INCH-POUND
MIL-PRF-32482A
11 January 2016

SUPERSEDING
MIL-PRF-0032482(SH)
15 September 2014

PERFORMANCE SPECIFICATION

WATERTIGHT DOOR, QUICK-ACTING, INTERIOR

Comments, suggestions, or questions on this document should be addressed to Commander, Naval Sea Systems Command, ATTN: SEA 05S, 1333 Isaac Hull Avenue, SE, Stop 5160, Washington Navy Yard DC 20376-5160 or emailed to CommandStandards@navy.mil, with the subject line "Document Comment". Since contact information can change, you may want to verify the currency of this address information using the ASSIST Online database at https://assist.dla.mil.

AMSC N/A FSC 2040

DEPARTMENT OF THE NAVY
NAVAL SEA SYSTEMS COMMAND
1333 ISAAC HULL AVE SE
WASHINGTON NAVY YARD DC 20376-0001

IN REPLY REFER TO
4121
Ser 05Z/385
JAN 11 2016

From: Commander, Naval Sea Systems Command (SEA 05, CHENG)

Subj: CHENG'S INTENT FOR IMPLEMENTATION OF INTERIOR QUICK-ACTING WATERTIGHT DOORS

Ref: (a) MIL-PRF-32482A, Watertight Door, Quick-Acting, Interior
(b) MIL-PRF-0032482(SH), Watertight Door, Quick-Acting, Interior
(c) NAVSEAINST 4120.8, NAVSEA Policy for Commonality of Systems, Subsystems, and Components

1. Purpose. The NAVSEA Chief Engineer's (CHENG's) intent for issuing a specification for Interior Quick-Acting Watertight Doors (QAWTDs), reference (a), is to reduce variation and enhance commonality across all surface ship platforms. QAWTDs were designed to provide the Fleet a door that improves access throughout the ship and maintain ship survivability throughout the lifecycle.

2. Discussion. This revision replaces an interim specification, reference (b), which was issued to support the U.S. Navy commonality and variation reduction program, per reference (c). Reference (a) specifies 26" x 66" clear opening doors with pound per square inch (psi) ratings of 5, 10, and 15 psi for use in internal shipboard watertight boundaries where ingress and egress are required through interior, structural bulkheads. Including reference (a) on the reference (c) commonality virtual shelf will promote use of the QAWTDs to the maximum extent practicable.

3. Action. NAVSEA encourages suppliers to qualify QAWTDs per reference (a) to enable them to be included on the virtual shelf. Per reference (c), the Program Offices should use the virtual shelf when selecting the QATWDs for their design.

4. Point of Contact. For information pertaining to QAWTDs, please contact the Machinery - Weapons and Cargo Handling and Aviation Support Systems - Surface Ships Technical Warrant Holder, Mr. Gordon McCoy, SEA 05Z44, commercial (202) 781-1666, or email: gordon.mccoy@navy.mil.

L. B. FULLER
By direction

Affixed to: MIL-PRF-32482A

This specification is approved for use by all Departments and Agencies of the Department of Defense.

1. SCOPE

1.1 Scope. This specification covers quick-acting watertight doors (QAWTDs) with a 26- by 66-inch clear opening for use in internal shipboard watertight boundaries where ingress and egress are required through interior, structural bulkheads.

1.2 Classification. QAWTDs are of the following pressure ratings, configurations, and dimensions.

1.2.1 Pressure rating. QAWTDs are designed to have a tightness pressure of either:

a. Pressure Rating A: 5 pounds per square inch (psi)

b. Pressure Rating B: 10 psi

c. Pressure Rating C: 15 psi

1.2.2 Configuration (operation). QAWTDs are of the following configurations as classified by operator orientation:

a. Operation 1: Left-Hand Operation

b. Operation 2: Right-Hand Operation

1.2.3 Dimension. QAWTDs have the following clear opening:

a. Clear Opening: 26- by 66-inch

1.3 Part or identifying number (PIN). PINs to be used for QAWTDs acquired to this specification are created as follows (see 6.2):

