

## **Supplemental Maintenance Bulletin Inspection Limits for 6-1/2" Journal Buckeye XC-R Trucks**

Buckeye XC-R trucks are designed for increased service life. The bent-wear plate protects inner gibs on the bolster and the biased shape of the wide wedge reduces side frame pocket wear. Once the truck has been disassembled the side frames and bolsters can be inspected for wear.

This bulletin covers the recommended wear limits for the areas that are unique to the XC-R truck design. These wear areas may be found in the side frame wedge pocket and the bolster column wear plated ends. Reference AAR specification M-214 for classification and reconditioning procedures for side frames and bolsters in areas not listed in this bulletin.

All welding must be performed in facilities that are M-214 and M-1003 qualified and welding personnel qualifications must abide by AWS D15.1.

## Side Frame Wedge Pocket

Inspect pocket walls for any burrs, casting debris, or other protrusions which might bind the wedge. If any spurs or irregularities are present, grind smooth. Measure wall thickness and follow wear limits for side wall and pocket back wall as described below.

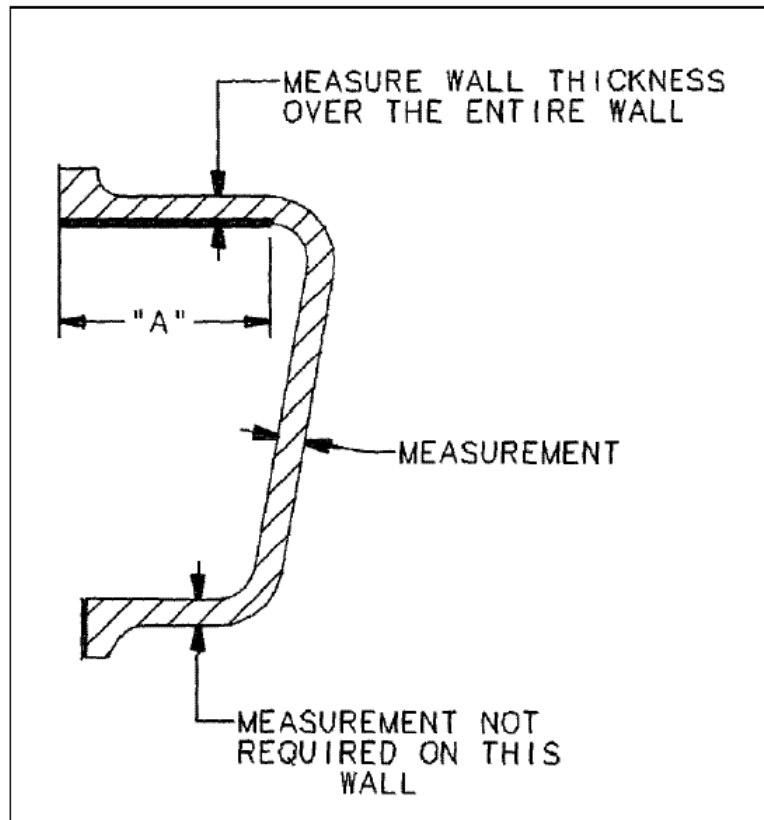


Figure 2

### Friction Pocket Vertical Side Wall Wear Limits:

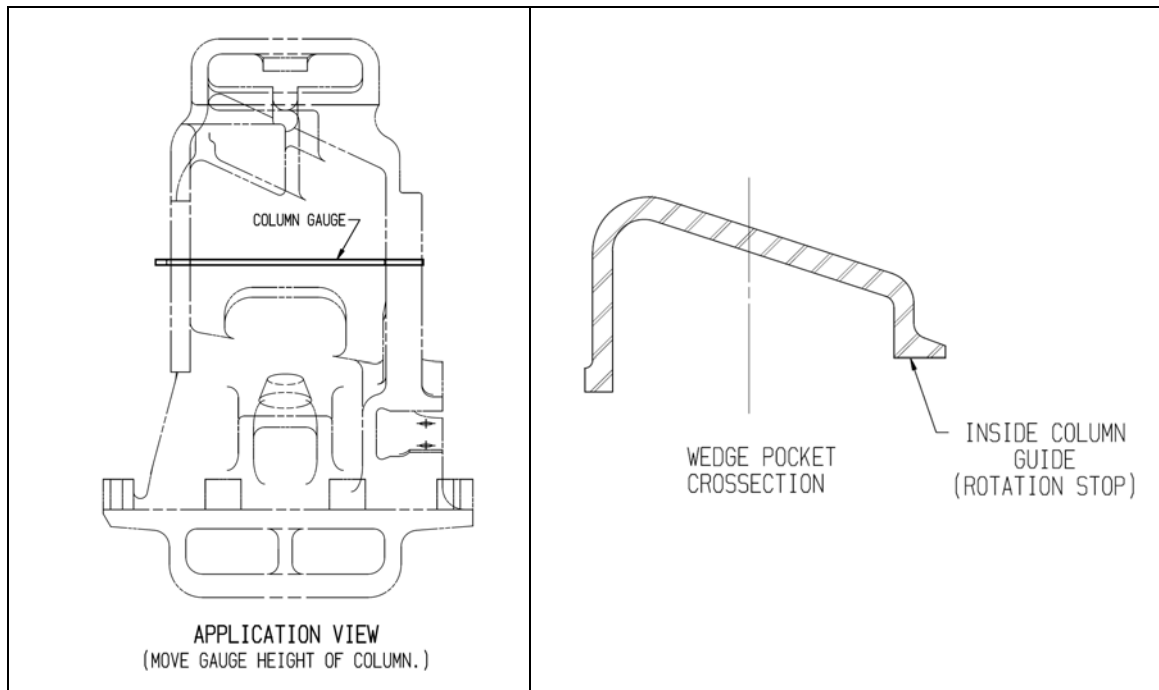
- 1) Determine thickness using a transfer caliper of the entire wall marked "A" in Figure 2.
