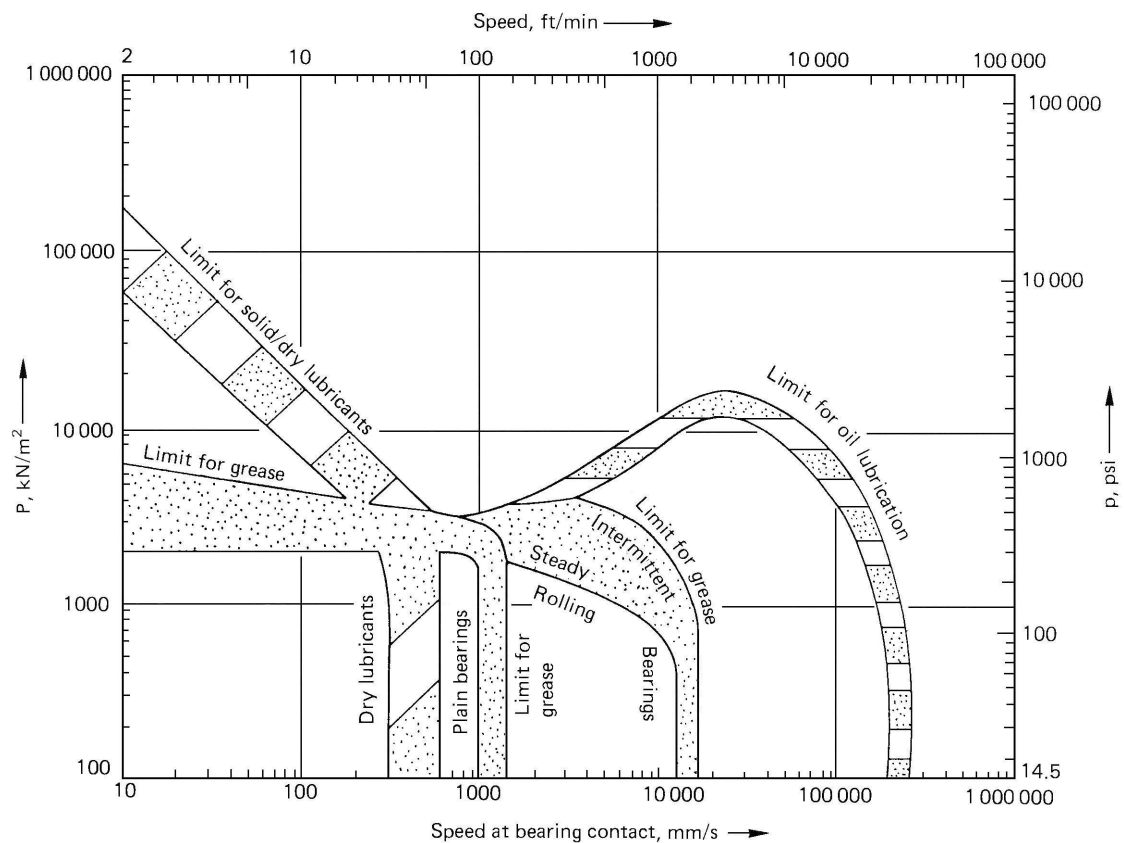


**Table 1.1 Importance of lubricant properties in relation to bearing type**

| Type of component<br>Lubricant property | Plain journal bearing | Rolling bearing | Closed gears | Open gears, ropes, chains etc | Clock and instrument pivots | Hinges, slides, latches etc |
|---|-----------------------|-----------------|--------------|-------------------------------|-----------------------------|-----------------------------|
| 1. Boundary lubricating properties      | +                     | ++              | +++          | ++                            | ++                          | +                           |
| 2. Cooling                              | ++                    | ++              | +++          | -                             | -                           | -                           |
| 3. Friction or torque                   | +                     | ++              | ++           | -                             | ++                          | +                           |
| 4. Ability to remain in bearing         | +                     | ++              | -            | +                             | +++                         | +                           |
| 5. Ability to seal out contaminants     | -                     | ++              | -            | +                             | -                           | +                           |
| 6. Temperature range                    | +                     | ++              | ++           | +                             | -                           | +                           |
| 7. Protection against corrosion         | +                     | ++              | -            | ++                            | -                           | +                           |
| 8. Volatility                           | +                     | +               | -            | ++                            | ++                          | +                           |

*Note:* The relative importance of each lubricant property in a particular class of component is indicated on a scale from +++ = highly important to - = quite unimportant



**Figure 1.1 Speed/load limitations for different types of lubricant**