



**MTG**

No limits innovation



**INS.3.5.3**

# **Bottom Leg Wear Plate for Central Adapter**

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		

### 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
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.



These wear plates have been designed only for the installation into new WC/WLD/WRD adapters (no cast corners) although in some cases, if the wearing is not much pronounced it can be done into used adapters verifying its suitability.

These instructions are a generic procedure for bottom leg wear plates on specified MTG weld-on adapters, regardless of the tooth system they use.

## 4. INSTALLATION PROCEDURE

### 4.1 CHECKING THE FITTING

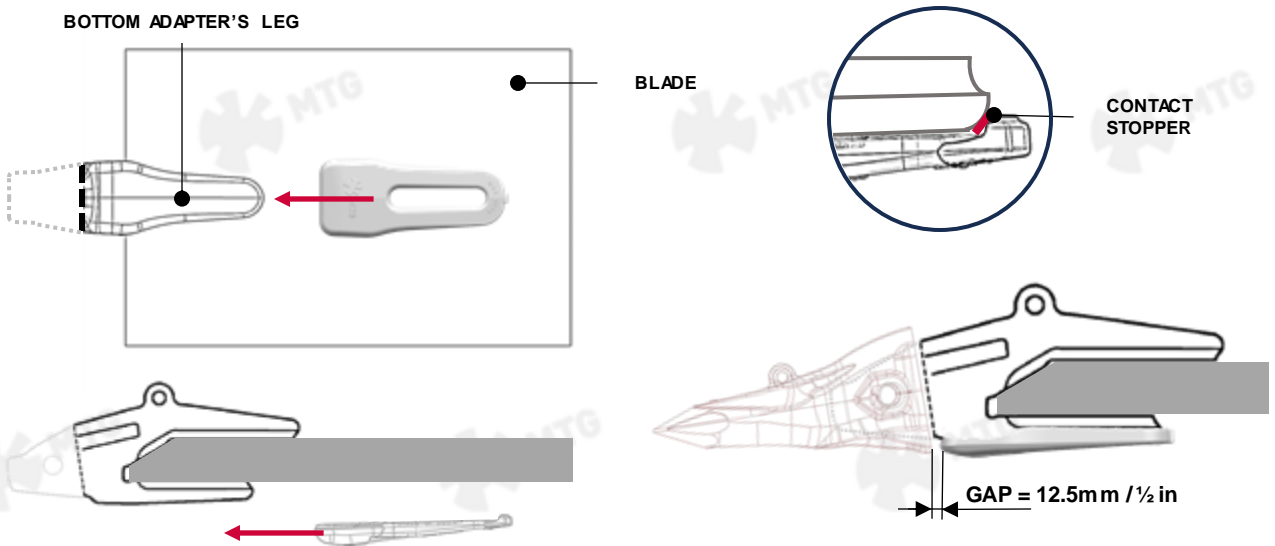
**4.1.1** All mill scale, rust, paint, oil grease, arc air slag, or moisture shall be removed from the surfaces within 12.5 mm - 1/2 in. of any weld location.

The surfaces must be sufficiently clean so that there is nothing that might contain moisture or hydrocarbons, which could break down in the arc's heat producing hydrogen that can be absorbed in the weld causing cracks.

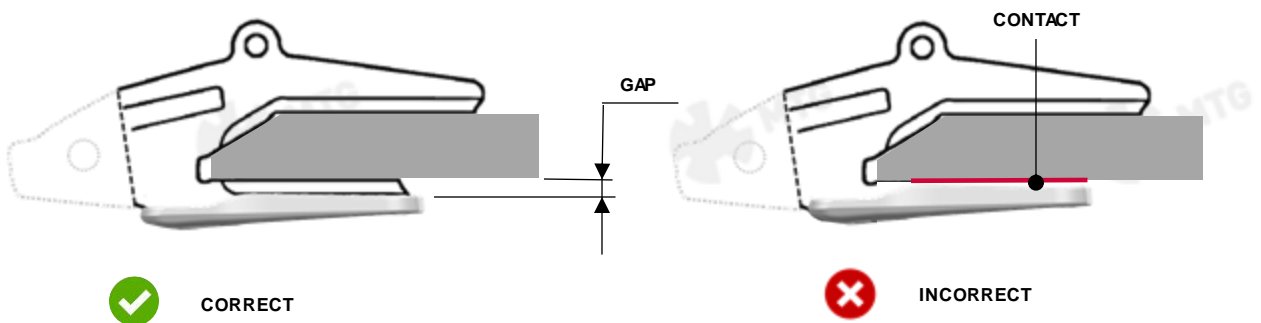
Removal may be accomplished by shot blasting, sand blasting, grinding, or machining. Any porosity, burned-in sand, or other defects visible on the weld prep surfaces must be removed by grinding or arc air gouging.

