

11.3 Loss of Priming while Operating :

Loss of priming or suction under these conditions may be caused by any of the following conditions :

- ↳ Leaky suction line.
- ↳ Water seal plugged.
- ↳ Suction lift too high or insufficient.
- ↳ Air or gas in the liquid.
- ↳ Casing gasket defective.
- ↳ Strainer clogged.

11.4 Excessive Power Consumption :

Excessive power consumption may be caused by any of the following conditions :

- ↳ Speed too high.
- ↳ System head lower than rating, pumps too much liquid.
- ↳ Specific gravity or viscosity of liquid pumped is too high.
- ↳ Mechanical Defects.
 - Shaft bent.
 - Rotating element binds.
 - Stuffing Box too tight.

11.5 Noise or Vibration :

Noise or vibration may be caused by any of the following conditions :

- ↳ Air or gas in the liquid.
- ↳ Air pocket in suction line.
- ↳ Pump misalignment.
- ↳ Insufficient NPSHA.
- ↳ Pump contains foreign material.
- ↳ Improper foundation.
- ↳ Mechanical defects.
 - Shaft bent.
 - Impeller touching to casing.
 - Impeller plugged or damaged.
 - Pump or motor bearings damaged.

11.6 Bearings Overheat or Wear Rapidly :

- ⇒ Lack of lubrication.
- ⇒ Improper or poor grade of oil.
- ⇒ Bearings improperly installed.
- ⇒ Dirt or water in bearings.
- ⇒ Misalignment.
- ⇒ Shaft bent.
- ⇒ Vibration.
- ⇒ Insufficient water cooling.

11.7 Frequent Packing Replacement :

- ⇒ Improper packing grade.
- ⇒ Shaft sleeve worn out.
- ⇒ Bearings worn.
- ⇒ Wrong alignment.
- ⇒ Crystallisation of liquid or embedded abrasives present in stuffing box area.
- ⇒ Insufficient lubrication or cooling.
- ⇒ Gland too tight.

The success of packing depends upon :

- Packing being of the right type and size and compatible with the liquid pumped.
- Gradual and even compression throughout.
- The ability of each ring to take its share of the pressure.
- A slight amount of leakage at all times for lubrication.

12. AVANTAGE OF CASING CORROSION ALLOWANCE :

There is minimum 3 mm gap between Bearing cover and Bearing housing, which know as casing corrosion allowance. In case due to long