



MTG

No limits innovation



INS.3.4.5

TWINMET Corner Wear Cap ML

Installation procedure

DISCLAIMER

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1. SAFETY

The practices described in this manual can be taken as guidelines for operating safely in many conditions and in addition to the safety standards that are current and enforceable in your area or region.

Your safety and the safety of third parties is the result of putting into practice your knowledge of the correct operational procedures.

Attention, when performing the work described in these instructions, always work safely and use the personal protection elements required to minimize or avoid injury. Always wear:



To avoid eye injury, always wear safety goggles or a protective mask when using any equipment, hammer or similar tool. When equipment is under pressure or when objects are struck, chips or other debris can be thrown out. Make sure no one gets hurt by the debris that is fired before applying pressure or hitting an object. Wear eye protection that complies with ANSI Z87.1 and OSHA standards. Also wear hearing protection and gloves.

Lifting a heavy object can cause serious or fatal injury. DO NOT exceed the maximum rated capacity of lifting and positioning devices: Stay away from the area under a suspended load.



LIFTING LUG

Make sure that the chain is not damaged and that the load is always balanced.

2. WELDING

Following is a quick reference on consumables that can be used to weld MTG products. For a complete reference on welding procedures, refer to the document entitled "General welding recommendations".

WELDING UNALLOYED FILLER CONSUMABLES

PROCESS	EN CLASS	AWS CLASS
SMAW	EN ISO 2560-S E42X	E70X ACCORDING TO A5.1 OR EQUIVALENT UNDER A5.5
	EN ISO 14341-A G42X	E70C-X ACCORDING TO A5.18 OR EQUIVALENT UNDER A5.28
GMAW	EN ISO 14341-A G46X	E70S-X ACCORDING TO A5.18 OR EQUIVALENT UNDER A5.28
	EN ISO 16834-A T42X	E7XT-X ACCORDING TO A5.20 OR EQUIVALENT UNDER A5.29
FCAW	EN ISO 16834-A T42X	E7XT-X ACCORDING TO A5.20 OR EQUIVALENT UNDER A5.29

WELDING AUSTENITIC STAINLESS FILLER CONSUMABLES

PROCESS	AWS CLASS
SMAW	E307-X ACCORDING TO A5.4
	ER307T-X ACCORDING TO A5.22
GMAW	ER307 ACCORDING TO A5.9
	307-X ACCORDING TO A5.22
FCAW	307-X ACCORDING TO A5.22

NOTE: "X" MAY STAND FOR ONE OR SEVERAL CHARACTERS

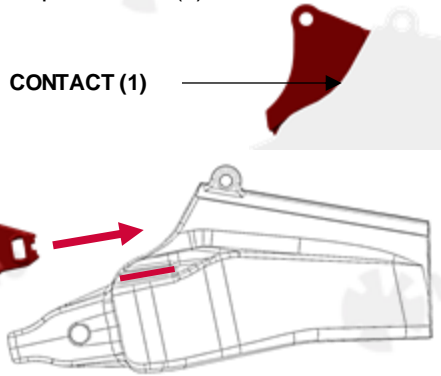
3. IMPORTANT

Read the full document prior to start any operation since there may be some steps which may require previous verifications/operations.

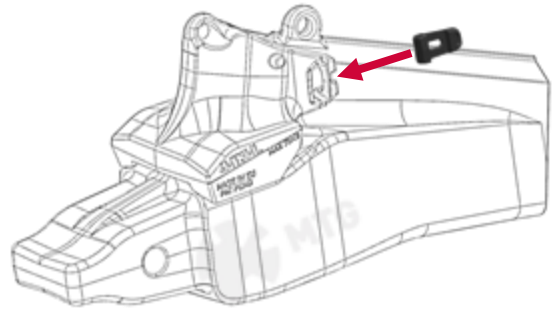


4. WELD-ON BASE INSTALLATION PROCEDURE

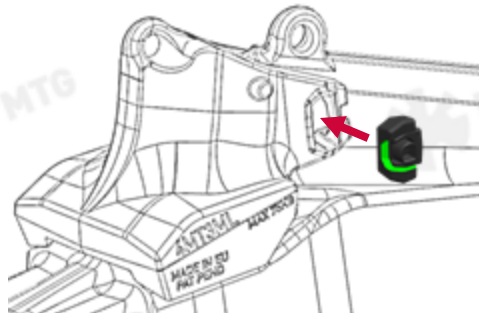
- 4.1** Introduce the wear cap on its location through the adapter guides. The wear cap shall be in contact with the frontal surface of the adapter cheek (1).



