

RED BRIEF

FOR ACTION

Genie MEWP manufacturing defect

What Happened

Genie, the Manufacturer have determined that the secondary boom lift cylinder installed on certain models of work equipment, may develop cracks between the hardline and barrel. The cracks may propagate causing an oil leak, leading to machine instability.

How it Happened

Genie have made the industry aware of a potential manufacturing defect affecting certain types of their equipment (see attached notice for full details)

Why it Happened

Not understood at present Manufacturer investigations are continuing

Actions Taken

Genie have issued a Safety Notice.



Issue:

Genie has determined that the secondary boom lift cylinder installed on the above referenced machines, may develop cracks between the hardline and barrel. The cracks may propagate causing an oil leak. **An oil leak can lead to machine instability resulting in a machine tip over.**

Table 1. Serial Numbers Affected

| | | | |
|------------------|---------------------|-------------------|-----------------------|
| Z-135/70: | Z13505-101 to 181 | Z-X135/70: | Z13513-2002 |
| | Z13506-182 to 376 | | Z13513-2008 |
| | Z13507-377 to 604 | | ZX13513-2001 to 2247 |
| | Z13508-605 to 978 | | ZX13514-2248 to 2543 |
| | Z13509-979 to 1126 | | ZX13515-2544 to 2784 |
| | Z13510-1127 to 1324 | | ZX13516-2785 to 2789 |
| | Z13511-1325 to 1572 | | ZX13516H-2790 to 2796 |
| | Z13512-1573 to 1839 | | ZX135H-3200 to 4384 |
| | Z13513-1840 to 1863 | | |

Action(s) Required:

This Safety Notice requires the following:

- Inspection of the cylinder transfer tube type to determine if the cylinder installed in your machine is affected.
- Inspection for leaks and/or crack in the weld seam of the affected cylinder..
- Replacement of the affected cylinders that show signs of leakage or cracking.

Key Learning Points

- Ensure that any affected machines are removed from service and quarantined immediately
- Always conduct a thorough pre-use check, before each use of any machine which may well pick up developing defects. If any are found stop the use of the machine and report immediately
- Always operate machinery with a sense of healthy unease, use all your senses to determine if the equipment you are using is behaving unusually. This could be the first indication that something is not right. If in doubt stop and report

Please complete the attached templates and return (via site OE Engineers) to Harbi Minhas by the dates on the templates.

Any extensions to timescales need to be agreed with the Event Brief Sponsor.

cc responses to Andy Renwick and Chris Hinton

Site OE to attach responses and evidence to COOL database.

All responses must be provided by: 14th July 2020

Event Brief Sponsor: Pam Duerden

The Red Brief Response is suitable and sufficient:

| | |
|--|--|
| Inspector: Signed Site Independent EHSS&Q | |
| Director: Signed Site Closure | |

Closure Criteria

The brief may be closed when Head of Profession Safety is assured that none of the types of machine mentioned in the attached recall notice are in use on our sites

Distribution:

Outlook: MagnoxRedEventBriefDistribution-COEuseonly@magnoxsites.com

External: EDF, Sellafield, Cavendish Fluor

COOL

| Response for EB MXL(R)00082 Title: Genie Lifts manufacturer defect | | | |
|---|--|---|---|
| Site: Harwell & Winfrith | | Contact: Neil Madge | Contact Number: |
| Action | Actionee: | Completion Date: | |
| 1 | Check your site to see if you have purchased, hired or leased any Genie machines listed in the attached brief | Number of site operated machines identified within the attached list of dates and serial numbers | Signed: Construction Manager _____ |
| 1a | If yes quarantine and report to supplier of your machine or directly to Genie for advice. | | Signed: Construction Manager _____ |
| 2 | Ensure Red Brief is communicated to all relevant site personnel | | Signed: Construction Managers & OE Engineer _____ _____ |
| 3 | Communicate this brief to all contract parties on site and get positive confirmation that they have completed their compliance checks against the details attached | Number of contractor operated machines identified within the attached list of dates and serial numbers..... | Signed: Construction Manager _____ |
| 3a | If any identified ensure they are removed from service until inspected and repaired | | Signed: Construction Managers _____ |

