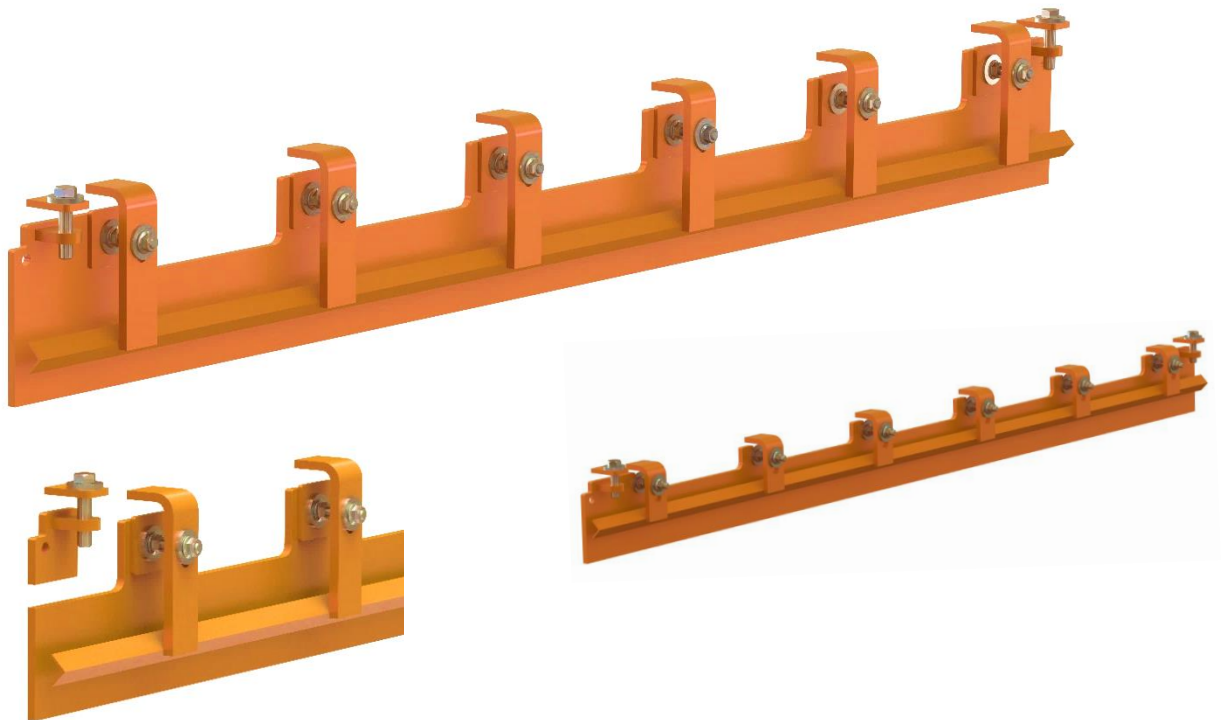




# Martin® External Wear Liner

Standard + Low profile



## Operating Instructions

Version: 0  
Language: ENG  
M3801E UK 2025-08 Ext Wearliner

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# 1 General

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## NOTE

Before starting work these operating instructions must be read and understood completely.

## 1.1 About these operating instructions

These operating instructions apply solely for Wear Liner and are intended for those persons who install Wear Liners, commission them, and monitor their usage.

The operating instructions must be kept for the lifetime of the Wear Liner and must be made available in an orderly condition to all persons entrusted with work with and on the Wear Liner.

## 1.2 Intended usage

The Wear Liners are used on the fixed enclosures of the closed loading areas of belt conveyors. They are used for sealing against the surface of smooth conveyor belts.

They may only be used

- in industrial areas above ground
- at a sufficiently safe distance from danger points
- according to the technical data in the documentation
- in the installation position as described in the documentation

The usage of the Wear Liner is only considered to be as intended if the following conditions are also fulfilled:

- Before starting initial work, the personnel must have been instructed on the work on the system and on all relevant issues of occupational health and safety.
- Any personal protective equipment required must be worn.
- The provisions of the operating instructions must be observed in full.

