

ROBOTICS

Product manual, spare parts

IRB 660



Trace back information:
Workspace 22C version a9
Checked in 2022-09-28
Skribenta version 5.5.019

Product manual, spare parts

IRB 660 - 180/3.15

IRB 660 - 250/3.15

IRC5, OmniCore

Document ID: 3HAC049102-001

Revision: G

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Keep for future reference.

Additional copies of this manual may be obtained from ABB.

Original instructions.

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Overview of this manual

About this manual

This manual contains spare parts for:

- IRB 660 and all its variants.

Usage

This manual shall be used as a complement to the product manual for IRB 660 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 660</i> | <i>3HAC025755-001</i> |
| <i>Circuit diagram - IRB 660</i> | <i>3HAC025691-001</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. |
| B | This revision includes the following updates: <ul style="list-style-type: none"> • Generally modified due to update of BOL. |
| 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. |

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Overview of this manual

Continued

| Revision | Description |
|----------|---|
| | <ul style="list-style-type: none">• Updated spare parts due to new standard calibration method (Axis Calibration).<ul style="list-style-type: none">- Base- Frame- Lower arm- Parallel arm- Tilt house- Block for calibration• Updated spare parts due to sealing upgrade in the motors:<ul style="list-style-type: none">- Motors- Tilt house |
| D | Published in release R18.1. The following updates are done in this revision: <ul style="list-style-type: none">• Updated spare parts for brake release boards (was DSQC563).• Added new location of base attachment plate for customer harness.• Added article number for the axis-1 position switch set. |
| E | Published in release R20D. The following updates are done in this revision: <ul style="list-style-type: none">• Added customer cable harness Paramulti (with Ethernet). |
| F | Published in release R21A. The following updates are done in this revision: <ul style="list-style-type: none">• Tool number changed for <i>Turning disc</i> item 508.6. See Spare parts - tilt house on page 27 |
| G | Published in release R22C. The following updates are done in this revision: <ul style="list-style-type: none">• Added information for the OmniCore robot controller. |

Product documentation

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.



Tip

All documents can be found via myABB Business Portal, www.abb.com/myABB.

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.
- Troubleshooting
- Decommissioning.
- Reference information (safety standards, unit conversions, screw joints, lists of tools).
- Spare parts list with corresponding figures (or references to separate spare parts lists).
- References to circuit diagrams.

Technical reference manuals

The technical reference manuals describe reference information for robotics products, for example lubrication, the RAPID language, and system parameters.

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, software).
- How to install included or required hardware.
- How to use the application.

Continues on next page

- 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 troubleshooters.

1 Spare parts - frame to base

Parts list

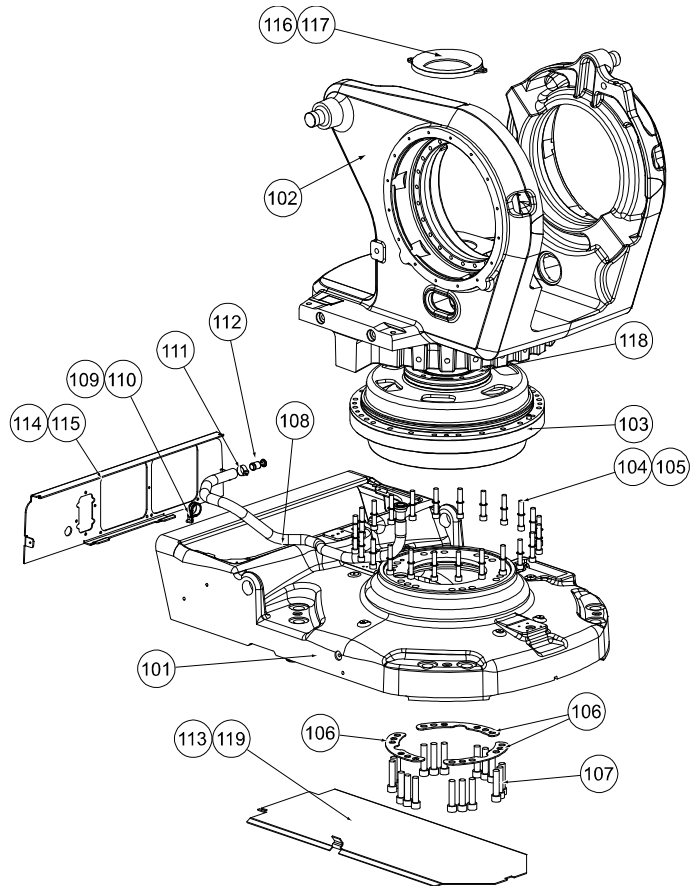
| Pos | Description | Article no. | Color | Qty |
|-----|--------------------------|----------------|----------------|-----|
| 101 | Base, machining | 3HAC059481-002 | Graphite White | 1 |
| | | 3HAC059481-001 | ABB Orange | 1 |
| | | 3HAC059481-003 | White RAL 9003 | 1 |
| 102 | Frame | 3HAC037559-007 | Graphite White | 1 |
| | | 3HAC037559-008 | ABB Orange | 1 |
| | | 3HAC037559-009 | White RAL 9003 | 1 |
| 103 | RV 400C-224.26 | 3HAC022279-002 | | 1 |
| 104 | Screw M12x70 | 3HAB 3409-73 | | 24 |
| 105 | Washer 13x19x1.5 | 3HAA 1001-134 | | 24 |
| 106 | Washer T = 3 | 3HAC 11732-2 | | 3 |
| 107 | Screw M16x70 | 3HAB 3409-88 | | 18 |
| 108 | Hose with flange | 3HAC 14453-1 | | 1 |
| 109 | Rubber lined clip D = 28 | 3HAC 11529-1 | | 1 |
| 110 | Screw M6x16 | 9ADA 618-56 | | 1 |
| 111 | Hose clip | 3HAC 4428-2 | | 1 |
| 112 | Plug | 3HAC 14453-2 | | 1 |
| 113 | Bottom plate | 3HAC 12252-1 | | 1 |
| 114 | Connection plate, base | 3HAC 14131-1 | | 1 |
| 115 | Screw M6x25 | 9ADA 618-58 | | 2 |
| 116 | Cable guide, ax. 1 | 3HAC 11769-1 | | 1 |
| 117 | Screw M6x16 | 9ADA 618-56 | | 2 |
| 118 | Sealing strip | 3HAC042556-001 | | - |
| 119 | Screw M6x8 | 9ADA 618-53 | | 1 |

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1 Spare parts - frame to base

Continued

Exploded view



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2 Spare parts - cable harness

