

GAR-BRO “R” Series Concrete Bucket Daily Inspection Guidelines & Updated Pivot Bolt Configuration



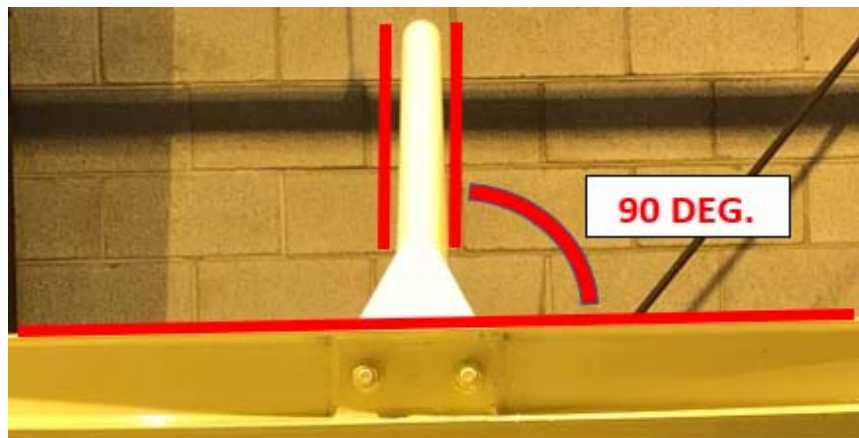
The following is a guideline for daily inspection criteria. This list is not exhaustive and does not replace good judgement from those in the field on the safety team. There are NO recalls or service bulletins for GAR-BRO “R” series buckets, however certain daily inspections should occur to ensure operability and safety of those working in the proximity of the equipment.

Structural Components – Lifting Bail:

Visually inspect the round bars that comprise the main structural component for general condition. Removal of concrete, rust, or other surface contaminants may be required. Other more thorough methods of inspection, such as dye penetrant or magnetic particle methods should be used if there are doubts as to the condition.

Grounds for removal from service: *Lifting bails should not be repaired, modified, welded, etc. for any reason. Please contact the engineers at GAR-BRO to discuss at 1-800-643-8192.*

- i. Cracks in any portion of the bail
- ii. Nicks, gouges, or other stress risers in the bars
- iii. If the bail is not vertical inside the bucket. i.e. The lifting bail has been side loaded and bent over on an angle.



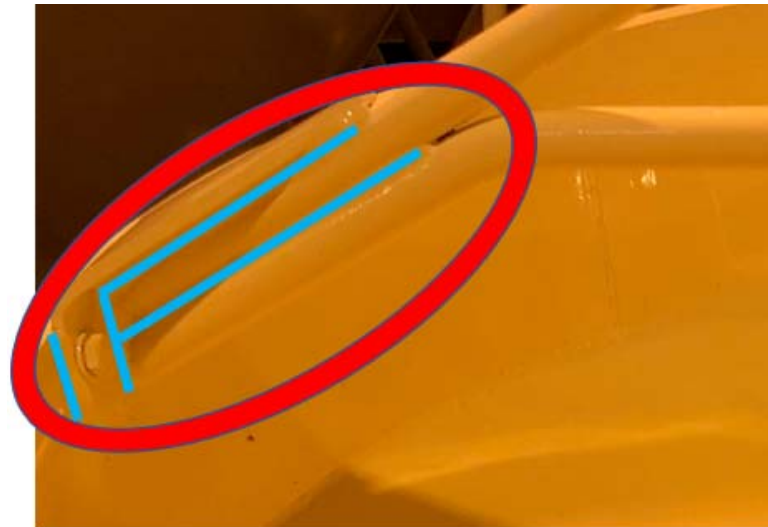
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- iv. Distortion of the flat bars joining the upper bar to the lower bar



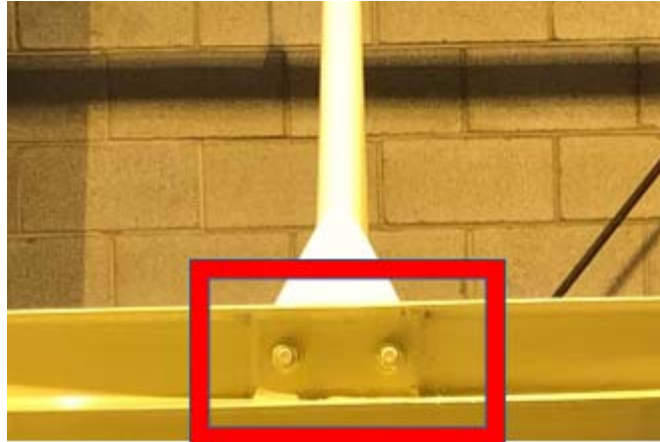
- v. Cracks in the weld between the bars and the "bail ears" and "bail ears" and top channel ring. Each of these are structural connections. The area is circled in **RED** below with the weld locations highlighted by the **BLUE** bars.