The Wear Liners are **not** suitable,

- to hold back ejected objects, especially machine parts, conveyor belts or bulk material,
- to hold back released energy from explosions or divert it in a safe direction, or
- to retain hazardous substances, noise, or radiation.
- to be used in potentially explosive areas. They are not designed for this purpose.

Operation of the Wear Liner under deviating conditions and unauthorised modification of the Wear Liners is considered as improper usage.

#### Remark

Special product variants of the Wear Liner can also be used in ATEX zones 22 and 21 under certain circumstances.

## 1.3 Personnel qualification

Only authorised and qualified personnel may be entrusted with work with and on the Wear Liner. Persons are considered qualified if they have the qualification of a skilled worker and meet all the following requirements:

- completed professional training or at least 5 years of professional experience in the field,
- technical experience,
- knowledge of the relevant occupational health and safety regulations.

The persons must

- be able to assess the tasks and risks assigned to them,
- be able to recognise potential dangers in advance,
- be physically and cognitively able to operate the conveyors and Wear Liner safely,
- have been trained and instructed appropriately,
- have read and understood these operating instructions.

Work on earth connections (Protective Bonding Kits), cabling, switching, control, regulation, automation, and all electrical components may be carried out only by trained electricians.

## 1.4 Part number

### Martin® External Wear Liner (Standard)

41778-AA B CC D

**Wear Liner Length in dm**

500 mm (05) / 1.000 mm (10) / 2.000 mm (20)

**Wear Liner Material**

Hardox 500 painted RAL 2004 (5) / Stainless Steel 1.4571 (S)

**Material Thickness in mm**

10 mm (10)

**ApronSeal™ Clamp**

With Standard Clamp (S) / without clamp (0)

### Martin® External Wear Liner (Low Profile)

41816-AA B CC D

**Wear Liner Length in dm**

500 mm (05) / 1.000 mm (10) / 2.000 mm (20)

**Wear Liner Material**

Hardox 500 painted RAL 2004 (5) / Stainless Steel 1.4571 (S)

**Material Thickness in mm**

10 mm (10)

**ApronSeal™ Clamp**

With Standard Clamp (S) / without clamp (0)

## Martin® External Wear Liner Adapter Kit

41790-A BB C

### Wear Liner Material

Hardox 500 painted RAL 2004 (5) / Stainless Steel 1.4571 (S)

### Material Thickness in mm

10 mm (10)

### Side

Left (L) / Right (R) / not welded (0)

## 1.5 Technical Data

The Wear Liner is suitable for the following operating parameters:

	Operating parameter
Temperature range:	-30 – 150 °C
Reversing operation:	Yes
Troughing angle:	0° - 35°

## 2 Safety

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### 2.1 General safety instructions



#### **DANGER**

##### **Entanglement in moving or rotating parts**

Body parts and/or clothing may get caught and pulled in by moving or rotating parts of the machinery.

- *Before any installation or maintenance work is carried out, ensure that all power sources to the conveyor belt system and its accessories are switched off and secured against inadvertent switching on.*
- *Apply Log-Out / Tag-Out / Try-Out (LOTOTO) Procedures*
- *Apply warning signs*



#### **DANGER**

##### **Automatic start-up of the conveyor**

Serious or fatal injuries due to unintentional start-up of the conveyor.

- *Switch off the conveyor before starting work and secure it against being switched on again.*
- *Follow safe procedures to prevent unintentional restart.*



#### **WARNING**

##### **Flying objects**

Objects left on or in the conveyor can fly around uncontrollably when the conveyor is switched on and can hit and injure persons.

- *Before switching on the conveyor, remove all foreign objects such as tools, devices, etc. from the belt!*



## **WARNING**

### **Risk of falling down**

Wear Liners are often mounted and operated in heights. There may be a risk of falling down.

- *Therefore, use a fall protection device when installing in higher working areas!*



## **WARNING**

### **Working in confined spaces**

Areas in which Wear Liners are installed are often difficult to access and include confined spaces. It is often necessary to work in difficult positions.





- *Determine whether occupational safety measures are necessary that go beyond the usual measures!*



## 2.2 Personal protective equipment

Persons carrying out work on Wear Liners must wear suitable personal protective equipment.

Minimum requirements:

Symbol	Meaning
	Wear head and eye protection
	Wear at least ankle-high foot protection
	Use gloves
	Use fall protection, if required

## 2.3 Safety markings on the system

The safety markings on the Wear Liner must be always kept in good condition and clearly visible.

