Pump #4 - Repairs

Location: Pump Station No. 2 (Bason Marina)

566 W 107th St. Galliano, LA 70354

Bid Opening: August 9, 2018 @ 11:00 A.M.

Issues found upon inspection:

Motor register on motor housing which is a male = 34.494/34.481

Motor housing to discharge head (Male) = 49.995/49.996 Discharge head to motor housing (Female) = 50.000/50.025

Discharge head to first section of pipe (Female) = 50.002/50.042 First section of pipe to discharge head (Female) = 50.003/50.022 Spider matting Discharge head to first section of pipe (Male) = 49.972/49.986

First section of pipe to reducer housing (Female) = 50.003/50.023Reducer housing to first section of pipe (Male) = 50.001/49.970

Reducer housing to upper bowl housing (Male) = 46.487/46.481 Upper bowl housing to reducer housing (Female) = 46.523/46.522

Upper bowl housing to lower bowl housing (Male) = Washed out completely

Lower bowl housing to upper bowl housing (Female) = 46.516/46.517

Lower bowl housing to suction bell (Male) = 35.496/35.494

Suction bell to lower bowl housing (Female) = Washed out completely

Shafts and coupling fits:

Upper shaft (#1) in way of coupling fits = 4.249 Top end

Drive Coupling bore to shaft = 4.250/4.251 Little out of round

Other end of shaft = 4.249 lower end

Coupling to shaft = 4.254

Intermediate shaft (#2) = 4.249 Top ends

Coupling bore to shaft = 4.4.255
Other end of shaft = 4.256
Other end of coupling = 4.255

Intermediate shaft (#3) = 4.250/4.248 Out of round

Coupling bore to shaft = 4.256

Other end of shaft = 4.250/4.248 Out of round

Other end of coupling =	4.253
Impeller shaft top end =	4.249
Coupling to shaft =	4.259
Shaft sleeve to bowl =	4.474/4.4.488
Bushing in bowl =	4.833/5.044
End of shaft to bell =	4.223/4.234
Bushing in bell =	4.830
# 1 taparad shaft slagge =	4 400/4 400 Dualian in tour
# 1 tapered shaft sleeve =	4.498/4.489 Broken in two
#1 tapered shart sleeve = #1 pipe bushing =	4.526/4.524
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#1 pipe bushing =	4.526/4.524
#1 pipe bushing = #2 tapered shaft sleeve = #2 pipe bushing =	4.526/4.524 4.498/4.496 4.533/4.536
#1 pipe bushing = #2 tapered shaft sleeve = #2 pipe bushing = #3 tapered shaft sleeve =	4.526/4.524 4.498/4.496
#1 pipe bushing = #2 tapered shaft sleeve = #2 pipe bushing =	4.526/4.524 4.498/4.496 4.533/4.536

#1,2,3 inner pipes were saw cut because we were unable to loosen coupling nuts.

Specifications for Repairs:

- 1. All outer parts and inner pipes are to be sandblasted, primed and two part black epoxy coating applied.
- 2. Stitch weld discharge head to motor register and re-machine to match motor housing.
- 3. Take clean cut on register fits until round on discharge head and first section of pipe.
- 4. Stitch weld OD of spider; machine to match discharge head and first section of pipe.
- 5. Take clean cut to round up register fit on first section of pipe to reducer housing.
- 6. Stitch weld register fit first section of pipe; machine to match reducer housing.
- 7. Stitch weld reducer housing register to bowl hosing; machine to match upper bowl housing.
- 8. Weld up upper bowl housing register that mates to lower bowl housing; machine to match lower bowl.
- 9. Weld up suction bell register; machine to match lower bowl housing.
- 10. Three new shaft couplings should be manufactured new.
- 11. #2 and #3 shafts rounded up in way of coupling fits.
- 12. All three shafts need to be polished free from rust.
- 13. Both bell and bowl bushings need to be replaced.
- 14. The shaft sleeve to the bowl and the end of shaft needs light clean cut taken.
- 15. Two tapered shaft sleeves need to be renewed.
- 16. All three inner pipes need to be replaced.
- 17. Inner pipe couplings need to have threads chased.
- 18. Bushings in inner pipes need to be renewed.
- 19. Need to take a light clean cut in the case ring housing to remove the highs.
- 20. Weld up the OD of the impeller, re-machine to match housing.
- 21. Assemble using all new seals, packing, bolts, gaskets, etc.

22. Ship back to South Lafourche Levee District*.

Additional work to be performed on pump for repair:

- 1. Add grease lines to all bearing-to-shaft points.
- 2. Add stainless-steel grease lines and protective covers where needed. <u>Grease lines should run</u> through the mounting flange of the pump.
- 3. Add two (2), 10 pound anodes below the waterline.
- 4. Provide measurement of total vertical travel of impeller, after unit is completely assembled.
- 5. Check and replace, if necessary, the lifting eyes of the pump.
- 6. Pump should be adequately greased before delivery.
- 7. Delivery to customer.

*Successful bidder will include in their bid, the price to pick up pump from Boland Marine & Industrial Co., LLC, located at 1000 Tchoupitoulas (at Andrew Higgins Blvd), New Orleans, LA 70153, and deliver to Pump Station No. 2 (Bason Marina) located at 566 West 107th Street, Galliano, LA 70354.

The successful bidder will notify the South Lafourche Levee District two weeks prior to delivery to the pump station to give the Levee District adequate time to prepare for the placement of the pump back into the pump station.