Index

A	Approximate method for heat absorbed, 135
	Artificial draught, 360
Absolute humidity, 799, 800, 801	Arrangement of cylinders in compound steam
pressure, 12	engines, 394
— temperature, 11	Assumptions for overall (thermal) efficiency of
units of force, 7	an ideal gas turbine cycle, 721
Actual gas turbine, 725	- in thermodynamic cycle, 153
indicator diagram, 381, 588, 590, 593,	- in kinetic theory of gases, 140
595	- in two stage compressor with inter
- vapour compression cycle, 789	cooler, 648
Adiabatic compressibility, 842	Atomic mass, 301
- process, 63	Atomiser, 608
- mixing of two air streams, 819	Atmospheric air, 861
- saturation temperature, 806	Atoms and molecules, 301
Advantages of compounding of steam engines,	Axial flow compressors, 677
395	Available heat energy, 105
- condensers in a steam power plant, 446	Average piston speed, 377
- mechanical draught, 361	Avogadro's law, 35
- multistage compression, 647	
— reheating of steam, 561	В
- steam turbines over reciprocating steam	Babcock and Wilcox boiler, 329
engines, 501	Back flow in positive displacement air com-
- superheating of steam, 206	pressors, 668
- two stroke cycle over four stroke cycle	Back pressure turbine, 577
engines, 586	Balanced draught, 362
 vapour absorption refrigeration system 	Barometric jet condensers, 449
over vapour compression refrigeration	Barrel calorimeter, 211
system, 792	Benson boiler, 331
- vapour compression refrigeration sys	Binary vapour cycle, 577
tem over air refrigeration system, 771	— plant, 567
Air conditioning system, 825	Bituminous coal, 290
— consumption, 626	Blading efficiency, 535
— cooling system, 602	Blast furnace gas, 292
— injection method, 600	Bleeding, 570
	Blow off cock, 338
— preheater, 340	Boiler accessories, 323, 340
— pump, 464	— efficiency, 346
- refrigeration cycle, 751	— mountings, 323, 334
- refrigerator working on Bell Coleman	
cycle, 761	shell, 323
— on reversed Carnot cycle, 755	— trial, 351
- standard efficiency, 617	Bomb calorimeter, 295

Ammonia hydrogen refrigerator, 793

Application of first law of thermodynamics to a

-of kinetic energy to laws of perfect

- of steady flow energy equation to

engineering system, 92

Anthracite coal, 290

. gases, 146

nonflow process, 51 - to a steady flow process, 86

01 r. 861 ecules, 301 pressors, 677 energy, 105 speed, 377 v, 35 Vilcox boiler, 329 positive displacement air com-668 turbine, 577 ght, 362 condensers, 449 eter, 211 331 cycle, 577 67 al, 290 ency, 535 gas, 292 .338 ries, 323, 340 ncy, 346 ings, 323, 334 123 51 Bomb calorimeter, 295 Boyle's law, 30 Boy's gas calorimeter, 296 Brake power, 389, 615 - thermal efficiency, 423, 616 Brayton cycle, 761 Briquetted coal, 290 Brown coal, 290 By-pass factor, 813, 815

