

Product manual, spare parts IRB 760

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Trace back information:
Workspace R16-2 version a6
Checked in 2016-09-09
Skribenta version 4.6.318

Product manual, spare parts

IRB 760

M2004

Document ID: 3HAC040446-001

Revision: C

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Overview of this manual

About this manual

This manual contains spare parts for:

- IRB 760.

Usage

This manual shall be used as a complement to the Product manual for IRB 760 during:

- maintenance work
- repair work.

Who should read this manual?

This manual is intended for:

- maintenance personnel
- repair personnel.

Prerequisites

Maintenance/repair/installation personnel working with an ABB Robot must:

- be trained by ABB and have the required knowledge of mechanical and electrical installation/repair/maintenance work.

Organization of chapters

The manual is organized in the following chapters:

Chapter	Contents
1 Spare parts	Complete spare part list and complete list of robot components shown in illustrations.

References

Reference	Document ID
<i>Product manual - IRB 760</i>	3HAC039838-001
<i>Circuit diagram - IRB 760</i>	3HAC025691-001

Revisions

Revision	Description
-	First edition
A	This revision includes the following updates: <ul style="list-style-type: none"> • Added spare part numbers for the customer connection kits, see Options on page 31. • A new SMB unit and battery is introduced, with longer battery lifetime.
B	This revision includes the following updates: <ul style="list-style-type: none"> • Spare parts with color Graphite White are added to the spare part lists. • Article number for SMB unit (3HAC031851-001) changed to 3HAC046686-002.

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Revision	Description
C	<p>Published in release R16.2. The following updates are done in this revision:</p> <ul style="list-style-type: none">• Corrections due to updates in SAP terminology.• Updated spare parts due to new standard calibration method (Axis Calibration).<ul style="list-style-type: none">- Base- Frame- Lower arm- Parallel arm- Tilthouse• Updated spare parts due to sealing upgrade in the motors:<ul style="list-style-type: none">- Motors

Product documentation, IRC5

Categories for user documentation from ABB Robotics

The user documentation from ABB Robotics is divided into a number of categories. This listing is based on the type of information in the documents, regardless of whether the products are standard or optional.

All documents listed can be ordered from ABB on a DVD. The documents listed are valid for IRC5 robot systems.

Product manuals

Manipulators, controllers, DressPack/SpotPack, and most other hardware is delivered with a **Product manual** that generally contains:

- Safety information.
- Installation and commissioning (descriptions of mechanical installation or electrical connections).
- Maintenance (descriptions of all required preventive maintenance procedures including intervals and expected life time of parts).
- Repair (descriptions of all recommended repair procedures including spare parts).
- Calibration.
- Decommissioning.
- Reference information (safety standards, unit conversions, screw joints, lists of tools).
- Spare parts list with exploded views (or references to separate spare parts lists).
- Circuit diagrams (or references to circuit diagrams).

Technical reference manuals

The technical reference manuals describe reference information for robotics products.

- *Technical reference manual - Lubrication in gearboxes*: Description of types and volumes of lubrication for the manipulator gearboxes.
- *Technical reference manual - RAPID overview*: An overview of the RAPID programming language.
- *Technical reference manual - RAPID Instructions, Functions and Data types*: Description and syntax for all RAPID instructions, functions, and data types.
- *Technical reference manual - RAPID kernel*: A formal description of the RAPID programming language.
- *Technical reference manual - System parameters*: Description of system parameters and configuration workflows.

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Application manuals

Specific applications (for example software or hardware options) are described in **Application manuals**. An application manual can describe one or several applications.

An application manual generally contains information about:

- The purpose of the application (what it does and when it is useful).
- What is included (for example cables, I/O boards, RAPID instructions, system parameters, DVD with PC software).
- How to install included or required hardware.
- How to use the application.
- Examples of how to use the application.

Operating manuals

The operating manuals describe hands-on handling of the products. The manuals are aimed at those having first-hand operational contact with the product, that is production cell operators, programmers, and trouble shooters.

