ATTENTION: CHIEF ENGINEER

SUBJECT: POSSIBLE UNDERSIZED WELD ON PCDH INLINE DAMPENING CYLINDER MOUNTING EAR.

BACKGROUND:
An under-sized weld was found on the inline dampening cylinder mounting ear. Welds on other inline dampening cylinder mounting ears should be inspected for proper sizing.

Potential units affected are 1974, 1975, 1993, 2020, 2034, 2036, 2088, 2193, 2194, and 2213. The welds must be inspected on these units to verify weld size.

CORRECTIVE ACTION:
Inspect the weld per the procedure below, and contact Allied Systems Company Service Department to report the results. Please include the crane’s serial number in your correspondence.

Allied Systems Company
Service Department
(503) 625-2560
service@alliedsystems.com

INSPECTION PROCEDURE:

1. Ensure there is a 1” (leg length) weld between the eye plate and wrapper plate (reference figure 1), in accordance to AWS D1.1. Section 6.

2. If the weld is undersized, perform a nondestructive examination on the existing weld as well as the ¼” fillet weld joining the wrapper plate to the rest of the jib boom.

3. Report inspection results to Allied Systems Company Service Department, to discuss repair instructions.

4. If no cracks are found, build the weld up to the proper size, NDT, repaint, and put the crane back into use.

5. If cracks are found in the existing welds, grind out the crack until it is gone, then re-weld to the proper size, using Allied SOP 011-15.1 or equivalent, NDT repaint, and put crane back in service. Materials are ASTM A514.

6. If grinding out a crack reveals that it has penetrated into the base metal, contact Allied Systems Company for additional repair instructions.

Allied Systems Co. reserves the right to make changes to new equipment without incurring the obligation to make such changes to equipment previously manufactured.
Figure 1. Jib Boom Inspection, K80-65
ENGINEERING SOP (WPS)

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Procedure no. 011-15.1  Subject: Fillet
Revision: 7-1
Revised date: 10/20/2017
Revised by: J. Dryden
Prepared by: M. Albertson
Approved by: M. Albertson
Implementation date: 9/1/2000
Relevant Quality Manual Section(s) (if applicable): 6.2.2, API-2C Section 15.1, and API-2C Section 15.2

JOINT DESIGN USED
Prequalified: Fillet (D1.1 Section 3.9)
Single
Double
Backgouging (Method):

Root Opening: 0
Root Face Dimension: 
Groove Angle: 
Radius (J-U):
Position (Groove):
Position (Fillet): All
Vertical Progression: X UP Down

FILLER METALS
AWS Specification: A514 to A514, A572, A36, and API X52
AWS Classification: E81T1-K2C-H8

TECHNIQUE
Stringer or Weave Bead: Stringer 1/4"
Multi-pass or Single Pass (per side): Multi-pass
Contact Tube or Work Distance: 1/2" to 1"
Peening: None
Interpass Cleaning: Weld slag removed
Number of Electrodes:

SHIELING
Flux: ________
Gas: CO₂
Composition: 100%
Electrode-Flux (Class): Flow Rate: 40-50 CFH
Cas Cup Size: #6

TUNGSTEN ELECTRODE (GTAW if Applicable)
Size: N.A.
Type: N.A.

Brand: ESAB

Min./Max. Preheat and Interpass Temperatures*

<table>
<thead>
<tr>
<th>Thickness of thickest part at point of welding</th>
<th>Min. Temp °F</th>
<th>Max. Temp °F</th>
</tr>
</thead>
<tbody>
<tr>
<td>up to 3/4&quot;</td>
<td>200</td>
<td>350</td>
</tr>
<tr>
<td>Over 3/4&quot; thru 1 1/2&quot;</td>
<td>200</td>
<td>350</td>
</tr>
<tr>
<td>Over 1 1/2&quot; thru 2 1/2&quot;</td>
<td>200</td>
<td>350</td>
</tr>
<tr>
<td>Over 2 1/2&quot; and up</td>
<td>200</td>
<td>350</td>
</tr>
</tbody>
</table>

* Temperature to be checked 3" on each side of weld joint.

Charpy Test Record:
Heat Zone Average:
Weld Zone Average: 48 Fl Lbs @ -40

POST WELD HEAT TREATMENT
Temperature: N.A.
Time: N.A.

WELDING PROCEDURE

<table>
<thead>
<tr>
<th>Pass or Weld Layer(s)</th>
<th>Process</th>
<th>Filler Metals</th>
<th>Current</th>
<th>Volts</th>
<th>Travel Speed (IPM)</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-n</td>
<td>FCAW</td>
<td>E81T1-K2</td>
<td>305-310</td>
<td>25</td>
<td>14.5-22</td>
<td>Flat and Horizontal</td>
</tr>
</tbody>
</table>