C

Caking bituminous coal, 290 Calorific value of fuels, 293

Carburettor, 606

Carnot cycle, 157, 264

Celsius or centigrade scale, 10

- flow surface condenser, 451

Centrifugal compressor, 670

Cetane number, 598

C.G.S. units, 2

Change of entropy of a perfect gas, 110

- during reversible adiabatic process, 124

- constant pressure process, 115

- constant temperature process, 120

- constant volume process, 110

in thermodynamic properties with variable specific heat, 864

— isentropic process, 124

- polytropic process, 126

Characteristic equation of a gas, 33

'Charles' law, 31

Chimney draught, 360

Classification of air compressors, 637

- air conditioning systems, 825

- compound steam engines, 395

- of draughts, 360

— fuels, 289

- gas turbines, 708

I.C. engines, 583
 properties of a system, 8

— steam boilers, 324

— steam condensers, 447

- steam engines, 374

- steam turbines, 502

- thermodynamic cycles, 158

- thermodynamic process, 51

- thermodynamic systems, 7

Clausius statement, 22

- inequality, 106

Clearance volume, 156, 377

Closed air refrigeration cycle, 755

- cycle gas turbines, 708

system of thermodynamics, 7

Coal gas, 291

Cochran boiler, 326

Coefficient of performance, 752

- volume expansion, 841

Coil ignition system, 599

Coke, 290

— oven gas, 292

Combined air compressor and air motor, 701

indicator diagram for a compound steam engine, 397

- separating and throttling calorimeter, 214

velocity triangle for moving blades of an impulse turbine, 505

- of a reaction turbine, 524

Combustion chamber, 323

- equations of gaseous fuels, 303

- of solid fuels, 302

Comfort air conditioning system, 825

Comparison between air cooling and water cooling-system, 603

 centrifugal and axial flow air compres sors, 677

closed and open cycle gas turbines, 718

forced draught and induced draught, 361
 gas turbines and I.C. engines, 708

— impulse turbines and reaction turbines, 522

- jet and surface condensers, 452

- petrol and diesel engines, 592

reciprocating and centrifugal air com pressor, 665

- steam engines and I.C. engines, 582

- turbine and centrifugal compressor blades, 697

- water tube and fire tube boilers, 332

Components of I.C. engine, 584

Compounds, 301

Compound steam engine, 394

Compounding of impulse steam turbines, 552

Compressed air system, 701

Compressibility factor, 856 Compression ratio, 156, 538

Compressor capacity, 638

- efficiency, 682

Condenser efficiency, 458

Condition for maximum discharge through the nozzle, 476

- efficiency of an impulse turbine, 545

- efficiency of a reaction turbine, 548

 maximum discharge through the chim ney, 366

connecting rod, 376, 585

Constant enthalpy process, 84, 92