The group of manuals includes (among others):

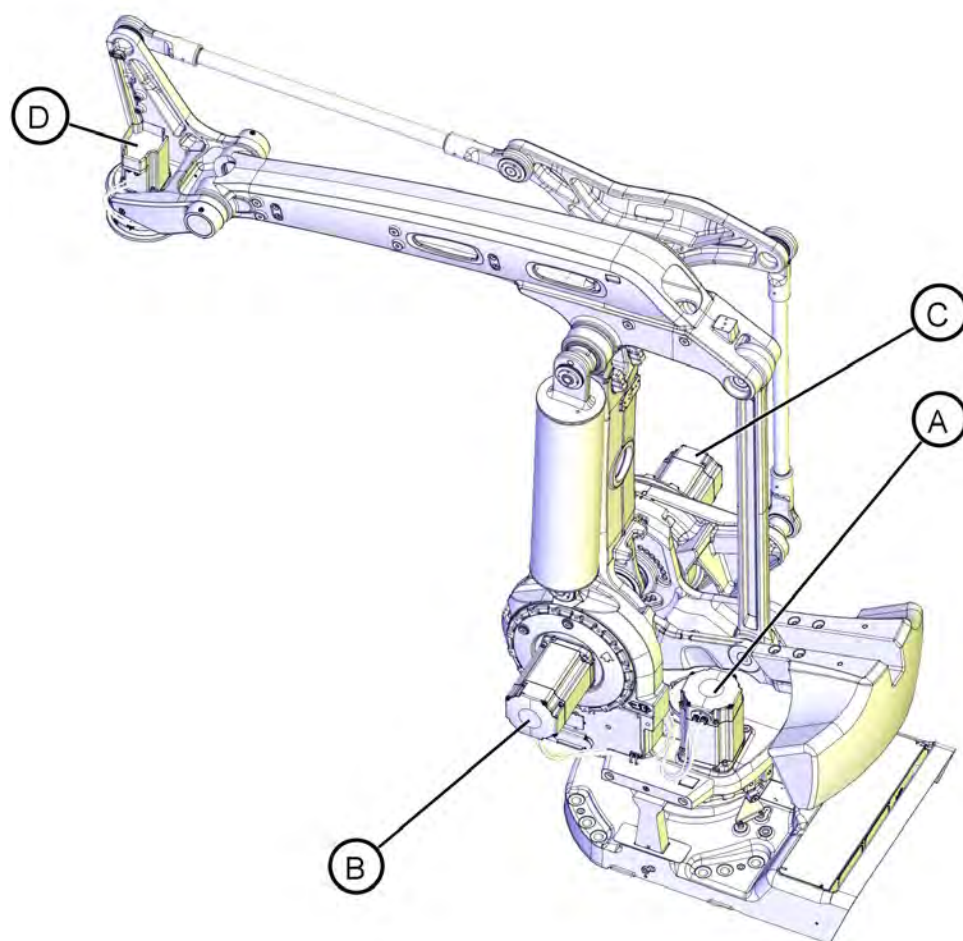
- *Operating manual - Emergency safety information*
- *Operating manual - General safety information*
- *Operating manual - Getting started, IRC5 and RobotStudio*
- *Operating manual - IRC5 Integrator's guide*
- *Operating manual - IRC5 with FlexPendant*
- *Operating manual - RobotStudio*
- *Operating manual - Trouble shooting IRC5*

1 Spare parts - motors

Spare part list

Pos.	Description	Spare part number
A	Motor, axis 1 incl. pinion	3HAC058992-003
B	Motor, axis 2 incl. pinion	3HAC058991-005
C	Motor, axis 3 incl. pinion	3HAC058991-005
D	Motor, axis 6 incl. pinion	3HAC057544-006

Illustration



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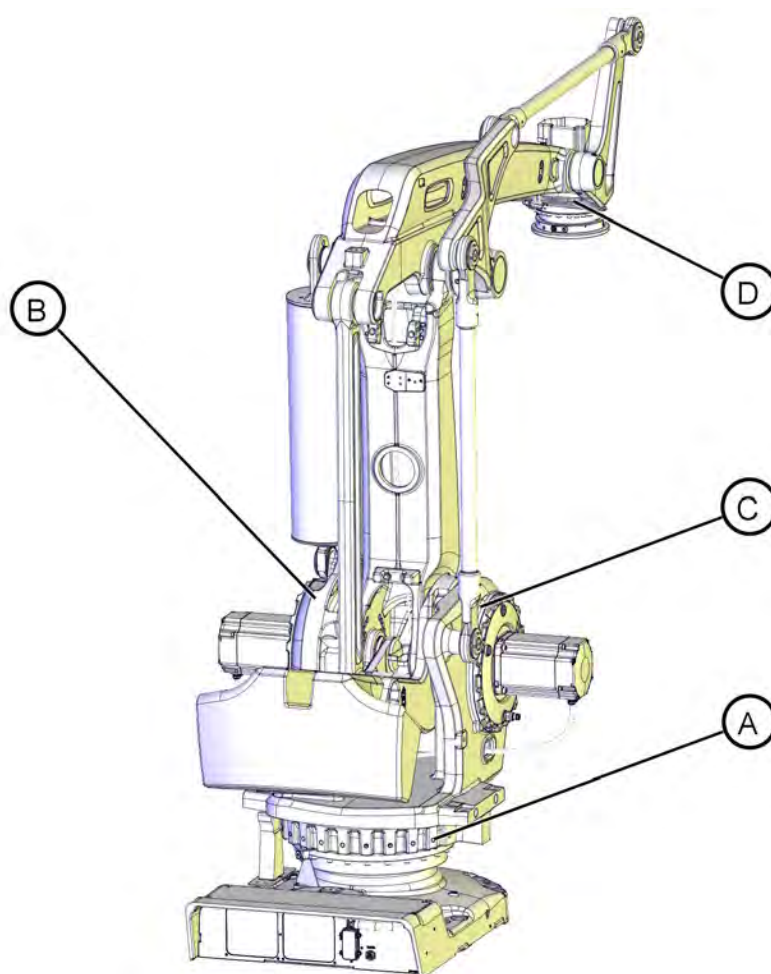
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2 Spare parts - gearboxes

