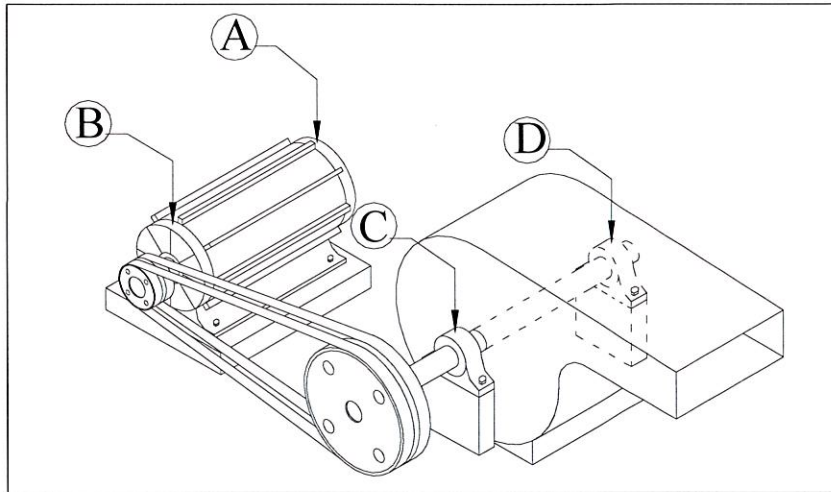


VIBRATION CONDITION CHECK

Unit Designation: FS-35-04 High Rise Perimeter Supply Fan



Driver

Make: Siemens

S/N: F11T0373NPI 3

RPM Plate: 1780

RPM Actual: 1784

Bearings: d.e.: 71BC03JP3

Model: 364 T

H.P.: 60

Service Factor: 1.15

Sheave Dia: 9.5" PD

Bearings: n.d.e.: 70BC03JP3

Driven

Make: Trane

S/N: 689891

RPM Actual: 1547

Belt Size: C-112

Bearings: d.e.: 22216 EK

Model: Climate Changer

Sheave Dia: 11.0" PD

#of Belts: 5

Belt RPM: 470

Bearings n.d.e.: 22216 EK

VIBRATION CONDITION CHECK

Unit Description	PRIORITY										
FS-35-04 High Rise Perimeter Supply Fan	0		1	2	3	4	5				7
	No Action		Low				High				Don't Run

Vibration Data (in/sec. pk.) Initial Readings

A-A	A-H	A-V	B-A	B-H	B-V	C-A	C-H	C-V	D-A	D-H	D-V
.28	.25	.31	.18	.17	.23	---	.30	.65	1.0	.70	2.7

Final Readings

A-A	A-H	A-V	B-A	B-H	B-V	C-A	C-H	C-V	D-A	D-H	D-V
.25	.21	.10	.17	.09	.07	---	.09	.12	.16	.18	.40

Comments

The belt drive analysis indicates the fan unit is over belted. The motor and fan bearings are in good mechanical condition; however, the drive end motor bearing and both fan bearings required lubrication. The drive end fan bearing was found to have two (2) different greases in the bearing housing.

The motor sheave was found to be worn and needs replacement.

The fan unit was balanced to acceptable industry standards. During the balancing process, evidence was seen on the fan wheel where balance weights had previously been attached. In the future, care must be exercised when working on the fan that weights are not knocked off.

The fan unit's push button lockout switch was also found to be broken and should be replaced for safety concerns.

Recommendations

Priority

- 5 Replace the unit's disconnect push button switch (safety hazard) immediately.
- 5 Repack both fan bearings immediately
- 4 Lubricate the drive end motor bearing ASAP.
- 4 Replace the motor sheave and install four (4) new C-112 premium quality Opti-Belts or replace both sheaves and install four (4) BX-112 belts. Motor Sheave: 4B94, Fan Sheave: 4B110