

TECHNICAL BULLETIN

KlimerLite Mast Section Mast Bolt Harness Bearing Surface Gouging

Model	KlimerLite
Part Number	41000, 41010
Part Description	KlimerLite Mast Section
Applicable Serial Number	All



This technical bulletin requires immediate attention. Failure to read this technical bulletin and take immediate steps to comply with its recommendations may lead to injury or death.

1. Purpose

This technical bulletin is to inform quality control inspectors, site inspectors, installers, users, and owners of excessive gouging, galling, and/or deformation of the mast bolt harness bearing surface (see Figure 1 and Figure 2).

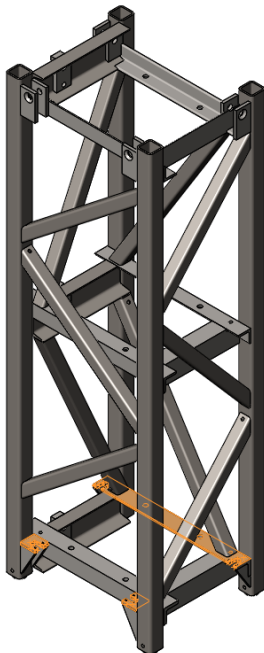


Figure 1

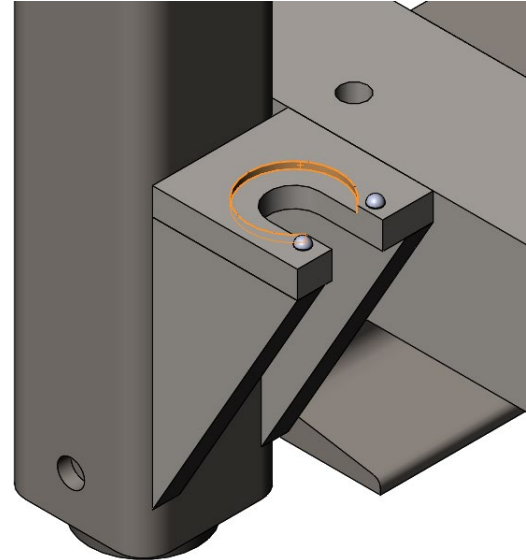


Figure 2

2. **Scope**

This technical bulletin applies to all 41000 KlimerLite Mast Section Assemblies and 41010 KlimerLite Mast Section Weldments.

This technical bulletin covers damage identification, inspection, in-service limits, methods to reduce damage, and remediation.

3. **Background/Prerequisites**

Routine inspections have found excessive gouging on the mast bolt harness bearing surfaces (see Figure 3) in older mast sections. The wear is caused by contact surface friction between the harness plate and the nut each time the nut is torqued.



Figure 3

The mast bolt harness is the structural connection point between mating mast sections. A proper connection fastens each mast sections together and resists any bending, twisting, and other dynamic forces in the mast tower. Deterioration of this joint will compromise the structural integrity of the mast tower system. Failure to identify, report, and rectify this issue is a major safety concern that can lead to injury, death, or damage.

4. **Responsibilities**

Personnel responsible for identifying and reporting;

- Quality control inspectors at the time of post-service and pre-service inspections.
- On-site Installers prior to installation and/or after dismantle of each individual mast section.
- On-site inspectors prior to installation, during in-service use, and after dismantle.
- Owners and users prior to installation, during in-service use, and after dismantle.

Personnel responsible for repairing;

- Welders qualified to CSA-W47.1 – W59 Fusion Welding of Steel, ANSI/AWS D1.1 Structural Welding Code = Steel or equivalent.

Personnel responsible for repair procedure and approval;

- Klimer Platforms engineering, a licenced professional engineer, or a competent person.

5. Action Items

The inspection procedure shall be as follows:

1. Clean the area to be inspected.
2. The wear is identified as a circular gouge roughly the diameter of the mast nut width across corners, 27.7mm (1.09") coaxial to the harness bolt axis (see Figure 2 and Figure 3).
3. Measure the depth of damage.
 - a. Use a micrometer to measure the difference between the gouged depth and original depth (see Figure 4).
 - b. Maximum in-service depth is 1/16" (1.5 mm).
4. If damage is less than 1/16" (1.5 mm) the mast section may remain in service. Owners are not required to take any special actions. The mast sections can continue regular in-service use with regular inspection and maintenance intervals.
5. If the gouge depth is equal to or greater than 1/16" (1.5 mm) remove the mast section from service, repair the damaged member, and have the repair approved. Alternatively, report to Klimer Platforms Operations.
6. Recommended Klimer Platforms repair procedure E-RP-41010-01 Mast Bolt Harness Reinforcement. **Note**, if damage is severe, harness is deformed, or extends beyond the scope of this technical bulletin, it may be necessary for Klimer Engineering to inspect and recommend alternative procedures. Owners may use a repair procedure designed by an independent licensed professional engineer.

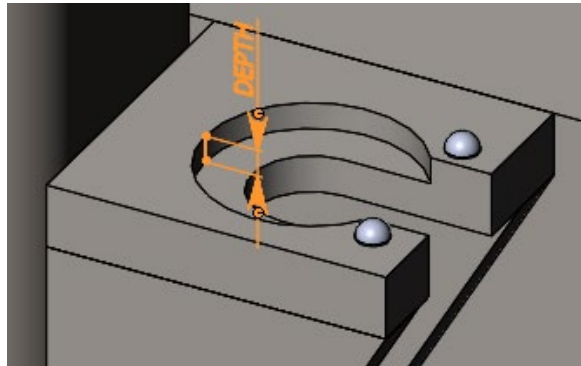


Figure 4

Recommendations to reduce wear:

1. Utilize a washer between the nut and the harness.
 - a. The washer must be captured inside the weld bead and rest flat against the harness.
2. Apply a small amount of lubricant such as multi-purpose grease or petroleum/synthetic based lubricating oil between the nut and the harness if no washer is used.

6. References

KlimerLite mast section routine inspection reports.

7. Definitions

CSA-W47.1. - The Canadian Standards Association criteria for Certification of Companies for Fusion Welding of Steel