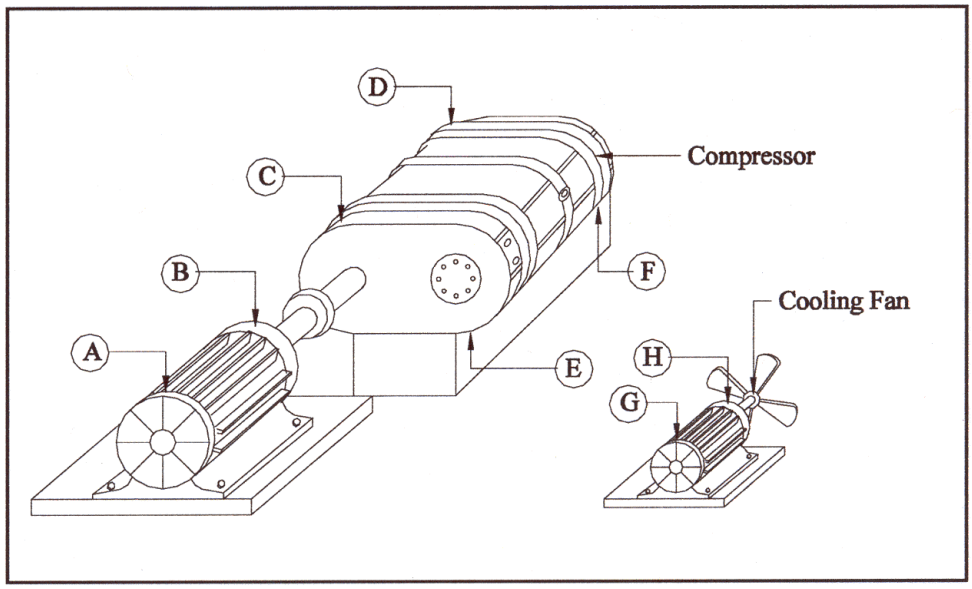
Vibtech Analysis Ltd.
Keeping Canadian Companies Competitive

VIBRATION CONDITION CHECK

Unit Designation: 100 H.P. Compressor

Date: February 7, 2004



Driver

Make: Brook Crompton

S/N: 3115 220 04M

RPM Plate: 1770

RPM Actual: 1760

Model: K404TD

H.P.: 100

Service Factor: 1.15

Running Hours: 63,648

Driven

Make: GHH

S/N: 141516

RPM Plate: Not Available

RPM Actual: 1760/ 3203

Model: CF1286

Load: 100 p.s.i.

Gear Ratio: 1.82:1

ΔP: 1 p.s.i.

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VIBRATION CONDITION CHECK

100 H.P. Compressor			1	2	3	4	5		
Unit Description	No Action		Low			PRIORITY		High	Don't Run

Vibration Data

(in/sec. pk.)

A-A	A-H	A-V	B-A	B-H	B-V	C-A	C-H	C-V	D-A	D-H	D-V
.24	.16	.16	----	.070	.086	.18	.15	.10	.17	.15	.10

E-A	E-H	E-V	F-A	F-H	F-V	G-A	G-H	G-V	H-A	H-H	H-V
.13	.27	.19	.15	.27	.20	----	**.91**	**1.3**	----	.29	**2.1**

Comments

The overall vibration levels measured on the compressor and motor are within acceptable limits, however, the cooling fan motor is vibrating excessively. The cooling fan is severely unbalanced, which is the primary source of the vibration.

The compressor bearings appear to be in good mechanical condition, however, the drive end motor bearing is showing moderate to advanced wear. The cooling fan motor bearings are in good condition as well.

The compressor base is not isolated from the floor.

Recommendations

1.) Shop balance the cooling fan and motor, as a unit.

2.) Periodically monitor the condition of the motor bearings. Replace the drive end motor bearing when convenient.

3.) Install vibration isolation pads under the compressor base frame.