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SEAL FAILURE CHECKLIST

Company Name _____ Customer # _____
 Address _____
 City _____
 State, Zip, Country _____ OEM
 Telephone # _____ Fax # _____ Distributor
 Email _____ Rebuilder
 Contact Person _____ Title _____
 Products Mfd/Sold/Service _____

1. Describe the application:

A. Type: Telescopic Piston-rod cylinder Pump/Motor Other _____
B. Fluid Medium: Type: _____
 Pressure: normal: _____ psi Temperature: system: _____ °F ambient: _____ °F
 min: _____ psi min: _____ °F
 max: _____ psi max: _____ °F
C. Speed: Cycles/min: _____ Length of stroke: _____ in Average speed: _____

2. Inspect the application before seal removal:

A. Amount of leakage: _____ Slight Moderate Heavy leakage
B. Condition of area: _____ Clean Dusty Mud packed
 Painted Other _____
C. Leakage source: _____ Between wiper lip and rod Wiper blown out
 At gland bolt holes At gland OD
 Between piston and rod Across piston seal Other _____

3. Inspect external cylinder conditions:

Collision that caused a pressure spike in cylinder Cylinder dented Side loading present

4. Remove seals and inspect internal cylinder conditions

A. Shaft: Rod diameter out of tolerance (check entire length) Rod is scratched or scarred
 Eccentricity of rod and cylinder head Surface finish (RMS) is too smooth or too rough
B. Bore: Bore diameter out of tolerance (check entire length) Bore is scratched or scarred
 Bore is out of round Surface finish (RMS) is too smooth or too rough
 Eccentricity of piston head and cylinder bore
C. Groove: Groove dimensions are out of tolerance Surface is nicked or scratched
 Surface is dirty or rusted Surface finish (RMS) is too smooth or too rough
D. Bearing surfaces: Improper support causing eccentricity Abnormal wear of wear ring and/or bearing surfaces

5. Inspect the seals for signs of failure:

A. Describe the failed seal

i. Seal type: Piston Rod Static
 Part Number: _____ Size: _____ Material: _____ Profile: _____
 Companion parts: _____
 ii. Operation: Dynamic: Rotary Reciprocating Oscillating
 Static: Radial Face

B. Describe the conditions of failure

i. Service length until failure: _____
 ii. Describe seal condition:

