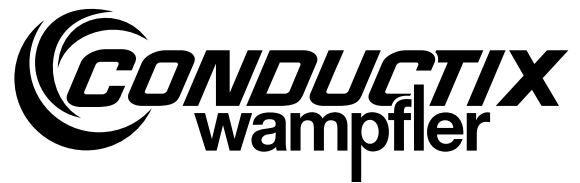


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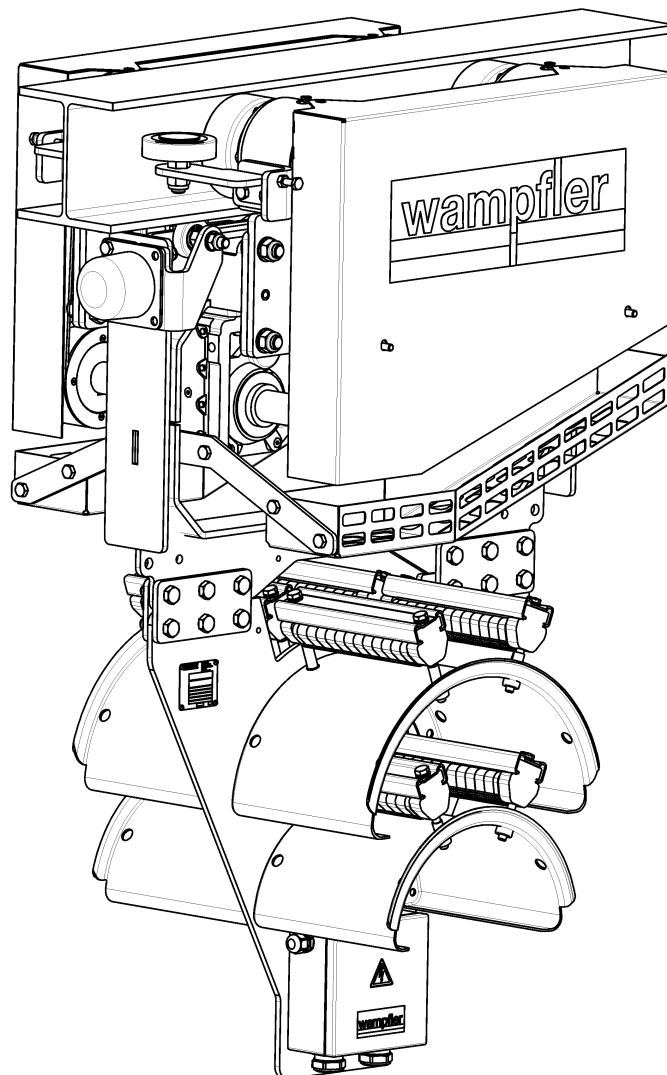


Heavy Festoon Systems

Replacement of belt tensioning idler pulley

Order-Number

03-L072-0247 / 03-L072-0248 / 03-L072-0249 / 03-L072-0265 / 03-L072-0266



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1 General advice

1.1 General security advice

1.1.1 Safety and alarm signs

**WARNING! Threat to life or physical condition!**

Serious injury or death may result from failure to exactly obey work or operating instructions marked with this symbol. Instructions with the "Warning" symbol are to be **strictly** followed as directed.

**ATTENTION! Damage to machines/material!**

Serious damage to the machine or property damage may result from failure to exactly obey work or operating instructions accompanied by this symbol. Instructions with the "Caution" symbol are to be carried out **exactly** as described.

**ADVICE!**

Work or operating instructions followed by this symbol can improve efficiency and make work simpler.

**INFORMATION!**

Refers to another applicable document.

1.2 General safety regulations and organizational measures

The operating instructions must always be kept at an on-site location near the festoon system where they can be readily accessed. In addition to the operating instructions, general regulations regarding accident prevention and environmental protection are to be observed.

The operator must observe the following norms and regulations for operation of a festoon system:

98/37/EC	EC Machinery Directive
73/23/EEC / 93/68/EEC	EC Low Voltage Directive
DIN EN ISO 12100	Machine Safety
IEC 60038	IEC standard voltages
IEC 60364	Electrical installations of buildings
IEC 60947	Low-voltage switchgear and controlgear
	Accident prevention regulations

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As a basic condition for the accurate operation and to grant warranty claims it is important to observe the mounting instructions. Before starting work the operating and maintenance staff must have read and understood the operating instructions and especially the guidelines for security.

The following security advice is related to the operation of the cable trolley system. For their operation it is essential that all advice in the instructions, for the respective components, is considered.



