Qatar workshop alignment services

MAN PrimeServ

Laser alignment is an essential component of a viable maintenance strategy for your rotating machines. It reduces vibration and mechanical wear, eliminates bearing and coupling failure, helps to reduce unexpected machine breakdown and extends machine operating life significantly.

Precise alignment is crucial to the operating life of rotating machinery. Components such as shafts, bearings, mechanical seals, couplings, packing, pulleys, sheaves, belts and sprockets are all affected by the alignment of shaft centerlines.

Poorly aligned rotating equipment including engines, turbines, electric motors, compressors, gearboxes, propeller shafts, alternators, pumps and blowers cause excessive vibrations and bearing temperature, wobbling of shafts and noise. This can lead to wasted power, accelerated component wear, and even the potential for catastrophic equipment failures and occurrence of long unscheduled downtime.

Misalignment is one of the major causes of machinery vibration. It is estimated that 50 to 70% of all vibration problems in machines are created by misalignment.

Types of misalignment

- Parallel (or Offset) misalignment
- Angular misalignment
- Combination (parallel and angular) misalignment

There are three main types of misalignment, parallel (or offset), angular and combination. In parallel misalignment both shaft centerlines are parallel; however, they are offset by some distance. The larger the distance, the larger the misalignment.

Prolong machine life

Minimize downtime

We provide industry with field precision alignment and measurements as well as consultation support for all types of rotating machinery during maintenance and troubleshooting by our trained professionals.

Angular misalignment is a condition where the shaft centerlines are not parallel and intersect at an angle on the mating plane.

Combination misalignment refers to a condition that both parallel and angular misalignment exist. In most cases, the misalignment is from combination type.

How misalignment occurs?

- Movement of one machine relative to another caused by thermal expansion in one or both machines
- Settlement or movement of the foundation or baseplate
- Pipe stress / strain caused by misalignment of the mating surfaces of two pipe flanges
- High torsional torque at machine startup can push shafts out of alignment
- Misbored or distorted couplings resulted from manufacturing defects

Benefits of alignment

- Enhances the reliability and efficiency of operation
- Prolongs machine life
- Minimizes unplanned downtimes
- Eliminates unnecessary repairs and reduces operation cost
- Reduces the requirement for redundancy
- Increases machine safety

Please contact us for a competitive quote.

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