Iron and steel have played a leading role in the development of human civilization and their techniques. Together with its derivative, steel, iron has no real rival in its particular fields of application and has become a synonym of progress, being an essential element in mankind greatest technological achievements. It was at the origin of the industrial and scientific revolutions and at the heart of all the great discoveries which have marked the history of humanity from the manufacture of high quality swords in ancient times to today architectural wonders. Steel is an alloy that consists mostly of iron and has carbon content between 0.2% and 2.1% by weight, depending on the grade. Carbon is the most common alloying material for iron, but various other alloying elements are used, such as manganese, chromium, vanadium, and tungsten. Rolling is a metal forming process in which metal stock is passed through a pair of rolls. Rolling is classified according to the temperature of the metal rolled. Steelmaking is the second step in producing steel from iron ore. Processing of steel results in special steel product with required properties, for example; vacuum treated steel for forging ingots; pre strengthened stress relieved elongated steel, metallurgical addition product, forging powder alloy steels, etc. Fasteners are used to join and hold two or more pieces of metal either temporarily or more pieces of metal either temporarily or permanently. Some of the most common are bolts, screws, nuts, rivets and pins. Packaging steels differ from other sheet products particularly in terms of their thickness, mechanical properties and coatings, together with their aptitude to satisfy specific industrial and marketing requirements related to high production rates, design factors etc. Small gage welded tubes have an extremely wide range of applications, including metallic roof frames, mechanical construction in public work and industrial engineering sector, agricultural machinery, fluid distribution circuits, piston, etc. India is among the top producers of all forms of steel in the world. Easy availability of low cost manpower and presence of abundant reserves make India competitive in the global setup. The steel industry in India has witnessed an increase in demand due to expanding oil and gas sector, huge spending on infrastructural facilities coupled with growth in housing, consumer durables and auto sectors.

This book basically deals with structural changes in steel during hot rolling, structural changes during reheating, kinds of grain restoration process, dynamic restoration process, static restoration process, effect of initial grain, size of static re crystallization, effects of temperature and micro alloying, fundamental principles of the metal rolling process, preparing and heating the initial materials, preparations for rolling heating before rolling operations, bolt and nut manufacturing technology, casting of steel for flat products etc. The present book covers different important aspects of steel processing with the casting method of steel for flat products, rolling of rails, wheels and rings, rolling of different steel products, production of fasteners, welded pipes, steel products for the building trade and many more. The book is very useful for everybody who wants the thorough study on steel and steel products or wants to
diversify in to this field.

Contents

1. Structural Changes in Steel during Hot Rolling
   Structural Changes during Reheating
   Kinds of Grain Restoration Process
   Dynamic Restoration Process
   Static Restoration Process
   Effect of Initial Grain Size of Static Recrystallization
   Effects of Temperature and Microalloying
   Effect of Amount of Deformation
   Factors Affecting Critical Reduction for
   Recrystallization
   Grain Growth after Deformation
   Structural Changes in Steel during Cooling
   Effect of Steel Structure on Flow Stress

2. Fundamental Principles of the Metal Rolling Process

3. Steels for Magnetic Applications
   Electrical Steels-Metallurgy and Properties
   Introduction
   Utilization and Property Requirements
   Optimization of Magnetic Properties
   Type of Electrical Steel
   Classification
   Steel Grades
   Market Segmentation
   Conclusions

4. Preparing and Heating the Initial Materials
   Preparations for Rolling
   Heating before Rolling Operations

5. Hot Seamless Tube Rolling Processes
   Elements of Skew Rolling Theory
   Tube Rolling in Plug Mill Type Seamless Tube Mills
   Tube Rolling in Continuous Seamless Tube Mills
   Tube Rolling in Three-Roll Mills
   Tube Rolling in Pilger Mills
   Seamless Tube Production by the Extrusion Process
   Seamless Tube Finishing Operations

