

# Westland West Extension Drum Screen Refurbishment 4 ea. 9' dia. 12' wide drums

by Bob Haverfield, D (DFW)



This is what we started with.









And it doesn't get any better.





As you can see we had a little rust problem



Not much of the magnesium  
anodes rods left.







The screens were covered with woven stainless wire  
Which was removed and scraped

There were  $\frac{1}{4}$ "x2" rolled flat bar for the  
side seal to ride on.





A close-up photograph of a woven wire mesh, likely part of a drum head. The mesh is made of a light-colored, possibly brass or copper, wire. A vertical stainless steel flat bar is attached to the right side of the mesh, secured with several small, round, metallic rivets. A blue arrow points from the text towards the bar.

There was two 1/8"x1" stainless flat bars  
covering the ends of the woven wire at the center of the drum.





Most of the fasteners where in bad shape.











Machined to fit into the center drum tube.





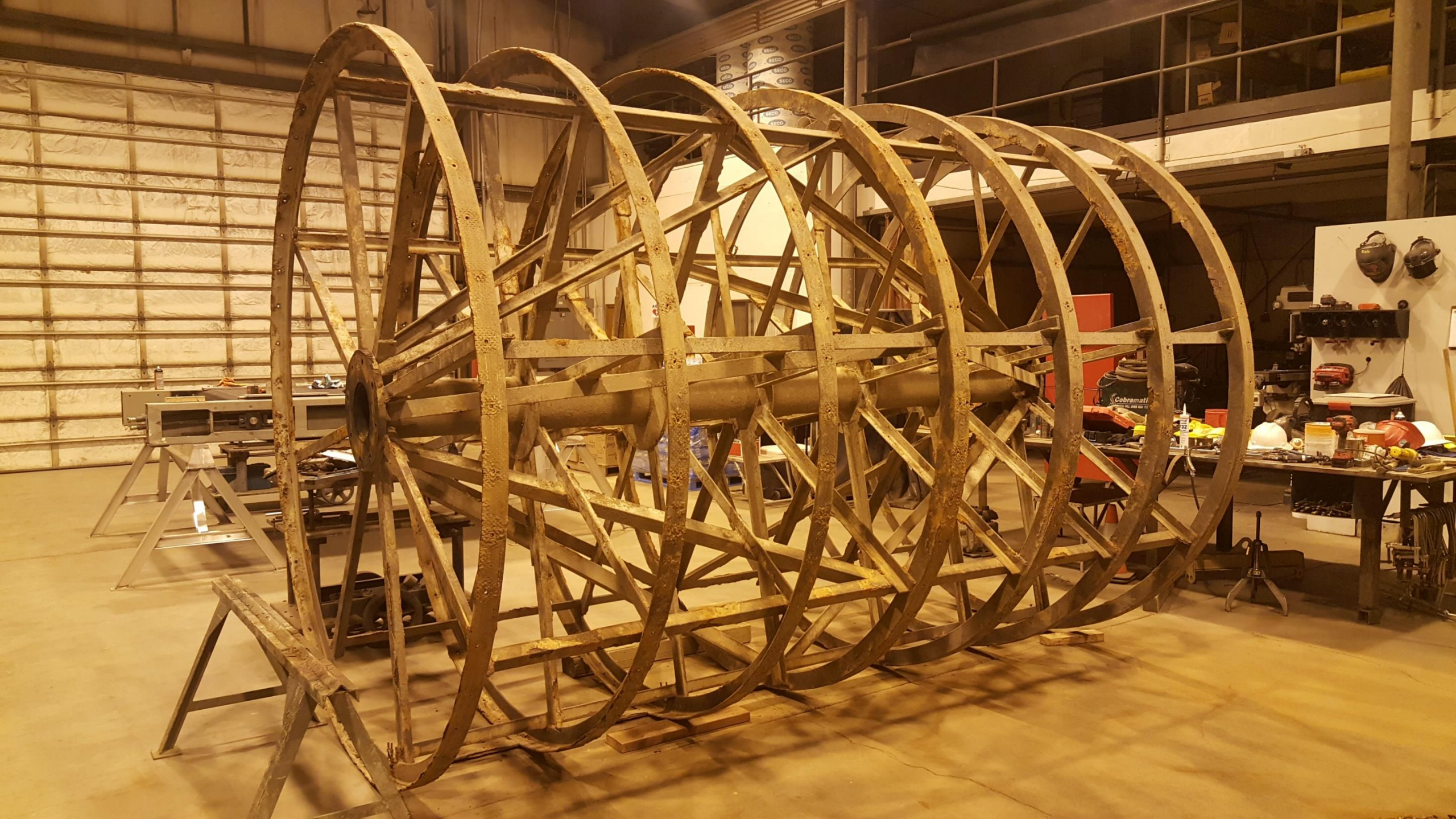
Some of the shafts had to be built up and machined.













