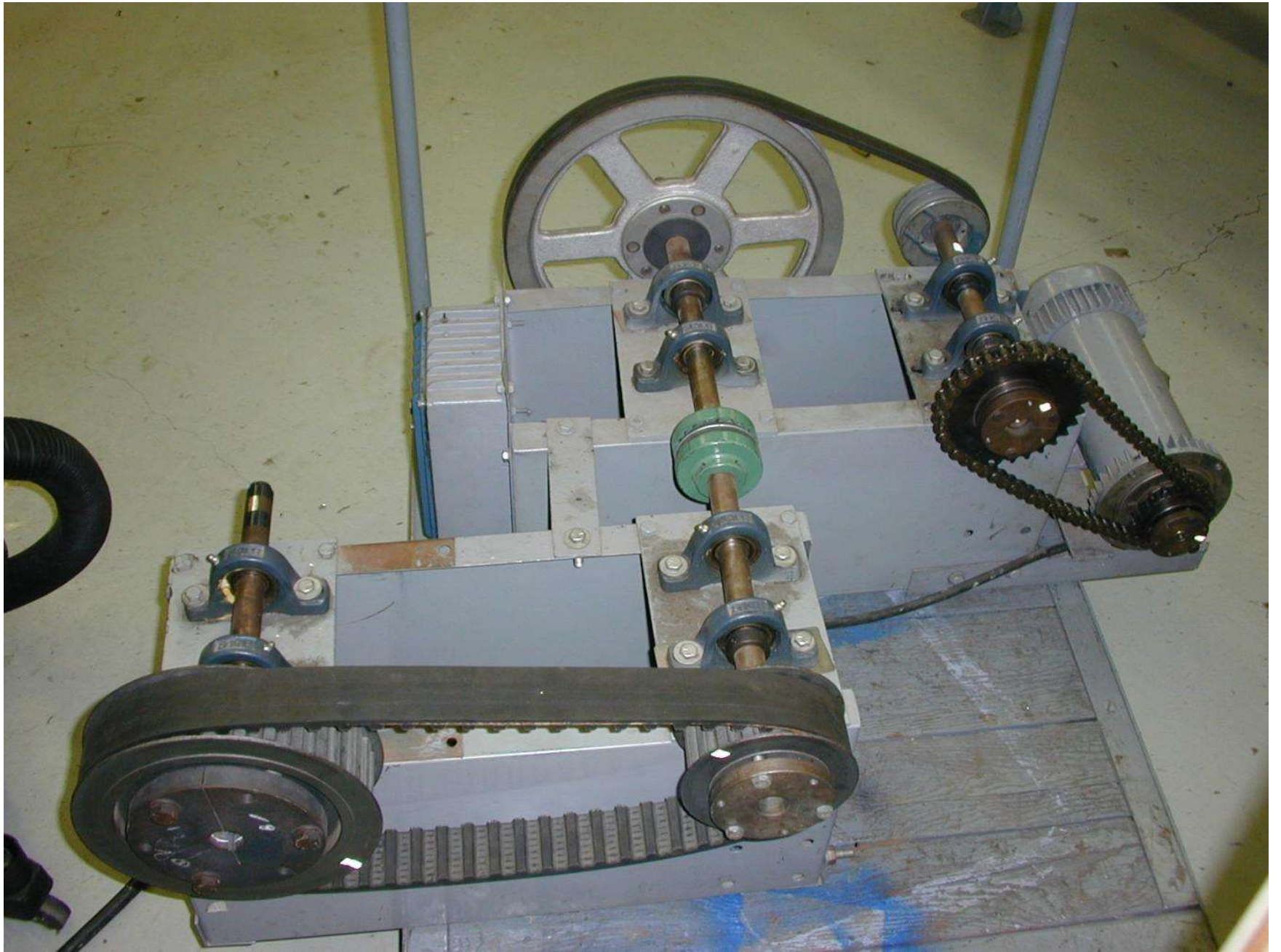
