FEDERAL SUPPLY CLASS
5340

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ISSUED 1992-06 REVISED 1996-05 REAFFIRMED 2013-01 STABILIZED 2024-09

For more information on this standard, visit
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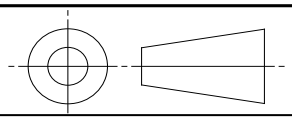
THIRD ANGLE PROJECTION



CUSTODIAN: G-3/G-3A

PROCUREMENT SPECIFICATION: AS1895

SAE INTERNATIONAL

AEROSPACE STANDARD

INSTALLATION, JOINT,
V-RETAINER COUPLING ASSEMBLY

AS1895™/21

REV. B

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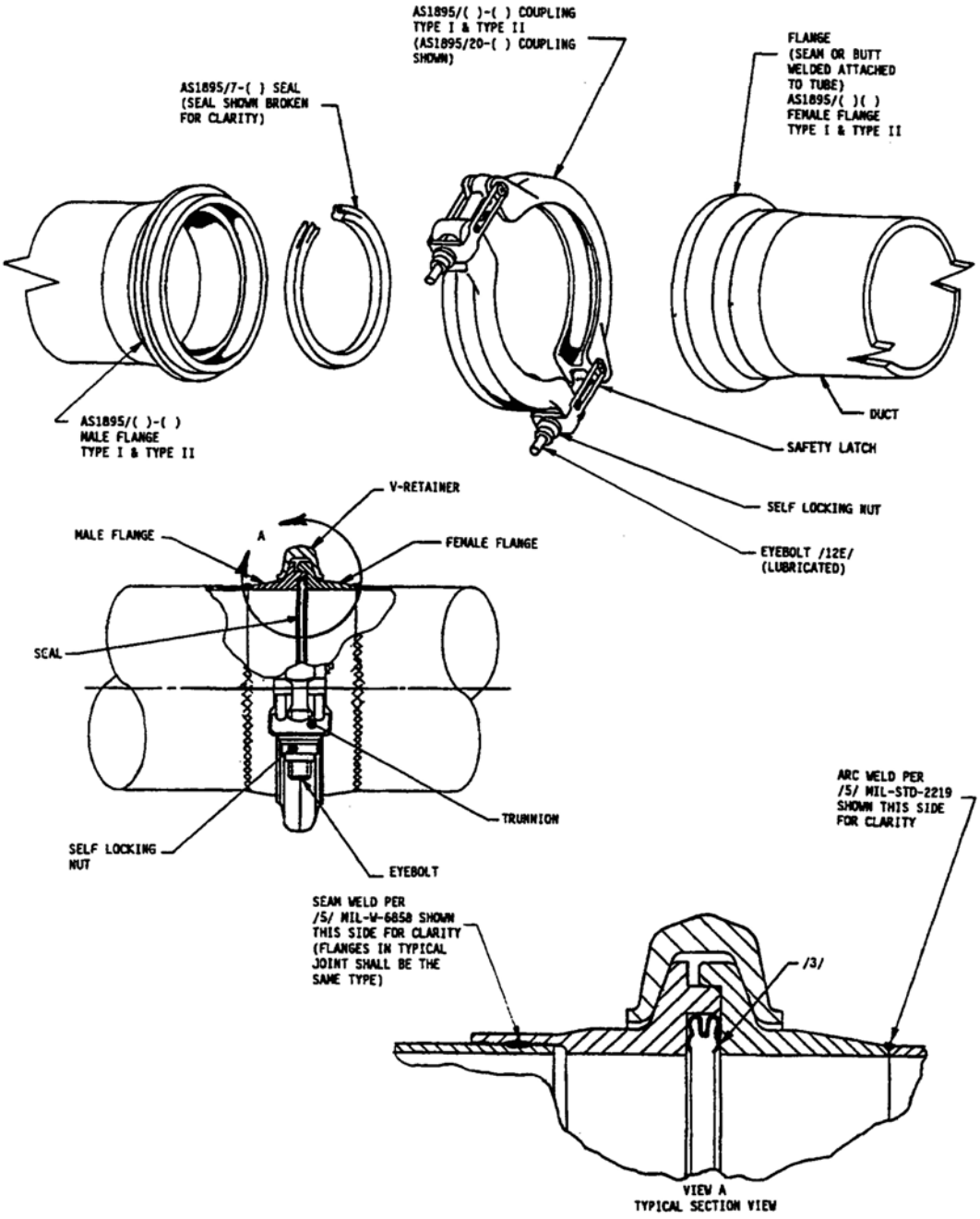