$\frac{1}{4}$  x 4" flat bar was  
added to caught the  
end of the perf plate  
half way on each side.





Not sure what it is,  
I think it was lead.







This is the frame all one unit.



Old wing plate and anodes

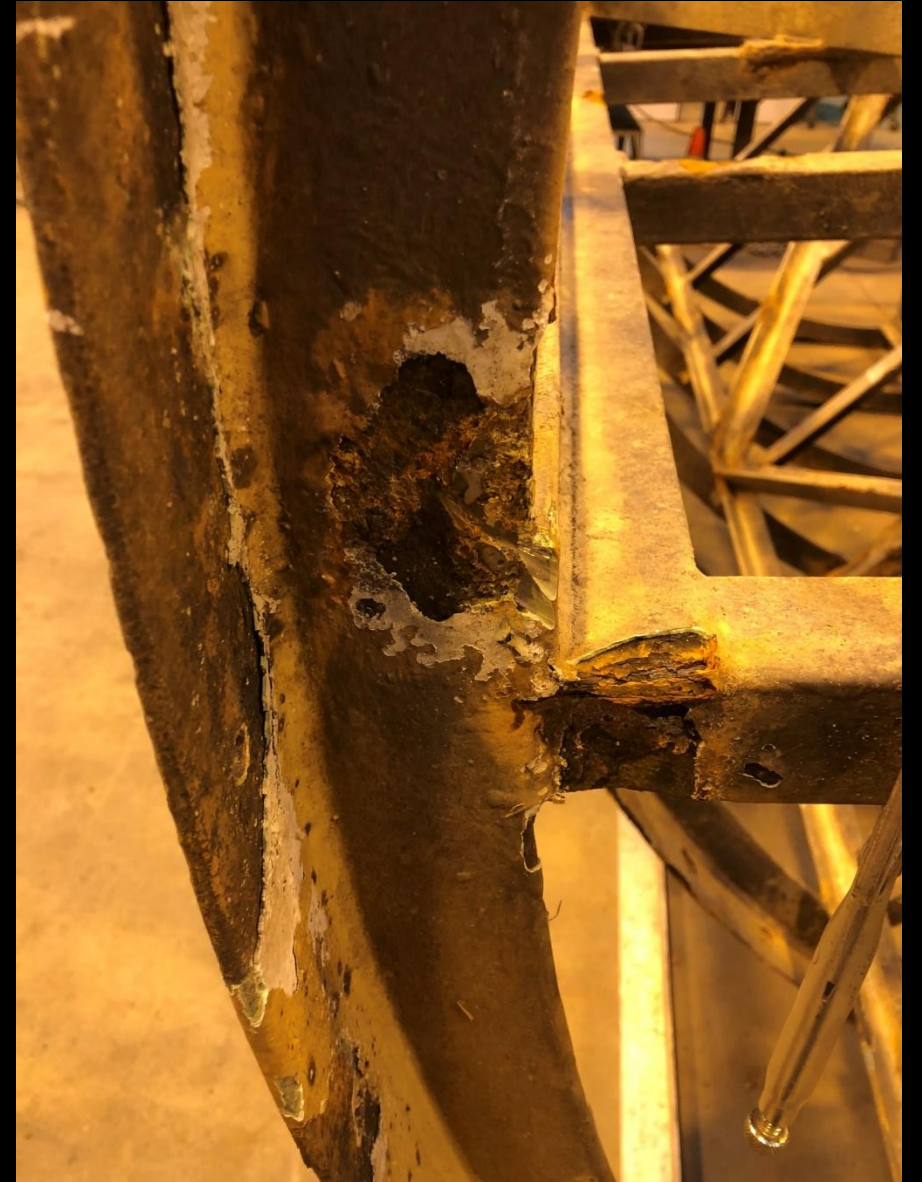




## New wing plates







Some of the rust damage.