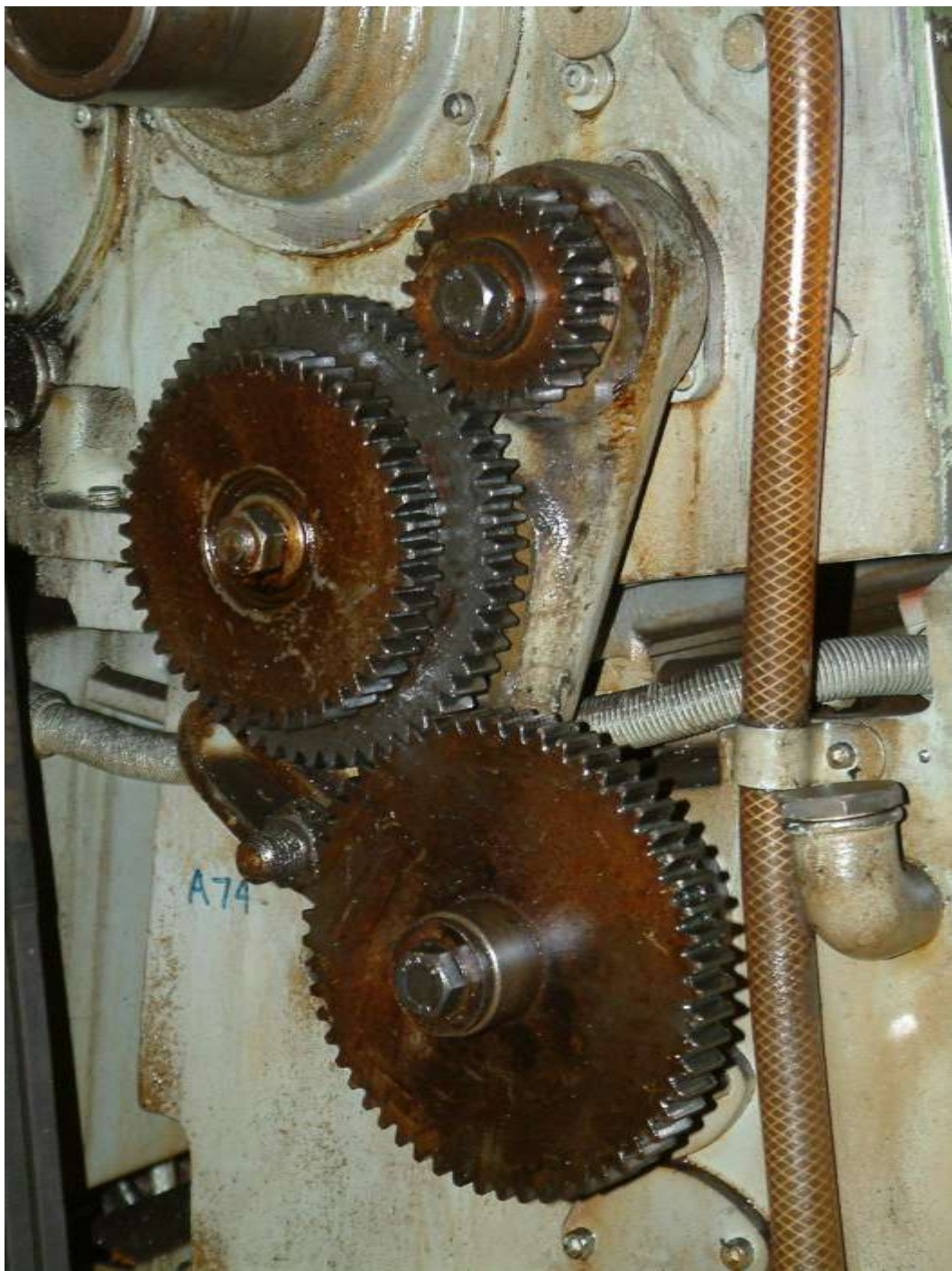