M	**32482**	**-**	**X**	**X**	**X**
Prefix for Military Specification	Specification Number		**Pressure Rating (psi)** A: 5 B: 10 C: 15 (see 1.2.1)	**Configuration (Operation)** 1: Left-hand 2: Right-hand (see 1.2.2)	**Dimension** A: Clear Opening* (CO) 26" × 66" (see 1.2.3)

Examples:

M32482-**A1A** 5 psi, left-hand operation, CO 26" × 66"

M32482-**C2A** 15 psi, right-hand operation, CO 26" × 66"

M32482-**B1A** 10 psi, left-hand operation, CO 26" × 66"

*Clear Opening: The nominal unobstructed access opening of the frame, neglecting minor intrusions such as the corner fillets of some rectangular frames.

2. APPLICABLE DOCUMENTS

2.1 General. The documents listed in this section are specified in sections 3 and 4 of this specification. This section does not include documents cited in other sections of this specification or recommended for additional information or as examples. While every effort has been made to ensure the completeness of this list, document users are cautioned that they must meet all specified requirements of documents cited in sections 3 and 4 of this specification, whether or not they are listed.

2.2 Government documents.

2.2.1 Specifications, standards, and handbooks. The following specifications, standards, and handbooks form a part of this document to the extent specified herein. Unless otherwise specified, the issues of these documents are those cited in the solicitation or contract.

COMMERCIAL ITEM DESCRIPTIONS

A-A-59313	-	Thread Compound; Antiseize, Zinc Dust-Petrolatum
A-A-59588	-	Rubber, Silicone

DEPARTMENT OF DEFENSE SPECIFICATIONS

MIL-S-901	-	Shock Tests, H.I. (High-Impact) Shipboard Machinery, Equipment, and Systems, Requirements for
MIL-DTL-15024	-	Plates, Tags, and Bands for Identification of Equipment, General Specification for

DEPARTMENT OF DEFENSE STANDARDS

MIL-STD-167-1	-	Mechanical Vibrations of Shipboard Equipment (Type I-Environmental and Type II-Internally Excited)

(Copies of these documents are available online at http://quicksearch.dla.mil/.)

2.2.2 Other Government documents, drawings, and publications. The following other Government documents, drawings, and publications form a part of this document to the extent specified herein. Unless otherwise specified, the issues of these documents are those cited in the solicitation or contract.

GENERAL SERVICES ADMINISTRATION (GSA)

GSA Global Supply Catalog

(Copies of this document are available online at www.gsa.gov/ggscatalog.)

NAVAL SEA SYSTEMS COMMAND (NAVSEA) DRAWINGS

803-6397268	-	Doors Watertight, Quick Acting, Arrangement
803-6397269	-	Doors Watertight, Quick Acting, Sub-Assemblies & Details

(Copies of these documents are available from the applicable repositories listed in S0005-AE-PRO-010/EDM online at https://nll.ahf.nmci navy mil, may be requested by phone at 215-697-2626, or may be requested by email at nllhelpdesk@navy mil. Copies of this document may also be obtained from the Naval Ships Engineering Drawing Repository (NSEDR) online at https://199.208.213.105/webjedmics/index.jsp. To request an NSEDR account for drawing access, send an email to NNSY_JEDMICS_NSEDR_HELP_DESK@navy.mil.)

NAVSEA INSTRUCTIONS

NAVSEAINST 9491.1	-	Location of Approved Class HI Shock Testing Facilities

(Copies of this document are available online at www.navsea.navy.mil.)