Spare part list

Pos.	Description	Spare part no.
A	Gearbox axis 1	3HAC037638-003
B	Gearbox axis 2	3HAC022644-001
C	Gearbox axis 3	3HAC022644-001
D	Gearbox axis 6	3HAC037639-002

Illustration



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3 Spare parts - parallel arm and lower arm

Spare parts list

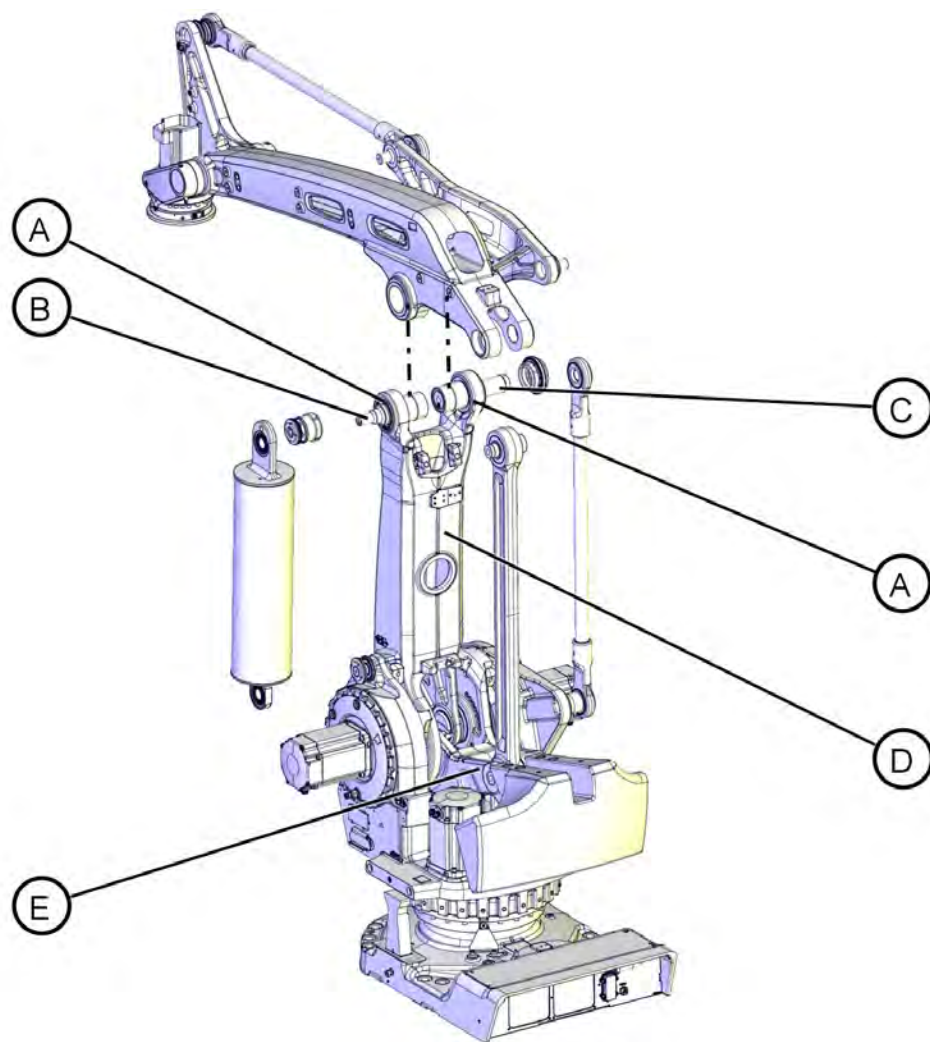
Pos.	Description	Spare part no.	Color	Qty
A	Bearing/sealing kit lower arm/upper arm. Includes components listed below:	3HAC039989-001		
	Sealing	3HAC037321-001		2 pcs
	O-ring	3HAB3772-110		2 pcs
	Taper roller bearing	3HAA2103-27		2 pcs
	Radial seal	3HAB3702-46		2 pcs
B	Shaft between lower arm and upper arm, balancing side	3HAC037313-001		1 pc
C	Shaft between lower arm and upper arm, link side	3HAC037312-001		1 pc
D	Lower arm	3HAC059483-002	White RAL 9003	1 pc
		3HAC059483-001	Graphite White	1 pc
E	Parallel arm	3HAC059484-002	White RAL 9003	1 pc
		3HAC059484-001	Graphite White	1 pc