2 units headed for blast and coating.





Here is what some of the metal looked like after blasting.



Chain covers had to be patched.



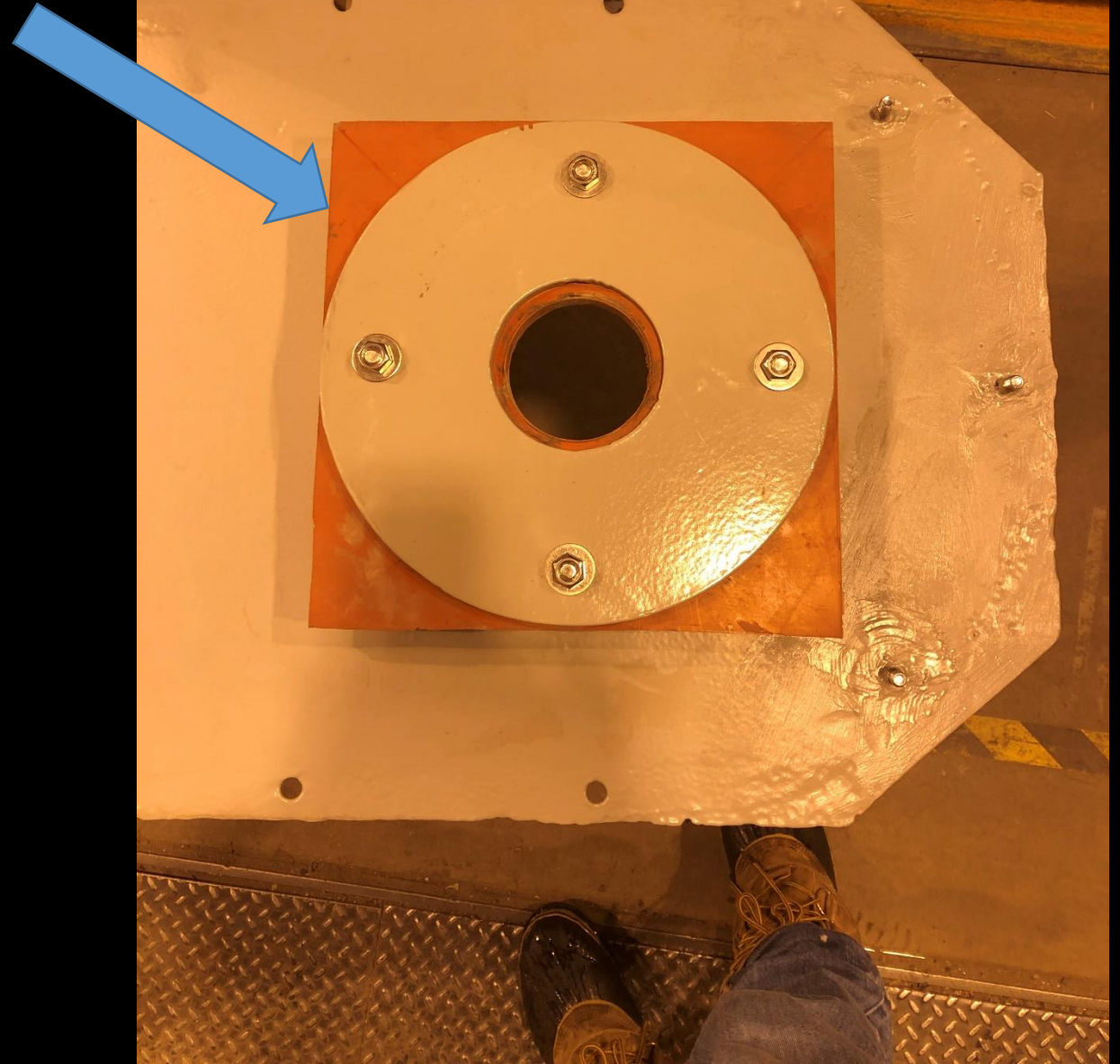