NAVSEA PUBLICATIONS

S9086-VD-STM-010/631 - NSTM Chapter 631, Preservation of Ships in Service

(Copies of this document are available online via Technical Data Management Information System (TDMIS) at https://mercury.tdmis navy mil/ by searching for the TMIN without the suffix. Refer questions, inquiries, or problems to: DSN 296-0669, Commercial (805) 228-0669. This document is available for ordering (hard copy) via the Naval Logistics Library https://nll.ahf.nmci navy mil. For questions regarding the NLL, contact the NLL Customer Service at nllhelpdesk@navy.mil, (866) 817-3130, or (215) 697-2626/DSN 442-2626.)

2.3 Non-Government publications. The following documents form a part of this document to the extent specified herein. Unless otherwise specified, the issues of these documents are those cited in the solicitation or contract.

ASTM INTERNATIONAL

ASTM C1443 - Standard Specification for Glasses, Portlight, Circular, Fully Tempered

ASTM F1166 - Standard Practice for Human Engineering Design for Marine Systems, Equipment, and Facilities

(Copies of these documents are available online at www.astm.org.)

2.4 Order of precedence. Unless otherwise noted herein or in the contract, in the event of a conflict between the text of this document and the references cited herein, the text of this document takes precedence. Nothing in this document, however, supersedes applicable laws and regulations unless a specific exemption has been obtained.

3. REQUIREMENTS

3.1 Qualification. QAWTDs furnished under this specification shall be products that are authorized by the qualifying activity for listing on the applicable qualified products list before contract award (see 4.2 and 6.4).

3.2 Materials. Material selected shall meet the requirements specified herein. QAWTDs and associated parts shall be constructed of materials that meet the requirements specified herein with regard to corrosion resistance, relative stiffness between the bulkhead and the QAWTD, and interchangeability with current Navy assets. In order to ensure interchangeability, pins, fasteners, actuating mechanisms, and other hardware shall be manufactured from CRES 316, if strength requirements permit. Antiseize compound in accordance with A-A-59313 shall be applied to all threaded fasteners and in way of static, closely fitted pieces subject to galling or crevice corrosion (for example, between dogs [see 6.7.3] and spindles) where grease is not specified. The use of carcinogenic materials is prohibited.

3.3 Recycled, recovered, environmentally preferable, or biobased materials. Recycled, recovered, environmentally preferable, or biobased materials should be used to the maximum extent possible, provided that the material meets or exceeds the operational and maintenance requirements, and promotes economically advantageous life cycle costs.

3.4 Design. The QAWTD shall be constructed with the ability to support clear opening sizes and hydrostatic tightness pressures listed in table I. Components of the QAWTD shall be contained within the footprint of the QAWTD frame. (see 1.2)

TABLE I. QAWTD sizes and footprints.

Clear Opening Width (inches)	Clear Opening Height (inches)	Tightness Pressure (psi)
26	66	5
26	66	10
26	66	15

3.4.1 Actuating mechanisms. Actuating mechanisms shall be designed to avoid metal-to-metal contact on any actuating or rotating device. Actuating mechanisms shall also be designed to avoid the need for lubrication.

3.4.1.1 Quick-acting mechanism. All dogs within the quick-acting mechanism shall operate simultaneously by the single movement of a lever.

3.4.1.2 Dogs. QAWTDs shall have varying numbers of dogs, depending on the style of QAWTD and its pressure rating. Dogs shall be spaced around the perimeter of the panel in order to distribute water pressure in the event of flooding.

3.4.2 CPS latch. The QAWTD shall be capable of accommodating a Collective Protection System (CPS) latch. When specified (see 6.2), a CPS latch shall be provided. The CPS latch shall be capable of being installed on QAWTDs of airlocks and pressure locks that are located in boundaries of CPS zones. The CPS latch shall be provided with positive engagement using a latch bar and either a straight or ramped keeper, as specified (see 6.2).

a. A straight keeper shall be used where the QAWTD opens from a pressurized space.

b. A ramped keeper shall be used where the QAWTD opens into a pressurized space.

Both the latch bar and the keeper shall have a coating applied to the contact surfaces to reduce wear.

