

ROBOTICS

Product manual, spare parts

IRB 5720



Trace back information:
Workspace 23B version a11
Checked in 2023-06-20
Skribenta version 5.5.019

Product manual, spare parts

IRB 5720

OmniCore

Document ID: 3HAC079196-001

Revision: C

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Original instructions.

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Overview of this manual

About this manual

This manual contains spare parts for:

- IRB 5720 and all its variants.

Usage

This manual shall be used as a complement to the product manual for IRB 5720 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.

References

Documentation referred to in the manual, is listed in the table below.

Document name	Document ID
<i>Product manual - IRB 5720</i>	<i>3HAC079195-001</i>
<i>Product specification - IRB 5720</i>	<i>3HAC079197-001</i>
<i>Circuit diagram - IRB 5710/IRB 5720</i>	<i>3HAC080367-001</i>

Revisions

Revision	Description
A	First edition.
B	Published in release 23A. The following updates are done in this revision: <ul style="list-style-type: none"> • Added process turning disc to the wrist parts spare part list. • New article number for axis-3 gearbox.
C	Published in release 23B. The following updates are done in this revision: <ul style="list-style-type: none"> • Removed the axis-1 protection tube adapter as spare part.

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1 Definition of spare part levels

Spare part level

ABB spare parts are categorized into two levels, L1 and L2. Always check the part level before conducting a service work on a spare part.

- L1 spare parts

The L1 parts can be replaced in the field. The maintenance and replacement instructions given in the related product manuals must be strictly followed. If there are any problems, contact your local ABB for support.

- L2 spare parts

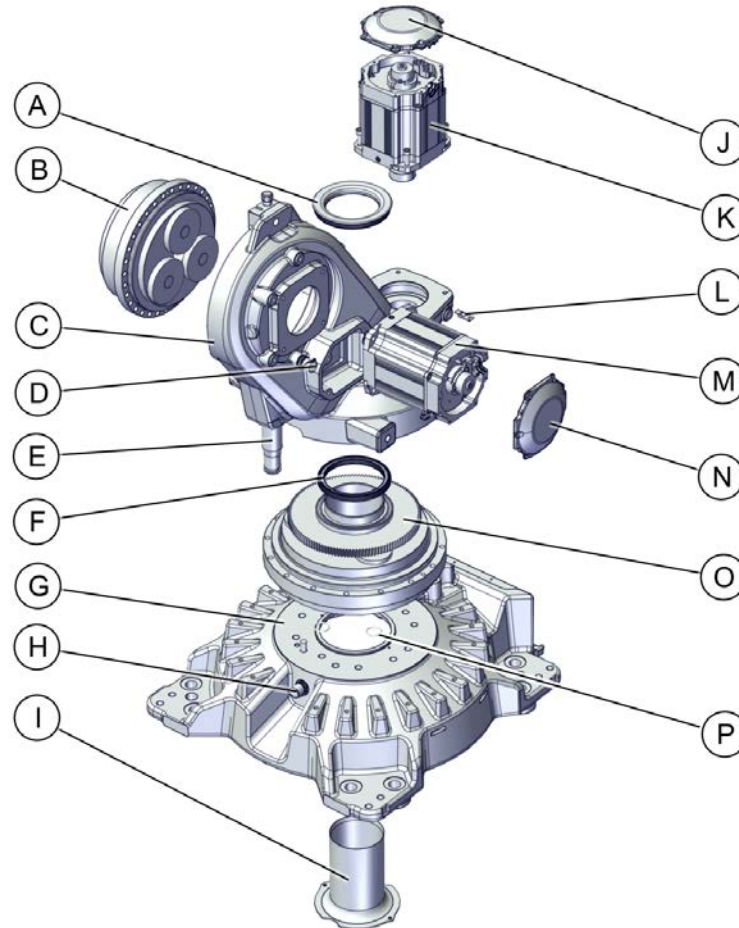
To replace the L2 parts require specialized training and might need special tools. Only ABB field service personnel or qualified personnel trained by ABB can replace L2 parts.

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2 Spare parts - axis 1-2

2.1 Axis 1-2 floor-mounted robot

Parts list



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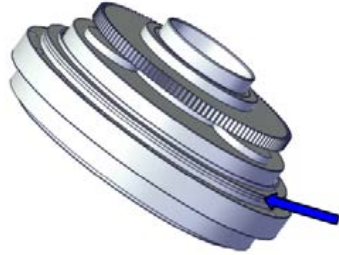
	Spare part	Article number	Note	Level
A	Protection ring	3HAC047474-001		L2
B	Gearbox	3HAC074200-003 (Graphite White) 3HAC074200-004 (ABB Orange)	Includes o-ring	L2
C	Frame	3HAC070554-004 (Graphite White) 3HAC070554-005 (ABB Orange)		L2
D	Quick coupling G1/2"	3HAC072846-001		L1
E	Mechanical stop pin	3HAC024014-001		L1
F	Cassette sealing	3HAC070194-013		L2
G	Base	3HAC066327-004 (Graphite White) 3HAC066327-006 (ABB Orange)		L2
H	Quick coupling G1/2"	3HAC072846-001		L1

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2 Spare parts - axis 1-2

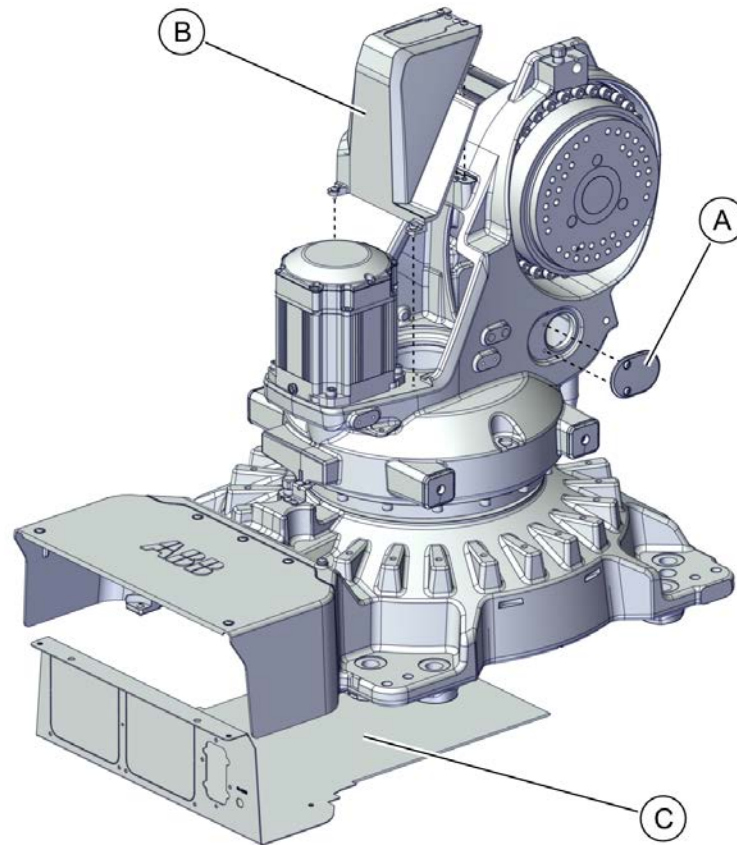
2.1 Axis 1-2 floor-mounted robot

Continued

	Spare part	Article number	Note	Level
I	Protection tube	3HAC071482-001		L2
J	Connection box cover FS180 with gasket	3HAC072864-003 (Graphite White) 3HAC072864-005 (ABB Orange)	Replace if damaged.	L2
K	Motor unit (including connection box)	3HAC072252-003 (Graphite White) 3HAC072252-004 (ABB Orange)		L2
L	Sync plate	3HAC069528-001		L1
M	Motor unit (including connection box)	3HAC074201-003 (Graphite White) 3HAC074201-004 (ABB Orange)		L2
N	Connection box cover FS180 with gasket	3HAC072864-003 (Graphite White) 3HAC072864-005 (ABB Orange)	Replace if damaged.	L2
O	Gearbox	3HAC072003-003 (Graphite White) 3HAC072003-005 (ABB Orange)	Includes o-ring 3HAB3772-93  <small>xx2100001132</small>	L2
P	O-ring	3HAC061327-033	4 pcs. On gearbox. <i>Not required for option Inverted (3317-1).</i>	L2

