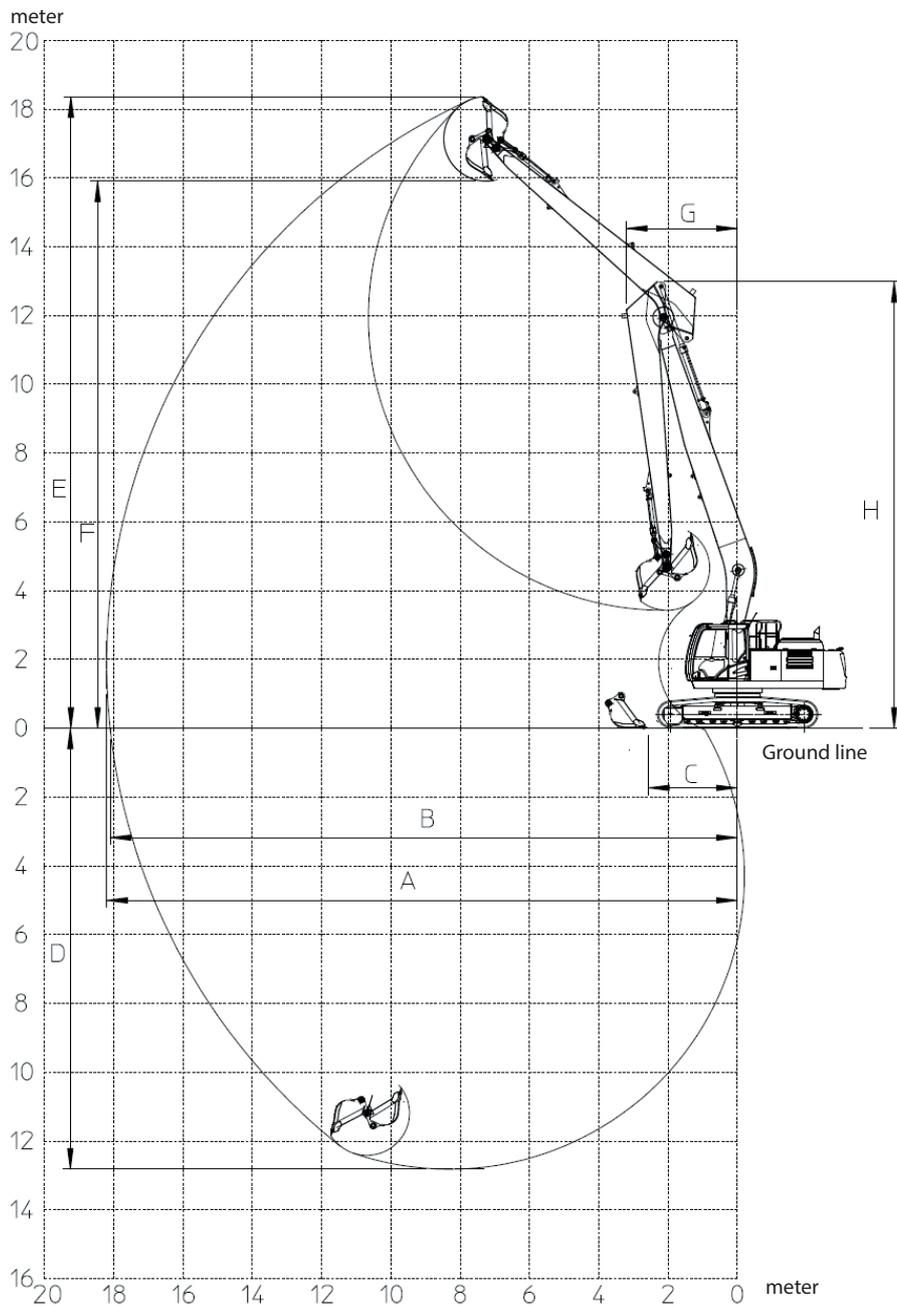
MDC1EU-SL1-001

A: Maximum Digging Reach	(mm)	15070
B: Maximum Digging Reach (on ground)	(mm)	14950
C: Minimum Level Crowding Distance	(mm)	2110
D: Maximum Digging Depth	(mm)	10870
E: Maximum Cutting Height	(mm)	14180
F: Maximum Dumping Height	(mm)	11800
G: Minimum Swing Radius	(mm)	4180
H: Minimum Swing Radius Height	(mm)	10920

 **NOTE:** * Working range can be changed depending on bucket size.

SPECIFICATIONS

Working Ranges ZX250LC(N)-7 Super Long Front Attachment (Type HE18LD)



MDC1EU-SL1-002

A: Maximum Digging Reach	(mm)	18200
B: Maximum Digging Reach (on ground)	(mm)	18100
C: Minimum Level Crowding Distance	(mm)	2560
D: Maximum Digging Depth	(mm)	12760
E: Maximum Cutting Height	(mm)	18360
F: Maximum Dumping Height	(mm)	15910
G: Minimum Swing Radius	(mm)	3210
H: Minimum Swing Radius Height	(mm)	12990

NOTE: * Working range can be changed depending on bucket size.

SPECIFICATIONS

Shoe Types and Applications

ZX250LC-7

Type		HE15LD				HE18LD				
Shoe Width		Grouser Shoe				Grouser Shoe				
		600	700	800	900	600	700	800	900	
Application		For Ordinary Ground (Standard)	For Weak Footing (Option)			For Ordinary Ground (Standard)	For Weak Footing (Option)			
Base Machine Specifications	Operating Weight (kg)	28700	29100	29400	29900	28900	29200	29500	30000	
	Cab Height (mm)	3010	3010	3010	3010	3010	3010	3010	3010	
	Minimum Ground (mm) Clearance	*460	*460	*460	*460	*460	*460	*460	*460	
	Undercarriage Length (mm)	4640	4640	4640	4640	4640	4640	4640	4640	
	Undercarriage Width (mm)	3190	3290	3390	3490	3190	3290	3390	3490	
	Ground Pressure	kPa	57	50	44	40	58	50	44	40
		(kgf/cm ²)	0.57	0.49	0.44	0.40	0.59	0.51	0.45	0.41

ZX250LCN-7

Type		HE15LD				HE18LD				
Shoe Width		Grouser Shoe				Grouser Shoe				
		600	700	800	900	600	700	800	900	
Application		For Ordinary Ground (Standard)	For Weak Footing (Option)			For Ordinary Ground (Standard)	For Weak Footing (Option)			
Base Machine Specifications	Operating Weight (kg)	28700	29000	29300	29800	28800	29100	29400	29900	
	Cab Height (mm)	3010	3010	3010	3010	3010	3010	3010	3010	
	Minimum Ground (mm) Clearance	*460	*460	*460	*460	*460	*460	*460	*460	
	Undercarriage Length (mm)	4640	4640	4640	4640	4640	4640	4640	4640	
	Undercarriage Width (mm)	2990	3090	3190	3290	2990	3090	3190	3290	
	Ground Pressure	kPa	57	50	44	40	58	50	44	40
		(kgf/cm ²)	0.58	0.51	0.45	0.41	0.59	0.51	0.45	0.41

 **NOTE:**

- Other than 600 mm grouser shoe should not be used on gravel or rocky ground. Operating or digging on gravel ground may cause serious damage to shoe, shoe bolts and other parts such as rollers.
- Never operate the machine on a rough ground when the super long front attachment is installed regardless of the shoe type.
- *The dimensions do not include the height of the shoe lug.

SPECIFICATIONS

Bucket Types and Applications

ZX250LC(N)-7

IMPORTANT:

- **When digging on a solid ground with the super long front attachment, the front attachment may be damaged.**
- **Use the super long front attachment for digging of soft ground.**
- **If a wide-size bucket other than recommended is used for operation, it may result in a front attachment twist and damage to the parts.**
- **Ensure the total weight of the bucket and material load does not exceed the maximum allowable loading weight of the machine when operating the machine. The maximum allowable weight is determined by Hitachi standards. If the total load exceeds this value, it may cause machine turnover or damage on the front attachment. Select a bucket having capacity and weight with maximum allowable loading weight.**
- **If a bucket with a larger radius than recommended is used, the bucket cylinder has the possibility to relief depending on ground condition.**

Use a bucket in combination shown in the below table when the super long front attachment is installed. If a mass excavation bucket or an extreme service excavation bucket which is not described in the table is used, the machine stability will not be secured and the strong force may be applied to the main body, front attachment and cylinders, resulting in damage on the machine.

Use the bucket and the arm in combination only as described in the below table.

Recommended Bucket Radius 1230mm

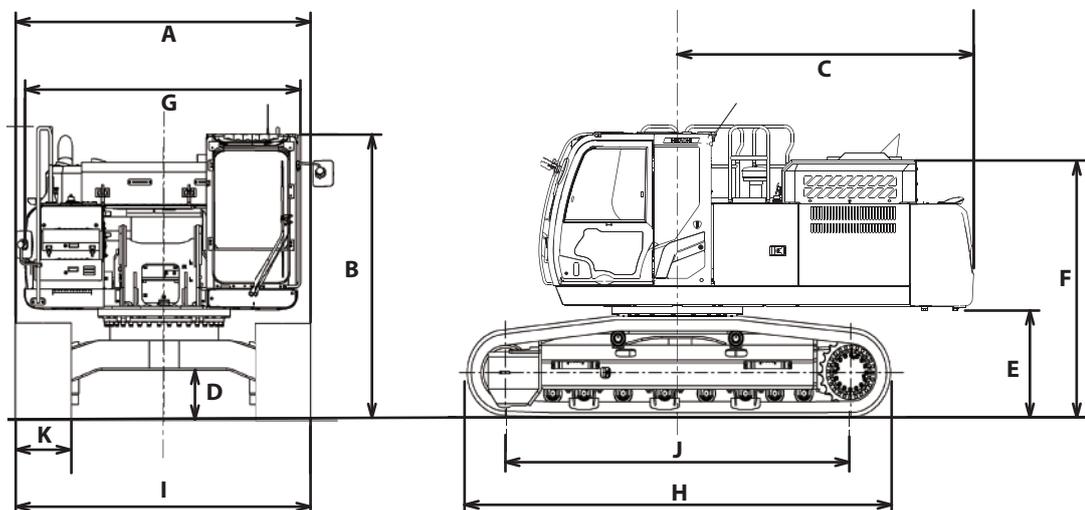
	Capacity ISO heaped	Width without side cutters	Weight	Recommendation			
				ZX250LC		ZX250LCN	
				HE15LD	HE18LD	HE15LD	HE18LD
Bucket radius 1230mm	0.40 m ³	720 mm	340 kg	●	○	●	□
	0.45 m ³	800 mm	370 kg	●	□	●	□
	0.50 m ³	890 mm	390 kg	●	□	●	×
	0.59 m ³	950 mm	410 kg	●	×	●	×
	0.66 m ³	1 030 mm	430 kg	●	×	○	×
Slope finishing	-	1 600 mm	430 kg	◇	◇	◇	◇
Max weight				1 690 kg	1 050 kg	1 560 kg	940 kg

- : For light duty excavating (digging and loading operation of wet, loosened earth, sand, mud and so on, the bulk density shall be less than 1800 kg/m³ as a standard.)
 - : For light duty excavating (digging and loading operation of dry, loosened earth, sand, mud and so on. The bulk density shall be less than 1,600 kg/m³ as a standard.)
 - : For loading operation of dry, loosened earth and sand. The bulk density shall be less than 1,100 kg/m³ as a standard.)
 - ◇ : Slope-finishing work
 - ×
- × : Not applicable (not warrantable)

SPECIFICATIONS

Specifications

ZX300LC-7, 300LCN-7



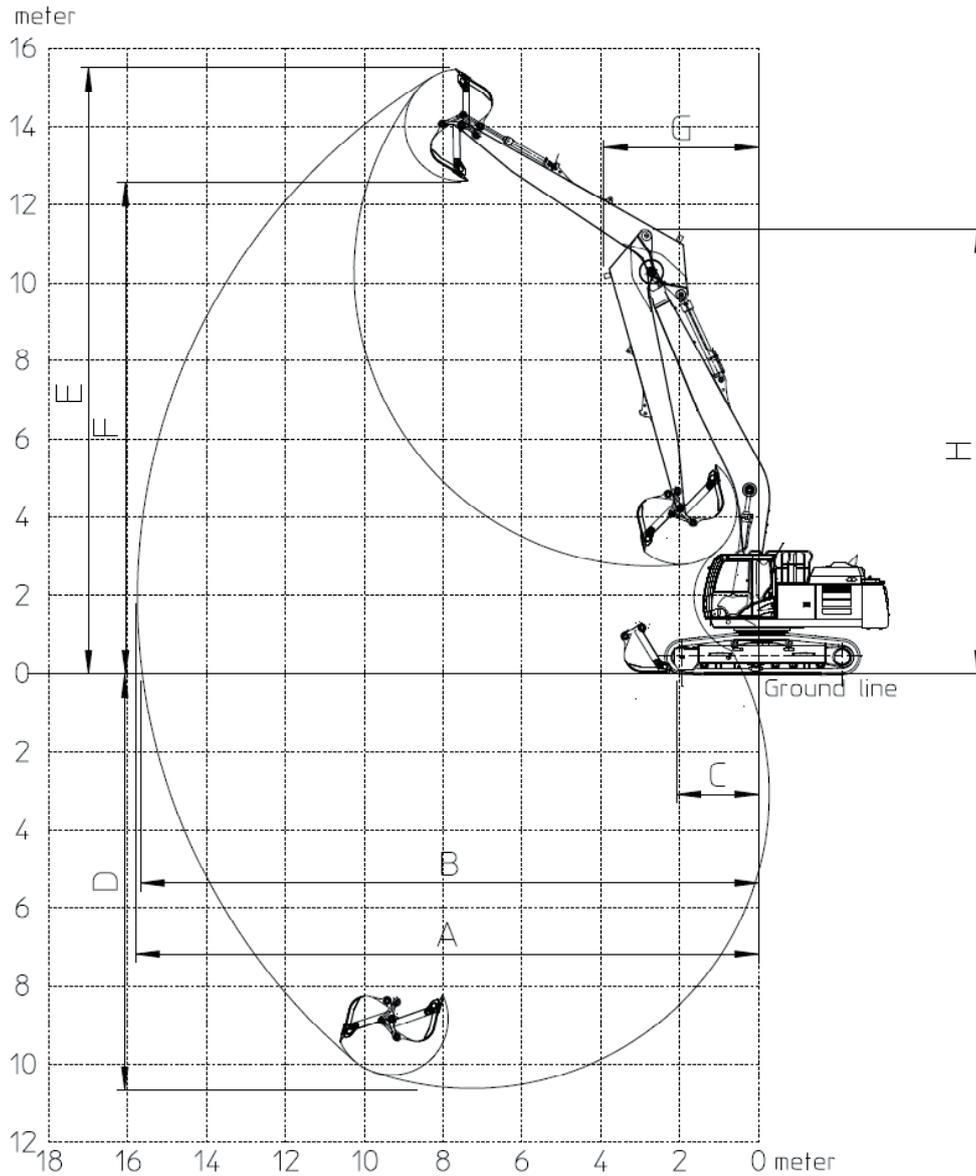
MDFY-12-002-1 ja

Model		ZX300LC-7		ZX300LCN-7	
Type of Front-End Attachment	–	HE15LD	HE18LD	HE15LD	HE18LD
Bucket Capacity Heaped	m ³	0.70	0.40	0.60	0.40
Operating Weight	kg	33100	33100	33000	32900
Engine	–	Isuzu 6HK1 197 kW/1900 min ⁻¹ (ISO 14396)			
A: Overall Width (Excluding back mirrors)	mm	3190		2990	
B: Cab Height	mm	3120			
C: Rear End Swing Radius	mm	3250			
D: Minimum Ground Clearance	mm	*510			
E: Counterweight Clearance	mm	*1130			
F: Engine Cover Height	mm	*2720			
G: Overall Width of Upperstructure	mm	2990			
H: Undercarriage Length	mm	4940			
I: Undercarriage Width	mm	3190		2990	
J: Sprocket Center to Idle Center	mm	4050			
K: Track Shoe Width	mm	600 (Grouser shoe)			
Ground Pressure	kPa	62	62	62	62
Swing Speed	min ⁻¹ (rpm)	6.7 (6.7)			
Travel Speed (fast/slow)	km/h	5.2/3.1			
Gradeability	Degree (%)	30 (58)			

NOTE: * The dimensions do not include the height of the shoe lug.

SPECIFICATIONS

Working Ranges ZX300LC(N)-7 Super Long Front Attachment (Type HE15LD)



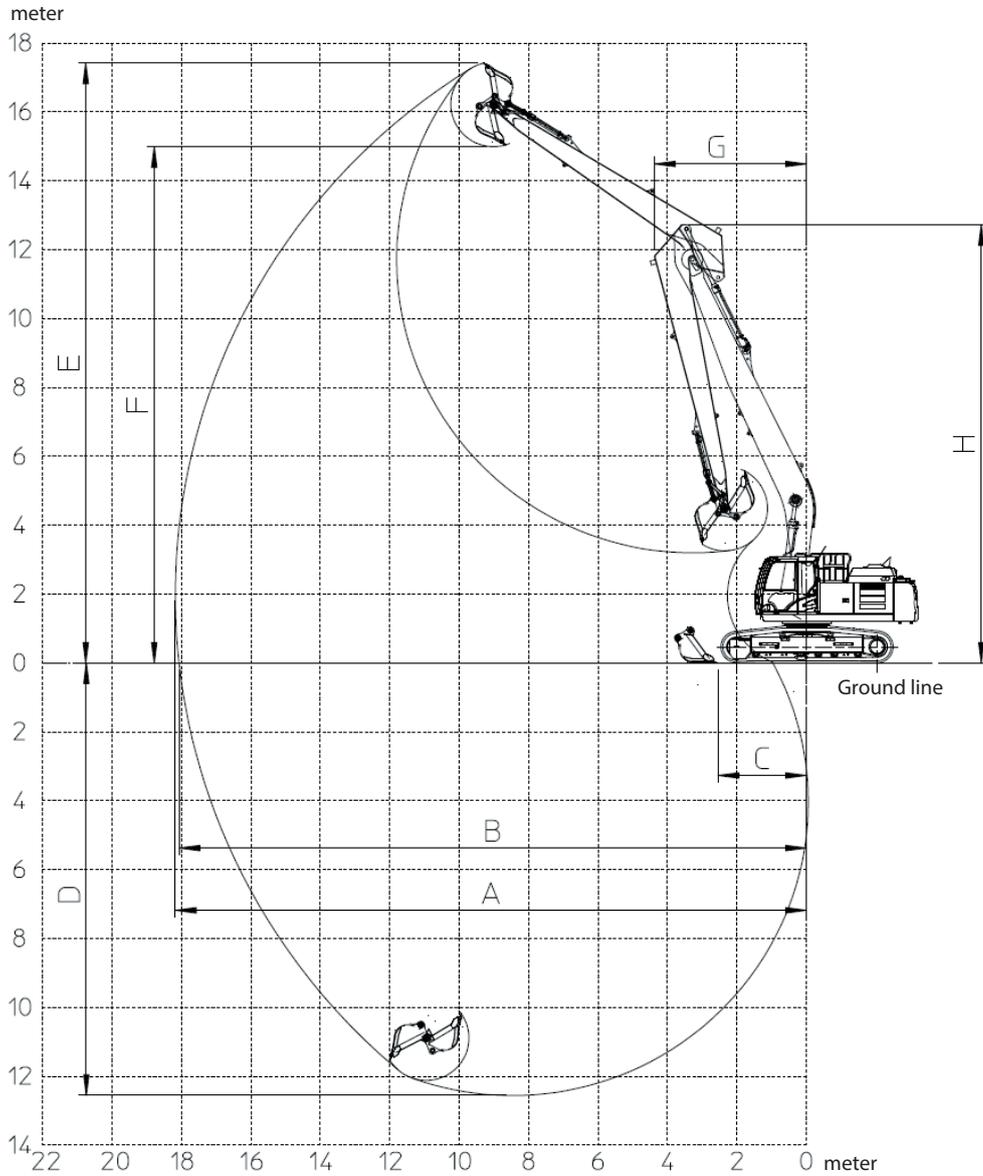
MDC1EU-SL1-003

A: Maximum Digging Reach	(mm)	15750
B: Maximum Digging Reach (on ground)	(mm)	15630
C: Minimum Level Crowding Distance	(mm)	2110
D: Maximum Digging Depth	(mm)	10620
E: Maximum Cutting Height	(mm)	15450
F: Maximum Dumping Height	(mm)	12560
G: Minimum Swing Radius	(mm)	3920
H: Minimum Swing Radius Height	(mm)	11370

NOTE: * Working range can be changed depending on bucket size.

SPECIFICATIONS

Working Ranges ZX300LC(N)-7 Super Long Front Attachment (Type HE18LD)



MDC1EU-SL1-004

A: Maximum Digging Reach	(mm)	18180
B: Maximum Digging Reach (on ground)	(mm)	18070
C: Minimum Level Crowding Distance	(mm)	2550
D: Maximum Digging Depth	(mm)	12550
E: Maximum Cutting Height	(mm)	17420
F: Maximum Dumping Height	(mm)	14990
G: Minimum Swing Radius	(mm)	4360
H: Minimum Swing Radius Height	(mm)	12720

NOTE: * Working range can be changed depending on bucket size.