If parts of the system are replaced, ensure that the spare parts are or will be provided with appropriate safety markings.

## 3 Before Installation

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### 3.1 Unpacking/transportation



#### WARNING

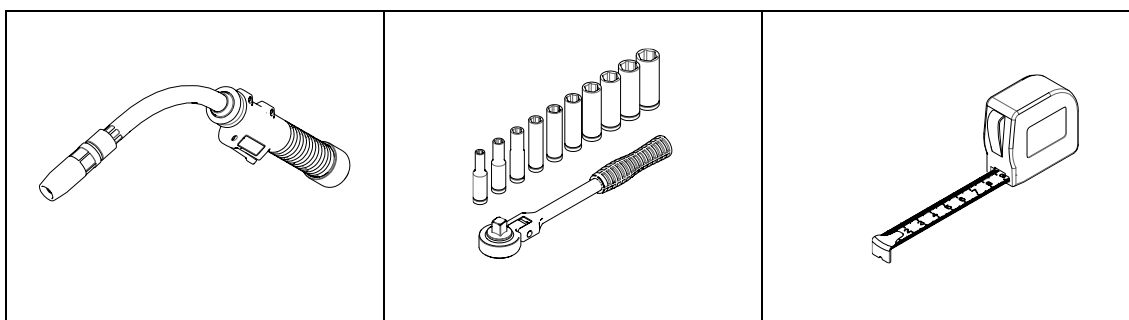
##### Heavy weight

The Wear Liner may have weights that require handling by lifting devices. Handling Wear Liner by hand can cause serious skeletal injuries.

- *Use suitable aids if the load is > 25 kg per person!*
- *Identify the centre of gravity! Ensure that the Wear Liner cannot tilt during the lifting process!*

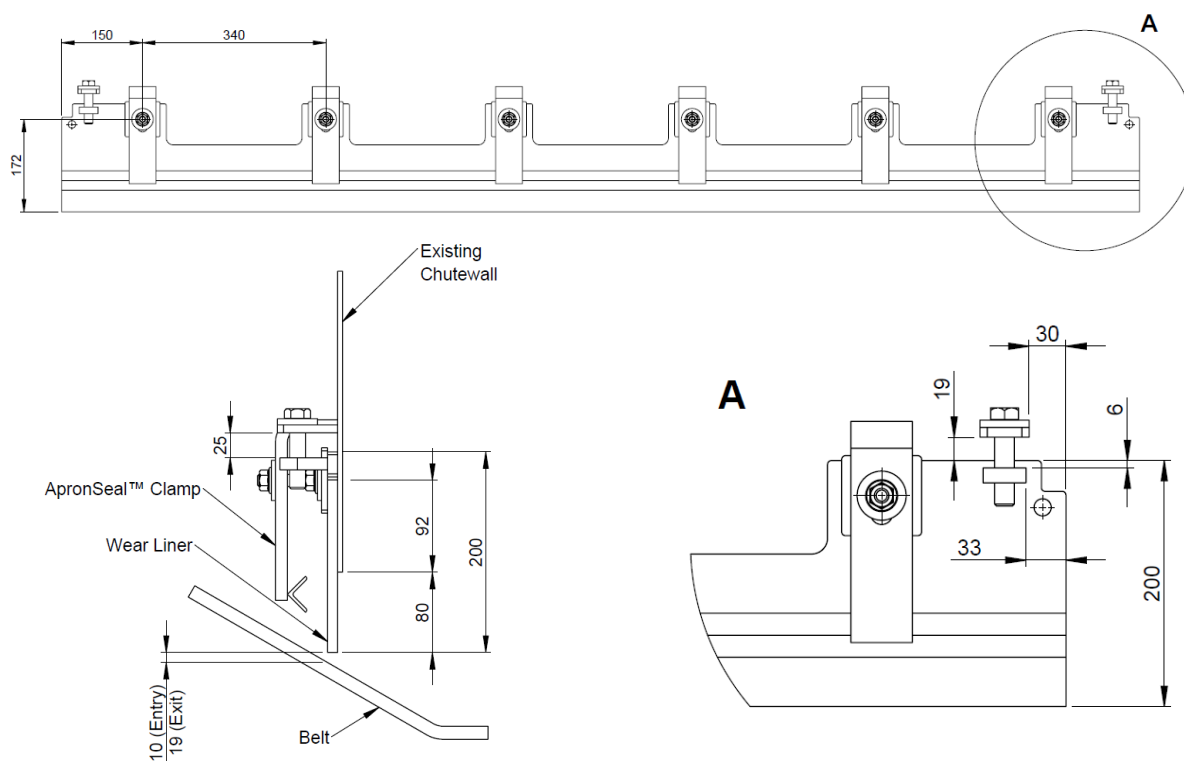
When unpacking, all components must be checked for completeness and intactness.