- entropy process, 63, 247

internal energy process, 84
pressure gas turbines, 719

- pressure lines, 225

- pressure process, 57, 238

- temperature process, 61, 242

total heat process, 91, 257
volume gas turbines, 719

- volume lines, 225

- volume process, 54, 231

Disadvantages of mechanical draught, 361 Convergent nozzle, 469 two stroke over four stroke cycle en - divergent nozzle, 469 gine, 586 Conversion of volumetric analysis into mass -vapour compression refrigeration system analysis, 307 over air refrigeration system, 771 - mass analysis into volumetric analysis, Discharge pressure, 638 Divergent nozzle, 469 Cooling and duhumidification, 817 Down flow surface condenser, 450 - of I.C. engines, 601 D'slide valve, 375 - systems of I.C. engines, 602 Dry air, 798 - towers, 465 - bulb temperature, 799 Cornish boiler, 328 - bulb temperature lines, 809 Counterflow jet condensers, 448 - saturated steam, 200 Crank case, 585 Dryness fraction lines, 224 - shaft, 376, 585 - of steam, 201 Critical pressure ratio, 476 Dual combustion cycle, 188 - Physical significance of, 479 - Values of, 479 E Cross head, 376 Eccentric, 376 Cyclic process, 9 -rod, 376 Cylinder bore, 156, 377 Economiser, 340 - dimensions for compound steam engine, Edward's air pump, 464 398 Effect of variable specific heat in I.C. engines, - head of I.C. engines, 584 — of steam engines, 375 - on Otto cycle, 872 Cushion steam, 429 - on Diesel cycle, 879 Cut off governing of compound steam engines, Effects of air leakage, 464 440 - friction on the velocity diagram of an - of simple steam engines, 439 impulse turbine, 507 - volume, 377 - piston rod in a double acting steam en gine, 387 - supersaturation, 491 Dalton's law of partial pressure, 452, 800 Efficiencies of a compressor, 682, 693 Dead centres, 377 - multistage turbine, 564 - weight safety valve, 336 - steam engine, 422 Degree of reaction, 525, 678 - steam turbine, 564 — saturation, 799, 800 Efficiency of compressed air system, 702 Degrees of freedom, 148 - chimney, 370 Dehumidification, 816, 817 - cycle, 157 De-Laval impulse turbine, 502 - heat exchanger, 730 Demerits of gaseous fuels, 292 - modified Rankine cycle, 277 - liquid fuels, 291 - ratio, 267, 565 Dense air regrigeration cycle, 755 Ejector condensers, 449 Derived units, 2 Electrolux refrigerator, 793 Detonation in I.C. engines, 597 Elements, 301 Dew point temperature, 799 — Symbols for, 302 - depression, 799 Equations of state, 854 -lines, 810 Energy, 13 Deagram efficiency, 535 — Law of conservation of, 15 - factor, 382 Enthalpy of gas, 39 Diameters of throat and exit of a nozzle for - entropy (h-s) diagram for water and maximum discharge, 481 steam, 223 Diesel cycle, 178