3.4.3 Security locks. The QAWTD shall be capable of accommodating a lock. When specified (see 6.2), a lock shall be provided.

3.4.4 Hook and bumper. The QAWTD shall be capable of accommodating a hook and bumper. When specified (see 6.2), a hook and bumper shall be provided.

3.4.5 Fixed light assembly. Unless otherwise specified (see 6.2), the QAWTD shall be provided with a fixed light assembly using clear glass for visibility and having the following characteristics:

a. Fixed light assemblies shall be of equal strength to maintain the tightness requirements and resistance to damage of the QAWTD in which it is installed.

b. Fixed light assemblies leading to flammable liquids storerooms and flammable liquids issue rooms shall be of heat-treated and shatterproof glass in accordance with ASTM C1443.

c. Fixed light assemblies shall be in accordance with 803-6397269 in order to ensure interchangeability with current Navy assets.

3.4.6 Sealing mechanism. QAWTDs shall provide a watertight seal through the mechanism of a knife-edge on the QAWTD frame pushed into a gasket. The gasket shall be installed in the QAWTD panel. The knife-edge shall be pushed into the gasket through a dogging mechanism that is activated by manually rotating a handle. A watertight seal shall be obtained when the knife-edge is compressed into the gasket by at least $\frac{1}{16}$ inch (1.7 millimeters). When the compression is more than $\frac{3}{32}$ inch (3 millimeters), the handle force shall not exceed the maximum allowable handle force (between and including 35 to 50 pounds) in accordance with ASTM F1166. This means that the tolerance between the plane through the top of the knife-edge and the plane through the top of the gasket shall be within $\pm\frac{1}{64}$ inch (0.5 millimeter). Gaskets for closures in watertight boundaries shall be silicone rubber in accordance with A-A-59588, Class 3B, Grade 30.

3.4.7 Door-swing.

3.4.7.1 Hinges. Hinges shall allow the QAWTD to open between 90 and 180 degrees, as specified (see 6.2). Type of hinge used shall be in accordance with 803-6397268.

3.4.7.2 Configuration (operation). Door-swing (i.e., left-hand or right-hand) designations are opposite that of standard commercial practice. To determine door-swing, stand in the space that the QAWTD panel opens into. If the hinges are located on the left side of the QAWTD, it is considered left-handed. If the hinges are located on the right side of the QAWTD, it is considered right-handed.

3.4.8 Handle force. Handle force shall be between 35 and 50 pounds when the QAWTD is dogged and undogged in accordance with ASTM F1166.

3.4.9 Special tools. The QAWTD shall be designed so that special tools are not required for installation and maintenance. Special tools are defined as tools not listed in the General Services Administration (GSA) Global Supply Catalog.

3.5 Physical requirements.

3.5.1 Edges. Exposed burrs and raw or sharp edges on QAWTDs and frames that may injure personnel shall be removed.

3.5.2 Tightness pressure. Tightness pressure, also known as design pressure (see 6.7.2), shall be the minimum water pressure a QAWTD shall withstand without visible leakage. The tightness pressure shall not be less than the design head pressure of the structure in which the closure is located. For closures in bulkheads or trunk sides, the design head of the structure shall be taken at the level of the bottom of the closure.

3.5.3 Proof pressure. Proof pressure (see 6.7.4) shall be tightness pressure multiplied by 150 percent.

3.5.4 Finish. Paint and primer shall be applied in accordance with S9086-VD-STM-010/631. In all cases, coatings shall be applied after welding has been completed and CRES parts and non-ferrous parts have been masked.

3.5.5 Identification plate. Each QAWTD shall be supplied with an identification plate affixed to the inside surface (stiffener side) of the QAWTD panel using 3M VHB Double-Coated Acrylic Foam Tape, or equal. Tape shall cover the full surface of the label plate. The identification plate shall be 3¼ inches high by 5 inches wide. The identification plate shall be in accordance with the requirements of MIL-DTL-15024, Type H. Lettering shall be 5/32 inch high. Spacing between text lines shall be 7/16 inch. Each identification plate shall list the following information:

a. Specification number.

b. Part or identifying number (PIN).

c. Manufacturer name.

d. Date manufactured.

e. Drawing number.