Parts list

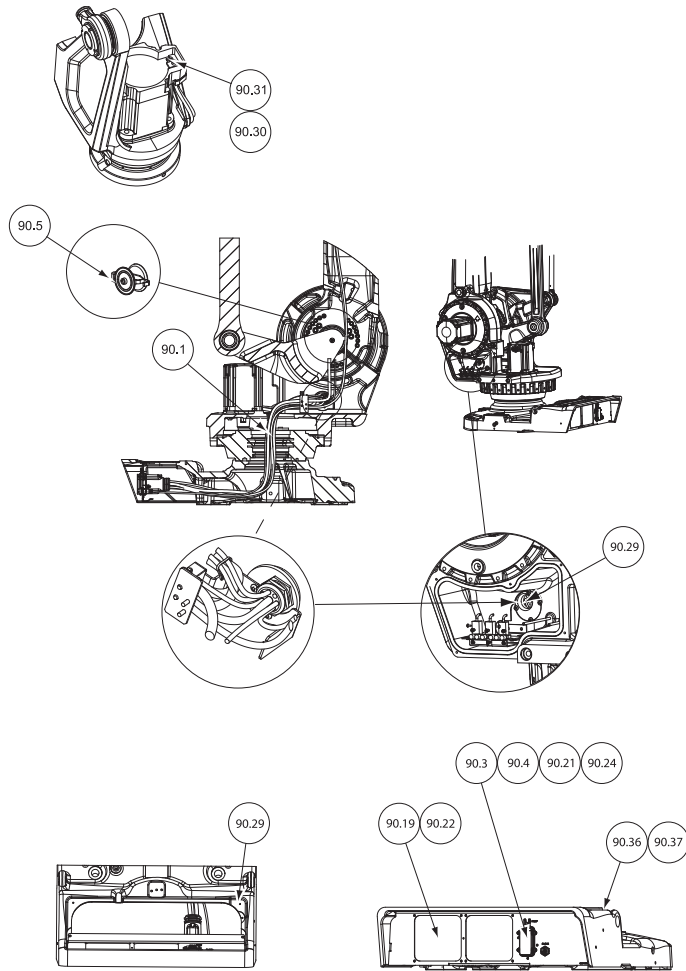
| Item | Article no. | Description | Qty |
|-------|----------------|---------------------------|-----|
| 90.1 | 3HAC022544-008 | Cable harness, man ax.1-6 | 1 |
| 90.3 | 3HAC 13416-1 | Protection cover | 1 |
| 90.4 | 3HAC 11774-3 | Adapter, complete | 1 |
| 90.5 | 3HAC 5172-1 | Cable guide, ax.2 | 1 |
| 90.19 | 3HAC 12129-1 | Cover plate | 2 |
| 90.21 | 9ADA 618-57 | Screw M6x20 | 2 |
| 90.22 | 9ADA 183-24 | Screw M6x16 | 12 |
| 90.24 | 9ADA 618-56 | Screw M6x16 | 4 |
| 90.29 | 9ADA 629-56 | Screw M6x16 | 6 |
| 90.30 | 9ADA 183-25 | Screw M6x20 | 4 |
| 90.31 | 3HAC7181-1 | Loctite 243 | - |
| 90.36 | 3HAC 14222-1 | Plate | 1 |
| 90.37 | 9ADA 618-57 | Screw M6x20 | 4 |

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2 Spare parts - cable harness

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Exploded view



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3 Spare parts - customer harness

Parts list

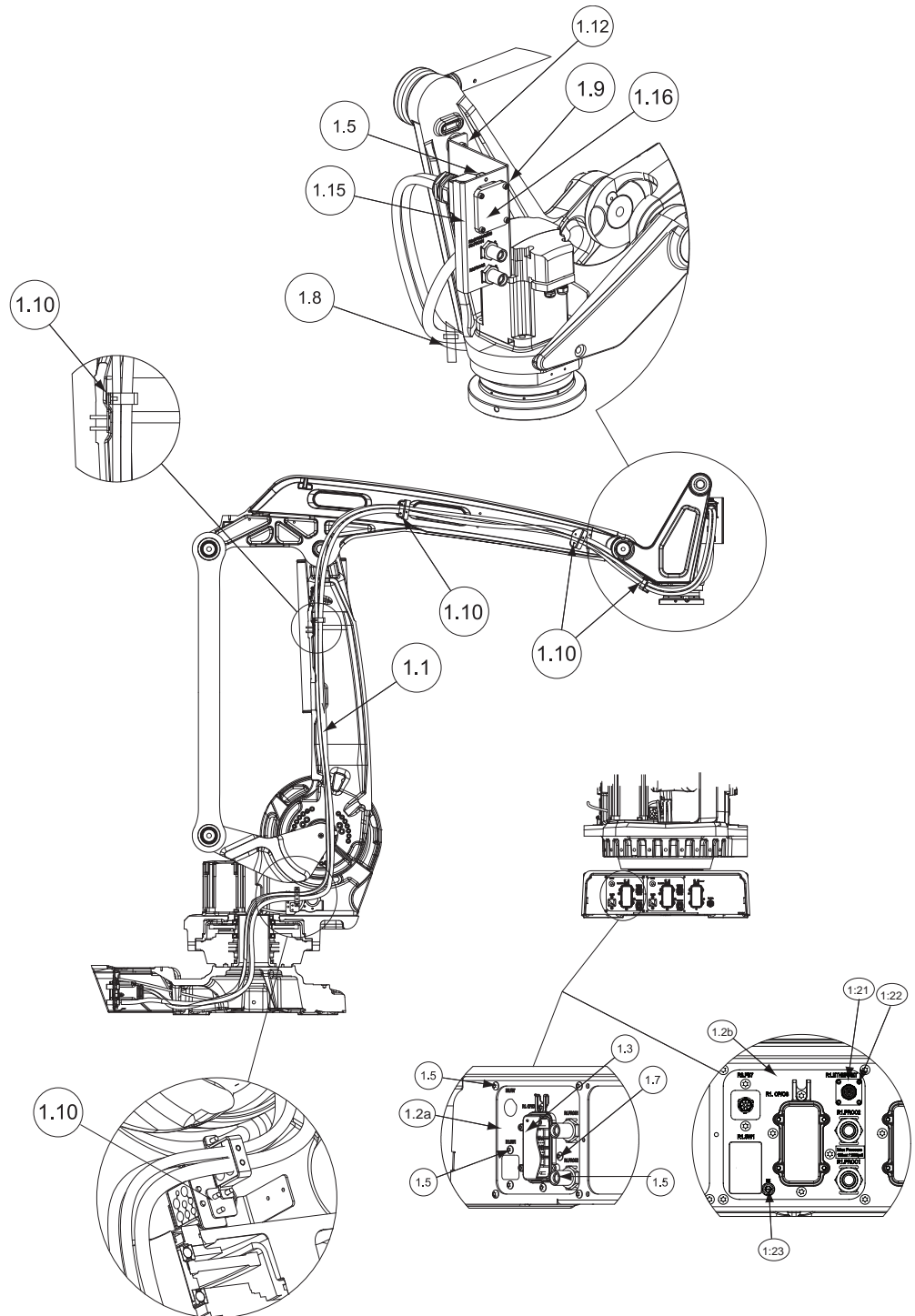
| Pos | Article no. | Description | Qty |
|------|----------------|---|-----------|
| 1.1 | 3HAC022545-007 | Cable harness, customer | 1 |
| 1.1 | 3HAC067238-001 | Cable harness, customer, Paramulti | 1 |
| | 3HAC047344-001 | Connector kit, Ethernet on base | 1 |
| | 3HAC077657-001 | Connector kit, Ethernet on arm house | 1 |
| 1.2a | 3HAC030090-001 | Attachment plate | 1 |
| 1.2b | 3HAC030090-002 | Attachment plate, Paramulti (Ethernet) | 1 |
| 1:23 | 3HAC052233-001 | Screw connection, FE | 1 |
| 1:21 | 3HAC033751-001 | Bracket, Profinet | 2 |
| 1:22 | 9ADA618-23 | Torx pan head screw Steel 8.8-A2F M3x8 | 4/bracket |
| 1.3 | 3HAC13416-1 | Protection cover | 1 |
| 1.4 | 3HAC11774-3 | Adapter, complete | 1 |
| 1.5 | 9ADA183-24 | Screw M6x16 | 4 |
| 1.7 | 9ADA618-57 | Screw M6x20 | 4 |
| 1.8 | 3HAC12625-1 | Strap, Velcro M5x300 | 1 |
| 1.9 | 9ADA183-15 | Screw M5x20 | 6 |
| 1.10 | 9ADA267-6 | Nut | 10 |
| 1.12 | 9ADA183-34 | Screw M8x12 | 2 |
| 1.15 | 3HAC022969-001 | Bracket | 1 |
| 1.16 | 3HAC023100-001 | Cover plate | 1 |