-lines, 810

Difference between a heat engine, refrigerator

and heat pump, 753

- moist air, 803

-steam, 202

Entropy, 103

- importance of, 104

- increase during evaporation, 220

- of superheated steam, 220

-- of water, 219

- of wet and dry steam, 220

- Principle of increase of, 107

- Units of, 106

Equipment used in air conditioning system, 825

Equality of temperature, 11

Equivalence of Kelvin-Plank and Clausius statements, 23

Equivalent evaporation, 345

Ericsson cycle, 166

Essentials of a good steam boiler, 324

Evaporative condenser, 451

Excess air, 310

- Mass of, 310

Exhaust ports, 375
— turbine, 578

Experimental determination of higher calorific value, 294

Extensive properties of thermodynamics, 9
External work done during evaporation, 207
Extraction turbine, 578

K

Factors affecting comfort air conditioning, 824

Fahrenheit scale, 11 Fan draught, 360

Feed check valve, 339

— punip, 340

First law of thermodynamics, 19

- limitations of, 20

Flow of steam through nozzles, 470

- process, 86

Flue gas analysis by Orsat apparatus, 319

Flywheel, 376, 585

Force, 6

Forced draught, 361

-lubrication, 604

Formation of steam, 199

Fourier's law of heat conduction, 737

Four stroke cycle diesel engine, 589

— gas engine, 591 — petrol engine, 587

F.P.S. units, 2

Free air delivery, 638

- expansion process, 83

Frame of steam engine, 375 Friction in a nozzle, 470

Fuel pump, 607

Fundamental units, I

Furance, 323

Fusible plug, 339

Future power plants, 579

G

Gas turbine with intercooling, 711

- with reheating, 713

— uses of, 733

Gauge pressure, 12

Gaseous fuels, 291

Gasoline, 291

Gay-Lussac law, 31

General equations of change in internal energy, 843

General expression for the change of entropy of a perfect gas, 108

— gas equation, 31

 law for expansion and compression of perfect gas, 85

Gibbs function, 837

Governor, 376

Governing of I.C. engines, 605

- steam engines, 437

- steam turbines, 55

- simple steam engines, 438

Grate, 323

Gravimetric analysis, 307

Gravitational units of force, 7

Gross calorific value, 293
— efficiency, 536

Guide mechanism, 521

Н

Heat, 15, 17

- absorbed or rejected during polytropic

process, 61

- balance sheet, 352, 433, 628 ·

-capacity, 16

- exchanger, 729

- losses in a boiler, 351

- rejected in a reciprocating air compres

sor, 656

— transfer by conduction through a slab,

transfer during a process with variable specific heat, 862

 during polytropic expansion or com pression process, 863

- through a composite wall, 739

through thick cylinders, 741
 through thick sphere, 744

Heating and humidification, 818

Heavy farel oils, 291

Height of blades for reaction turbine, 527 -chimney, 362 Jet condensers, 447 Helmholtz function, 835 Joule's cycle, 168 Higher calorific value, 293 - law, 32 Experimental determination of 294 Joule Thomson coefficient, 92, 852 High level jet condensers, 449 - steam law water safety valve, 336 Humidification, 816, 818 Kelvin, 3 Humidity, 799, 800 Kerosene, 291 -lines, 883 Kilogram, 3 - ratio, 800. Kinetic energy, 14 Hyperbolic process, 60, 244 - per kg molecule of a gas, 143 Hypothetical indicator diagram, 378 - mean effective pressure, 379 La-Mont boiler, 330 Lancashire boiler, 327 Ignition system of petrol engines, 598 Latent heat of vaporisation, 202 Indicated mean effective pressure, 611 Law of conservation of energy, 14 -power, 383, 612 - equipartition of energy, 14 - thermal efficiency, 423, 616 - perfect gases, 30 Indicator diagram of a simple steam engine, - thermodyamics, 19 378 Lever safety valve, 335 Induced draught, 361 Lignite, 290 Industrial air conditioning system, 826 Limitations of first law of thermodynamics, 20 Injector, 608 Liquid fuels, 290 Inlet ports, 375 Locomotive boiler, 328 - pressure, 637 Loeffler boiler, 331 Inner dead centre, 377 Lower calorific value, 293 Intensive properties of thermodynamics, 9 Low level jet condenser, 448 Intercooling, 760 -pressure turbine, 578 - of air in a two-stage reciprocating air Lubrication of I.C. engines, 604 compressor, 648 Internal energy, 14 - of steam, 208 Magneto ignition system, 600 -efficiency, 564 Main components of I.C. engines, 584 - losses in turbine, 555 Mass, 6 International system of units, 2 - Atomic, 301 Importance of entropy, 104 - of carbon in flue gases, 308 Important terms used in steam, 200 of cooling water required for condensa - thermodynamic cycles, 156 tion of steam, 460 - for steam boilers, 323 - of excess air supplied, 310 Impulse turbine, 502 - fuel gases per kg of fuel burnt, 308 Irreversible cycle, 154 - of steam discharged through a nozzle, - process, 50 474 Isentropic process, 63, 247 - of steam in the engine cylinder, 420 - efficiency, 683 - Molecular, 302 - expansion with variable specific heat, Mathematical Fundamentals, 839 869 Maximum discharge through nozzle, 477 — lines, 223, 226 through chimney, 366 Isobaric process, 57, 238 Maxwell's equation, 840 Isochoric process, 54, 231 Mean effective pressure, 156, 378, 638 Isothermal compressibility, 842 Measurement of brake power, 389 -lines 223, 226 - dryness fraction of steam, 211 -efficiency, 682

