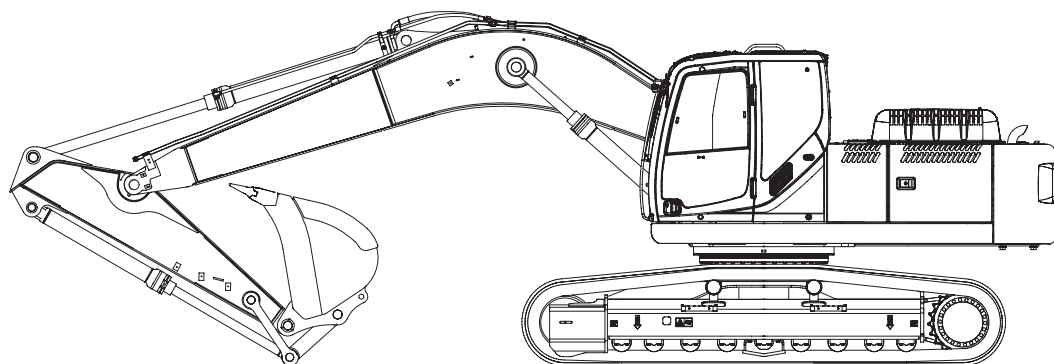


SERVICE MANUAL

E215C

E245C

Crawler Excavators Tier IV



Print no. 84550265A

1st Edition

English 10/11



**WARNING**

Read this manual before operating the machine

Most accidents occurring during work are due to non-observance of simple safety norms and elementary precautions.

Many accidents can be avoided if the causes are known and opportune cautions taken beforehand.

There is no device or protection, no matter how advanced, that may prove so effective at avoiding accidents as a careful and attentive behaviour.

**WARNING**

Ensure that the attachment is safely resting onto the ground before repairing, adjusting or servicing machines fitted with hydraulically, mechanically or cable controlled attachments (such as, excavators, loaders, dozers, scrapers, etc.). Should it be necessary to partially or fully raise the hydraulically, mechanically or cable controlled attachment to gain access to certain items, make sure the attachment is adequately retained in the raised position by means other than the hydraulic lift cylinders, cables and/or mechanical devices used for controlling it.

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Product Support

Strada di Settimo, 323 - S. MAURO T.SE (TO) ITALY

TO THE READER

- This manual is written for an experienced technician to provide technical information needed to maintain and repair this machine.
 - If you have any questions or comments, or if you found any errors regarding the contents of this manual, please contact:
 - Be sure to thoroughly read this manual for correct information concerning the service procedures.
- NEW HOLLAND KOBELCO
CONSTRUCTION MACHINERY S.p.A.
Strada Settimo, 323
San Mauro Torinese (TO)
10099 ITALIA
PRODUCT SUPPORT
Fax. ++39 011 0077357

ADDITIONAL REFERENCES

- Please refer to the materials listed below in addition to this service manual:
- **Operator's Manual**
- **Service Parts Catalogue**

COMPLETE SERVICE MANUAL

- The complete Service Manual consists of two distinct volumes:
 - **Service Manual "Crawler Excavators"**
 - **Service Manual "Engine"**
- The "General Safety Information" part includes the recommended procedures that, if followed, can avoid the risk of accident for operator and for staff related to the work and maintenance machine operations.

The two distinct volumes of the complete Service Manual can be identified through their print number as stated below:

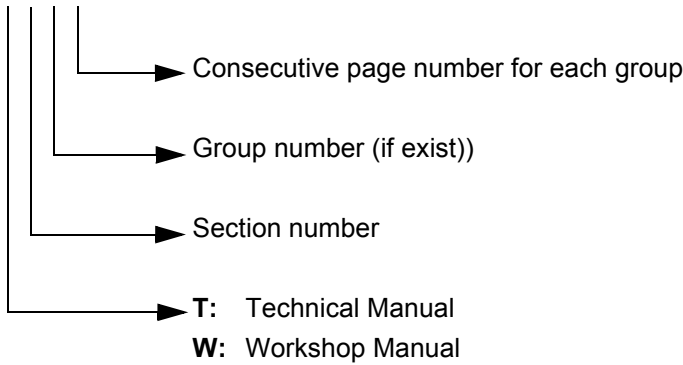
VOLUME	PRINT NUMBER
Service Manual "Crawler Excavators"	84550265A
Service Manual "Engine"	84392403

- The Service Manual "Crawler Excavators" consists of five parts:
 - **"General Safety Information"**
 - **"Operational Principle"**
 - **"Operational Performance Test"**
 - **"Troubleshooting"**
 - **"Repair Instructions"**
- The "Operational Principle" part includes the technical information concerning the operation of main devices and systems.
- The "Operational Performance Test" part includes the information needed to carry out the machine operational performance test.
- The "Troubleshooting" part includes the technical information needed for troubleshooting and malfunction detection.
- The "Repair Instructions" part includes information needed for maintenance and repair of the machine, tools and devices needed for maintenance and repair, maintenance standards, removal/installation and assembly/disassembly procedures.

PAGE NUMBER

- Each page has a number, located on the central lower side of the page. Each page number contains the following information:

Example: **T 1-2-3**



SYMBOLS

In this manual, the following safety alert symbol and signal words are used to alert the reader to the potential for personal injury or machine damage.



This is the safety alert symbol. When you see this symbol, be alert to the potential for personal injury. Never fail to follow the safety instructions prescribed along with the safety alert symbol. The safety alert symbol is also used to draw attention to component/part weights. To avoid injury and damage, be sure to use appropriate lifting techniques and equipment when lifting heavy parts.

UNITS USED

SI Units (International System of Units) are used in this manual.

MKSA system units and English units are also indicated in parentheses just behinds SI units.

Example: 24.5 MPa (250 kgf/cm²)

A table for conversion from SI units to other system units is shown below for reference purposes.

Quantity	To convert from (SI)	Into (Others)	Multiply by
Lenght	mm	in	0.03937
	mm	ft	0.003281
Volume	L	US gal	0.2642
	L	US qt	1.057
	m ³	yd ³	1.308
Mass	kg	lb	2.205
Force	N	kgf	0.10197
	N	lbf	0.2248
Torque	N.m	kgf.m	0.10197
	N.m	lbf.ft	0.7375

Quantity	To convert from (SI)	Into (Others)	Multiply by
Pressure	MPa	kgf/cm ²	10.197
	MPa	psi	145.0
Power	kW	CV-PS	1.360
	kW	HP	1.341
Temperature	°C	°F	°C x 1.8 + 32
Velocity	km/h	mph	0.6214
	min ⁻¹	rpm	1.0
Flow rate	L/min	US gpm	0.2642
	mL/rev	cc/rev	1.0

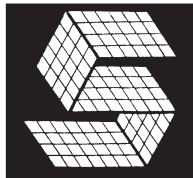
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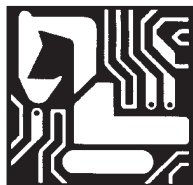
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OPERATIONAL PRINCIPLE

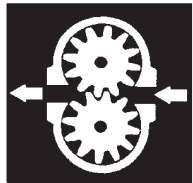
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