



Testing Tools for Threaded Fasteners



Tinius Olsen offers a wide variety of tools and accessories for testing bolts, nuts and threaded fasteners in accordance with ASTM methods A194, A370, F606 and other applicable ASTM, SAE, IFI and Military specifications. The unique design of these tools eliminates the need for switching slotted bolt holders which can become heavy and cumbersome. They also eliminate the need to piggyback holders, i.e. attach a smaller slotted bolt holder to a larger one which is attached to the crosshead. This design can also help to reduce the need for increased tension test space which can be expensive and totally impractical.

Standard tooling is available for fasteners in sizes up to 1½ in and M39 with components rated for 175,000 psi (1,200 MPa) stress based on the tensile stress area of the specimens. Short bolts with a length as short a two times the diameter can also be tested with this tooling.

This picture shows the most common arrangement for testing bolts. Here a 300,000lbf capacity slotted bolt holder is being used with a 300-30 washer adaptor, a ½ in. proof washer and a ½ in -13 threaded bolt holder, to test a bolt.



Typical Fastener Tooling Configurations

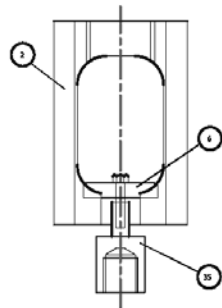


Fig. A
BOLT TEST
(short or reg. length/std. ext.)
(short = 2 x dia.)

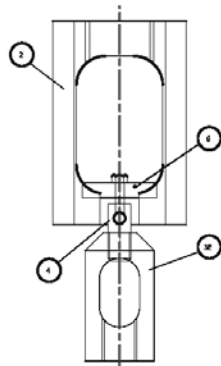


Fig. B
BOLT TEST
short length, short = 2 x dia.
(except 1/4" to 1/2" bolts,
short = 4 x dia.)

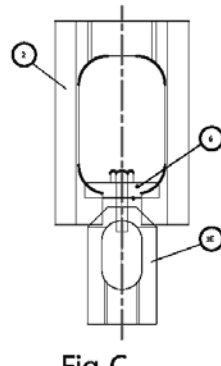


Fig. C
BOLT TEST
(reg. length/bolt ext.)

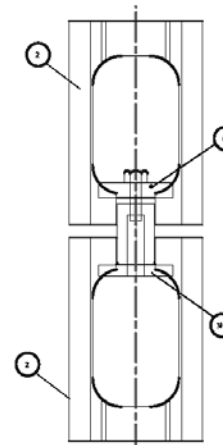


Fig. D
BOLT TEST

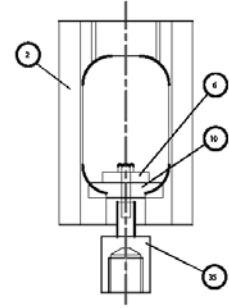


Fig. E
BOLT TEST
(reg. length/std. ext.)
(short bolt/fig. hldr.)
(short = 2 x dia.)

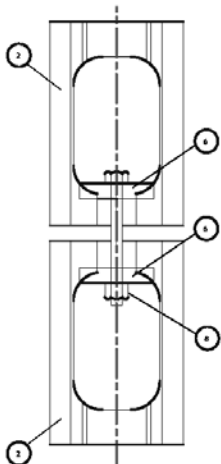


Fig. F
BOLT TEST
(items 6, 6, 6, 8)
(alt. to fig. C)

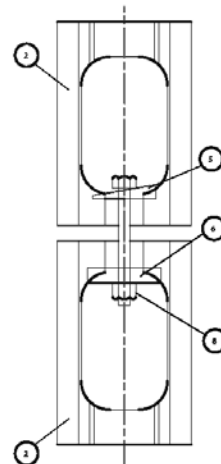


Fig. G
BOLT WEDGE TENSION TEST
(items 5, 6, 6, 8)
(alt. to fig. J)

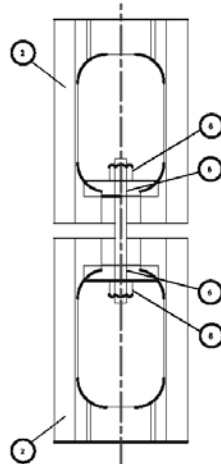


Fig. H
STUD TEST
(items 8, 6, 6, 6, 8)
(alt. to fig. K or L)

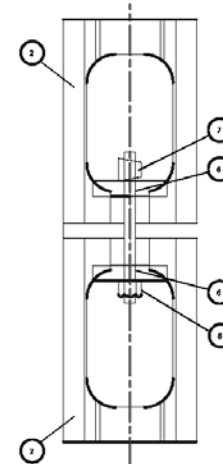


Fig. I
STUD WEDGE TENSION TEST
(items 7, 6, 6, 6, 8)
(alt. to fig. M)

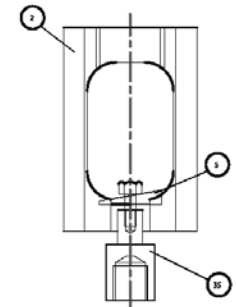


Fig. J
BOLT WEDGE TENSION TEST

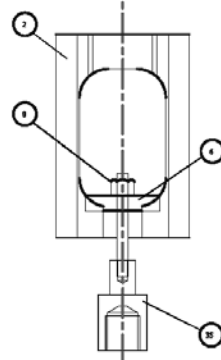


Fig. K
STUD TEST
(std. ext.)

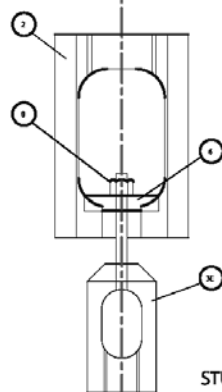


Fig. L
STUD TEST
(bolt ext.)

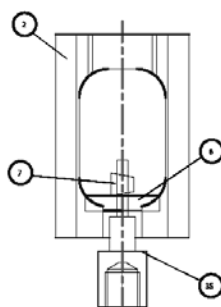


Fig. M
STUD WEDGE TENSION TEST

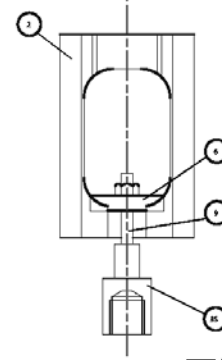


Fig. N
NUT PROOF TEST

10	WASHER ADAPTERS FOR BOLT HOLDERS
9	MANDRELS, PROOF
8	NUT, PROOF
7	NUT, WEDGE - 4", 6" AND 10"
6	WASHER, PROOF
5	WASHER, WEDGE - 4", 6" AND 10"
4	ADAPTERS, SHORT BOLT
35	BOLT HOLDER, THREADED - STUD MOUNT
3H	BOLT HOLDER, THREADED - HOLDER MOUNT
3E	BOLT HOLDER, THREADED - STUD MOUNT/EXT.
2	BOLT HOLDER, SLOTTED
1	SPHERICAL SEAT ASSEMBLY



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Specifications subject to change without notice

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