

Product manual, spare parts IRB 6660

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Product manual, spare parts

IRB 6660 - 100/3.3

IRB 6660 - 130/3.1

IRB 6660 - 205/1.9

IRC5

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Revision: C

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Overview of this manual

About this manual

This manual contains spare parts for:

- IRB 6660 and all its variants.

Usage

This manual shall be used as a complement to the product manual for IRB 6660 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 Rebuilding robot	Information of rebuilding parts, required when rebuilding the robot to another version.
2 Spare parts and exploded view	Complete spare part list and complete list of robot components shown in exploded views.

References

Reference	Document ID
<i>Product manual - IRB 6660</i>	<i>3HAC028197-001</i>
<i>Circuit diagram - IRB 6660</i>	<i>3HAC025744-001</i> <i>3HAC029940-001</i>

Revisions

Revision	Description
-	First edition
A	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.

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Revision	Description
B	This revision includes the following updates: <ul style="list-style-type: none">• Generally modified due to update of BOL.• Updated spare parts due to new standard calibration method (Axis Calibration).
C	Published in release R16.2. The following updates are done in this revision: <ul style="list-style-type: none">• Corrections due to updates in SAP terminology.• Added painted base as spare part.• Updated article number for Block for calibration 3HAC053973-001 (was 3HAC12671-6).• Added calibration stand as spare part (Graphite white and orange).• Updated spare parts due to sealing upgrade in the motors:<ul style="list-style-type: none">- Motors- Axis 3-4- Wrist- Axis 6

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 - cable harness

Parts list

Item	Article number	Description	Qty
90.1.1	3HAC044259-001	Cable Harness robot (IRB 6660 - 100/3.3, IRB 6660 - 130/3.1)	1
	3HAC028715-001	Cable Harness robot (IRB 6660 - 205/1.9)	1
-	3HAC027104-001	Process cable package 1-3 MH (IRB 6660 - 100/3.3, IRB 6660 - 130/3.1)	1
	3HAC029575-001	Process cable package 1-3 MH (IRB 6660 - 205/1.9)	1
-	3HAC14139-1	Manipulator harness axis 5	1
-	3HAC035933-001	Foundry Plus, Cable guard (option no. 908-1)	1
90.1.2	3HAC13416-1	Cover	1
90.1.3	3HAC11774-3	Adapter unit	1
90.1.4	9ADA618-57	Torx pan head screw, M6x20 quality 8.8-A2F	2 pcs
90.1.5	9ADA618-56	Torx pan head screw, M6x16 quality 8.8-A2F	4 pcs
90.1.6	3HAC5172-1	Cable guide ax 2	1
90.1.7	3HAC14222-1	Plate	1
90.1.8	9ADA618-57	Torx pan head screw, M6x20 quality 8.8-A2F	4 pcs
	3HAC044168-001	Serial measurement board RMU 101	1 pc
	3HAC046277-001	Serial measurement unit Contains serial measurement board 3HAC044168-001 and battery unit 3HAC044075-001.	1 pc
90.1.11	9ADA267-6	Hexagon nut M6 quality 8-A2F	4 pcs
90.1.12	9ADA312-6	Plain washer 6.4x12x1.6 quality A2F	2 pcs
90.1.13	3HAC15619-1	Cable, FB7-SMB 1.7	1 pc
90.1.14	9ADA183-25	Hex socket head cap screw M6x20 quality 8.8-A2F	10 pcs
90.1.17	9ADA629-56	Torx pan head screw, M6x16 quality 8.8-A2F	6 pcs
90.1.18	3HAC022204-001	Bracket	1 pc
90.1.19	9ADA183-25	Hex socket head cap screw M5x12 quality 8.8-A2F	6 pcs
90.1.20	3HAC16035-1	DSQC 563 Brake release board	1 pc
90.1.22	9ADA618-41	Torx pan head screw, M5x6 quality 8.8 Fe/Zn 5c	2 pcs
90.1.23	3HAC020105-001	Battery holder	1 pc
90.1.24	3HAC13151-1	Cable battery/SMB	1 pc
	3HAC046287-001	Cable battery/SMB Used with battery unit RMU 3HAC044075-001.	1 pc

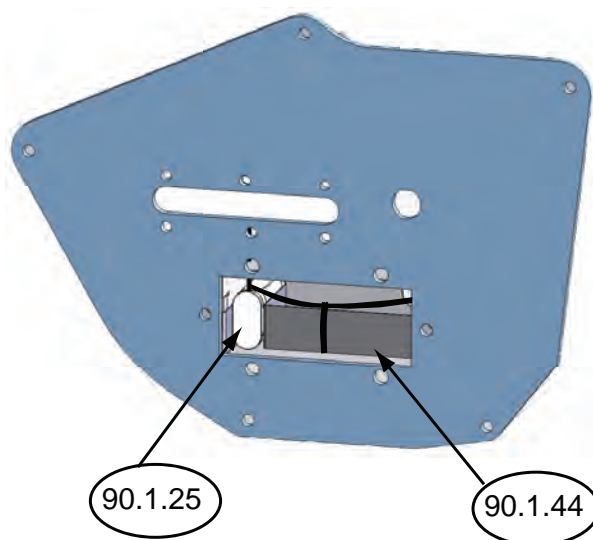
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1 Spare parts - cable harness

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Item	Article number	Description	Qty
90.1.25	3HAC16831-1	Battery pack (2-pole battery contact)	1 pc
	3HAC044075-001	Battery unit RMU (3-pole battery contact) Can only be used with SMB unit 3HAC046277-001 containing SMB board 3HAC044168-001.	1 pc
90.1.26	3HAC6499-1	Push button guard	1 pc
90.1.27	3HAC026331-001	BU button guard plate	1 pc
90.1.28	9ADA618-45	Torx pan head screw, M5x16 quality 8.8-A2F	6 pcs
90.1.29	3HAC14880-1	Cable bracket	1 pc
90.1.30	21662055-3	Cable straps, outdoors	3 pcs
90.1.31	3HAC12129-1	Cover	2 pcs
90.1.32	9ADA183-24	Hex socket head cap screw M6x16 quality 8.8-A2F	12 pcs
90.1.33	9ADA183-48	Hex socket head cap screw M10x16 quality 8.8-A3F	2 pcs
90.1.34	3HAB3409-26	Hex socket head cap screw M6x25 quality steel Gleitmo 610	1 pc
90.1.44	3HAC046520-001	Battery holder Required for installation of battery pack 3HAC044075-001.	1 pc

