

**SELECTION and USE of
ENGINE COOLANTS and
COOLING SYSTEM CHEMICALS**



STP 120B



AMERICAN SOCIETY FOR TESTING AND MATERIALS

SELECTION AND USE OF ENGINE COOLANTS AND COOLING SYSTEM CHEMICALS

Revised and expanded edition,
prepared by ASTM Committee D-15
on Engine Coolants

ASTM SPECIAL TECHNICAL PUBLICATION 120B

List Price \$3.00
04-120200-12



AMERICAN SOCIETY FOR TESTING AND MATERIALS
1916 Race Street, Philadelphia, Pa. 19103

© BY AMERICAN SOCIETY FOR TESTING AND MATERIALS 1974
Library of Congress Catalog Card Number: 73-90276

NOTE

The Society is not responsible, as a body,
for the statements and opinions
advanced in this publication.

Printed in Baltimore, Md.
January 1974

Contents

Introduction	v
The Engine Cooling System	1
Purpose	1
Need for Antifreeze-Coolant	1
The New Role of the Coolant	1
Antifreeze-Coolants	2
Types of Antifreeze-Coolant	3
Antifreeze-Coolant Composition	4
Properties of Antifreeze-Coolants	7
Installation and Service	9
Preparing the Cooling System	9
Installing the Antifreeze-Coolant	10
Checking Freezing Point/Boiling Point	11
Recommended Period of Use	12
Cooling System Chemicals	12
Stop-Leaks	12
Cleaners	13
Antirusts	14
“Cool” Additives	15

Introduction

The purpose of this publication is to provide practical information and advice on engine coolants as well as cooling system chemicals, such as cleaning compounds, antirusts, and stop-leaks. The references to cooling system services are confined to the practices directly affecting coolants, since the subject of general cooling system maintenance is already covered in published automotive literature.