AEROSPACE STANDARD

AS1301	REV. F

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Revised 2015-06

Superseding AS1301E

Adapters - Port Connection, Ring Locked Design, Installation and Removal of

RATIONALE

Correction of Figure 1 references. Replacement of Installation Torque values of AS5368 fittings, add user definition requirement if torque values desired are other than those listed in Table 3B. Addition of equivalent alternate tooling numbers in Table 3B, and addition of individual wrench and drive tool part numbers. Update 5.2.4 to recognize use of other sealants/primers and discourage use of Zinc Chromate primer. Update 5.2.5 for installation torque limits.

1. SCOPE

This SAE Aerospace Standard (AS) provides the essential minimum design, installation and removal standard for AS1299, AS1985, AS1986, AS4099, AS5368, and AS5986 adapters and is applicable when specified on engineering drawings or in procurement documents.

2. APPLICABLE DOCUMENTS

The following publications form a part of this document to the extent specified herein. The latest issue of SAE publications shall apply. The applicable issue of other publications shall be the issue in effect on the date of the purchase order. In the event of conflict between the text of this document and 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.

2.1 SAE Publications

Available from SAE International, 400 Commonwealth Drive, Warrendale, PA 15096-0001, Tel: 877-606-7323 (inside USA and Canada) or +1 724-776-4970 (outside USA), www.sae.org.

AS568	Aerospace Size Standard for O-rings
AS1299	Adapter - Port Connection Ring Locked to Flareless Tube End
AS1300	Port - Ring Locked Fluid Connection Type, Standard Dimensions for
AS1985	Fitting, Assembly, Adapter, Ring Locked Port Connection to Flared Tube End
AS1986	Fitting Assembly, Adapter, Ring Locked Port Connection to Beam Seal 4000 psi and 5000 psi

TO PLACE A DOCUMENT ORDER: **Tel: 877-606-7323 (inside USA and Canada)**
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SAE values your input. To provide feedback on this Technical Report, please visit
http://www.sae.org/technical/standards/AS1301F

AS4099 Adapter, Assembly - Port Connection, Ring Locked to Flareless Tube End

AS5368 Fitting Assembly, Adapter - Ring Locked Port Connection to Flared Tube End, 3000 psi

AS5986 Fitting Assembly, Adapter, Ring Locked Port Connection to Beam Seal 4000 psi and 5000 psi

AMS3276 Sealing Compound, Integral Fuel Tanks and General Purpose, Intermittent Use to 360°F (182°C)

2.2 U.S. Government Publications

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

MIL-PRF-23377 Peformance Specification: Primer Coatings: Expoxy, High-Solids

2.3 Society for Protective Coatings Publications

Available from the Society for Protective Coatings, 40 24th Street, 6th Floor, Pittsburgh, PA 15222-4600, Tel: 412.281.2331, http://www.sspc.org.

SSPC-PAINT-25 Zinc Oxide, Alkyd, Linseed Oil Primer for Use Over Hand Cleaned Steel

3. GENERAL DESIGN INFORMATION

3.1 These adapters provide a semi-permanent male fitting for use in fluid systems per Table 1 and compatible with titanium at -65 to +450 °F temperature range:

Table 1 - Pressure systems

Standard Number	System Operating Pressure (psi)	System Burst Pressure (psi)	Sizes
AS1299	3000	12 000	All Sizes
AS1985	4000	16 000	All Sizes
AS1986	4000	16 000	02, 03, 05, 14, 20, and 24
AS1986	5000	20 000	04, 06, 08, 10, 12, and 16
AS4099	4000	16 000	All Sizes
AS5368	3000	12 000	All Sizes
AS5986	4000	16 000	02, 03, 05, 14, 20, and 24
AS5986	5000	20 000	04, 06, 08, 10, 12, and 16

3.2 Adapters per AS1299, AS1985, AS1986, AS4099, AS5368, and AS5986 installed per this document into ports per AS1300 shall have a stand-off per dimension “P” in Figure 1 and Table 2.

3.3 O-ring size per Table 2 and per AS568 must be used. The O-ring compound shall be specified by the using design activity and shall be selected based on system fluid and temperature.

3.4 The lockring is driven into the mating port serrations after the adapter has been torqued. This prevents the adapter from rotating in the port during coupling nut assembly and disassembly and also eliminates the necessity of lock wiring the adapter. Only one wrench is required to install or remove coupling nut.