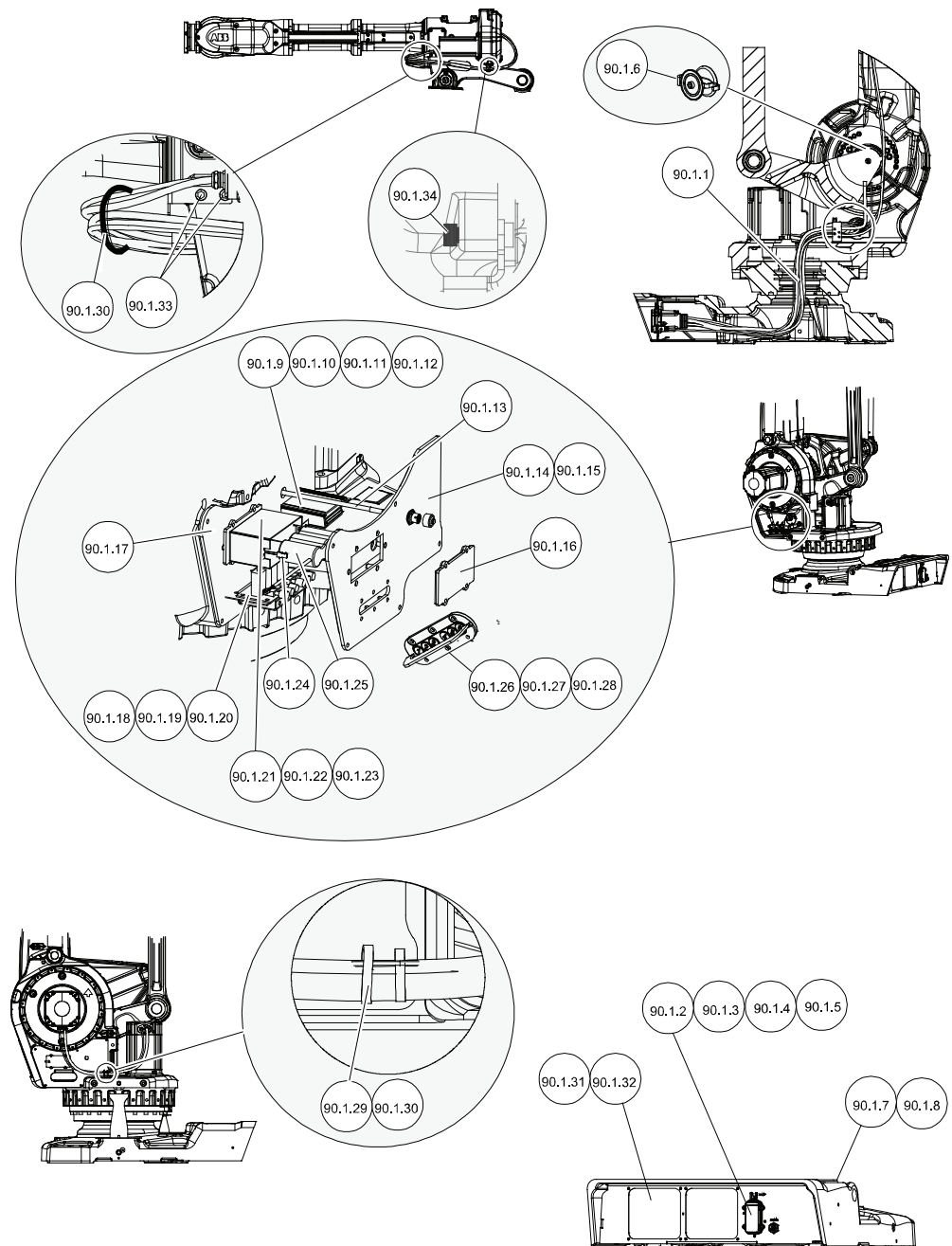
Exploded view



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-	The figure above shows the battery pack 3HAC044075-001.
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-	The figure above shows the battery pack 3HAC16831-1.
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2 Spare parts - motor axis 1

Parts list

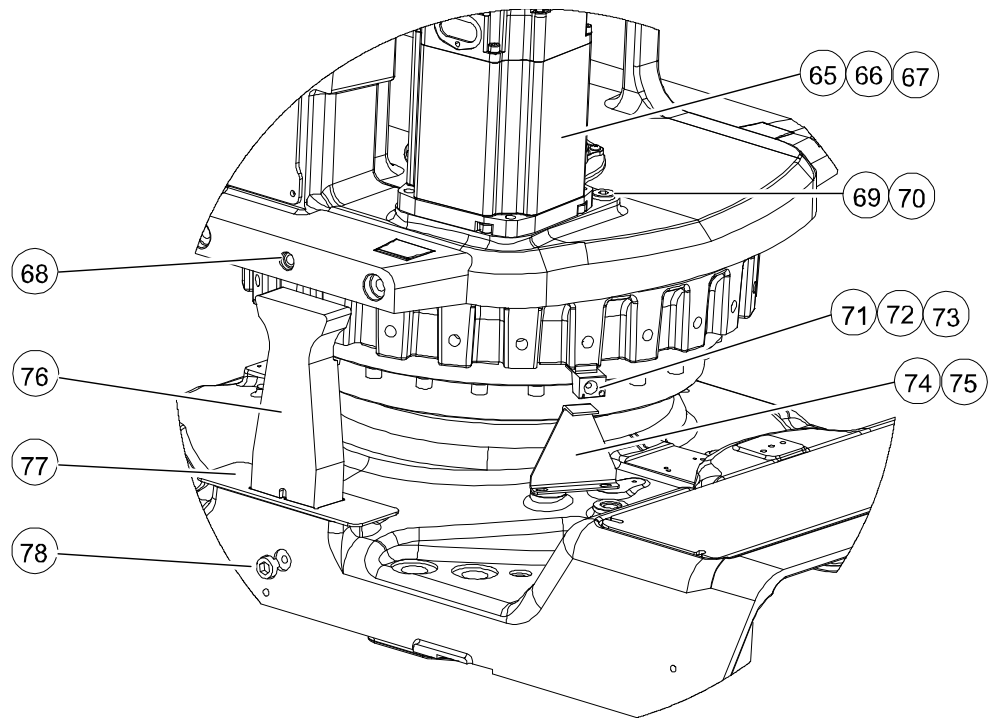
Item	Spare part number	Article number	Description	Color	Qty
65	3HAC058993-003		Rot. AC motor incl. pinion	ABB Orange	1
	3HAC058993-004		Rot. AC motor incl. pinion	Graphite White	1
66		3HAB3409-50	Hex socket head cap screw M10x40 quality 12.9 Gleitmo 610		4 pcs
67		3HAB4233-1	Washer		4 pcs
68		3HAC037925-001	Magnetic plug		1
69		3HAC16721-1	Magnetic plug		1
70	Type of oil and amount is detailed in <i>Technical reference manual - Lub- rication in gearboxes.</i>	-	Lubricating oil		-
71		3HAC053973-001	Block for calibration		1
72		3HAC14024-1	Protection screw		1
73		9ADA618-57	Torx pan head screw M6x20 quality 8.8-A2F		3 pcs
74		3HAC021287-001	Sync plate		1
75		9ADA618-56	Torx pan head screw M6x16 quality 8.8-A2F		2 pcs
76		3HAC12812-2	Mech. stop ax. 1 assembly		1
77		3HAC10499-7	Cover, mechanical stop axis 1		1
78		3HAB3409-90	Hex socket head cap screw M16x90 quality 12.9 Gleitmo 610		1
78		3HAB7700-89	Hex socket head cap screw M16x90 quality UNBRAKO 12.9 Gleitmo 610		1