SPECIFICATIONS

Shoe Types and Applications

ZX300LC-7

Type		HE15LD				HE18LD				
Shoe Width		Grouser Shoe				Grouser Shoe				
		600	700	800	900	600	700	800	900	
Application		For Ordinary Ground (Standard)	For Weak Footing (Option)			For Ordinary Ground (Standard)	For Weak Footing (Option)			
Base Machine Specifications	Operating Weight (kg)	33100	33500	33900	34300	33100	33400	33800	34200	
	Cab Height (mm)	3120	3120	3120	3120	3120	3120	3120	3120	
	Minimum Ground (mm) Clearance	*510	*510	*510	*510	*510	*510	*510	*510	
	Undercarriage Length (mm)	4940	4940	4940	4940	4940	4940	4940	4940	
	Undercarriage Width (mm)	3190	3290	3390	3490	3190	3290	3390	3490	
	Ground Pressure	kPa	62	54	48	43	62	54	48	43
		(kgf/cm ²)	0.62	0.55	0.49	0.44	0.64	0.55	0.49	0.44

ZX300LCN-7

Type		HE15LD				HE18LD				
Shoe Width		Grouser Shoe				Grouser Shoe				
		600	700	800	900	600	700	800	900	
Application		For Ordinary Ground (Standard)	For Weak Footing (Option)			For Ordinary Ground (Standard)	For Weak Footing (Option)			
Base Machine Specifications	Operating Weight (kg)	33000	33300	33700	34100	32900	33300	33700	34100	
	Cab Height (mm)	3120	3120	3120	3120	3120	3120	3120	3120	
	Minimum Ground (mm) Clearance	*510	*510	*510	*510	*510	*510	*510	*510	
	Undercarriage Length (mm)	4940	4940	4940	4940	4940	4940	4940	4940	
	Undercarriage Width (mm)	2990	3090	3190	3290	2990	3090	3190	3290	
	Ground Pressure	kPa	62	54	48	43	62	54	48	43
		(kgf/cm ²)	0.64	0.55	0.49	0.44	0.63	0.55	0.49	0.44

 **NOTE:**

- Other than 600 mm grouser shoe should not be used on gravel or rocky ground. Operating or digging on gravel ground may cause serious damage to shoe, shoe bolts and other parts such as rollers.
- Never operate the machine on a rough ground when the super long front attachment is installed regardless of the shoe type.
- *The dimensions do not include the height of the shoe lug.

SPECIFICATIONS

Bucket Types and Applications

ZX300LC(N)-7

IMPORTANT:

- **When digging on a solid ground with the super long front attachment, the front attachment may be damaged.**
- **Use the super long front attachment for digging of soft ground.**
- **If a wide-size bucket other than recommended is used for operation, it may result in a front attachment twist and damage to the parts.**
- **Ensure the total weight of the bucket and material load does not exceed the maximum allowable loading weight of the machine when operating the machine. The maximum allowable weight is determined by Hitachi standards. If the total load exceeds this value, it may cause machine turnover or damage on the front attachment. Select a bucket having capacity and weight with maximum allowable loading weight.**
- **If a bucket with a larger radius than recommended is used, the bucket cylinder has the possibility to relief depending on ground condition.**

Use a bucket in combination shown in the below table when the super long front attachment is installed. If a mass excavation bucket or an extreme service excavation bucket which is not described in the table is used, the machine stability will not be secured and the strong force may be applied to the main body, front attachment and cylinders, resulting in damage on the machine.

Use the bucket and the arm in combination only as described in the below table.

Recommended Bucket Radius 1230mm

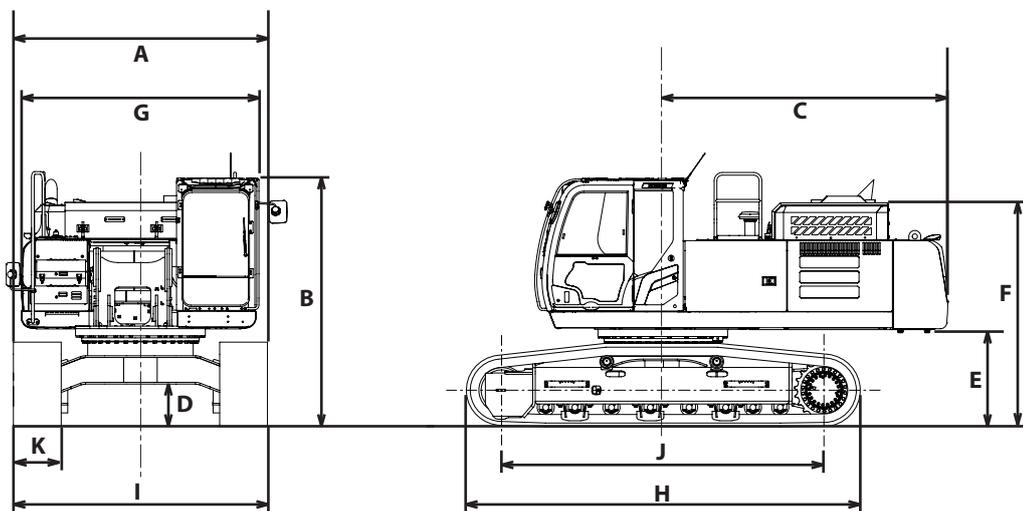
	Capacity ISO heaped	Width without side cutters	Weight	Recommendation			
				ZX300LC		ZX300LCN	
				HE15LD	HE18LD	HE15LD	HE18LD
Bucket radius 1230mm	0.40 m ³	720 mm	340 kg	●	○	●	□
	0.45 m ³	800 mm	370 kg	●	□	●	□
	0.50 m ³	890 mm	390 kg	●	□	●	×
	0.59 m ³	950 mm	410 kg	●	×	●	×
	0.66 m ³	1 030 mm	430 kg	●	×	●	×
Bucket radius 1430mm	0.52 m ³	790 mm	450 kg	●	×	●	×
	0.60 m ³	925 mm	480 kg	●	×	●	×
	0.70 m ³	1 005 mm	520 kg	●	×	○	×
	0.82 m ³	1 140 mm	560 kg	□	×	□	×
Slope finishing	-	1 600 mm	430 kg	×	◇	×	◇
	-	1 700 mm	520 kg	◇	×	◇	×
Max weight				2 040 kg	1 060 kg	1 910 kg	1 060 kg

- : For light duty excavating (digging and loading operation of wet, loosened earth, sand, mud and so on, the bulk density shall be less than 1800 kg/m³ as a standard.)
 - : For light duty excavating (digging and loading operation of dry, loosened earth, sand, mud and so on. The bulk density shall be less than 1,600 kg/m³ as a standard.)
 - : For loading operation of dry, loosened earth and sand. The bulk density shall be less than 1,100 kg/m³ as a standard.)
 - ◇ : Slope-finishing work
 - ×
- × : Not applicable (not warrantable)

SPECIFICATIONS

Specifications

ZX350LC-7, 350LCN-7



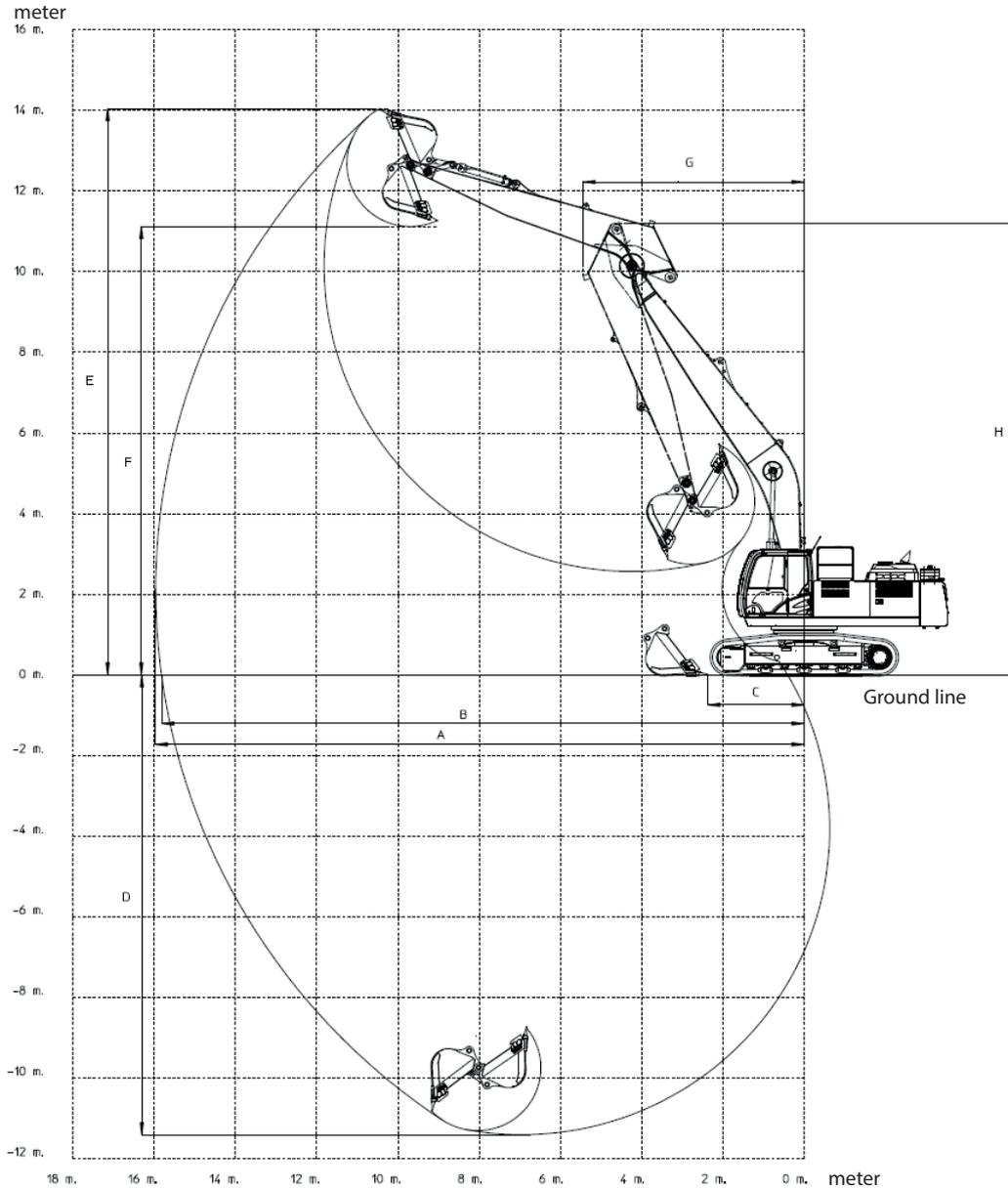
MDFY-12-001-1 ja

Model		ZX350LC-7				ZX350LCN-7			
Type of Front-End Attachment	–	HE15LD	HE18LD	HE20LD	HE22	HE15LD	HE18LD	HE20LD	HE22
Bucket Capacity Heaped	m ³	1.00	0.70	0.45	0.40	1.00	0.70	0.45	0.40
Operating Weight	kg	38300	38400	38100	38100	38100	38200	37900	37900
Engine	–	Isuzu 6HK1 210 kW/1900 min ⁻¹ (ISO 14396)							
A: Overall Width (Excluding back mirrors)	mm	3190				2990			
B: Cab Height	mm	3150							
C: Rear End Swing Radius	mm	3600							
D: Minimum Ground Clearance	mm	*500							
E: Counterweight Clearance	mm	*1160							
F: Engine Cover Height	mm	*2880							
G: Overall Width of Upperstructure	mm	2990							
H: Undercarriage Length	mm	4970							
I: Undercarriage Width	mm	3190				2990			
J: Sprocket Center to Idle Center	mm	4050							
K: Track Shoe Width	mm	600 (Grouser shoe)							
Ground Pressure	kPa	72	72	72	72	72	72	71	71
Swing Speed	min ⁻¹ (rpm)	6.3 (6.3)							
Travel Speed (fast/slow)	km/h	5.0/3.2							
Gradeability	Degree (%)	30 (58)							

NOTE: *The dimensions do not include the height of the shoe lug.

SPECIFICATIONS

Working Ranges ZX350LC(N)-7 Super Long Front Attachment (Type HE15LD)



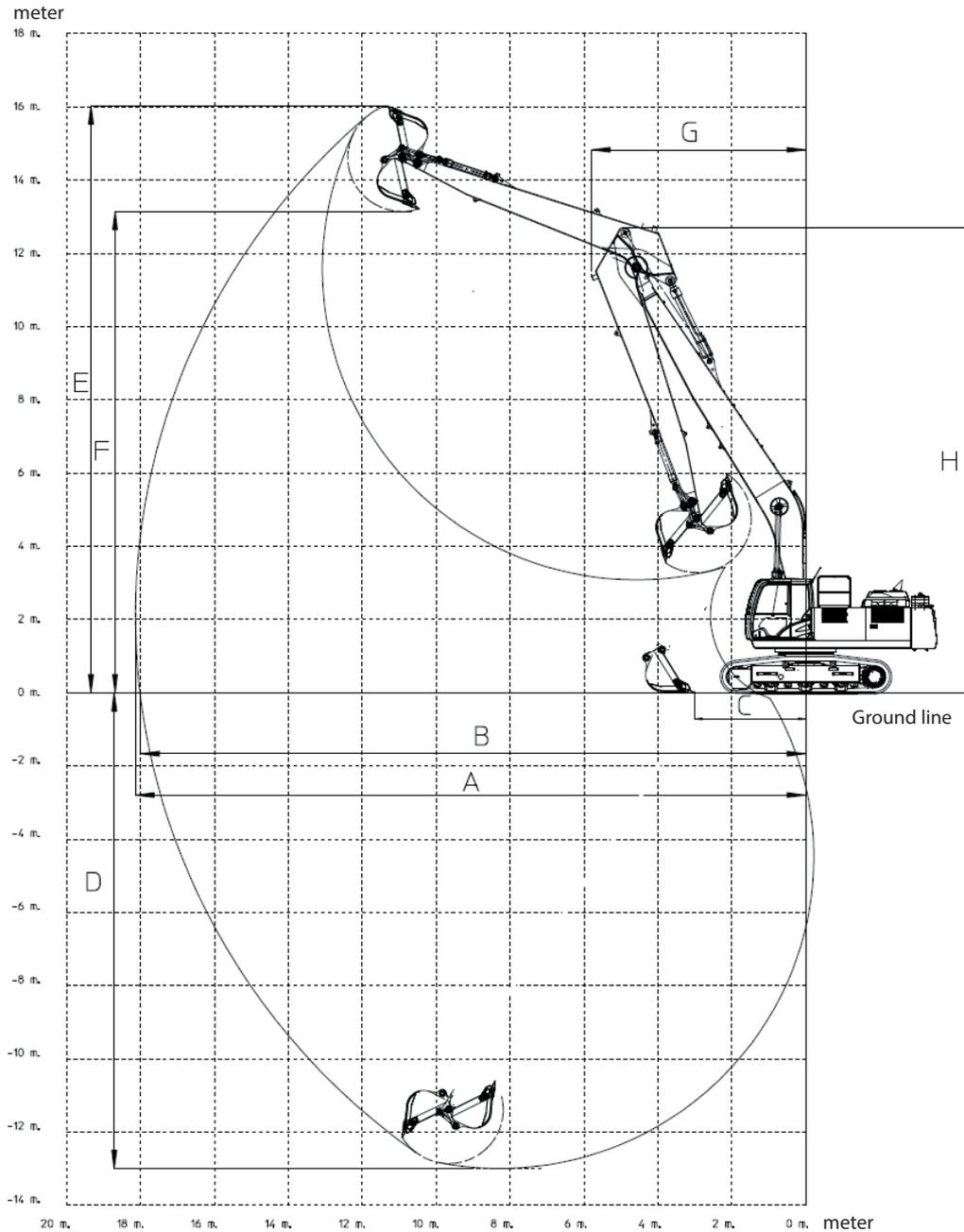
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A: Maximum Digging Reach	(mm)	15960
B: Maximum Digging Reach (on ground)	(mm)	15820
C: Minimum Level Crowding Distance	(mm)	2370
D: Maximum Digging Depth	(mm)	11400
E: Maximum Cutting Height	(mm)	14050
F: Maximum Dumping Height	(mm)	11120
G: Minimum Swing Radius	(mm)	5450
H: Minimum Swing Radius Height	(mm)	11120

 NOTE: * Working range can be changed depending on bucket size.

SPECIFICATIONS

Working Ranges ZX350LC(N)-7 Super Long Front Attachment (Type HE18LD)



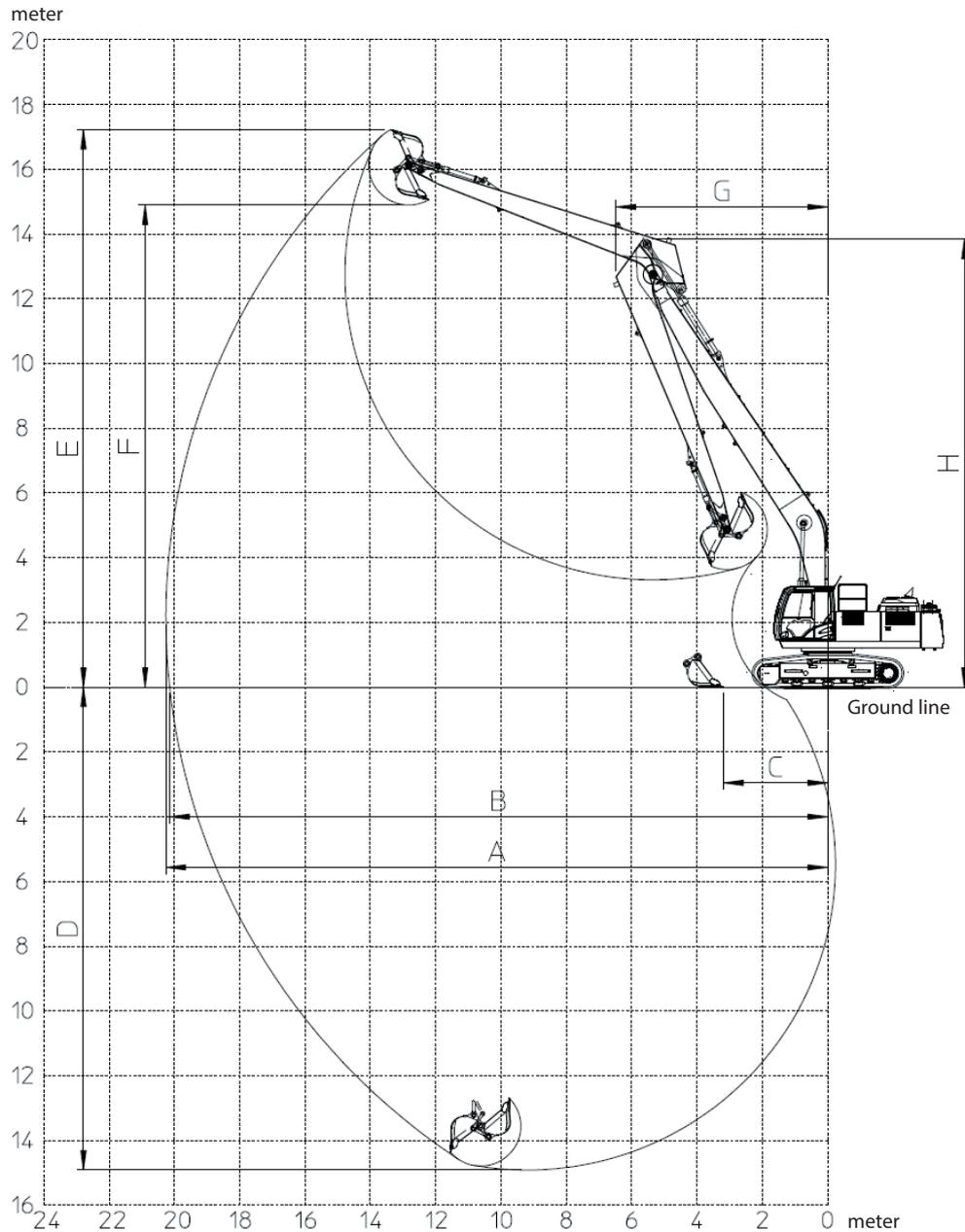
MDC1EU-SL1-006

A	: Maximum Digging Reach	(mm)	18130
B	: Maximum Digging Reach (on ground)	(mm)	18020
C	: Minimum Level Crowding Distance	(mm)	3000
D	: Maximum Digging Depth	(mm)	13060
E	: Maximum Cutting Height	(mm)	16000
F	: Maximum Dumping Height	(mm)	13180
G	: Minimum Swing Radius	(mm)	5680
H	: Minimum Swing Radius Height	(mm)	12690

 **NOTE:** * Working range can be changed depending on bucket size.

SPECIFICATIONS

Working Ranges ZX350LC(N)-7 Super Long Front Attachment (Type HE20LD)



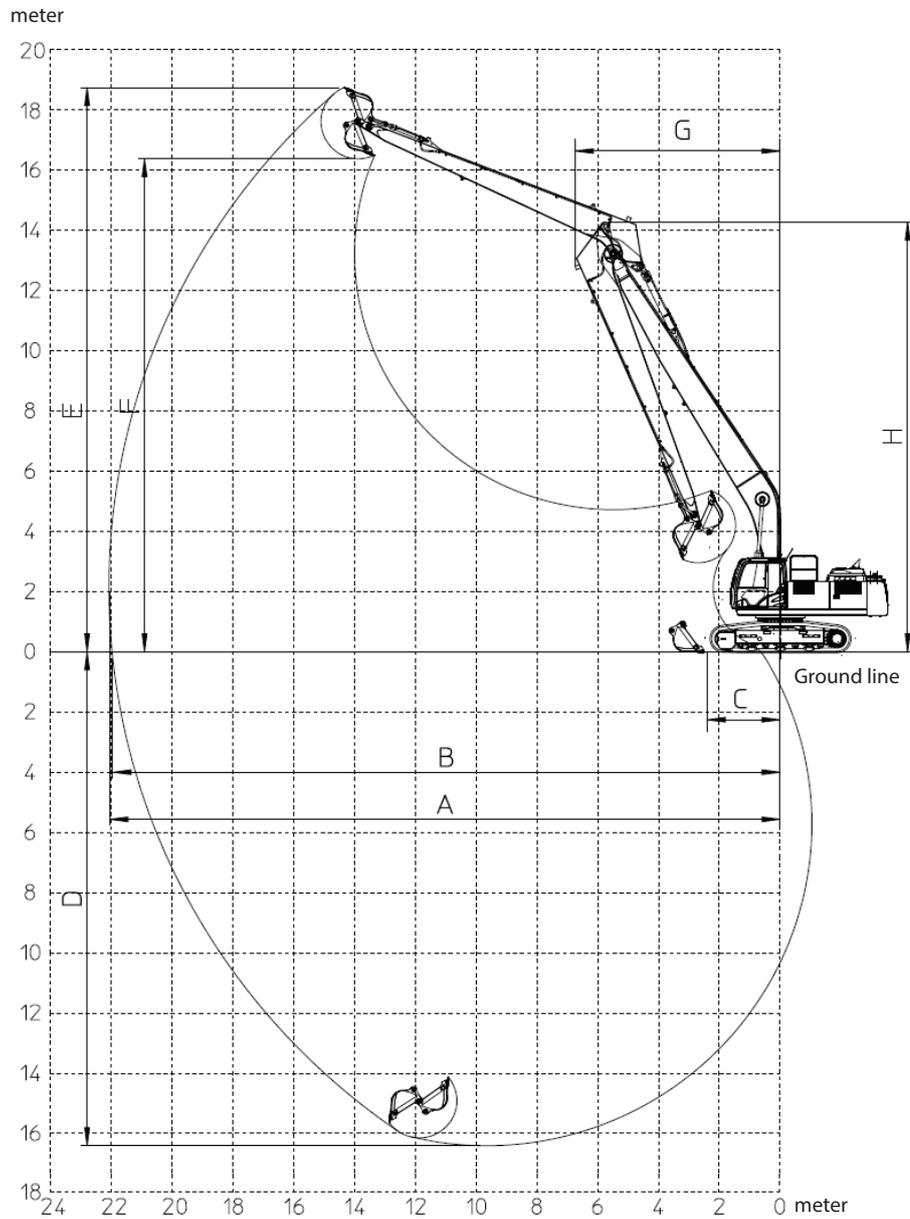
MDC1EU-SL1-007

A	: Maximum Digging Reach	(mm)	20260
B	: Maximum Digging Reach (on ground)	(mm)	20150
C	: Minimum Level Crowding Distance	(mm)	3180
D	: Maximum Digging Depth	(mm)	14910
E	: Maximum Cutting Height	(mm)	17220
F	: Maximum Dumping Height	(mm)	14890
G	: Minimum Swing Radius	(mm)	6470
H	: Minimum Swing Radius Height	(mm)	13840

NOTE: * Working range can be changed depending on bucket size.