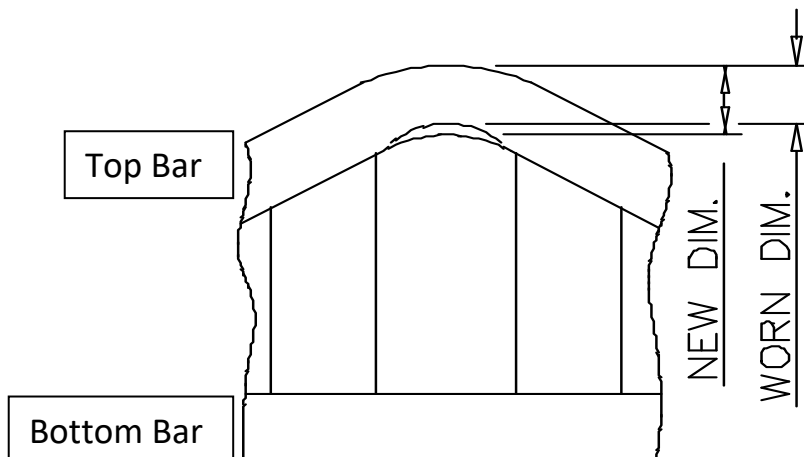
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- vi. Missing or improperly tightened lifting bail bolts shown within the **RED** box below



- vii. Excessive wear through more than 25 percent of the bar. Example: Bar on 454-R and 483-R buckets is 2-inches in diameter. If the center portion, shown below, measures 1 ½-inches or less the bucket needs to be removed from service.



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Bucket Frame:

Visually inspect all welds connecting tubular frame members to one another (all around bucket, some of which are shown in **RED** below) and the bucket proper to ensure all are in good shape (not cracked, etc.) and will withstand the load of concrete with the bucket filled. The entire bucket is "mild" steel, so if there is a crack in the frame, it may be repaired using GMAW or SMAW without notifying GAR-BRO.



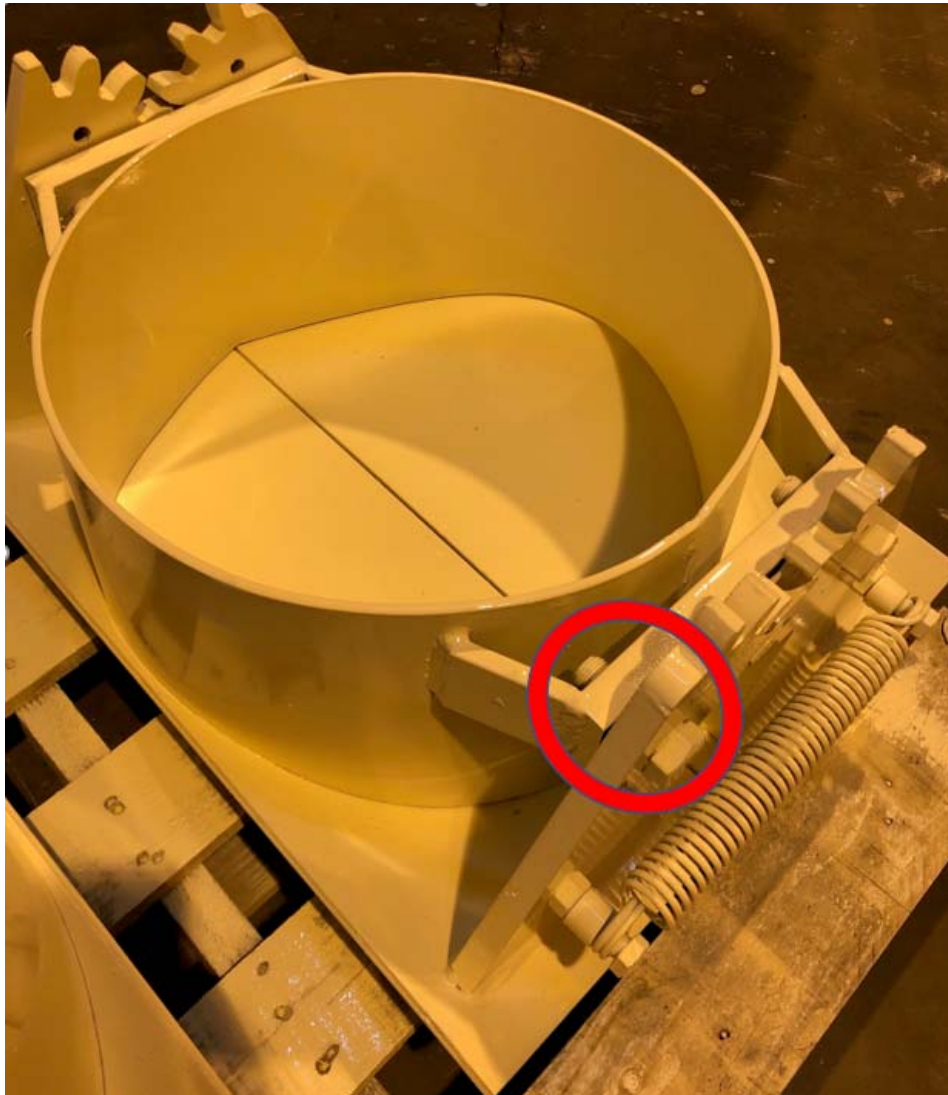
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Bucket Gate:

“Old” Style

Visually inspect all welds and all bolts for tightness. The pivot bolts are circled in **RED** and should be checked frequently. In late 2019, GAR-BRO slightly modified the pivot points on the standard 16-inch diameter “R” gate. All buckets prior to that approximate point in time (and some after) included pivot bolts torqued in place on the “hinge bar” using a thread locking compound as shown below:



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“New” Style

Beginning early 2020, the 16-inch diameter “R” gates include a locking “jam nut” at the back of the “hinge bar” and slightly longer pivot bolts circled in **BLUE**. This change was meant to ensure positive “locking” of the pivot bolt in place and is believed to hold more effectively than the previous thread locking compound. Note the locking “jam nut” circled in **GREEN**. **Even with this design change, proper daily inspection for tightness of all gate bolts should still be followed.**