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2 Spare parts - motor axis 1

Continued

Exploded view



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3 Spare parts - frame to base

Parts list

Item	Article number	Description	Color	Qty
-	3HAC037559-007	Frame	Graphite White	1
	3HAC037559-008	Frame	ABB Orange	1
-	3HAC053515-002	Calibration stand	Graphite White	1
	3HAC053515-003	Calibration stand	ABB Orange	1
101	3HAC058104-001	Base, machining	Graphite White	1
	3HAC058104-002	Base, machining	ABB Orange	1
103	3HAC037638-005	RV 500C-219.95 assembly	Graphite White	1
	3HAC037638-002	RV 500C-219.95 assembly	ABB Orange	1
104	3HAB3409-77	Hex socket head cap screw M12x110 quality 12.9 Gleitmo 610		24 pcs
105	3HAA1001-134	Washer 13x19x1.5		24 pcs
106	3HAC11732-2	Washer T=3		3 pcs
107	3HAB3409-88	Hex socket head cap screw M16x70 quality 12.9 Gleitmo 610		18 pcs
107	3HAB7700-5	Hex socket head cap screw M16x70 quality UNBRAKO 12.9 Gleitmo 610		18 pcs
108	3HAC14453-1	Hose with flange		1
109	3HAC11529-1	Rubber lined clip D=28		1
110	9ADA618-56	Torx pan head screw M6x16 quality 8.8-A2F		1
111	3HAC4428-2	Hose Clip		1
112	3HAC14453-2	Plug		1
113	3HAC12252-1	Bottom plate		1
114	3HAC14131-1	Connector base bracket		1
115	9ADA618-58	Torx pan head screw M6x25 quality 8.8-A2F		2 pcs
116	3HAC11769-1	Cable guide, ax.1		1
117	9ADA618-56	Torx pan head screw M6x16 quality 8.8-A2F		2 pcs
118	3HAC042536-001	Bearing grease		10 g

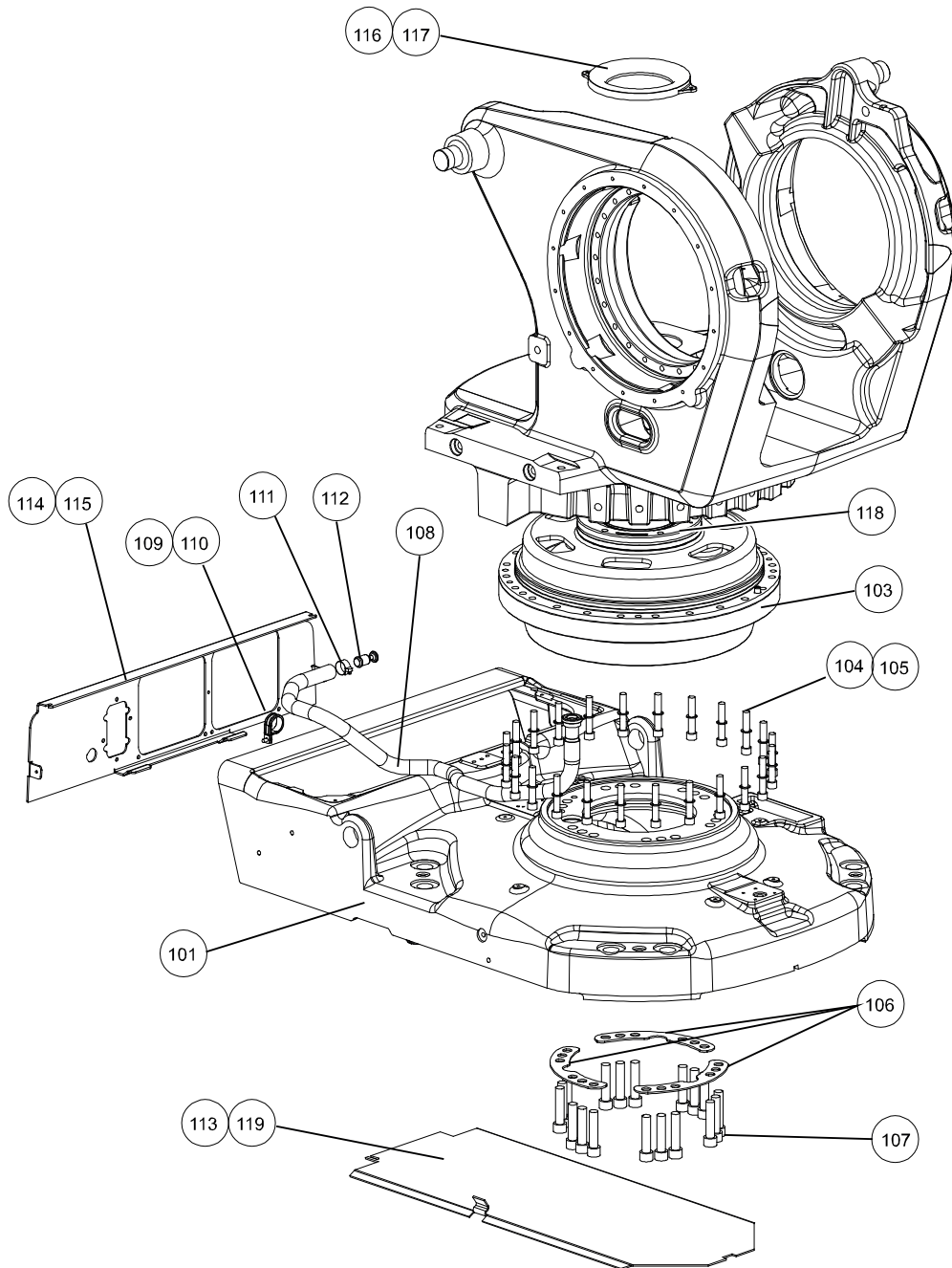
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3 Spare parts - frame to base

Continued

Item	Article number	Description	Color	Qty
119	9ADA618-53	Torx pan head screw M6x8 quality 8.8-A2F		1

Exploded view



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4 Spare parts - frame to lower arm

