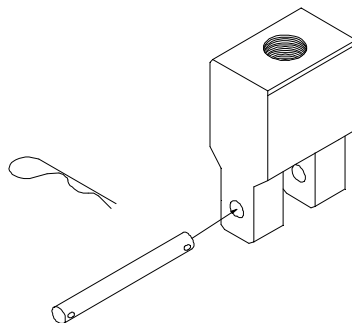


COMPACT TENSION LOADING CLEVIS SET - 17-4 PH STAINLESS STEEL



Specimen:	Width	0.4" to 4"
	Length	Any
	Thickness	0.4" - 8"
Fixture:	Construction	High strength, heat treated 17-4 PH Stainless Steel
	Temperature	-240 to 600°F
	Mounting	Threaded couplings
	Capacity	Varies
	Weight	10 lbs approximately
	Dimensions	Assembled 2" x 2" x 6"
	Standard	Manufactured in accordance with ASTM E399

Model No. ASTM.E0399.0X - 17-4 PH Compact Tension Loading Clevis Set

Precision machined compact tension loading clevis set of (2) with loading pins and retaining hairpins. Each clevis is supplied with a female thread for attachment with a fatigue rated loading stud. Each clevis is constructed of heat treated, high strength 17-4 PH stainless steel in accordance with ASTM E399. (See part numbers in Spare Parts Section.)

MODEL NO. ASTM.E0399.0X

FRACTURE, TESTING, LINEAR-ELASTIC,

ACCESSORIES

Upper and lower fixture attachment is supplied with 1" -14 female coupling. (Common adapter sizes include:)

Model No. M03S30 - 1.25" Male Clevis (Type D) to 3/4" -10 Threaded Stud

Model No. S42S30 - 1.25" -12 to 3/4" -10 Threaded Step Stud

Model No. S48S36 - 1.5" -12 to 3/4" -10 Threaded Step Stud

Model No. S60S30 - 2" -12 to 3/4" -10 Threaded Step Stud

Model No. LN30 - 3/4" -10 Threaded Locking Nut with Knurled OD

Upper and lower fixture attachment is supplied with 1" -14 female coupling. (Common adapter sizes include:)

Model No. M03S34 - 1.25" Male Clevis (Type D) to 1" -8 Threaded Stud

Model No. S42S34 - 1.25" -12 to 1" -8 Threaded Step Stud

Model No. S48S34 - 1.5" -12 to 1" -8 Threaded Step Stud

Model No. S60S34 - 2" -12 to 1" -8 Threaded Step Stud

Model No. LN34 - 1" -8 Threaded Locking Nut with Knurled OD

SPARE PARTS

ASTM.E0399.01 - b = 0.4", w = 0.8", pin = 0.192"

ASTM.E0399.02 - b = 0.5", w = 1.0", pin = 0.240"

ASTM.E0399.03 - b = 0.6", w = 1.2", pin = 0.288"

ASTM.E0399.04 - b = 0.75", w = 1.5", pin = 0.360"

ASTM.E0399.05 - b = 0.8", w = 1.6", pin = 0.384"

ASTM.E0399.06 - b = 1.0", w = 2.0", pin = 0.480"

ASTM.E0399.07 - b = 1.25", w = 2.5", pin = 0.600"

ASTM.E0399.08 - b = 1.5", w = 3.0", pin = 0.720"

ASTM.E0399.09 - b = 1.75", w = 3.5", pin = 0.840"

ASTM.E0399.09S - b = 1.875", w = 3.75", pin = 0.900"

ASTM.E0399.10 - b = 2.0", w = 4.0", pin = 0.960"

ASTM.E0399.11 - b = 2.25", w = 4.5", pin = 1.080"

ASTM.E0399.12 - b = 2.5", w = 5.0", pin = 1.200"

ASTM.E0399.13 - b = 3.0", w = 6.0", pin = 1.440"

ASTM.E0399.14 - b = 3.5", w = 7.0", pin = 1.680"

ASTM.E0399.15 - b = 4.0", w = 8.0", pin = 1.920"

REFERENCE DOCUMENT AND TEST METHOD SCOPE:

<http://www.astm.org/Standards/E399.htm>

ASTM E399 - 12e3

Standard Test Method for Linear-Elastic Plane-Strain Fracture Toughness K_{Ic} of Metallic Materials

1.1 This test method covers the determination of fracture toughness (K_{Ic}) of metallic materials under predominantly linear-elastic, plane-strain conditions using fatigue precracked specimens having a thickness of 1.6 mm (0.063 in.) or greater² subjected to slowly, or in special (elective) cases rapidly, increasing crack-displacement force. Details of test apparatus, specimen configuration, and experimental procedure are given in the Annexes.

Note 1—Plane-strain fracture toughness tests of thinner materials that are sufficiently brittle (see 7.1) can be made using other types of specimens (1).³ There is no standard test method for such thin materials.

1.2 This test method is divided into two parts. The first part gives general recommendations and requirements for K_{Ic} testing. The second part consists of Annexes that give specific information on displacement gage and loading fixture design, special requirements for individual specimen configurations, and detailed procedures for fatigue precracking. Additional annexes are provided that give specific procedures for beryllium and rapid-force testing.

1.3 General information and requirements common to all specimen configurations: (Section)

Referenced Documents - 2, Terminology - 3, Stress-Intensity Factor - 3.1.1, Plane-Strain Fracture Toughness - 3.1.2, Crack Plane Orientation -

3.1.4, Summary of Test Method - 4, Significance and Use - 5, Significance - 5.1, Precautions 5.1.1 – 5.1.5, Practical Applications - 5.2,

Apparatus (see also 1.4) - 6, Tension Machine - 6.1, Fatigue Machine - 6.2, Loading Fixtures - 6.3, Displacement Gage, Measurement - 6.4,

Specimen Size, Configurations, and Preparation (see also 1.5) - 7, Specimen Size Estimates 7.1, Standard and Alternative Specimen

Configurations - 7.2, Fatigue Crack Starter Notches - 7.3.1, Fatigue Precracking (see also 1.6) - 7.3.2, Crack Extension Beyond Starter Notch -

7.3.2.2, General Procedure - 8, Specimen Measurements, Thickness - 8.2.1, Width - 8.2.2,

Crack Size - 8.2.3, Crack Plane Angle - 8.2.4, Specimen Testing, Loading Rate - 8.3, Test Record - 8.4, Calculation and Interpretation of Results

- 9, Test Record Analysis - 9.1, Pm ax/PQ Validity Requirement - 9.1.3, Specimen Size Validity Requirements - 9.1.4, Reporting - 10, Precision

and Bias - 11,

1.4 Specific requirements related to test apparatus:

Double-Cantilever Displacement Gage - Annex A1, Testing Fixtures - Annex A2, Bend Specimen Loading Fixture - Annex A2.1, Compact

Specimen Loading Clevis - Annex A2.2

1.5 Specific requirements related to individual specimen configurations:

Bend Specimen SE(B) - Annex A3, Compact Specimen C(T) - Annex A4, Disk Shaped Compact Specimen DC(T) - Annex A5, Arc Shaped

Material Testing Technology