**DRIVES**









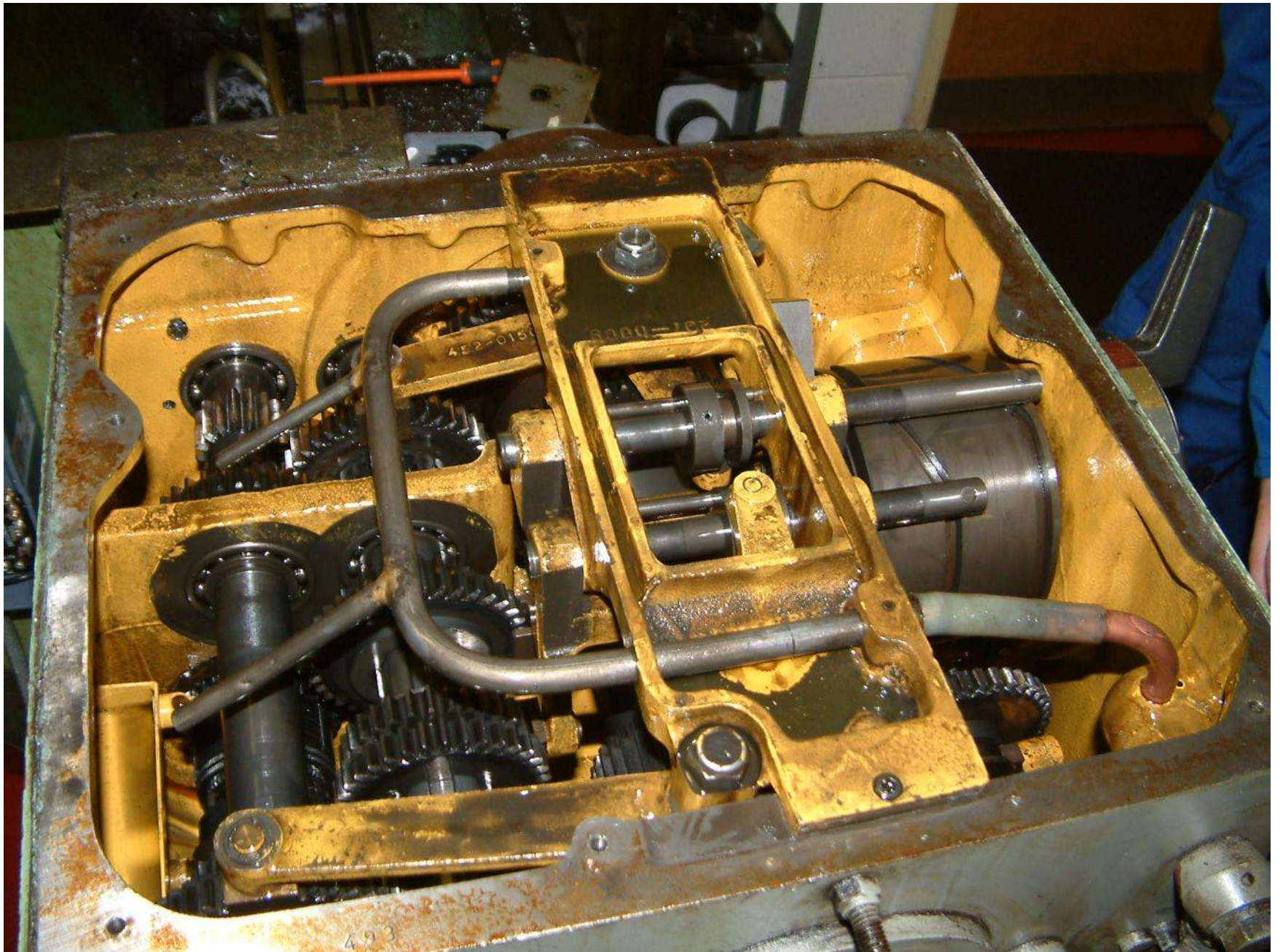












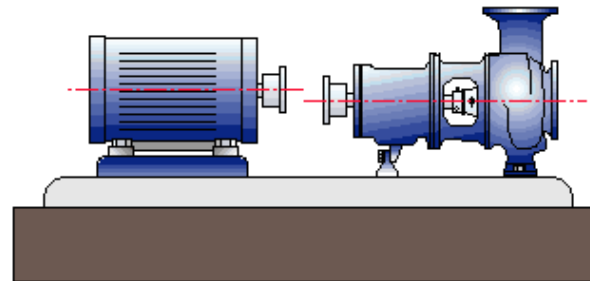








## Shaft distortion caused by misalignment



Accurate shaft centerline measurements are unlikely with the coupling engaged.