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3 Spare parts - customer harness

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Exploded view



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4 Spare parts - lower arm system

Parts list

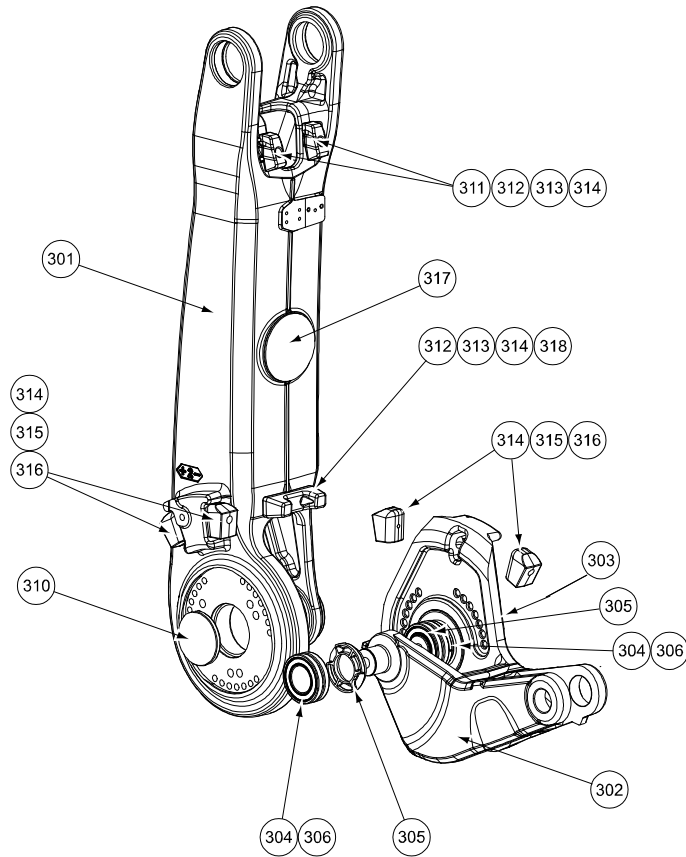
| Pos | Description | Article no. | Color | Qty |
|-----|--|----------------|----------------|-----|
| 301 | Lower arm | 3HAC021464-007 | White RAL 9003 | 1 |
| | | 3HAC021464-005 | Graphite White | 1 |
| | | 3HAC021464-006 | ABB Orange | 1 |
| 302 | Parallel arm | 3HAC023026-006 | White RAL 9003 | 1 |
| | | 3HAC023026-004 | Graphite White | 1 |
| | | 3HAC023026-005 | ABB Orange | 1 |
| 303 | VK-Cover, VK 35x8 (Not visible in this figure.) | 3HAA2166-18 | | 1 |
| 304 | Alvania WR2 | 3HAC042536-001 | | - |
| 305 | Spacing sleeve | 3HAC4435-1 | | 2 |
| 306 | Sealed spherical bearing | 3HAB4169-1 | | 2 |
| 310 | VK-cover, VK 120x12 | 3HAA2166-23 | | 1 |
| 311 | Damper | 3HAC022338-001 | | 2 |
| 312 | Screw M8x25 | 9ADA183-37 | | 4 |
| 313 | Plain washer 8,4x16x1,6 | 9ADA312-7 | | 4 |
| 314 | Loctite 243 | 3HAC7181-1 | | - |
| 315 | Damper ax.2 | 3HAC12991-1 | | 3 |
| 316 | Screw M6x20 | 9ADA618-57 | | 3 |
| 317 | Protection plug | 3HAC4836-8 | | 1 |
| 318 | Damper | 3HAC022339-001 | | 1 |

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4 Spare parts - lower arm system

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Exploded view



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5 Spare parts - parallel rod