3.6 Performance requirements.

3.6.1 Operation. The QAWTD shall be capable of being undogged and opened between 90 and 180 degrees from a closed and dogged position. The QAWTD shall be capable of opening and closing with no perceived binding or force exceeding 50 pounds, in accordance with ASTM F1166.

3.6.2 Hydrostatic pressure. The QAWTD shall be capable of withstanding a hydrostatic pressure of 5, 10, or 15 psi without leakage, as specified (see 6.2). The QAWTD assembly shall be capable of withstanding a hydrostatic proof pressure without permanent deformation.

3.6.3 Reliability. The QAWTD, with locks or CPS latch assembly removed, shall be capable of withstanding a minimum of one million cycles (see 4.6.3).

3.6.4 Dogging force. Handle force shall be between 35 and 50 pounds when the QAWTD is dogged and undogged in accordance with ASTM F1166.

3.6.5 Shock resistance. The QAWTD shall be capable of withstanding a shock event in accordance with MIL-S-901 for a Grade A, Type A, Class I, 9 blow medium weight shock test.

3.6.6 Vibration resistance. The QAWTD shall be capable of withstanding shipboard vibration in accordance with MIL-STD-167-1 when subjected to vibration throughout the frequency range of 4 to 15 Hertz.

3.6.7 Moisture and water resistance. The QAWTD material shall not degrade when exposed to water or moisture. Absorbent materials which encourage the growth of mold shall not be used.

4. VERIFICATION

4.1 Classification of inspections. The inspection requirements specified herein are classified as follows:

a. Qualification inspection (see 4.2 and table II).

b. Conformance inspection (see 4.3 and table II).

4.2 Qualification inspection. Qualification inspection shall be conducted on a sufficient number of QAWTDs containing a fixed light assembly and shall include the examinations of 4.4 and 4.5, and the tests of 4.6.1 through 4.6.5 (see table II).

4.2.1 Test facility. Qualification inspection shall be conducted at a certified independent test facility.

4.2.2 Test tank. A test tank shall be designed to represent a shipboard bulkhead installation of a QAWTD. A QAWTD shall be installed onto the test tank using a ⅜-inch mounting plate that simulates the stiffness of a bulkhead located on a Navy ship. The test tank shall have fittings to provide for filling, loading, unloading, and pressure measurement.

4.3 Conformance inspection. Conformance inspection shall include the examinations of 4.4 and 4.5, and the test of 4.6.1 (see table II).

TABLE II. Examinations and inspections.

Test Requirement	Requirement Paragraph	Verification Paragraph	Qualification	Conformance
Examination	3.4, 3.4.2, 3.4.3, 3.4.4, 3.4.5, 3.4.9, 3.5.1, 3.5.4, 3.5.5, and 3.6.7	4.4 and 4.5	X	X
Operational	3.4.1, 3.4.1.1, 3.4.1.2, 3.4.7, 3.4.7.1, 3.4.7.2, 3.4.8, 3.6.1, and 3.6.4	4.6.1	X	X
Hydrostatic	3.4, 3.4.5, 3.4.6, 3.5.2, 3.5.3, and 3.6.2	4.6.2	X	
Reliability	3.4.1, 3.4.1.1, 3.4.1.2, 3.4.6, 3.4.7.1, 3.4.8, and 3.6.3	4.6.3	X	
Shock	3.4.1, 3.4.1.1, 3.4.1.2, 3.4.5, 3.4.6, 3.4.7.1, 3.4.8, and 3.6.5	4.6.4	X	
Vibration	3.4.1, 3.4.1.1, 3.4.1.2, 3.4.5, 3.4.6, 3.4.7.1, 3.4.8, and 3.6.6	4.6.5	X	

4.4 Examination. Each QAWTD shall be examined for compliance with the requirements specified in section 3. Any redesign or modification of the contractor's standard product to comply with specified requirements, or any necessary redesign or modification following failure to meet the specified requirements, shall receive particular attention for adequacy and suitability. This element of inspection shall encompass all visual examinations and dimensional requirements. Non-compliance with any specified requirement shall constitute cause for rejection.

