

# Table of Content

Ch-1	Basic Mechanical Skills	1
Ch-2	Tapping Bottom-Bracket-Shell Threads	15
Ch-3	Facing The BB Shell	21
Ch-4	Reaming & Facing the Head Tube	31
Ch-5	Milling the Fork Crown	39
Ch-6	Sizing & Threading Fork Columns	45
Ch-7	Seat-Tube Milling	55
Ch-8	Frame & Fork Align & Damage	59
Ch-9	Adjustable-Cup Bottom Brackets	77
Ch-10	Cartridge-Bearing Bottom Brackets	99
Ch-10(5th)	Cartridge-Bearing Bottom Brackets	105
Ch-11	Headsets	119
Ch-12	Adjustable-Cone Hubs	149
Ch-13	Cartridge-Bearing Hubs	169
Ch-13(5th)	Cartridge-Bearing Hubs	194
Ch-14	Adjustable-Cone/Cup Pedals	193
Ch-15	Cartridge-Bearing Pedals	223
Ch-16	Wheel Building & Rim Replacement	229
Ch-17	Wheel Turing & Repair	265
Ch-17(5th)	Wheel Truing & Repair	297
Ch-18	Wheel Removal, Replacement & Installation	331
Ch-19	Tires & Tubes	353
Ch-20	Taper-Fit Crank Arms	373
Ch-20(5th)	Press-Fit Crank Arms	389
Ch-21	Cottered Crank Arms	411
Ch-22	One-Piece Cranks	419
Ch-23	Chainrings	425
Ch-24	Pedal Removal, Replacement & Installation	439
Ch-25	Freehub Mechanisms & Thread-on Freewheels	447
Ch-26	Chains	467
Ch-27	Chainline	485
Ch-28	Handlebars, Stems, and Handlebar Extensions	499
Ch-29	Seats & Seatposts	515
Ch-30	Shift-Control Mechanisms	521
Ch-31	Derailleur-Cable Systems	539
Ch-32	Rear Derailleurs	581
Ch-32(5th)	Rear Derailleurs	547
Ch-33	Front Derailleurs	615
Ch-34	Brake Levers	642
Ch-35	Brake-Cable Systems	652
Ch-36	Cable-Operated Rim-Brake Calipers	662
Ch-37	Hydraulic Rim Brakes & Disc Brakes	710
Ch-37(5th)	Disc Brakes	730
Ch-38	Suspension Forks & Rear Shocks	784