3.5 Adapter removal is accomplished by lifting the lockring out of the port using a removal tool per Table 3B.

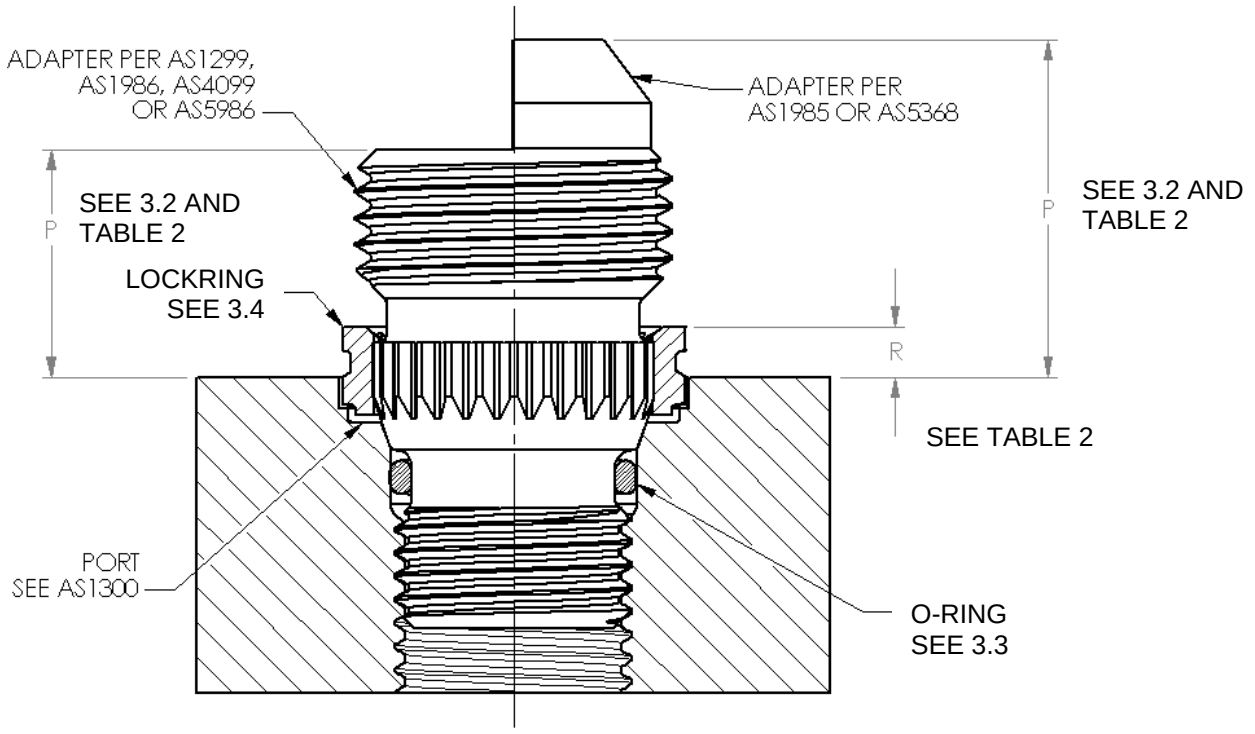

Figure 1 - Installed adapter

Table 2 - Dimensions

AS1300 Port Dash Number	Adapter Dash Number AS1299	Adapter Dash Number AS1985	Adapter Dash Number AS1986 and AS5986	Adapter Dash Number AS4099	Adapter Dash Number AS5368	O-ring Size See 3.3	P ±0.020 AS1299	P ±0.020 AS1985	P ±0.020 AS1986 and AS5986	P ±0.020 AS4099	P ±0.020 AS5368	R Max
02	02	02	02	02	--	AS568-007	0.495	0.577	0.358	0.509	--	0.124
03	03	03	03	03	--	AS568-008	0.517	0.608	0.389	0.556	--	0.124
04	04	04	04	04	04	AS568-010	0.578	0.679	0.431	0.587	0.690	0.124
05	05	05	05	05	05	AS568-011	0.578	0.679	0.431	0.587	0.690	0.124
06	06	06	06	06	06	AS568-012	0.599	0.691	0.457	0.609	0.750	0.130
08	08	08	08	08	08	AS568-014	0.662	0.792	0.470	0.702	0.910	0.130
10	10	10	10	10	10	AS568-016	0.723	0.893	0.534	0.765	1.010	0.130
12	12	12	12	12	12	AS568-116	0.733	1.009	0.584	0.838	1.120	0.140
14	--	--	14	--	--	AS568-118	--	--	0.602	--	--	0.140
16	16	16	16	16	16	AS568-120	0.733	1.056	0.632	0.838	1.160	0.140
20	20	20	20	20	--	AS568-123	0.758	1.103	0.629	0.838	--	0.140
24	24	24	24	24	--	AS568-128	0.768	1.228	0.714	0.838	--	0.140
32	32	32	--	32	--	AS568-137	0.847	1.478	--	0.838	--	0.140