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3 Spare parts - parallel arm and lower arm

Continued

Illustration



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4 Spare parts - upper arm and tilthouse

Spare part list

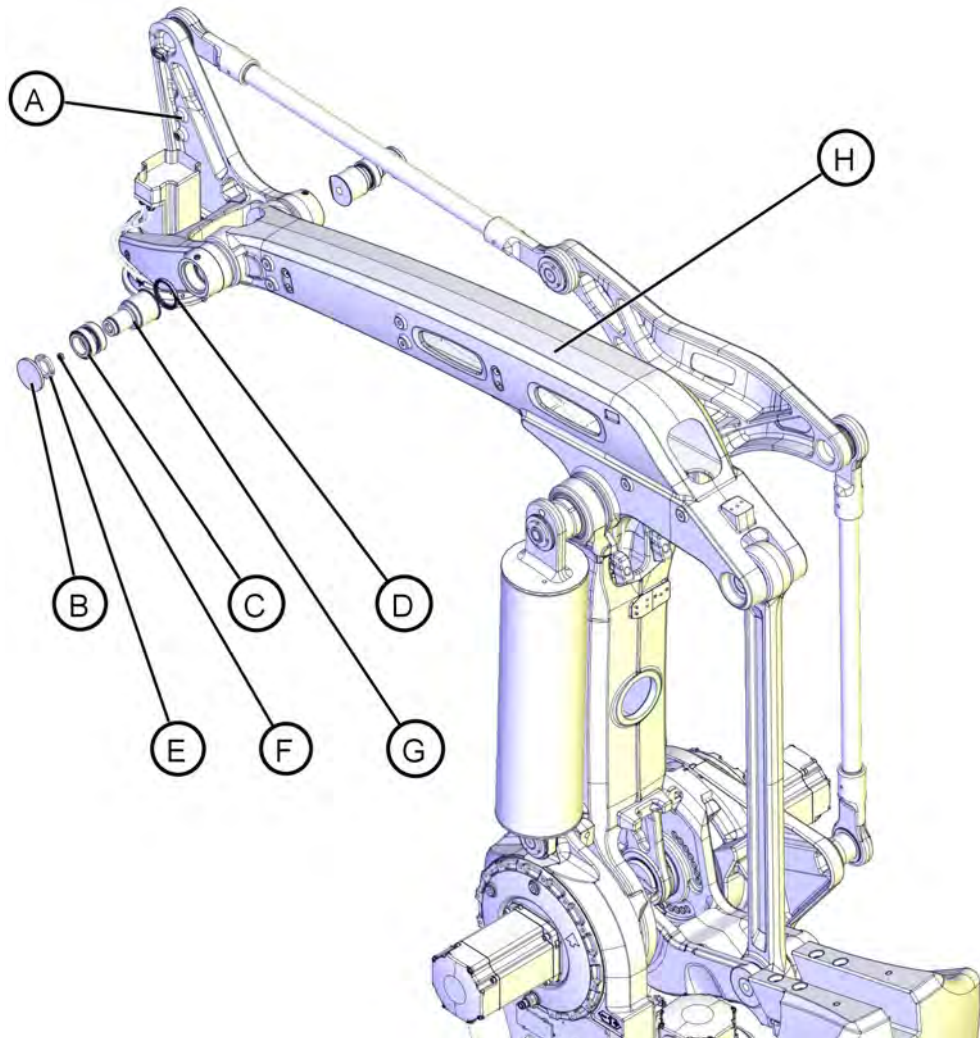
Pos.	Description	Spare part no.	Color	Qty
A	Tilthouse	3HAC059485-002	White RAL 9003	1 pc
		3HAC059485-001	Graphite White	1 pc
B-D	Tilthouse kit Includes components listed below:	3HAC040041-001		
	B - VK cover	3HAA2166-20		2 pcs
	C - Taper roller bearing	3HAA2103-13		4 pcs
	D - Sealing ring with dust lip	3HAB3701-19		2 pcs
E	KM nut	3HAC034772-011		2 pcs
F	VK cover	3HAA2166-17		2 pcs
G	Shaft - Tilt	3HAC034772-013		2 pcs
H	Upper arm including bushing (see below)	3HAC034678-006		1 pc
	Bushing	3HAC037314-001		2 pcs
J	Turning disk	3HAC055247-002		1 pc

