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Answer:
The following steps must be adopted in selecting the bearing from the manufacturer's catalogue: 1. Calculate the radial and axial load reaction (Fa and Fr) acting on the bearing. 2. Decide the diameter of the shaft on which the bearing is to be mounted. 3. Select the proper size of bearing suitable for given application, specified with speed and available space. 4. Find the basic static rating Co of the selected bearing from the catalogue. 5. Calculate the ratio (Fa / VFr) and (Fa / Co). 6. Find the value of x and y i. e. radial and thrust factor from the catalogue. These values depend upon (Fa / VFr) and (Fa / Co).

7. Find the value of load factor or application factor 'Ka'from the catalogue. 8. Calculate the equivalent dynamic load by using relation, Pe = (XVFa + YFa) Ka 9. Calculate the approximate bearing life in hours from the type of bearing, operation and type of machinery that depends upon application. 10. Calculate the required basic dynamic capacity for the bearing by using relation, L10 = (C / Pe) a or

or

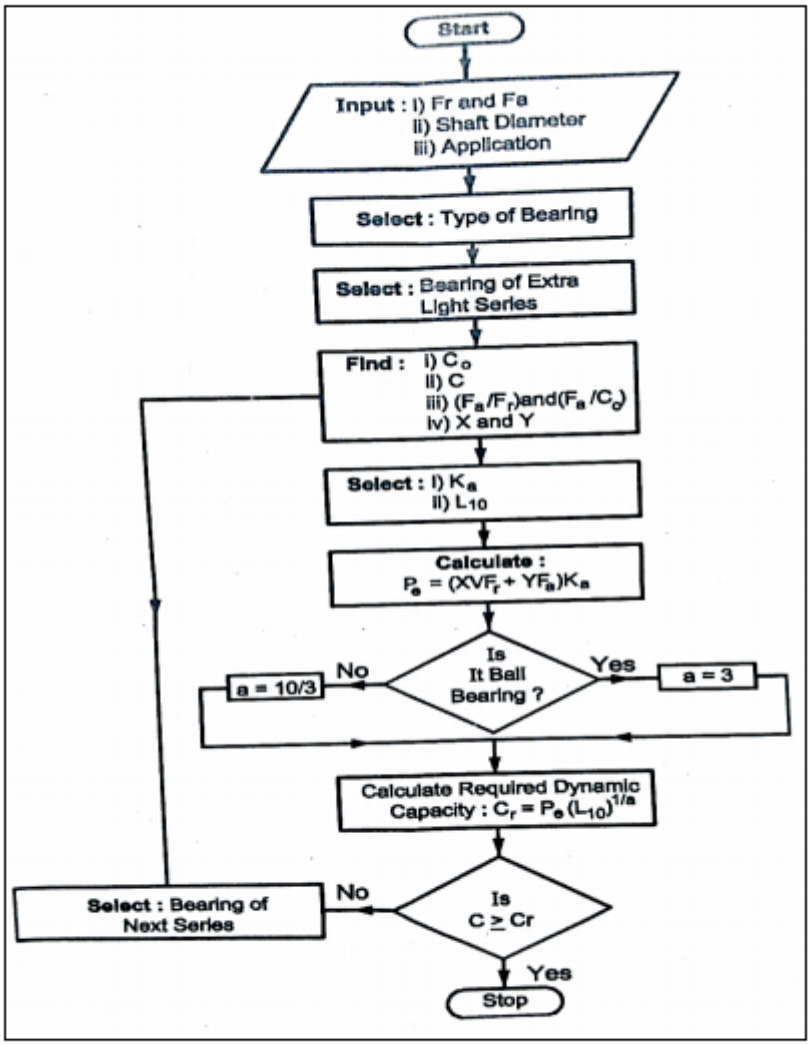

Fig. Procedure for selection of bearing from manufacturer's catalogue