Parts list

Item	Spare part number	Article number	Description	Color	Qty
11		3HAC022379-001	Sealing axis 2/3		1
12		3HAA1001-134	Washer		24 pcs
13		3HAB3409-71	Hex socket head cap screw M12x60 quality 12.9 Gleitmo 610		24 pcs
14		3HAC022644-001	RV-450E, i=171, assembly		1
15		3HAB3772-84	O-ring		1
16		9ADA312-7	Plain washer 8.4x16x1.6		16 pcs
17		9ADA183-39	Hex socket head cap screw M8x35 quality 8.8-A2F		16 pcs
18	3HAC021663-004	3HAC021663-004	Cover, machined	Graphite White	1
	3HAC021663-006	3HAC021663-006		ABB Orange	
19		3HAB4233-1	Washer		4 pcs
20		3HAB3409-50	Hex socket head cap screw M10x40 quality Gleitmo 610		4 pcs
21	3HAC058991-003		Motor Inc. Pinion	ABB Orange	1
	3HAC058991-004		Motor Inc. Pinion	Graphite White	1
22		3HAC022379-001	Sealing axis 2/3		1
23		3HAC022644-001	RV-450E, i=171, assembly		1
24		3HAB3409-71	Hex socket head cap screw M12x60 quality 12.9 Gleitmo 610		24 pcs
24		3HAB3409-71	Hex socket head cap screw M12x60 quality UNBRAKO 12.9 Gleitmo 610		24 pcs
25		3HAA1001-134	Washer 13x19x1.5		24 pcs
26		3HAC021663-003	Cover, machined		1
27		9ADA183-39	Hex socket head cap screw M8x35 quality 8.8-A2F		16 pcs
28		9ADA312-7	Plain washer 8.4x16x1.6		16 pcs
29		3HAB3772-84	O-ring		1
30	3HAC058991-003		Motor Inc. Pinion	ABB Orange	1
	3HAC058991-004		Motor Inc. Pinion	Graphite White	1
31		3HAB3409-50	Hex socket head cap screw M10x40 quality Gleitmo 610		4 pcs
32		3HAB4233-1	Washer		4 pcs
33		3HAB3409-86	Hex socket head cap screw M16x60 quality 12.9 Gleitmo 610		6 pcs
34		3HAA1001-186	Washer 17x25x3		6 pcs
35		3HAB3409-69	Hex socket head cap screw M12x50 quality 12.9 Gleitmo 610		21 pcs

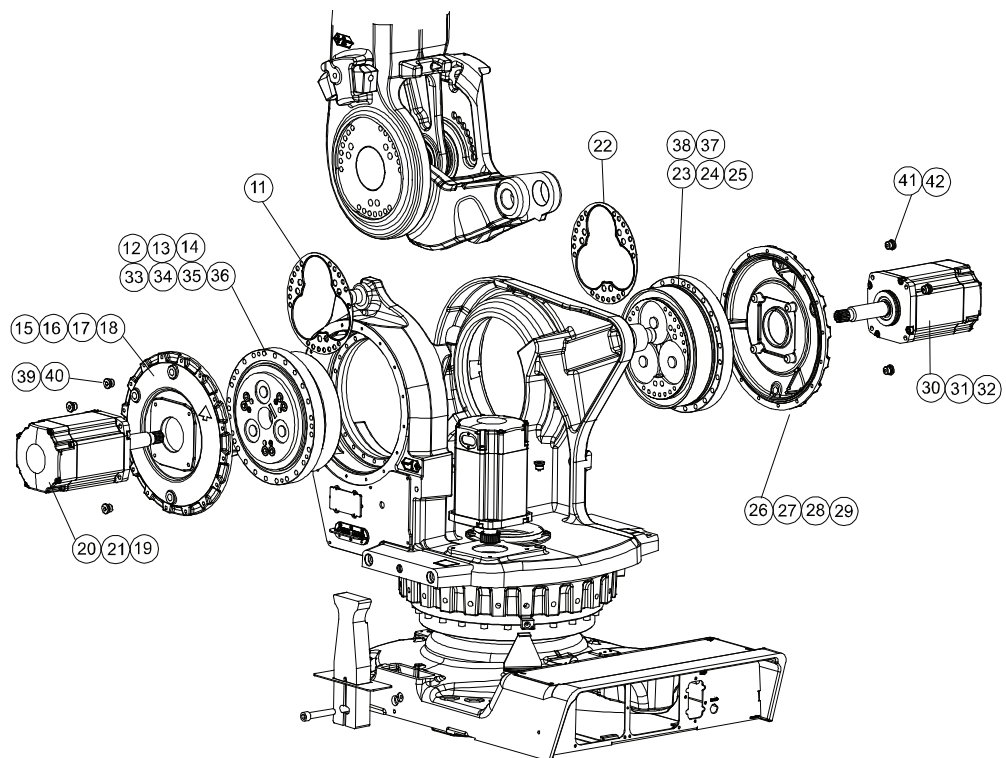
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4 Spare parts - frame to lower arm

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Item	Spare part number	Article number	Description	Color	Qty
35		3HAB7700-69	Hex socket head cap screw M12x50 quality UNBRAKO 12.9 Gleitmo 610		21 pcs
36		3HAA1001-134	Washer 13x19x1.5		21 pcs
37		3HAB3409-69	Hex socket head cap screw M12x50 quality 12.9 Gleitmo 610		21 pcs
37		3HAB7700-69	Hex socket head cap screw M12x50 quality UNBRAKO 12.9 Gleitmo 610		21 pcs
38		3HAA1001-134	Washer 13x19x1.5		21 pcs
39	Type of oil and amount is detailed in <i>Technical refer- ence manual - Lub- rication in gear- boxes.</i>	-	Lubricating oil		-
40		3HAC16721-1	Magnetic plug		3 pcs
41		3HAC16721-1	Magnetic plug		3 pcs
42	Type of oil and amount is detailed in <i>Technical refer- ence manual - Lub- rication in gear- boxes.</i>	-	Lubricating oil		-

Exploded view



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5 Spare parts - lower arm system

Parts list

Item	Article number	Description	Color	Qty
301	3HAC021464-005	Lower arm (IRB 6660 - 100/3.3, IRB 6660-130/3.1)	Graph-ite White	1
	3HAC021464-006	Lower arm (IRB 6660 - 100/3.3, IRB 6660-130/3.1)	ABB Or-ange	1
	3HAC028617-004	Lower arm (IRB 6660-205/1.9)	Graph-ite White	1
	3HAC028617-005	Lower arm (IRB 6660-205/1.9)	ABB Or-ange	1
302	3HAC023026-004	Parallell arm	Graph-ite White	1
	3HAC023026-005	Parallell arm	ABB Or-ange	1
303	3HAA2166-18	VK-Cover VK 35x8 (Not shown in this figure)		1
304	3HAC042536-001	Bearing grease Shell Alvania WR2		10 g
305	3HAC4435-1	Spacing sleeve		2 pcs
306	3HAB4169-1	Sealed spherical bearing		2 pcs
310	3HAA2166-23	VK-Cover VK 120x12		1
311	3HAC022338-001	Damper		2 pcs
312	9ADA183-37	Hex socket head cap screw M8x25 quality 8.8-A2F		4 pcs
313	9ADA312-7	Plain washer 8.4x16x1.6		4 pcs
314	3HAC7181-1	Locking liquid (Loctite 243)		1 ml
315	3HAC12991-1	Damper axis 2		4 pcs
316	9ADA618-57	Torx pan head screw M6x20 quality 8.8-A2F		4 pcs
317	3HAC4836-8	Protection plug		1
318	3HAC022339-001	Damper		1