Parts list

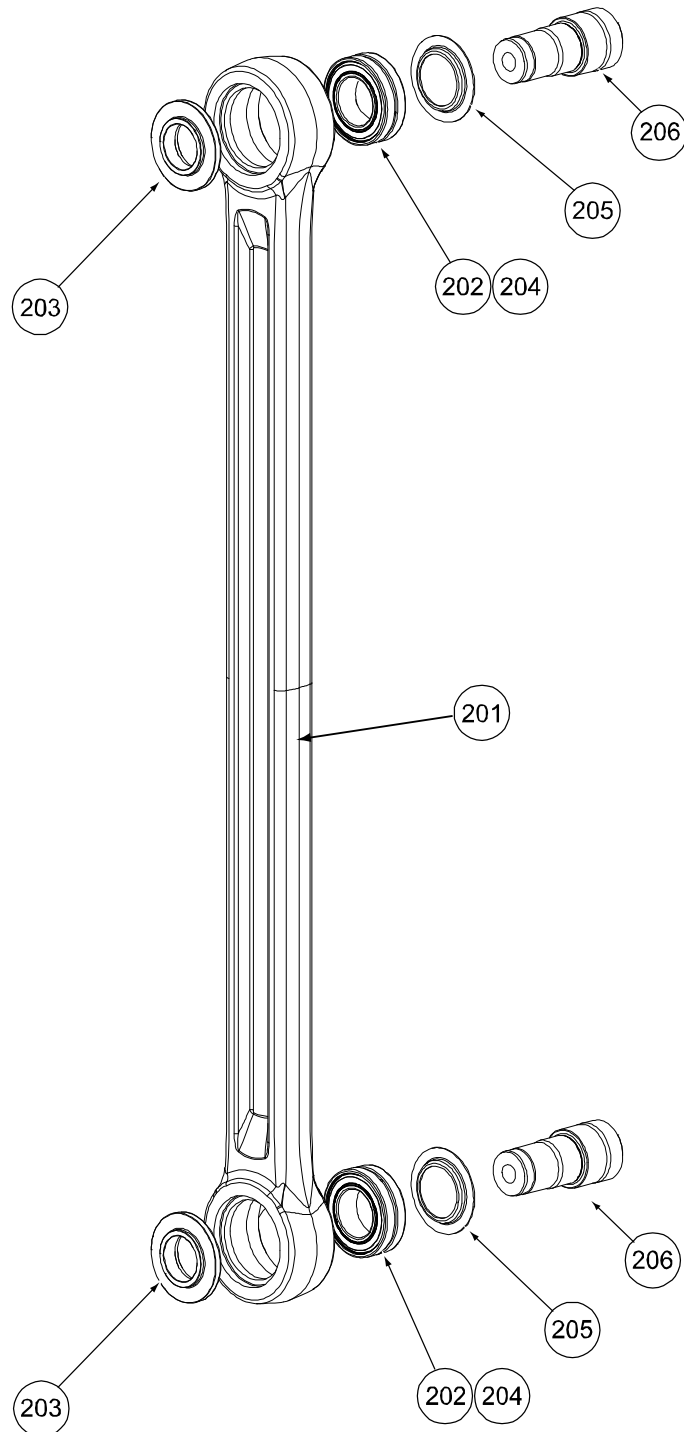
| Pos | Article no. | Description | Qty |
|-----|----------------|-------------------------------|-----|
| 201 | 3HAC021084-004 | Parallel rod (White RAL 9003) | 1 |
| 202 | 3HAC042536-001 | Alvania WR2 | - |
| 203 | 3HAC 4331-1 | Thrust washer | 2 |
| 204 | 3HAC 3715-1 | Sealed spherical bearing | 2 |
| 205 | 3HAC 4332-1 | Cover washer | 2 |
| 206 | 3HAC 4330-1 | Shaft | 2 |

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5 Spare parts - parallel rod

Continued

Exploded view



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6 Spare parts - Balancing device

Parts list

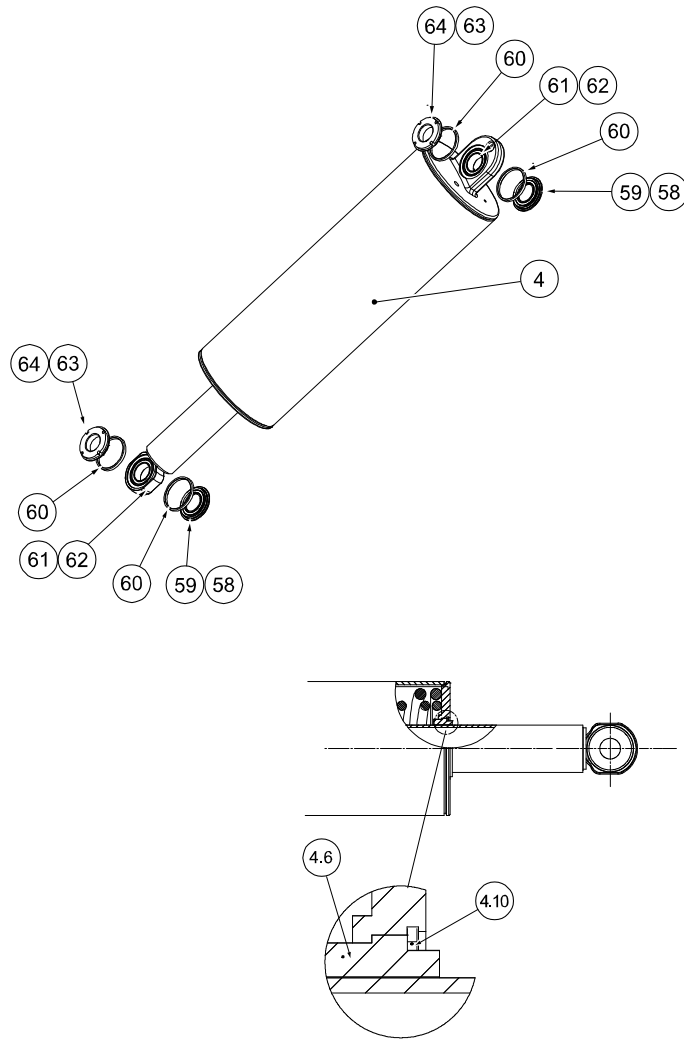
| Pos | Article no. | Description | Color | Qty |
|------|----------------|-----------------------------------|----------------|--------|
| 4 | 3HAC024779-001 | Balancing device (White RAL 9003) | White | 1 |
| 4 | 3HAC024779-002 | Balancing device | ABB Orange | 1 |
| | 3HAC024779-003 | Balancing device | Graphite White | 1 |
| 4.6 | 3HAC 3476-1 | Guiding ring | | 1 |
| 4.10 | 3HAC 3530-1 | Circlip | | 1 |
| 58 | 3HAC042475-001 | Sealing compound | | 200 ml |
| 59 | 3HAC 7343-1 | Sealing ring | | 2 |
| 60 | 3HAC 7253-1 | Support washer | | 4 |
| 61 | 3HAC 3311-4 | Adjust. Needle bearing | | 2 |
| 62 | 3HAC042536-001 | Alvania RW2 | | 10 g |
| 63 | 3HAC 7349-1 | Lock nut | | 2 |
| 64 | 3HAC 7181-1 | Loctite 243 | | - |

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6 Spare parts - Balancing device

Continued

Exploded view



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7 Spare parts - frame to lower arm