4.5 Classification of defects. Compliance shall be determined by examination for the defects listed in table III. Non-compliance with any specified requirement shall constitute cause for rejection.

TABLE III. Classification of defects.

Category	Defect	Method of Examination
Major		
101	Dimensions affecting interchangeability, out of tolerance	SIE [1/]
102	Failure to meet any test acceptance criteria	As specified (see 4.6)
Minor		
201	Dimensions not affecting interchangeability, out of tolerance	SIE
202	Non-conformance in design or construction	Visual and SIE
203	Weight not as specified	SIE
204	Improper finish, color, or application	Visual
205	Improper marking or identification plates	Visual
206	Logistics support documentation inaccurate or incomplete	Visual

NOTE:
[1/] SIE = Standard Inspection Equipment

4.6 Performance.

4.6.1 Operational test. Each QAWTD shall be operationally tested to verify the requirements specified in table II. The panel shall be opened to the maximum door swing angle from a closed and dogged position. The swing angle shall meet the specified swing. The force to open and close the door shall be measured perpendicular to the door panel. This opening and closing force shall not exceed the specified value. The panel shall then be undogged and dogged. The dogging force shall meet the specified values. The transition from closed and dogged to fully open and back to the closed and dogged position shall be smooth with no perceivable binding. Failure to meet the requirements of this test shall be cause for rejection.

4.6.2 Hydrostatic test. The hydrostatic test shall be comprised of the following and shall be accomplished in the following order.

4.6.2.1 Design test. The design test shall be comprised of the following.

4.6.2.1.1 Design pressure test. A QAWTD assembly shall be tested to 100 percent of its design pressure on both the internal and external sides of the panel. The QAWTD assembly shall not allow any passage of water during the hydrostatic test as it is pressurized up to and including the design pressure. Design pressure shall be held for 10 minutes. Failure to meet the requirements of this test shall be cause for rejection.

4.6.2.1.2 Design operational test. Each QAWTD shall be operationally tested to verify the requirements as specified in table II. The panel shall be opened to the maximum door swing angle from a closed and dogged position. The force to open the door shall be measured perpendicular to the door panel. This opening force shall not exceed the specified value. The panel shall then be closed and dogged. The transition from fully open to the closed and dogged position shall be smooth with no perceivable binding. Failure to meet the requirements of this test shall be cause for rejection.

4.6.2.2 Proof test. The proof test shall be comprised of the following.

4.6.2.2.1 Proof pressure test. The QAWTD shall then be tested to its proof pressure and held for 10 minutes. Leakage past the gasket is allowed, but the QAWTD shall not permanently deform. Failure to meet the requirements of this test shall be cause for rejection.

4.6.2.2.2 Proof operational test. Each QAWTD shall be operationally tested to verify the requirements as specified in table II. The panel shall be opened to the maximum door swing angle from a closed and dogged position. The force to open the door shall be measured perpendicular to the door panel. This opening force shall not exceed the specified value. The panel shall then be closed and dogged. The transition from fully open to the closed and dogged position shall be smooth with no perceivable binding. Failure to meet the requirements of this test shall be cause for rejection.

4.6.3 Reliability test. The reliability test shall be comprised of the following and shall be accomplished in the following order.

4.6.3.1 Design test. Prior to cycle testing, a hydrostatic test shall be performed up to design pressure. With the QAWTD properly adjusted to hold design tightness pressure, design pressure shall be held for 10 minutes with no leakage. Failure to meet the requirements of this test shall be cause for rejection.