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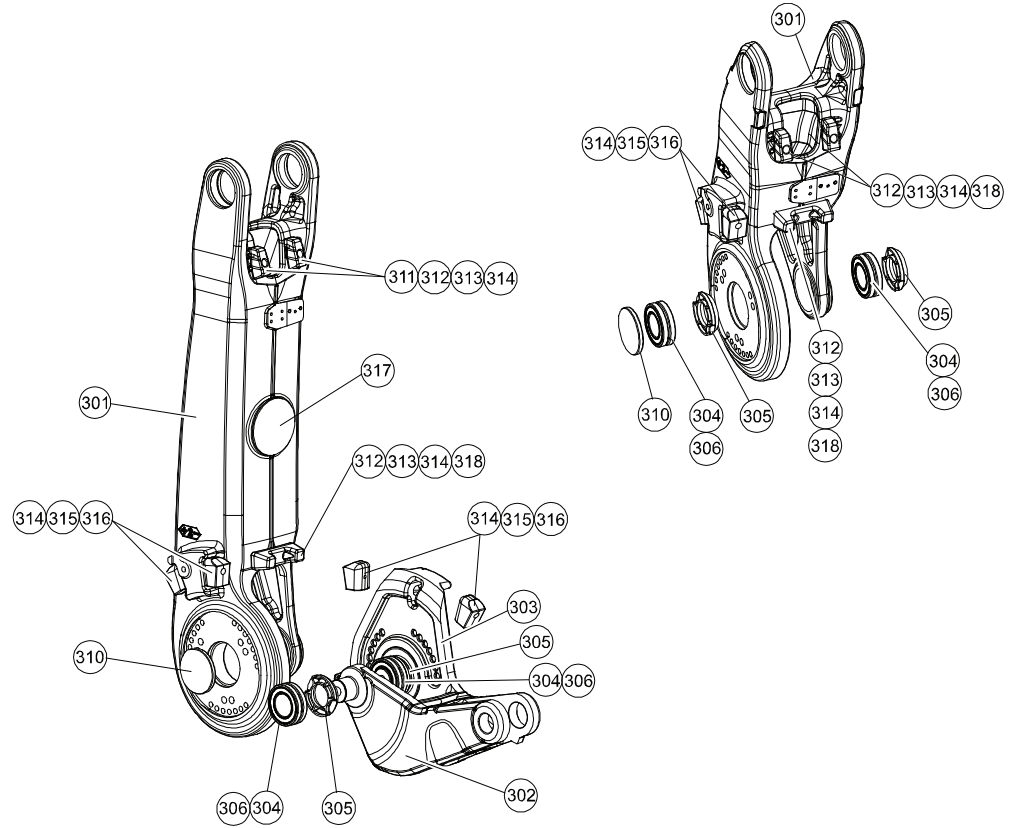
5 Spare parts - lower arm system

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Exploded view

The long lower arm is valid for robot variants IRB 6660 - 100/3.3, IRB 6660-130/3.1.

The short lower arm is valid for robot variant IRB 6660-205/1.9.



6 Spare parts - parallel rod

Parts list

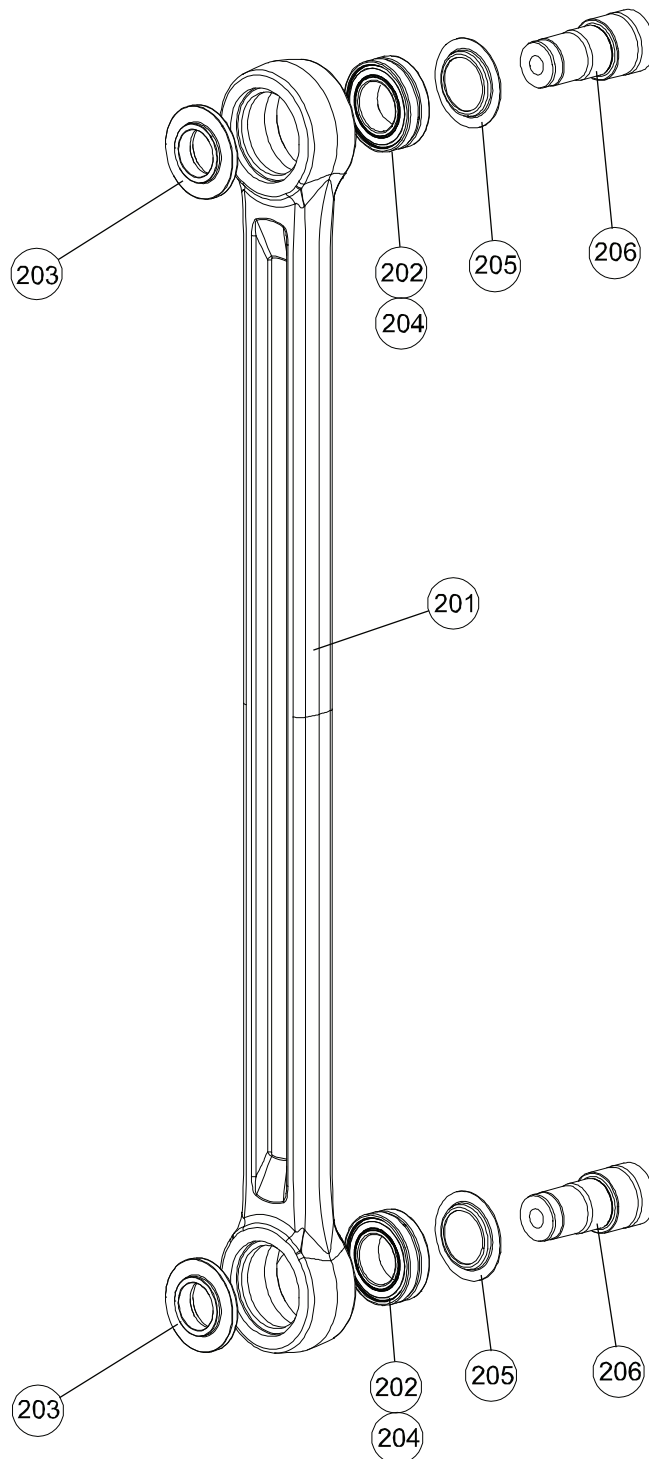
Item	Article number	Description	Qty
201	3HAC021084-004	Parallel rod, machining (IRB 6660 - 100/3.3, IRB 6660 - 130/3.1)	1
202	3HAC042536-001	Bearing grease Shell Alvania WR2	4 g
203	3HAC4331-1	Thrust washer	2 pcs
204	3HAC3715-1	Sealed spherical bearing	2 pcs
205	3HAC4332-1	Cover washer	2 pcs
206	3HAC4330-1	Shaft	2 pcs

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6 Spare parts - parallel rod

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Exploded view



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7 Spare parts - balancing device

Parts list

This spare part list is not applicable to robot variant IRB 6660 - 205/1.9.

