CONTENTS

	Page
Preface	5
The Manufacture of Lubricating Oils	7
The Testing of lubricating Oil in the Laboratory	9
Specific Gravity	10
Flash Point – Fire Test – Volatility	12
Cold Test – Cloud Point – Pour Point	15
Viscosity	17
Viscosity Measurement	19
The Effect of Temperature on Viscosity	23
The Carbon Residue or Coke Test	25
Oxidation of Oil	27
Sludging and the Oxidation of lubricating Oils	28
The Demulsification Number	31
"Oiliness" and Its Measurement	32
Chemical Impurities	37
The Colour of lubricating Oils	38
The General Principles of lubrication	40
How Oil Lubricates	40
Some Further Details of the Mechanism of lubrication	44
Boundary Lubrication – the Importance of "Oiliness"	47
Cylinder and Piston Lubrication	50
The dual Purpose Oil	53
Upper End Lubrication	54
Extraneous Factors Influencing the Behaviour of Lubricants	55
The Influence of Water-Emulsions	55
Contamination of the Lubricant by Fuel	58
Oxidation, Polymerisation and thermal Decomposition	61
The Reclaiming of Used Lubricating Oil	65
Some Remarks on Specifications for Lubricating Oils	68
Consumption of Lubricating Oil in Engines	70
Cylinder wear in Automobiles	73
Regent Developments in the Refining of Lubricating Oils	77
Bibliography	81
Index	83