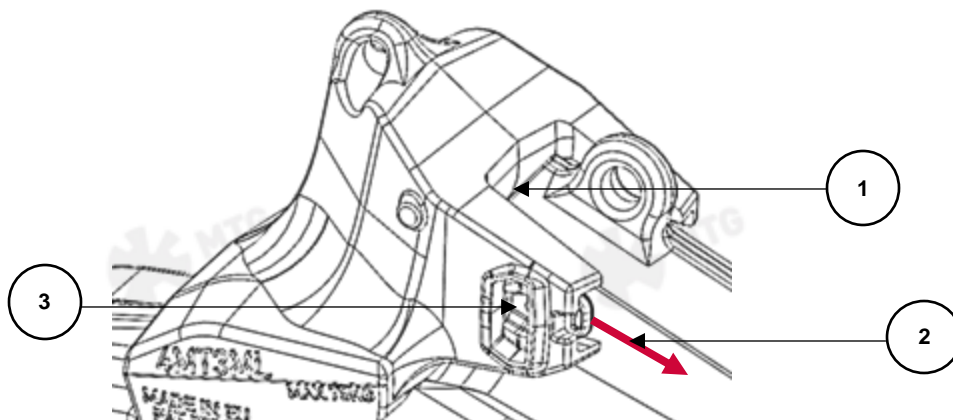
- 4.2** Insert the weld-on base by the external side of the wear cap (outside bucket) only, sliding it through the guides. Do not perform any weld at this stage of the process yet.



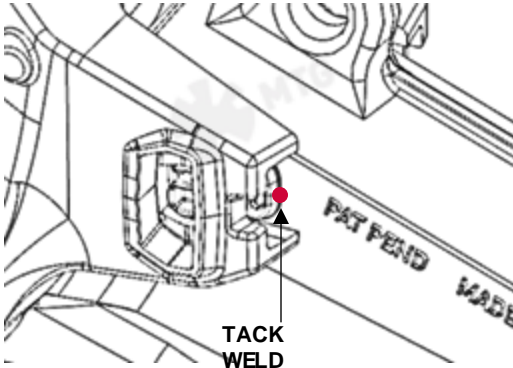
- 4.3** Remove locking plate and bolt from the mechanical block assy, Then insert the mechanical block into the wear cap housing.



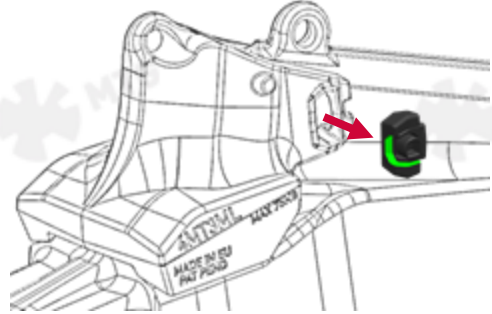
- 4.4** Keeping the frontal contact at all time (1), pull the weld-on base back (2), thus the mechanical block pulls the wear cap backwards as well (3). Once in this position, pre-heat the base and adapter to the recommended temperatures, between 175°C and 200°C (347°F and 392°F). Ensure that the fit conditions comply with what is exposed in the document entitled "General Welding recommendations".



4.5 Tack weld the weld-on base to the adapter at the back of the base.



4.6 Extract the mechanical block.



4.7 Remove the wear cap and ensure that the previously specified pre-heating temperature is yet at the proper range. If necessary, pre-heat again to the recommended temperature range.

