## **BLACKMER**

# MECHANICAL SEAL PARTS AND INSTRUCTIONS PUMP MODELS: HXL(S)6C, HXL(S)6-N, HXL(S)6F-N HXL(S)8C, HXL(S)8-N, HXL(S)8F-N, HXL(S)10B

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Effective MAR 1984

### WARNING DANGER

DO NOT ATTEMPT TO OPEN THE PUMP UNTIL YOU HAVE BLED OFF THE PRESSURE. ON SYSTEMS WITH METERS, THE DIFFERENTIAL VALVE WILL KEEP LIQUID UNDER PRESSURE IN THE PUMP, METER AND PIPING EVEN WHEN THE HOSE IS EMPTIED.

If a mechanical seal has been damaged, evidence of leakage will appear around the shaft.

#### TO REMOVE THE SEAL ASSEMBLY:

- Remove the bearing cover. Remove the steam jacket if so constructed.
- Mark the threaded bearing locknut position relative to the shaft keyway. A small prick punch on the bearing locknut directly above the center of the shaft keyway will identify this location.
- The bearing locknut may then be removed by bending the tang on the lockwasher back away from the locknut. Some pumps are constructed without locknuts.
- 4. Remove the hub, or head assembly being careful not to damage the shaft or other components.
- Remove the seal face and seal jacket assembly from the shaft
- 6. Remove the stationary seat from the hub, or head.

At this point the shaft and stationary seat recess must be cleaned and thoroughly inspected for nicks or burrs which may cut the O-Rings or permit leakage around the mechanical seal O-Rings. If any such burrs do exist, polish them out with fine emery cloth and again clean the area with a suitable solvent.

MAINTENANCE AND TROUBLE SHOOTING MUST BE DONE BY AN INDIVIDUAL EXPERIENCED WITH PUMP MAINTENANCE AND THE TYPE OF SYSTEM INVOLVED.

#### TO INSTALL THE NEW SEAL:

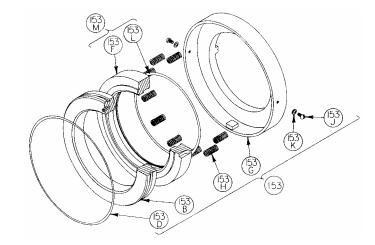
- Apply a thin film of grease to the shaft to permit the seal O-Ring to slide on the shaft.
- Install the seal face, seal face O-Ring, and jacket assembly over the shaft and slide it up to the rotor so that the seal jacket drive tangs engage the drive holes in the rotor.

NOTE: Only bronze seal faces should be oiled during assembly, but all other seal assemblies must be kept clean and dry.

- The stationary seat with O-Ring is now installed into the lightly greased hub, or head recess. This recess must be clean and free of burrs. The polished side of the stationary seat must be facing outward to mate with the rotating half of the seal previously installed.
- The hub, or head is now reinstalled over the shaft with care, so as not to damage the stationary seat. Using a new hub, or head O-Ring is recommended.
- The bearing, bearing nut, and bearing lockwasher are now installed, if so constructed.
- 6. Tighten the locknut to the same position as before removal and secure it by staking a lockwasher tang into the nearest locknut slot, if so constructed. If this position has been lost, refer to the Maintenance Instruction Sheet for readjustment of the bearing locknuts.

## HXL(S)6C, HXL(S)6-N, HXL(S)6F-N HXL(S)8C, HXL(S)8-N, HXL(S)8F-N HXL(S)10B

Seal Code	Stationary Seat	Stationary O-Ring	Rotating Face	Rotating O-Ring	
Α	Ni-resist	Buna-N	Carbon	Buna-N	
В	Ni-resist	Buna-N	Bronze	Buna-N	
С	Steel	Buna-N	Carbon	Buna-N	
D	Ni-resist	Buna-N	Carbon & PTFE Assembly	_	
E	Ni-resist	FKM	Carbon	FKM	
F	Ni-resist	FKM	Bronze	FKM	
G	Ni-resist	FKM	Carbon & PTFE Assembly	_	



Ref. No.	Part Name	Seal Code	Parts Per	6" Part Number	Parts Per	8" Part Number	Parts Per	10" Part Number
153	Mechanical Seal Complete	А	2	337722	2	337740	2	337660
		В	2	337758	2	337760	2	337663
		С	_	_	2	337755	_	_
		D	2	337766	2	337741	_	_
		Е	2	337765	2	337742	2	337665
		F	2	337764	2	337736	2	337664
		G		_		_	2	337661
153B	Stationary Seat	ABDEFG	2	337738	2	337730	2	337605
		С	_	_	2	337750	_	_
153D	O-Ring - Stationary	ABCD	2	701937	2	701918	2	711903
		EFG	2	701968	2	701991	2	711934
153F	Seal Face	AE	2	337746	2	337747	2	337610
		BF	2	337751	2	337752	2	337612
		С		_	2	337749	_	_
153M	Seal Face Assembly	D	2	337244	2	337744	_	_
		G	_	_	_	_	2	337644
153L	O-Ring - Rotating	ABC	2	701934	2	701925	2	701945
		EF	2	701921	2	701924	2	711932
153G	Seal Jacket	ABCDEFG	2	337753	2	337743	2	337630
153H	Seal Spring	ABCDEFG	12	337716	12	337716	24	337716
153J	Screw	ABCDEFG	4	922740	4	922740	4	922740
153K	Lockwasher	ABCDEFG	4	909608	4	909608	4	909608



<sup>&</sup>quot;A" Seal - STANDARD on Model HXL

<sup>&</sup>quot;D" Seal - STANDARD on Model HXLS

<sup>&</sup>quot;C" Seal - STANDARD on Model HXL (CO2-8" ONLY)