vacuum in a condenser, 453

- process, 61, 242

Mechanical draught, 360

- efficiency, 422, 616

- equivalent of heat, 16

Mechanism of simple vapour compression refrigeration system, 772

Merits of gaseous fuels, 292

- liquid fuels, 291

Metastable flow through nozzles, 490 Methods of governing I.C. engines, 605

- heat transfer, 736

- reducing missing quantity or cylinder condensation, 431

- reducing rotor speeds, 552

Metre, 3

Minimum mass of air required for complete combustion, 304, 306

 work required for a two stage compressor, 652

Missing quantity, 430

Mixture of air and steam in condensers, 452

M.K.S. units, 2

Modified Rankine cycle, 277 - Efficiency of, 278

Moist air, 799

Moisture content, 800

-lines, 809

Molar constant, 36

- specific heat of a gas, 39, 859

Molecular mass, 302

Molecules and atoms, 301

Mollier chart, 223

Mand gas, 292

Morse text, 613

Mountings, 323, 334

Multistage compression, 647

- turbine, 563

Natural draught, 360 Net calorific value, 293

Newton's law of cooling, 736

- motion, 5

Non-caking bituminous coal, 290

Non-flow process, 51

- Application of first law of thermody namics to, 51

Normal temperature and pressure (N.T.P.), 13 Nozzle efficiency, 470, 536

Octane number, 598

Open air refrigeration cycle, 754

- cycle gas turbines, 717

- system of thermodynamics, 8

Orsat apparatus, 319

Otto cycle, 171

Outer dead centre, 377

Oven gas, 292

Overall coefficient of heat transfer, 746

- efficiency, 422, 565, 616, 721

- isothermal efficiency, 683

Paraffin oil, 291

Parallel flow jet condensers, 448

Parson's reaction turbine, 521

Pass-out turbine, 578

Path of change of state, 9

Peat, 289

Percentage humidity, 800

Performance criteria for thermodynamic vapour cycles, 267

Perpetual motion machine of the first kind (PMM-I), 20

- second kind PMM-II), 21

Physical significance of critical pressure ratio, 479

Piston, 375, 585

- displacement volume, 377

- rings, 585

-rod, 375

Polytropic index, determination of, 82

— process, 72, 253

Potential energy 14

Power, 18

- produced by compound steam engine

- impulse turbine, 505

- reaction turbine, 524

- required to drive a compressor, 642, 651

- required to drive a fan, 369

- simple steam engine, 383

Preheating of compressed air, 704

Presentation of units and their values, 3

Pressure, 12

- and velocity of steam in turbine, 503,

- compounding of an impulse turbine, 553

- enthalpy chart, 773

- exerted by an ideal gas, 142

— gauge, 335

- of water vapour, 801

 velocity compounding of an impulse turbine, 554

Prewhirl, 676

Principle of increase of entropy, 107

Producer gas, 292

Prony brake dynamometer, 389 Properties of a refrigerant, 793

- system, 8

Psychrometer, 799
Psychrometric chart, 809

- processes, 812

- relations, 800

— terms, 798 Pulverised coal, 290

11

Quality of wet steam, 201 Quasi-equilibrium or Quasi-static process, 9

R

Rankine cycle, 268

- with incomplete evaporation, 272

- with superheated steam, 274

- efficiency, 565

Rate of heat absorpotion or rejection per unit volume during a polytropic process, 81

Rating of C.I. engine fuels, 598

S.I. engine fuels, 598
 Ratio of coefficient of volume expansion and isothermal compressibility, 843

- cylinder diameters, 658

specific heats, 43, 149
 Receiver type compound steam engine, 397
 Recent trends in gas turbines, 734
 Refrigerants commonly used in practice, 794

Regenerative cycle, 569

- with single feed water heater, 570

with two feed water heaters, 573
 surface condenser, 451

Regnault's law, 42

Reheat cycle, 561

— factor, 563

Reheating of steam, 560
— advantages of, 561

Relation between cycle and engine, 155

— heat and entropy, 103

specific heats, 42
 Relative efficiency, 423, 617

- humidity, 799, 800

- humidity lines, \$11

Requirements of a steam condensing plant, 446

- good fuel, 292

Reversed Carnot cycle, 755

- Joule cycle, 761

Reversible adiabatic process, 247

cycle, 154process, 50

Reversibility and irreversibility of thermodynamic processes, 155 Roots blower compressor, 666 Rope brake dynamometer, 390 Rules for S.I. units, 4

S

Safety valves, 335 Saturated air, 799

Scavenging of 1.C. engines, 596

Scotch marine boiler, 326

Second, 3

— law of thermodynamics, 20 Selection of a steam boiler, 324 Semiclosed cycle gas turbine, 719 Sensible cooling, 812