WARNING! Threat to life or physical conditions!

The assembly must only be made by qualified personnel with the supervision of a head mechanic of the Conductix-Wampfler AG.

During assembly, disassembly or access to the system all damping devices (rubber ropes) must be unloaded!

Before beginning work, operation and maintenance personnel must have read and understood the operating instructions and safety regulations, in particular. Protective gear for operation and maintenance personnel must be provided and used.

The system operator or his/her representative is to supervise machine operation to ensure that personnel use caution when working on or with the system.

1.3 Special security advice

Transport / Installation:

- Individual parts and larger assembly groups are to be secured on suitable hoisting devices or load-carrying equipments that are in good working order and have sufficient load capacity.

For electrical and mechanical connections:

- Connections are only to be made by personnel specially trained for the given task.

For commissioning and operation:

- Before initial commissioning and daily start-up, a visual check and predefined inspection procedure is to be performed.
- Any procedures that could negatively affect safety are to be avoided.
- The system should only be operated with functional protective gear and safety devices.
- Notify the responsible party immediately in case of damage to the festoon system.
- Protect the festoon system from accidental or unauthorized operation.

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During cleaning, maintenance, repair, servicing:

- For overhead assembly works use the provided climbing aids and working platforms.
- Do not use machine parts as climbing aids.
- Check cables and wires for abrasion and damage.
- Provide for safe and environmentally sound discharge, collection and disposal of working and auxiliary material.
- Safety devices that have been removed for assembly, maintenance and repair, must be reassembled and checked immediately after completion of these works.
- Observe the intervals for test and maintenance works stated in the maintenance instructions.
- Observe the details of the operating/maintenance instructions for the replacement of components.
- Provide appropriate security measures for the maintenance area.
- Secure the cable trolley system during maintenance works from unexpected switch-on.
- Protect detached parts from falling down.
- Switch off supply connection and secure from unauthorized switch-on.
- Any detached screwed connections during maintenance works must be properly tightened and secured.
- Replace any unusable fastening elements and sealings (e.g. hexagon head nuts with clamping part, disks, pins, split pins, o-rings, sealings, glued or micro-encapsulated screws).
- Lubricating or greasing points that have been cleaned, wiped off or removed during maintenance and repair works must be properly relubricated.

1.4 Advice for protection from danger

Hazard areas must be identified with warning signs and be protected with barriers. Ensure that hazard area notices are observed.

Hazards can result from:

- improper use
- failure to adequately observe safety notices
- inadequate inspection and maintenance work

1.4.1 Mechanical hazards



WARNING! Bodily harm!

Unconsciousness and injury due to:

- crushing, pinching, cutting, wrapping
- retracting, blunt collision, stabbing, grinding
- slipping, stumbling, falling

Causes:

- Areas where danger of crushing, pinching and wrapping exists
- Part failure or explosion

Ways to protect yourself:

- Keep floors, devices, and machines clean.
- Repair leaks.
- Observe the required safety distance

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1.4.2 Electrical hazards

All errors must be analyzed before remedying the problem.

Work on electrical systems or production equipment may only be performed by specialized electricians or persons under the supervision and direction of an electrician in accordance with electrical rules (qualified personnel).



WARNING! Bodily harm!

Death due to electric shock, injury and burns due to:

- Touching live sources
- Faulty insulation
- Inadequate maintenance and repair
- Short circuits

Causes:

- Touching or coming too close to uninsulated current-bearing parts
- Using uninsulated tools
- Current-bearing parts that are laid bare due to insulation failure
- Inadequate safety checks after maintenance work
- Use of improper fuses

Ways to protect yourself:

- Ensure that current to machines and system parts that are to undergo maintenance work is turned off and protected against reactivation.
- Check parts to ensure that they are free of current. Cover and isolate nearby live parts.
- Check electrical equipment regularly.
- Immediately replace loose or damaged cable or lines.
- Always replace blown fuses with identical fuses.
- Avoid touching live parts.
- Use insulated tools

1.5 Technical condition

These operating instructions were prepared in **January 2009**.

1.6 Technical details



INFORMATION!

See order-related technical documentation such as system sketch, suggestion for cable assignment, round cable / flat cable clamp configuration, operating instructions, maintenance instructions, mounting instructions.