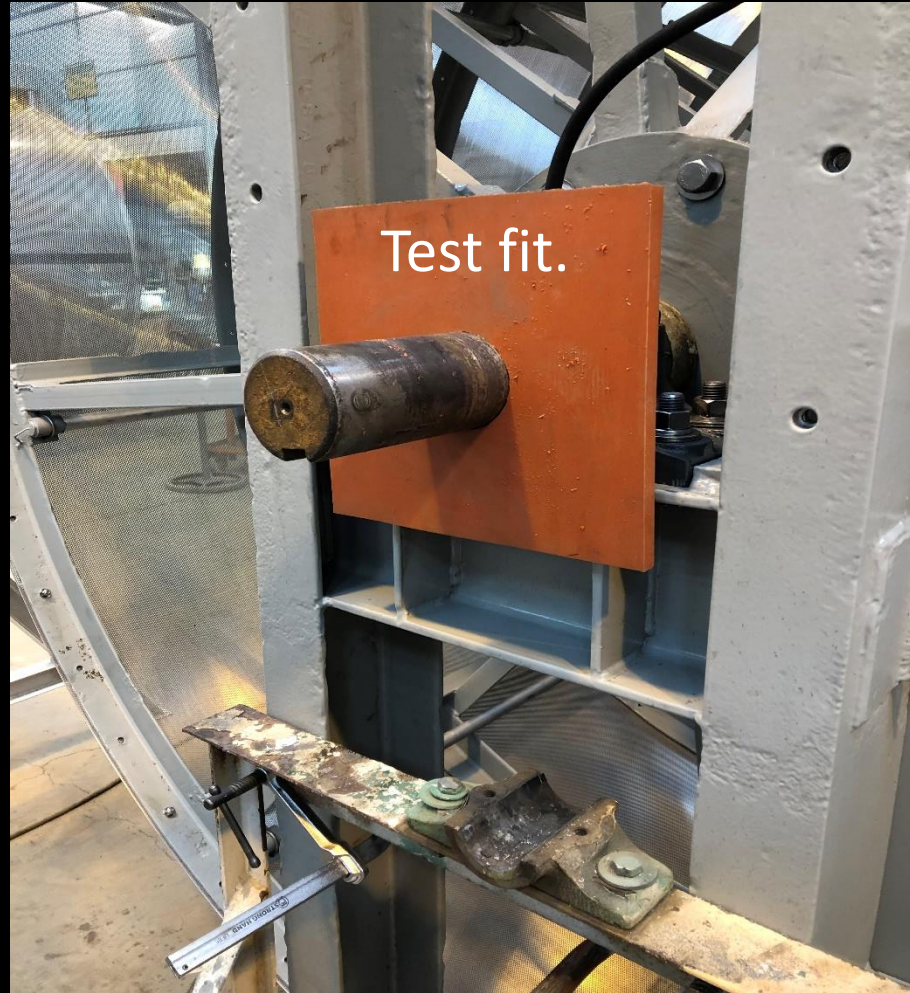


We added weld nuts to make it  
easier to remove chain cover.





New rubber chain well seal.





