



Vibration.

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- ▣ Vibration is caused by lack of balance in the rotating parts of machinery. It has always been a source of trouble, due not only to the fact that the excessive wear on the bearings caused by vibration affects the accuracy and life of the machinery, but also to the fact that the exact point «unbalance» has been difficult to locate and difficult to correct.



- If a sharp metallic sound is heard after the rumbling noise, it may be assumed that part of the blading has been damaged; the turbine must be shut down and not used until the cause of the trouble has been found.











- ▣ Accurate alignment is essential to smooth operation. Flexible couplings should be aligned as accurately as possible because although they will absorb the shock caused by eccentric loading, impulses will be transmitted to the shafts and will cause vibration.



- ▣ Mechanical power transmission means are often the cause of vibration. Gears which are inaccurately cut, worn, or are not meshing properly will set up disturbing forces. If they fall in step with a resonant frequency of the machine, severe vibration will result.

- ▣ The origin of vibration may be at the bearings. Any condition that causes metallic contact between the shaft and the bearing will lead to vibration. The bearing may be unaligned or pinched in the housing, or may be loose in the housing.

Thank you for your attention.