SPECIFICATIONS

Working Ranges ZX350LC(N)-7 Super Long Front Attachment (Type HE22)



MDC1EU-SL1-008

A	: Maximum Digging Reach	(mm)	22070
B	: Maximum Digging Reach (on ground)	(mm)	21970
C	: Minimum Level Crowding Distance	(mm)	2410
D	: Maximum Digging Depth	(mm)	16430
E	: Maximum Cutting Height	(mm)	18720
F	: Maximum Dumping Height	(mm)	16360
G	: Minimum Swing Radius	(mm)	6750
H	: Minimum Swing Radius Height	(mm)	14270

NOTE: * Working range can be changed depending on bucket size.

SPECIFICATIONS

Shoe Types and Applications

ZX350LC-7

Type		HE15LD				HE18LD				HE20LD				HE22			
Shoe Width		Grouser Shoe				Grouser Shoe				Grouser Shoe				Grouser Shoe			
		600	700	800	900	600	700	800	900	600	700	800	900	600	700	800	900
Application		For Ordinary Ground (Standard)	For Weak Footing (Option)			For Ordinary Ground (Standard)	For Weak Footing (Option)			For Ordinary Ground (Standard)	For Weak Footing (Option)			For Ordinary Ground (Standard)	For Weak Footing (Option)		
Base Machine Specifications	Operating Weight (kg)	38300	38700	39100	39500	38400	38700	39100	39500	38100	38500	38900	39200	38100	38500	38900	39300
	Cab Height (mm)	3150	3150	3150	3150	3150	3150	3150	3150	3150	3150	3150	3150	3150	3150	3150	3150
	Minimum Ground (mm) Clearance	*500	*500	*500	*500	*500	*500	*500	*500	*500	*500	*500	*500	*500	*500	*500	*500
	Undercarriage Length (mm)	4970	4970	4970	4970	4970	4970	4970	4970	4970	4970	4970	4970	4970	4970	4970	4970
	Undercarriage Width (mm)	3190	3290	3390	3490	3190	3290	3390	3490	3190	3290	3390	3490	3190	3290	3390	3490
	Ground Pressure	kPa	72	63	55	50	72	63	55	50	72	62	55	49	72	62	55
(kgf/cm ²)		0.74	0.64	0.56	0.51	0.74	0.64	0.56	0.51	0.73	0.63	0.56	0.50	0.73	0.63	0.56	0.50

ZX350LCN-7

Type		HE15LD		HE18LD		HE20LD		HE22	
Shoe Width		Grouser Shoe		Grouser Shoe		Grouser Shoe		Grouser Shoe	
		600	700	600	700	600	700	600	700
Application		For Ordinary Ground (Standard)	For Weak Footing (Option)	For Ordinary Ground (Standard)	For Weak Footing (Option)	For Ordinary Ground (Standard)	For Weak Footing (Option)	For Ordinary Ground (Standard)	For Weak Footing (Option)
Base Machine Specifications	Operating Weight (kg)	38100	38500	38200	38500	37900	38300	37900	38300
	Cab Height (mm)	3150	3150	3150	3150	3150	3150	3150	3150
	Minimum Ground (mm) Clearance	*500	*500	*500	*500	*500	*500	*500	*500
	Undercarriage Length (mm)	4970	4970	4970	4970	4970	4970	4970	4970
	Undercarriage Width (mm)	2990	3090	2990	3090	2990	3090	2990	3090
	Ground Pressure	kPa	72	62	72	62	71	62	71
(kgf/cm ²)		0.73	0.63	0.73	0.63	0.73	0.63	0.73	0.63

 **NOTE:**

- Other than 600 mm grouser shoe should not be used on gravel or rocky ground. Operating or digging on gravel ground may cause serious damage to shoe, shoe bolts and other parts such as rollers.
- Never operate the machine on a rough ground when the super long front attachment is installed regardless of the shoe type.
- *The dimensions do not include the height of the shoe lug.

SPECIFICATIONS

Bucket Types and Applications

ZX350LC(N)-7

IMPORTANT:

- **When digging on a solid ground with the super long front attachment, the front attachment may be damaged.**
- **Use the super long front attachment for digging of soft ground.**
- **If a wide-size bucket other than recommended is used for operation, it may result in a front attachment twist and damage to the parts.**
- **Ensure the total weight of the bucket and material load does not exceed the maximum allowable loading weight of the machine when operating the machine.**
The maximum allowable weight is determined by Hitachi standards. If the total load exceeds this value, it may cause machine turnover or damage on the front attachment. Select a bucket having capacity and weight with maximum allowable loading weight.
- **If a bucket with a larger radius than recommended is used, the bucket cylinder has the possibility to relief depending on ground condition.**

Use a bucket in combination shown in the below table when the super long front attachment is installed. If a mass excavation bucket or an extreme service excavation bucket which is not described in the table is used, the machine stability will not be secured and the strong force may be applied to the main body, front attachment and cylinders, resulting in damage on the machine.

Use the bucket and the arm in combination only as described in the below table.

SPECIFICATIONS

	Capacity ISO heaped	Width without side cutters	Weight	Recommendation							
				ZX350LC				ZX350LCN			
				HE15LD	HE18LD	HE20LD	HE22	HE15LD	HE18LD	HE20LD	HE22
Bucket radius 1230mm	0.40 m ³	720 mm	340 kg	●	●	●	○	●	●	●	□
	0.45 m ³	800 mm	370 kg	●	●	●	□	●	●	□	x
	0.50 m ³	890 mm	390 kg	●	●	○	□	●	●	□	x
	0.59 m ³	950 mm	410 kg	●	●	□	x	●	●	□	x
	0.66 m ³	1030 mm	430 kg	●	●	□	x	●	●	x	x
Bucket radius 1430mm	0.52 m ³	790 mm	450 kg	●	●	x	x	●	●	x	x
	0.60 m ³	925 mm	480 kg	●	●	x	x	●	●	x	x
	0.70 m ³	1005 mm	520 kg	●	●	x	x	●	○	x	x
	0.82 m ³	1140 mm	560 kg	●	□	x	x	●	□	x	x
Bucket radius 1560mm	0.80 m ³	950 mm	755 kg	●	x	x	x	●	x	x	x
	1.00 m ³	1130 mm	851 kg	●	x	x	x	○	x	x	x
	1.10 m ³	1220 mm	901 kg	○	x	x	x	□	x	x	x
	1.25 m ³	1360 mm	957 kg	□	x	x	x	□	x	x	x
	1.40 m ³	1500 mm	1020 kg	□	x	x	x	x	x	x	x
Slope finishing	-	1600 mm	430 kg	x	x	◇	◇	x	x	◇	◇
	-	1700 mm	520 kg	x	◇	x	x	x	◇	x	x
Max. weight (kg)				2660 kg	1880 kg	1220 kg	1010 kg	2460 kg	1710 kg	1080 kg	870 kg

- : For light duty excavating (digging and loading operation of wet, loosened earth, sand, mud and so on, the bulk density shall be less than 1800 kg/m³ as a standard.)
- : For light duty excavating (digging and loading operation of dry, loosened earth, sand, mud and so on. The bulk density shall be less than 1,600 kg/m³ as a standard.)
- : For loading operation of dry, loosened earth and sand. The bulk density shall be less than 1,100 kg/m³ as a standard.)
- ◇ : Slope-finishing work
- × : Not applicable (not warrantable)

CAPACITIES

This section is divided into 2 sections, lifting capacities and machine capacities.

The section regarding lifting capacities provides information on capacities when the machine is used for lifting applications. For general information regarding safety precautions during lifting operation, please read the information provided in the machine's operator's manual and follow local regulations and instructions.

The section with information regarding machine capacities is intended for applications other than lifting operation. It provides information relevant for the selection of suitable attachments, matching the machine's capacities. Please take into account the machine's intended use when selecting attachments to avoid misuse and potential damage to the machine.

Conditions related to Lifting Capacities

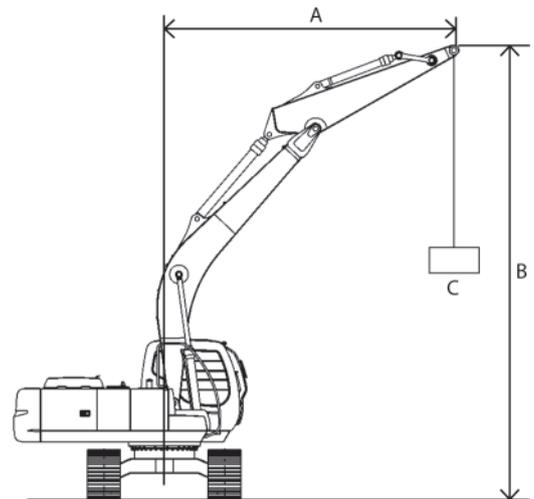
- Lifting capacity of the ZX series does not exceed 75 % of tipping load with the machine on firm, level ground or 87% of full hydraulic capacity. (ISO 10567)
- * Indicates load limited by hydraulic capacity.

How to Use This Lifting Capacities Chart

- Net lifting capacities are equal to the values obtained by deducting the ATT mass from the values described in the table.
- Capacities shown are metric measure.

Symbols Used in This Book

A:	Load radius (m)
B:	Load point height (m)
C:	Lifting capacity (kg)
D:	Value at the maximum load radius (lifting capacity) (kg)
E:	Value at the maximum load radius (reach) (m)
	Rating over-front
	Rating over-side or 360 degrees



MDC1-LC-031-1

A : Load radius
B : Load point height
C : Lifting capacity

CAPACITIES

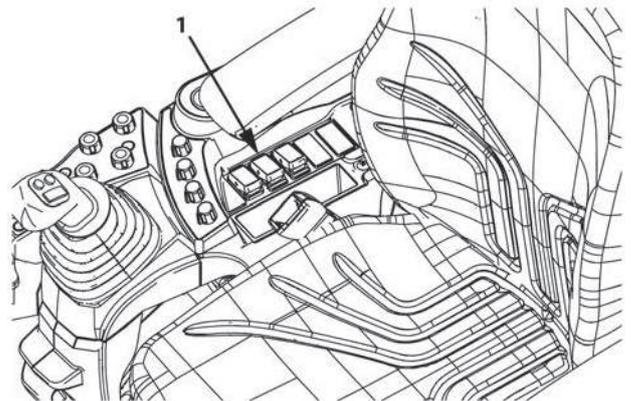
Lifting Applications

This machine was designed for earth-moving applications, including excavation/loading. Lifting operation, as a completion of excavation/loading application, is permitted on the condition that the machine is equipped with the specific (optional) safety features supplied by HITACHI Construction Machinery required for lifting applications. When using the machine for lifting applications strictly follow the local rules as well as the advises indicated below.

⚠ WARNING: Hose Rupture Valves located on raising boom- and arm cylinders, overload warning device, suitable lifting device and the lifting capacity chart in the cabin are critical SAFETY DEVICES when the machine is used for lifting application. If one of these devices is missing or damaged, the machine cannot be used for lifting application.

⚠ WARNING: Before starting any lifting operation, check that Hose Rupture Valves are not damaged or unusually noisy. If any defect is discovered, contact your dealer and do not use the machine for lifting applications. Lifting devices (hooks, chains, etc) must be undamaged and not worn. Check before every use and follow the local laws regarding periodical checks.

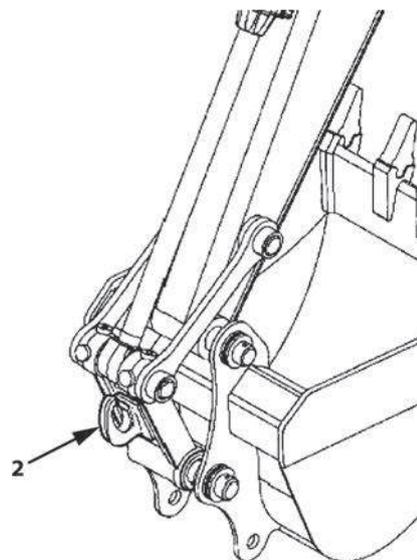
⚠ WARNING: Do not exceed the machine's rated lifting capacity. During lifting operation the machine must be positioned on firm, level ground. Obtain information about the weight of the object to be lifted and compare with the data on the lifting capacity chart in the cabin. Do not lift any load whose weight exceeds the maximum permissible load indicated on the chart. Fix the load by special hook (2) on the "A" link, or another suitable device provided for this purpose, using coupling devices and chains suitable for lifting the load. Set the engine power matching the required hydraulic power. Before starting lifting operation, press switch (1) to engage the overload warning device sensor. When reaching the machine's stability limit for lifting the load, the sensor will activate an acoustic device. In case of an overload alarm or any other indication of a potentially unsafe situation, stop the lifting operation safely and search for a solution to safely lift the load without exceeding the machine limits for lifting.



MDFY-LC-007-1



MDC1-LC-036



MDC1-LC-037-1

CAPACITIES

⚠ WARNING: Lifting devices (hooks, chains, etc) must be suitable, undamaged and not worn. Follow the local laws to check these devices. Do not lift objects fixed to the ground. Do not use the lifting device to tow, uproot or tear out. Sudden changes in load may cause instability and/or damage to the machine. To limit load oscillations, do not use too long ropes and/or chains to sling it. Check the working area and be sure there are no obstacles which may obstruct the load when lifted. To avoid sudden load oscillations, lift the load slowly and avoid any sharp movement. Keep the load close to the machine to improve stability and lift preferably over its longitudinal axis rather than its transversal axis. Keep the load as close as possible to the ground.

⚠ WARNING: Loads, when lifted, can oscillate or rotate in any direction: it is possible that they hit persons or the machine's cabin. Keep everybody away from the machine range and handle the load slowly to avoid any dangerous situation. Have the load guided from a distance using e.g. ropes attached to the load. If the load starts oscillating or rotating, slow down operation and stop, place it carefully on firm ground and correct, if necessary, the way it was hooked up.

⚠ WARNING: Respect the lifting hook's Working Load Limit (WLL).

MACHINE CAPACITIES

ZX250LC-7 HE15LD Super Long Front; 8.5m boom; 5.93m arm; 7.8t CW

Units; 1000kg

Conditions	B	A											
		3 m		4.5 m		6 m		7.5 m		9 m			
													
Boom: 8.5m Arm 5.93m counterweight: 7750kg	12 m										2.23*	2.23*	
	10.5 m										2.11*	2.11*	
	9 m										2.12*	2.12*	
	7.5 m										2.23*	2.23*	
	6 m										2.41*	2.41*	
	4.5 m					3.68*	3.68*	3.06*	3.06*	2.66*	2.66*		
	3 m	4.29*	4.29*	6.18*	6.18*	4.43*	4.43*	3.50*	3.50*	2.94*	2.94*		
	1.5 m			7.44*	7.44*	5.14*	5.14*	3.94*	3.94*	3.22*	3.22*		
	0 m	2.32*	2.32*	5.90*	5.90*	5.66*	5.66*	4.29*	4.29*	3.46*	3.46*		
	-1.5 m	3.43*	3.43*	6.14*	6.14*	5.94*	5.94*	4.52*	4.42	3.63*	3.45		
	-3 m	4.70*	4.70*	7.15*	7.15*	5.98*	5.88	4.61*	4.32	3.70*	3.37		
	-4.5 m	6.12*	6.12*	7.76*	7.76*	5.81*	5.81*	4.53*	4.31	3.65*	3.36		
	-6 m	7.78*	7.78*	7.07*	7.07*	5.40*	5.40*	4.26*	4.26*	3.42*	3.41		
-7.5 m	8.14*	8.14*	6.02*	6.02*	4.69*	4.69*	3.71*	3.71*	2.92*	2.92*			
-9 m			4.48*	4.48*	3.54*	3.54*	2.73*	2.73*					

Conditions	B	A						D		E	B
		10.5 m		12 m		13.5 m					
											
Boom: 8.5m Arm 5.93m counterweight: 7750kg	12 m							1.98*	1.98*	9.4	12 m
	10.5 m	2.09*	z					1.82*	1.82*	10.8	10.5 m
	9 m	2.05*	2.05*					1.76*	1.76*	11.9	9 m
	7.5 m	2.10*	2.10*	2.02*	2.02*			1.73*	1.73*	12.6	7.5 m
	6 m	2.22*	2.22*	2.08*	2.08*			1.74*	1.74*	13.2	6 m
	4.5 m	2.37*	2.37*	2.17*	2.17*	1.96*	1.96*	1.78*	1.78*	13.6	4.5 m
	3 m	2.55*	2.55*	2.29*	2.29*	2.09*	2.01	1.87*	1.87*	13.8	3 m
	1.5 m	2.74*	2.74*	2.40*	2.40*	2.15*	1.97	1.98*	1.88	13.8	1.5 m
	0 m	2.90*	2.87	2.50*	2.33	2.19*	1.92	2.15*	1.88	13.7	0 m
	-1.5 m	3.02*	2.77	2.57*	2.27			2.21*	1.92	13.4	-1.5 m
	-3 m	3.05*	2.72	2.56*	2.25			2.27*	2.03	12.9	-3 m
	-4.5 m	2.98*	2.72	2.42*	2.28			2.33*	2.22	12.2	-4.5 m
	-6 m	2.73*	2.73*					2.37*	2.37*	11.3	-6 m
-7.5 m							2.35*	2.35*	10.1	-7.5 m	
-9 m							2.21*	2.21*	8.4	-9 m	

MACHINE CAPACITIES

ZX250LCN-7 HE15LD Super Long Front, 8.5m boom, 5.93m arm, 7.8 t CW

Units; 1000kg

Conditions	B	A											
		3 m		4.5 m		6 m		7.5 m		9 m			
													
Boom: 8.5m Arm 5.93m counterweight: 7750kg	12 m										2.23*	2.23*	
	10.5 m										2.11*	2.11*	
	9 m										2.12*	2.12*	
	7.5 m										2.23*	2.23*	
	6 m										2.41*	2.41*	
	4.5 m					3.68*	3.68*	3.06*	3.06*	2.66*	2.66*		
	3 m	4.29*	4.29*	6.18*	6.18*	4.43*	4.43*	3.50*	3.50*	2.94*	2.94*		
	1.5 m			7.44*	7.44*	5.14*	5.14*	3.94*	3.94*	3.22*	3.22*		
	0 m	2.32*	2.32*	5.90*	5.90*	5.66*	5.66*	4.29*	4.28	3.46*	3.32		
	-1.5 m	3.43*	3.43*	6.14*	6.14*	5.94*	5.50	4.53*	4.08	3.63*	3.18		
	-3 m	4.70*	4.70*	7.15*	7.15*	5.98*	5.40	4.61*	3.98	3.70*	3.10		
	-4.5 m	6.12*	6.12*	7.76*	7.76*	5.81*	5.42	4.53*	3.97	3.65*	3.09		
	-6 m	7.78*	7.78*	7.07*	7.07*	5.40*	5.40*	4.26*	4.04	3.42*	3.14		
	-7.5 m	8.14*	8.14*	6.02*	6.02*	4.69*	4.69*	3.71*	3.71*	2.92*	2.92*		
-9 m			4.48*	4.48*	3.54*	3.54*	2.72*	2.72*					