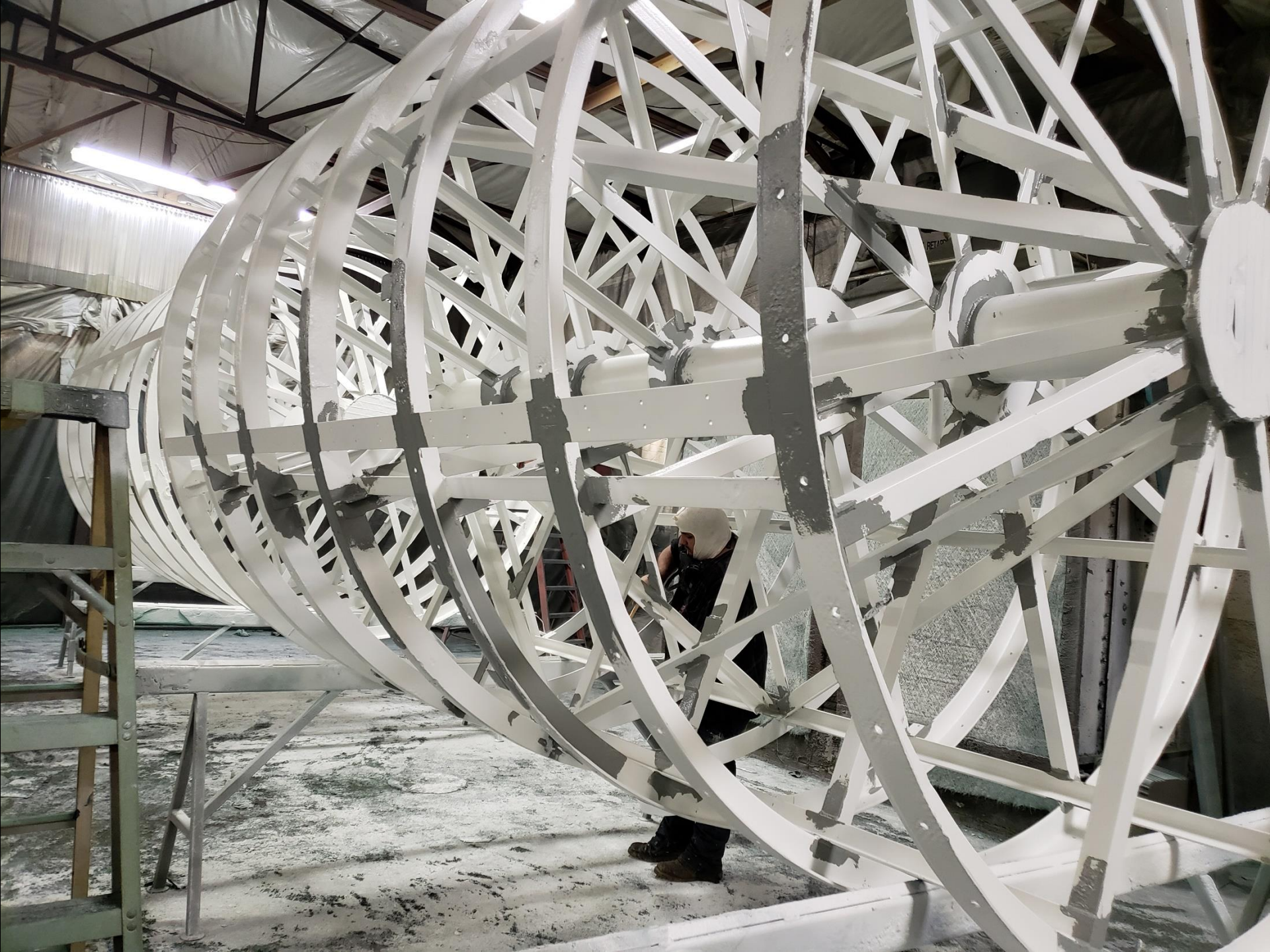
After blasting and primer the painters put an extra coat over the badly pitted areas.

Blast and coating was by Industrial Coating Unlimited LLC.