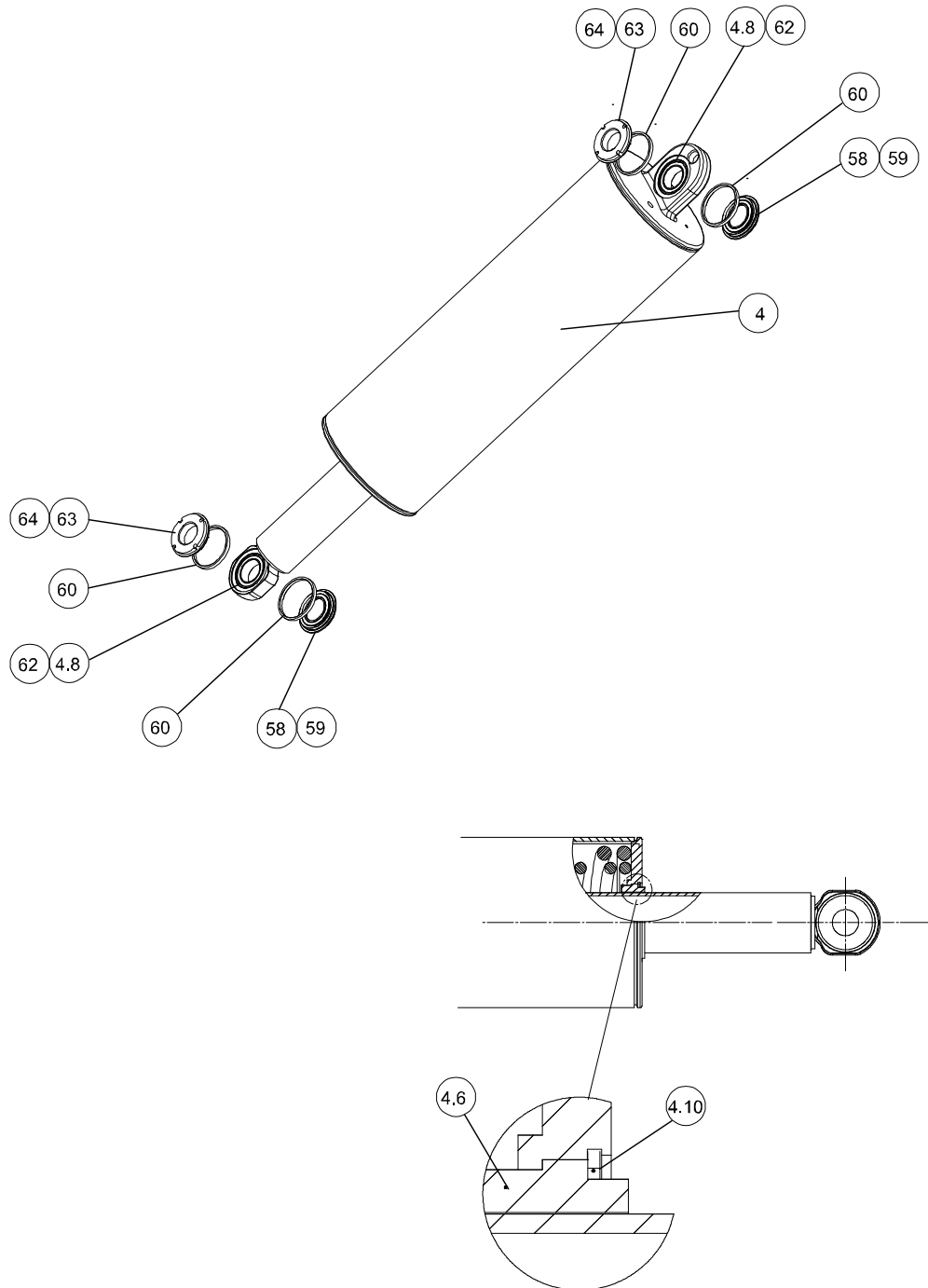
Item	Article number	Description	Color	Qty
4	3HAC024779-001	Balance unit		1
	3HAC024779-002		ABB Orange	
	3HAC024779-003		Graphite White	
4.6	3HAC3476-1	Guiding ring		1
4.8	3HAC3311-4	Adjust. Needle bearing		2 pcs
4.10	3HAC3530-1	Circlip		1
58	3HAC042475-001	Sealing compound		4 ml
59	3HAC7343-1	Ring		2 pcs
60	3HAC7253-1	Support washer		4 pcs
61	3HAA1001-124	Support ring		2 pcs
62	3HAC042536-001	Bearing grease Shell Alvania RW2		10 g
63	3HAC7349-1	Lock nut		2 pc
64	3HAC7181-1	Locking liquid (Loctite 243)		4 ml

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7 Spare parts - balancing device

Continued

Exploded view



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8 Spare parts - shafts axes 2-3

Parts list

Item	Article number	Description	Qty
43	3HAC4545-1	Shaft axis 2 (IRB 100/3.3, IRB 6660 -130/3.1)	1
	3HAC026627-001	Shaft axes 2-3 (IRB 6660 - 205/1.9)	1
44	3HAC026627-001	Shaft axis 3 (IRB 100/3.3, IRB 6660 -130/3.1)	1
	3HAC026627-001	Shaft axes 2-3 (IRB 6660 - 205/1.9)	1
45	3HAC042472-001	Lubricant, paste	5 ml
46	3HAB3772-29	O-ring	2 pcs
47	2216264-16	Sealing ring	2 pcs
48	3HAC022581-001	Sealing ring	2 pcs
49	3HAC042536-001	Bearing grease	10 g
50	22133802-8	Taper roller bearing	2 pcs
51	3HAC7817-1	Sealing assembly	2 pcs
52	3HAC6627-1	Sealing ring	2 pcs
53	3HAA1001-658	O-ring	2 pcs
54	3HAC7181-1	Locking liquid (Loctite 243)	4 ml
55	21262851-112	Lock nut	2 pcs
56	9ADA205-75	Set screw, cup point M10x20 quality 45H-A3F	2 pcs
57	3HAC7181-1	Locking liquid (Loctite 243)	4 ml
61	3HAA1001-124	Support ring	2 pcs