### 3.2 Required maximum of tools and materials

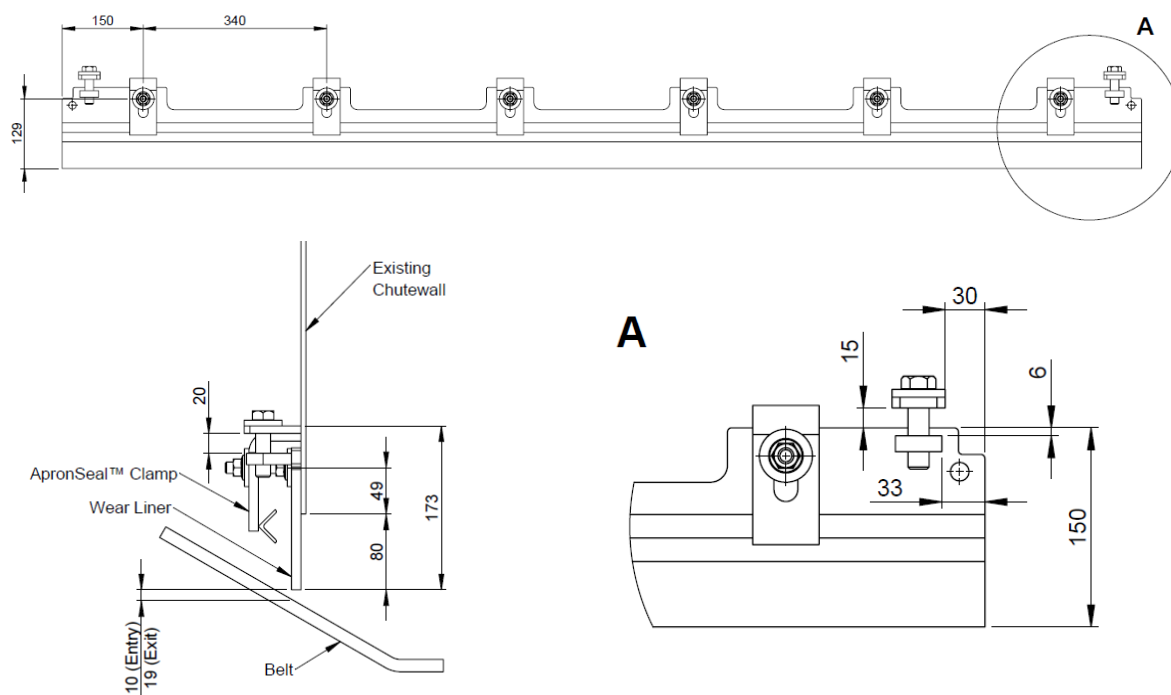


## 4 Installation

### 4.1 Determining the installation position (Standard-Variant 41778-...)



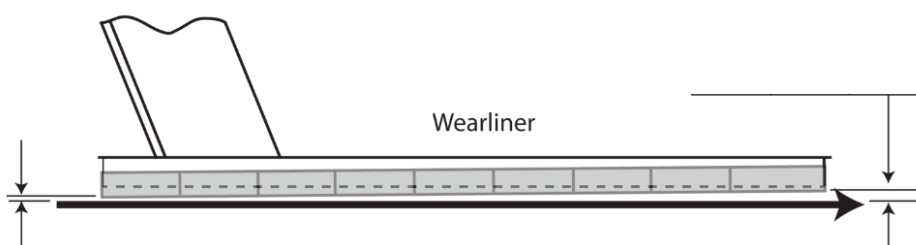
### 4.2 Determining the installation position (Low Profile-Variant 41816-...)