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2 Required tools

One set screw wrench



AF 32 / 30 / 24 / 18

Offset screwdriver



AF 32 / 30 / 24 / 18

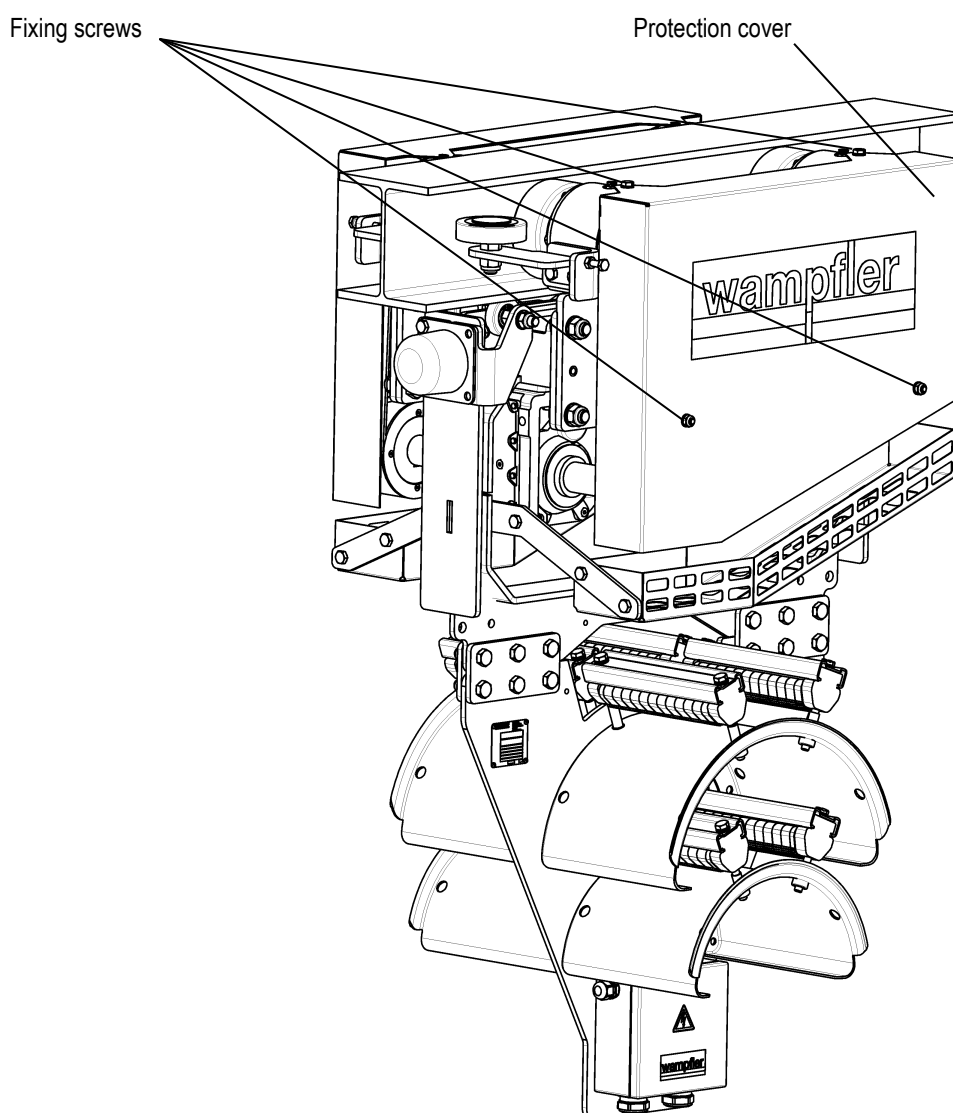
Tensiometer / trummeter



3 Sequence of the mounting work steps

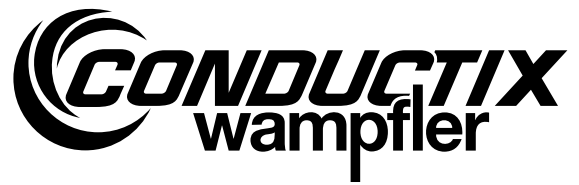
3.1 Disassembly of belt tensioning idler pulley

Work step 3.1.1: Disassembly of the belt protection cover



Remove the fixing screws of the protection cover and take off protection cover.

