[Revision of ASME B1.20.1-1983 (R2006)]

## Pipe Threads, General Purpose (Inch)

AN AMERICAN NATIONAL STANDARD



## **ASME B1.20.1-2013**

[Revision of ASME B1.20.1-1983 (R2006)]

## Pipe Threads, General Purpose (Inch)

AN AMERICAN NATIONAL STANDARD



Date of Issuance: November 15, 2013

This Standard will be revised when the Society approves the issuance of a new edition. There will be no written interpretations of the requirements of this Standard issued to this edition.

Periodically certain actions of the ASME B1 Committee may be published as Cases. Cases are published on the ASME Web site under the Committee Pages at http://cstools.asme.org/ as they are issued.

Errata to codes and standards may be posted on the ASME Web site under the Committee Pages to provide corrections to incorrectly published items, or to correct typographical or grammatical errors in codes and standards. Such errata shall be used on the date posted.

The Committee Pages can be found at http://cstools.asme.org/. There is an option available to automatically receive an e-mail notification when errata are posted to a particular code or standard. This option can be found on the appropriate Committee Page after selecting "Errata" in the "Publication Information" section.

ASME is the registered trademark of The American Society of Mechanical Engineers.

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 assure that individuals from competent and concerned interests have had an opportunity to participate. The proposed code or standard was made available for public review and comment that provides an opportunity for additional public input from industry, academia, regulatory agencies, and the public-at-large.

ASME does not "approve," "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 assumes 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 representative(s) or person(s) affiliated with industry is not to be interpreted as government or industry endorsement of this code or standard.

No part of this document may be reproduced in any form, in an electronic retrieval system or otherwise, without the prior written permission of the publisher.

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

Copyright © 2013 by THE AMERICAN SOCIETY OF MECHANICAL ENGINEERS All rights reserved Printed in U.S.A.

## **CONTENTS**

	ewordnmittee Roster	iv v
	respondence With the B1 Committee	vi
1	Introduction	1
2	American National Standard Pipe Thread Form	2
3	Specification for Taper Pipe Threads, NPT	4
4	Specifications for Internal Straight Threads in Pipe Couplings, NPSC	13
5	Specifications for Railing Joint Taper Pipe Threads, NPTR	14
6	Specifications for Straight Pipe Threads for Mechanical Joints; NPSM, NPSL	16
7	Gages and Gage Tolerances for American National Standard Taper Pipe Threads, NPT	19
Figu	ıres	
1 2 3 4 5 6 7 8	Root, Crest, and Flank Engagement, NPT Basic Form of American National Standard Taper Pipe Thread, NPT American National Standard Taper Pipe Thread Notation Gaging External Taper Threads With $L_1$ Ring Gage Gaging of Chamfered Threads Gaging Internal Taper Threads With $L_1$ Plug Gage NPT Standard Taper Pipe Thread Plug and Ring Gages Suggested Form of Gage Thread	2 3 6 10 11 12 20 21
Tabl		
1 2 3 4 5	Limits on Crest and Root Truncation of American National Standard External and Internal Taper Pipe Threads, NPT  Basic Dimensions of American National Standard Taper Pipe Thread, NPT  Tolerances on Taper, Lead, and Angle of Pipe Threads, NPT  Dimensions, Internal Straight Threads in Pipe Coupling, NPSC  Dimensions of External and Internal Taper Pipe Threads for Railing	5 8 10 14
_	Joints, NPTR	15
6 7	Dimensions of External and Internal Straight Pipe Threads for Fixtures, NPSM  Dimensions, External and Internal Straight Pipe Thread for Locknut  Connections, NPSL	17 18
8	Basic Dimensions of Threaded Gages for American National Standard Taper Pipe Threads, NPT	22
9	Working Gage Tolerances for American National Standard Taper Pipe Thread, NPT	23
10	Diameter Equivalent of Variation in Half Included Angle of Thread for Tools	25
11	and Gages	25 26
Non	mandatory Appendices	
A B C	The Turns of Engagement Method of Gaging Product Threads  Tap Drill Sizes  Thread Types and Corresponding Gages and Gaging	27 28 29