Conditions	B	A						D		E	B
		10.5 m		12 m		13.5 m					
											
Boom: 8.5m Arm 5.93m counterweight: 7750kg	12 m							1.98*	1.98*	9.4	12 m
	10.5 m	2.09*	2.09*					1.82*	1.82*	10.8	10.5 m
	9 m	2.05*	2.05*					1.76*	1.76*	11.9	9 m
	7.5 m	2.10*	2.10*	2.02*	2.02*			1.73*	1.73*	12.6	7.5 m
	6 m	2.22*	2.22*	2.08*	2.08*			1.74*	1.74*	13.2	6 m
	4.5 m	2.35*	2.35*	2.17*	2.17*	1.96*	1.90	1.78*	1.78*	13.6	4.5 m
	3 m	2.55*	2.55*	2.29*	2.29*	2.09*	1.86	1.87*	1.78	13.8	3 m
	1.5 m	2.74*	2.74*	2.40*	2.23	2.15*	1.81	1.98*	1.73	13.8	1.5 m
	0 m	2.90*	2.65	2.50*	2.15	2.19*	1.77	2.15*	1.72	13.7	0 m
	-1.5 m	3.02*	2.55	2.57*	2.09			2.21*	1.76	13.4	-1.5 m
	-3 m	3.05*	2.50	2.56*	2.07			2.27*	1.87	12.9	-3 m
	-4.5 m	2.98*	2.50	2.42*	2.09			2.33*	2.04	12.2	-4.5 m
	-6 m	2.73*	2.56					2.37*	2.34	11.3	-6 m
	-7.5 m							2.35*	2.35*	10.1	-7.5 m
-9 m							2.21*	2.21*	8.4	-9 m	

MACHINE CAPACITIES

ZX250LC-7 HE18LD Super Long Front, 10.23m boom, 7.28m arm, 7.8 t CW

Units; 1000kg

Conditions	B	A													
		3 m		4.5 m		6 m		7.5 m		9 m		10.5 m			
															
Boom: 10.23m Arm 7.28m counterweight: 7750kg	15 m												1.58*	1.58*	
	13.5m												1.65*	1.65*	
	12 m														
	10.5 m												1.62*	1.62*	
	9 m												1.68*	1.68*	
	7.5 m												1.77*	1.77*	
	6 m									2.16*	2.16*	1.89*	1.89*		
	4.5 m					3.60*	3.60*	2.85*	2.85*	2.37*	2.37*	2.02*	2.02*		
	3 m			5.99*	5.99*	4.17*	4.17*	3.19*	3.19*	2.59*	2.59*	2.17*	2.17*		
	1.5 m			2.64*	2.64*	4.66*	4.66*	3.51*	3.51*	2.80*	2.80*	2.32*	2.32*		
	0 m	0.64*	0.64*	2.20*	2.20*	5.00*	5.00*	3.75*	3.75*	2.97*	2.97*	2.44*	2.44*		
	-1.5 m	1.35*	1.35*	2.50*	2.50*	4.96*	4.96*	3.90*	3.90*	3.09*	3.08	2.53*	2.48		
	-3 m	2.06*	2.06*	3.07*	3.07*	5.12*	5.12*	3.94*	3.78	3.14*	2.95	2.58*	2.38		
	-4.5 m	2.81*	2.81*	3.81*	3.81*	4.97*	4.97*	3.88*	3.73	3.12*	2.89	2.56*	2.33		
	-6 m	3.62*	3.62*	4.68*	4.68*	4.68*	4.68*	3.71*	3.71*	3.01*	2.89	2.47*	2.32		
	-7.5 m	4.52*	4.52*	5.41*	5.41*	4.25*	4.25*	3.42*	3.42*	2.79*	2.79*	2.29*	2.29*		
-9 m	5.57*	5.57*	4.54*	4.54*	3.65*	3.65*	2.97*	2.97*	2.43*	2.43*	1.96*	1.96*			
-10.5 m			3.38*	3.38*	2.81*	2.81*	2.32*	2.32*	1.87*	1.87*	1.42*	1.42*			

Conditions	B	A								D		E	B
		12 m		13.5 m		15 m		16.5 m					
													
Boom: 10.23m Arm 7.28m counterweight: 7750kg	15 m									1.45*	1.45*	10.6	15 m
	13.5 m	1.57*	1.57*							1.30*	1.30*	12.3	13.5 m
	12 m	1.51*	1.51*	1.28*	1.28*					1.22*	1.22*	13.6	12 m
	10.5 m	1.51*	1.51*	1.42*	1.42*					1.17*	1.17*	14.6	10.5 m
	9 m	1.54*	1.54*	1.43*	1.43*	1.35*	1.35*			1.13*	1.13*	15.4	9 m
	7.5 m	1.60*	1.60*	1.46*	1.46*	1.36*	1.36*			1.13*	1.13*	16.0	7.5 m
	6 m	1.68*	1.68*	1.51*	1.51*	1.39*	1.39*			1.15*	1.15*	16.4	6 m
	4.5 m	1.77*	1.77*	1.58*	1.58*	1.43*	1.43*	1.31*	1.31*	1.17*	1.17*	16.7	4.5 m
	3 m	1.88*	1.88*	1.65*	1.65*	1.47*	1.47*	1.33*	1.27	1.20*	1.20	16.9	3 m
	1.5 m	1.98*	1.98*	1.72*	1.72*	1.52*	1.51	1.35*	1.24	1.27*	1.17	16.9	1.5 m
	0 m	2.06*	2.06*	1.78*	1.76	1.55*	1.45	1.35*	1.20	1.31*	1.16	16.8	0 m
	-1.5 m	2.13*	2.03	1.82*	1.68	1.57*	1.40	1.34*	1.18	1.32*	1.17	16.6	-1.5 m
	-3 m	2.16*	1.96	1.83*	1.63	1.55*	1.38			1.33*	1.22	16.2	-3 m
	-4.5 m	2.14*	1.92	1.79*	1.61	1.48*	1.38			1.33*	1.30	15.7	-4.5 m
	-6 m	2.05*	1.92	1.69*	1.62					1.33*	1.33*	15.0	-6 m
	-7.5 m	1.87*	1.87*	1.47*	1.47*					1.30*	1.30*	14.1	-7.5 m
-9 m	1.53*	1.53*							1.23*	1.23*	12.9	-9 m	
-10.5 m									1.08*	1.08*	11.5	-10.5 m	

MACHINE CAPACITIES

ZX250LCN-7 HE18LD Super Long Front, 10.23m boom, 7.28m arm, 7.8t CW

Units; 1000kg

Conditions	B	A													
		3 m		4.5 m		6 m		7.5 m		9 m		10.5 m			
															
Boom: 10.23m Arm 7.28m counterweight: 7750kg	15 m												1.58*	1.58*	
	13.5m												1.65*	1.65*	
	12 m														
	10.5 m												1.62*	1.62*	
	9 m												1.68*	1.68*	
	7.5 m												1.77*	1.77*	
	6 m									2.16*	2.16*	1.89*	1.89*		
	4.5 m					3.60*	3.60*	2.85*	2.85*	2.37*	2.37*	2.02*	2.02*		
	3 m			5.99*	5.99*	4.17*	4.17*	3.19*	3.19*	2.59*	2.59*	2.17*	2.17*		
	1.5 m			2.64*	2.64*	4.66*	4.66*	3.51*	3.51*	2.80*	2.80*	2.32*	2.32*		
	0 m	0.64*	0.64*	2.20*	2.20*	5.00*	5.00*	3.75*	3.75*	2.97*	2.97*	2.44*	2.41		
	-1.5 m	1.35*	1.35*	2.50*	2.50*	4.96*	4.79	3.90*	3.58	3.09*	2.81	2.53*	2.26		
	-3 m	2.06*	2.06*	3.07*	3.07*	5.12*	4.66	3.94*	3.44	3.14*	2.69	2.56*	2.16		
	-4.5 m	2.81*	2.81*	3.81*	3.81*	4.97*	4.65	3.88*	3.39	3.12*	2.63	2.56*	2.11		
	-6 m	3.62*	3.62*	4.68*	4.68*	4.68*	4.68*	3.71*	3.41	3.01*	2.63	2.47*	2.11		
	-7.5 m	4.52*	4.52*	5.41*	5.41*	4.25*	4.25*	3.42*	3.42*	2.79*	2.68	2.29*	2.15		
-9 m	5.57*	5.57*	4.54*	4.54*	3.65*	3.65*	2.97*	2.97*	2.43*	2.43*	1.96*	1.96*			
-10.5 m			3.38*	3.38*	2.81*	2.81*	2.32*	2.32*	1.87*	1.87*	1.42*	1.42*			

Conditions	B	A								D		E	B
		12 m		13.5 m		15 m		16.5 m					
													
Boom: 10.23m Arm 7.28m counterweight: 7750kg	15 m									1.45*	1.45*	10.6	15 m
	13.5 m	1.57*	1.57*							1.30*	1.30*	12.3	13.5 m
	12 m	1.51*	1.51*	1.28*	1.28*					1.22*	1.22*	13.6	12 m
	10.5 m	1.51*	1.51*	1.42*	1.42*					1.17*	1.17*	14.6	10.5 m
	9 m	1.54*	1.54*	1.43*	1.43*	1.35*	1.35*			1.13*	1.13*	15.4	9 m
	7.5 m	1.60*	1.60*	1.46*	1.46*	1.36*	1.36*			1.13*	1.13*	16.0	7.5 m
	6 m	1.68*	1.68*	1.51*	1.51*	1.39*	1.39*			1.15*	1.15*	16.4	6 m
	4.5 m	1.77*	1.77*	1.58*	1.58*	1.43*	1.43*	1.31*	1.18	1.17*	1.14	16.7	4.5 m
	3 m	1.88*	1.88*	1.65*	1.65*	1.47*	1.44	1.33*	1.15	1.20*	1.08	16.9	3 m
	1.5 m	1.98*	1.98*	1.72*	1.69	1.52*	1.37	1.35*	1.11	1.27*	1.04	16.9	1.5 m
	0 m	2.06*	1.95	1.78*	1.60	1.55*	1.31	1.35*	1.08	1.31*	1.04	16.8	0 m
	-1.5 m	2.13*	1.85	1.82*	1.52	1.57*	1.26	1.34*	1.06	1.32*	1.05	16.6	-1.5 m
	-3 m	2.16*	1.78	1.83*	1.47	1.55*	1.24			1.33*	1.09	16.2	-3 m
	-4.5 m	2.14*	1.74	1.79*	1.45	1.48*	1.24			1.33*	1.17	15.7	-4.5 m
	-6 m	2.05*	1.74	1.69*	1.47					1.33*	1.28	15.0	-6 m
	-7.5 m	1.87*	1.78	1.47*	1.47*					1.30*	1.30*	14.1	-7.5 m
-9 m	1.53*	1.53*							1.23*	1.23*	12.9	-9 m	
-10.5 m									1.08*	1.08*	11.5	-10.5 m	

MACHINE CAPACITIES

ZX300LC-7 HE15LD Super Long Front, 8.7m boom, 6.1m arm, 7.2t CW, 0.6t ADD CW

Units; 1000kg

Conditions	B	A									
		3 m		4.5 m		6 m		7.5 m		9 m	
											
Boom: 8.7m	13.5 m										
Arm 6.1m	12 m									3.18*	3.18*
Counterweight: 7200kg	10.5 m									3.08*	3.08*
	9 m									3.12*	3.12*
Additional counterweight: 550kg	7.5 m									3.26*	3.26*
	6 m							3.93*	3.93*	3.50*	3.50*
	4.5 m					5.34*	5.34*	4.41*	4.41*	3.80*	3.80*
	3 m	3.98*	3.98*	8.65*	8.65*	6.23*	6.23*	4.93*	4.93*	4.12*	4.12*
	1.5 m			7.76*	7.76*	7.03*	7.03*	5.42*	5.42*	4.44*	4.41
	0 m	2.46*	2.46*	5.86*	5.86*	7.55*	7.22	5.79*	5.36	4.69*	4.18
	-1.5 m	3.53*	3.53*	6.10*	6.10*	7.76*	6.92	5.99*	5.13	4.83*	4.01
	-3 m	4.74*	4.74*	7.05*	7.05*	7.67*	6.81	5.99*	5.02	4.84*	3.92
	-4.5 m	6.07*	6.07*	8.43*	8.43*	7.29*	6.84	5.77*	5.00	4.69*	3.90
	-6 m	7.58*	7.58*	8.45*	8.45*	6.62*	6.62*	5.31*	5.07	4.31*	3.95
	-7.5 m			6.95*	6.95*	5.59*	5.59*	4.51*	4.51*	3.60*	3.60*
	-9 m					4.03*	4.03*	3.20*	3.20*		

Conditions	B	A						D		E	B
		10.5 m		12 m		13.5 m					
											
Boom: 8.7m	13.5 m							2.42*	2.42*	8.4	13.5 m
Arm 6.1m	12 m							2.13*	2.13*	10.1	12 m
Counterweight: 7200kg	10.5 m	2.97*	2.97*					1.98*	1.98*	11.5	10.5 m
	9 m	2.95*	2.95*	2.84*	2.84*			1.91*	1.91*	12.4	9 m
Additional counterweight: 550kg	7.5 m	3.03*	3.03*	2.85*	2.85*			1.87*	1.87*	13.2	7.5 m
	6 m	3.17*	3.17*	2.93*	2.93*	2.50*	2.49	1.88*	1.88*	13.7	6 m
	4.5 m	3.36*	3.36*	3.04*	3.04*	2.80*	2.45	1.91*	1.91*	14.1	4.5 m
	3 m	3.57*	3.57*	3.17*	2.95	2.87*	2.39	1.99*	1.99*	14.3	3 m
	1.5 m	3.78*	3.50	3.30*	2.84	2.92*	2.32	2.09*	2.09*	14.3	1.5 m
	0 m	3.94*	3.35	3.39*	2.74	2.95*	2.27	2.25*	2.10	14.2	0 m
	-1.5 m	4.03*	3.24	3.43*	2.67	2.91*	2.24	2.48*	2.15	13.9	-1.5 m
	-3 m	4.02*	3.17	3.37*	2.64			2.74*	2.26	13.4	-3 m
	-4.5 m	3.86*	3.17	3.15*	2.65			2.78*	2.46	12.7	-4.5 m
	-6 m	3.48*	3.23					2.72*	2.72*	11.9	-6 m
	-7.5 m	2.69*	2.69*					2.57*	2.57*	10.7	-7.5 m
	-9 m										-9 m

MACHINE CAPACITIES

ZX300LCN-7 HE15LD Super Long Front, 8.7m boom, 6.1m arm, 7.2t CW, 0.6t ADD CW

Units; 1000kg

Conditions	B	A									
		3 m		4.5 m		6 m		7.5 m		9 m	
											
Boom: 8.7m	13.5 m										
Arm 6.1m	12 m									3.18*	3.18*
Counterweight: 7200kg	10.5 m									3.08*	3.08*
Additional counterweight: 550kg	9 m									3.12*	3.12*
	7.5 m									3.26*	3.26*
	6 m							3.93*	3.93*	3.50*	3.50*
	4.5 m					5.34*	5.34*	4.41*	4.41*	3.80*	3.80*
	3 m	3.98*	3.98*	8.65*	8.65*	6.23*	6.23*	4.93*	4.93*	4.12*	4.12*
	1.5 m			7.76*	7.76*	7.03*	7.03*	5.42*	5.22	4.44*	4.03
	0 m	2.46*	2.46*	5.86*	5.86*	7.55*	6.54	5.79*	4.88	4.69*	3.80
	-1.5 m	3.53*	3.53*	6.10*	6.10*	7.76*	6.25	5.99*	4.65	4.83*	3.64
	-3 m	4.74*	4.74*	7.05*	7.05*	7.67*	6.14	5.99*	4.54	4.84*	3.55
	-4.5 m	6.07*	6.07*	8.43*	8.43*	7.29*	6.17	5.77*	4.52	4.69*	3.53
-6 m	7.58*	7.58*	8.45*	8.45*	6.62*	6.29	5.31*	4.60	4.31*	3.58	
-7.5 m			6.95*	6.95*	5.59*	5.59*	4.51*	4.51*	3.60*	3.60*	
-9 m					4.03*	4.03*	3.20*	3.20*			

Conditions	B	A						D		E	B
		10.5 m		12 m		13.5 m					
											
Boom: 8.7m	13.5 m							2.42*	2.42*	8.4	13.5 m
Arm 6.1m	12 m							2.13*	2.13*	10.1	12 m
Counterweight: 7200kg	10.5 m	2.97*	2.97*					1.98*	1.98*	11.5	10.5 m
Additional counterweight: 550kg	9 m	2.95*	2.95*	2.84*	2.84*			1.91*	1.91*	12.4	9 m
	7.5 m	3.03*	3.03*	2.85*	2.85*			1.87*	1.87*	13.2	7.5 m
	6 m	3.17*	3.17*	2.93*	2.90	2.50*	2.27	1.88*	1.88*	13.7	6 m
	4.5 m	3.36*	3.36*	3.04*	2.80	2.80*	2.23	1.91*	1.91*	14.1	4.5 m
	3 m	3.57*	3.37	3.17*	2.69	2.87*	2.17	1.99*	1.94	14.3	3 m
	1.5 m	3.78*	3.20	3.30*	2.58	2.92*	2.10	2.09*	1.89	14.3	1.5 m
	0 m	3.94*	3.05	3.39*	2.48	2.95*	2.05	2.25*	1.89	14.2	0 m
	-1.5 m	4.03*	2.93	3.43*	2.41	2.91*	2.02	2.48*	1.94	13.9	-1.5 m
	-3 m	4.02*	2.87	3.37*	2.38			2.74*	2.04	13.4	-3 m
	-4.5 m	3.86*	2.86	3.15*	2.40			2.78*	2.23	12.7	-4.5 m
-6 m	3.48*	2.92					2.72*	2.52	11.9	-6 m	
-7.5 m	2.69*	2.69*					2.57*	2.57*	10.7	-7.5 m	
-9 m										-9 m	

MACHINE CAPACITIES

ZX300LC-7 HE18LD Super Long Font, 10.23 boom, 7.28 arm, 7.2t CW, 0.6t ADD CW

Units; 1000kg

Conditions	B	A												
		3 m		4.5 m		6 m		7.5 m		9 m		10.5 m		
														
Boom: 10.23m Arm 7.28m counterweight: 7200kg Additional counterweight: 550 kg	15 m												1.56*	1.56*
	13.5 m												2.24*	2.24*
	12 m													
	10.5 m												2.42*	2.42*
	9 m												2.49*	2.49*
	7.5 m												2.62*	2.62*
	6 m									3.16*	3.16*		2.78*	2.78*
	4.5 m			6.94*	6.94*	5.14*	5.14*	4.11*	4.11*	3.43*	3.43*		2.96*	2.96*
	3 m			7.29*	7.29*	5.90*	5.90*	4.56*	4.56*	3.72*	3.72*		3.15*	3.15*
	1.5 m			2.78*	2.78*	6.52*	6.52*	4.95*	4.95*	3.99*	3.99*		3.33*	3.24
	0 m	0.71*	0.71*	2.36*	2.36*	5.97*	5.97*	5.24*	4.82	4.19*	3.78		3.48*	3.04
	-1.5 m	1.47*	1.47*	2.70*	2.70*	5.31*	5.31*	5.39*	4.54	4.32*	3.57		3.57*	2.88
	-3 m	2.23*	2.23*	3.32*	3.32*	5.55*	5.55*	5.39*	4.39	4.34*	3.43		3.59*	2.77
	-4.5 m	3.04*	3.04*	4.12*	4.12*	6.23*	5.94	5.24*	4.33	4.26*	3.37		3.53*	2.72
	-6 m	3.91*	3.91*	5.06*	5.06*	6.13*	6.03	4.94*	4.36	4.05*	3.37		3.36*	2.72
	-7.5 m	4.89*	4.89*	6.20*	6.20*	5.46*	5.46*	4.47*	4.45	3.69*	3.43		3.05*	2.77
	-9 m			5.51*	5.51*	4.56*	4.56*	3.79*	3.79*	3.14*	3.14*		2.56*	2.56*
-10.5 m					3.35*	3.35*	2.83*	2.83*	2.31*	2.31*		1.74*	1.74*	