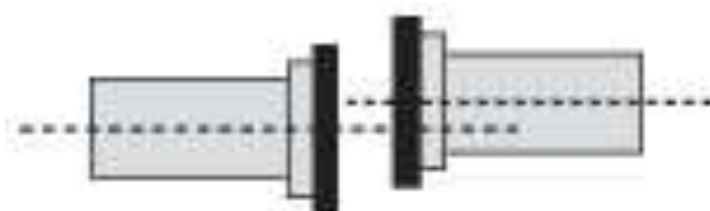
centerline of motor bearings

centerline of pump bearings

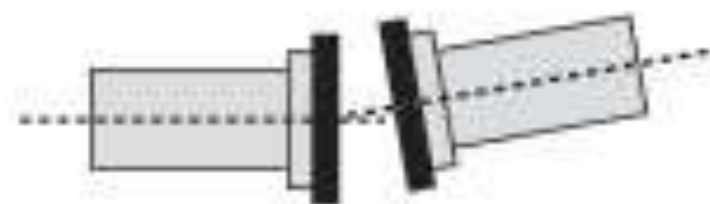


- uneven rotor to stator air gap
- cyclic fatigue of motor components
- excessive radial and axial forces transmitted to bearings
- shaft seal rubbing, heavier on one side

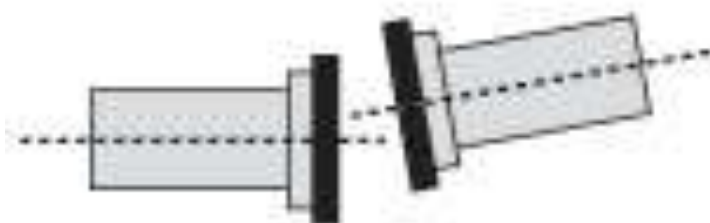
- uneven impeller to diffuser clearance
- cyclic fatigue of motor components
- excessive radial and axial forces transmitted to bearings
- mechanical seal rotating member not running concentric to stationary seal member