Parts list

| Pos | Description | Article number | Color | Qty. |
|-----|-------------------------------|----------------|----------------|-----------|
| 11 | Sealing ax.2/3 | 3HAC022379-001 | | 1 |
| 12 | Washer 13x19x1,5 | 3HAA 1001-134 | | 24 |
| 13 | Screw M12x60 | 3HAB 3409-71 | | 24 |
| 14 | RV-450E | 3HAC022644-001 | | 1 |
| 15 | O-ring | 3HAB 3772-84 | | 1 |
| 16 | Plain washer 8,4x16x1,6 | 9ADA 312-7 | | 16 |
| 17 | Screw M8x35 | 9ADA 183-39 | | 16 |
| 18 | Cover, machined | 3HAC021663-004 | Graphite White | 1 |
| | | 3HAC021663-006 | ABB Orange | 1 |
| 19 | Washer | 3HAB 4233-1 | | 4 |
| 20 | Screw M10x40 | 3HAB 3409-50 | | 4 |
| 21 | Motor including pinion axis 2 | 3HAC058991-004 | Graphite White | 1 |
| | | 3HAC058991-003 | ABB Orange | 1 |
| | | 3HAC058991-005 | White RAL 9003 | 1 |
| 22 | Sealing ax.2/3 | 3HAC022379-001 | | 1 |
| 23 | RV-450E ax.3 | 3HAC022644-001 | | 1 |
| 24 | Screw M12x60 | 3HAB 3409-71 | | 24 |
| 25 | Washer 13x19x1,5 | 3HAA 1001-134 | | 24 |
| 26 | Cover, machined | 3HAC021663-004 | Graphite White | 1 |
| | | 3HAC021663-006 | ABB Orange | 1 |
| 27 | Screw M8x35 | 9ADA 183-39 | | 16 |
| 28 | Plain washer 8,4x16x1,6 | 9ADA 312-7 | | 16 |
| 29 | O-ring | 3HAB 3772-84 | | 1 |
| 30 | Motor including pinion axis 3 | 3HAC058991-004 | Graphite White | 1 |
| | | 3HAC058991-003 | ABB Orange | 1 |
| | | 3HAC058991-005 | White RAL 9003 | 1 |
| 31 | Screw M10x40 | 3HAB 3409-50 | | 4 |
| 32 | Washer | 3HAB 4233-1 | | 4 |
| 33 | Screw M16x60 | 3HAB 3409-86 | | 6 |
| 34 | Washer 17x25x3 | 3HAA 1001-186 | | 6 |
| 35 | Screw M12x50 | 3HAB 7700-69 | | 21 |
| 36 | Washer 13x19x1,5 | 3HAA 1001-134 | | 21 |
| 37 | Screw M12x50 | 3HAB 7700-69 | | 21 |
| 38 | Washer 13x19x1,5 | 3HAA 1001-134 | | 21 |
| 39 | Kyodo Yushi TMO 150 | 3HAC032140-004 | | 20 000 ml |

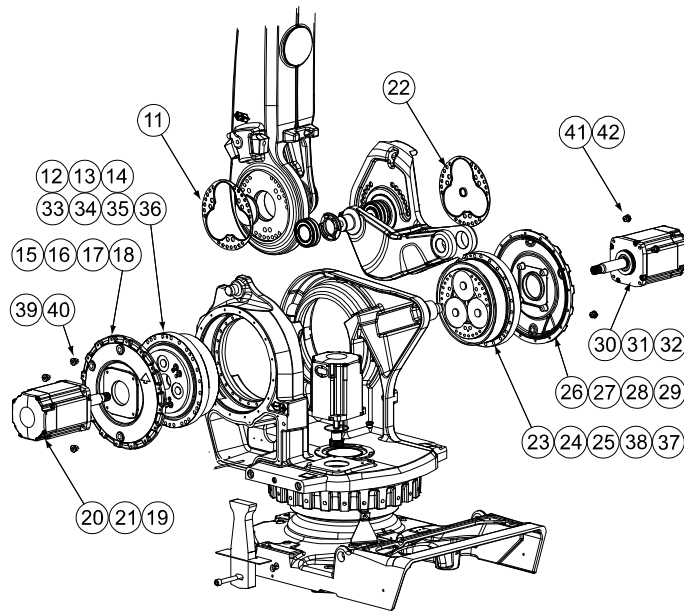
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7 Spare parts - frame to lower arm

Continued

| Pos | Description | Article number | Color | Qty. |
|-----|---------------------|----------------|-------|-----------|
| 40 | Magnetic plug | 3HAC 16721-1 | | 3 |
| 41 | Magnetic plug | 3HAC 16721-1 | | 3 |
| 42 | Kyodo Yushi TMO 150 | 3HAC032140-004 | | 20 000 ml |

Exploded view



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8 Spare parts - shafts

Parts list

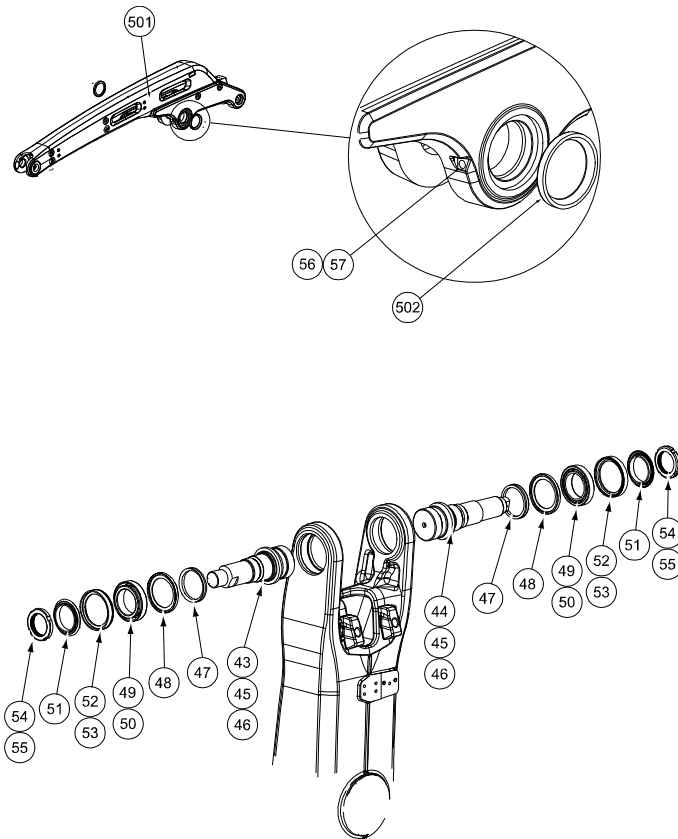
| Pos | Article no. | Description | Color | Qty |
|-----|-----------------|----------------------|----------------|-----|
| 501 | 3HAC025525-002 | Upper arm machining | ABB Orange | 1 |
| | 3HAC025525-003 | Upper arm machining | Graphite White | 1 |
| 502 | 3HAA 1001-124 | Support ring | | 2 |
| 43 | 3HAC 4545-1 | Shaft | | 1 |
| 44 | 3HAC 022446-001 | Shaft | | 1 |
| 45 | 3HAC042472-001 | Molycote 1000 | | - |
| 46 | 3HAB 3772-29 | O-ring | | 2 |
| 47 | 2216 264-16 | Sealing ring | | 2 |
| 48 | 3HAC 022581-001 | Sealing ring | | 2 |
| 49 | 3HAC042536-001 | Alvania RW2 | | - |
| 50 | 2213 3802-8 | Taper roller bearing | | 2 |
| 51 | 3HAC 7817-1 | Nilos ring | | 2 |
| 52 | 3HAC 6627-1 | Spacer | | 2 |
| 53 | 3HAA 1001-658 | O-ring | | 2 |
| 54 | 3HAC 7181-1 | Loctite 243 | | - |
| 55 | 2126 2851-112 | Lock nut | | 2 |
| 56 | 9ADA 205-75 | Screw M10x20 | | 2 |
| 57 | 3HAC 7181-1 | Loctite 243 | | - |