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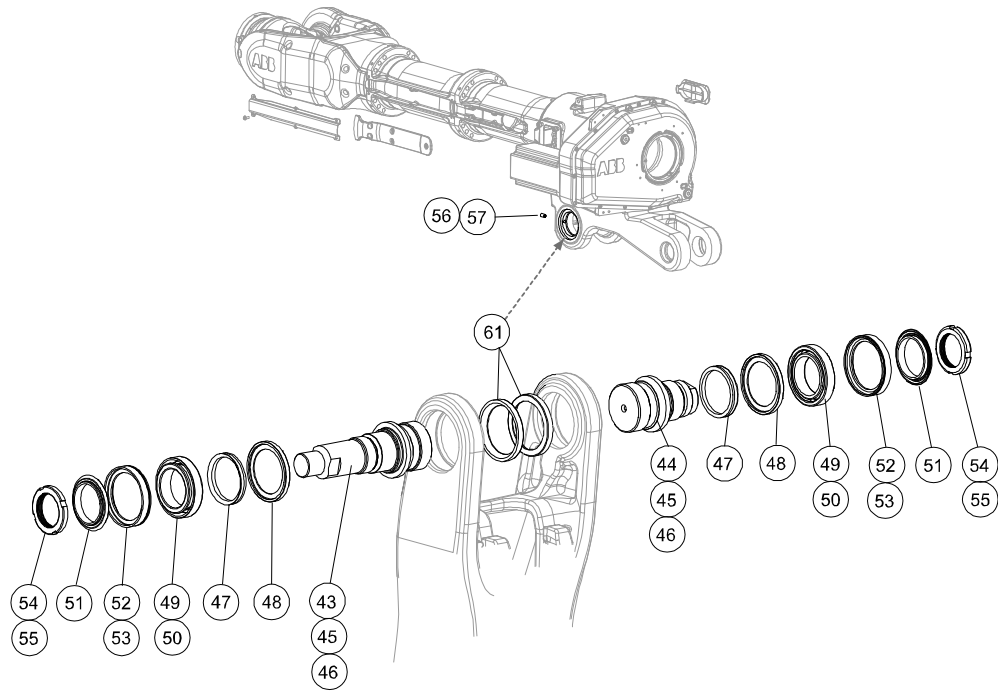
8 Spare parts - shafts axes 2-3

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Exploded view

The figure shows the technical design of the axes 2-3 shafts for robot variant IRB 6660 - 130/3.1 and IRB 6660 - 100/3.3.

The only difference in robot variant IRB 6660 - 205/1.9 are the shafts on axes 2 and 3. See part list above!



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9 Spare parts - upper arm (incl. wrist unit)

Parts list

Item	Description	Spare part number	Article number	Color	Qty.
4	Axis 4 (complete with tube shaft, axis 4-motor, armhouse etc) (IRB 6660 - 100/3.3, IRB 6660-130/3.1)	3HAC060258-001		ABB Orange	
		3HAC060258-002		Graphite White	
	Axis 4 (complete with tube shaft, axis 4-motor, armhouse etc) (IRB 6660-205/1.9)	3HAC060258-003		ABB Orange	
		3HAC060258-004		Graphite White	
-	Tube shaft	3HAC058099-001		Graphite White	
	Tube shaft	3HAC058099-002		ABB Orange	
5.3	Rotating ac motor (incl. pinion)	3HAC057547-003		ABB Orange	1
	Rotating ac motor (incl. pinion)	3HAC057547-004		Graphite White	
-	Wheel unit ax4 225 kg	3HAC037677-001			1
5.4	Arm extender 450 mm (IRB 6660 - 100/3.3, IRB 6660-130/3.1)	3HAC038666-003		ABB Orange	1
	Arm extender 450 mm (IRB 6660 - 100/3.3, IRB 6660-130/3.1)	3HAC050495-001		Graphite White	1
5.5	Arm extender 250 mm (IRB 6660 - 100/3.3)	3HAC038665-003		ABB Orange	1
	Arm extender 250 mm (IRB 6660 - 100/3.3)	3HAC038665-004		Graphite White	1
6	Wrist unit (IRB 6660 - 100/3.3, IRB 6660-130/3.1)	3HAC058107-001	3HAC026679-001	Graphite White	1
	Wrist unit (IRB 6660 - 100/3.3, IRB 6660-130/3.1)	3HAC058107-002	3HAC026679-001	ABB Orange	
	Wrist unit, foundry (IRB 6660-205/1.9)	3HAC055418-001	3HAC8114-5	ABB Orange	1
	Wrist unit, foundry (IRB 6660-205/1.9)	3HAC050025-004	3HAC8114-5	Graphite White	1
-	Axis 6, complete	3HAC058994-003		ABB Orange	1
		3HAC058994-004		Graphite White	1
6.1.29	Cover with gasket		3HAC8081-8		1
6.1.30	Wrist cover, Std/Foundry	3HAC022172-003		ABB Orange	1
	Cable cover, Clean Room	3HAC022172-004		White	
6.2	Rotating ac motor (pinion not included)	3HAC057547-003			1
6.4.1	Turning disc	3HAC055229-001			1

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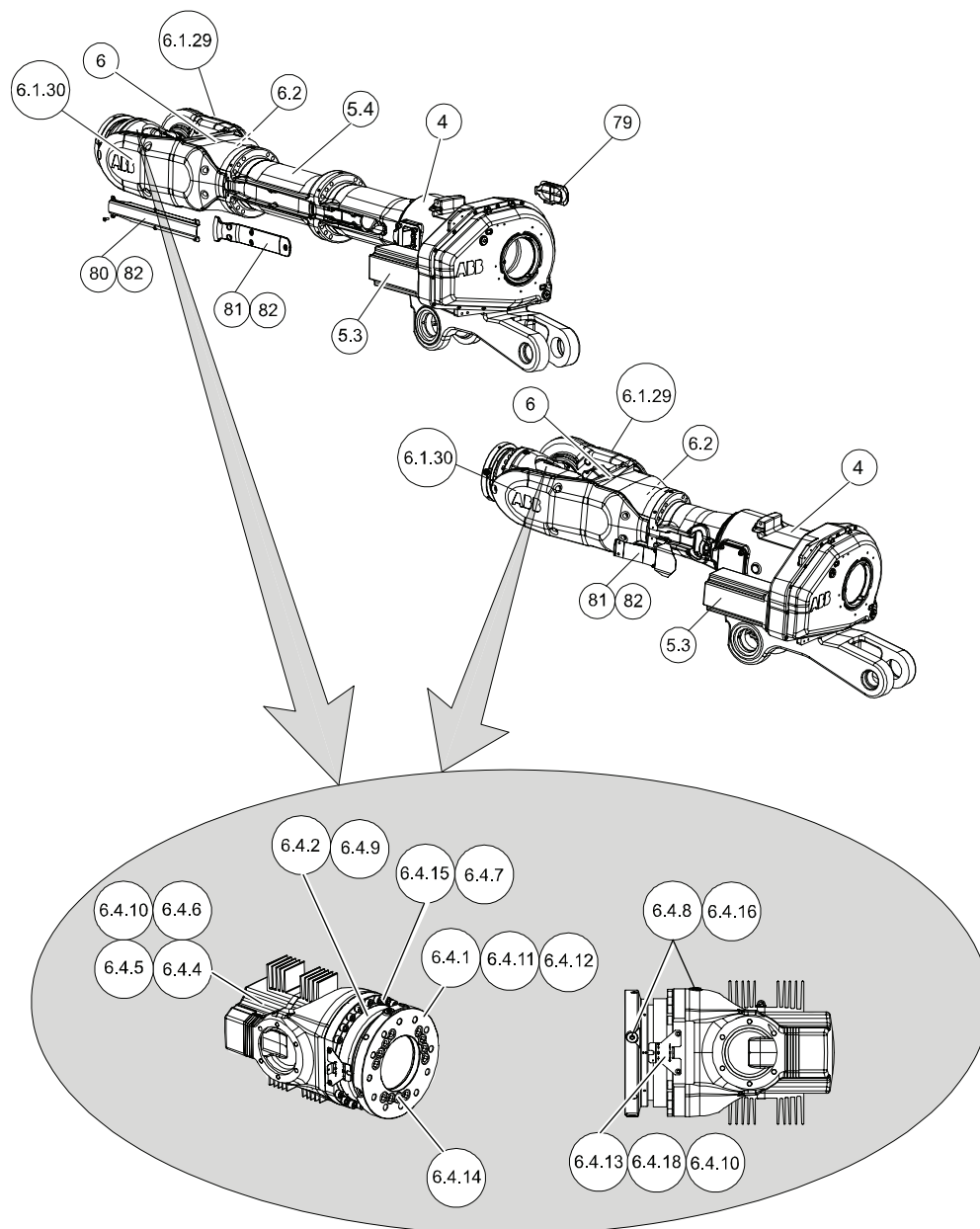
9 Spare parts - upper arm (incl. wrist unit)