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4 Spare parts - upper arm and tilthouse

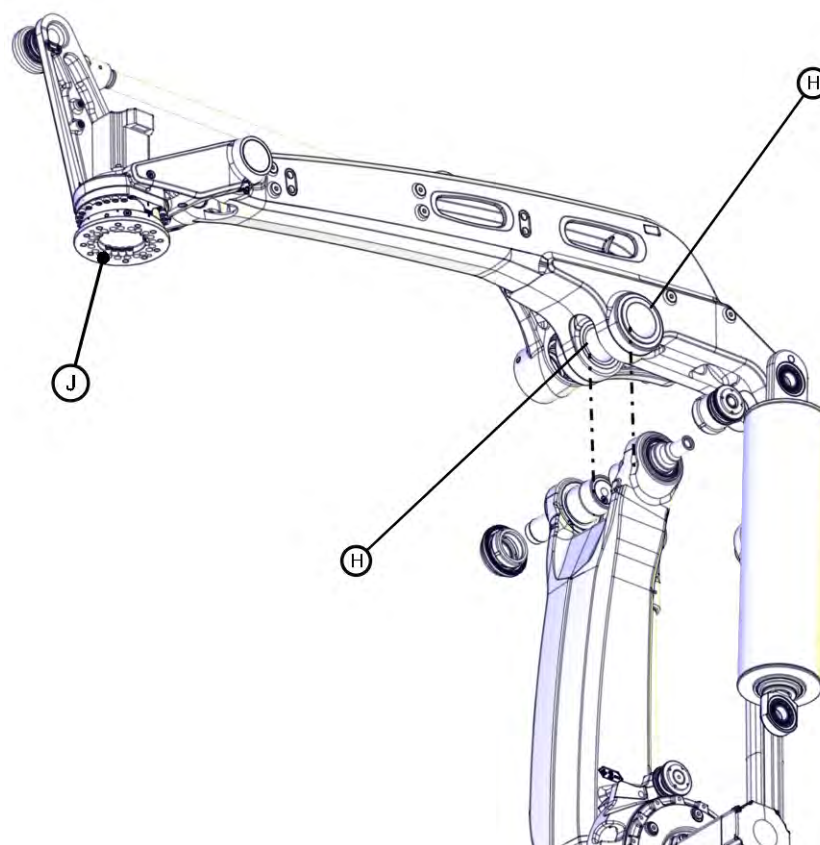
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Illustrations