Parallel Offset

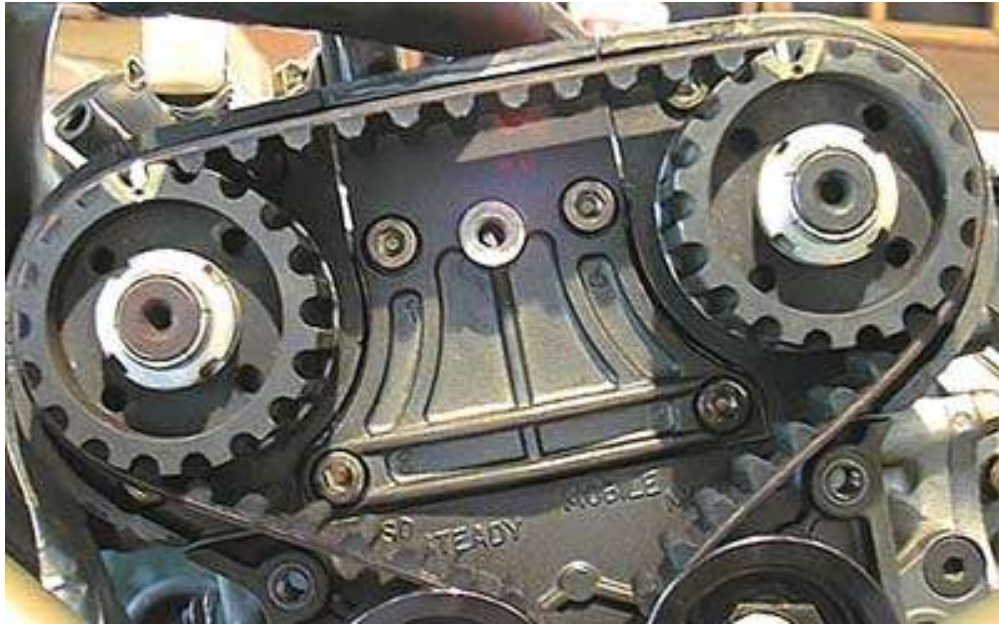


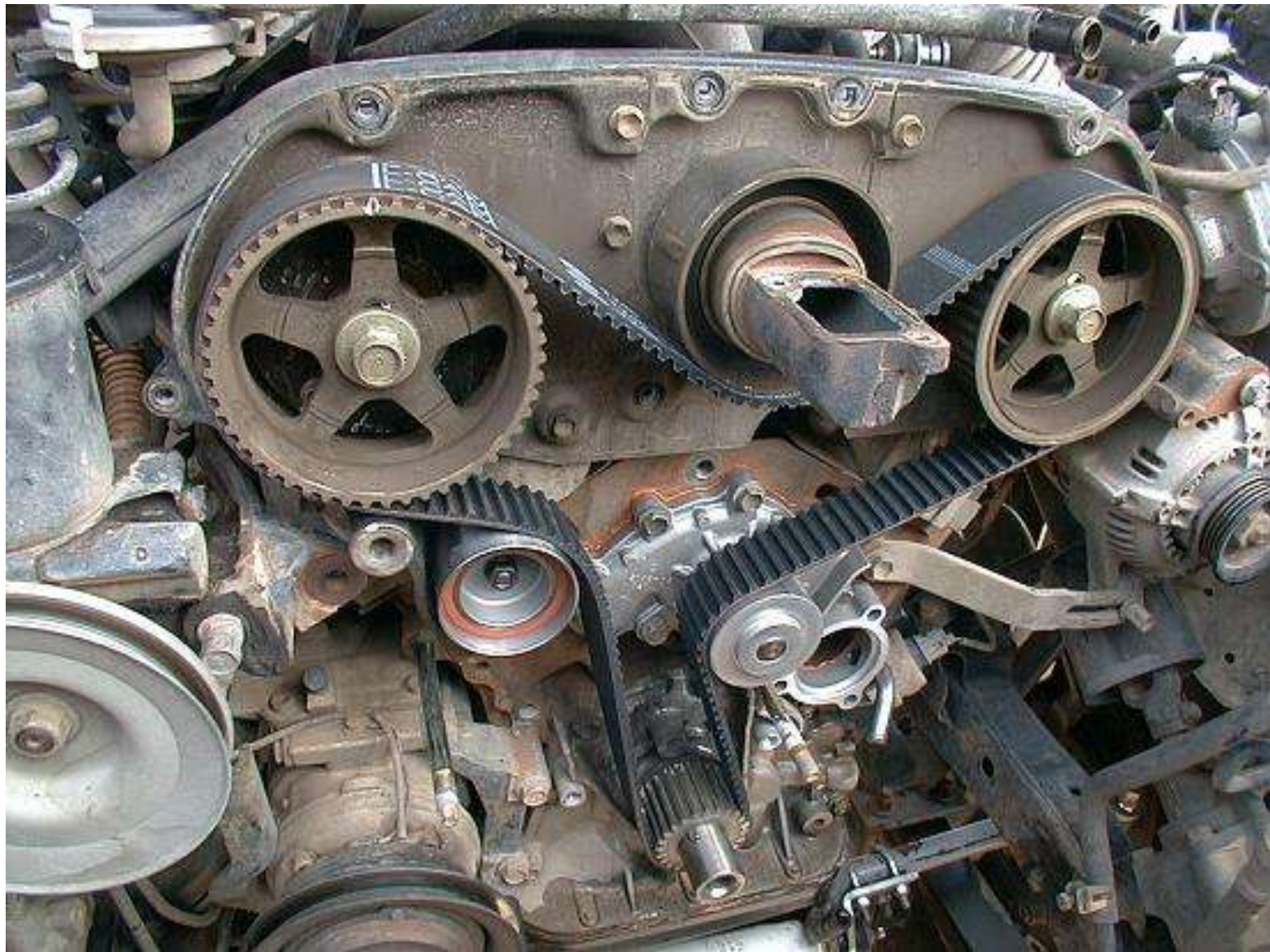
Angular



Combination