Primered







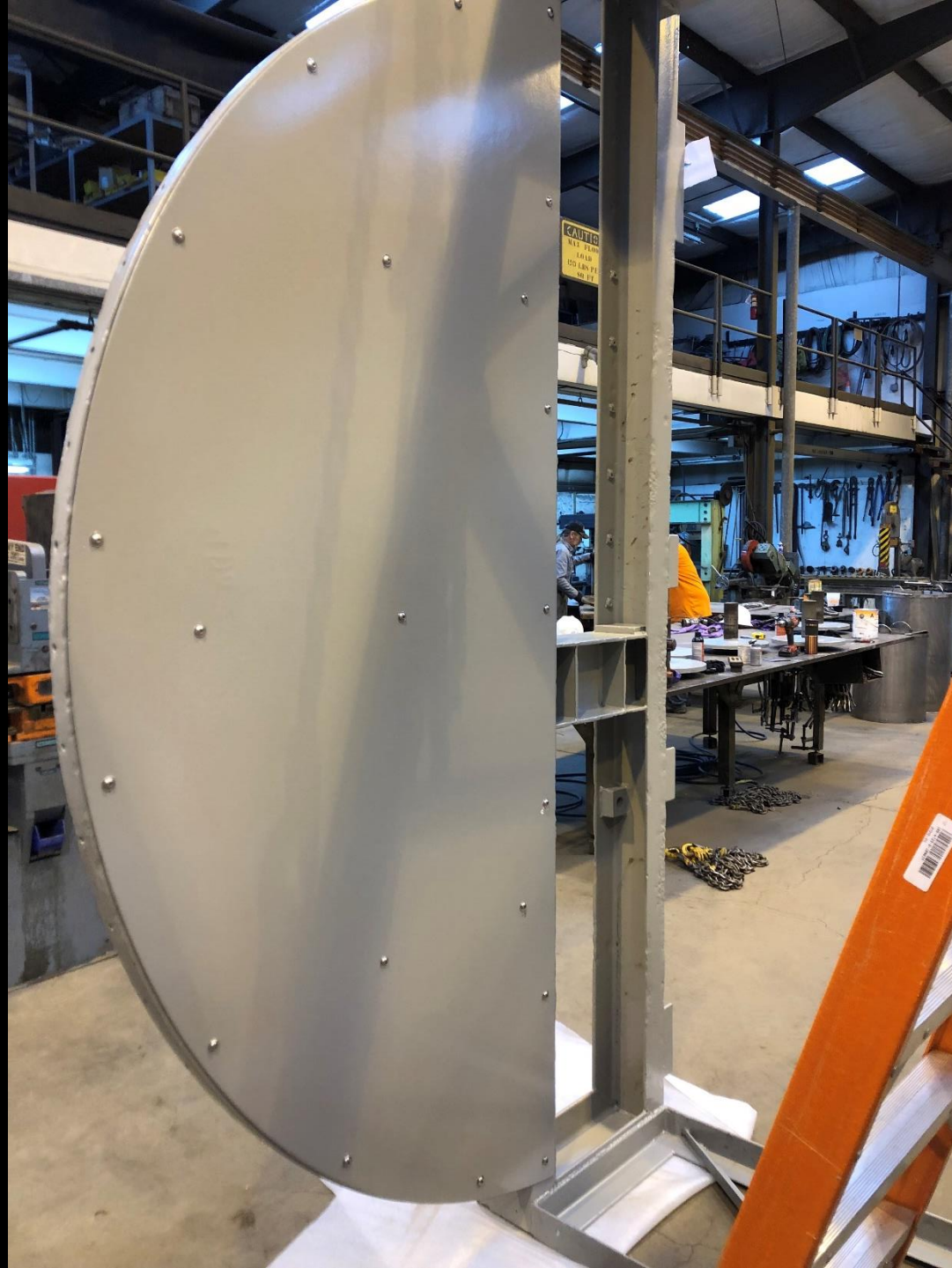
2 of the frames  
had be straighten.

Added back.





Before we stood  
the frames up the  
wing plates where  
bolted into place.