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8 Spare parts - shafts

Continued

Exploded view



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9 Spare parts - tilthouse

Parts list

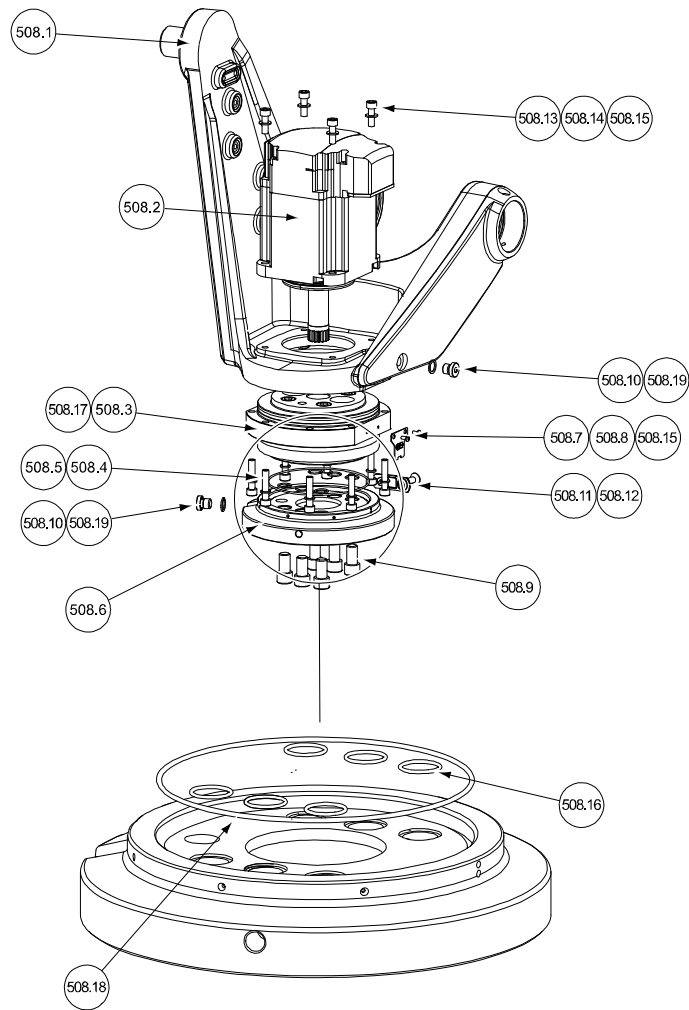
| Pos | Description | Article no. | Color | Qty |
|--------|-------------------------------|----------------|----------------|-----------|
| 508.1 | Tilthouse complete | 3HAC022764-007 | White RAL 9003 | 1 |
| | | 3HAC022764-008 | ABB Orange | |
| | | 3HAC022764-009 | Graphite White | |
| 508.2 | Motor including pinion axis 6 | 3HAC057980-006 | White RAL 9003 | 1 |
| | | 3HAC057980-003 | ABB Orange | |
| | | 3HAC057980-004 | Graphite White | |
| 508.3 | Gearbox RV 40E-81 | 3HAC037835-001 | | 1 |
| 508.4 | Screw M8x40 | 3HAB7700-55 | | 8 |
| 508.5 | Washer 8.4x13x1.5 | 3HAA1001-172 | | 8 |
| 508.6 | Turning disc | 3HAC055334-002 | | 1 |
| 508.7 | Sync.plate | 3HAC022977-001 | | 1 |
| 508.8 | Screw M4x8 | 9ADA618-32 | | 2 |
| 508.9 | Screw M14x25 | 21212518-577 | | 6 |
| 508.10 | Magnetic plug | 3HAC037925-001 | | 2 |
| 508.11 | Screw M8x20 | 9ADA624-69 | | 2 |
| 508.12 | Protection Cover | 3HAC14263-1 | | 1 |
| 508.13 | Screw M8x25 | 9ADA183-37 | | 4 |
| 508.14 | Plain washer 8,4x16x1,6 | 9ADA312-7 | | 4 |
| 508.15 | Loctite 243 | 3HAC7181-1 | | 1 ml |
| 508.16 | O-ring 15.5x1.5 | 21520431-20 | | 6 |
| 508.17 | Kyodo Yushi TMO 150 | 3HAC032140-004 | | 20 000 ml |
| 508.18 | O-ring 131x2 | 3HAB3772-65 | | 1 |
| 508.19 | Washer | 21520441-1 | | 2 |

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9 Spare parts - tilthouse

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Exploded view



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10 Spare parts - upper arm front