## Common Alignment Problems



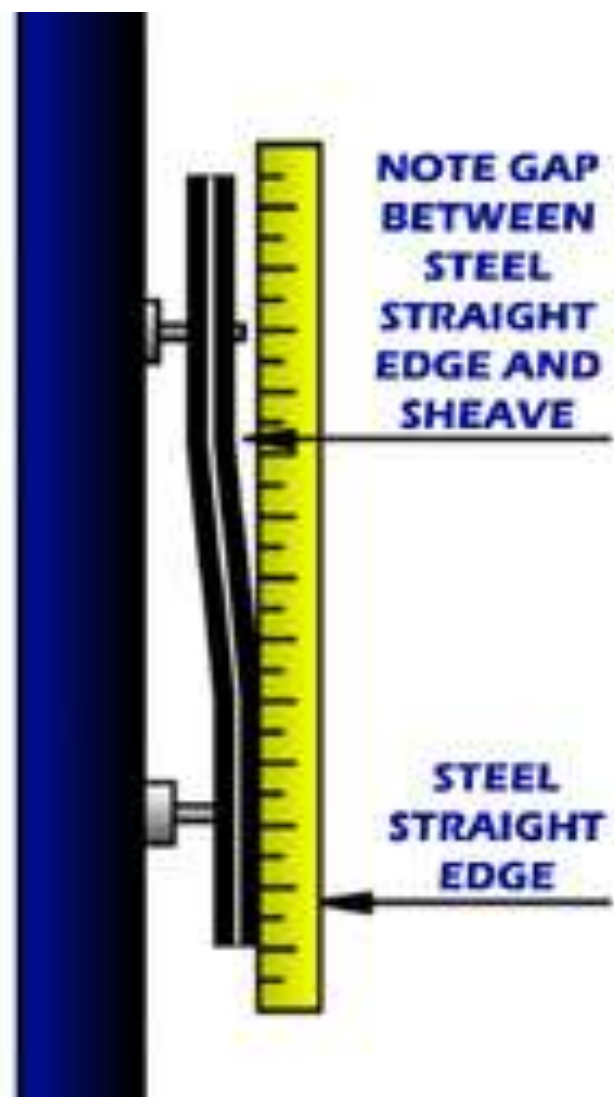
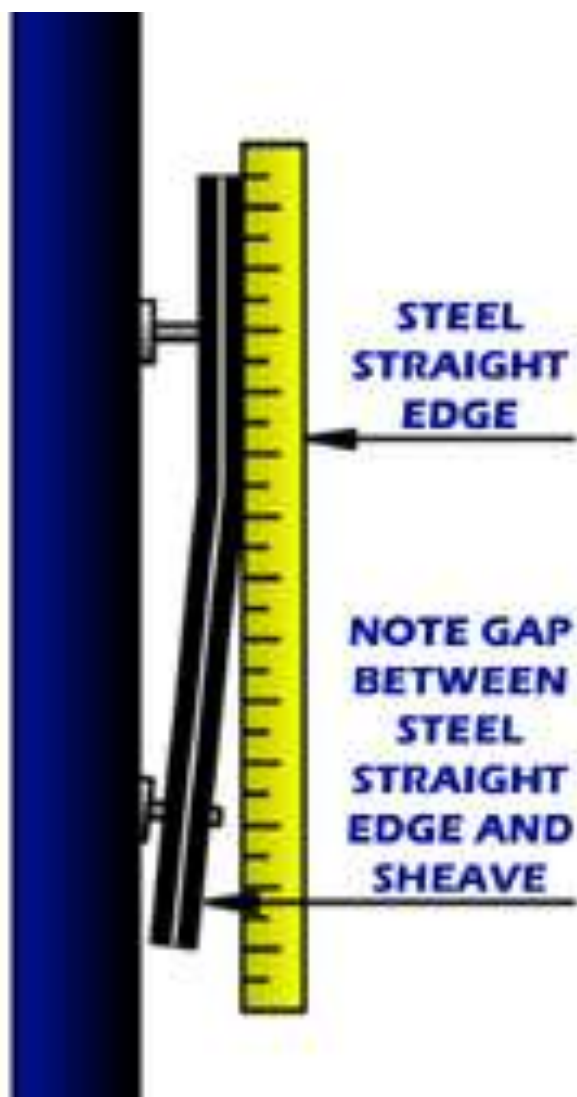
*Angle*