4.6.3.2 Pre-cycle chalk test. Prior to cycle testing, a chalk test shall be performed. The bearing surface of the knife-edge shall be chalked and the door shall be closed by normal procedure. When the door is opened, the chalk from the knife-edge shall have been transferred to the gasket. Acceptance criteria for the chalk test shall be a uniform and continuous chalk mark on the door's gasket and the chalk imprint shall be in the center $^{3}/_{5}$ of the width of the gasket. If there are irregularities or breaks in the chalk mark, the gasket or knife-edge shall be adjusted or replaced and the test shall be repeated. Failure to meet the requirements of this test shall be cause for rejection.

4.6.3.3 Cycle test. The QAWTD assembly shall be tested to one million cycles of operation (see 6.7.1). No replacement, repair, or adjustment shall be allowed during the test. At the completion of the test, acceptance criteria shall be that no parts shall require replacement, repair, or adjustment. The QAWTD shall then be chalk tested. Failure to meet the requirements of this test shall be cause for rejection.

4.6.3.4 Post-cycle chalk test. At the completion of the cycle test, the QAWTD shall be chalk tested (see 4.6.3.2).

4.6.3.5 Design pressure test. At the completion of the chalk test, the QAWTD shall be design tested (see 4.6.3.1).

4.6.3.6 Reliability operational test. At the completion of the design pressure test, the QAWTD shall be operationally tested to verify the requirements as specified in table II. The panel shall be opened to the maximum door swing angle from a closed and dogged position. The force to open the door shall be measured perpendicular to the door panel. This opening force shall not exceed the specified value. The panel shall then be closed and dogged. The transition from fully open to the closed and dogged position shall be smooth with no perceivable binding. Failure to meet the requirements of this test shall be cause for rejection.

4.6.4 Shock test. A complete QAWTD assembly shall be tested in accordance with MIL-S-901 medium weight shock test, Grade A, Class I, hull mounted, front or face mounting plane requirements. The shock testing shall take place in one of the approved facilities in accordance with NAVSEAINST 9491.1. The QAWTD shall be hydrostatically tested to design tightness pressure prior to shock testing, and at the end of each of the 3 sets of 3 shock blows. The shock test shall consist of a total of 9 blows; 3 in the vertical direction and 3 each in 2 different inclined orientations of 30 degrees. No adjustments shall be allowed between each set of 3 blows. The QAWTD shall remain latched throughout the test and shall not open at any time, and no parts or piece parts shall disengage themselves from the assembled QAWTD during any part of the testing. After the shock test has completed, a hydrostatic test shall be performed up to design pressure. Design pressure shall be held for 10 minutes with no leakage. Failure to meet the requirements of this test shall be cause for rejection.

4.6.5 Vibration test. Prior to vibration testing, a hydrostatic test shall be performed up to design pressure. During vibration testing, the QAWTD assembly shall be capable of withstanding shipboard vibration in accordance with MIL-STD-167-1 when subjected to vibration throughout the frequency range of 4 to 15 Hertz. The QAWTD shall remain latched throughout the test and shall not open at any time, and no parts or piece parts shall disengage themselves from the assembled QAWTD during any part of the testing. After the vibration test has completed, a hydrostatic test shall be performed up to design pressure. Design pressure shall be held for 10 minutes with no leakage. Failure to meet the requirements of this test shall be cause for rejection.

5. PACKAGING

5.1 Packaging. For acquisition purposes, the packaging requirements shall be as specified in the contract or order (see 6.2). When packaging of materiel is to be performed by DoD or in-house contractor personnel, these personnel need to contact the responsible packaging activity to ascertain packaging requirements. Packaging requirements are maintained by the Inventory Control Point's packaging activities within the Military Service or Defense Agency, or within the military service's system commands. Packaging data retrieval is available from the managing Military Department's or Defense Agency's automated packaging files, CD-ROM products, or by contacting the responsible packaging activity.

