

BOOK REVIEW

Principles of Foundry Technology by P. L. Jain. Published by Tata McGraw-Hill Publishing Company Limited, New Delhi 110 002, 1979, pp 289; Price Rs. 16·50.

The book gives a comprehensive idea about metal casting technology.

Chapter 2 deals with the technology of pattern making. The author describes in detail the pattern materials, machines and tools used for pattern making. Different types of pattern allowances and stages in pattern construction are explained in a simple manner.

Chapter 3 discusses different moulding and core making methods. Conventional green sand moulding has been explained from practical foundryman's point of view. Recent developments in no-bake sand systems like cold box moulding, alkyd process, furan process have been briefly mentioned. A mention is also made about so-called third generation moulding processes like full mould process and vacuum process.

Castings made out of moulds other than sand moulds namely, permanent mould casting, die casting, centrifugal casting and continuous casting are dealt in Chapter 4. Some details of machines used are also included in this chapter.

Though gating and risering systems explained in chapter 5 are very briefs, they are informative.

Different types of furnaces used and metallurgical characteristics of ferrous and non-ferrous alloys are explained in Chapter 6. More weightage is given to cupola melting which is commonly used in many small foundries in our country.

Causes for all types of casting defects are discussed in Chapter 7. A practical approach towards destructive and non-destructive methods of testing, a short note on actual quality control are additional features in this chapter.

In Chapter 8 fettling and salvaging aspects of casting are given due weightage. Heat treatment of ferrous castings are explained in a simple manner for the benefit of non-metallurgists.

Sufficient information is not available on the mechanisation of foundries though author has taken enough pains to present this aspect collectively in the last chapter. One more special feature of this book is that wherever possible, ISI standards are incorporated and a mention is made regarding Indian sources of materials, etc.

This book satisfies the requirements of undergraduate and diploma students. There is no doubt about the usefulness of this book for persons who work practically on shop floor.

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