2.2 Axis 1-2 protection type Foundry Plus

Parts list



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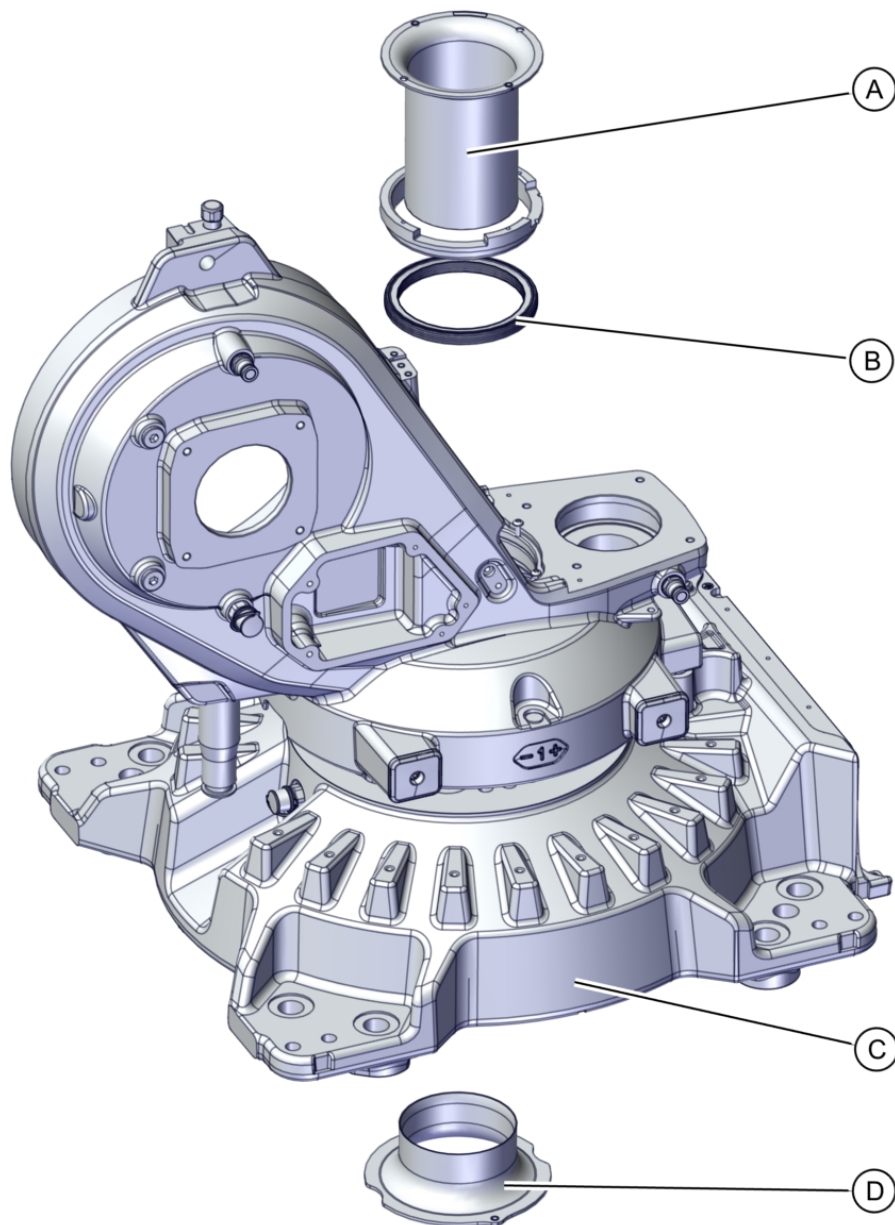
	Spare part	Article number	Note	Level
A	Cover frame side	3HAC073634-001		L1
B	Axis1 cover	3HAC071207-001		L1
C	Base connector housing	3HAC072234-001		L2

2 Spare parts - axis 1-2

2.3 Axis 1-2 option Inverted (3317-1)

2.3 Axis 1-2 option Inverted (3317-1)

Parts list

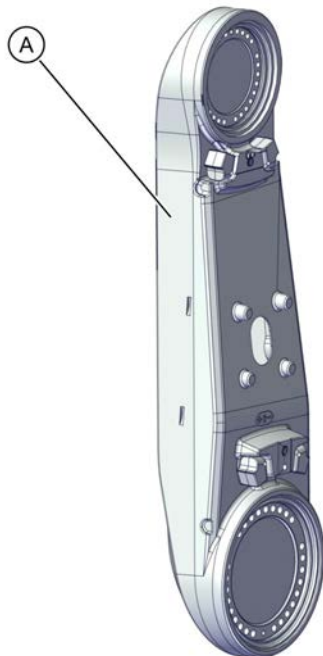


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	Spare part	Article number	Note	Level
A	Protection tube	3HAC071881-001		L2
B	Cassette sealing	3HAC070194-013		L2
C	Base	3HAC070812-004 (Graphite White) 3HAC070812-006 (ABB Orange)	Option Inverted (3317-1)	L2
D	Protection tube	3HAC071726-001		L2

3 Spare parts - lower arm

Parts list



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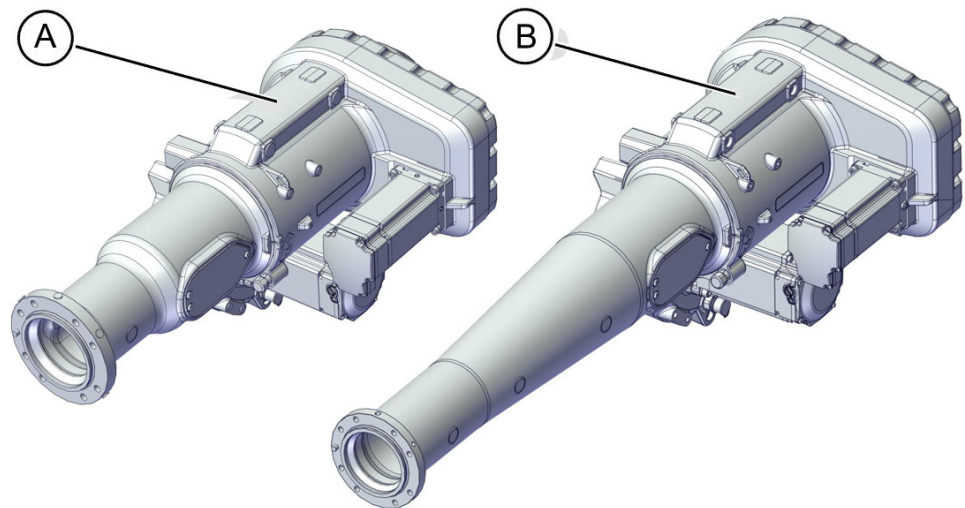
	Spare part	Article number	Note	Level
A	Lower arm	3HAC070565-004 (Graphite White) 3HAC070565-005 (ABB Orange)		L2