Conditions	B	A								D		E	B
		12 m		13.5 m		15 m		16.5 m					
													
Boom: 10.23m Arm 7.28m counterweight: 7200kg Additional counterweight: 550 kg	15 m									1,37*	1,37*	10.7	15 m
	13.5 m	1.54*	1.54*							1,23*	1,23*	12.3	13.5 m
	12 m	2.15*	2.15*	1.26*	1.26*					1,14*	1,14*	13.6	12 m
	10.5 m	2.25*	2.25*	1.96*	1.96*					1,09*	1,09*	14.6	10.5 m
	9 m	2.30*	2.30*	2.14*	2.14*	1.50*	1.50*			1,07*	1,07*	15.4	9 m
	7.5 m	2.38*	2.38*	2.19*	2.19*	2.00*	2.00*			1,06*	1,06*	16.0	7.5 m
	6 m	2.48*	2.48*	2.25*	2.25*	2.07*	1.98			1,07*	1,07*	16.4	6 m
	4.5 m	2.61*	2.61*	2.34*	2.34*	2.12*	1.91	1.45*	1.45*	1,10*	1,10*	16.7	4.5 m
	3 m	2.74*	2.74*	2.42*	2.26	2.17*	1.84	1.72*	1.50	1,14*	1,14*	16.9	3 m
	1.5 m	2.86*	2.62	2.51*	2.15	2.22*	1.76	1.87*	1.45	1,21*	1,21*	16.9	1.5 m
	0 m	2.96*	2.48	2.57*	2.05	2.25*	1.70	1.84*	1.42	1,28*	1,28*	16.8	0 m
	-1.5 m	3.02*	2.37	2.60*	1.97	2.25*	1.65	1.56*	1.40	1,40*	1.39	16.6	-1.5 m
	-3 m	3.03*	2.29	2.58*	1.91	2.20*	1.62			1,54*	1.44	16.2	-3 m
	-4.5 m	2.97*	2.25	2.50*	1.89	2.07*	1.62			1,75*	1.54	15.6	-4.5 m
	-6 m	2.80*	2.25	2.32*	1.91					1,83*	1.68	14.9	-6 m
	-7.5 m	2.51*	2.30	1.97*	1.97*					1,76*	1.76*	14.0	-7.5 m
	-9 m	1.99*	1.99*							1,61*	1,61*	12.9	-9 m
-10.5 m									1,34*	1,34*	11.4	-10.5 m	

MACHINE CAPACITIES

ZX300LCN-7 HE18LD Super Long Front, 10.23m boom, 7.28m arm, 7.2t CW, 0.6t ADD CW

Units; 1000kg

Conditions	B	A											
		3 m		4.5 m		6 m		7.5 m		9 m		10.5 m	
													
Boom: 10.23m Arm 7.28m counterweight: 7200kg Additional counterweight: 550 kg	15 m											1.56*	1.56*
	13.5 m											2.24*	2.24*
	12 m												
	10.5 m											2.42*	2.42*
	9 m											2.49*	2.49*
	7.5 m											2.62*	2.62*
	6 m									3.16*	3.16*	2.78*	2.78*
	4.5 m			6.94*	6.94*	5.14*	5.14*	4.11*	4.11*	3.43*	3.43*	2.96*	2.96*
	3 m			7.29*	7.29*	5.90*	5.90*	4.56*	4.56*	3.72*	3.72*	3.15*	3.15*
	1.5 m			2.78*	2.78*	6.52*	6.44	4.95*	4.82	3.99*	3.75	3.33*	2.98
	0 m	0.71*	0.71*	2.36*	2.36*	5.97*	5.84	5.24*	4.41	4.19*	3.46	3.48*	2.78
	-1.5 m	1.47*	1.47*	2.70*	2.70*	5.31*	5.31*	5.39*	4.14	4.32*	3.25	3.57*	2.62
	-3 m	2.23*	2.23*	3.32*	3.32*	5.55*	5.39	5.39*	3.98	4.34*	3.12	3.59*	2.52
	-4.5 m	3.04*	3.04*	4.12*	4.12*	6.23*	5.38	5.24*	3.93	4.26*	3.06	3.53*	2.46
	-6 m	3.91*	3.91*	5.06*	5.06*	6.13*	5.46	4.94*	3.96	4.05*	3.06	3.36*	2.46
	-7.5 m	4.89*	4.89*	6.20*	6.20*	5.46*	5.46*	4.47*	4.05	3.69*	3.12	3.05*	2.51
	-9 m			5.51*	5.51*	4.56*	4.56*	3.79*	3.79*	3.14*	3.14*	2.56*	2.56*
-10.5 m					3.35*	3.35*	2.83*	2.83*	2.31*	2.31*	1.74*	1.74*	

Conditions	B	A								D		E	B
		12 m		13.5 m		15 m		16.5 m					
													
Boom: 10.23m Arm 7.28m counterweight: 7200kg Additional counterweight: 550 kg	15 m									1,37*	1,37*	10.7	15 m
	13.5 m	1.54*	1.54*							1,23*	1,23*	12.3	13.5 m
	12 m	2.15*	2.15*	1.26*	1.26*					1,14*	1,14*	13.6	12 m
	10.5 m	2.25*	2.25*	1.96*	1.96*					1,09*	1,09*	14.6	10.5 m
	9 m	2.30*	2.30*	2.14*	2.14*	1.50*	1.50*			1,07*	1,07*	15.4	9 m
	7.5 m	2.38*	2.38*	2.19*	2.19*	2.00*	1.85			1,06*	1,06*	16.0	7.5 m
	6 m	2.48*	2.48*	2.25*	2.25*	2.07*	1.81			1,07*	1,07*	16.4	6 m
	4.5 m	2.61*	2.61*	2.34*	2.18	2.12*	1.74	1.45*	1.39	1,10*	1,10*	16.7	4.5 m
	3 m	2.74*	2.56	2.42*	2.07	2.17*	1.67	1.72*	1.35	1,14*	1,14*	16.9	3 m
	1.5 m	2.86*	2.40	2.51*	1.96	2.22*	1.60	1.87*	1.31	1,21*	1,21*	16.9	1.5 m
	0 m	2.96*	2.26	2.57*	1.86	2.25*	1.53	1.84*	1.27	1,28*	1,22	16.8	0 m
	-1.5 m	3.02*	2.15	2.60*	1.78	2.25*	1.48	1.56*	1.25	1,40*	1.24	16.6	-1.5 m
	-3 m	3.03*	2.07	2.58*	1.73	2.20*	1.46			1,54*	1.29	16.2	-3 m
	-4.5 m	2.97*	2.03	2.50*	1.70	2.07*	1.46			1,75*	1.38	15.6	-4.5 m
	-6 m	2.80*	2.03	2.32*	1.72					1,83*	1.51	14.9	-6 m
	-7.5 m	2.51*	2.09	1.97*	1.79					1,76*	1.72	14.0	-7.5 m
	-9 m	1.99*	1.99*							1,61*	1,61*	12.9	-9 m
-10.5 m									1,34*	1,34*	11.4	-10.5 m	

MACHINE CAPACITIES

ZX350LC-7 HE15LD Super Long Front, 9.0m boom, 6.0m arm, 8.9t CW, 1.4t ADD CW

Units; 1000kg

Conditions	B	A									
		3 m		4.5 m		6 m		7.5 m		9 m	
											
Boom: 9.0m	12 m										
Arm 6.0m	10.5 m										
Counterweight: 8870kg	9 m										
Additional counterweight: 1430kg	7.5 m										
	6 m									4.87*	4.87*
	4.5 m							6.19*	6.19*	5.31*	5.31*
	3 m			12.45*	12.45*	8.84*	8.84*	6.94*	6.94*	5.79*	5.79*
	1.5 m			5.44*	5.44*	9.90*	9.90*	7.61*	7.61*	6.23*	5.96
	0 m	1.79*	1.79*	5.00*	5.00*	10.54*	9.77	8.09*	7.29	6.56*	5.72
	-1.5 m	3.33*	3.33*	5.87*	5.87*	10.72*	9.52	8.32*	7.07	6.74*	5.56
	-3 m	4.93*	4.93*	7.30*	7.30*	10.51*	9.45	8.28*	6.97	6.74*	5.47
	-4.5 m	6.67*	6.67*	9.18*	9.18*	9.95*	9.51	7.96*	6.98	6.51*	5.47
-6 m	8.66*	8.66*	11.39*	11.39*	9.03*	9.03*	7.32*	7.07	6.00*	5.53	
-7.5 m	11.07*	11.07*	9.43*	9.43*	7.66*	7.66*	6.27*	6.27*	5.08*	5.08*	
-9 m			6.75*	6.75*	5.65*	5.65*	4.58*	4.58*	3.40*	3.40*	

Conditions	B	A						D		E	B
		10.5 m		12 m		13.5 m					
											
Boom: 9.0m	12 m							3.50*	3.50*	10.4	12 m
Arm 6.0m	10.5 m	4.03*	4.03*					3.32*	3.32*	11.6	10.5 m
Counterweight: 8870kg	9 m	4.05*	4.05*	3.91*	3.91*			3.23*	3.23*	12.6	9 m
Additional counterweight: 1430kg	7.5 m	4.19*	4.19*	3.96*	3.96*			3.22*	3.22*	13.3	7.5 m
	6 m	4.42*	4.42*	4.09*	4.09*	3.85*	3.48	3.25*	3.25*	13.8	6 m
	4.5 m	4.71*	4.71*	4.27*	4.18	3.93*	3.42	3.34*	3.13	14.2	4.5 m
	3 m	5.01*	4.99	4.46*	4.06	4.04*	3.35	3.46*	3.01	14.3	3 m
	1.5 m	5.30*	4.79	4.64*	3.93	4.13*	3.27	3.67*	2.96	14.4	1.5 m
	0 m	5.52*	4.63	4.77*	3.83	4.18*	3.22	3.90*	2.97	14.2	0 m
	-1.5 m	5.64*	4.52	4.82*	3.76	4.14*	3.18	3.95*	3.05	13.9	-1.5 m
	-3 m	5.62*	4.46	4.74*	3.73			3.98*	3.21	13.4	-3 m
	-4.5 m	5.40*	4.46	4.47*	3.75			4.00*	3.48	12.7	-4.5 m
-6 m	4.90*	4.53					3.95*	3.91	11.8	-6 m	
-7.5 m	3.91*	3.91*					3.80*	3.80*	10.6	-7.5 m	
-9 m							3.38*	3.38*	9.0	-9 m	

MACHINE CAPACITIES

ZX350LCN-7 HE15LD Super Long Front, 9.0m boom, 6.0m arm, 8.9t CW, 1.4t ADD CW

Units; 1000kg

Conditions	B	A									
		3 m		4.5 m		6 m		7.5 m		9 m	
											
Boom: 9.0m	12 m										
Arm 6.0m	10.5 m										
Counterweight: 8870kg	9 m										
Additional counterweight: 1430kg	7.5 m										
	6 m									4.87*	4.87*
	4.5 m							6.19*	6.19*	5.31*	5.31*
	3 m			12.45*	12.45*	8.84*	8.84*	6.94*	6.94*	5.79*	5.79*
	1.5 m			5.44*	5.44*	9.90*	9.46	7.61*	7.06	6.23*	5.52
	0 m	1.79*	1.79*	5.00*	5.00*	10.54*	8.96	8.09*	6.72	6.56*	5.28
	-1.5 m	3.33*	3.33*	5.87*	5.87*	10.72*	8.72	8.32*	6.50	6.74*	5.12
	-3 m	4.93*	4.93*	7.30*	7.30*	10.51*	8.65	8.28*	6.41	6.74*	5.04
	-4.5 m	6.67*	6.67*	9.18*	9.18*	9.95*	8.71	7.96*	6.41	6.51*	5.03
-6 m	8.66*	8.66*	11.39*	11.39*	9.03*	8.87	7.32*	6.51	6.00*	5.10	
-7.5 m	11.07*	11.07*	9.43*	9.43*	7.66*	7.66*	6.27*	6.27*	5.08*	5.08*	
-9 m			6.75*	6.75*	5.65*	5.65*	4.58*	4.58*	3.40*	3.40*	

Conditions	B	A						D		E	B
		10.5 m		12 m		13.5 m					
											
Boom: 9.0m	12 m							3.50*	3.50*	10.4	12 m
Arm 6.0m	10.5 m	4.03*	4.03*					3.32*	3.32*	11.6	10.5 m
Counterweight: 8870kg	9 m	4.05*	4.05*	3.91*	3.91*			3.23*	3.23*	12.6	9 m
Additional counterweight: 1430kg	7.5 m	4.19*	4.19*	3.96*	3.96*			3.22*	3.22*	13.3	7.5 m
	6 m	4.42*	4.42*	4.09*	3.99	3.85*	3.22	3.25*	3.07	13.8	6 m
	4.5 m	4.71*	4.71*	4.27*	3.88	3.93*	3.16	3.34*	2.89	14.2	4.5 m
	3 m	5.01*	4.63	4.46*	3.76	4.04*	3.09	3.46*	2.77	14.3	3 m
	1.5 m	5.30*	4.43	4.64*	3.63	4.13*	3.02	3.67*	2.73	14.4	1.5 m
	0 m	5.52*	4.27	4.77*	3.53	4.18*	2.96	3.90*	2.73	14.2	0 m
	-1.5 m	5.64*	4.16	4.82*	3.46	4.14*	2.92	3.95*	2.81	13.9	-1.5 m
	-3 m	5.62*	4.10	4.74*	3.43			3.98*	2.95	13.4	-3 m
	-4.5 m	5.40*	4.10	4.47*	3.45			4.00*	3.20	12.7	-4.5 m
-6 m	4.90*	4.17					3.95*	3.61	11.8	-6 m	
-7.5 m	3.91*	3.91*					3.80*	3.80*	10.6	-7.5 m	
-9 m							3.38*	3.38*	9.0	-9 m	

MACHINE CAPACITIES

ZX350LC-7 HE18LD Super Long Front, 10.45m boom, 7.02m arm, 8.9t CW, 1.4t ADD CW

Units; 1000kg

Conditions	B	A														
		3 m		4.5 m		6 m		7.5 m		9 m		10.5 m				
																
Boom: 10.45m Arm 7.02m counterweight: 8870kg Additional counterweight: 1430 kg	13.5 m															
	12 m															
	10.5 m															
	9 m															
	7.5 m															
	6 m									4.45*	4.45*	3.93*	3.93*			
	4.5 m			9.98*	9.98*	7.27*	7.27*	5.78*	5.78*	4.84*	4.84*	4.19*	4.19*			
	3 m			4.95*	4.95*	8.31*	8.31*	6.41*	6.41*	5.24*	5.24*	4.46*	4.46*			
	1.5 m			2.77*	2.77*	9.10*	9.10*	6.93*	6.88	5.60*	5.41	4.71*	4.37			
	0 m			2.89*	2.89*	6.88*	6.88*	7.29*	6.45	8.13	5.10	4.90*	4.15			
	-1.5 m	2.14*	2.14*	3.64*	3.64*	6.73*	6.73*	7.44*	6.18	6.02*	4.89	5.02*	3.99			
	-3 m	3.30*	3.30*	4.65*	4.65*	7.39*	7.39*	7.40*	6.05	6.03*	4.76	5.03*	3.88			
	-4.5 m	4.49*	4.49*	5.86*	5.86*	8.53*	8.22	7.16*	6.02	5.89*	4.71	4.93*	3.84			
	-6 m	5.76*	5.76*	7.26*	7.26*	8.24*	8.24*	6.74*	6.08	5.59*	4.74	4.69*	3.85			
	-7.5 m	7.19*	7.19*	8.93*	8.93*	7.34*	7.34*	6.09*	6.09*	5.10*	4.83	4.27*	3.92			
-9 m	8.85*	8.85*	7.28*	7.28*	6.14*	6.14*	5.18*	5.18*	4.35*	4.35*	3.60*	3.60*				
-10.5 m					4.54*	4.54*	3.89*	3.89*	3.23*	3.23*	2.48*	2.48*				

Conditions	B	A								D		E	B
		12 m		13.5 m		15 m		16.5 m					
													
Boom: 10.45m Arm 7.02m counterweight: 8870kg Additional counterweight: 1430 kg	13.5 m	3.00*	3.00*							2.89*	2.89*	12.1	13.5 m
	12 m	3.18*	3.18*							2.76*	2.76*	13.3	12 m
	10.5 m	3.19*	3.19*	3.03*	3.03*					2.70*	2.70*	14.3	10.5 m
	9 m	3.26*	3.26*	3.06*	3.06*	2.90*	2.84			2.67*	2.67*	15.1	9 m
	7.5 m	3.38*	3.38*	3.13*	3.13*	2.94*	2.81			2.68*	2.52	15.7	7.5 m
	6 m	3.54*	3.54*	3.23*	3.23*	2.99*	2.76			2.73*	2.34	16.2	6 m
	4.5 m	3.72*	3.72*	3.35*	3.25	3.06*	2.68			2.81*	2.22	16.4	4.5 m
	3 m	3.90*	3.78	3.48*	3.12	3.14*	2.60	2.86*	2.17	2.83*	2.13	16.6	3 m
	1.5 m	4.07*	3.60	3.59*	2.99	3.21*	2.51	2.88*	2.12	2.84*	2.09	16.6	1.5 m
	0 m	4.20*	3.44	3.67*	2.89	3.25*	2.44	2.87*	2.09	2.86*	2.08	16.5	0 m
	-1.5 m	4.28*	3.32	3.71*	2.80	3.25*	2.39			2.87*	2.11	16.2	-1.5 m
	-3 m	4.28*	3.24	3.69*	2.75	3.18*	2.37			2.89*	2.19	15.8	-3 m
	-4.5 m	4.19*	3.21	3.57*	2.73	3.00*	2.38			2.89*	2.32	15.2	-4.5 m
	-6 m	3.96*	3.22	3.32*	2.76					2.87*	2.53	14.5	-6 m
	-7.5 m	3.56*	3.29	2.84*	2.84*					2.79*	2.79*	13.5	-7.5 m
-9 m	2.85*	2.85*							2.64*	2.64*	12.3	-9 m	
-10.5 m									2.31*	2.31*	10.8	-10.5 m	

MACHINE CAPACITIES

ZX350LCN-7 HE18LD Super Long Front, 10.45m boom, 7.02m arm, 8.9t CW, 1.4t ADD CW

Units; 1000kg

Conditions	B	A											
		3 m		4.5 m		6 m		7.5 m		9 m		10.5 m	
													
Boom: 10.45m	13.5 m												
Arm 7.02m	12 m												
counterweight: 8870kg	10.5 m												
	9 m												
Additional counterweight: 1430 kg	7.5 m												
	6 m									4.45*	4.45*	3.93*	3.93*
	4.5 m			9.98*	9.98*	7.27*	7.27*	5.78*	5.78*	4.84*	4.84*	4.19*	4.19*
	3 m			4.95*	4.95*	8.31*	8.31*	6.41*	6.41*	5.24*	5.24*	4.46*	4.28
	1.5 m			2.77*	2.77*	9.10*	9.10*	6.93*	6.32	5.60*	4.98	4.71*	4.02
	0 m			2.89*	2.89*	6.88*	6.88*	7.29*	5.90	8.13	4.68	4.90*	3.81
	-1.5 m	2.14*	2.14*	3.64*	3.64*	6.73*	6.73*	7.44*	5.63	6.02*	4.46	5.02*	3.64
	-3 m	3.30*	3.30*	4.65*	4.65*	7.39*	7.39*	7.40*	5.50	6.03*	4.34	5.03*	3.54
	-4.5 m	4.49*	4.49*	5.86*	5.86*	8.53*	7.46	7.16*	5.48	5.89*	4.29	4.93*	3.49
	-6 m	5.76*	5.76*	7.26*	7.26*	8.24*	7.58	6.74*	5.53	5.59*	4.32	4.69*	3.51
	-7.5 m	7.19*	7.19*	8.93*	8.93*	7.34*	7.34*	6.09*	5.66	5.10*	4.40	4.27*	3.58
	-9 m	8.85*	8.85*	7.28*	7.28*	6.14*	6.14*	5.18*	5.18*	4.35*	4.35*	3.60*	3.60*
	-10.5 m					4.54*	4.54*	3.89*	3.89*	3.23*	3.23*	2.48*	2.48*

Conditions	B	A								D		E	B
		12 m		13.5 m		15 m		16.5 m					
													
Boom: 10.45m	13.5 m	3.00*	3.00*							2.89*	2.89*	12.1	13.5 m
Arm 7.02m	12 m	3.18*	3.18*							2.76*	2.76*	13.3	12 m
counterweight: 8870kg	10.5 m	3.19*	3.19*	3.03*	3.03*					2.70*	2.70*	14.3	10.5 m
	9 m	3.26*	3.26*	3.06*	3.06*	2.90*	2.62			2.67*	2.55	15.1	9 m
Additional counterweight: 1430 kg	7.5 m	3.38*	3.38*	3.13*	3.13*	2.94*	2.59			2.68*	2.31	15.7	7.5 m
	6 m	3.54*	3.54*	3.23*	3.11	2.99*	2.53			2.73*	2.14	16.2	6 m
	4.5 m	3.72*	3.67	3.35*	2.99	3.06*	2.46			2.81*	2.02	16.4	4.5 m
	3 m	3.90*	3.48	3.48*	2.87	3.14*	2.38	2.86*	1.97	2.83*	1.94	16.6	3 m
	1.5 m	4.07*	3.30	3.59*	2.74	3.21*	2.29	2.88*	1.93	2.84*	1.90	16.6	1.5 m
	0 m	4.20*	3.15	3.67*	2.63	3.25*	2.22	2.87*	1.89	2.86*	1.89	16.5	0 m
	-1.5 m	4.28*	3.03	3.71*	2.55	3.25*	2.17			2.87*	1.91	16.2	-1.5 m
	-3 m	4.28*	2.95	3.69*	2.50	3.18*	2.15			2.89*	1.99	15.8	-3 m
	-4.5 m	4.19*	2.92	3.57*	2.48	3.00*	2.16			2.89*	2.11	15.2	-4.5 m
	-6 m	3.96*	2.93	3.32*	2.51					2.87*	2.30	14.5	-6 m
	-7.5 m	3.56*	3.00	2.84*	2.60					2.79*	2.59	13.5	-7.5 m
	-9 m	2.85*	2.85*							2.64*	2.64*	12.3	-9 m
	-10.5 m									2.31*	2.31*	10.8	-10.5 m