Parts list

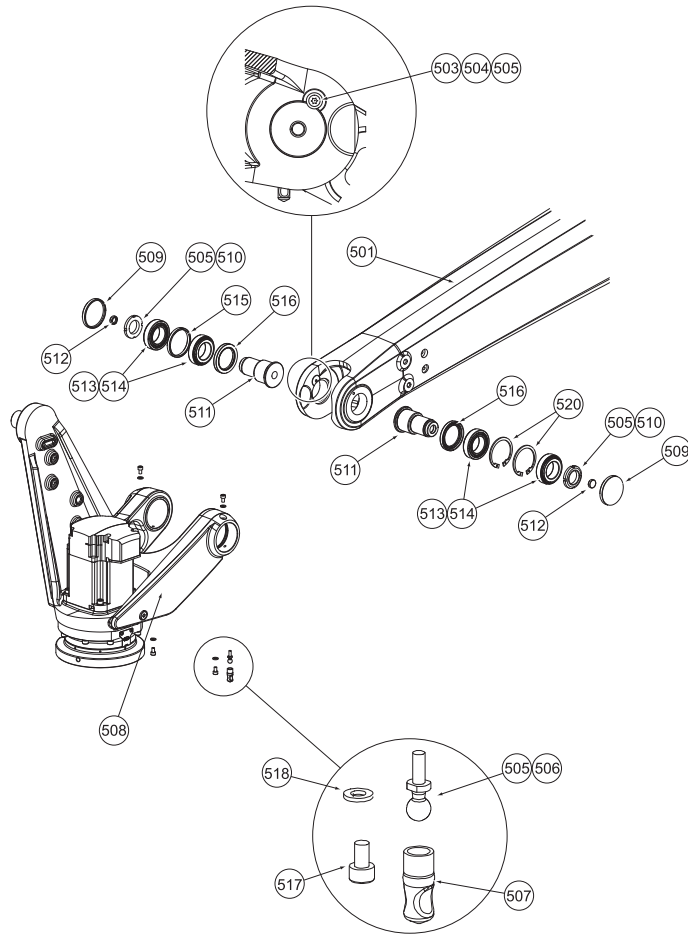
| Pos | Article no. | Description | Qty |
|-----|----------------|--------------------------------------|-----|
| 501 | 3HAC025525-001 | Upper arm machining (White RAL 9003) | 1 |
| 503 | 9ADA 629-56 | Screw M6x16 | 2 |
| 504 | 9ADA 327-4 | Plain washer 6,4x17x3 | 2 |
| 505 | 3HAC7181-1 | Loctite 243 | - |
| 506 | 3HAC022673-001 | Ball plug | 1 |
| 507 | 3HAC023027-001 | Protection cap | 1 |
| 508 | 3HAC022764-003 | Tilt house | 1 |
| 509 | 3HAA 2166-21 | VK-Cover, VK 68x8 | 2 |
| 510 | 2126 2851-107 | Lock nut | 2 |
| 511 | 3HAC021158-001 | Shaft upper arm | 2 |
| 512 | 3HAA 2166-17 | VK-Cover, VK 19x6 | 2 |
| 513 | 2213 3802-11 | Taper roller bearing | 4 |
| 514 | 3HAC042536-001 | Shell Alvania RW2 | - |
| 515 | 3HAC022645-001 | Ring | 1 |
| 516 | 3HAB 3701-35 | Radial seal w. dustlip 50x68x8 | 2 |
| 517 | 9ADA 183-22 | Screw M6x10 | 4 |
| 518 | 3HAC020537-001 | Washer 6,4x12x1,6 | 4 |
| 520 | 9ABA 137-28 | Retaining ring, bore | 2 |

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10 Spare parts - upper arm front

Continued

Exploded view



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11 Spare parts - Linkage

Parts list

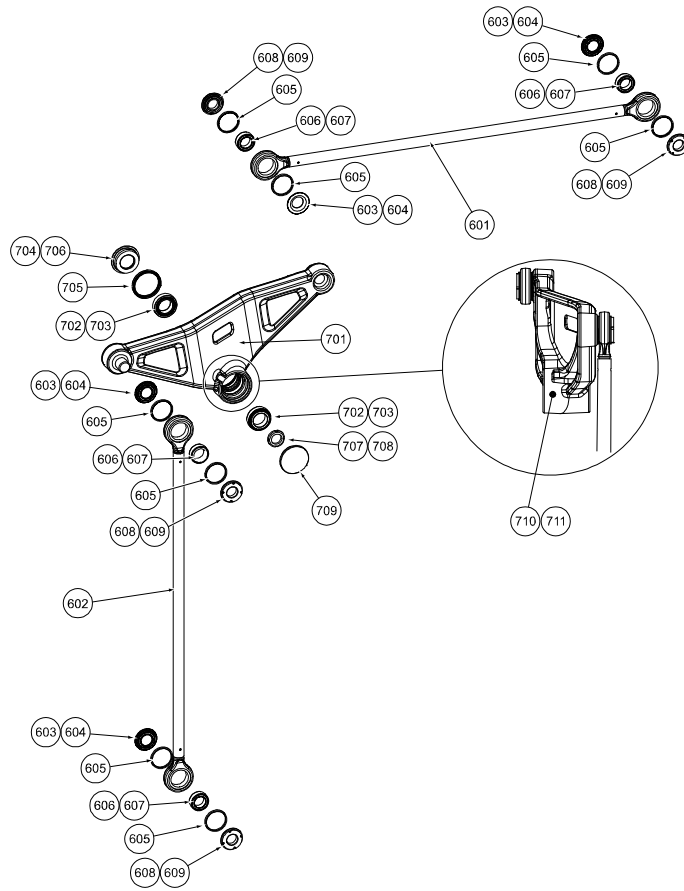
| Pos | Article no. | Description | Color | Qty. |
|-----|----------------|-------------------------------|----------------|------|
| 601 | 3HAC023744-003 | Upper rod (White RAL 9003) | | 1 |
| 602 | 3HAC023239-003 | Lower rod (White RAL 9003) | | 1 |
| 603 | 3HAC042475-001 | Sealing compound Permatex NR3 | | - |
| 604 | 3HAC7343-1 | Ring | | 4 |
| 605 | 3HAC7253-1 | Support washer | | 8 |
| 606 | 3HAC3311-4 | Adjust. needel bearing | | 4 |
| 607 | 3HAC042536-001 | Alvania WR2 | | - |
| 608 | 3HAC7349-1 | Lock nut | | 4 |
| 609 | 3HAC 7181-1 | Loctite 243 | | - |
| 701 | 3HAC021088-004 | Link, machining | ABB Orange | 1 |
| | 3HAC021088-006 | Link, machining | Graphite White | 1 |
| 702 | 3HAA 2103-13 | Taper roller bearing | | 2 |
| 703 | 3HAC042536-001 | Alvania WR2 | | - |
| 704 | 3HAC042475-001 | Sealing compound Permatex NR3 | | - |
| 705 | 3HAB 3702-31 | Radial seal 85x100x9 | | 1 |
| 706 | 3HAC022521-001 | Support Ring | | 1 |
| 707 | 2126 2851-108 | Lock nut | | 1 |
| 708 | 3HAC 7181-1 | Loctite 243 | | - |
| 709 | 3HAA 2166-13 | VK-Cover | | 1 |

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11 Spare parts - Linkage

Continued

Exploded view



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12 Spare parts - motor axis1