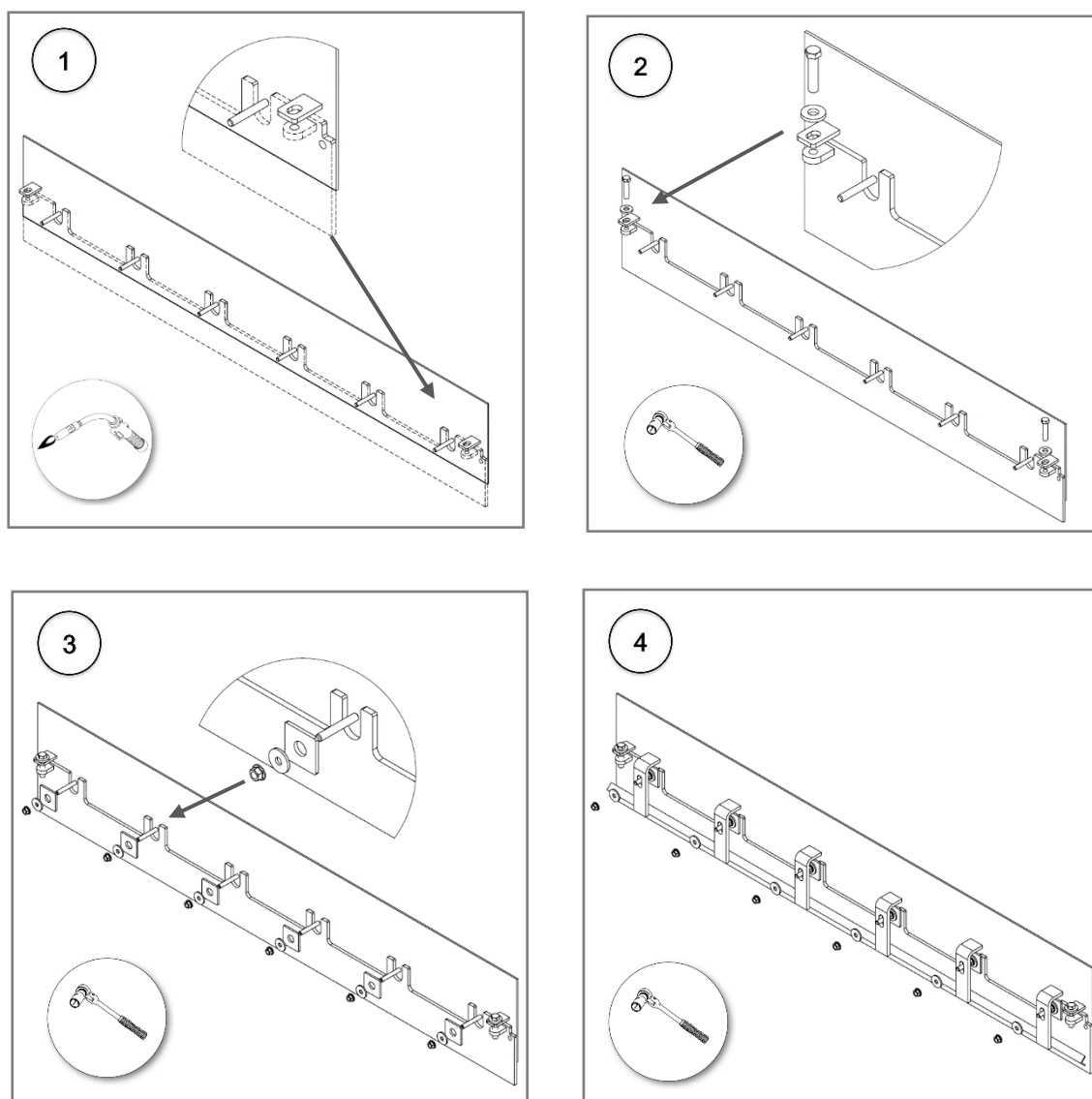
### 4.3 Positioning the Wear Liner

In areas where Wear Liners and Side Sealings are installed it is particularly important that the conveyor belt is supported in such a way that the belt surface is flat.

