

CONTENTS

Engine overhaul	63
Determining aircraft or product airworthiness	67
Aircraft parts	68
Preventive maintenance	72
Unscheduled maintenance	72
4 Powerplants	77
Engine operational guidelines	81
Engine cooling systems	82
Engine ignition systems	87
Engine temperature instruments	96
Manifold pressure gauge	101
Oil pressure gauge	102
Tachometer	103
Fuel quantity indicator	104
Fuel flowmeter	104
Preflight	105
Troubleshooting	108
Preventive maintenance	110
5 Lubricating Systems	115
Types of oil	116
Aircraft oil systems	118
Preventive maintenance	121
Oil analysis	123
6 Fuel Systems	127
Chemistry of combustion	128
Gravity feed versus pressure systems	130
Fueling considerations	137
Troubleshooting	138
7 Turbocharger Systems	141
System overview	141
High-altitude operations	144
Misconceptions	144
Controlling a turbocharger	145
Heat problems	147
Troubleshooting	148