FIGURE 1 - AS1895 COUPLING FLANGES AND SEAL

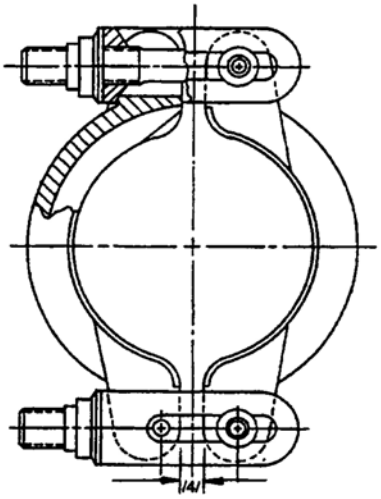

FIGURE 2 - CORRECT INSTALLATION DOUBLE LATCH COUPLING

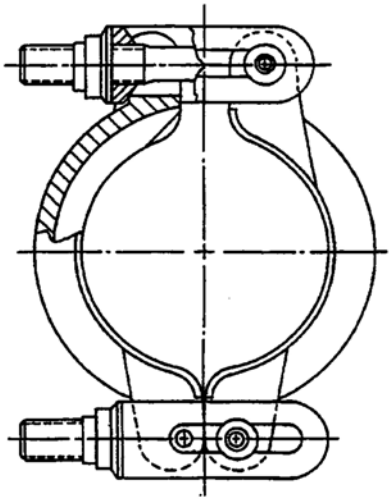

FIGURE 3 - INCORRECT INSTALLATION DOUBLE LATCH COUPLING /12c/

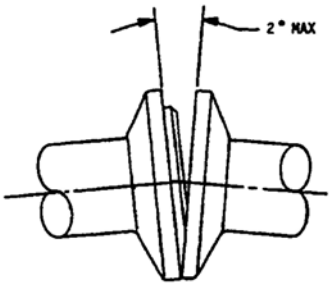

FIGURE 4 - INITIAL ANGULAR MISALIGNMENT /7/

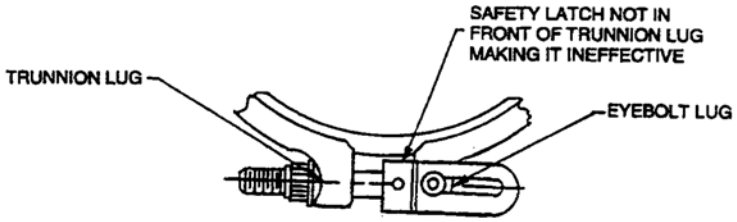

FIGURE 5 - INCORRECT INSTALLATION OF SAFETY LATCH /12f/
SINGLE AND DOUBLE LATCH COUPLING

NOTES:

/1/ TYPICAL DRAWING CALLOUT: "INSTALL PER AS1895/21".
2. DESIGNED FOR USE WITH SINGLE BOLT COUPLINGS AS1895/1 AND AS1895/4 (SEE TABLE 1), FOR TWO BOLT COUPLINGS SEE TABLE 2.
/3/ SEAL IS OUT OF ROUND FOR RETENTION WITHIN THE MALE FLANGE DURING ASSEMBLY.
/4/ LATCH GAP TYPICAL AFTER INSTALLATION PER TABLE 1 OR TABLE 2.

(R) TABLE 1 - LATCH GAP /4/ (SINGLE BOLT COUPLINGS)

TUBE OD	LATCH GAP MINIMUM TYPE I	LATCH GAP MINIMUM TYPE II	TUBE OD	LATCH GAP MINIMUM TYPE I	LATCH GAP MINIMUM TYPE II
1.00	--	.100	3.25	.190	.210
1.25	--	.150	3.50	.190	.210
1.50	.150	.150	4.00	.250	.100
1.75	.150	.150	4.50	.250	.150
2.00	.175	.175	5.00	.300	.200
2.25	.175	.175	5.50	.300	.250
2.50	.190	.190	6.00	.400	.300
2.75	.190	.190	6.50	.400	.300
3.00	.190	.190	7.00	.450	.300
			7.50	.450	.300

(R) TABLE 2 - LATCH GAP /4/ (TWO BOLT COUPLINGS)

TUBE OD	LATCH GAP MINIMUM TYPE I	LATCH GAP MINIMUM TYPE II
4.00	.100	.100
4.50	.150	.150
5.00	.200	.200
5.50	.250	.250
6.00	.300	.300
6.50	.300	.300
7.00	.300	.300
7.50	.300	.300