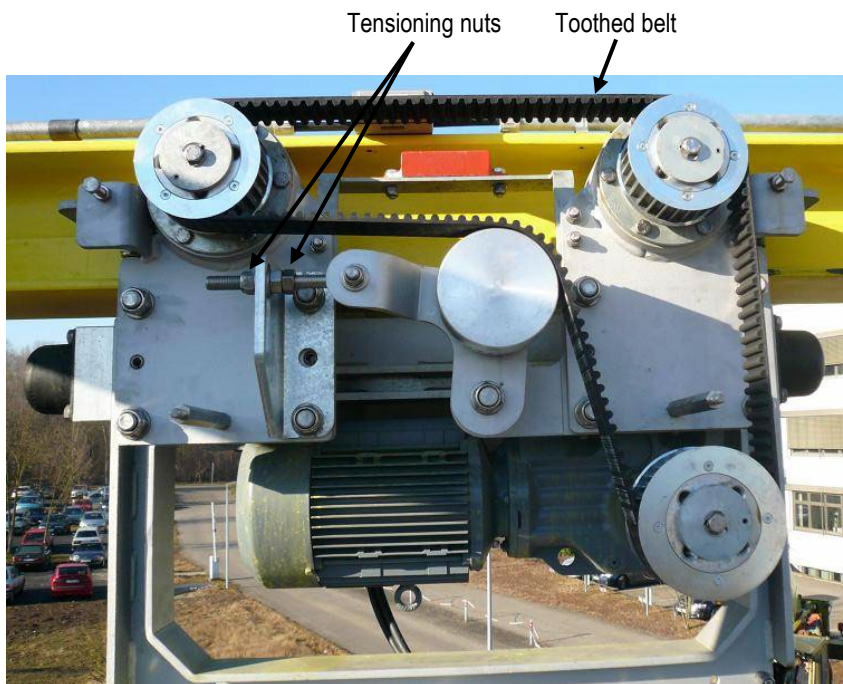
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Replacement of belt tensioning idler pulley

Work step 3.1.2: Removal of the toothed belt

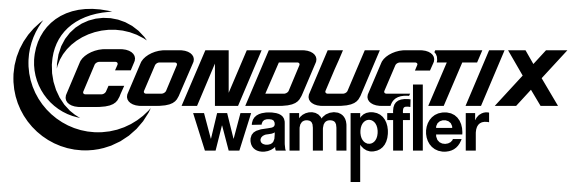


- Remove tensioning nuts M16 (AF 24) and release toothed belt



- Remove toothed belt

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Replacement of belt tensioning idler pulley

Work step 3.1.3: Disassembly of belt tensioning idler pulley



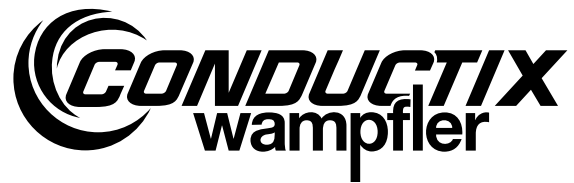
- Remove hex nut DIN985-M20-A2
- Remove assembly with the idler pulley



- Remove bolt



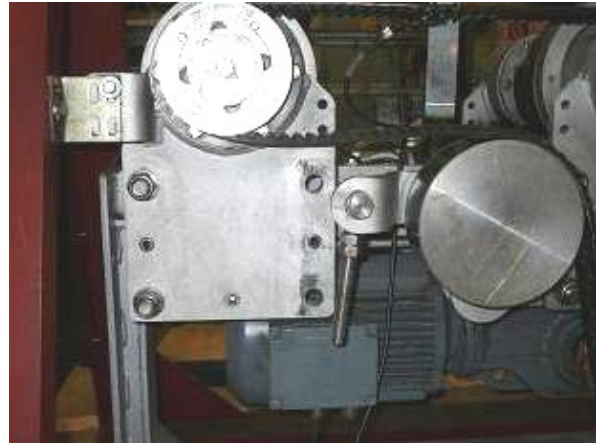
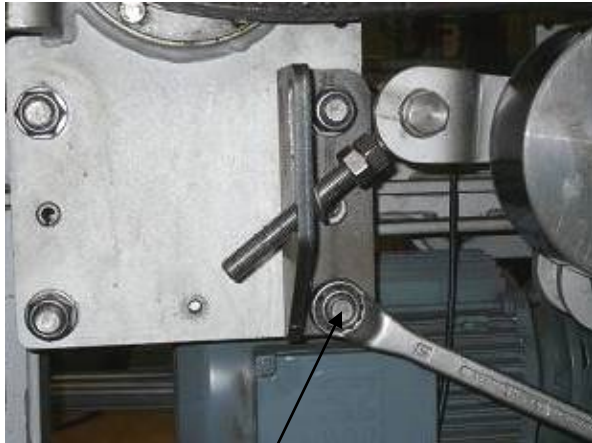
Installation Instructions