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4 Spare parts - axis 3-4

4.1 Axis 3-4 complete

Parts list



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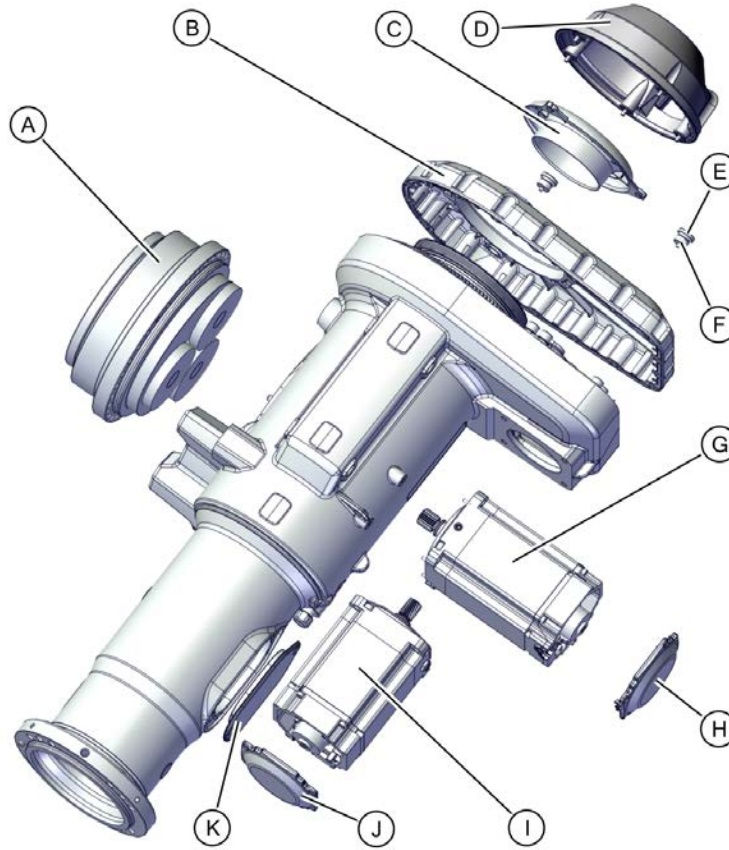
	Spare part	Article number	Note	Level
A	Axis 3-4 180 kg (IRB 5720-180/2.6, IRB 5720-155/2.6 LID)	3HAC070555-003 (Graphite White) 3HAC070555-004 (ABB Orange)	Complete unit with motors and gears.	L2
B	Axis 3-4 120 kg (IRB 5720-125/3.0, IRB 5720-90/3.0 LID)	3HAC074174-002 (Graphite White) 3HAC074174-003 (ABB Orange)	Complete unit with motors and gears.	L2

4 Spare parts - axis 3-4

4.2 Axis 3-4 parts

4.2 Axis 3-4 parts

Parts list



xx2100002237

	Spare part	Article number	Note	Level
A	Gearbox	3HAC074176-003 (Graphite White) 3HAC074176-004 (ABB Orange)	Includes o-ring	L2
B	Arm house cover including cassette sealing	3HAC073375-003 (Graphite White) 3HAC073375-004 (ABB Orange)	Gasket and cassette sealing included	L2
C	Cable guide	3HAC069067-002		L2
D	Cover with gasket	3HAC074623-003		L2
E	Magnetic plug, G 1/2"	3HAC16721-1		L1
F	O-ring, G 1/2"	3HAC061327-059	Used on oil plug. Always replace when refitting oil plug.	L1
G	Motor unit	3HAC073868-003 (Graphite White) 3HAC073868-004 (ABB Orange)		L2
H	Connection box cover FS130 with gasket	3HAC072863-003 (Graphite White) 3HAC072863-005 (ABB Orange)	Replace if damaged.	L2
I	Motor unit	3HAC073869-003 (Graphite White) 3HAC073869-004 (ABB Orange)		L2

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4 Spare parts - axis 3-4

4.2 Axis 3-4 parts

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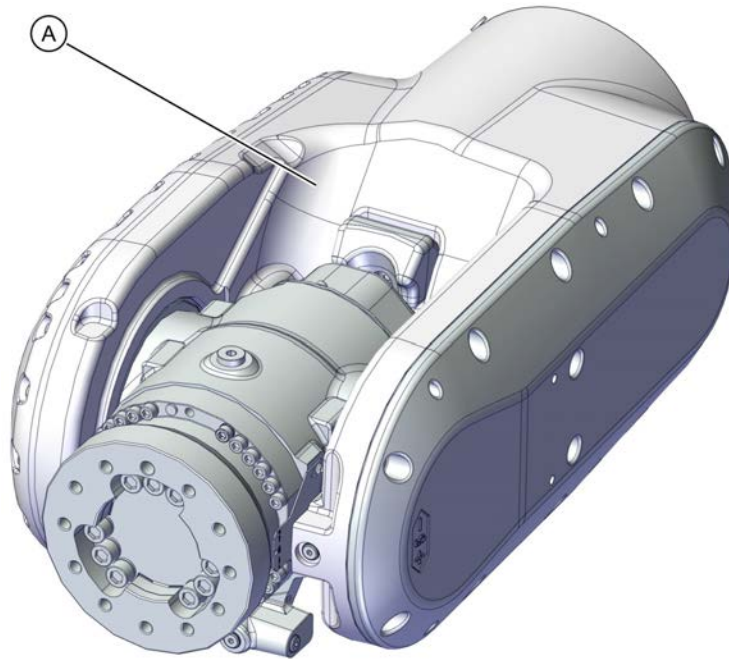
	Spare part	Article number	Note	Level
J	Connection box cover FS130 with gasket	3HAC072863-003 (Graphite White) 3HAC072863-005 (ABB Orange)	Replace if damaged.	L2
K	Cover	3HAC071727-001		L1

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5 Spare parts - wrist

5.1 Wrist complete

Parts list



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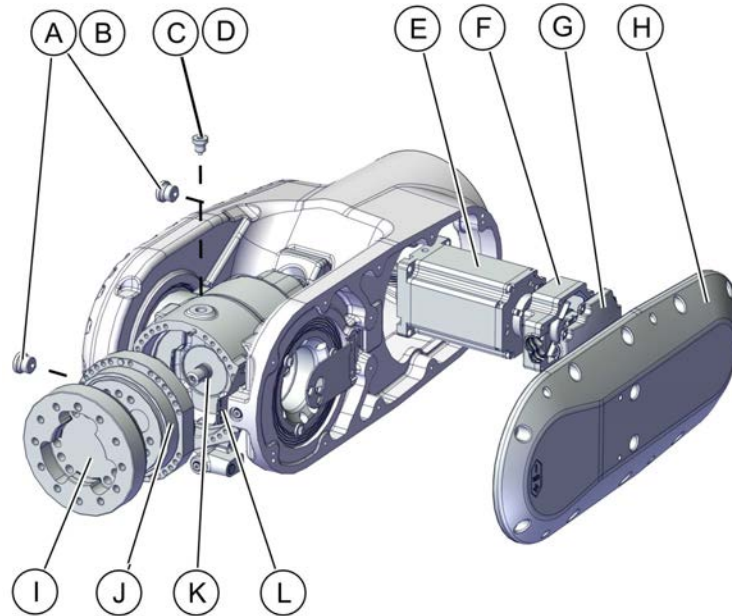
	Spare part	Article number	Note	Level
A	Wrist	IRB 5720-180/2.6 / IRB 5720-155/2.6 LID: 3HAC074235-002 (Graphite White) 3HAC074235-003 (ABB Orange) IRB 5720-125/3.0 / IRB 5720-90/3.0 LID: 3HAC072470-002 (Graphite White) 3HAC072470-004 (ABB Orange)	Complete unit with motors and gears.	L2