MACHINE CAPACITIES

ZX350LC-7 HE20LD Super Long Front, 11.80m boom, 8.20m arm, 8.9t CW, 1.1t ADD CW

Units; 1000kg

Conditions	B	A											
		3 m		4.5 m		6 m		7.5 m		9 m		10.5 m	
													
Boom: 11.80m Arm 8.20m counterweight: 8870kg Additional counterweight: 1070 kg	15 m												
	13.5 m												
	12 m												
	10.5 m												
	9 m												
	7.5 m												
	6 m											3.30*	3.30*
	4.5 m			9.11*	9.11*	6.50*	6.50*	5.07*	5.07*	4.16*	4.16*	3.54*	3.54*
	3 m			3.79*	3.79*	7.36*	7.36*	5.59*	5.59*	4.50*	4.50*	3.77*	3.77*
	1.5 m			2.29*	2.29*	6.58*	6.58*	6.03*	6.03*	4.81*	4.81*	3.99*	3.91
	0 m			2.40*	2.40*	5.14*	5.14*	6.33*	5.59	5.05*	4.45	4.17*	3.63
	-1.5 m	1.91*	1.91*	2.94*	2.94*	5.02*	5.02*	6.48*	5.26	5.19*	4.18	4.29*	3.41
	-3 m	2.73*	2.73*	3.64*	3.64*	5.42*	5.42*	6.49*	5.09	5.24*	4.01	4.34*	3.26
	-4.5 m	3.54*	3.54*	4.43*	4.43*	6.09*	6.09*	6.35*	5.03	5.19*	3.92	4.32*	3.18
	-6 m	4.38*	4.38*	5.30*	5.30*	6.96*	6.96*	6.09*	2.05	5.02*	3.91	4.21*	3.15
	-7.5 m	5.26*	5.26*	6.27*	6.27*	6.92*	6.92*	5.69*	5.14	4.74*	3.96	3.99*	3.18
	-9 m	6.22*	6.22*	7.37*	7.37*	6.16*	6.16*	5.14*	5.14*	4.33*	4.06	3.66*	3.26
-10.5 m	7.27*	7.27*	6.15*	6.15*	5.19*	5.19*	4.41*	4.41*	3.74*	3.74*	3.16*	3.16*	
-12 m			4.46*	4.46*	3.95*	3.95*	3.43*	3.43*	2.93*	2.93*	2.43*	2.43*	
-13.5 m							2.11*	2.11*	1.77*	1.77*	1.31*	1.31*	

Conditions	B	A										D		E
		12 m		13.5 m		15 m		16.5 m		18 m				
														
Boom: 11.80m Arm 8.20m counterweight: 8870kg Additional counterweight: 1070 kg	15 m			1.94*	1.94*							1.54*	1.54*	13.9
	13.5 m					1.68*	1.68*					1.47*	1.47*	15.2
	12 m					2.18*	2.18*					1.43*	1.43*	16.2
	10.5 m			2.34*	2.34*	2.19*	2.19*	2.02*	2.02*			1.41*	1.41*	17.0
	9 m			2.41*	2.41*	2.23*	2.23*	2.09*	2.09*			1.41*	1.41*	17.7
	7.5 m	2.76*	2.76*	2.50*	2.50*	2.29*	2.29*	2.13*	2.13*	1.75*	1.75*	1.42*	1.42*	18.2
	6 m	2.91*	2.91*	2.61*	2.61*	2.37*	2.37*	2.18*	2.11	2.02*	1.71	1.45*	1.45*	18.6
	4.5 m	3.08*	3.08*	2.73*	2.73*	2.46*	2.46*	2.23*	2.02	2.05*	1.65	1.51*	1.47	18.9
	3 m	3.25*	3.25*	2.85*	2.82	2.54*	2.33	2.29*	1.93	2.09*	1.60	1.57*	1.40	19.0
	1.5 m	3.41*	3.20	2.97*	2.65	2.62*	2.21	2.34*	1.84	2.12*	1.54	1.66*	1.36	19.0
	0 m	3.54*	3.00	3.06*	2.50	2.69*	2.10	2.39*	1.76	2.13*	1.49	1.78*	1.34	18.9
	-1.5 m	3.63*	2.83	3.13*	2.37	2.73*	2.00	2.41*	1.70	2.12*	1.45	1.92*	1.35	18.7
	-3 m	3.68*	2.71	3.16*	2.28	2.75*	1.94	2.40*	1.65	2.08*	1.43	2.01*	1.39	18.3
	-4.5 m	3.66*	2.64	3.14*	2.22	2.71*	1.90	2.34*	1.64			2.02*	1.45	17.8
	-6 m	3.57*	2.61	3.05*	2.21	2.62*	1.89	2.21*	1.65			2.02*	1.56	17.2
	-7.5 m	3.39*	2.63	2.88*	2.23	2.43*	1.92					2.00*	1.71	16.4
	-9 m	3.09*	2.70	2.59*	2.29	2.10*	2.00					1.96*	1.94	15.4
-10.5 m	2.63*	2.63*	2.12*	2.12*							1.86*	1.86*	14.2	
-12 m	1.92*	1.92*									1.66*	1.66*	12.7	
-13.5 m											1.22*	1.22*	10.7	

MACHINE CAPACITIES

ZX350LCN-7 HE20LD Super Long Front, 11.80m boom, 8.20m arm, 8.9t CW, 1.1t ADD CW

Units; 1000kg

Conditions	B	A											
		3 m		4.5 m		6 m		7.5 m		9 m		10.5 m	
													
Boom: 11.80m Arm 8.20m counterweight: 8870kg Additional counterweight: 1070 kg	15 m												
	13.5 m												
	12 m												
	10.5 m												
	9 m												
	7.5 m												
	6 m											3.30*	3.30*
	4.5 m			9.11*	9.11*	6.50*	6.50*	5.07*	5.07*	4.16*	4.16*	3.54*	3.54*
	3 m			3.79*	3.79*	7.36*	7.36*	5.59*	5.59*	4.50*	4.50*	3.77*	3.77*
	1.5 m			2.29*	2.29*	6.58*	6.58*	6.03*	5.56	4.81*	4.41	3.99*	3.56
	0 m			2.40*	2.40*	5.14*	5.14*	6.33*	5.05	5.05*	4.03	4.17*	3.29
	-1.5 m	1.91*	1.91*	2.94*	2.94*	5.02*	5.02*	6.48*	4.73	5.19*	3.76	4.29*	3.07
	-3 m	2.73*	2.73*	3.64*	3.64*	5.42*	5.42*	6.49*	4.56	5.24*	3.60	4.34*	2.93
	-4.5 m	3.54*	3.54*	4.43*	4.43*	6.09*	6.09*	6.35*	4.50	5.19*	3.51	4.32*	2.84
	-6 m	4.38*	4.38*	5.30*	5.30*	6.96*	6.27	6.09*	4.53	5.02*	3.50	4.21*	2.82
	-7.5 m	5.26*	5.26*	6.27*	6.27*	6.93*	6.43	5.69*	4.62	4.74*	3.55	4.00*	2.84
	-9 m	6.22*	6.22*	7.37*	7.37*	6.16*	6.16*	5.14*	4.77	4.33*	3.65	3.66*	2.92
-10.5 m	7.27*	7.27*	6.15*	6.15*	5.19*	5.19*	4.41*	4.41*	3.74*	3.74*	3.16*	3.06	
-12 m			4.46*	4.46*	3.95*	3.95*	3.43*	3.43*	2.93*	2.93*	2.44*	2.44*	
-13.5 m							2.11*	2.11*	1.77*	1.77*	1.31*	1.31*	

Conditions	B	A										D		E	
		12 m		13.5 m		15 m		16.5 m		18 m					
															
Boom: 11.80m Arm 8.20m counterweight: 8870kg Additional counterweight: 1070 kg	15 m			1.94*	1.94*								1.54*	1.54*	13.9
	13.5 m					1.68*	1.68*						1.47*	1.47*	15.2
	12 m					2.18*	2.18*						1.43*	1.43*	16.2
	10.5 m			2.35*	2.35*	2.19*	2.19*	2.02*	2.02*				1.41*	1.41*	17.0
	9 m			2.41*	2.41*	2.23*	2.23*	2.09*	2.04				1.41*	1.41*	17.7
	7.5 m	2.76*	2.76*	2.50*	2.50*	2.29*	2.29*	2.13*	1.98	1.75*	1.57		1.42*	1.42*	18.2
	6 m	2.91*	2.91*	2.61*	2.61*	2.37*	2.36	2.18*	1.91	2.02*	1.53		1.45*	1.39	18.6
	4.5 m	3.08*	3.08*	2.73*	2.73*	2.46*	2.24	2.23*	1.83	2.05*	1.48		1.51*	1.30	18.9
	3 m	3.25*	3.15	2.85*	2.57	2.54*	2.11	2.29*	1.74	2.09*	1.42		1.58*	1.24	19.0
	1.5 m	3.40*	2.91	2.97*	2.40	2.62*	1.99	2.35*	1.65	2.12*	1.36		1.66*	1.20	19.0
	0 m	3.53*	2.71	3.06*	2.25	2.69*	1.88	2.40*	1.57	2.13*	1.31		1.78*	1.18	18.9
	-1.5 m	3.63*	2.55	3.13*	2.13	2.74*	1.79	2.41*	1.51	2.12*	1.27		1.92*	1.19	18.7
	-3 m	3.68*	2.43	3.16*	2.04	2.75*	1.72	2.40*	1.46	2.08*	1.25		2.01*	1.22	18.3
	-4.5 m	3.66*	2.36	3.14*	1.98	2.71*	1.68	2.34*	1.44				2.02*	1.28	17.8
	-6 m	3.57*	2.33	3.05*	1.96	2.62*	1.68	2.21*	1.45				2.02*	1.38	17.2
	-7.5 m	3.39*	2.35	2.88*	1.98	2.34*	1.71						2.00*	1.52	16.4
	-9 m	3.09*	2.42	2.59*	2.05	2.10*	1.79						1.96*	1.73	15.4
-10.5 m	2.64*	2.54	2.12*	2.12*								1.86*	1.86*	14.2	
-12 m	1.92*	1.92*										1.66*	1.66*	12.7	
-13.5 m												1.22*	1.22*	10.7	

MACHINE CAPACITIES

ZX350LC-7 HE22 Super Long Front, 12.30m boom, 9.45m arm, 8.9t CW, 1.1t ADD CW

Units; 1000kg

Conditions	B	A																
		3 m		4.5 m		6 m		7.5 m		9 m		10.5 m		12 m				
																		
Boom: 12.3m Arm 9.45m Counterweight: 8870kg Additional counterweight: 1070kg	16.5 m																	
	15 m																	
	13.5 m																	
	12 m																	
	10.5 m																	
	9 m																	
	7.5 m																	
	6 m																2.63*	2.63*
	4.5 m												3.22*	3.22*			2.82*	2.82*
	3 m			5.71*	5.71*	6.70*	6.70*	5.13*	5.13*	4.16*	4.16*	3.50*	3.50*	3.02*	3.02*			
	1.5 m			2.45*	2.45*	6.94*	6.94*	5.67*	5.67*	4.53*	4.53*	3.76*	3.76*	3.22*	3.22*			
	0 m	0.79*	0.79*	2.07*	2.07*	4.58*	4.58*	6.10*	5.75	4.85*	4.58	4.00*	3.72	3.40*	3.07			
	-1.5 m	1.35*	1.35*	2.28*	2.28*	4.09*	4.09*	6.40*	5.32	5.09*	4.23	4.19*	3.46	3.55*	2.87			
	-3 m	1.91*	1.91*	2.71*	2.71*	4.19*	4.19*	6.55*	5.05	5.24*	4.00	4.33*	3.26	3.66*	2.71			
	-4.5 m	2.50*	2.50*	3.24*	3.24*	4.58*	4.58*	6.58*	4.92	5.31*	3.86	4.40*	3.13	3.72*	2.60			
	-6 m	3.11*	3.11*	3.85*	3.85*	5.14*	5.14*	6.48*	4.88	5.28*	3.79	4.39*	3.07	3.72*	2.54			
	-7.5 m	3.75*	3.75*	4.53*	4.53*	5.84*	5.84*	6.27*	4.92	5.15*	3.79	4.31*	3.05	3.66*	2.53			
-9 m	4.45*	4.45*	5.30*	5.30*	6.69*	6.69*	5.93*	5.02	4.91*	3.85	4.13*	3.09	3.51*	2.55				
-10.5 m	5.21*	5.21*	6.17*	6.17*	6.64*	6.64*	5.44*	5.18	4.55	3.97	3.84*	3.17	3.26*	2.62				
-12 m	6.05*	6.05*	7.09*	7.09*	5.75*	5.75*	4.79*	4.79*	4.03*	4.03*	3.41*	3.31	2.87*	2.74				
-13.5 m			5.50*	5.50*	4.61*	4.61*	3.90*	3.90*	3.30*	3.30*	2.77*	2.77*	2.27*	2.27*				
-15 m									2.27*	2.27*	1.81*	1.81*						

Conditions	B	A										D		E	
		13.5 m		15 m		16.5 m		18 m		19.5 m					
															
Boom: 12.3m Arm 9.45m Counterweight: 8870kg Additional counterweight: 1070kg	16.5 m			1.25*	1.25*								1.25*	1.25*	15.0
	15 m			1.91*	1.91*								1.17*	1.17*	16.3
	13.5 m			1.89*	1.89*	1.82*	1.82*						1.12*	1.12*	17.4
	12 m			1.90*	1.90*	1.81*	1.81*	1.40*	1.40*				1.10*	1.10*	18.3
	10.5 m			1.93*	1.93*	1.83*	1.83*	1.76*	1.76*				1.08*	1.08*	19.0
	9 m			1.99*	1.99*	1.87*	1.87*	1.78*	1.78*	1.25*	1.25*		1.08*	1.08*	19.6
	7.5 m	2.25*	2.25*	2.07*	2.07*	1.93*	1.93*	1.81*	1.81*	1.72*	1.52		1.09*	1.09*	20.1
	6 m	2.37*	2.37*	2.17*	2.17*	2.00*	2.00*	1.86*	1.82	1.75*	1.48		1.11*	1.11*	20.5
	4.5 m	2.52*	2.52*	2.27*	2.27*	2.08*	2.08*	1.92*	1.75	1.79*	1.43		1.15*	1.15*	20.7
	3 m	2.66*	2.66*	2.39*	2.39*	2.16*	2.01	1.98*	1.67	1.83*	1.38		1.19*	1.16	20.8
	1.5 m	2.81*	2.74	2.50*	2.28	2.25*	1.90	2.04*	1.59	1.87*	1.32		1.25*	1.12	20.8
	0 m	2.95*	2.56	2.60*	2.14	2.32*	1.80	2.10*	1.52	1.90*	1.27		1.33*	1.11	20.7
	-1.5 m	3.06*	2.40	2.69*	2.03	2.39*	1.71	2.14*	1.45	1.92*	1.23		1.40*	1.11	20.5
	-3 m	3.15*	2.28	2.75*	1.93	2.43*	1.64	2.16*	1.40	1.92*	1.21		1.53*	1.13	20.2
	-4.5 m	3.20*	2.19	2.78*	1.86	2.45*	1.60	2.15*	1.38	1.88*	1.20		1.67*	1.18	19.7
	-6 m	3.20*	2.14	2.78*	1.83	2.42*	1.57	2.10*	1.37				1.85*	1.25	19.2
	-7.5 m	3.14*	2.13	2.71*	1.82	2.34*	1.58	1.98*	1.40				1.86*	1.35	18.5
-9 m	3.01*	2.15	2.58*	1.85	2.17*	1.62						1.87*	1.50	17.6	
-10.5 m	2.77*	2.22	2.32*	1.92	1.86*	1.72						1.85*	1.71	16.5	
-12 m	2.39*	2.34	1.89*	1.89*								1.79*	1.79*	15.2	
-13.5 m	1.74*	1.74*										1.65*	1.65*	13.7	
-15 m															

MACHINE CAPACITIES

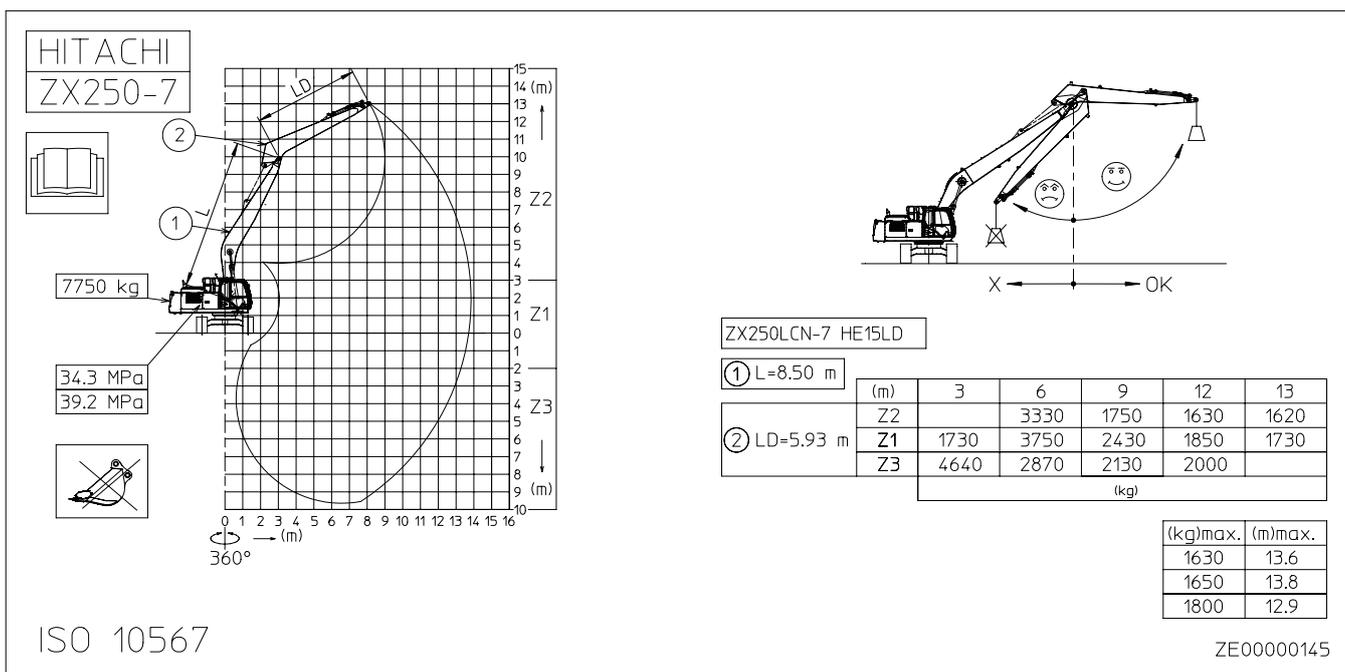
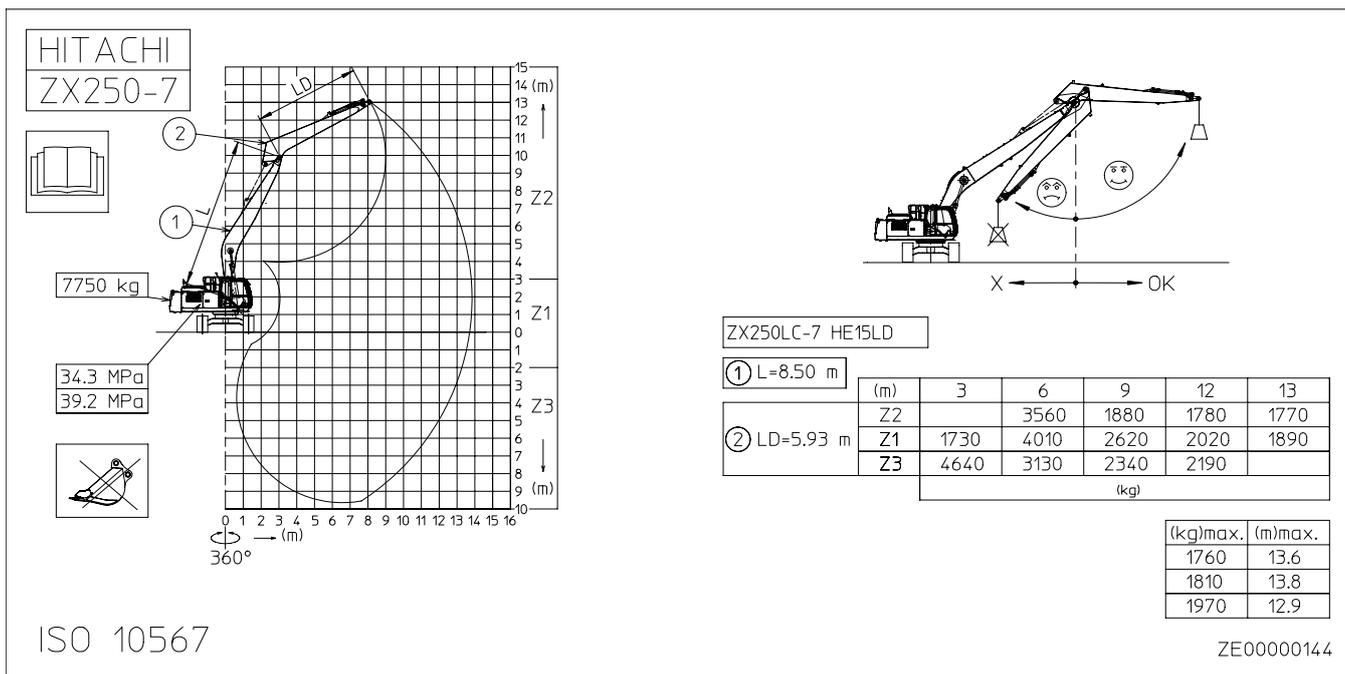
ZX350LCN-7 HE22 Super Long Front, 12.30m boom, 9.45m arm, 8.9t CW, 1.1t ADD CW

