



Quote

June 19, 2017

Charlotte Waste Water Plant
1005 Paine Drive
Charlotte, MI 48813

Attn: Ford Hamman

Ref: End suction pump for reconditioning

Dubric J.O.: 34559

Req.: NA

Shipper: NA

MFG.: A.C.

Serial: NA

Size: 6 X 6 X 12 LC

Old J.O. No: NA

Date of last Repair: NA

After complete disassembly, cleaning, and precision measure, please find below the required repairs for the above:

Failure mode: Loose thrust bearing, sleeve runout.

Sealing device is a Chesterton type 442 split seal size 2.750". The rotary holder shows wear and requires replacement with new from the OEM. The Spiraltrac bushing shows wear and will be replaced with new. The seal will be cleaned for reuse and need to be installed onsite once the impeller lift has been set.

Bearing protection consists of flingers which have wear. We would suggest the customer purchase new for these parts from the OEM. These could be reused if the customer approved.

Volute was not supplied so no disposition will be given.

Backcover shows corrosion in the seal gasket area. We will face this to clean for a good gasket service for the Chesterton 442 seal. ARC coating will be recoated with two coats of ARC 855 material.

Main shaft is steel in construction and is in serviceable condition. Runouts were within acceptable limits. The radial bearing area, upper lip seal area and sleeve area show corrosion. We will repair these with chrome plating.

Shaft sleeve is 300 series stainless steel and has .008" runout. This will be fabricated as new from the same metallurgy. See option below for the pricing on this.

Impeller is cast iron in construction and has holes in various places around the impeller. The impeller has been coated previously with Chesterton metal repair coating. The coating is worn and missing on portions of the impeller. We will blast and apply two coats of ARC 855 metal repair system to repair the impeller. Low areas will be filled with ARC 858 metal repair system. Suction impeller ring is 400 stainless steel in construction and has minor wear. We will skim cut and reuse. We will balance of the impeller to ISO 1940 G2.5 specification for a smooth operating pump.

Radial bearing is an open type bearing and is in fair condition. This will be replaced with new from the customer.

Thrust bearing is an open type bearing and is in fair condition. This will be replaced with new from the customer.

Radial bearing housing is within specification with no work required.

Thrust bearing cartridge is outside of tolerance by .002" and because this was metalized in the past chrome plating will not work as a repair method. We will replace this with new manufactured from steel. Please see option for this below.

Coupler was not sent with unit.

After the above repairs the pump would be assembled and all clearances and adjustments performed. The Spiraltrac will be installed. The impeller clearance will need to be set prior to installation of the 442-split seal. The power end will be painted battle ship gray. We will supply two extra backcover gaskets as part of this order along with gasket sheeting for the volute gaskets. Please specify thickness for the volute gaskets.

Total price for reconditioned pump \$7,772.54

Option one

Fabricate a new seal sleeve from 300 series stainless steel. This includes all labor and materials for this repair.

If this is desired add to above \$670.52

Option Two

Fabricate a new thrust bearing housing from steel. This includes all labor and materials for this repair.

If this is desired add to above \$984.54

Quotation good for 30 days after issuance.

Delivery – estimated typical delivery for this project is three to four (3-4) weeks, sooner if possible. All final deliveries are based on date of order, workload at time of order, and customer delivery needs along with lead time of components from the OEM.

Terms – Net Thirty (30) Days from receipt of delivery. All payment is due within thirty (30) days of delivery. A 1.5% per month (18% per year) late payment fee will be assessed on any unpaid balance remaining after thirty (30) days.

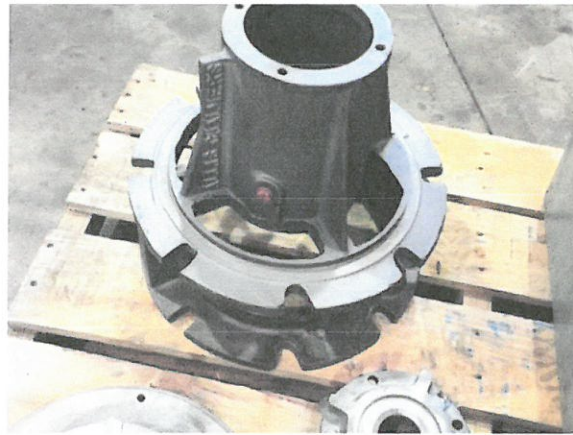
Freight Terms – FOB Origin, freight prepaid and charged back.