5 Spare parts - wrist

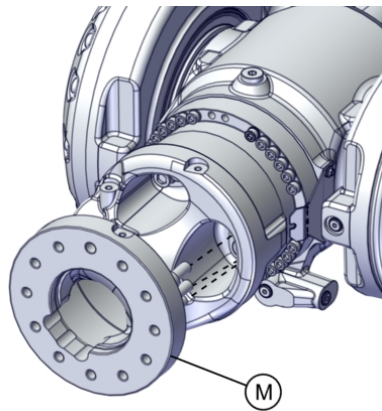
5.2 Wrist parts

5.2 Wrist parts

Parts list



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	Spare part	Article number	Note	Level
A	Magnetic plug, G 1/2"	3HAC16721-1		L1
B	O-ring, G 1/2"	3HAC061327-059	Used on oil plug. Always replace when refitting oil plug.	L1
C	Magnetic plug, G 1/4"	3HAC037925-001		L1
D	O-ring, G 1/4"	3HAC061327-060	Used on oil plug. Always replace when refitting oil plug.	L1
E	Motor unit	IRB 5720-180/2.6, IRB 5720-155/2.6 LID: 3HAC071373-003 IRB 5720-125/3.0, IRB 5720-90/3.0 LID: 3HAC070735-003		L2

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	Spare part	Article number	Note	Level
F	Connection box MT080X with gasket	IRB 5720-125/3.0, IRB 5720-90/3.0 LID: 3HAC072859-003 (Graphite White) 3HAC072859-004 (ABB Orange)	Replace if damaged.	L2
G	Connection box cover with gasket	IRB 5720-180/2.6, IRB 5720-155/2.6 LID: 3HAC072863-003 IRB 5720-125/3.0, IRB 5720-90/3.0 LID: 3HAC072862-003	Replace if damaged.	L2
H	Wrist cover	IRB 5720-180/2.6 / IRB 5720-155/2.6 LID: 3HAC074181-002 (Graphite White) 3HAC074181-004 (ABB Orange) IRB 5720-125/3.0 / IRB 5720-90/3.0 LID: 3HAC073390-002 (Graphite White) 3HAC073390-004 (ABB Orange)	Replace if damaged.	L2
I	Turning disc	IRB 5720-180/2.6, IRB 5720-125/3.0: 3HAC077309-002		L2
J	Gearbox	IRB 5720-180/2.6, IRB 5720-155/2.6 LID: 3HAC072405-003 (Graphite White) 3HAC072405-004 (ABB Orange) IRB 5720-125/3.0, IRB 5720-90/3.0 LID: 3HAC074187-003 (Graphite White) 3HAC074187-004 (ABB Orange)	Includes o-ring	L2
K	Motor unit	IRB 5720-180/2.6, IRB 5720-155/2.6 LID: 3HAC071374-003 IRB 5720-125/3.0, IRB 5720-90/3.0 LID: 3HAC070736-003		L2
L	Sync plate	3HAC069528-001		L1
M	Process turning disc	IRB 5720-155/2.6 LID, IRB 5720-90/3.0 LID: 3HAC070389-004		L2

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6 Spare parts - electronic parts

6.1 Manipulator harness ax 1-6

Parts list



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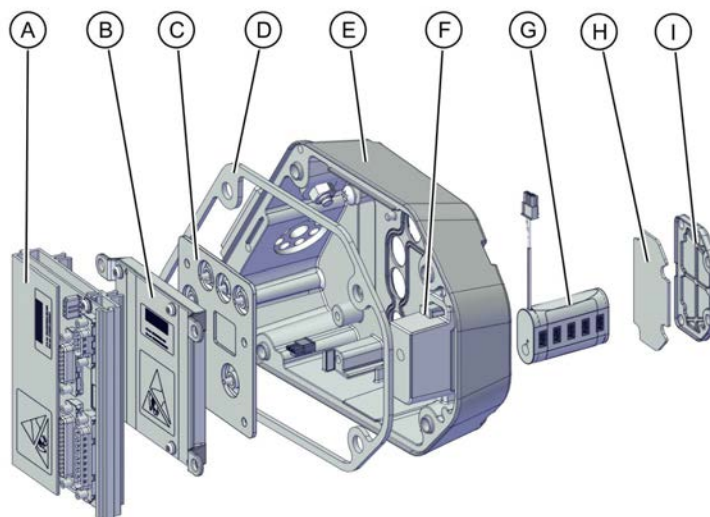
	Spare part	Article number	Note	Level
A	Cable harness	3HAC071396-001		L2

6 Spare parts - electronic parts

6.2 Electrical parts

6.2 Electrical parts

Parts list



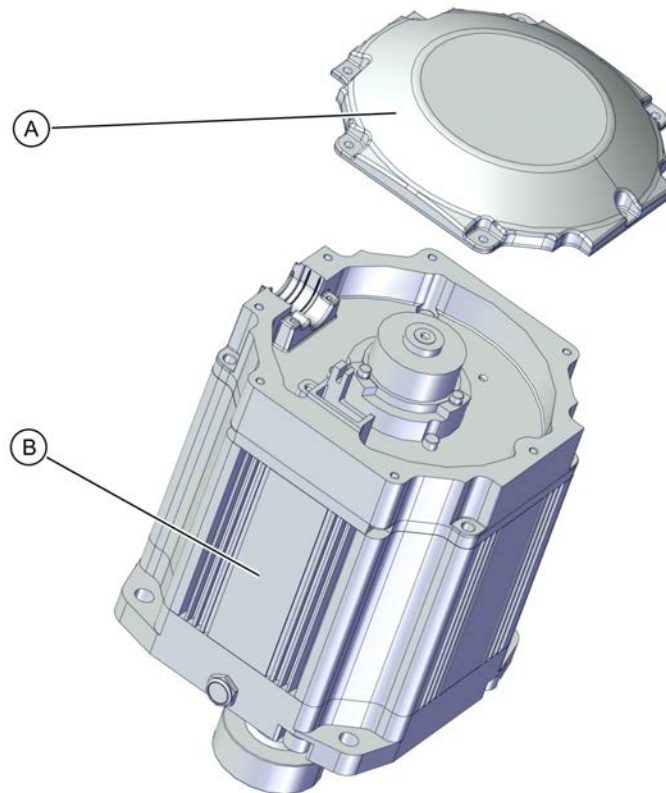
xx2100002242

	Spare part	Article number	Note	Level
A	Serial measurement unit	3HAC043904-001		L2
B	Brake release unit	3HAC073540-001		L2
C	Push button guard	3HAC070515-001		L2
D	Gasket for cover, electronics	3HAC073671-001	Replace if damaged.	L2
E	Cover, electronics	3HAC069314-004 (Graphite White) 3HAC069314-005 (ABB Orange)		L2
F	Battery cable	3HAC073539-001	Replace if damaged.	L2
G	Battery pack	3HAC044075-001	Battery includes protection circuits. Only replace with the specified spare part or an ABB-approved equivalent.	L1
H	Gasket for battery cover	3HAC073342-001	Replace if damaged.	L1
I	Cover, battery	3HAC070509-002		L1