Please complete this template and return (via site OE Engineers) by the date shown (any extensions to timescales need to be agreed with the Event Brief Sponsor)

cc responses to (Andy Renwick, Chris Hinton)

Site OE to attach responses and evidence to COOL database

First Notice

| | | | |
|---|---|--------|-------------------------------|
|  | Safety Notice Mandatory Action Required | 200007 | Genie A TEREX BRAND |
| | | EMEAR | |

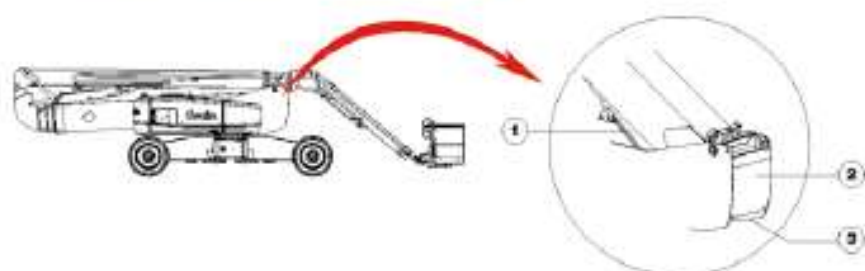
Perform the following inspections within 30 days from receipt of this Safety Notice.

- 1 Locate the affected machines referenced in table 1 within your fleet.

Note: Perform this procedure with the machine on a firm, level surface and in the stowed position with the axles extended. Do not work under an unsupported boom but rather work from the back of the boom.

Perform the following inspections within 30 days from receipt of this Safety Notice:

- 2 Locate the Secondary Boom Lift Cylinder.



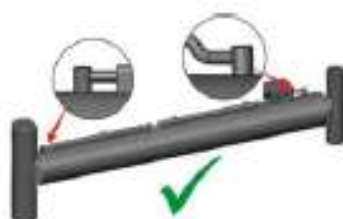
- 1 Secondary boom lift cylinder
- 2 Upper swing cover
- 3 Lower swing cover

- 3 Locate the manifold and record the cylinder serial number stamping.



- 1 Manifold
- 2 Turntable
- 3 Cylinder Part Number (61812)
- 4 Revision Level (Rev E shown)
- 5 Cylinder Serial Number (D9E017 shown)

- 4 Locate the transfer tube at both ends of the cylinder as indicated by the arrow in the illustrations below.



Spud type transfer tube



Bent type transfer tube

- ⊙ If the transfer tube is the 'Spud type transfer tube', the cylinder installed in your machine is not affected.
 - Return the machine to service.
 - Fill out and sign the 'Completion Form for Inspection of Transfer Tube' included in this Notice and return to Terex AWP Warranty Department or file a warranty claim for **Safety Notice 200007** to verify that this Safety Notice has been completed.
- ⊙ If the transfer tube is the 'Bent' type transfer tube, the cylinder installed in your machine is affected.
 - Inspect for oil leaks or weld seam cracks from the barrel end. Follow instructions starting on page 3.

First Notice



Safety Notice

Mandatory Action Required

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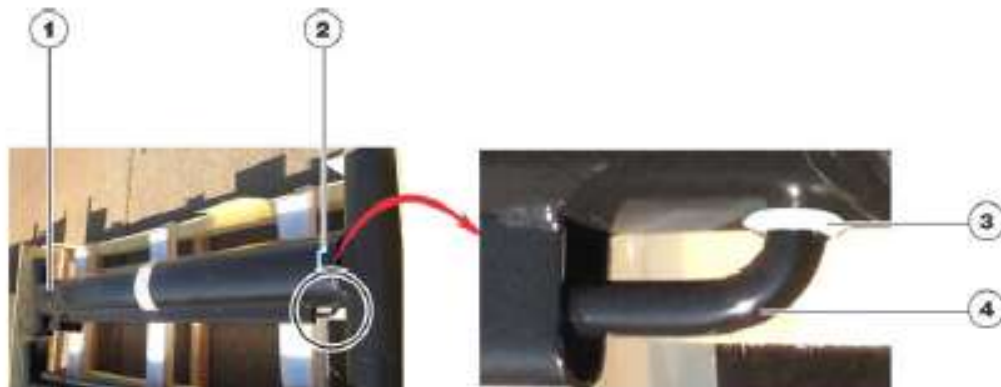
Inspections for hydraulic oil leaks:

Tools required:

- 9/16 inch wrench
- 9/16 inch socket
- Ratchet
- Flashlight
- Camera
- Piece of cardboard paper
- PPE (Personal Protective Equipment)

- 1 Start the engine from the ground controls and raise the secondary boom above the turntable covers.
- 2 Push in the ground controls red Emergency Stop button to the off position.
- 3 Remove the upper and lower swing covers at the pivot end of the secondary boom and set aside.
- 4 Locate the Secondary Boom Lift Cylinder.
- 5 Inspect for leaks around the weld seam between the transfer tube and the barrel as indicated below.

  Keep away from leaks and pin holes. Use a piece of cardboard or paper to search for leaks.



- 1 Manifold end
- 2 Barrel end
- 3 Weld seam
- 4 Transfer tube

First Notice



Safety Notice

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⊗ **If oil leak is observed**, the cylinder needs to be replaced.

- a Take a photograph showing the leak.
- b Remove the machine from service.

Note: The machine may only be returned to service after replacing the cylinder.

- c Fill out the attached 'Completion Form for Inspection for Leaks and/or Cracks' or file a warranty claim for **Safety Notice 200007_1** to verify that inspection for leaks have been completed.
- d Fill out the attached Parts Order Form and return to Genie with the photograph showing the leak to receive a replacement cylinder.

Note: Include the machine serial number and cylinder serial number on the photograph. The form will not be processed without this information on the photograph. Warranty claims for cylinder replacement must be filed under **Safety Notice 200007**.



- 1 Machine Serial Number
- 2 Cylinder Serial Number

⊙ **If oil leak is not observed**, inspect for cracks in the weld seam.

Inspections for cracks:

Tools required:

- Dye penetrant kit (Genie Part Number 1301357GT) or any dye penetrant kit for detecting cracks and leaks similar to the products below or magnetic particle inspection equipment.
 - Magnaflux (SK-416)
 - Dynaflux (DF315KIT-S)
- Camera
- Wire brush
- Touch up paint (PN 1258567GT, Black, Aerosol)
- PPE (Personal Protective Equipment)

6 In the same location described in step 5, apply a dye penetrant or perform a magnetic particle inspection to identify cracks.

First Notice



Safety Notice

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- ⊗ If any crack is found, the cylinder needs to be replaced.

- Take a photograph showing the crack.
- Remove the machine from service.

Note: The machine may only be returned to service after replacing the cylinder.

- Fill out the attached "Completion Form for Inspection for Leaks and/or Cracks" or file a warranty claim for **Safety Notice 200007_1** to verify that inspections for leaks and cracks have been completed.
- Fill out the attached Parts Order Form and return to Genie with the photograph showing the crack to receive a replacement cylinder.



- Machine Serial Number
- Cylinder Serial Number

Note: Include the machine serial number and cylinder serial number on the photograph. The form will not be processed without this information on the photograph. Warranty claims for cylinder replacement must be filed under **Safety Notice 200007**.

- ⊙ If there are no cracks, the machine may remain in service provided that the "Continued Use Instructions" described in this Safety Notice is followed.

Note: Touch-up paint as needed before returning the machine to service.

Genie has determined that the nature and complexity of the work to replace the cylinder requires special training, tooling and fixtures that are not available at all our dealers. If you would like assistance in repairing your machine, you may contact your local Product Support Team.

Genie expects it will take several months to address all affected machines. However, the affected machines may remain in service until leaks or cracks are observed.

Continued Use Instructions:

If the cylinder installed in your machine is equipped with the "Bent" type transfer tube and leak or crack is not observed, you may continue to use the machine provided that the inspections for leaks or cracks described in this notice is included as part of the machine's required quarterly inspection.

Note: Place a copy of this notice in the weather resistant manual storage container and instruct the users of the required inspections.