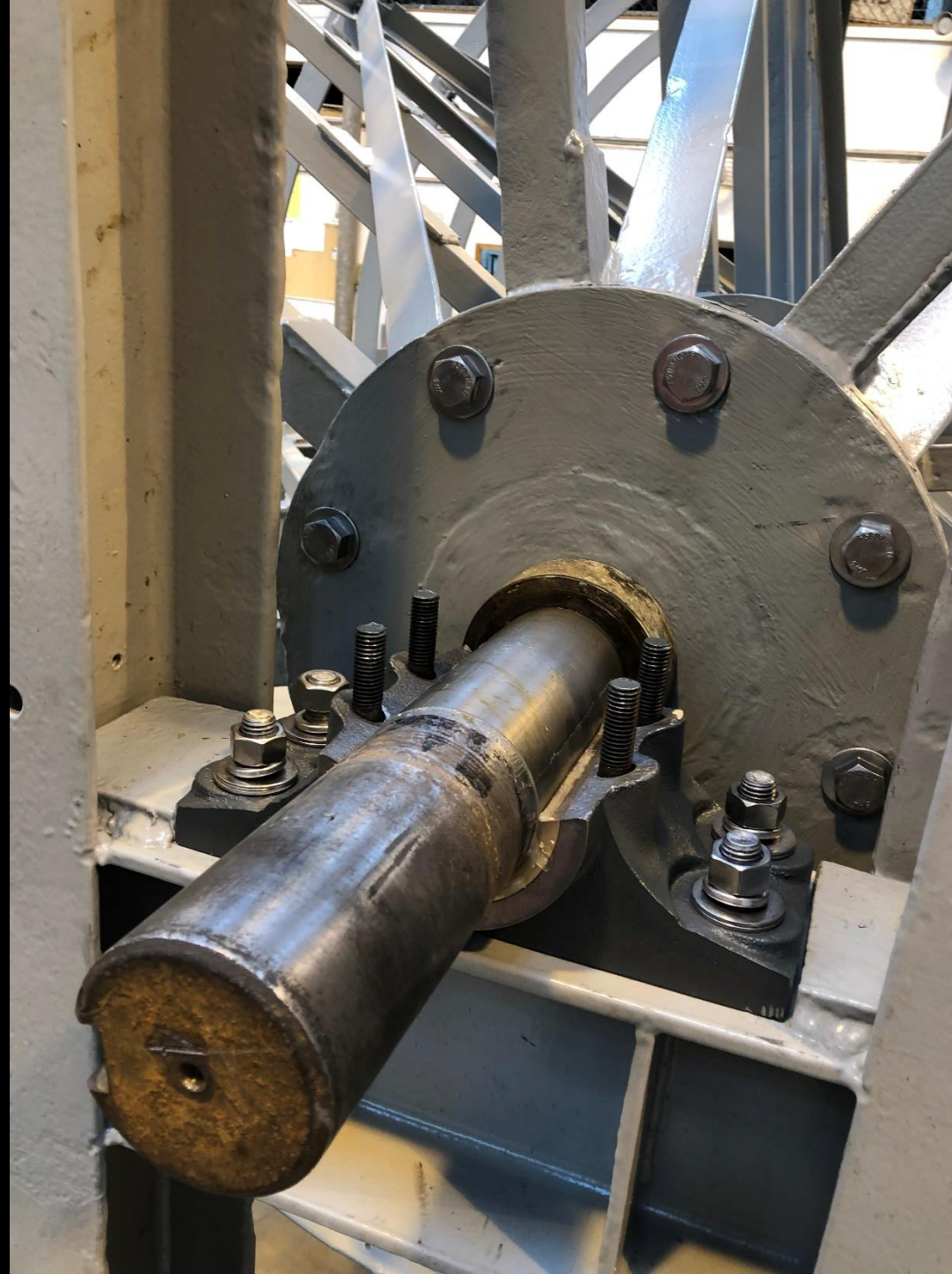


The drum had to be set into the frame before we could install the shafts and bearings.





Drive end after shaft plate  
and bottom half of the  
new bearing is installed.





New bronze bearings  
and grease lines.





The drum is installed and ready to have the magnesium rod and perf-plate installed.









This view show the splice bar and where the anodes are attached to the drum.







Adding the perf-plate.



The drum is mast off and ready for the capastic to be put over the seams.