/5/ CRITICAL: FLANGE FLATNESS AFTER WELDING PER AS1895
6. CHECK COUPLING PART NUMBER TO BE SURE CORRECT COUPLING IS BEING USED.
/7/ REMOVE PROTECTIVE CAP FROM FLANGE, INSTALL SEAL IN MALE FLANGE, AND BRING MATING FLANGE INTO POSITION. DO NOT INSTALL COUPLING OVER FLANGES, WHICH EXCEED THE ANGULAR MISALIGNMENT SHOWN IN FIGURE 4. IF FLANGES ARE MISALIGNED, DO NOT USE COUPLING TO ALIGN. CHECK SYSTEM AND FIND CAUSE. LOOSEN SUPPORT CLAMPS AS NECESSARY. UNHOOK LATCH ASSEMBLY FROM LUGS AND SLIP COUPLING OVER THE TUBING OR DUCTING ADJACENT TO THE FLANGE. MISALIGNMENT SHOWN IS INITIAL. FLANGE GAP MUST BE CLOSED WHEN INSTALLATION IS COMPLETE.
8. WITH THE FLANGES IN POSITION, SLIP THE COUPLING OVER THE FLANGES. HOOK LATCH ASSEMBLY ON LUGS AND TIGHTEN NUT TO PROPER TORQUE.
9. OBSERVE PROPER INSTALLATION TORQUE INSTRUCTIONS MARKED ON COUPLING. IF TORQUE INSTRUCTIONS ARE NOT MARKED ON COUPLING, PARTS ARE TO BE REJECTED.

NOTES (CONTINUED):

10. TIGHTEN NUT TO SPECIFIED TORQUE VALUE, AND TAP LIGHTLY, AROUND THE COUPLING PERIPHERY, WITH A PLASTIC MALLET BEING CAREFUL NOT TO HIT LATCH. TIGHTEN NUT UNTIL SPECIFIED TORQUE IS REACHED. IF COUPLING IS IN DUCT RUN, USING MANY COUPLINGS TO PREVENT BINDING OF FLANGES AND POTENTIAL JOINT LEAKAGE, EACH COUPLING SHALL BE TORQUED PROGRESSIVELY UNTIL ALL COUPLINGS HAVE BEEN UNIFORMLY TORQUED TO SPECIFIED VALUES.
11. IF JOINT LEAKS, DO NOT OVERTORQUE. REMOVE COUPLING AND CHECK COUPLING, FLANGES, AND SEAL FOR DAMAGE. REPAIR OR REPLACE FLANGES, COUPLING, OR SEAL AS REQUIRED. IF FLANGES ARE HEAVILY OXIDIZED, CLEAN HEAVILY BAKED-ON DEBRIS WITH SCOTCHBRITE.
/12/ CHECK FOR FAULTY COUPLING OR WRONG PART AS FOLLOWS:
    (a) BINDING OF BOLT AND LUGS
    (b) INSTALLATION LOAD LOSS, IN EXCESS OF 20% AFTER 24 h
    (c) CLOSURE OF LATCH GAP LESS THAN NOTED IN FIGURE 2 OR BUTTING OF LUGS AS NOTED IN FIGURE 3, BEFORE REQUIRED TORQUE IS REACHED
    (d) CRACK OR CRAZING IN V-RETAINER AND SAFETY LATCH
    (e) UNLUBRICATED BOLT
    (f) CHECK FOR PROPER ASSEMBLY OF SAFETY LATCH
    (g) CHECK FLANGE FACE FOR FLATNESS (PER AS1895), SCRATCHES, AND DENTS
13. IF NUT PREVAILING OR RUNNING TORQUE LIMIT APPEARS HIGH OR LOW, CHECK VALUES PER TABLE 3. REPLACE ALL NUTS WHICH ARE OUTSIDE THE TORQUE LIMITS NOTED IN TABLE 3 WHEN BEING INSTALLED OR UNLOADED ON THE BOLT.

TABLE 3 - NUT PREVAILING TORQUE

THREAD	NUT PREVAILING TORQUE LIMIT LB-IN MIN	NUT PREVAILING TORQUE LIMIT LB-IN MAX
.3125-24UNJF	6.5	40

14. REPLACE NUTS ONLY WITH NUT SPECIFIED ON COUPLING CONTROLLING DRAWING.
15. INSPECT BOLT AND NUT THREADS AND BOLT LUBRICANT. REPLACE COUPLING IF EYEBOLT IS GOUGED. REPLACE NUT IF IT IS DAMAGED.
16. INSPECT FOR BENT BOLT. IF BOLT IS BENT, REPLACE COUPLING.
17. INSPECT FOR CRACKS IN THE RETAINER.
18. CHECK TRUNNION FOR FREEDOM OF MOVEMENT.
19. INSPECT FLANGE FACE FOR DAMAGE.
20. CHECK SEAL FOR CRACKS, DENTS, OR DAMAGE AND REPLACE IF NECESSARY.
21. THE (R) IS FOR THE CONVENIENCE OF THE USER IN LOCATING AREAS WHERE TECHNICAL REVISIONS, NOT EDITORIAL CHANGES, HAVE BEEN MADE TO THE PREVIOUS ISSUE OF THIS STANDARD.