**4.1.2** Place the wear plate on the adapter's bottom leg assuring its position by pulling it towards the adapter's nose until it stops as shown below. Prior to tack welding, install the tooth and make sure there is a gap between the tooth and the bottom wear plate, for avoiding any possible interference in case of a worn-out adapter's leg or others. Make sure there is a minimum Gap of 12.5 mm - 1/2 in. In case of a smaller gap pull the bottom wear plate backwards until reaching the correct measurement.

BOTTOM ADAPTER'S LEG



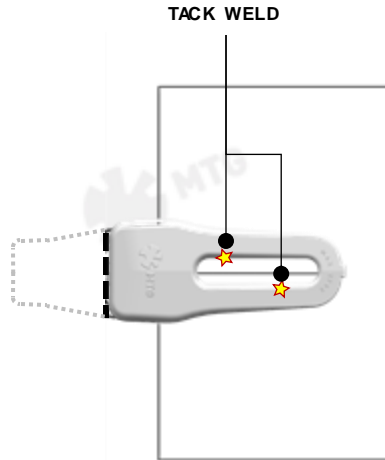
**4.1.3** If the wear plate is contacting the blade, the installation should not be performed.



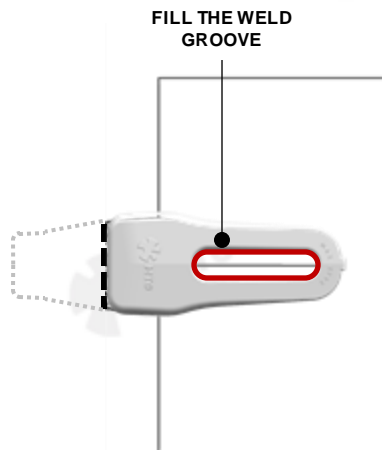
## 4.2 WELDING OF THE PROTECTOR

**4.2.1** Once is verified that the wear plate is on its right position (new or used adapters), preheat plate and adapter to a temperature between 175°C / 347°F and 200°C / 392°F. Prepare casting and plates and ensure that the fit conditions comply with what is exposed in the document entitled "General welding recommendations". Do not overpass the 250°C (482°F).

**4.2.2** Ensure that the entire wear bottom leg maintains contact with the adapter during the entire weld process. Tack weld the protector to the adapter in the areas shown below:



**4.2.3** Proceed with the welding of the protector to the lower leg of the adapter, filling all the available welding groove.



**4.2.4** Ensure the contact of the entire surface of the protector with the adapter throughout the entire welding process.

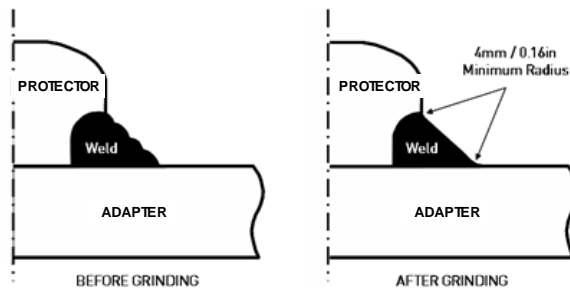
**4.2.5** Repeat the sequence from points 4.1.2 to 4.2.4 with the rest of the adapters.

**4.2.6** Ensure that the welding technique comply with what is exposed in the document entitled “General welding recommendations”.

**4.2.7** All welding beads should be ground.

After grinding, the surface must be free of rough areas and undulations associated with the disposition of the weld beads.

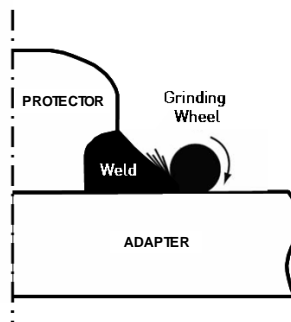
Grinding shall produce a smooth surface free of roughness and unevenness associated with the weld beads. The toes of the welds shall merge smoothly with the adapter and the protector with a minimum radius of 4mm - 5/32 in.



**4.2.8** 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 it is described in the following illustrations:

Proper Grinding Directions:



**4.2.9** After completion of welding, all welds shall be subjected to visual and magnetic particle inspection. Any detected welding crack must be cleaned and repaired.



## Service Instructions

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

[www.mtgcorp.com/manuals](http://www.mtgcorp.com/manuals)

Please contact Technical Services in case of questions:

[technical.services@mtg.es](mailto:technical.services@mtg.es)



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