7 Spare parts - motors

7.1 Axis-1

Parts list



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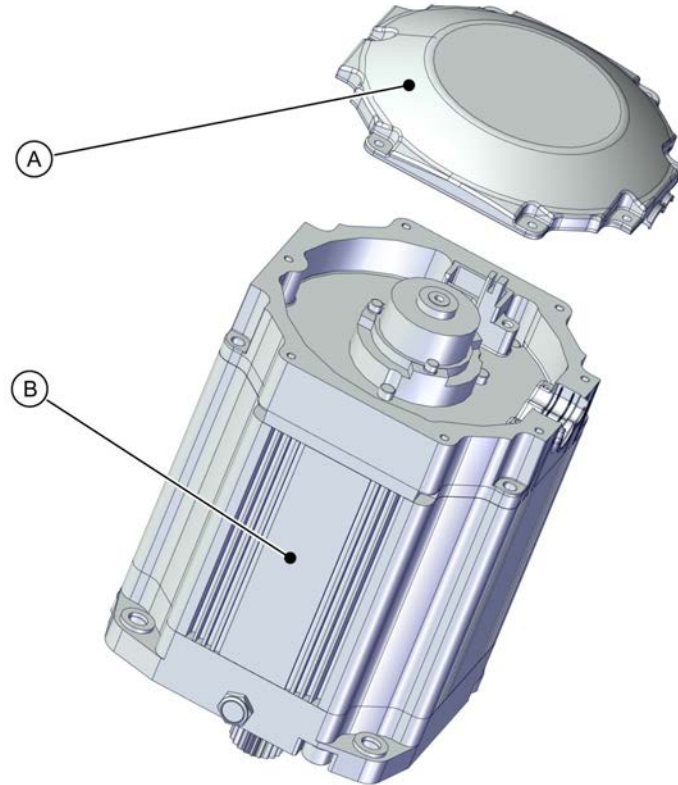
	Spare part	Article number	Note	Level
A	Connection box cover FS180 with gasket	3HAC072864-003 (Graphite White) 3HAC072864-005 (ABB Orange)	Replace if damaged.	L2
B	Motor unit (including connection box)	3HAC072252-003 (Graphite White) 3HAC072252-004 (ABB Orange)		L2

7 Spare parts - motors

7.2 Axis-2

7.2 Axis-2

Parts list

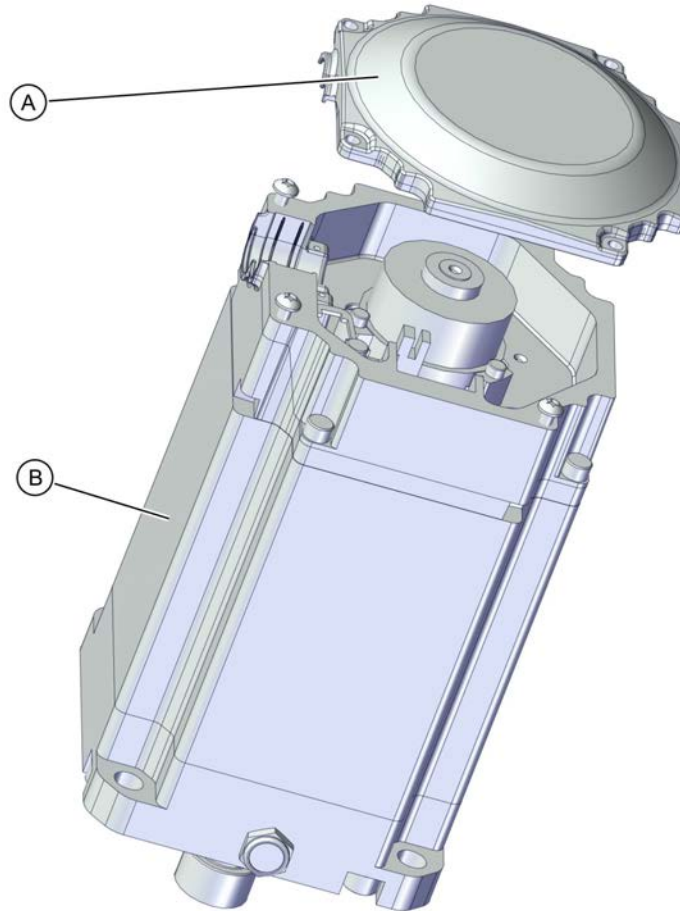


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	Spare part	Article number	Note	Level
A	Connection box cover FS180 with gasket	3HAC072864-003 (Graphite White) 3HAC072864-005 (ABB Orange)	Replace if damaged.	L2
B	Motor unit (including connection box)	3HAC074201-003 (Graphite White) 3HAC074201-004 (ABB Orange)		L2

7.3 Axis-3

Parts list



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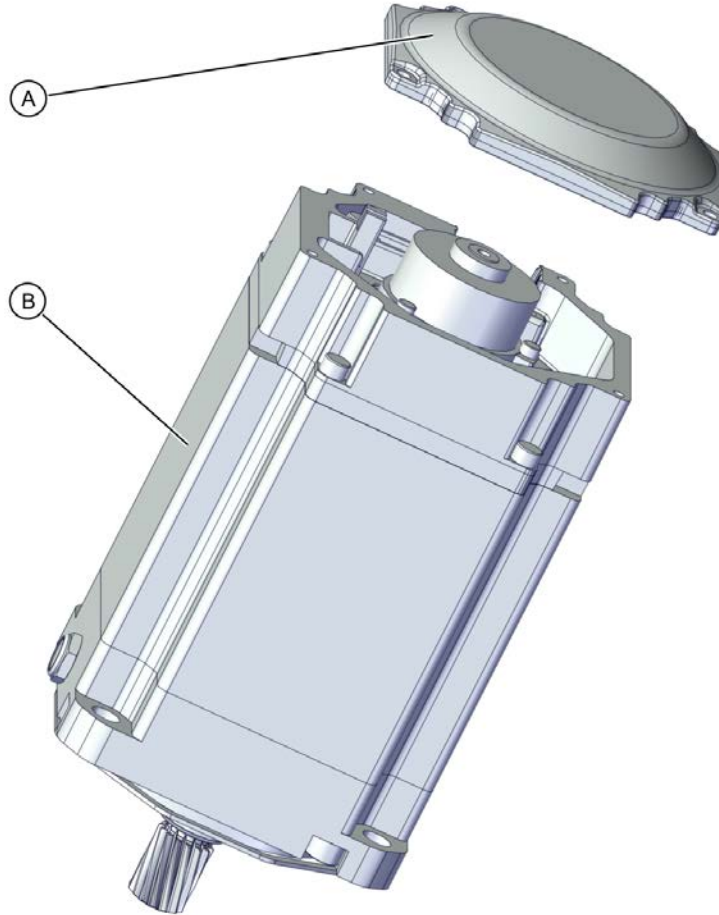
	Spare part	Article number	Note	Level
A	Connection box cover FS130 with gasket	3HAC072863-003 (Graphite White) 3HAC072863-005 (ABB Orange)	Replace if damaged.	L2
B	Motor unit	3HAC073868-003 (Graphite White) 3HAC073868-004 (ABB Orange)		L2