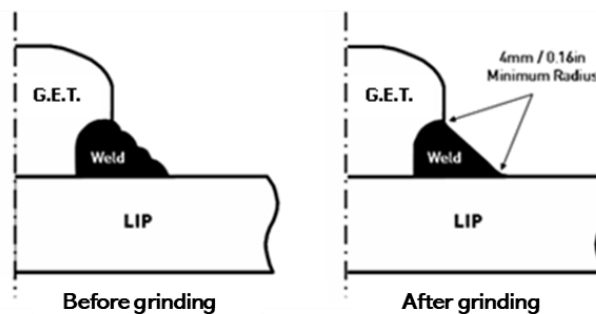
4.8 Proceed with the welding of the weld-on base at the designated welding areas. The size of the fillet must be flush and less than 3.2mm / 0.13 in. above the edge of the cast weld groove. Ensure that all welding process comply with what is exposed in the document entitled "General Welding recommendations".

4.9 Ensure that the weld-on base bottom surface remains in contact with the adapter base along all welding process.



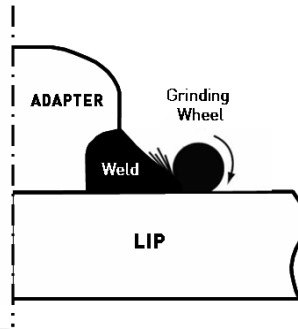
4.10 Ensure that the welding technique is according to what is exposed in the document entitled "General Welding recommendations".

4.11 Grinding shall produce a smooth surface free of roughness and unevenness associated with the weld beads. The toes of the welds shall merge smoothly with the base and the adapter with a minimum radius of 4mm / 0.16 in.



4.12 Grinding shall be done using high speed electric or pneumatic grinders with grinding wheels no larger than 50mm - 2 in. in diameter. **ANGLE HEAD OR DISK GRINDERS ARE NOT ALLOWED FOR THIS WORK.**

Grinding shall be done with the perimeter of the wheel and not the face. The grinding direction must be perpendicular to the toes of the welds as in the illustration.



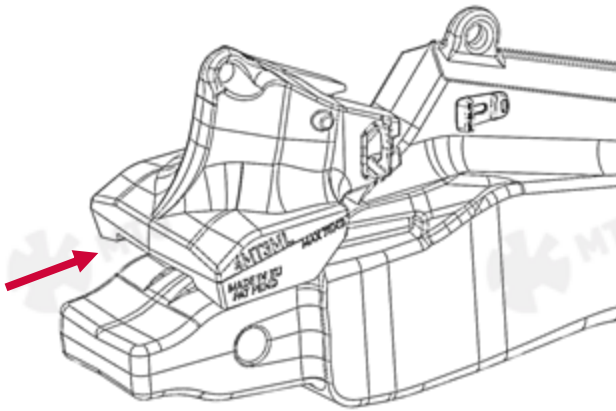
Proper Grinding Directions:

Grinding the radio at the toes of the welds is facilitated using cone-shaped grinding wheels. For final grinding, the abrasive may be no coarser than 24 Grit.

4.13 After the welding completion, all welds shall be subjected to visual and magnetic particle inspection.

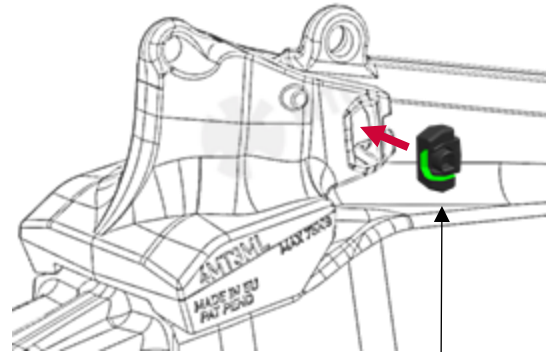
5. WEAR CAP INSTALLATION PROCEDURE

5.1 Insert the wear cap on its location.



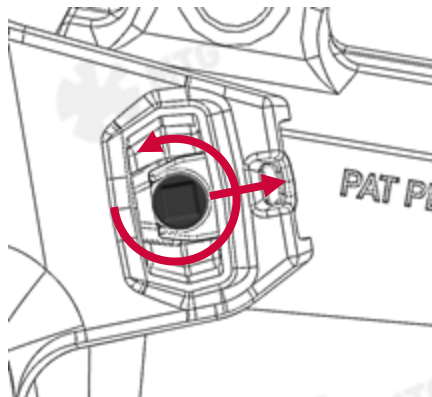
5.2 Insert the mechanical block into the wear cap housing. After this, the wear cap will remain trapped, and cannot longer move.