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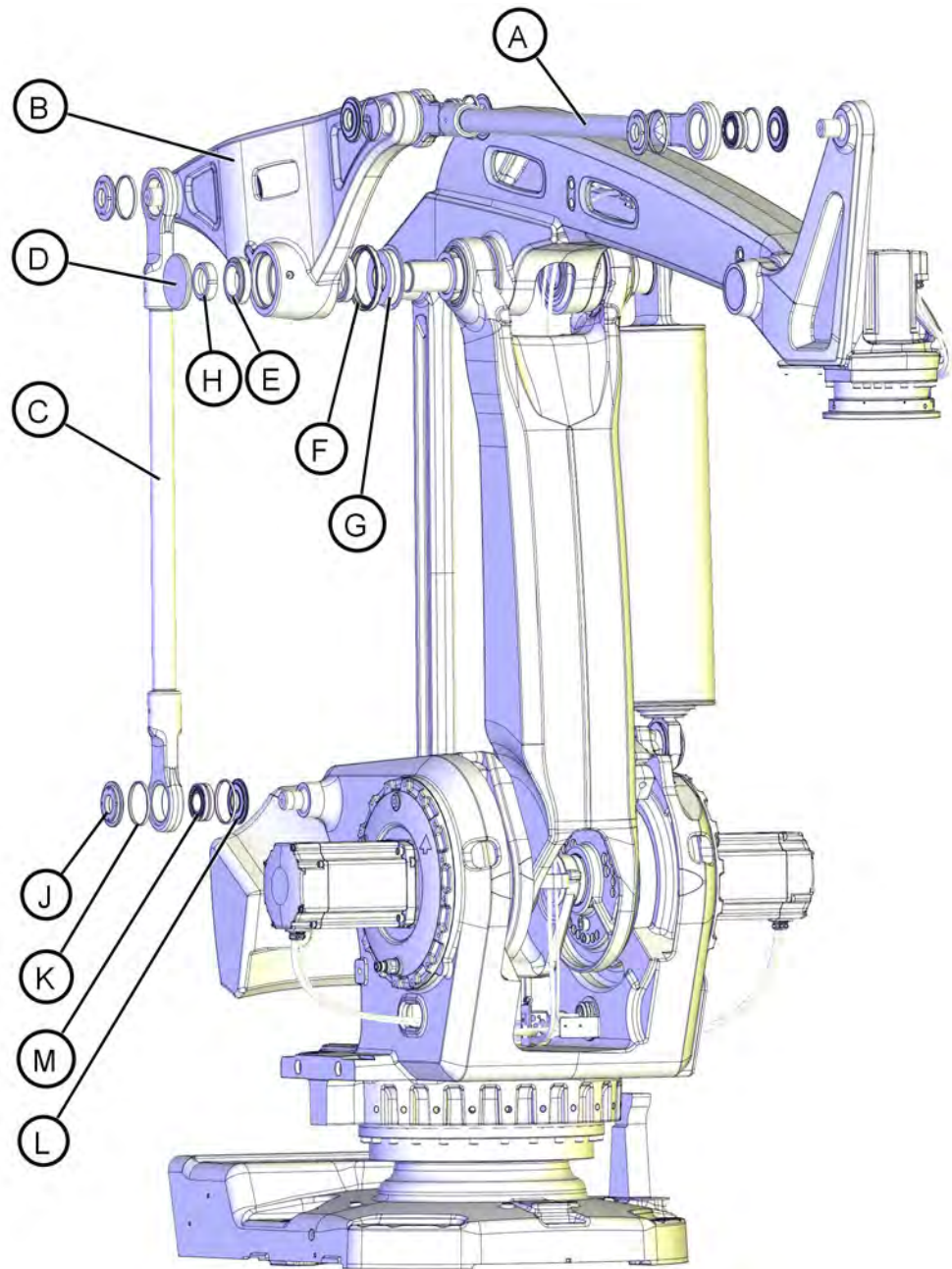
5 Spare parts - linkage

Spare part list

Pos.	Description	Spare part no.	Qty
A	Link arm H (long)	3HAC034477-003	1 pc
B	Link	3HAC034900-004	1 pc
C	Link arm V (short)	3HAC034478-003	1 pc
D-G	Link kit Includes components listed below:	3HAC039997-001	
	D - VK cover	3HAA2166-23	1 pc
	E - Taper roller bearing	22133802-8	2 pcs
	F - Radial sealing with dust lip	3HAB3701-41	1 pc
	G - O-ring (inside of support ring)	3HAB3772-15	1 pc
H	Lock nut	3HAC037319-001	1 pc
J-M	Link arm kit Includes components listed below:	3HAC039998-001	
	J - Lock nut complete (incl. sealing)	3HAC037263-001	4 pcs
	K - Support washer	3HAC037260-001	8 pcs
	L - Spherical roller bearing	3HAA2167-11	4 pcs
	M - Spacer ring complete (incl. sealing)	3HAC037262-001	4 pcs

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Illustration



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6 Spare parts - base, frame, balance unit and parallel rod