7 Spare parts - motors

7.4 Axis-4

7.4 Axis-4

Parts list

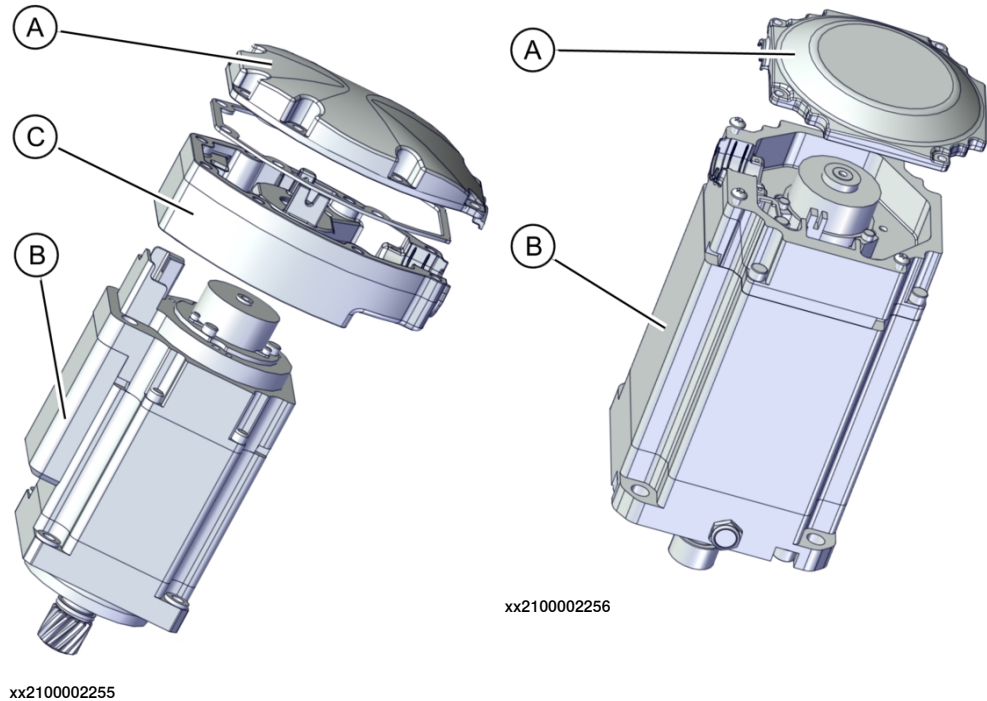


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	Spare part	Article number	Note	Level
A	Connection box cover FS130 with gasket	3HAC072863-003 (Graphite White) 3HAC072863-005 (ABB Orange)	Replace if damaged.	L2
B	Motor unit	3HAC073869-003 (Graphite White) 3HAC073869-004 (ABB Orange)		L2

7.5 Axis-5

Parts list



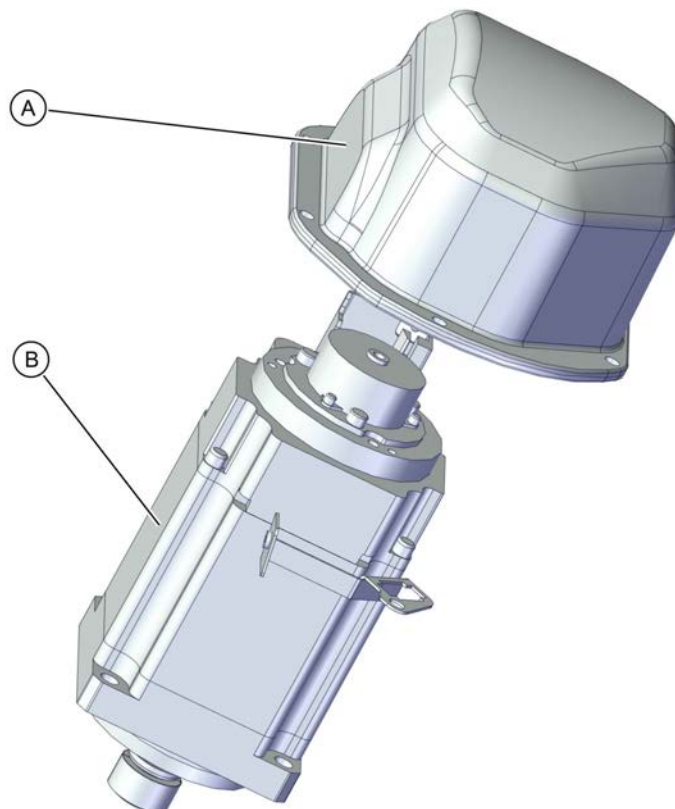
	Spare part	Article number	Note	Level
A	Connection box cover with gasket	IRB 5720-180/2.6, IRB 5720-155/2.6 LID: 3HAC072863-003 IRB 5720-125/3.0, IRB 5720-90/3.0 LID: 3HAC072862-003	Replace if damaged.	L2
B	Motor unit	IRB 5720-180/2.6, IRB 5720-155/2.6 LID: 3HAC071373-003 IRB 5720-125/3.0, IRB 5720-90/3.0 LID: 3HAC070735-003		L2
C	Connection box MT080X with gasket	IRB 5720-125/3.0, IRB 5720-90/3.0 LID: 3HAC072859-003 (Graphite White) 3HAC072859-004 (ABB Orange)	Replace if damaged.	L2

7 Spare parts - motors

7.6 Axis-6

7.6 Axis-6

Parts list



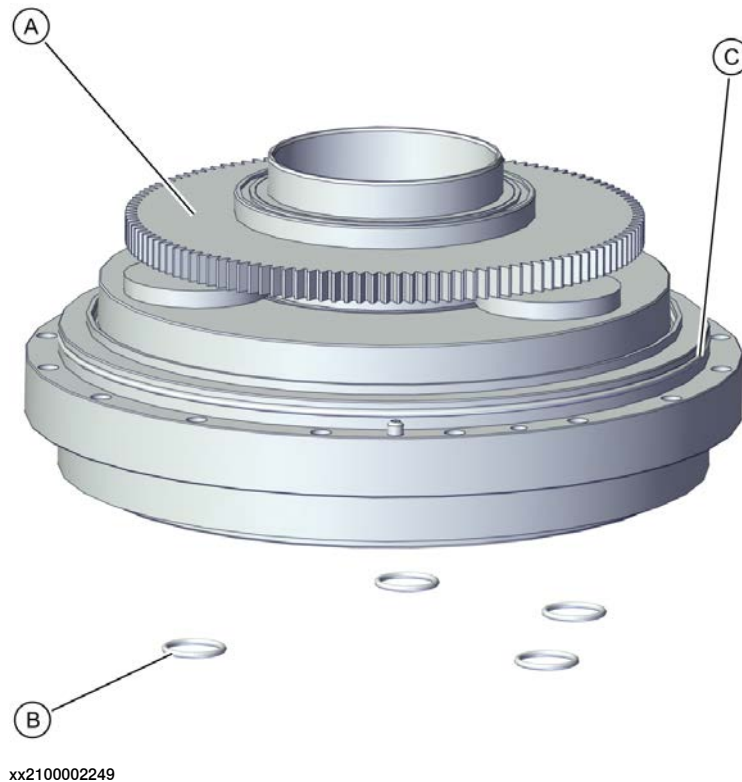
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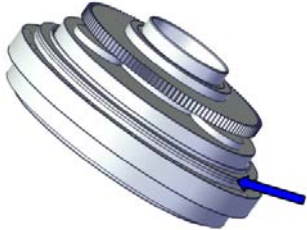
	Spare part	Article number	Note	Level
A	Tilt housing cover with gasket	IRB 5720-180/2.6, IRB 5720-155/2.6 LID: 3HAC074958-003 (Graphite White) 3HAC074958-004 (ABB Orange) IRB 5720-125/3.0, IRB 5720-90/3.0 LID: 3HAC073918-003 (Graphite White) 3HAC073918-004 (ABB Orange)	Replace if damaged.	L2
B	Motor unit	IRB 5720-180/2.6, IRB 5720-155/2.6 LID: 3HAC071374-003 IRB 5720-125/3.0, IRB 5720-90/3.0 LID: 3HAC070736-003		L2