- 2) If the thickness is  $9/16"$ , or larger, buildup is not required.
- 3) If the thickness is less than  $9/16"$ , but greater than  $7/16"$ , build up to  $5/8"$ .
- 4) If the thickness is less than  $7/16"$  the side frame must be condemned.
- 5) After finish grinding, apply Buckeye gage FG-20-C, as shown in Appendix A, to ensure proper pocket width. Surface of finish grinding must not exceed 500 Micro-inches and be flat within  $1/16"$  over the full length of surface.
- 6) Heat treatment of pocket wall is not required.
- 7) Repair of cracks is not permitted.

**Friction Pocket Back Wall Wear Limits:**

- 1) Determine thickness using a transfer caliper of the entire back wall adjacent to the surface marked "A" in Figure 2.
- 2) If the thickness is  $11/16"$ , or larger, buildup is not required.
- 3) If the thickness is less than  $11/16"$ , but greater than  $9/16"$ , build up to  $3/4"$ .
- 4) If the thickness is less than  $1/2"$  the side frame must be condemned.
- 5) After finish grinding, apply Buckeye gage FG-20-C, as shown in Appendix "A", to ensure proper pocket width. Surface of finish grinding must be flat within  $1/16"$  over the full length of surface.
- 6) Heat treatment of pocket wall is not required.
- 7) Repair of cracks is not permitted.

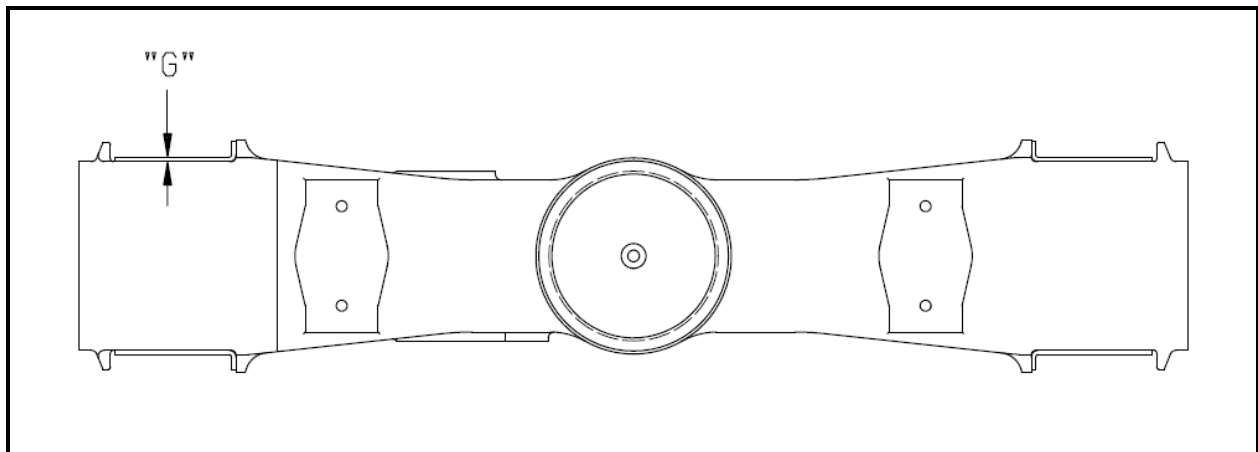
**Inside Column Guide and Rotation Stop – (6-1/2" Journal Trucks)**