6. Bolt and Nut Manufacturing Technology
   Introduction
   Fundamentals of Mechanically Working and Cutting Metals
   (a) Cold Forming
   (b) Hot Forging
   (c) Metal Cutting
   Manufacturing Technologies
   (a) Cold Forming of Bolts
   (b) Cold Forming of Nuts
   (c) Hot Forging of Bolts
   (d) Hot Forging of Nuts
(e) Machining of Bolts and Nuts from Hexagon Bar
Steel Pre-Processing
(a) Steel Making
(b) Surface Treatments and Wire Drawing
Fastener Steels and Heat Treatments
(a) Alloying Elements
(b) Heat Treatments
Finishing Operations
7. Casting of Steel for Flat Products
Type of Cast Products
Casting of Ingot
Types of Ingots
Methods of Continuous Casting of Thick Slabs
Continuous Casting of Thick Slabs
Slab Width Control
Continuous Casting of Thin Slabs and Strip
Requirements for Continuously Cast Steels
Oxide Inclusions in Concast Steel
Formation of Oxide Phases
Influence of Caster Type on Steel Quality
8. The Rolling of Rails, Wheels and Rings
Introduction
Early Types of Rails and their Production
The Evolution for the Rail Mill
Modern Rail Mills
Rail Joints and their Manufacture
The Forging and Rolling of Wheels
Ring Rolling
9. Mill Automation for the Rolling of Flat Products
Automation of Flying Shear Operation in a Continuous
Hot-Rolling Mill
Automation of Coiler Operation for Hot Strip
Automation of Strip Measuring Gauges for Hot Rolling
Automation of Continuous Pickle Line Operation
Automation of Strip Thickness Gauges for Cold Reduction
Automation of Strip Thickness Control by the Screw-Down Gear
10. General Steelmaking Processes
Welding Material for Super Low Temperature Steels
Refining Steel by Blowing Oxygen Beneath the Surface
Cold Reduced Aluminum Stabilized Steel having High
Drawability
Sulfide Modification of Steel
Steel Sheets having Excellent Enamelability
Liquid Sintering with Titanium Alloys
Liquid-Solid Alloys for Casting
Rimmed Unkilled Enamelling Steel
Producing an Enamelling Steel Sheet
Deep Drawable Deoxidized Steel
Alloying Steel with Highly Reactive Materials
Prevention of Surface Cracking during Steel Reheating
Prestrengthened Stress Relieved Elongated Steel
Vacuum Treated Steel for Forging Ingots
Metallurgical Addition Product
Uncropped, Unworked, Elongated Leaded Steel Casting
Adding Alloys to Steel
Production of Low Carbon Ferroalloys
Forging Powder Alloy Steels
Production of Leaded Steel
Low Carbon Ferrochromium
High Explosive Fragmentation Munition

11. Varnishing and Printing of Packaging Steels
   Introduction
   General Aspects of Organic Coatings used for Varnishing and Printing
   Definition
   Types of Organic Coating
   Organic Coating Constituents
   Application and Curing of Organic Coatings
   Application with Roller Varnishing Machines
   Curing
   Other Application Techniques
   Inspection Methods
   Printing and Decoration of Metallic Packaging
   Conclusions

12. Phase Transformation in Steel
   Phase Diagram
   Constituents in Steels
   Austenite
   Ferrite
   Graphite
   Cementite
   Eutectoid
   Pearlite
   Eutectic
   Ledeburite
   Transformation Temperature
   Phases in Hypoeutectoid Steel
   Phases in Eutectoid Steel
   Phases in Hypereutectoid Steel
   Phase Transformation Hysteresis
   Supercooling or Austenite
   Bainite
   Martensite
   Isothermal Transformation Diagram
   Continuous-Cooling Transformation Diagram