The gap between the belt surface and the bottom edge of the Wear Liner should be minimal and installed in a rising angle in belt running direction. In this way, chunks of material can free themselves through the movement of the belt and minimizes the risk of belt damage.



## 4.4 Mounting the Wear Liner



## 4.5 Placing labels

### 4.5.1 Safety label

The safety label below must be attached to the conveyor system in the immediate vicinity of the Wear Liner:



## 5 Maintenance / Repair



### WARNING

#### Danger of injury due to unapproved component parts

Unapproved parts can directly or indirectly cause personal injury or damage to property.

- *Only use accessories and spare parts that are distributed by the manufacturer or are explicitly approved (in writing)!*

Interval	task
weekly	Check that all securing parts are tightened. Tighten any loose connections as required.
	Clean all warning labels. Replace any warning labels which are illegible.



### NOTE

Remove equipment from service if there is any indication it is not functioning properly. Call Martin Engineering or representative for assistance. Do NOT return equipment to operation until the cause of the problem has been identified and corrected.

## 6 Disassembly / Recycling / Disposal

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1. Disassemble Wear Liners by material groups as far as possible.
2. Contact official bodies (disposal centres, authorities) and request information about proper disposal or recycling possibilities.
3. Recycle the different materials.

Only materials that cannot be reasonably recycled may be disposed of. Disposal must be carried out professionally.

Material groups that can be fed into a recycling process include:

- Sheet steel
- Steel profiles
- Plastics
- Rubber
- Non-ferrous metals
- Electrical cables
- Electrical components (with copper content)
- Lubricants

# 7 Scope of delivery and spare parts

Part number / Teilenummer	DIM "A" mm	DIM "B" mm	DIM "C" mm	PN Item / Teilenr. Pos.	Qty. Item / Anzahl Pos.
41778-05510S	10,0	500	200	41783-05510W 1	2 3-4 8-9
41778-05510S	10,0	500	200	41787-802P 1	2 4
41778-05X100	10,0	500	200	41783-05510W 1	2 4
41778-10510S	10,0	1000	350	41783-05X10W 0	2 2
41778-10510S	10,0	1000	350	41783-10510W 1	3 6
41778-10X100	10,0	1000	350	41783-10X10W 0	3 3
41778-20510S	10,0	2000	340	41783-20510W 1	6 12
41778-20X100	10,0	2000	340	41783-20X10W 0	6 6

Item / Pos.	Qty. / Anz.	Description / Beschreibung	PN / Teile-Nr.
1	1	Wearliner Weldment / Wearliner Schweißteil	s.c. / s.T.
2	s.c. / s.T.	Angle Clamp Weldment / Winkelklammer Schweißteil	41785-XXX
3	s.c. / s.T.	Rod thread M12 / Gewindestange M12	s.c. / s.T.
4	s.c. / s.T.	Clamp plate / Klammerplatte	41788-X
5	2	Holder - Painted	41789-X
6	2	HHC screw M16 x 70 - DIN 933, (1.0032) galv. / Sechskantschraube	41081-160705ZF88
7	2	Washer flat M16 x 40 x 6 - (DIN522) galv. steel / Karosseriescheibe	41088-16LP
8	s.c. / s.T.	Washer flat M12 - DIN 522, (1.0032) galv. / Karosseriescheibe	41088-12LP
9	s.c. / s.T.	Hexagon nuts with flange / Sechskantmutter mit Flansch	41086-12DZP

Notes:  
1) All dimensions are given in mm  
2) Deburr and break sharp edges

Bemerkung:  
1) Alle Maße sind in mm  
2) Entgraten und scharfe Kanten brechen

41778-aabcc	Length in dm	Material	Material thickness in mm
a	5	Hardox® 500 or equal* - Painted (RAL 2004) Edelstahl (1.4571)	Apronseal Klemme mit Standardklammer ohne Klemme
b	5	Hardox® 500 or equal* - Painted (RAL 2004) Edelstahl (1.4571)	Apronseal Klemme mit Standardklammer ohne Klemme
c	5	Hardox® 500 or equal* - Painted (RAL 2004) Edelstahl (1.4571)	Apronseal Klemme mit Standardklammer ohne Klemme
d	5	Hardox® 500 or equal* - Painted (RAL 2004) Edelstahl (1.4571)	Apronseal Klemme mit Standardklammer ohne Klemme