NOTE: Pay special attention at the orientation of the mechanical block. The narrower end of the housing for the locking plate must be facing the front of the wear cap, as the image show.



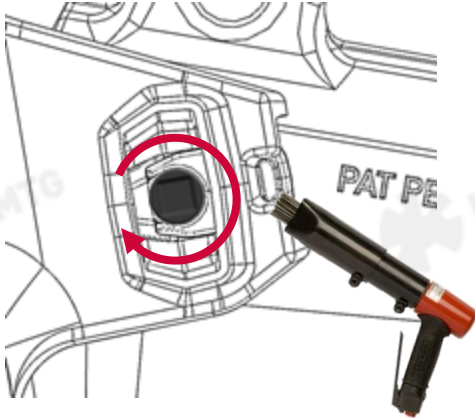
**NARROWER END
OF THE LOCKING
PLATE HOUSING**

5.3 Insert the locking plate and slide it inside the wear cap until its hole matches the hole of the mechanical block. Then, insert the bolt and screw it until a maximum torque of 300Nm or 220lb ft. Finally insert the plug into the bolt's head, in order to prevent its cavity from dirt.



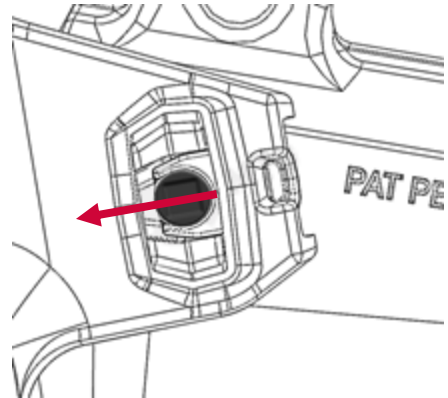
6. WEAR CAP REMOVAL PROCEDURE

- 6.1** Clean the fines stuck inside the mechanical block zone by means of a needle gun. Then, extract the plug from the bolt's head and untighten the bolt.

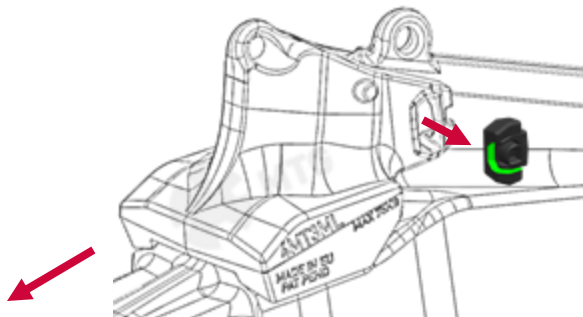


- 6.2** Extract the bolt and slide the locking plate outside.

NOTE: For a correct extraction of the locking plate, make sure that all the fines have been previously cleaned.



- 6.3** Extract the mechanical block from its housing and remove the wear cap.





Service Instructions

The latest welding recommendations and assembly / disassembly instructions can be found online:

www.mtgcorp.com/manuals

Please contact Technical Services in case of questions:

technical.services@mtg.es



MTG HEADQUARTERS

Carrer d'Àvila, 45
08005 Barcelona (Spain)
(+34) 93 741 70 00
info@mtg.es

MTG NORTH AMERICA

4740 Consulate Plaza Drive
Houston, TX 77032 (USA)
+1 (281) 872 1500
info@mtgcorp.us

MTG AUSTRALIA

16 – 18 Thorpe Close
Welshpool, WA, 6106 (AUS)
+61 8 6248 6513
Info.australia@mtg.es