Spare part list

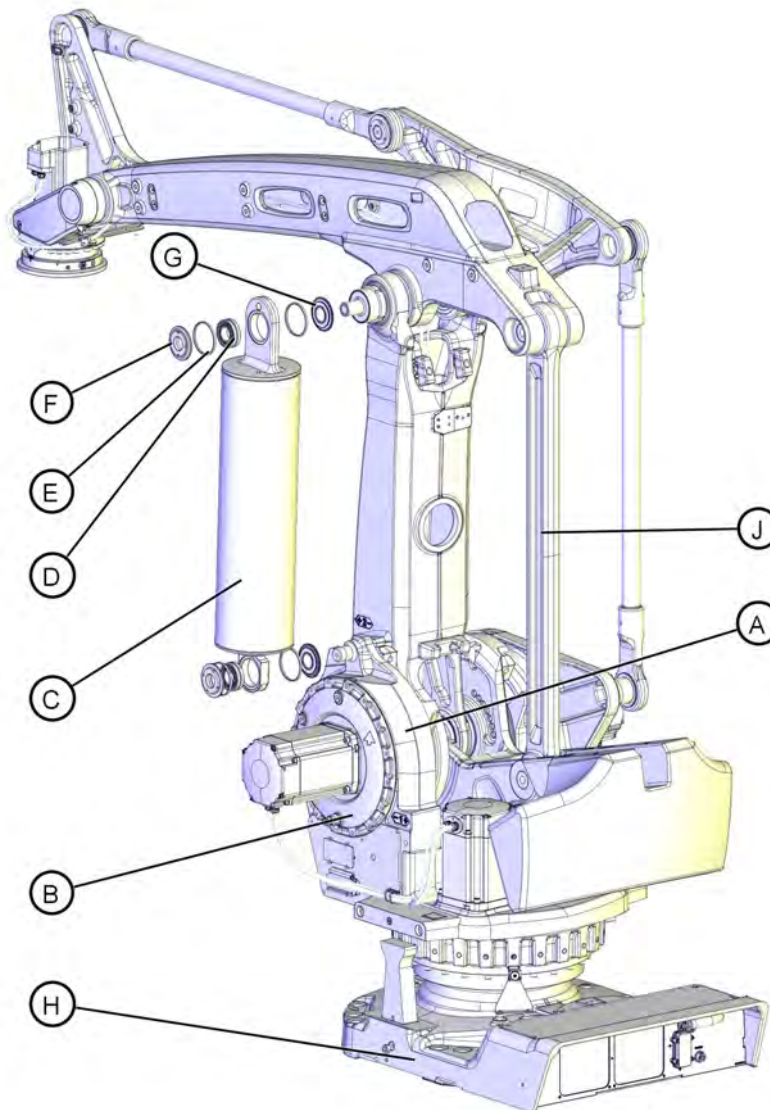
Pos.	Description	Spare part no.	Color	Qty
A	Frame	3HAC037559-007	Graphite White	1 pc
		3HAC037559-004	White RAL 9003	1 pc
B	Cover axis 2/3 (gear)	3HAC021663-004		1 pc
C	Balance unit	3HAC034475-003		1 pc
D	Spherical roller bearing	3HAA2167-11		2 pcs
E	Support washer	3HAC037260-001		4 pcs
F	Lock nut complete (incl. sealing)	3HAC037263-001		2 pcs
G	Spacer ring complete (incl. sealing)	3HAC037262-001		2 pcs
H	Base	3HAC058104-001	Graphite White	1 pc
		3HAC058104-003	White RAL 9003	1 pc
J	Parallel rod	3HAC021084-004		1 pc
K	Shaft calibration	3HAC053515-002	Graphite White	1 pc
		3HAC053515-005	White RAL 9003	1 pc
L	Block for calibration	3HAC053973-001		1 pc

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6 Spare parts - base, frame, balance unit and parallel rod