8 Spare parts - gears

8.1 Axis-1

Parts list



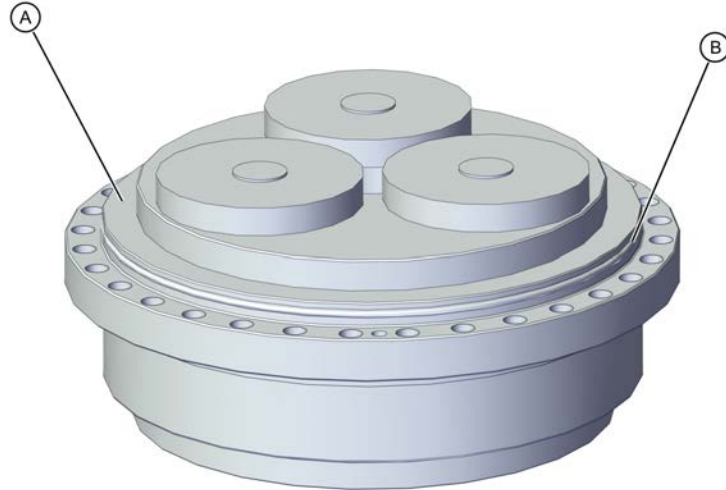
	Spare part	Article number	Note	Level
A	Gearbox	3HAC072003-003 (Graphite White) 3HAC072003-005 (ABB Orange)	Includes o-ring 3HAB3772-93  xx2100001132	L2
B	O-ring	3HAC061327-033	4 pcs. On gearbox. <i>Not required for option Inverted (3317-1).</i>	L2
C	O-ring	3HAB3772-93	On gearbox. Included in gearbox spare part, but replace if damaged.	L2

8 Spare parts - gears

8.2 Axis-2

8.2 Axis-2

Parts list

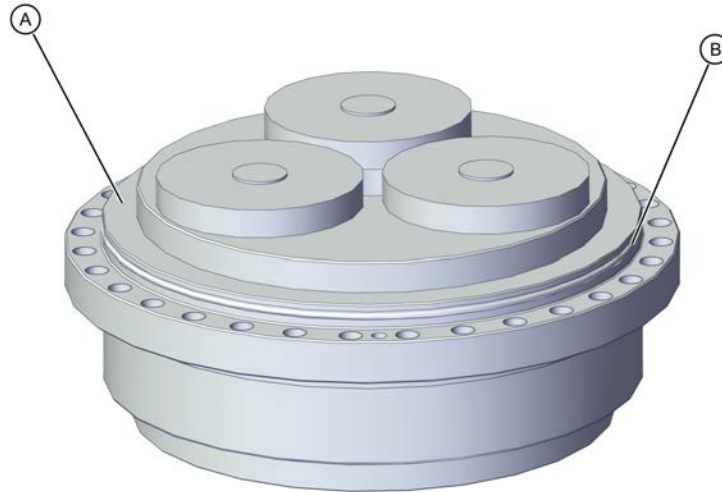


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	Spare part	Article number	Note	Level
A	Gearbox	3HAC074200-003 (Graphite White) 3HAC074200-004 (ABB Orange)	Includes o-ring	L2
B	O-ring	3HAC061327-067		L2

8.3 Axis-3

Parts list



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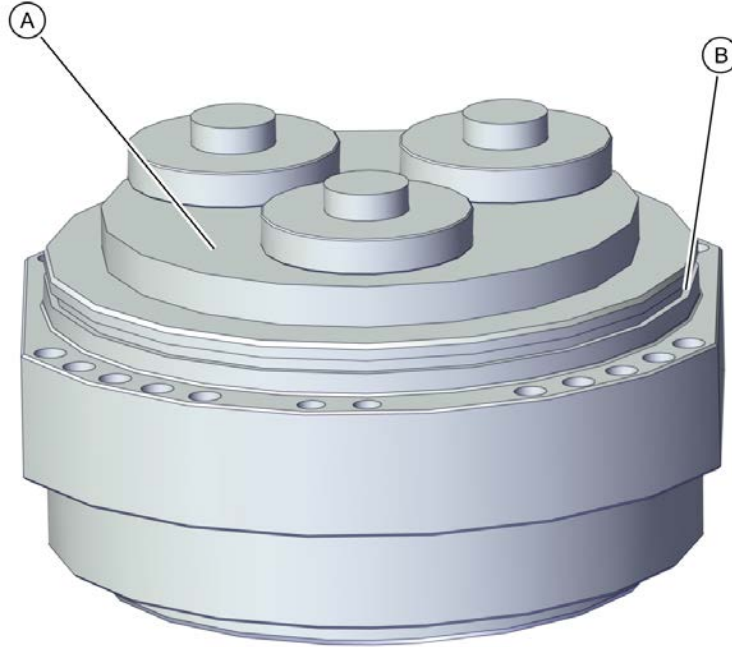
	Spare part	Article number	Note	Level
A	Gearbox	3HAC074176-003 (Graphite White) 3HAC074176-004 (ABB Orange)	Includes o-ring	L2
B	O-ring	3HAC061327-063		L2

8 Spare parts - gears

8.4 Axis-6

8.4 Axis-6

Parts list



xx2100002251

	Spare part	Article number	Note	Level
A	Gearbox	IRB 5720-180/2.6, IRB 5720-155/2.6 LID: 3HAC072405-003 (Graphite White) 3HAC072405-004 (ABB Orange) IRB 5720-125/3.0, IRB 5720-90/3.0 LID: 3HAC074187-003 (Graphite White) 3HAC074187-004 (ABB Orange)	Includes o-ring	L2
B	O-ring	3HAC061327-070	Replace if damaged.	L2