-heat factor, 816

-heating, 814

— heat of water, 201
Separating calorimeter, 213

Sequence of operations in a cycle, 585

Simple vertical boiler, 325

S.I. Units, 2

Single stage reciprocating air compressor, 638 Slip factor, 697

Solid fueld, 289

- injection method, 600

Spark plug, 607

splash lubrication, 604 Sources of air in the condenser, 464

Specific heat, 15, 37, 850

at constant pressure, 37
 at constant volume, 38

- humidity, 800

- humidity lines, 809

- ratio of, 43

- relations, 851

- relation between, 42

steam consumption, 267
volume lines, 810

- volume lines, 810

- volume of steam, 202

Spring loaded safety valve, 337

State of a system, 9

Standard temperature and pressure (S.T.P.), 13

Static and total head quantities, 695

Steady flow process, 86

Workdone in a, 89
 Steam consumption, 440

- chest, 375

- injector, 493, 494

jet draught, 361stop valve, 338

- tables, 203

Stirling cycle, 164

Stored energy, 13

— Types of, 14

Stroke length, 156

— volume, 377

Summary of formulae of heating and expansion of perfect gases, 85

Summer air conditioning system, 829

Supercharging of I.C. engines, 603

Superheated steam, 201, 206

Supersaturated flow through nozzles, 490

Surface condenser, 449

Swept volume, 156, 377, 638

Symbols of elements and compounds, 302 System of units, 2

T

Tandem type compound steam engine, 395 T ds equations, 847

Temperature, 10

entropy diagram for water and steam,
 222

-gradient, 738

- limitations for reversed Carnot cycle,

vs total heat graph during steam formation, 200

Theroretical indicator diagram of simple steam engine, 378

 mass of air required for complete com bustion, 304, 306

- mean effective pressure, 379

 vapour compression cycle with dry saturated vapour after compression, 774

 with superheated vapour after compres sion, 783

 — with undercooling or subcooling of re frigerant, 785

- with wet vapour after compression, 778

Thermal capacity, 16

-conductivity, 737

-equilibrium, 11

Thermodynamic cycle,9

assumptions in, 153
 equilibrium, 11

- for rotary air compressor, 693

- Important terms used in, 156

- systems, 7

- text of I.C. engines, 611

- wet bulb temperature, 806

Thermosyphon system of cooling, 602

Three cylinder compound steam engine, 414
Throttle governing of compound steam engine,

414

Throttle governing of compound steam engines, 439

- simple steam engines, 438

- steam turbines, 555

Throttling calorimeter, 213

-lines, 226

— process, 91, 257

Total heat lines, 810

- of moist air, 803

— of steam, 202

Transit energy, 13

Two cylinder compound steam engine, 399, 401, 407

- stage reciprocating air compressor, 647

- stroke cycle diesel engine, 594

- stroke cycle petrol engine, 592

Types of cooling towers, 465

- draughts, 360

- jet condensers, 448

- rotary air compressors, 665

-scavenging, 597

- steam nozzles, 469

stored energy, 14
surface condensers, 450

- thermodynamic cycles, 157.

- vapour compression cycles, 773

U

Unavailable heat energy, 105 Unitary air conditioning system, 830 Units of entropy, 106

- refrigeration, 752

Universal gas constant, 36 Unresisted expansion process, 83

Uses of gas turbines, 733

--- steam tables, 203

V

Vacuum efficiency of steam condenser, 453 Values for maximum discharge through a nozzle, 477

— of critical pressure ratio, 479
Valve timing diagrams, 587, 589, 591, 594, 596

Vane blower compressor, 667

Vander Waals' equation of a real gas, 150 Vapour absorption refrigeration system, 791

- compression cycles, 773

- pressure lines, 811

Variation of specific heat with temperature, 860 Velocity compounding of an impulse turbine, 552

— diagram or axial flow air compressor,

 diagram for moving blade of an im pulse turbine, 503 diagram for two stage impulse turbine,
 514

- of a molecule, 141

- of steam flowing through a nozzle, 471

- triangle for centrifugal compressor, 673

 triangle for moving blades of a reaction turbine, 522, 524

Vertical multi-tubular boiler, 326 Volumetric efficiency, 617, 683, 684

W

Water cooling system of I.C. engines, 602

- equivalent, 16

- gas, 292

- level indicator, 334

Weight, 6

Wet bulb depression, 799

- temperature, 799

- temperature lines, 810

Wet steam, 200

Width of impeller blades, 675

Willian's law, 440

Winter air conditioning system, 828

Wood, 289

- charcoal, 290

Woolf type compound steam engine, 396 Work, 16, 17

- ratio, 267

Workdone by air in air motor, 700

- compound steam engine, 398

- centrifugal air compressor, 670

- during a non-flow precess, 51

- for various steady flow processes, 90

 single stage reciprocating air compres sor, 639, 645

- steady flow process, 89

 two stage reciprocating air compressor with intercooler, 649

Working of an ideal engine, 155

 single cylinder double acting horizontal reciprocating steam engine, 376

 single stage reciprocating air compres sor, 638

Y

Year round air conditioning, 830

Z

Zeroth law of thermodynamics, 19



USEFUL BOOKS ON MECHANICAL ENGINEERING

Khurmi, R.S.

