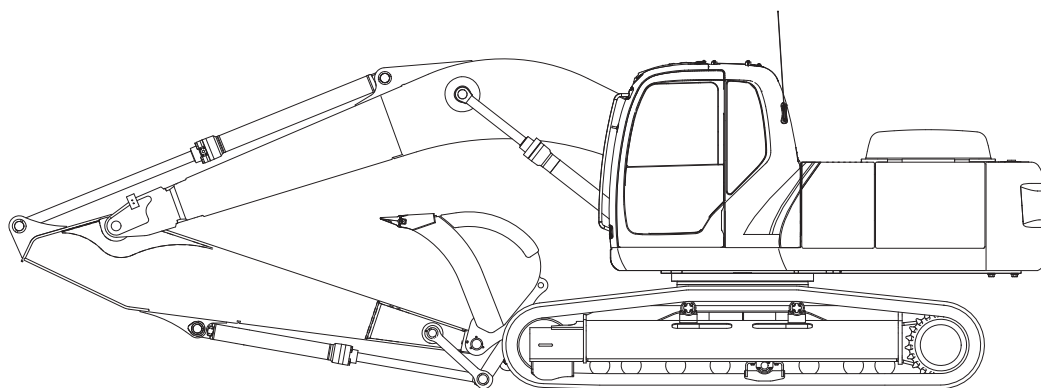


SERVICE MANUAL

E215B

E245B

Crawler Excavators ROPS Tier III



Print No. 84392396A

1^a Edition

English 12/10



**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.

COPYRIGHT BY NEW HOLLAND KOBELCO CONSTRUCTION MACHINERY S.p.A.

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:
 - **Operation and Maintenance Instruction Manual**
 - **Parts Catalog**

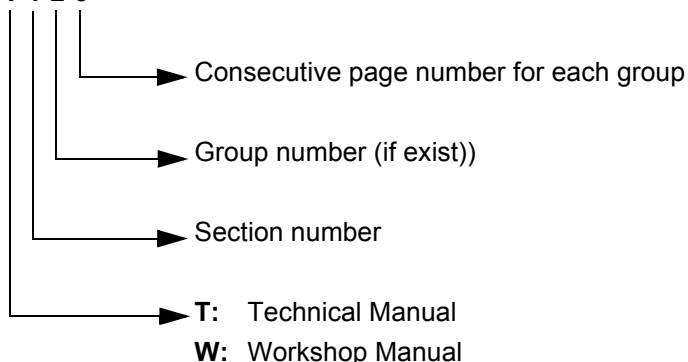
WORKSHOP MANUAL COMPOSITION

- The Workshop Manual consists of five parts:
 - **“Safety Precautions”**
 - **“Operational Principle”**
 - **“Operational Performance Test”**
 - **“Troubleshooting”**
 - **“Repair Instructions”**
- The “Safety Precaution” 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 “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 Instruction” 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 external upper corner 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
Length	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

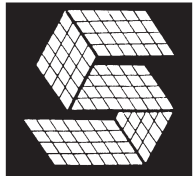
MANUAL INDEX



SAFETY PRECAUTIONS

Page

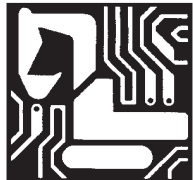
Section 1 GENERALITIES	S1
Section 2 SAFETY PRECAUTIONS	S2
Section 3 SAFETY PLATES	S3



OPERATIONAL PRINCIPLE

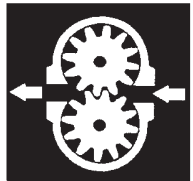
Section 1 GENERAL

Group 1 Specifications	T1-1
Group 2 Component Layout	T1-2



Section 2 SYSTEM

Group 1 Mechatro control system	T2-1
Group 2 Hydraulic System	T2-2
Group 3 Electrical System	T2-3



Section 3 COMPONENT OPERATION

Group 1 Hydraulic Pump Assy	T3-1
Group 2 Pilot Valve	T3-2
Group 3 Control Valve	T3-3
Group 4 Swing Device	T3-4
Group 5 Travel Device	T3-5
Group 6 Swivel Joint	T3-6
Group 7 Cylinders	T3-7
Group 8 Air Conditioner system	T3-8



OPERATIONAL PERFORMANCE TEST

Section 4 OPERATIONAL PERFORMANCE TEST

Group 1 Introduction	T4-1
Group 2 Standard Performances	T4-2
Group 3 Test Procedures	T4-3
Group 4 Mechatro Controller	T4-4



TROUBLESHOOTING

Section 5 TROUBLESHOOTING

Group 1 Troubleshooting (by error codes)	T5-1
Group 2 Troubleshooting (by trouble)	T5-2
Group 3 Troubleshooting (trouble diagnosis mode)	T5-3

It's a preview. You can download the full file by clicking the link below.

<https://shopservicemanual.com/>

Service Manuals from 2\$