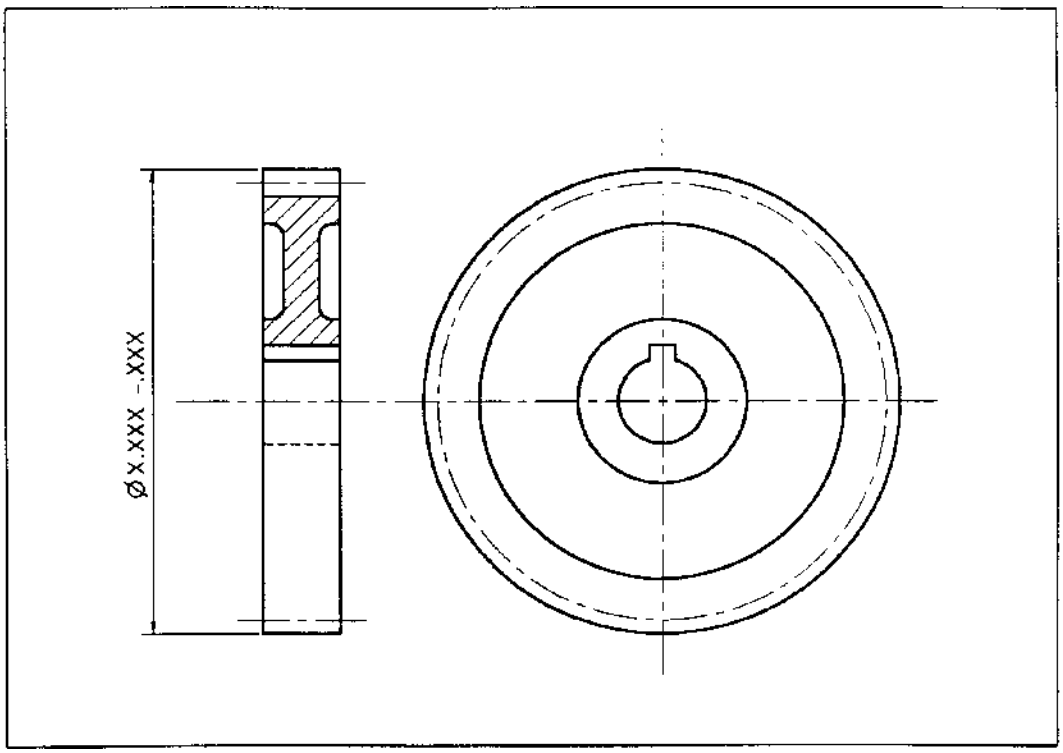
SECTION 8 GEARS

8.1 INFORMATION ON DRAWING The information to be included on a drawing is dependent upon the purpose for which the drawing is made. The following examples represent information that may be stated on the drawing or on an attached data sheet. For example, the essential tooth data for spur gears are indicated in Figure 8.1. All terms and notation for toothed gearing should be in accordance with AS 2075.

8.2 DRAWINGS Gears are normally drawn in conventional representation, e.g. gear teeth are not normally drawn. The drawings of gears given in Clause 8.3 use the conventional representation method shown in Clause 8.4.

8.3 TYPES OF GEARS

8.3.1 Spur gears The gear teeth are of constant section throughout their length and are parallel to the axis. Typical methods of drawing spur gears are shown with gear tooth data in Figure 8.1.