A TEXTBOOK OF ENGINEERING MECHANICS

(Applied Mechanics)

(Also available in Hard Bound Edition)

STRENGTH OF MATERIALS

(Also available in Hard Bound

Edition)

APPLIED MECHANICS AND STRENGTH OF MATERIALS

A TEXTBOOK OF APPLIED

MECHANICS

A TEXTBOOK OF STRUCTURAL MECHANICS

ENGINEERING MECHANICS AND STRENGTH OF MATERIALS

A TEXTBOOK OF MECHANICAL TECHNOLOGY

(Thermal Engineering)

A TEXTBOOK OF ENGINEERING THERMODYNAMICS

STEAM TABLES (With Mollier

Diagram in S.I. Units)

A TEXTBOOK OF HYDRAULICS, FLUID MECHANICS AND HYDRAULIC MACHINES

A TEXTBOOK OF HYDRAULICS

A TEXTBOOK OF FLUID

MECHANICS

A TEXTBOOK OF HYDRAULIC MACHINES

A TEXTBOOK OF HYDRAULICS & FLUID MECHANICS

Khurmi, R.S. & Gupta, J.K.

A TEXTBOOK OF REFRIGERATION AND AIRCONDITIONING A TEXTBOOK OF THERMAL ENGINEERING

A TEXTBOOK OF WORKSHOP TECHNOLOGY

MANUFACTURING PROCESSES

MECHANICAL ENGINEERING (Objective Type)

A TEXTBOOK OF MACHINE DESIGN

(Also available in Fard Bound Edition)

A TEXTBOOK OF THEORY OF MACHINE

(Also available in Hard Bound Edition)

Rajput, R.K.

STRENGTH OF MATERIALS

A TEXTBOOK OF FLUID MECHANICS

A TEXTBOOK OF HYDRAULIC MACHINES (FLUID POWER ENGINEERING)

FLUID MECHANICS & HYDRAULIC MACHINES

A TEXTBOOK OF HYDRAULIC

Bhattacharya, S.N.

INSTALLATION, SERVICING & MAINTENANCE

Aswani, K.G.

A TEXTBOOK ON MATERIAL SCIENCE

Dutta, R.N.

MACHINE TOOLS, Vol. 1 and II

(Workshop Technology)

FOR DIPLOMA OR LICENTIATE MECHANICAL ENGINEERING

Adithan, D.M.

MEDERN MACHINING METHODS

Kumar, K.L

Engineering Fluid Mechanics

Khurmi, R.S. & Sedha, R.S.

MATERIAL SCIENCE MATERIAL SCIENCE AND PROCESSES

Garg, H.P.

INDUSTRIAL MAINTENANCE

Sharma, P.C.

PRODUCTION TECHNOLOGY A TEXTBOOK OF PRODUCTION ENGINEERING

Gupta, Balram

AEROSPACE MATERIALS (In a set of 3 vols.)

Jain, V.K.

REFRIGERATION AND AIRCONDITIONING

Bedi, D.S.

STRENGTH OF MATERIALS

Guy Roger Clements & Levi Thomas Wilson

ANALYTICAL AND APPLIED MECHANICS

Kulkarni, R.V. & Askhedkar, R.D. ENGINEERING MECHANICS

Sawhney, P.S.

STRUCTURAL MECHANICS

Gupta, J.K.

BASIC WORKSHOP PRACTICES (For Diploma Students)

Srivastava, S.K.

INDUSTRIAL MAINTENANCE MANAGEMENT

Telsang M.T.

INDUSTRIAL ENGINEERING AND PRODUCTION MANAGEMENT

Dhawan, R.K.

A TEXTBOOK OF MACHINE DRAWING

(In First Anlge Projections)

A TEXTBOOK OF ENGINEERING DRAWING

(Geometrical Drawing)

Dalela, Suresh

QUALITY IN DESIGN & MANUFACTURING (CAD/CAM)