



AMERICAN PETROLEUM INSTITUTE

API Recommended Practice 5L3

Drop-Weight Tear Tests on Line Pipe

FOURTH EDITION | AUGUST 2014 | 11 PAGES | \$95.00 | PRODUCT NO. G5L304

This 4th edition of RP 5L3 includes changes approved by letter ballot in 2013 from the Subcommittee on Tubular Goods, Task Group on Line Pipe.

The procedures within describe a recommended method for conducting Drop-Weight Tear Tests to measure the fracture appearance or fracture ductility of the pipe as referenced in API Specification 5L, *Specification for Line Pipe*.

For ordering information:

Online: www.api.org/pubs

Phone: 1-800-854-7179
(Toll-free in the U.S. and Canada)

(+1) 303-397-7056
(Local and International)

Fax: (+1) 303-397-2740

API members receive a 30% discount where applicable.

Contents

	Page
1	Scope 1
2	Normative References 1
3	Abbreviations 1
4	General Information 1
4.1	Apparatus 1
4.2	Metric Units 1
5	Specimens 2
5.1	Orientation 2
5.2	Notch Geometry 3
5.3	Dimensions 3
6	Specimen Testing 3
7	Specimen Evaluation 4
8	Report 7
Annex A (normative) Metric Conversion Factors 8	
Annex B (normative) Measurement of Shear Area 9	
Figures	
1	Drop-Weight Tear Test Specimen and Support Dimensions 2
2	Drop-Weight Tear Test Chevron Notch Details 4
3	Shear Area Rating of Separations in Controlled-rolled Steel Fracture Surfaces 5
4	Fracture Surface Included in Shear Area Determination 6
5	Alternate Shear-cleavage Fracture Appearance 6
B.1	Representative DWTT Fracture Surfaces 10
B.2	Chart for Determining Percent Shear for 0.312 in. (7.9 mm) Material 11
B.3	Chart for Determining Percent Shear for 0.344 in. (8.7 mm) Material 11
Tables	
1	Test Temperature Reduction 3
2	Minimum Bath Time Requirements 3