Respectfully;

Michael Gallup
Engineered Services Division



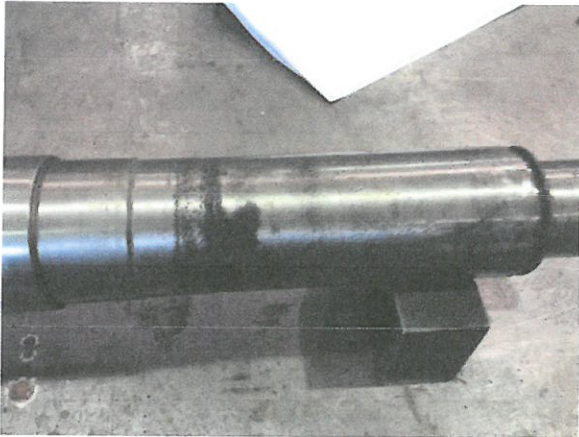
Before disassembly



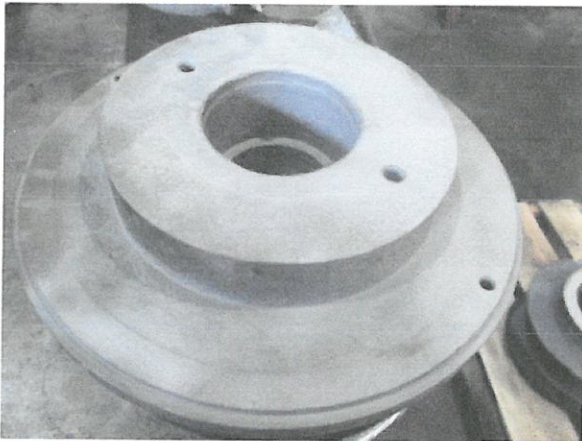
Bearing housing



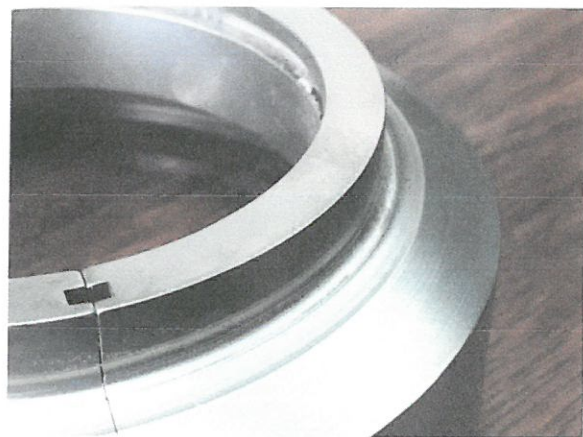
Shaft on left, lip seal fretting on right



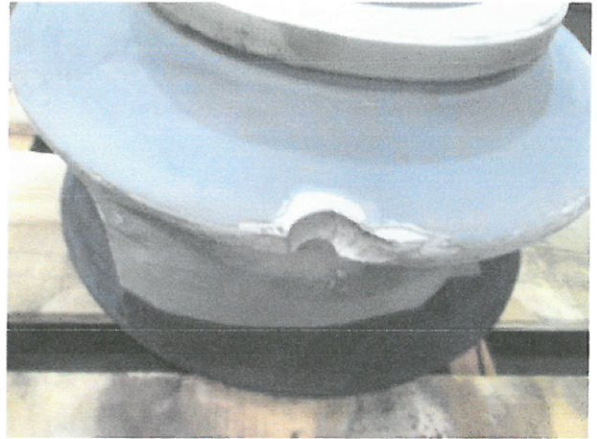
Corroded sleeve area on left and shaft sleeve on right



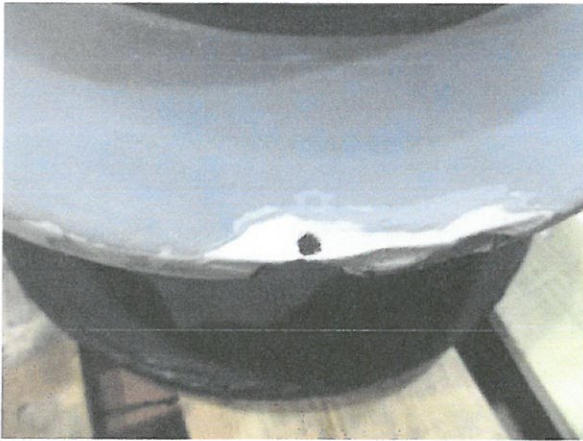
Stuffing box on left with corroded gasket area on right



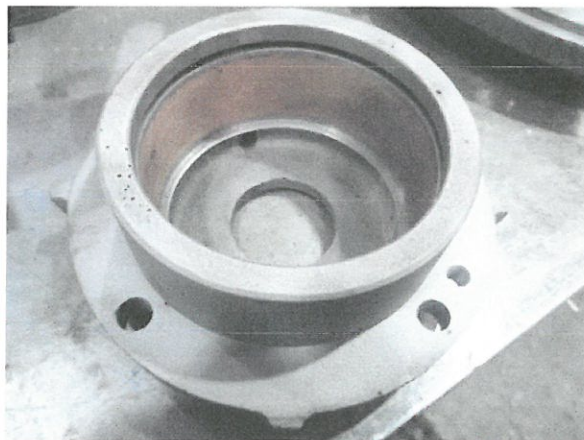
Worn spiral track on left and worn rotary holder on right



Impeller wear



Impeller wear



Metallized thrust bearing housing



Worn flinger ring



Back cover

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