

# CONTENTS

INTRODUCTION <i>by</i> GRAHAM WALKER	<i>page</i> v
AUTHOR'S FOREWORD TO THE FOURTH EDITION	ix
I A PRELIMINARY SURVEY	1
II CARBURATION AND INDUCTION FACTORS	16
III ATTENTION TO O.H.V. CYLINDER HEADS	32
IV COMPRESSION RATIOS AND FUELS	46
V CHECKING PISTON AND RING WEAR	66
VI THE CONNECTING-ROD AND BIG-END	81
VII TRUING AND BALANCING FLYWHEELS	96
VIII WORK ON THE CRANKCASE	111
IX REASSEMBLING CRANKCASE COMPONENTS	124
X "TOP-HALF" REASSEMBLY	134
XI LIGHTENING THE VALVE MECHANISM	143
XII ADJUSTMENTS TO VALVE GEAR	155
XIII IMPROVED CYLINDER FILLING	170
XIV IGNITION TOPICS	184
XV TWIN-CYLINDER ENGINES	191
XVI TWO-STROKE ENGINES	209
XVII ASSEMBLING THE ENGINE IN THE FRAME	237
XVIII MAINTENANCE OF RACING CARBURETTORS	243
XIX "HARD" AND "SOFT" TYPES OF SPARKING PLUG	261
XX TESTING THE FINISHED WORK	267
APPENDIX	276
INDEX	290