Continued

Item	Description	Spare part number	Article number	Color	Qty.
6.4.2	RV 70E-118.5	3HAC028121-004		ABB Orange	
	RV 70E-118.5	3HAC028121-005		Graphite White	
	RV 70F-125.8	3HAC037635-002		ABB Orange	
	RV 70F-125.8	3HAC037635-005		Graphite White	
6.4.4	Rotating ac motor (incl. pinion)	3HAC057547-003		ABB Orange	1
	Rotating ac motor (incl. pinion)	3HAC057547-004		Graphite White	1
	Rotating ac motor (incl. pinion)	3HAC057549-003		ABB Orange	
	Rotating ac motor (incl. pinion)	3HAC057549-004		Graphite White	
-	Gasket motor axis 6	3HAC048560-001			2 pcs
6.4.5	Plain washer 8.4x16x1.6		9ADA312-7		4 pcs
6.4.6	Hex socket head cap screw M8x25 quality 8.8-A2F		9ADA183-37		4 pcs
6.4.7	Washer 8.4x13x1.5		3HAA1001-172		18 pcs
6.4.8	Magnetic plug		3HAC037925-001		2 pcs
6.4.9	Lubrication oil	Type of oil and amount is detailed in <i>Technical refer- ence manual - Lub- rication in gear- boxes.</i>	-		-
6.4.10	Locking liquid (Loctite 243)		3HAC7181-1		2 ml
6.4.11	O-ring 150.0x2.0		3HAB3772-64		1
6.4.12	O-ring 13.1x1.6		3HAB3772-61		12 pcs
6.4.13	Synchronization plate		3HAC025581-001		1
6.4.14	Hex socket head cap screw M12x30 quality 12.9 Gleitmo 610		-		12 pcs
6.4.15	Hex socket head cap screw M8x40 quality 12.9 Gleitmo 610		3HAB3409-40		18 pcs
6.4.16	Washer 13.5x18x1.5		21520441-1		2 pcs
6.4.18	Torx pan head screw, M4x8 quality 8.8-A2F		9ADA618-32		2 pcs
79	Cover		3HAC4237-1		1
80	Cable cover 450 mm (IRB 6660 - 100/3.3, IRB 6660 - 130/3.1)		3HAC9760-10		1
81	Cable cover (IRB 6660 - 100/3.3, IRB 6660 - 130/3.1)		3HAC12844-2	ABB Orange	1
	Cable cover (IRB 6660 - 100/3.3, IRB 6660 - 130/3.1)		3HAC050653-001	Graphite White	
82	Torx pan head screw M6x16 quality 8.8-A2F		9ADA618-56		15 pcs
93	Cable cover 250 mm		3HAC9760-9		

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Exploded view IRB 6660-130/3.1, IRB 6660-205/1.9



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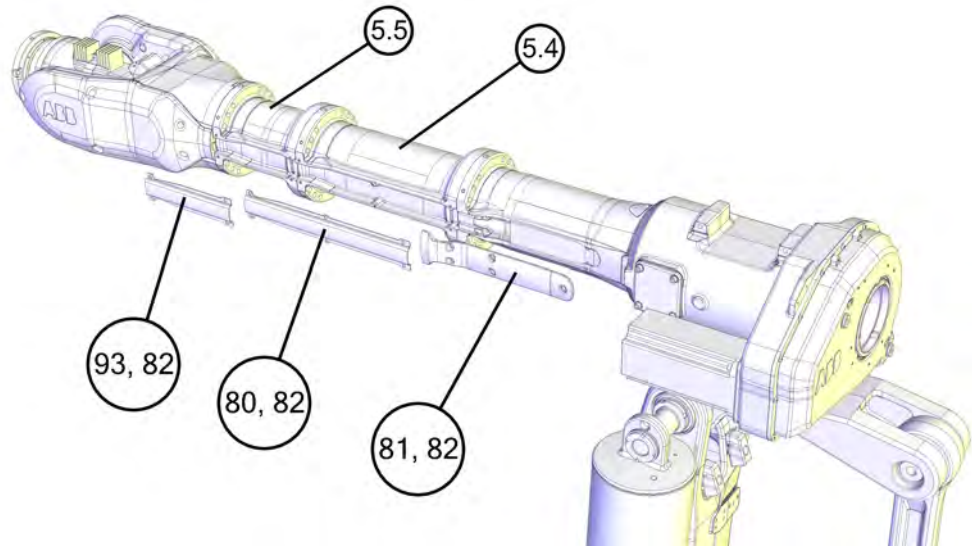
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9 Spare parts - upper arm (incl. wrist unit)

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Exploded view IRB 6660 - 100/3.3

Also see previous figure.



10 Spare parts - labels

Parts list

Item	Article number	Description	Qty
-	3HAC021505-003	Oil labels	1

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11 Spare parts - options

Parts list

All components required for installation of optional equipment, such as cabling, extra attachment plates etc. are listed in the installation procedure for the equipment. The table below points out where the installation procedure for the equipment is detailed.

Option number	Equipment	Installation is detailed in:
159-1	Fork lift set, including all required equipment	<i>Lifting robot with fork lift in Product manual - IRB 6660</i>
87-1	Cooling fan, axis 1	<i>Installation of cooling fan for motors, axes 1 and 2 in Product manual - IRB 6660</i>
-	Cabling, cooling fan axis 1	-
29-2	Mechanical stop for axis 1, 7.5°	<i>Mechanically restricting the working range of axis 1 in Product manual - IRB 6660</i>
29-1	Mechanical stop for axis 1, 15°	<i>Mechanically restricting the working range of axis 1 in Product manual - IRB 6660</i>
213-1	Signal lamp	-
37-1	Base plate	<i>Securing the base plate in Product manual - IRB 6660</i>

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12 Retrofit kit, Foundry

Standard manipulator

Qty	Art. number	Description	Dimension
1	3HAC046680-001	Retrofit kit, Foundry	
1		Cable cover , stainless steel	
1		Gasket, cable cover	
9		Torx pan head screw	M6x16
2		Prev. torque nut, M8	
2		Distance M8	
1		Gasket, wristhouse cover	
1 ml		Loctite 2400	

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