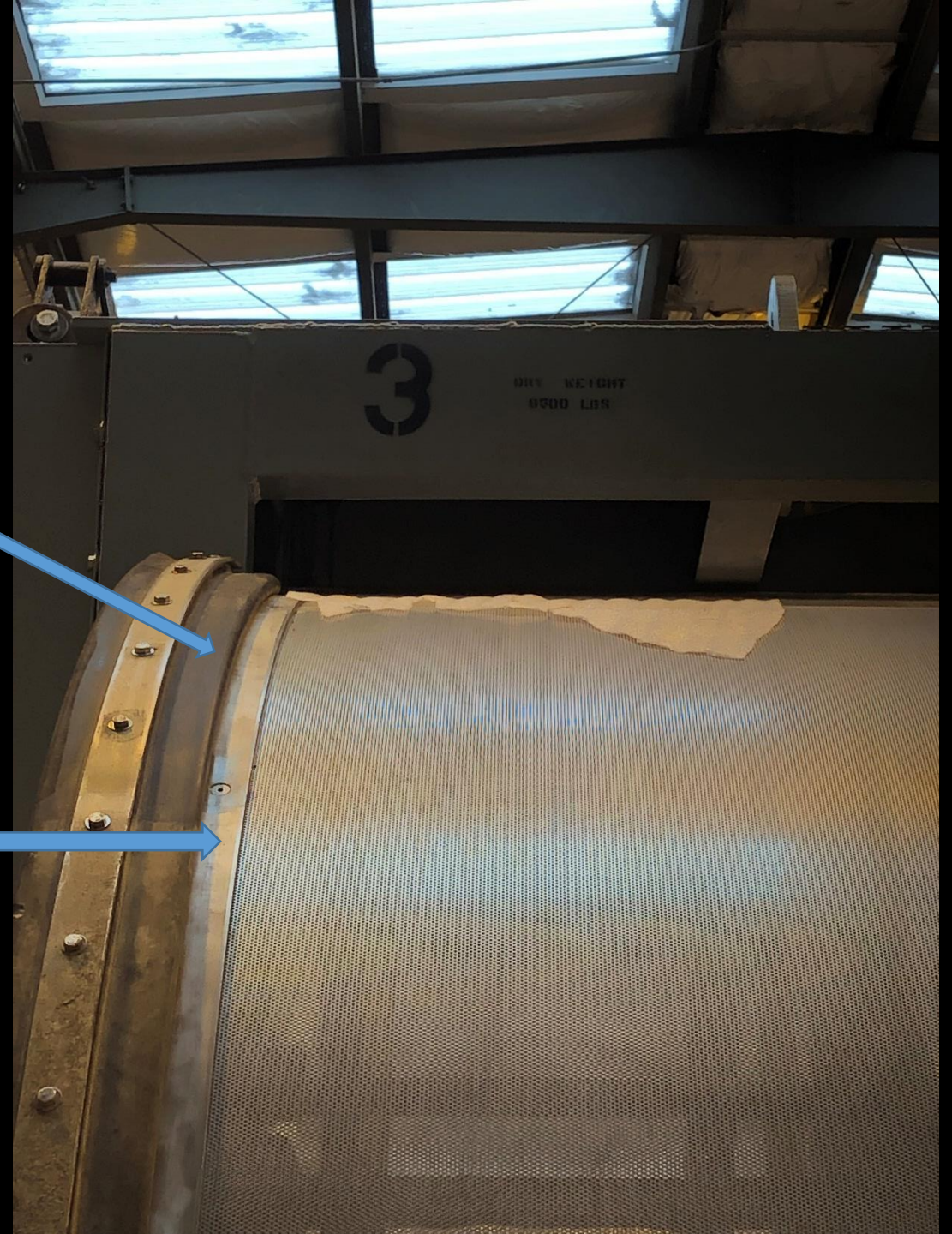






Large bulb seal

Stainless wear strip





A small brush was installed to cover the gap between the side bulb seal and bottom seal.





Lubing the chain with mineral oil.





Monster chain





From old to new.





All buttoned up and ready to ship.

## (SUMMARY)

Approximately 320  
man hours per screen

Per screen

Estimated cost = \$53,058.75

Actual cost = \$47,961.69

Total for all 4 = \$191,846.76