6. NOTES

(This section contains information of a general or explanatory nature that may be helpful, but is not mandatory.)

6.1 Intended use. The QAWTDs covered under this specification are intended for internal shipboard use where watertight boundaries are located, ingress and egress through the bulkhead is required, and the bulkhead is considered structural. QAWTD assemblies are typically operated (opened and closed) manually hundreds of times a day. The specific compound requirements for survivability and safety onboard naval vessels are not met in the commercial market.

6.2 Acquisition requirements. Acquisition documents should specify the following:

a. Title, number, and date of this specification.

b. Quantity required.

c. Part or identifying number (PIN) (see 1.3).

d. CPS latch requirements with either straight or ramped keeper (see 3.4.2).

e. Security lock requirements when required (see 3.4.3).

f. Hook and bumper requirements when required (see 3.4.4).

g. Fixed light assembly requirements when required (see 3.4.5).

h. Hinge requirement degree of swing (see 3.4.7.1).

i. Hydrostatic pressure requirements (see 3.6.2).

j. Packaging requirements (see 5.1).

6.3 Interchangeability. The QAWTDs covered by this revision are interchangeable with the original issue of this specification.

6.4 Qualification. With respect to products requiring qualification, awards will be made only for products which are, at the time of award of contract, qualified for inclusion in Qualified Products List QPL No. 32482 whether or not such products have actually been so listed by that date. The attention of the contractors is called to these requirements, and manufacturers are urged to arrange to have the products that they propose to offer to the Federal Government tested for qualification in order that they may be eligible to be awarded contracts or orders for the products covered by this specification. Information pertaining to qualification of products may be obtained from Commander, Naval Sea Systems Command, ATTN: SEA 05S, 1333 Isaac Hull Avenue, SE, Stop 5160, Washington Navy Yard DC 20376-5160 or emailed to CommandStandards@navy.mil. An online listing of products qualified to this specification may be found in the Qualified Products Database (QPD) at https://assist.dla.mil.

6.5 Technical documentation. The requirements for technical documentation should be considered when this specification is applied on a contract. Technical documentation, including assembly drawings identifying parts being used, with dimensions and tolerances required for dimensional examination and installation instructions of a QAWTD on Navy ships, should be included in the contract for delivery with each order of assemblies. Drawing types are in accordance with ASME Y14.24 and drawing practices are in accordance with ASME Y14.100.

6.6 Additional watertight testing provisions. NAVSEA reserves the right to witness the tests and perform any of the tests set forth herein where such testing is deemed necessary to assure compliance to prescribed requirements.

6.7 Definitions.

6.7.1 Cycle of operation. Starting with the QAWTD closed and dogged, then undogging and opening the QAWTD to 90 degrees, and then closing and dogging the QAWTD.

6.7.2 Design pressure. Design pressure is the tightness requirement for the door measured in psi (in this case, 5, 10, or 15 psi).

6.7.3 Dogs. Dogs are mechanical latches used to secure QAWTDs in the fully closed position.

6.7.4 Proof pressure. Proof pressure is 150 percent of design pressure.

6.8 Subject term (key word) listing.

Bulkhead mounted

CPS latch

Hinges

Manually operated

Security locks

Swing type

6.9 Changes from previous issue. Marginal notations are not used in this revision to identify changes with respect to the previous issue due to the extent of the changes.

Custodians:
Army – MI
Navy – SH

Review activities:
Army – AV
Navy – AS, CG
DLA – CC

Civil agency:
GSA – FAS

Preparing activity:
Navy – SH
(Project 2040-2015-003)

NOTE: The activities listed above were interested in this document as of the date of this document. Since organizations and responsibilities can change, you should verify the currency of the information above using the ASSIST Online database at https://assist.dla.mil.