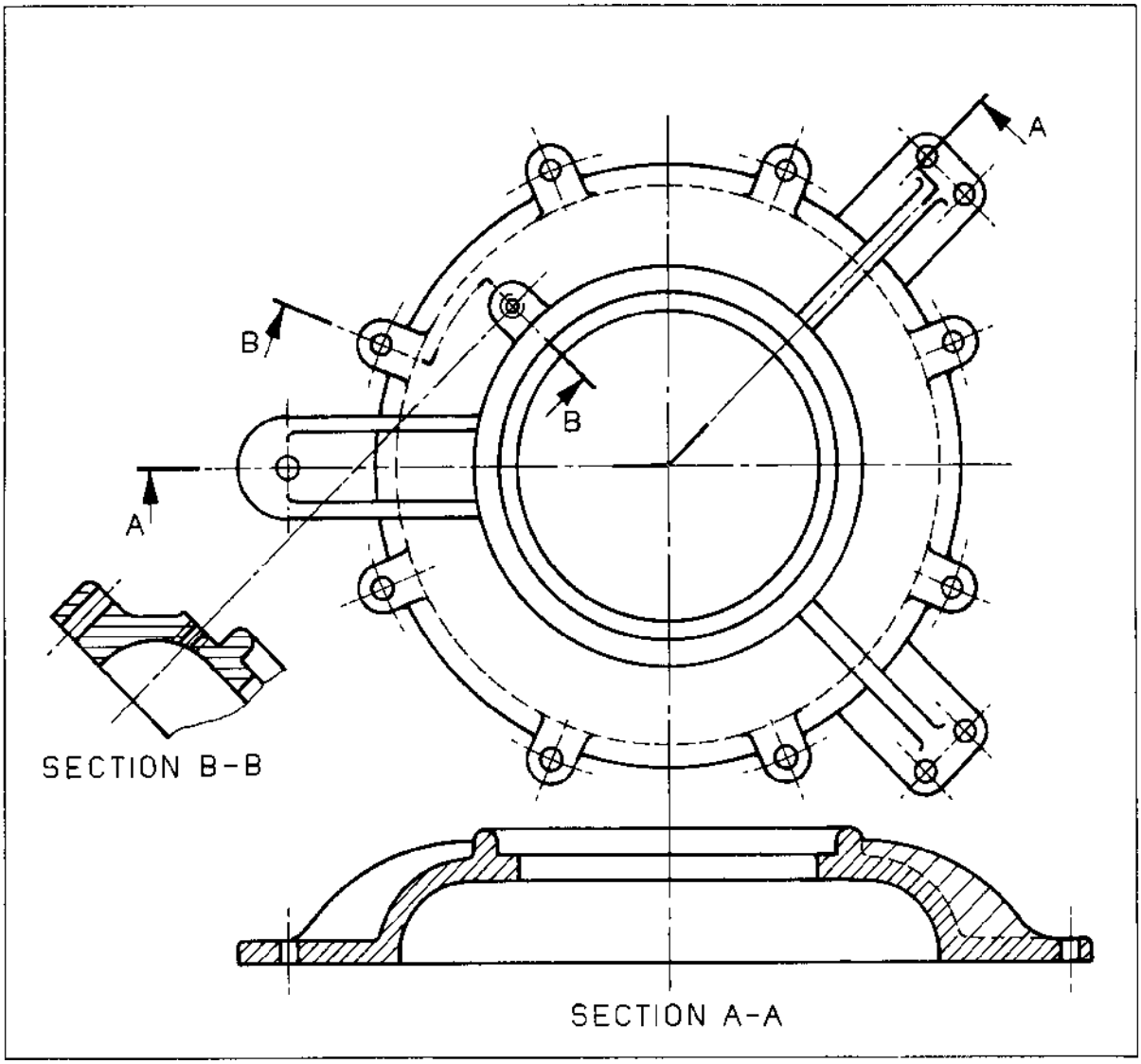


GEAR TOOTH DATA

*	Number of teeth	xx
*	Module (diameter pitch)	xx
*	Pressure angle	xx°xx’
*	Pitch diameter	x.xxx
*	Tooth thickness	. xxx - .xxx
*	Whole depth, minimum	.xxx
*	Working depth	.xxx
*	Class of gear and relevant standard	x
	Base circle diameter	x.xxx
	Maximum profile error from start of active profile to end of active profile	.xxx
	Accumulated pitch error	.xxx
	Adjacent pitch error	.xxx
	Tooth alignment error	.xxx
	Measurement over rollers and roller diameter	.xxx
	Chordal height	.xxx
	Chordal tooth thickness	.xxx

* Items marked thus are essential gear tooth data.

FIGURE 8.1 SPUR GEARS



NOTE: For explanation of double-spaced hatching on the right-hand side of section A-A, see Clause 7.4.9.2.

FIGURE 7.13 ALIGNED AND AUXILIARY ALIGNED SECTIONAL VIEWS

7.4.9.2 *Relatively thin elements* Where the cutting plane through an object passes longitudinally through a relatively thin element of the object such as a web, rib, lug or spoke, the outline of the feature may be drawn without hatching in order to avoid a false impression of solidity (see Figure 7.20).