Units; 1000kg

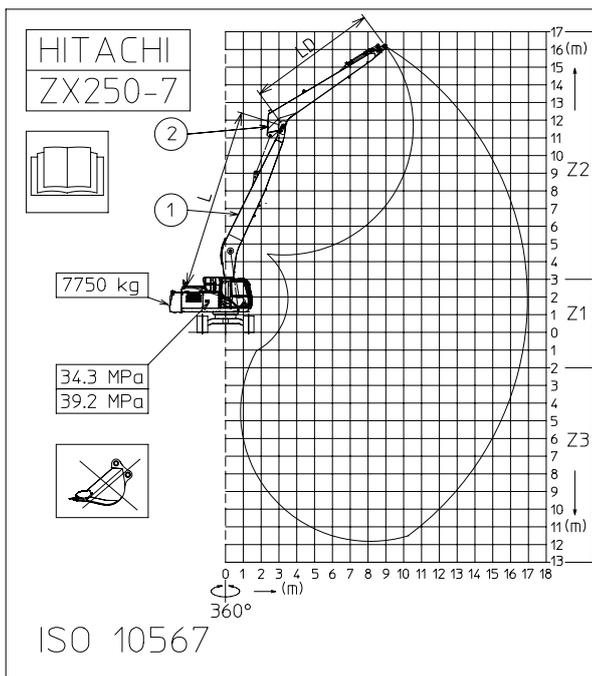
Conditions	B	A																
		3 m		4.5 m		6 m		7.5 m		9 m		10.5 m		12 m				
																		
Boom: 12.3m Arm 9.45m Counterweight: 8870kg Additional counterweight: 1070kg	16.5 m																	
	15 m																	
	13.5 m																	
	12 m																	
	10.5 m																	
	9 m																	
	7.5 m																	
	6 m																2.63*	2.63*
	4.5 m												3.22*	3.22*		2.82*	2.82*	
	3 m				5.71*	5.71*	6.70*	6.70*	5.13*	5.13*	4.16*	4.16*	3.50*	3.50*	3.02*	3.02*		
	1.5 m				2.45*	2.45*	6.94*	6.94*	5.67*	5.67*	4.53*	4.53*	3.76*	3.71	3.22*	3.02		
	0 m		0.79*	0.79*	2.07*	2.07*	4.58*	4.58*	6.10*	5.22	4.85*	4.16	4.00*	3.38	3.40*	2.79		
	-1.5 m		1.35*	1.35*	2.28*	2.28*	4.09*	4.09*	6.40*	4.79	5.09*	3.82	4.19*	3.12	3.55*	2.58		
	-3 m		1.91*	1.91*	2.71*	2.71*	4.19*	4.19*	6.55*	4.53	5.24*	3.59	4.33*	2.93	3.66*	2.43		
	-4.5 m		2.50*	2.50*	3.24*	3.24*	4.58*	4.58*	6.58*	4.39	5.31*	3.45	4.40*	2.80	3.72*	2.32		
	-6 m		3.11*	3.11*	3.85*	3.85*	5.14*	5.14*	6.48*	4.36	5.28*	3.39	4.39*	2.73	3.72*	2.26		
	-7.5 m		3.75*	3.75*	4.53*	4.53*	5.84*	5.84*	6.27*	4.40	5.15*	3.39	4.31*	2.72	3.66*	2.24		
-9 m		4.45*	4.45*	5.30*	5.30*	6.69*	6.27	5.93*	4.50	4.91*	3.45	4.13*	2.76	3.51*	2.27			
-10.5 m		5.21*	5.21*	6.17*	6.17*	6.64*	6.50	5.44*	4.65	4.55	3.56	3.84*	2.84	3.26*	2.34			
-12 m		6.05*	6.05*	7.09*	7.09*	5.75*	5.75*	4.79*	4.79*	4.03*	3.72	3.41*	2.98	2.87*	2.46			
-13.5 m				5.50*	5.50*	4.61*	4.61*	3.90*	3.90*	3.30*	3.30*	2.77*	2.77*	2.27*	2.27*			
-15 m										2.27*	2.27*	1.81*	1.81*					

Conditions	B	A										D		E
		13.5 m		15 m		16.5 m		18 m		19.5 m				
														
Boom: 12.3m Arm 9.45m Counterweight: 8870kg Additional counterweight: 1070kg	16.5 m			1.25*	1.25*							1.25*	1.25*	15.0
	15 m			1.91*	1.91*							1.17*	1.17*	16.3
	13.5 m			1.89*	1.89*	1.82*	1.82*					1.12*	1.12*	17.4
	12 m			1.90*	1.90*	1.81*	1.81*	1.40*	1.40*			1.10*	1.10*	18.3
	10.5 m			1.93*	1.93*	1.83*	1.83*	1.76*	1.76*			1.08*	1.08*	19.0
	9 m			1.99*	1.99*	1.87*	1.87*	1.78*	1.76	1.25*	1.25*	1.08*	1.08*	19.6
	7.5 m	2.25*	2.25*	2.07*	2.07*	1.93*	1.93*	1.81*	1.71	1.72*	1.36	1.09*	1.09*	20.1
	6 m	2.37*	2.37*	2.17*	2.17*	2.00*	2.00*	1.86*	1.65	1.75*	1.32	1.11*	1.11*	20.5
	4.5 m	2.52*	2.52*	2.27*	2.27*	2.08*	1.93	1.92*	1.57	1.79*	1.27	1.15*	1.06	20.7
	3 m	2.66*	2.66*	2.39*	2.21	2.16*	1.82	1.98*	1.49	1.83*	1.22	1.19*	1.01	20.8
	1.5 m	2.81*	2.49	2.50*	2.06	2.25*	1.71	2.04*	1.41	1.87*	1.16	1.25*	0.97	20.8
	0 m	2.95*	2.31	2.60*	1.93	2.32*	1.61	2.10*	1.34	1.90*	1.12	1.33*	0.96	20.7
	-1.5 m	3.06*	2.16	2.69*	1.81	2.39*	1.52	2.14*	1.28	1.92*	1.08	1.40*	0.96	20.5
	-3 m	3.15*	2.04	2.75*	1.72	2.43*	1.45	2.16*	1.23	1.92*	1.05	1.53*	0.98	20.2
	-4.5 m	3.20*	1.95	2.78*	1.65	2.45*	1.40	2.15*	1.20	1.88*	1.04	1.67*	1.02	19.7
	-6 m	3.20*	1.90	2.78*	1.61	2.42*	1.38	2.10*	1.20			1.85*	1.09	19.2
	-7.5 m	3.14*	1.89	2.71*	1.61	2.34*	1.39	1.98*	1.22			1.86*	1.18	18.5
-9 m	3.01*	1.91	2.58*	1.64	2.17*	1.43					1.87*	1.32	17.6	
-10.5 m	2.77*	1.98	2.32*	1.71	1.86*	1.52					1.85*	1.52	16.5	
-12 m	2.39*	2.09	1.89*	1.84							1.79*	1.79*	15.2	
-13.5 m	1.74*	1.74*									1.65*	1.65*	13.7	
-15 m														

LIFTING CAPACITIES



LIFTING CAPACITIES



ZX250LC-7 HE18LD

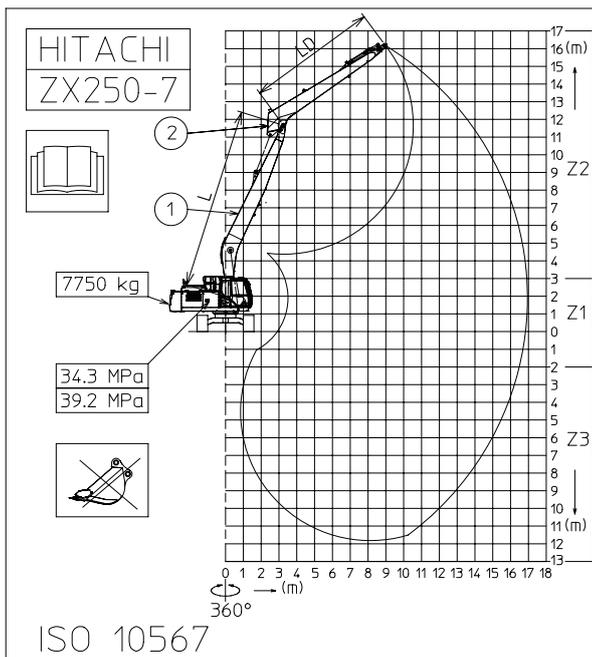
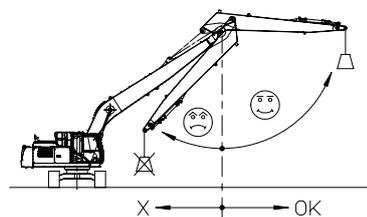
① L=10.23m

(m)	3	6	9	12	15	16
Z2	5550	3520	1880	1360	1200	1160
Z1	620	3850	2360	1690	1315	1210
Z3	2020	2180	1400	1340	1270	1210

(kg)

(kg)max.	(m)max.
1140	16.8
1130	16.9
1170	16.2

ZE00000146



ZX250LCN-7 HE18LD

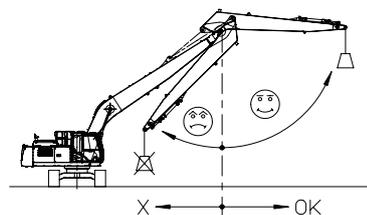
① L=10.23m

(m)	3	6	9	12	15	16
Z2	5600	3350	1780	1280	1110	1070
Z1	630	3550	2230	1580	1210	1120
Z3	2050	1990	1270	1230	1170	1110

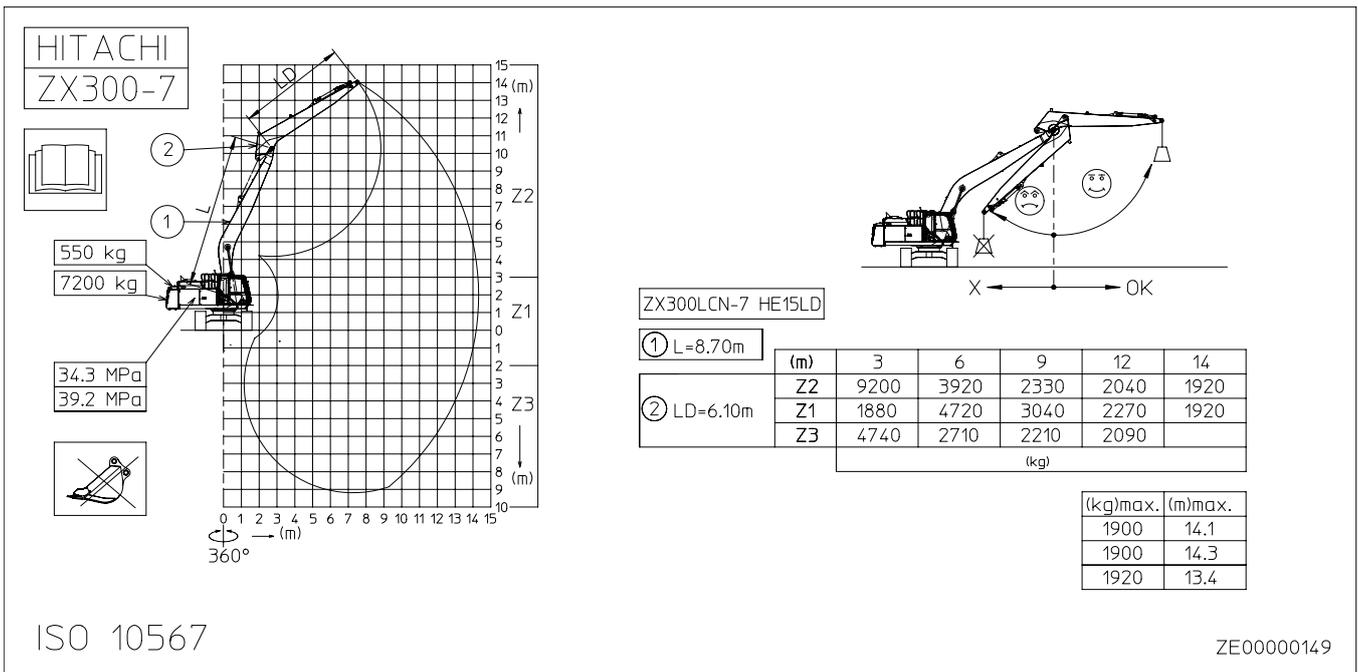
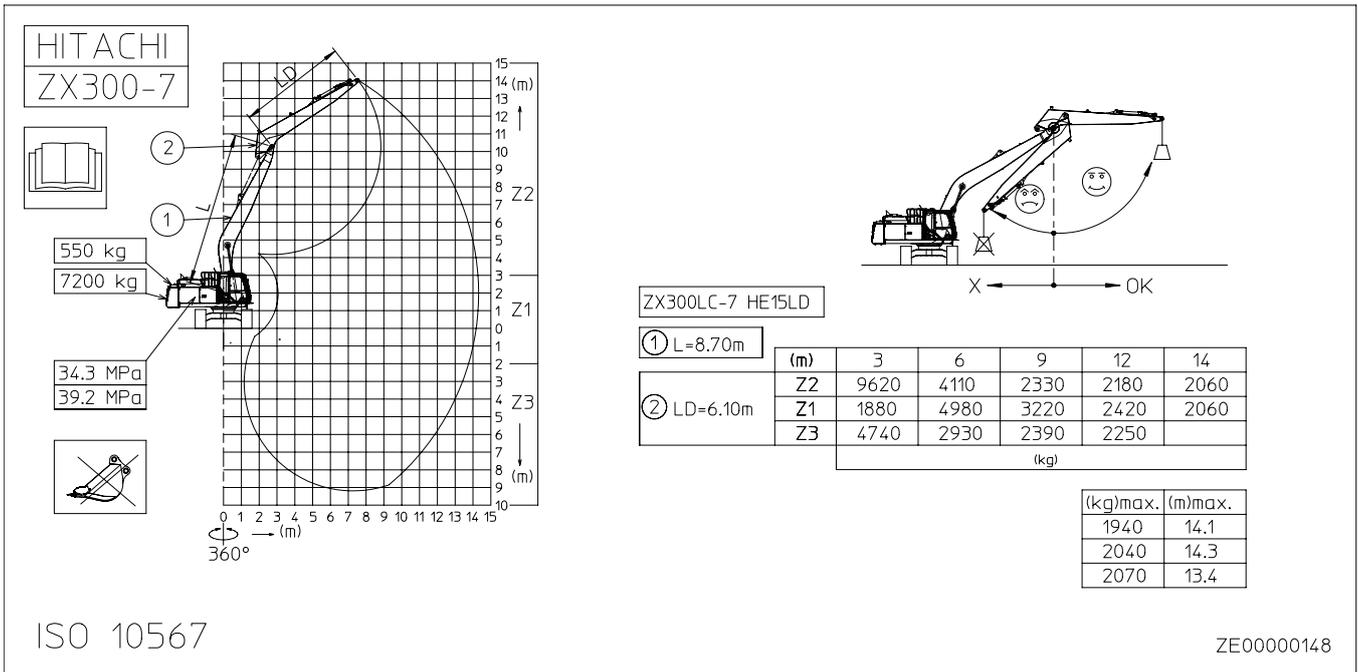
(kg)

(kg)max.	(m)max.
1050	16.8
1030	16.9
1070	16.2

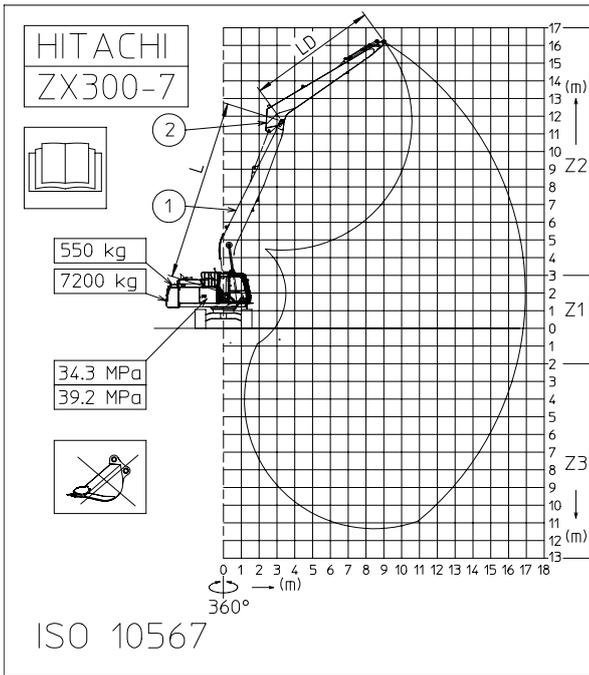
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LIFTING CAPACITIES



LIFTING CAPACITIES



ZX300LC-7 HE18LD

① L=10.23m

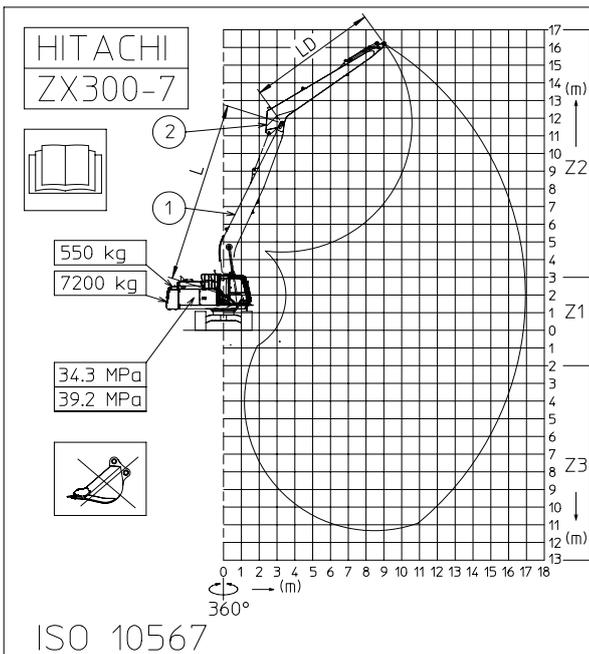
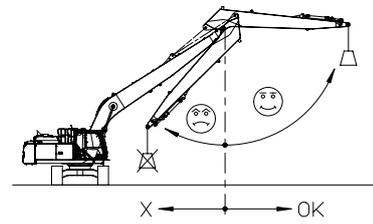
② LD=7.28m

(m)	3	6	9	12	15	16
Z2	5010	3970	2170	1550	1300	1230
Z1	690	4270	2610	1840	1390	1230
Z3	2200	2320	1020	1150	1210	1170

(kg)

(kg)max.	(m)max.
1090	16.8
1130	16.9
1130	16.1

ZE00000150



ZX300LCN-7 HE18LD

① L=10.23m

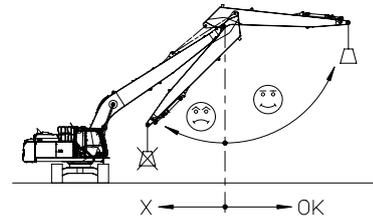
② LD=7.28m

(m)	3	6	9	12	15	16
Z2	5010	4030	2200	1570	1320	1250
Z1	690	4330	2640	1860	1410	1250
Z3	2200	2340	1030	1160	1220	1190