- 1) Apply gage FG-16-D, see figure 3 and appendix "B", to determine the amount of wear on inside column guide (inside rotation stop)
- 2) If the gap is  $1/8"$  or less on each side with gage centered, build up is not required. Run gauge for the full wearing surface of the inside column guide.
- 3) If the gap is larger than  $1/8"$ , but less than  $1/4"$ , on each side with the gage centered, build up the worn areas to be within  $1/16"$  of gauge, allow sufficient weld to allow for finish grinding
- 4) If the gap is larger than  $1/4"$ , the side frame must be condemned.


**Figure 3**

## Bolster Wear Plated Ends

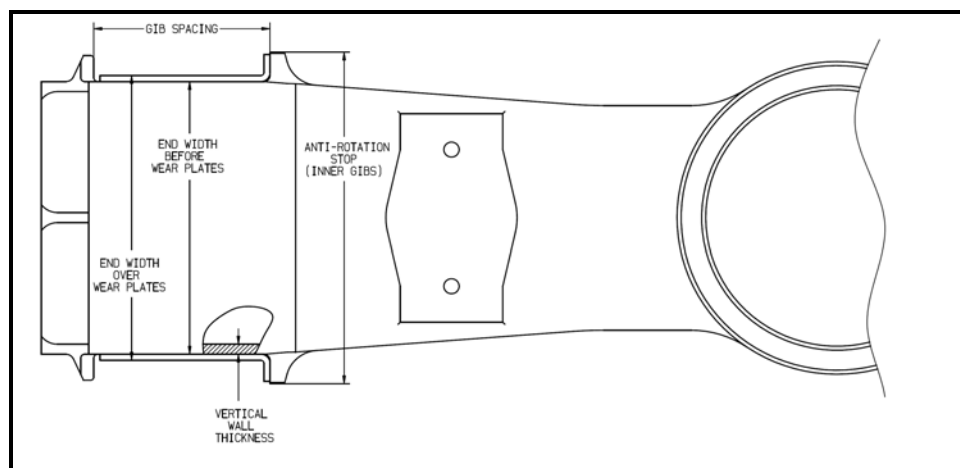
The bolsters has four "L" shaped wear plates that must be inspected for wear as well as gib spacing, width over the ends with and without wear plates and width over inner gibs or anti-rotation stops.



**Figure 4**

### Bolster Wear Plate Limits:

- 1) Replace wear plates that have less than 3/16" thickness at any point.
- 2) The thickness of all four wear plates should be inspected as referenced in location "G", see figure 4, by placing a straight edge across the wear plate. If a 3/16" shim passes between wear plate and straight edge at any point then the wear plate must be replaced.
- 3) Replace any wear plate that is cracked, bent, loose or missing bolts.
- 4) See appendix "C" for new wear plate application drawing.



**Figure 5**

## **Bolster Wear Plated Ends (con't)**

### **Distance Across Wear plates: (6-1/2" Journal Trucks)**

If the width over the wear plates is less than 17" wear plates must be replaced.

### **Bolster Vertical Wall Behind Wear Plates:**

- 1) Wear should not be seen in this area unless friction wear plates are loose or missing.
- 2) If Vertical wall thickness is greater than 7/16", but less than 5/8", build wall up to 5/8" minimum.
- 3) If Vertical wall thickness is less than 7/16" bolster must be condemned.
- 4) Vertical wall of the column must be flat within 1/16"
- 5) Heat treatment of vertical wall behind wear plates is not required.
- 6) Repair of cracks is not permitted.
- 7) After finish grinding, Measure width over ends.

