









X, MC and K Series Base Frame, Motor Swing Base

Edition 06/2007

Assembly Instructions





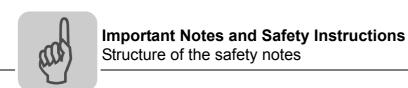
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1 Important Notes and Safety Instructions

1.1 Structure of the safety notes

The safety notes in these operating instructions are designed as follows:

Pictogram

SIGNAL WORD!



Type and source of danger.

 $\label{possible consequence} Possible \ consequence (s) \ if \ the \ safety \ notes \ are \ disregarded.$

• Measure(s) to prevent the danger.

| Pictogram | Signal word | Meaning | Consequences in case of disregard |
|---|------------------------------|---|--|
| Example: | A DANGER! | Imminent danger | Severe or fatal injuries |
| General danger | WARNING! | Possible dangerous situation | Severe or fatal injuries |
| Specific danger, e.g. electric shock | A CAUTION! | Possible dangerous situation | Minor injuries |
| $\langle E_{X} \rangle$ | NOTE ON EXPLOSION PROTECTION | Important note on explosion protection | Suspension of explosion protection and dangers resulting from this |
| STOP | STOP! | Possible damage to property | Damage to the drive system or its environment |
| i | NOTE | Useful information or a tip Simplifies the handling of the drive system | |



Important Notes and Safety Instructions Important Notes



1.2 Important Notes



STOP

This information does not replace the detailed operating instructions.

A **requirement of fault-free operation** and fulfillment of any rights to claim under guarantee is that you **adhere to** the information in the operating instructions. Therefore, **read the operating instructions** before you start operating the unit!



STOP

- Please follow the operating instructions given by the respective coupling manufacturer!
- Make sure that the swing base is not deformed during installation (hazard of damage to gear unit and coupling).



NOTES ON EXPLOSION PROTECTION

Please follow the special operating instructions given by the respective coupling manufacturer!

1.3 Safety Notes

Never install damaged products or take them into operation. Submit a complaint to the shipping company immediately in the event of damage.

During operation, the motors and gears can have live, bare and movable or rotating parts as well as hot surfaces, depending on their enclosure.

Explosive gas mixtures or dust concentrations in combination with hot, energized and moving parts of electrical machinery can cause serious injury or death.

All work related to transportation, putting into storage, setup/mounting, connection, startup, maintenance and repair may only be carried out by qualified personnel observing

- the relevant detailed operating instructions
- · The warning and safety signs on the motor/gearmotor
- all other project planning documents, operating instructions and wiring diagrams belonging to the drive
- · the specific regulations and requirements for the system
- the national/regional regulations governing safety and the prevention of accidents

Removing covers without authorization, improper use as well as incorrect installation or operation may result in severe injuries to persons or damage to machinery.

Consult the documentation for additional information.





Important Notes and Safety Instructions Prerequisites

1.4 Prerequisites

The following prerequisites are necessary before you start installation:

- All components of the drive package, the gear and the motor have to be painted prior to the assembly or they are provided already painted.
- · Refer to the assembly drawing for the individual parts.
- For mounting the couplings, always adhere to the specifications of the relevant coupling manufacturer.
- The gap widths must be set according to the installation instructions of the coupling manufacturer.





2 Procedure

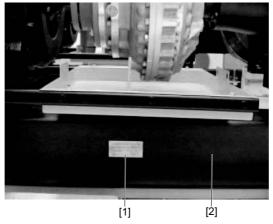


STOP

- Never drive couplings onto the shaft end by hitting them with a hammer (damage to bearings, housing and the shaft!).
- Following assembly, cover the screw connections of motor, gear unit and brake, if installed, with locking compound.
- Generally tighten all screw connections to required tightening torque.

| Screw 8.8 / nut 8.8 | Tightening torque screw / nut [Nm] |
|---------------------|---------------------------------------|
| M8 | 19 |
| M10 | 38 |
| M12 | 67 |
| M16 | 160 |
| M20 | 315 |
| M24 | 540 |
| M30 | 1090 |
| M36 | 1900 |

1. Rivet the nameplate [1] of the hydraulic coupling to the carrier [2] (opposite to the output shaft in the middle of the drive pan). This is not required for the version with mechanical coupling.



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2. Install the coupling for the output end onto the gear unit (depending on the customer order and only if the shaft is a solid shaft).

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WARNING!



Danger of burns due to hot flange coupling. If you install a flange coupling, heat the coupling half to about 250 $^{\circ}$ C.

Fatal injuries.

• Never touch the coupling during the cool down phase!



