

## **Mechanical seal failure report**

Customer: City of Houston

Date: 8/25/11

Water pump – 80-90 psi / Ambient temp. / 11 months (run time)

### **FINDINGS:**

1.50" Type 21 seal assy. Carbon vs Stainless / Buna

Rotary Carbon seal faces have worn down approx. .050" - .070"

Stationary Stainless seats are severely worn with phonograph finish.

Buna elastomers are in a normal condition.

Scaled deposits seen on all outer seal surfaces.

### **CONCLUSION:**

The deposits seen have caused extreme wear to both rotary & stationary sealing surfaces. Customer needs to check whole system for scale deposits & remove prior to replacing seals. Descaling chemical additives are required to be run through system on a regular basis.

Robco recommends upgrading the rotary seal faces to Silicon Carbide.

Replace the stainless seats with Tungsten Carbide inserts.

Buna is suitable for this job.

Robco will clean & polish the stationary seat housings. Sealing surfaces for cup mount seats will be polished to 32 rms finish.

Insp. By T. Lyons

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