

KPM-8 Mast Installation Crane

TECHNICAL BULLETIN

Maintenance Inspection for KPM-8 Mast Installation Crane

KPM-8 Old-Style Mast Installation Crane

Product	87000 KPM-8 Mast Crane	Applicable Serial Numbers	N/A
Number	E-TB-87000-01	Dated	14 June 2017
Revision #	R1	Last Reviewed/Updated	24 Oct 2022
Document Owner	IJF	# of Pages	3

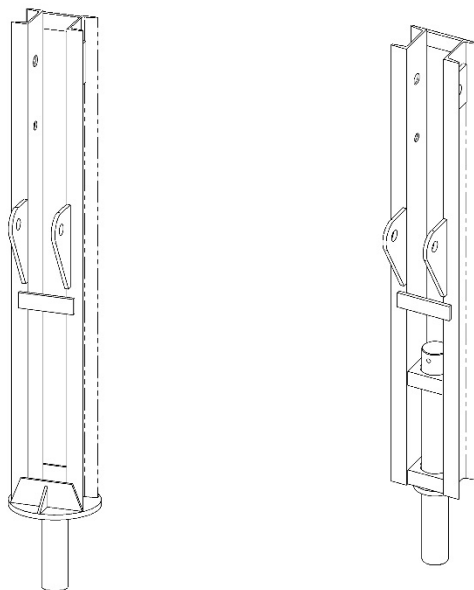


**This technical bulletin requires immediate attention. Failure to read this technical bulletin and take immediate steps to comply with its recommendations may lead to injury or death.**

**1. Purpose**

The weld connecting the base pin to the crane base on old model mast installation cranes can crack or break if the crane is overloaded. If the weld breaks, the mast, crane could collapse causing a major safety concern.

Klimer Platforms Inc. currently has two (2) model mast installation cranes. One is the original design with an integrated welded pin that came with the first-generation drive units, and the other is a modified version with a separate pin introduced in 2001. With standard use of the original design there should not be any cause for concern. However, as they age and the crane is loaded above the rated specification a potentially catastrophic failure can occur.



*Old Design Mast Installation Crane vs. New Design Mast Installation Crane*

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**2. Scope**

This technical bulletin applies only to the original design mast installation cranes with integrated/welded base pins. It does not apply to the newer design with a separated pin. This document will highlight the areas of concern with the original design mast installation crane, provide the steps to properly inspect the crane, outline the repair procedure when inspections are not passed, and highlight the operations that are leading to the issue. This document will also include information on purchasing new mast installation cranes. The original design mast installation cranes are no longer covered under warranty.

This technical bulletin is meant for all owners of KPM-8 Mast-Climbing Work Platforms (MCWP) and should be used in conjunction with the standard maintenance procedures and schedule.

**3. Background/Prerequisites**

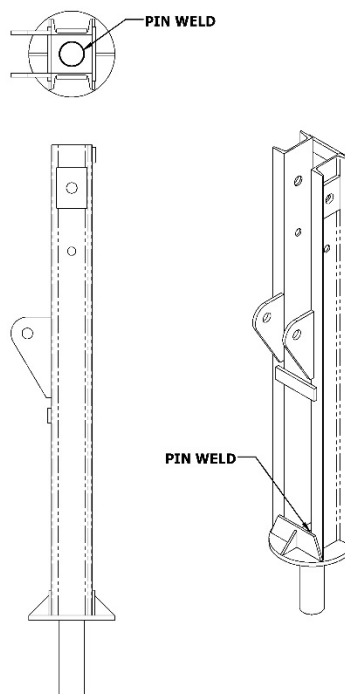
The weld failure was brought to light when an owner/operator reported an incident where the mast installation crane collapsed onto the platform.

Detailed engineering analysis determined that the mast system, including the welds, meet all design criteria up to the specified lifting capacity of 500 lbs (227 kg).

Overloading can occur if the lifting capacity of the crane is exceeded (e.g. the crane is being used to lift more than one (1) mast section with a tie harness) or if the crane is inadvertently left attached to the mast when the drive unit starts to travel.

The pin to base welded connection was not designed for more than 500 lbs. (227 kg). Once the weld has been weakened, standard loading within the original design capacity may exceed the capacity of the now weakened weld and may propagate the weld defects until failure.

The issue was resolved by redesigning the mast installation crane.



*Weld to Be Inspected*

KPM-8 Mast Installation Crane

#### **4. Responsibilities**

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It is the responsibility of the manufacturer (Klimer Platforms) to ensure all equipment owners are aware of this potential failure and provide the necessary information to mitigate the risk of failure.

It is the responsibility of equipment owners to follow the procedures provided by the manufacturer, including maintenance, inspections, installer training, and the procedure outlined in this document. It is the responsibility of equipment owners to make the information available to all of their equipment users. It is also the responsibility of equipment owners to ask any questions if they are unclear about any information provided by the manufacturer.

#### **5. Action Items**

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##### **Recommendations**

It is recommended that the base components or the old-style mast installation crane in its entirety be replaced with a new version where the pin extends into the base and is supported by two (2) blocks. Contact Klimer Platforms for current pricing.

USA 1-800-494-0496. Canada and the world 1-888-526-3262

##### **Inspection and Repair Procedure**

If the mast installation crane cannot be replaced the following inspection and repair procedure should be followed after every installation and after every dismantle is complete:

1. Full visual inspection of all components and welds of the mast installation crane, including the base pin, base, boom, swivel assist bar, lift bar, and cylinder. If any components have extra holes or cuts that are not part of the original design, or if any components are bent or dented (checked using a straight edge) the component must be replaced.
2. Full weld inspection of the base and base pin by a certified weld inspector. Inspector to be certified by the Canadian Weld Bureau according to CAN/CSA W178.2, or approved equivalent. If any weld other than the weld connecting the pin to the base fails the inspection both the pin and the base must be replaced.
3. If the pin/base weld fails the inspection the crane may be taken apart and repaired. A welder certified to CAN/CSA W47.1 must remove the failed weld without removing any base or pin material and replace with an all-around 3/16" bevel-groove weld according to CAN/CSA W59. When cool, the new weld and surrounding material must be cleaned and coated with two (2) coats of rust inhibiting paint.
4. Reassemble the crane and complete a full visual inspection as outlined in step 1 of all components and welds of the mast installation crane. If any components fail the inspection the component must be replaced.

##### **Operation**

The KPM-8 Operator, Maintenance, and Installer Manual should be reviewed. Installer and Installer Refresher training is available if required; contact your Klimer Representative for more information.