babcock & wilcox power generation group

Plant Service Bulletin

MPS Pulverizer — Viking Lube Oil Pumps

Purpose

This bulletin advises owners and operators on causes of oil pressure problems with Viking 124 and 125 Lube Oil Pumps used with MPS gearboxes.

Problem

Falling oil pressure at the lube oil pump discharge can occur. This pressure loss may transpire over a matter of days as pump end clearance is lost, or over a matter of hours as temperature increases. Oil pressure at the pump outlet is an indication of oil flow rate.

Low pressure can be caused by:

1. Operating at temperatures in excess of the normal temperatures which are 120° to 130°F.
2. Low flow rates due to improper setting of the relief valve.
3. Low flow rates due to improper seating of the relief valve poppet.

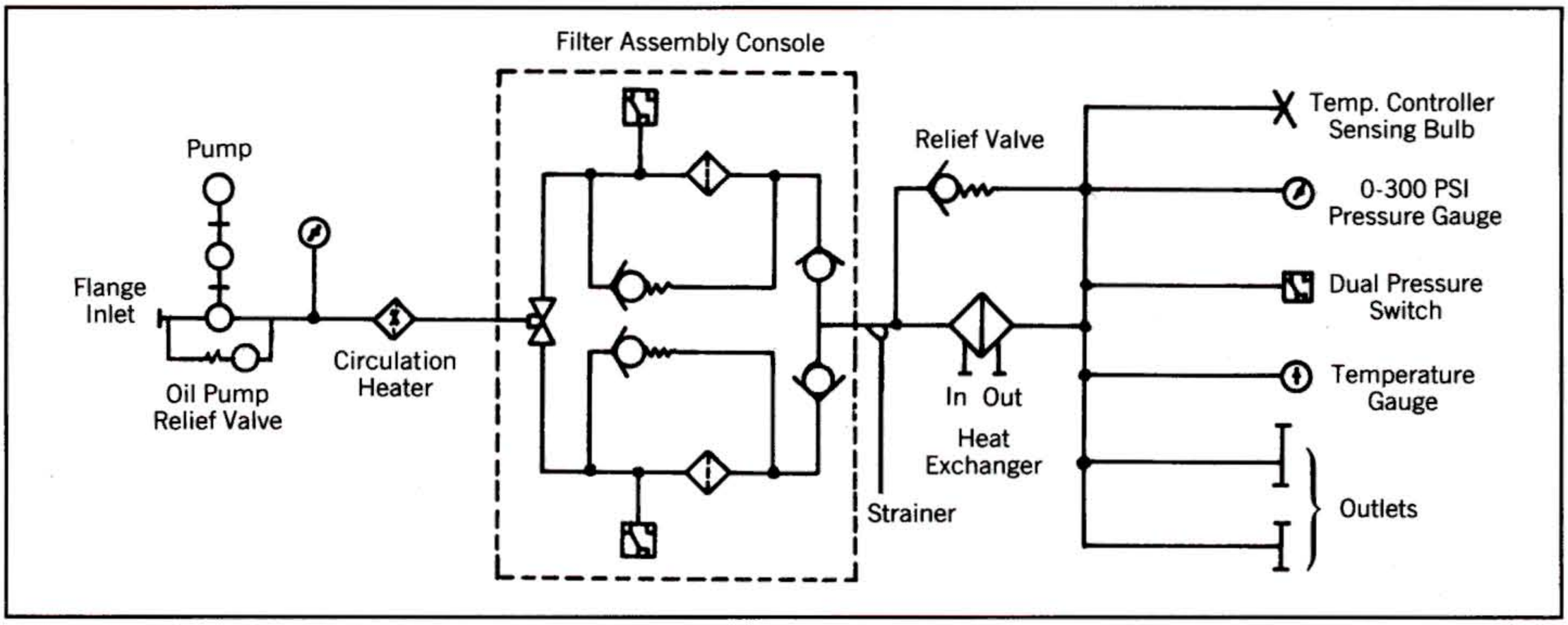
Item 1 causes low pressure due to reduced viscosity, thereby lowering downstream resistance. Item 2 and 3 result in low flow, and possible high temperatures, in the thrust bearing cavity and high oil temperature alarms. Continued operation under the above conditions may lead to local lubricant starvation and drive damage.

Recommendations

1. Remove the pulverizer and lube oil system from service. Check the operating end clearance of the pump per the manufacturer's operating instructions (TSM-000 and TS-110), and reset if necessary. Operate the lube pump to see if 60-65 psig oil pressure can be maintained to the gearbox at normal operating temperatures.
2. Remove the relief valve from the pump and disassemble the valve to inspect the seating surfaces. If the surfaces are not seating properly, lap the seating surfaces to obtain good seating. Reassemble and set the spring pressure to relieve at 125 psig and 70°F oil.
3. If, after completing items 1 and 2, the oil pressure continues to deteriorate, the thrust bearing lock nut should be checked. Continued pump operation with the lock nut loose will cause the pump bearing spacers to rotate, wearing the inner race faces and leading to pump bearing failure and/or shaft wear due to the spinning of the spacers.

Support

If any problems are encountered, contact Babcock & Wilcox Field Service Engineering for further information or assistance.



Schematic of the lube oil system.

For more information in the U.S.A., call 1-800-BABCOCK (222-2625). Outside the U.S.A., call (216) 753-4511 or fax (216) 860-1886 (Barberton, Ohio, U.S.A.). Or contact your nearest B&W sales or service office worldwide.

Akron (Wadsworth), Ohio
Ankara, Turkey
Atlanta, Georgia
Beijing, P.R.O. China
Birmingham, Alabama
Boston (Westborough), Massachusetts
Cairo, Egypt
Cambridge, Ontario, Canada
Charlotte, North Carolina
Cherry Hill, New Jersey
Chicago, Illinois
Cincinnati, Ohio
Dallas, Texas
Denver (Lakewood), Colorado
Edmonton, Alberta, Canada
Fairfield, New Jersey
Halifax (Dartmouth), Nova Scotia, Canada
Houston, Texas
Jakarta, Indonesia
Kansas City, Missouri
London, England
Los Angeles (Los Alamitos), California
Melville, Saskatchewan, Canada
Mexico City, Mexico
Montreal, Quebec, Canada
Moscow, Russia
Portland, Oregon (Vancouver, WA)
Prague, Czech Republic
Pune, India
Saint John, New Brunswick, Canada
St. Petersburg, Florida
San Francisco (Vacaville), California
Vancouver, (Richmond) British Columbia, Canada
Warsaw, Poland

PSB-8B 2M D 12/95