### **Bolster End Width Before Wear Plates: - (6-1/2" Journal Trucks)**

Width over ends before wear plates, 16-7/8" – 17-1/16"

### **Bolster End Width Over Wear Plates Maximum – New Wear Plates Installed: (6-1/2" Journal Trucks)**

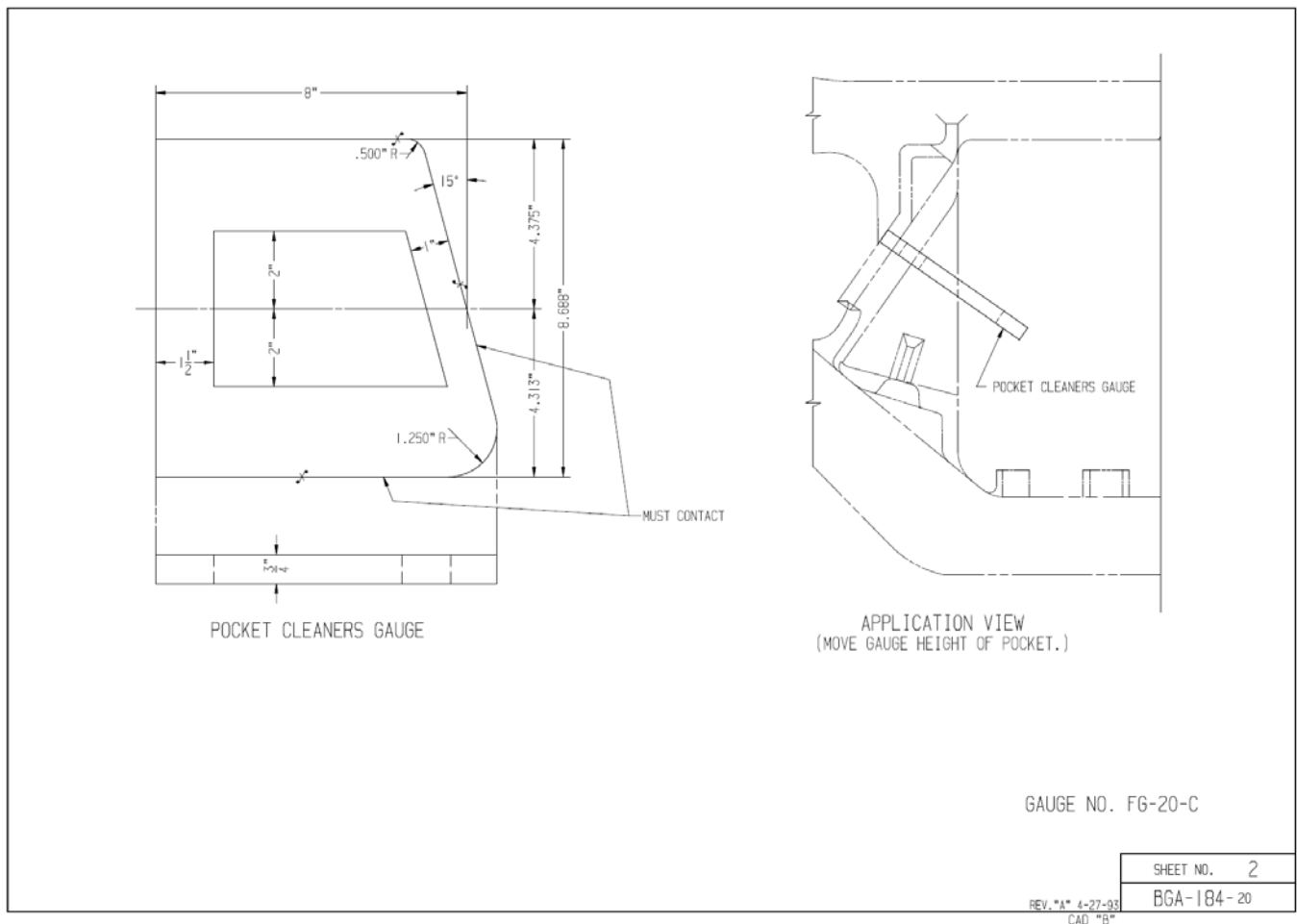
Width over wear plates maximum 17-13/16"

### **Gib Spacing - (6-1/2" Journal Trucks)**

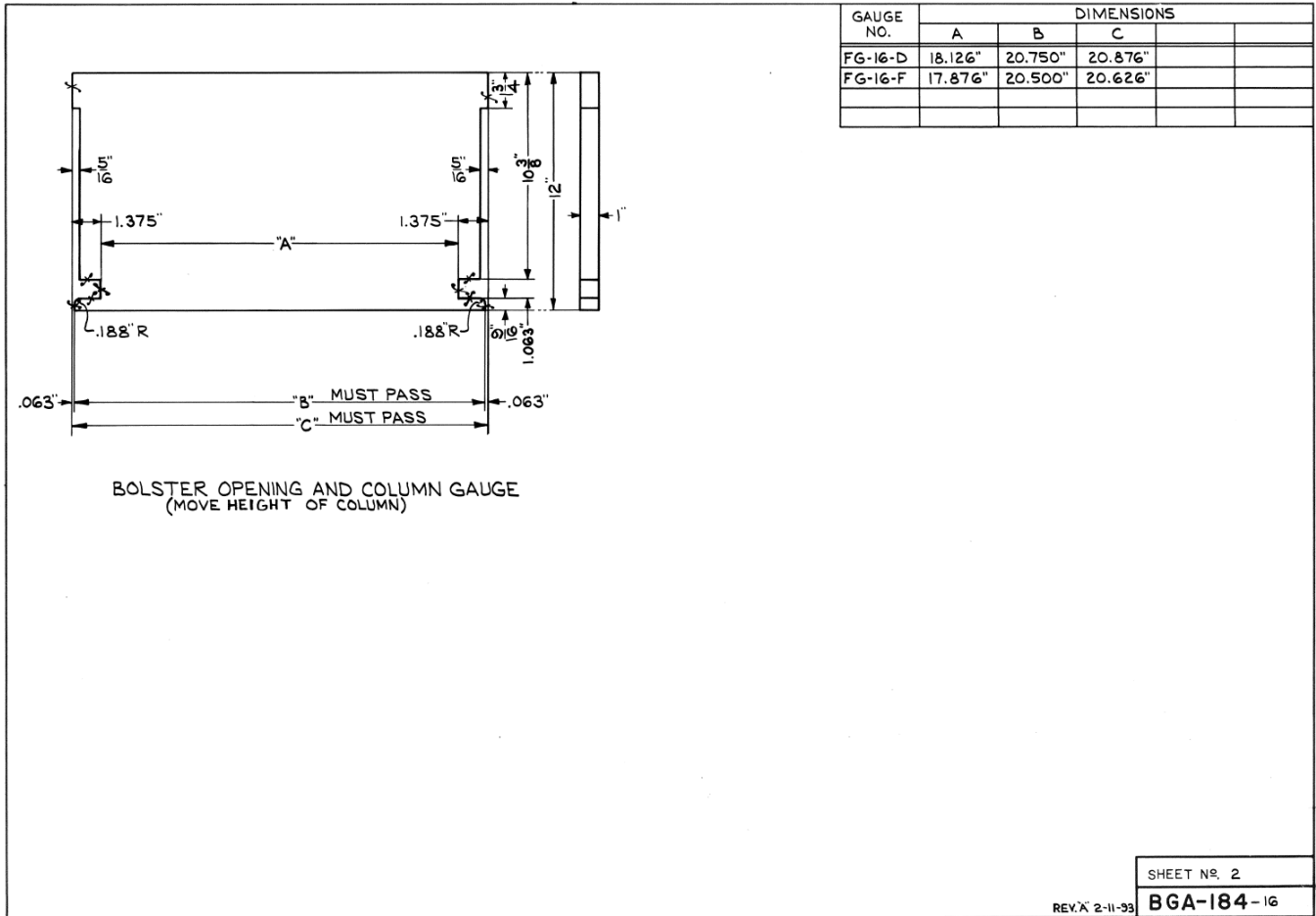
- 1) Wear should not be seen in this area unless friction wear plates are loose or missing.
- 2) gib spacing without wear plates 10-3/4" - 11", If gib spacing is greater than 11" gib must be built up by welding
- 3) Width over anti-rotation lugs or "inner gibs" must not exceed 20-3/4", see figure 5.
- 4) Heat treatment of gib not required.
- 5) Repair of cracks is not permitted.
- 6) After finish grinding, measure width over ends.

## Appendix A Wedge Pocket Gauge

Pocket cleaners gauge must contact side wall and back pocket wall as indicated on drawing BGA-184-20 sheet 2. With gauge applied perpendicular to both the side and back wall move or sweep gage full depth of wedge pocket.



## Appendix B Bolster Opening and Column Gauge



## Appendix C New Wear Plate Application Drawing