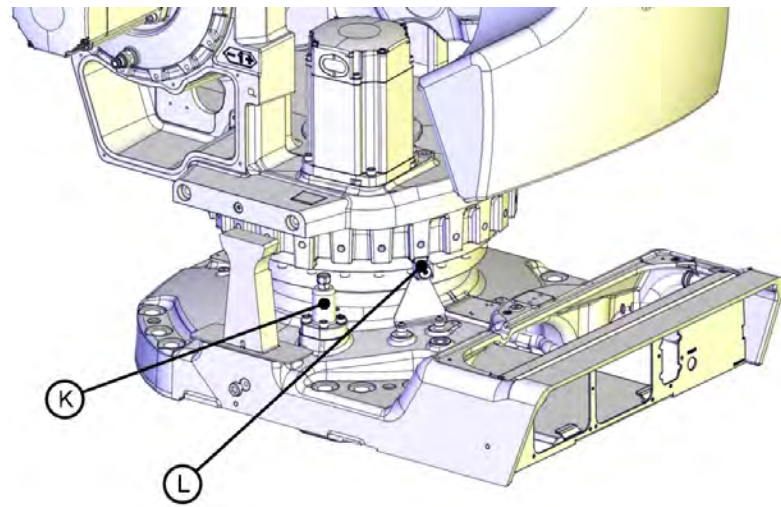
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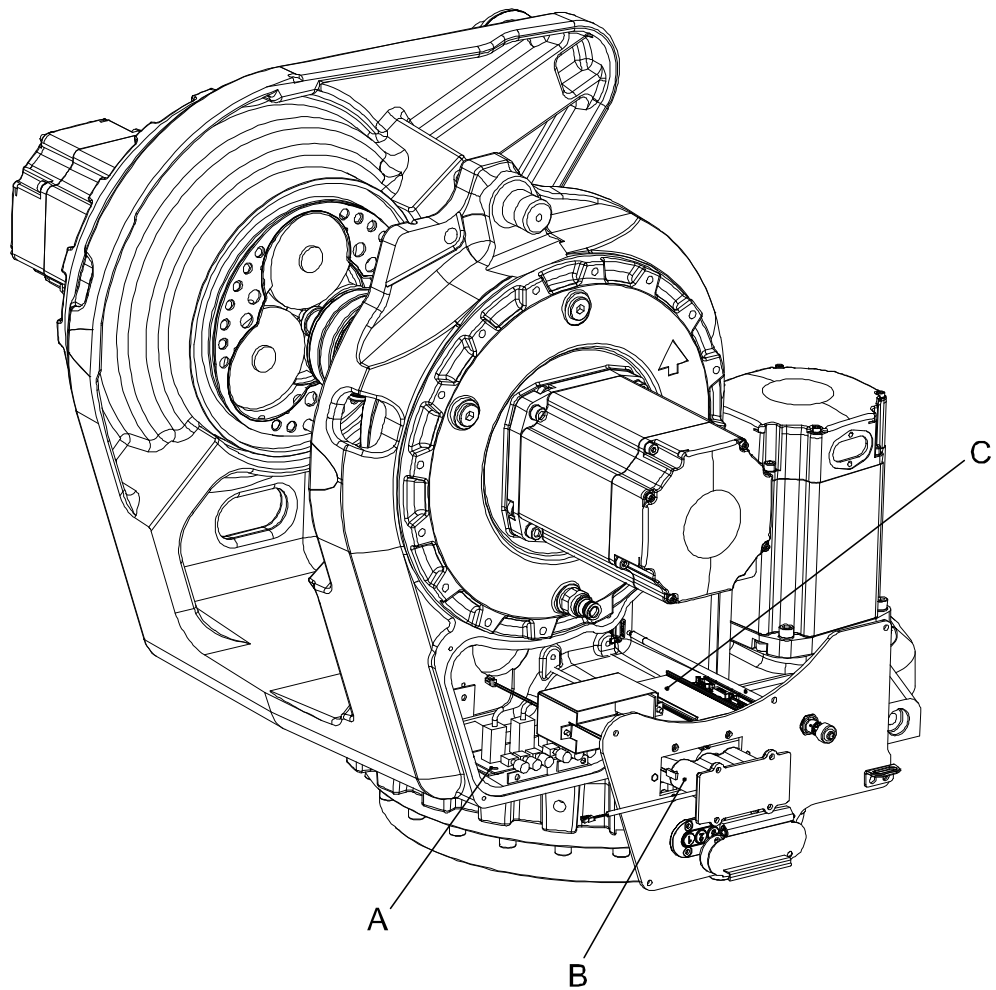
7 Spare parts - cable harness, brake release and SMB

Spare part list

Pos.	Description	Spare part no.	Qty
-	Manipulator harness axis 1-6	3HAC022544-001	1 pc
-	Customer harness	3HAC022545-007	1 pc
A	DSQC 563 Brake release board	3HAC16035-1	1 pc
B	Battery pack (2-pole battery contact)	3HAC16831-1	1 pc
	Battery unit (3-pole battery contact) Can only be used with serial measurement unit 3HAC044168-001.	3HAC044075-001	1 pc
C	Serial measurement unit DSQC 633A	3HAC046686-002	1 pc
	Serial measurement unit RMU 101	3HAC044168-001	1 pc
-	Cable battery/SMB Used with battery unit 3HAC044075-001.	3HAC046287-001	1 pc
-	SMB replacement set	3HAC046686-002	-

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Illustration



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8 Spare parts - Calibration items

Calibration items

Spare part number	Description	Note
3HAC056806-001	Protection cover and plug set	Contains replacement calibration pin covers and protective plugs for the bushing.

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9 Options

Part list

Pos.	Description	Part no.
-	Customer connection kit: CP/CS, Proc. 1 on base	3HAC16667-1
-	Customer connection kit: R2.CP/CS, Proc. 1 on axis 6	3HAC025246-001
-	Base plate	3HAC12937-7
-	Signal lamp kit	3HAC023750-001

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