ASME B30.9-2025
(Revision of ASME B30.9-2021)

Slings

Safety Standard for Cableways, Cranes, Derricks, Hoists, Hooks, Jacks, and Slings

AN AMERICAN NATIONAL STANDARD

The American Society of Mechanical Engineers

ASME B30.9-2025
(Revision of ASME B30.9-2021)

Slings

Safety Standard for Cableways, Cranes, Derricks, Hoists, Hooks, Jacks, and Slings

AN AMERICAN NATIONAL STANDARD

The American Society of Mechanical Engineers
Two Park Avenue • New York, NY • 10016 USA

Date of Issuance: September 26, 2025

The next edition of this Standard is scheduled for publication in 2030. This Standard will become effective 1 year after the Date of Issuance.

This code or standard was developed under procedures accredited as meeting the criteria for American National Standards. The standards committee that approved the code or standard was balanced to ensure that individuals from competent and concerned interests had an opportunity to participate. The proposed code or standard was made available for public review and comment, which provided an opportunity for additional public input from industry, academia, regulatory agencies, and the public-at-large.

ASME does not “approve,” “certify,” “rate,” or “endorse” any item, construction, proprietary device, or activity. ASME does not take any position with respect to the validity of any patent rights asserted in connection with any items mentioned in this document, and does not undertake to insure anyone utilizing a standard against liability for infringement of any applicable letters patent, nor does ASME assume any such liability. Users of a code or standard are expressly advised that determination of the validity of any such patent rights, and the risk of infringement of such rights, is entirely their own responsibility.

Participation by federal agency representatives or persons affiliated with industry is not to be interpreted as government or industry endorsement of this code or standard.

ASME accepts responsibility for only those interpretations of this document issued in accordance with the established ASME procedures and policies, which precludes the issuance of interpretations by individuals.

The endnotes and preamble in this document (if any) are part of this American National Standard.



ASME Collective Membership Mark

All rights reserved. “ASME” and the above ASME symbol are registered trademarks of The American Society of Mechanical Engineers. No part of this document may be copied, modified, distributed, published, displayed, or otherwise reproduced in any form or by any means, electronic, digital, or mechanical, now known or hereafter invented, without the express written permission of ASME. No works derived from this document or any content therein may be created without the express written permission of ASME. Using this document or any content therein to train, create, or improve any artificial intelligence and/or machine learning platform, system, application, model, or algorithm is strictly prohibited.

The American Society of Mechanical Engineers
Two Park Avenue, New York, NY 10016-5990

Copyright © 2025 by
THE AMERICAN SOCIETY OF MECHANICAL ENGINEERS
Printed in U.S.A.

CONTENTS

Foreword vii

Committee Roster ix

Correspondence With the B30 Committee xi

B30 Standard Introduction xii

Summary of Changes xiv

Chapter 9-0 **Scope, Definitions, Personnel Competence, Rigger Responsibilities, Translations, and References** 1