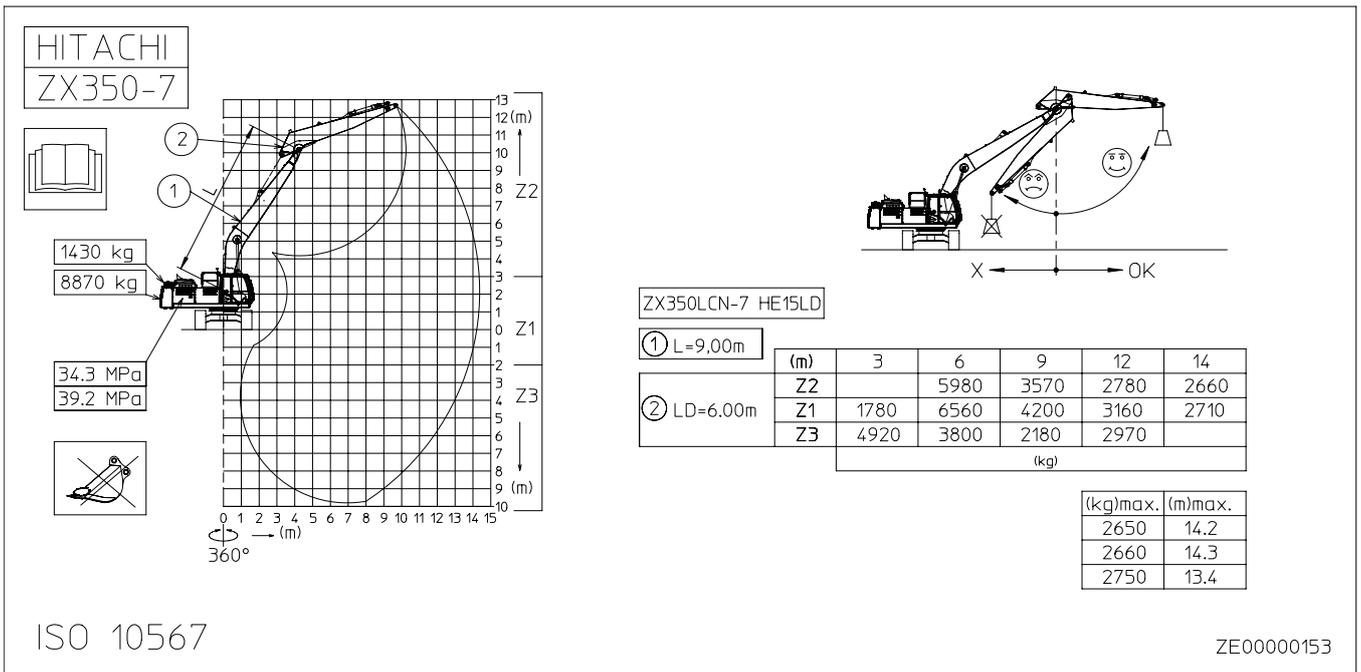
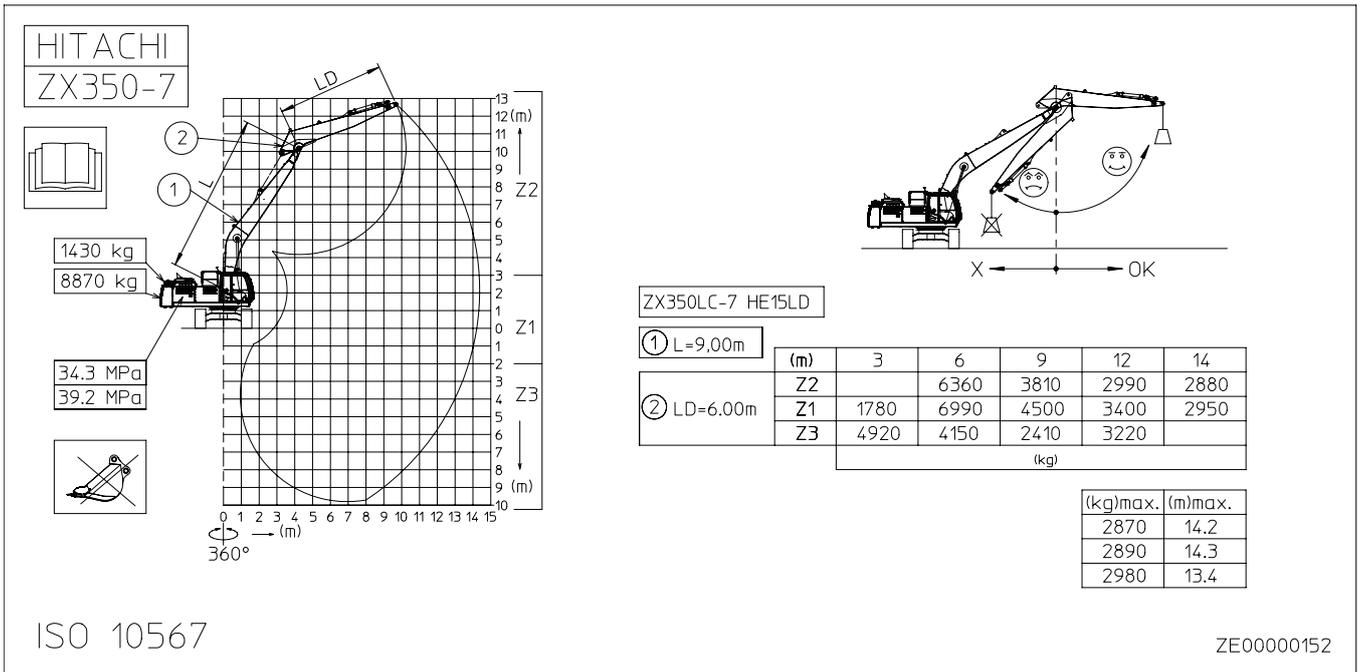
(kg)

(kg)max.	(m)max.
1100	16.8
1180	16.9
1150	16.1

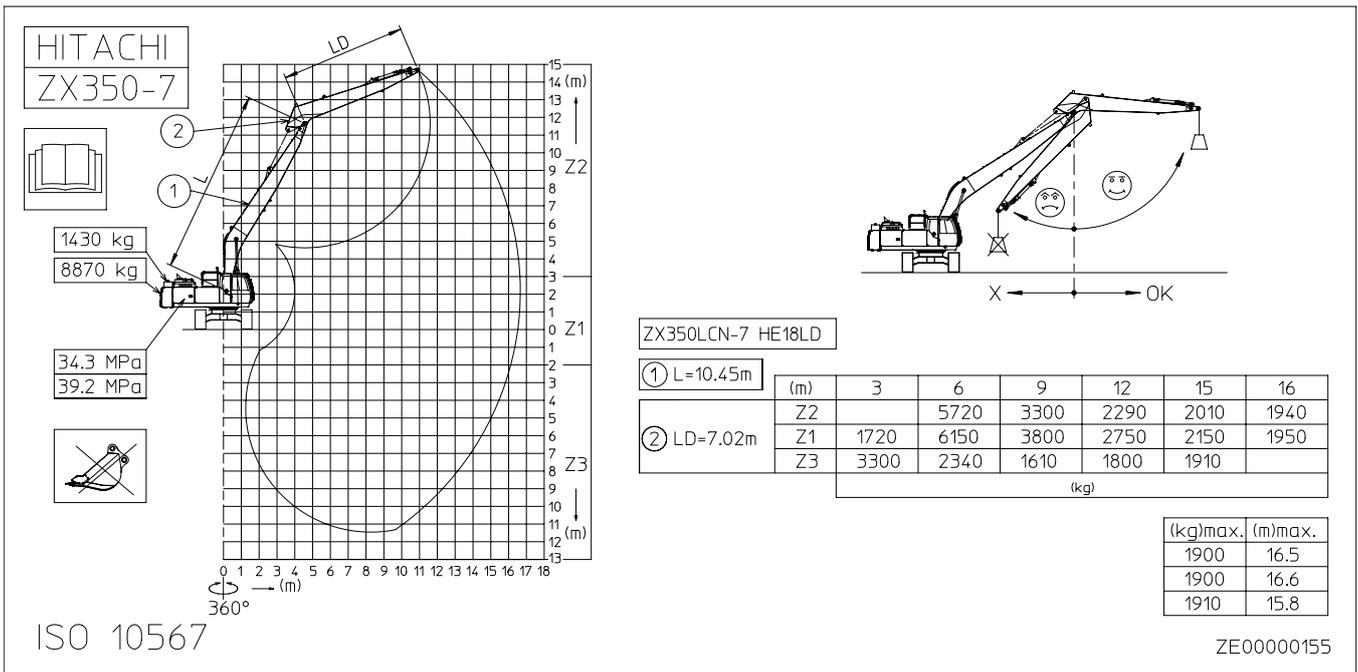
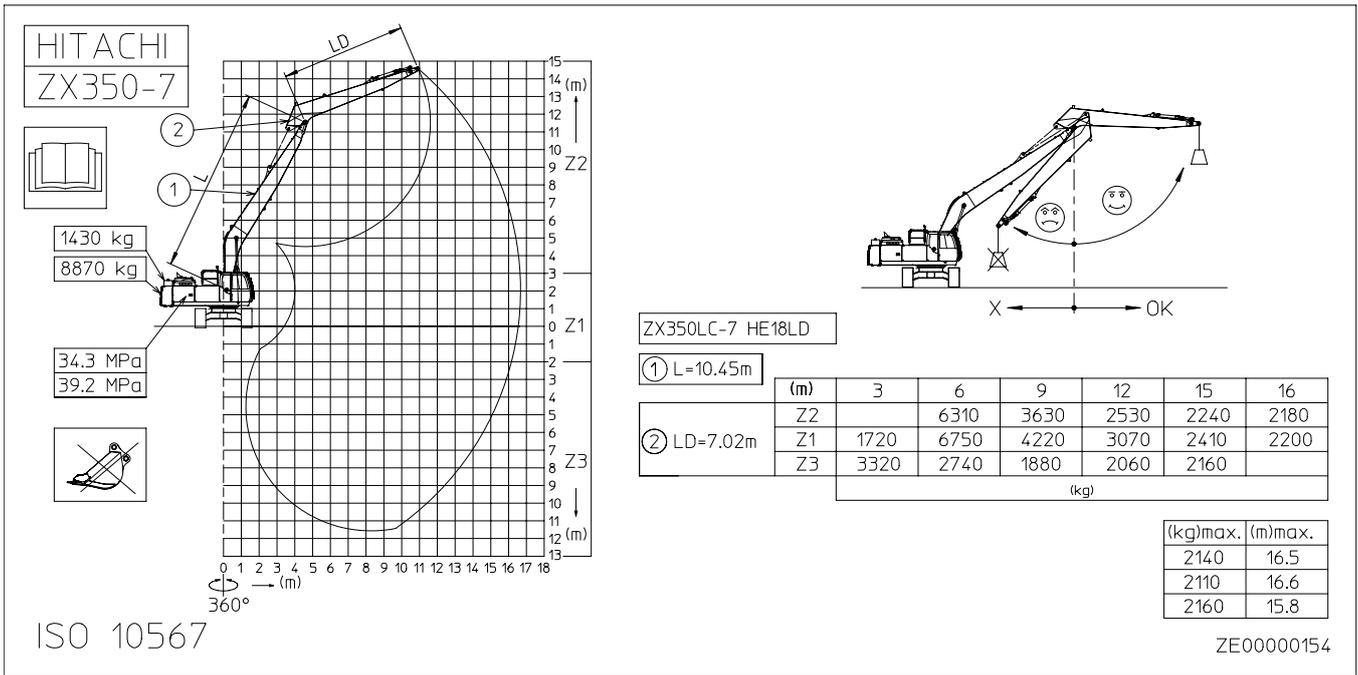
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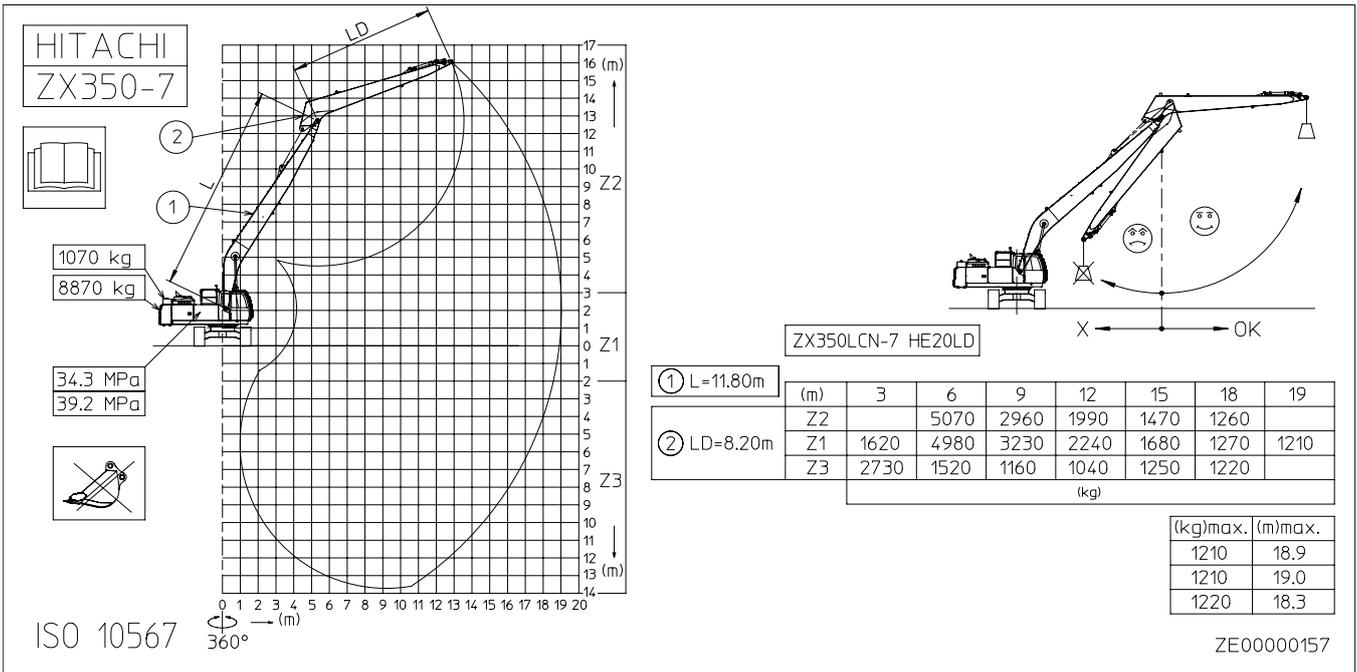
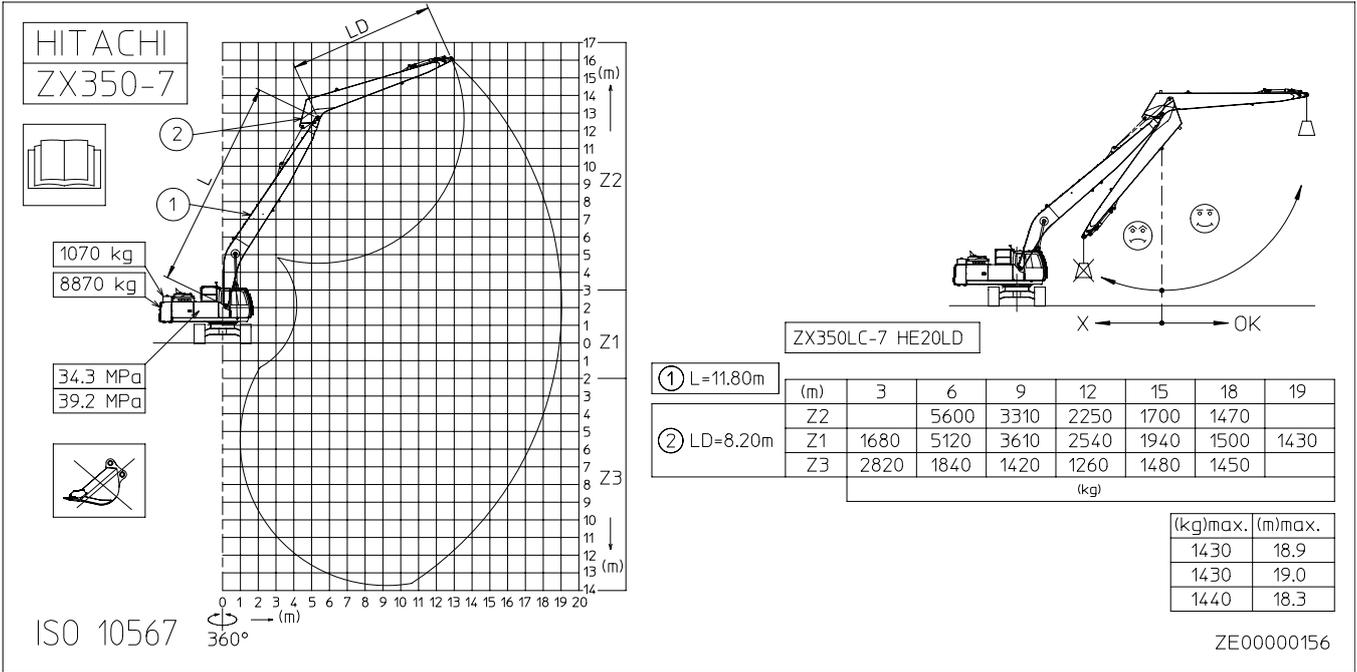
LIFTING CAPACITIES



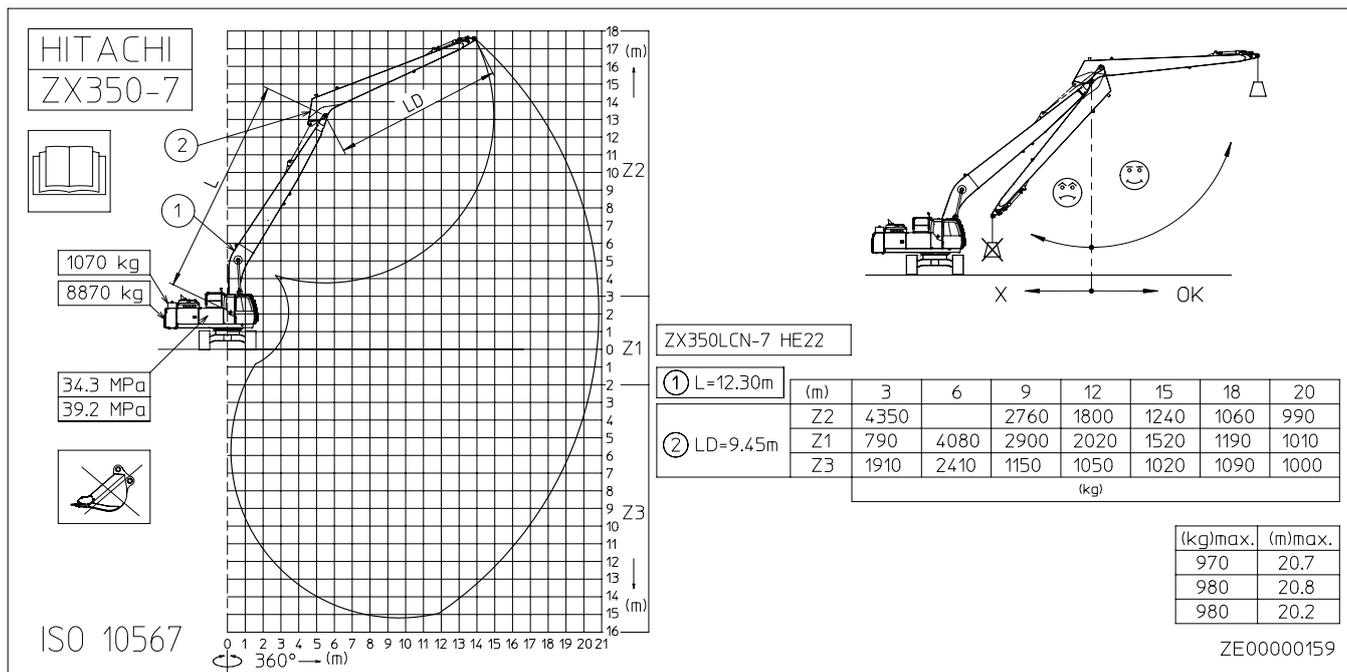
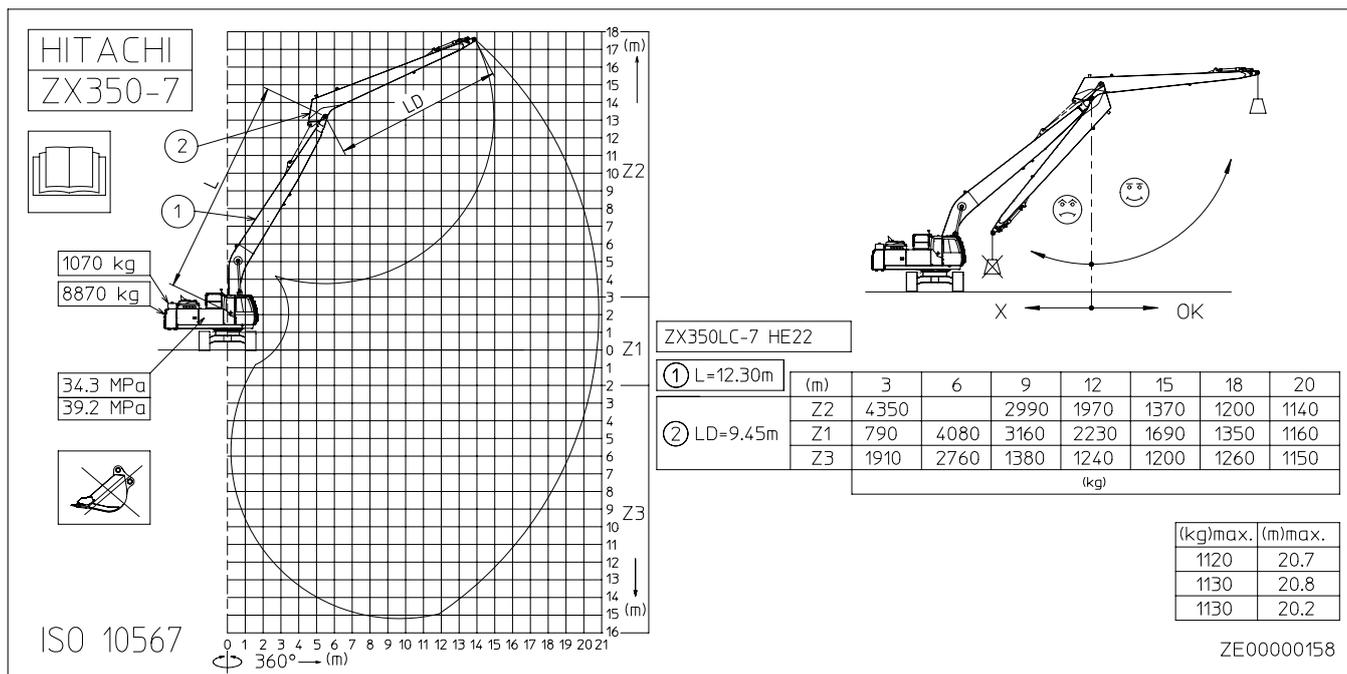
LIFTING CAPACITIES



LIFTING CAPACITIES



LIFTING CAPACITIES



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Super Long Front Excavator ZX250LC(N)-7/ZX300LC(N)-7/ZX350LC(N)-7

Operator's Manual (Original Instruction)

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Hitachi Construction Machinery (Europe) NV

Address : Souvereinstraat 16, NL 4903 RH Oosterhout NB, The Netherlands

URL : <http://www.hcme.com>