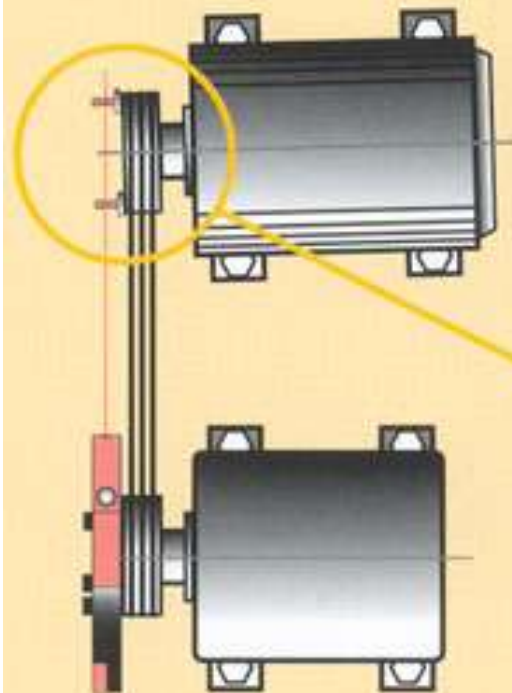
*Offset*



*Twist*

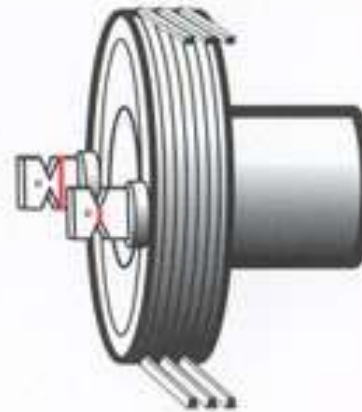




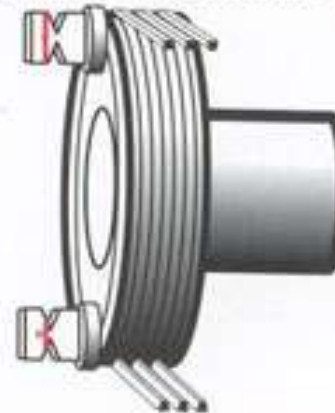


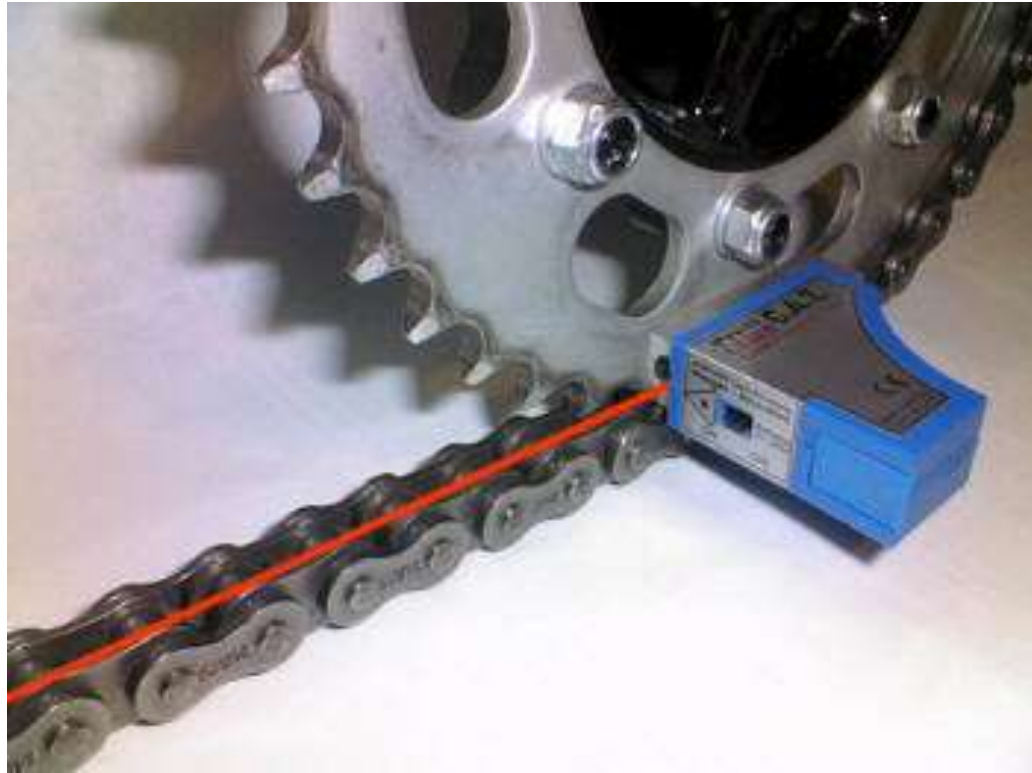
The alignment can be done with 3, or as on the picture, 2 targets.

### Horizontal alignment



### Vertical alignment







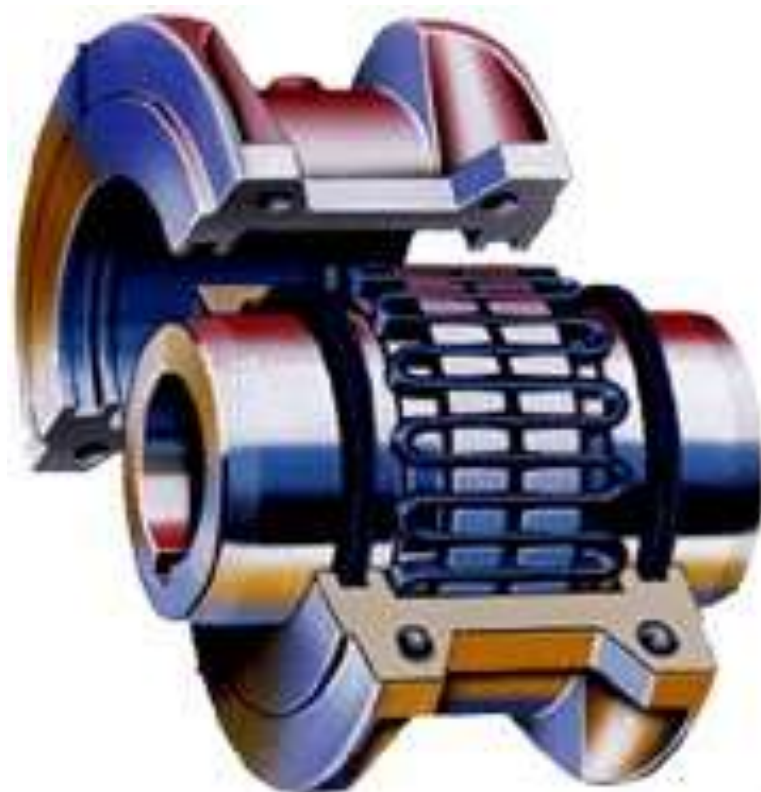
# COUPLINGS



















One-piece rigid couplings wrap around the shaft providing high torsional holding power without the shaft damage and fretting inherent when set screw style couplings are used.



Two-piece styles have the additional benefits of allowing for disassembly and maintenance without removal of other components.