9 Spare parts - accessories

9.1 Axis Calibration items

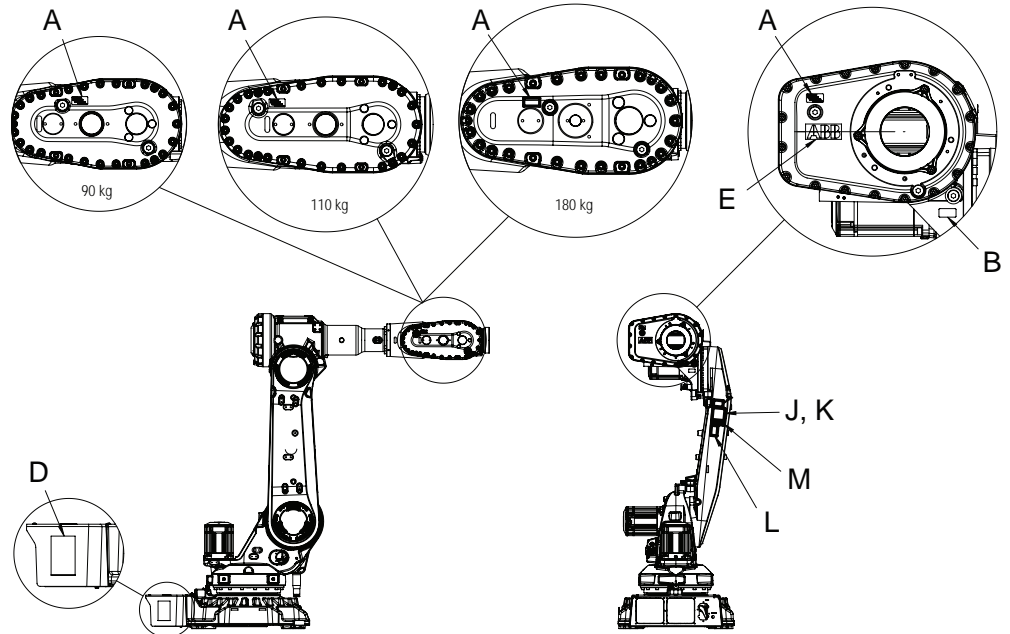
Spare part list

Spare part number	Description	Spare part level
3HAC064875-001 (axes 1, 2, 3 and 4)	Protection cover and plug set	L2
3HAC059487-001 (axes 5 and 6)	Contains replacement calibration pin covers and protective plugs for the bushings.	

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10 Spare parts - labels

Spare part illustration

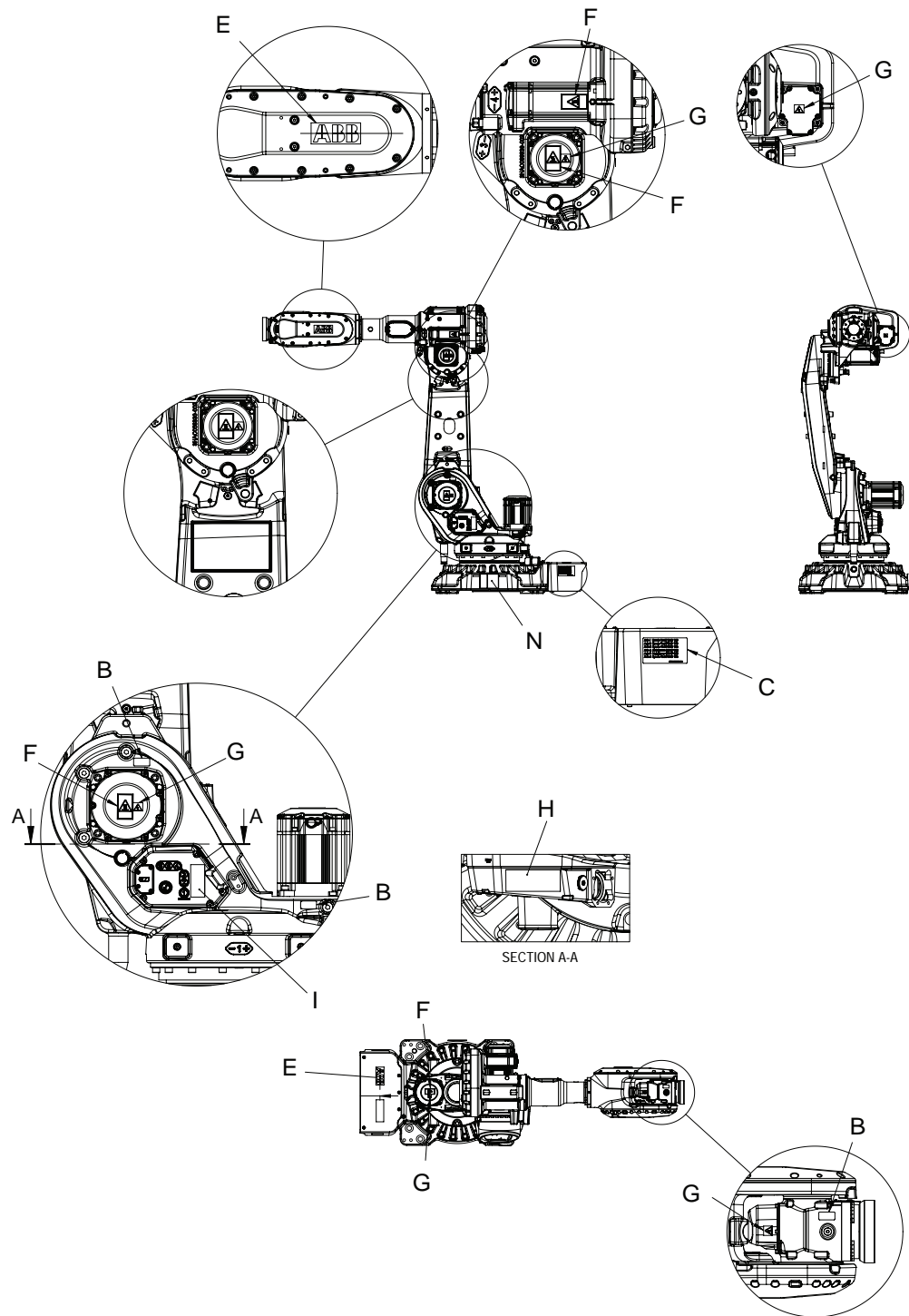


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10 Spare parts - labels

Continued



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	Spare part	Article number	Level
A	Lubrication label Mobilgear 600 XP 320	3HAC021485-001	L1
B	Lubrication label Kyodo Yushi TMO 150	3HAC032726-001	L1
C	Lubrication label	3HAC032905-001	L1

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	Spare part	Article number	Level
D	Warning label Tipping robot	3HAC9191-1	L1
E	ABB logotype label	3HAC0453-5	L1
F	Warning label Hot surface	29454489-16	L1
G	Warning label Electrical (flash)	3HAC1589-1	L1
H	Warning label / Instruction label Moving robot / MOTORS OFF	3HAC076756-001	L1
I	Instruction label Brake release	3HAC076755-001	L1
J	Rating label	3HAB9549-1	L1
K	Waste Electrical & Electronic Equipment (WEEE) label	3HAC067800-001	L1
L	Calibration label	3HAC13488-1	L1
M	ABB information sign	3HAC14257-1	L1
N	Warning label Extended working range	3HAC021761-001	L1

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11 Consumables and wear parts

11.1 Wear parts

Wear part list

Spare part	Article number
Lubricating oil	-
O-ring, G 1/2"	3HAC061327-059
O-ring, G 1/4"	3HAC061327-060
Battery pack	3HAC044075-001



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