Parts list

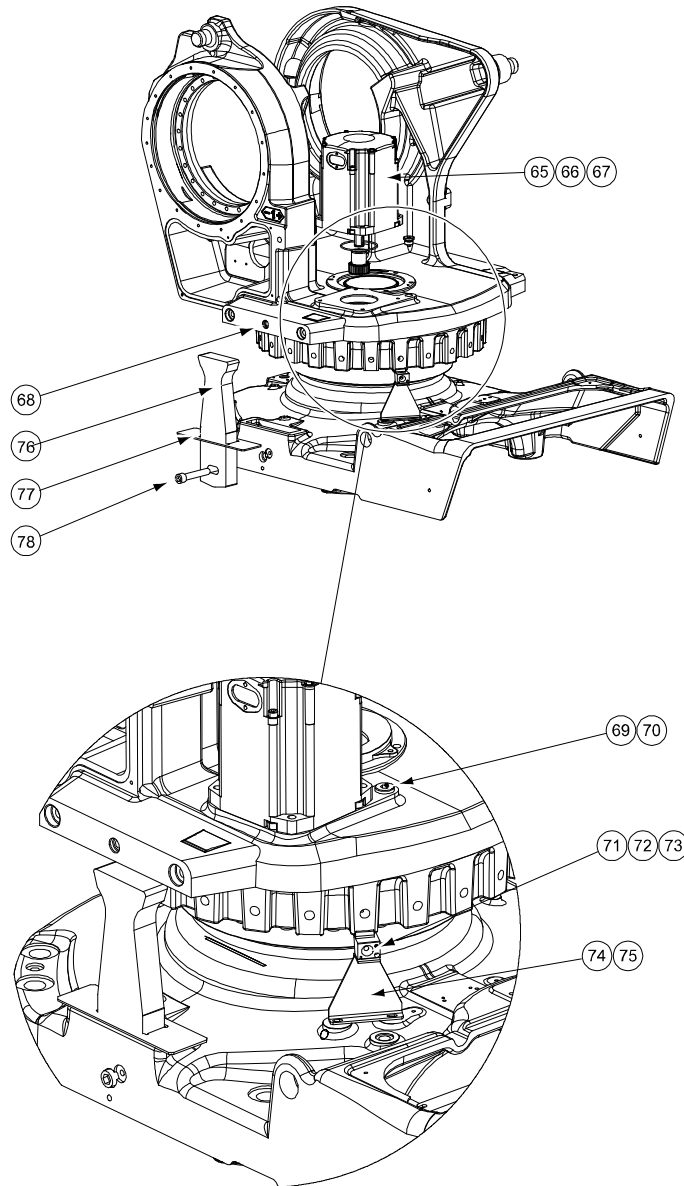
| Pos | Description | Article no. | Color | Qty |
|-----|-------------------------------|----------------|----------------|-----|
| 65 | Motor including pinion axis 1 | 3HAC058990-003 | ABB Orange | 1 |
| | | 3HAC058990-004 | Graphite White | 1 |
| | | 3HAC058990-005 | White | 1 |
| 66 | Screw M10x40 | 3HAB3409-50 | | 4 |
| 67 | Washer | 3HAB4233-1 | | 4 |
| 68 | Magnetic plug | 3HAC037925-001 | | 1 |
| 69 | Magnetic plug | 3HAC16721-1 | | 1 |
| 70 | Kyodo Yushi TMO 150 | 3HAC032140-004 | | - |
| 71 | Block for calibration | 3HAC053973-001 | | 1 |
| 72 | Protection screw | 3HAC14024-1 | | 1 |
| 73 | Screw M6x20 | 9ADA618-57 | | 3 |
| 74 | Synchronization plate | 3HAC021287-001 | | 1 |
| 75 | Screw M6x16 | 9ADA618-56 | | 2 |
| 76 | Mech.stop | 3HAC17358-1 | | 1 |
| 77 | Cover sheet | 3HAC18306-1 | | 1 |
| 78 | Screw M16x90 | 3HAB7700-89 | | 1 |

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12 Spare parts - motor axis1

Continued

Exploded view



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13 Spare parts - SMB

Parts list

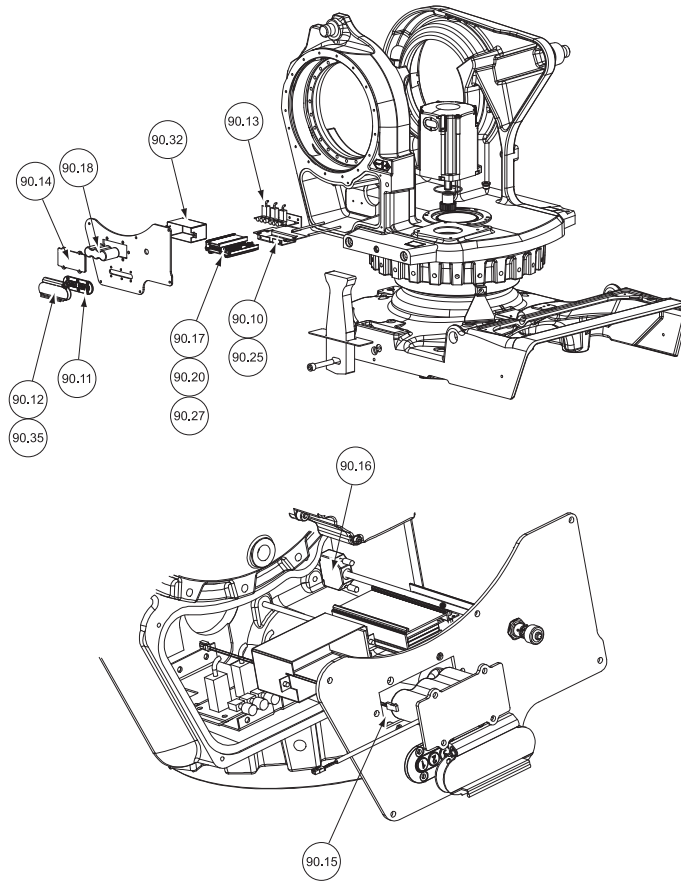
| Pos | Article number | Description | Qty |
|-------|----------------|--|-----|
| 90.9 | 3HAC11526-1 | Stud screw | 2 |
| 90.10 | 3HAC022204-001 | Bracket | 1 |
| 90.11 | 3HAC 2744-1 | Push button guard | 1 |
| 90.12 | 3HAC 4813-1 | Cover, push button guard | 1 |
| 90.13 | 3HAC065020-001 | DSQC1050 Brake release board incl. harness | 1 |
| 90.14 | 3HAC 14791-4 | Cover battery box | 1 |
| 90.15 | 3HAC 13151-1 | Cable battery/SMB Used with battery back 3HAC16831-1. | 1 |
| - | 3HAC046287-001 | Cable battery/SMB Used with battery unit 3HAC044075-001. | 1 |
| 90.16 | 3HAC 15619-1 | Cable, FB7-SMB 1.7 | 1 |
| | 3HAC031851-001 | SMB unit, DSQC 633 | 1 |
| 90.18 | 3HAC044075-001 | Battery unit (3-pole battery contact) Can only be used with SMB unit 3HAC031851-001 | 1 |
| | 3HAC16831-1 | Battery pack (2-pole battery contact) Does not fit SMB unit 3HAC031851-001 | 1 |
| - | 3HAC046686-001 | SMB replacement set | |
| 90.20 | 9ADA 267-6 | Nut M6 | 3 |
| 90.25 | 9ADA 183-13 | Screw M5x12 | 6 |
| 90.27 | 9ADA 312-6 | Plain washer 6.4x12x1.6 | 2 |
| 90.35 | 9ADA 618-45 | Screw M5x16 | 6 |

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13 Spare parts - SMB

Continued

Exploded view



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14 Spare parts - 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 | 3HAC12937-9 |
| - | Position switch, axis 1 Includes position switch and plate set (3HAC025778-001) for customer connections. | 3HAC15715-1 |



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