Section 9-0.1 Scope of ASME B30.9 1

Section 9-0.2 Definitions 1

Section 9-0.3 Personnel Competence 3

Section 9-0.4 Rigger Responsibilities 3

Section 9-0.5 Original and Translated Technical and Safety-Related Information 3

Section 9-0.6 References 3

Chapter 9-1 **Alloy Steel Chain Slings: Selection, Use, and Maintenance** 5

Section 9-1.0 Scope 5

Section 9-1.1 Training 5

Section 9-1.2 Components 5

Section 9-1.3 Fabrication and Configurations 5

Section 9-1.4 Design Factor 5

Section 9-1.5 Rated Load 5

Section 9-1.6 Proof Test Requirements 7

Section 9-1.7 Sling Identification 7

Section 9-1.8 Effects of Environment 7

Section 9-1.9 Inspection, Removal, and Repair 7

Section 9-1.10 Operating Practices 9

Chapter 9-2 **Wire Rope Slings: Selection, Use, and Maintenance** 11

Section 9-2.0 Scope 11

Section 9-2.1 Training 11

Section 9-2.2 Components 11

Section 9-2.3 Fabrication and Configurations 11

Section 9-2.4 Design Factor 12

Section 9-2.5 Rated Load 12

Section 9-2.6 Proof Test Requirements 12

Section 9-2.7 Sling Identification 13

Section 9-2.8 Effects of Environment 14

Section 9-2.9 Inspection, Removal, and Repair 14

Section 9-2.10 Operating Practices 15

Chapter 9-3 **Metal Mesh Slings: Selection, Use, and Maintenance** 18
Section 9-3.0 Scope 18
Section 9-3.1 Training 18
Section 9-3.2 Components 19
Section 9-3.3 Fabrication and Configurations 19
Section 9-3.4 Design Factor 19
Section 9-3.5 Rated Load 19
Section 9-3.6 Proof Test Requirements 19
Section 9-3.7 Sling Identification 20
Section 9-3.8 Effects of Environment 20
Section 9-3.9 Inspection, Removal, and Repair 20
Section 9-3.10 Operating Practices 21
Chapter 9-4 **Synthetic Rope Slings: Selection, Use, and Maintenance** 23
Section 9-4.0 Scope 23
Section 9-4.1 Training 23
Section 9-4.2 Components 23
Section 9-4.3 Fabrication and Configurations 23
Section 9-4.4 Design Factor 24
Section 9-4.5 Rated Load 24
Section 9-4.6 Proof Test Requirements 24
Section 9-4.7 Sling Identification 26
Section 9-4.8 Effects of Environment 26
Section 9-4.9 Inspection, Removal, and Repair 26
Section 9-4.10 Operating Practices 27
Chapter 9-5 **Synthetic Webbing Slings: Selection, Use, and Maintenance** 30
Section 9-5.0 Scope 30
Section 9-5.1 Training 30
Section 9-5.2 Components 30
Section 9-5.3 Fabrication and Configurations 30
Section 9-5.4 Design Factor 30
Section 9-5.5 Rated Load 30
Section 9-5.6 Proof Test Requirements 32
Section 9-5.7 Sling Identification 32
Section 9-5.8 Effects of Environment 32
Section 9-5.9 Inspection, Removal, and Repair 32
Section 9-5.10 Operating Practices 33
Chapter 9-6 **Polyester Roundslings: Selection, Use, and Maintenance** 35
Section 9-6.0 Scope 35
Section 9-6.1 Training 35
Section 9-6.2 Components 35
Section 9-6.3 Fabrication and Configurations 35
Section 9-6.4 Design Factor 36
Section 9-6.5 Rated Load 36
Section 9-6.6 Proof Test Requirements 36
Section 9-6.7 Sling Identification 36

Section 9-6.8 Effects of Environment . . . 37
Section 9-6.9 Inspection, Removal, and Repair . . . 37
Section 9-6.10 Operating Practices . . . 38
Chapter 9-7 High Performance Roundslings: Selection, Use, and Maintenance . . . 40
Section 9-7.0 Scope . . . 40
Section 9-7.1 Training . . . 40
Section 9-7.2 Components . . . 40
Section 9-7.3 Fabrication and Configurations . . . 40
Section 9-7.4 Design Factor . . . 41
Section 9-7.5 Rated Load . . . 41
Section 9-7.6 Proof Test Requirements . . . 41
Section 9-7.7 Sling Identification . . . 41
Section 9-7.8 Effects of Environment . . . 42
Section 9-7.9 Inspection, Removal, and Repair . . . 42
Section 9-7.10 Operating Practices . . . 43

Nonmandatory Appendix
A Sling Protection . . . 45

Figures
9-1.0-1 Alloy Steel Chain Slings: Configurations, Components, and Hitches . . . 6
9-1.5-1 Angle of Loading . . . 7
9-2.0-1 Wire Rope Sling . . . 11
9-2.0-2 Wire Rope . . . 12
9-2.3.2-1 Minimum Sling Length . . . 13
9-2.3.2-2 Minimum Braided Sling Length . . . 13
9-2.5-1 Angle of Loading . . . 13
9-2.9.5-1 Cable-Laid Wire Rope Sling . . . 15
9-2.10.1-1 D/d Ratio: Wire Rope Slings . . . 16
9-3.0-1 Metal Mesh Sling . . . 18
9-3.5-1 Angle of Loading . . . 19
9-3.10.1-1 Angle of Choke: Metal Mesh Slings . . . 21
9-4.0-1 Synthetic Fiber Rope Slings . . . 24
9-4.5-1 Hitch Types for Synthetic Rope Slings . . . 25
9-4.5-2 Angle of Loading . . . 26
9-4.10.1-1 D/d Ratio: Synthetic Rope Slings . . . 28
9-5.0-1 Synthetic Webbing Slings . . . 31
9-5.0-2 Synthetic Webbing Sling Nomenclature . . . 31
9-5.5-1 Angle of Loading . . . 31
9-6.0-1 Polyester Roundsling Types . . . 35
9-6.5-1 Angle of Loading . . . 36
9-7.0-1 High Performance Roundsling Types . . . 40
9-7.5-1 Angle of Loading . . . 41
A-3-1 Sling Protection Types to Help Resist Against Abrasion Damage . . . 46
A-3-2 Sling Protection Types to Help Resist Local Bearing Pressure or Cutting Damage . . . 47

Tables

9-1.8.1-1	Effect of Elevated Temperature on Rated Load of Alloy Steel Chain	8
9-1.9.5-1	Minimum Allowable Thickness at Any Point on a Link	9
9-1.10.1-1	Basket Sling Hitch-Rated Capacity Affected by D/d	10
9-2.10.1-1	Angle of Choke: Wire Rope Slings	16
9-3.2.1-1	Fabric Construction: Metal Mesh Slings	19
9-4.10.1-1	Angle of Choke: Synthetic Rope Slings	28
9-5.10.1-1	Angle of Choke: Synthetic Webbing Slings	34
9-6.10.1-1	Angle of Choke: Polyester Roundslings	38
9-7.10.1-1	Angle of Choke: High Performance Roundslings	43