13. Optimization and Modernization of Hot Strip Mills
   Main Strategy in Optimization of Rolling Process
   Metallurgical Requirements
   Energy Consumption Requirements
   Yield Requirements
   Product Quality Requirements
   Analysis of Temperature Conditions in Hot Strip Mill
   Methods of Optimizing Temperature Conditions
   Optimizing Operating Parameters
Close Coupling of Continuous Rougher with Finishing Mill
Close Coupling of a Reversing Rougher with Finishing Mill
Combining a Reversing Rougher with Finishing Mill
Coilbox
Intermediate Steckel Mill
Reradiating Thermal Cover System
Main Objectives in Modernization of Hot Strip Mill
Requirements for the Evaluation Models
Evaluation of the Solutions for Mill Modernization
14. Low Carbon Constructional Alloy Steels
Low Temperature High Strength Tough Steel
Alloy Steel for Arctic Service
High Strength Cold Rolled Steel with High Press Formability
Production of High Strength Cold Rolled Steel Sheet
Low Alloy Steel for Low Temperature Services
Full Continuous Annealing Process
High Strength Killed Wire Rods and Bars
High Formability High Strength Steel
High-Strength Cold-Workable Ti Added AL Killed Steel
Improving Strength and Toughness by Controlled Cooling
High Strength Notch Tough Steel
Hot Rolled High Strength Low Alloy Steel
Preparation of Hot Rolled Niobium Structural Steel
Hot Rolled Flat Steel for Cryogenic Service
High Strength Structural Steel with Good Weldability
15. Hot Rolling of Plate, Sheet and Strip
Types and Sizes
Initial Materials and Reheating them for Rolling
Hot Rolling Sheet and Plate Mills
Hot Rolling Processes for Plate and Sheet in Various Types of Mills
Rolling Steel Strip in a Planetary Mill
Finishing of Hot-Rolled Flat Products
16. Rolling of Section Steel, Bars and Rods
Types and Sizes
Initial Materials and Reheating them for Rolling
Section Mills
Rod Mills
Strip Mills
Roll Pass Design for the Rolling of Rounds
Roll Pass Design for the Rolling of Squares
Roll Pass Design for the Rolling of Flats and Strip
Roll Pass Design for the Rolling of Angles
Finishing Operations on Bars and Rods
17. Modern Rolling Plant
Mills for the Continuous Rolling of Wide Strip
Modern Plant for the Rolling of Non-ferrous Material
Copper and Copper Alloys
Nickel and Nickel Alloys
Aluminium and Aluminium Alloys
18. Metal Fasteners
  Machine Bolts
  Cap Screws
  Machine Screws
  Set Screws
  Thread-forming Screws
  Stove Bolts
  Carriage Bolts
  Stud Bolts
  Nuts
  Castle Nuts
  Jam Nuts
  Cap or Acorn Nuts
  Wing Nut
  Washers
  Rivets
  Machine Pins
19. Production of Welded Pipe
  Continuous Furnace Butt-Welded Pipe Manufacturing Processes
  Electric Resistance Welded Pipe and Tubing Production
  High Frequency Electric Resistance Welding in Pipe and Tubing Production
  Submerged-Arc Welded Pipe and Tubing Production
  Production of Submerged-Arc Welded Straight-Seam Pipe
  Production of Submerged-Arc Welded Helical-Seam Pipe
  Other Welded Pipe Production Methods
    Inert-Gas Metal-Arc Welding of Pipe
    Induction Welding of Pipe and Tubing
20. Sheet Forming for Packaging Applications
  Drawing of Packaging Steels
  Specific Aspects of Packaging Steels
  Characterization of Packaging Steels
  Parameters Affecting Drawing Behavior
  Example Applications
    Drawing and Wall Ironing of Packaging Steels
    Preliminary Drawing
    Wall Ironing
    Necking and Flanging
    Full Operture Easy-Open Can Ends
    Score Line Profile (Tool Geometry and Residual Thickness)
    Score Line Shape in the Plane of the LID
    End Profiles
    Steel Grades
    Can End Seaming
    Principle of Double Seaming
    Seaming Tools
21. Mill Automation for Pipe and Tubing Production
22. Steels for Small Gage Welded Tubes
The Small Gage Welded Tube Market
Manufacturing Processes
Steel Products used in the Manufacture of SWT’s
Major Property Requirements
Conditions to be Met in SWT Manufacture
Geometry Control
Principal Grades Employed
23. Steel Products for the Building Trade
Statutory Requirements
Building Steels and their Coatings
Steel Selection
Galvanized Steels
Coil Coated Steels
The New Solissime Range
Coating Selection Guide
Utilization and Maintenance Precautions
Additional Products
Condensation-proof Coatings
Acoustic Insulation
Thermal Insulation
Solconfort Sandwich Sheets
Isofran Sandwich Sheets
Typical Applications
Walling and Roofing
Facing Systems
Flooring
Conclusions

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