Alternatively, the hatching between the outline of the thin element and the main body may be double-spaced, as shown in Figure 7.13. This is recommended where other similar thin sections are involved on the part which is shown in sectional view. Where this method is used, the boundary between the thin and thick sections shall be shown as a hidden outline.

Where sections do not cut the rib or spoke, e.g. a wheel with three spokes, the oblique spoke should be drawn as being on the cutting plane.

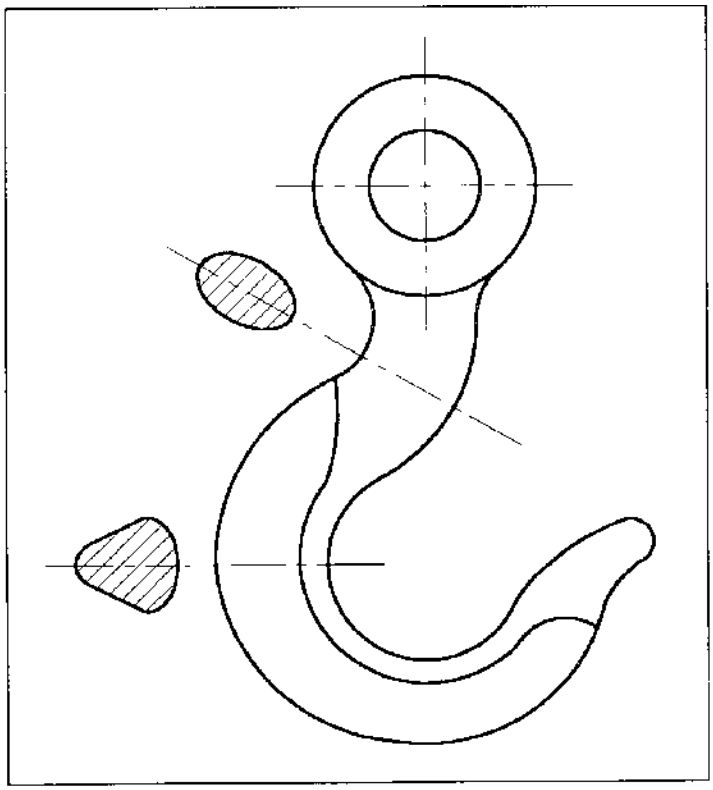


FIGURE 7.16 REMOVED SECTIONS

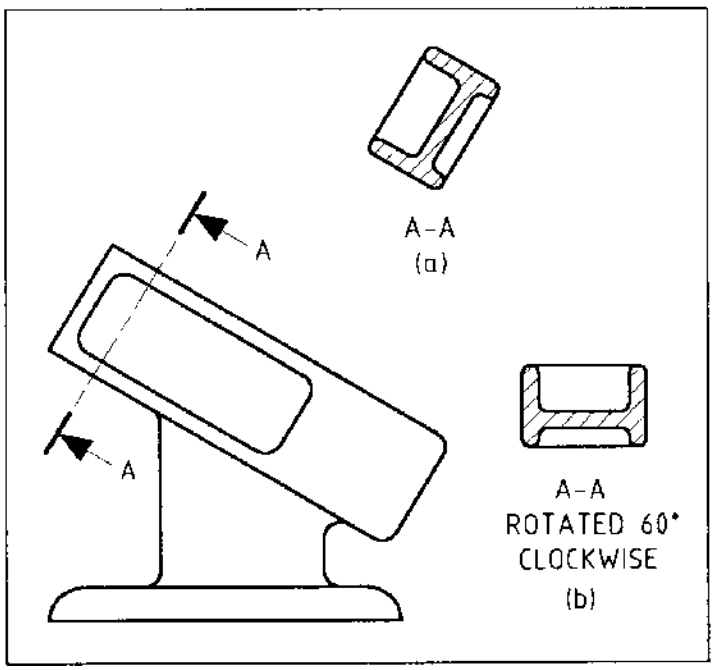


FIGURE 7.17 PLACEMENT OF SECTIONAL VIEWS