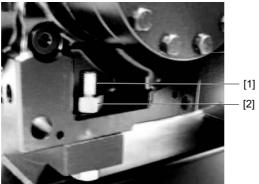
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3. Fasten the gear unit onto the base using screws [1], nuts [2] and spring washers. If requested by the customer, secure using nuts (spring washers are used up to M30, and HV300 washers for M36 and higher).



NOTE

Provide for metallically blank screw joint surfaces. If the coating of such areas is dirty, clean it thoroughly.



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4. Grease the motor shaft end with an assembly paste, such as Never Seez.



5. Mount the coupling on the input side [1] (preheated) onto the motor [2].



NOTE

- If included in the scope of delivery: Push the spacer tube on the shaft.
- If the motor shaft is too short for the driving part of the coupling, a new grub screw has to be cut into the coupling hub. Secure coupling hub on shaft using setscrew.



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6. Mount the coupling on the output side [2] (preheated) onto the gear unit [1].

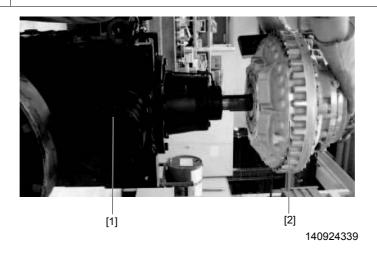


▲ WARNING!

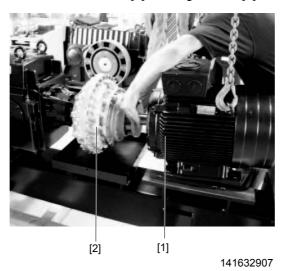
Danger of burns due to hot coupling on the input side. The coupling on the input side is heated to about 80 $^{\circ}\text{C}.$

Fatal injuries.

· Never touch the coupling during the cool down phase!



7. Attach the motor [1] to the gear unit [2].

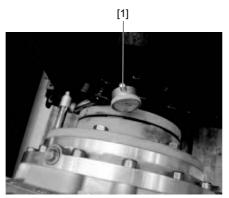


8. Adjust the motor on the base plate by evaluating the radial and face runout. Use a dial indicator [1] or a laser measuring system [2] for this purpose. Radial and face runout can be achieved by adding shims to the motor feet.

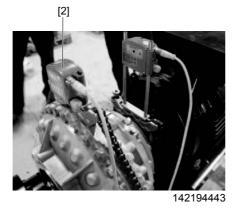


NOTE ON EXPLOSION PROTECTION

Enter the measured end values in the assembly protocol or attach the printout to the drive protocol.



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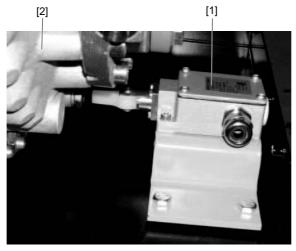
9. Fasten the motor using screws [1], nuts [2] and spring washers. If requested by the customer, secure using nuts.



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10.An initiator is installed if required by the customer:

Make sure the position and distance of the initiator [1] to the coupling [2] is adhered to according to the assembly instructions of the coupling manufacturer. Secure the initiator on the pan using a mounting bracket (always use copper washers).



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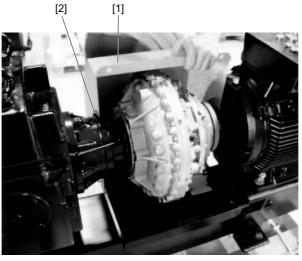
11.Install the protection cover [1] of the coupling on the input side:



NOTE ON EXPLOSION PROTECTION

When aligning the cover, ensure concentricity between the bore of the side parts and the motor shaft/gear unit shaft.

- Align the side parts with the pan.
- Assure the bore of the side parts with edge protection [2].



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12.Please follow the operating instructions of the gear unit when installing the drive on the machine.



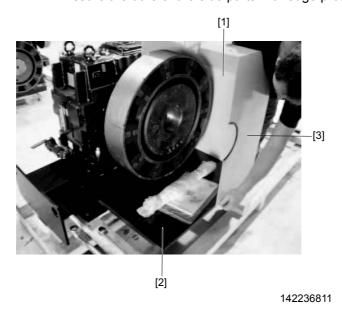
13. Mount the protection cover of the coupling on the output side, if included in the scope of delivery.



NOTE ON EXPLOSION PROTECTION

When aligning the cover, ensure concentricity between the bore of the side parts and the motor shaft/bevel gear set.

- Align the side parts [1] with the pan [2].
- Assure the bore of the side parts with edge protection [3].





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