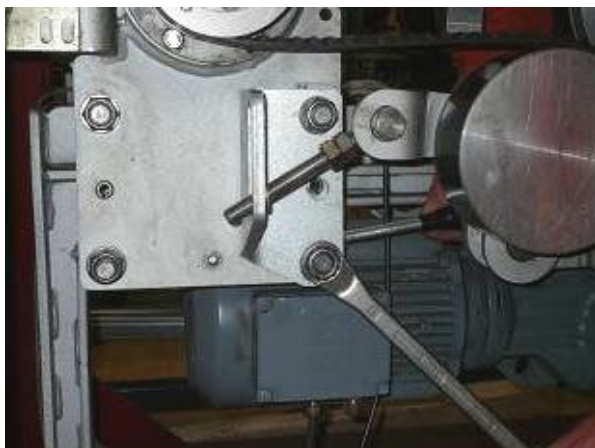
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Replacement of belt tensioning idler pulley

Work step 3.1.4 (Option): Replacement of the gusset plate (short version)



- Remove hex nut DIN985-M20-A2 (AF30) and Washer DIN125-A21-A2
- Remove the gusset platen (short version)



- Assembly of the new gusset plate (long version)
- Tighten hex nut DIN985-M20-A2 (AF30) / Tightening torque = 600 Nm

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Replacement of belt tensioning idler pulley

3.2 Assembly of belt tensioning idler pulley

Work step 3.2.1: Assembly of the fastener with the idler pulley



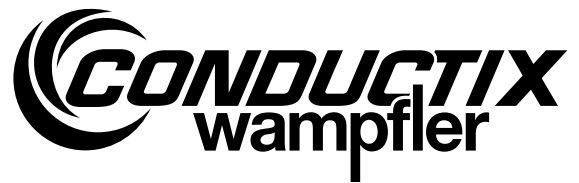
- Tighten hex nut (SW 24)

Work step 3.2.2: Assembly and tensioning of the toothed belt



- Fit toothed belt
- Tension toothed belt by tightening tensioning nuts against gusset plate
- Adjust toothed belt tension with tensiometer / trummeter between 54-57 Hz
- Secure end straining screw

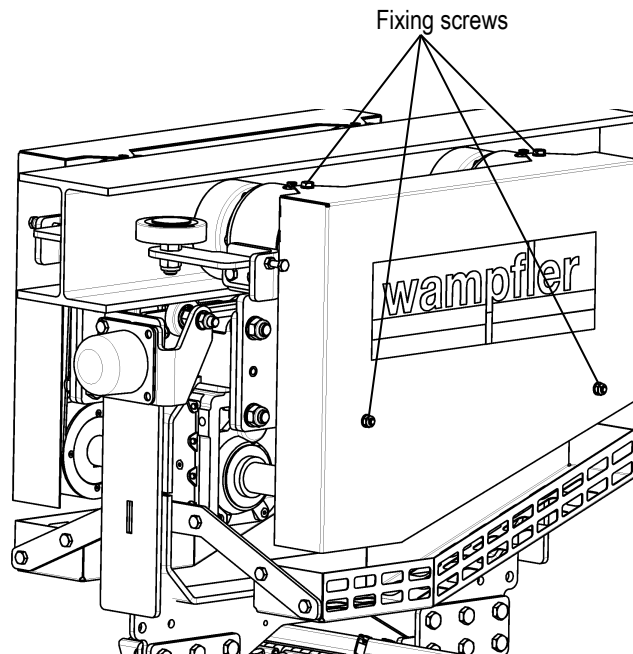
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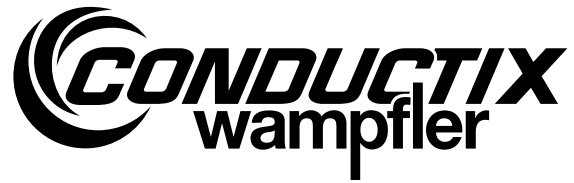
Replacement of belt tensioning idler pulley

Work step 3.2.3: Assembly of the belt protection cover



- Fit the protection cover onto the spacer bolts
- Tighten fixing screws to 49 Nm

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Replacement of belt tensioning idler pulley

Conductix-Wampfler GmbH
Rheinstraße 27 + 33
79576 Weil am Rhein - Märkt
Germany

Phone: +49 (0) 7621 662-0
Fax: +49 (0) 7621 662-144
info.de@conductix.com
www.conductix.com



Importer for the United Kingdom:
Conductix-Wampfler Ltd.
1, Michigan Avenue
Salford
M50 2GY
United Kingdom

Phone: +44 161 8480161
Fax: +44 161 8737017
info.uk@conductix.com
www.conductix.com