Title	Description	Revision
Martin Engineering GmbH 65396 Weiluf, Germany	External Wearliner außen Wearliner	41778-XXXXX
Drawn: r.d	By	
Check: r.d	Date	
Design: r.d	No.	
Plot date 13.01.2025		
Page 1/1		
Scale 1:10		

\*Hardox® is a trademark of SSAB AB



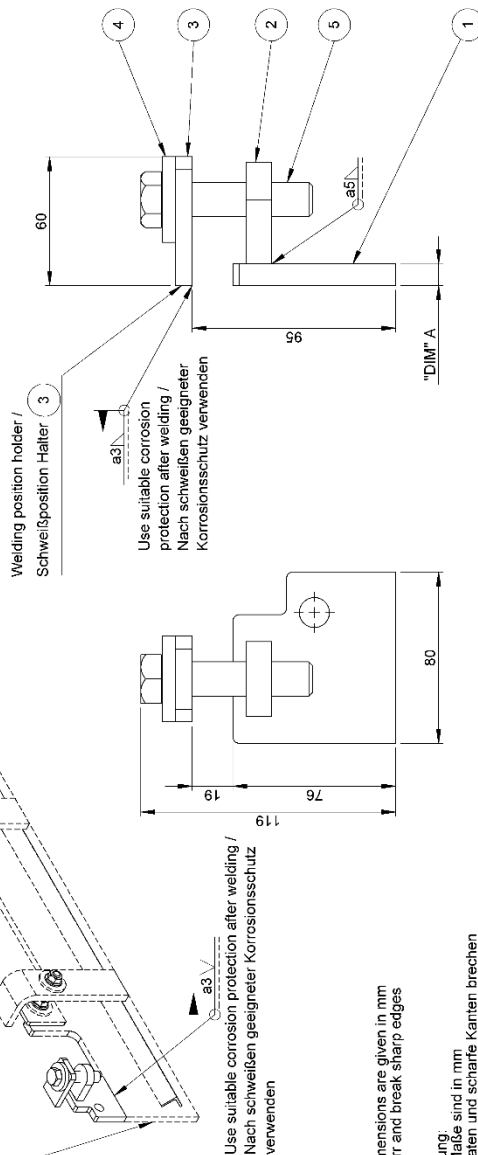
M3801E UK 2025-08 Ext Wearliner

Part number / Teilenummer	DIM "A" mm
41790-XXXL	10.0
41790-XXXXR	10.0
41790-XXXX0	10.0

Item / Pos.	Qty. / Anz.	Description / Beschreibung	PIN / Teile-Nr.
1	1	External Wearliner Adapter Plate / außen Wearliner Adapterplatte	41791-XXX
2	1	External Wearliner Threaded Plate / außen Wearliner Gewindeplatte	41784-X
3	1	Holder - Painted	41789-X
4	1	Washer flat M16 x 40 x 6 - (DIN522) galv. steel / Karosierscheibe	41088-16LZP
5	1	HHC screw M16 x 70 - DIN 931 (1.0032) galv. / Sechskantschraube	41081-16070AZP88

external wearliner (41778) shortened to desired length /  
außen Wearliner (41778) auf gewünschte Länge gekürzt



Notes:  
1) All dimensions are given in mm  
2) Deburr and break sharp edges

Bemerkung:  
1) Enlgraten und scharfe Kanten brechen

41790-abb		Material	
a	Material	S235JR (1.0037)	S235JR (1.0037)
5:	- Painted (RAL 2004)	- Lackiert (RAL 2004)	- Lackiert (RAL 2004)
S:	Stainless steel (1.4571)	Edelstahl (1.4571)	Edelstahl (1.4571)
b	Material thickness in mm		
c	side		
L:	left		
R:	right		
O:	not welded		

No.	Description	Date	By	Revision

Title	External Wearliner Adapter Kit
Drawn by	außen Wearliner Adapter Kit
Checked by	
Date	07.01.2025
Page	1/1
Scale	1:2
Sheet	A3



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