ERICKSON ENGINEERING RELEASE NOTICE

CONTROL NO.
ERN 2025-16142

CHANGE TO

S-64
- TC [X]
- STC [ ]
- N/A [ ]

ENGINE TC
- [ ] 1E9 (JT12)
- [ ] E15EA (JFTD12A)

PMA [ ]

CLASSIFICATION
- MAJOR [ ]
- TYPE 3 [ ]
- TYPE 2 [X]
- TYPE 1 [ ]
- N/A [ ]

DATA TYPE

NEW DRAWING	[ ]	AMENDMENT SHEET	[ ]
DRAWING REVISION	[ ]	OVERHAUL & REPAIR INSTRUCTIONS	[ ]
ADVANCED DOCUMENT CHANGE NOTICE	[ ]	DATA CHANGE REQUEST	[ ]
ENGINEERING REPORT	[ ]	TECHNICAL PUBLICATIONS RELEASE	[ ]
ENGINEERING SPECIFICATION	[X]	CERTIFIED CAD MODEL	[ ]
ENGINEERING ORDER	[ ]	TOOL DESIGN CHANGE RECORD	[ ]

STATUS
- PRODUCTION [X]
- PROTOTYPE [ ]
- PRELIMINARY [ ]
- DRAFT [ ]

EFFECTIVITY CODES
- A INCORPORATE IMMEDIATELY - FLIGHT SAFETY -
- B INCORPORATE AT NEXT O/H
- C UPON DEPLETION OF PARTS
- D OTHER (SEE DISPOSITION)

ERDO: N/A

DOCUMENT NO. \ REVISION \ TITLE

ES0045 \ REV AG \ HARDWARE SUBSTITUTIONS

CONCERTO PROJECT: N/A

DAX PROJECT: N/A

8110-3 REQD: N

STC NUMBER: N/A

REQUESTING DOCUMENT(S): DCR D21-25-163, D21-25-074, D21-25-159, D21-25-112

PRODUCTION ORDER: N/A

PART NUMBER	PART NAME	MODEL(S)	CODE

DESCRIPTION OF CHANGE \ WHY CHANGE WAS MADE \ IMPLEMENTATION INSTRUCTIONS:

ES0045 Revision AG adds substitutions for various MS219xx hydraulic fittings. Adds notes 6 to the notes allowing all CRES material codes to be used interchangeably. Adds AS10xx alternatives for various hydraulic fittings as applicable and adds note 7 for clarification of P/N convention for AS10xx specifications.

It also makes corrections to the table iv excerpt in Appendix 10 for NAS1149 washers.

This drawing package satisfies DCRs: D21-25-074, D21-25-159 and D21-25-163 in their entirety.

This drawing package partially satisfies DCR: D21-25-112.

THIS CHANGE APPRECIABLY AFFECTS: [ ] WEIGHT [ ] BALANCE [ ] STRUCTURAL STRENGTH [ ] RELIABILITY [ ] AIRWORTHINESS [X] N/A

DISPOSITION OF PARTS ON HAND \ INSTRUCTIONS TO MATERIALS DEPT:

DOES NOT AFFECT PARTS ON HAND.

SUBMIT FORM EAC5003 IF DATA AFFECTS ASB, SB, CSL OR ESA

LIFE LIMITED ITEM:

[ ] YES, Life Limit: N/A [X]

STRUCTURES: _____

DOCUMENT NO.

DISTRIBUTION LIST: (DESIGNATE RECIPIENTS) OR **STANDARD DISTRIBUTION:** [ ]

DATA COPY	FORM COPY		DATA COPY	FORM COPY		DATA COPY	FORM COPY	
[X]	[ ]	CONFIG. MANAGER	[ ]	[X]	MFG. ENGINEERING MGR.	[ ]	[X]	SR. DIRECTOR OF ENGINEERING
[ ]	[ ]	6 MONTH SUBMITTAL	[ ]	[X]	ORIGINATOR	[ ]	[X]	SR. DIR. OF INTEGRATED SUPPLY CHAIN
[ ]	[X]	ACCOUNTABLE MANAGER CERTIFICATION COMPLIANCE	[ ]	[X]	PLANNING & PROGRAM MGR.	[ ]	[X]	SR. ENG. PROGRAM MGR.
[ ]	[X]	AIRCRAFT MFG & MRO MGR.	[ ]	[X]	PROCUREMENT MANAGER	[ ]	[X]	TECHNICAL PUBLICATIONS
[ ]	[X]	ASST. DIRECTOR OF ENG.	[ ]	[X]	PRODUCT & TECH. SUPPORT MANAGER	[ ]	[ ]	TOOLING
[ ]	[X]	ASST. DIR. OF FIELD MAINT.	[ ]	[X]	PRODUCTION PLANNING			
[ ]	[X]	CHIEF ENGINEER	[ ]	[X]	QUALITY			
[ ]	[X]	COMPONENT MRO MANAGER	[ ]	[X]	OTHER: JEFF COLBERT, MIKE ABLOTT			

PREPARED BY: Eric Jones	12/10/2025
CONFIGURATION: DM	
ENGINEERING SUPV.	12/10/2025
DOCUMENT CONTROL: Jill Smith	12-11-25

FORM NO. 3-110-1 REV. 20

ERICKSON SPECIFICATION: **ES0045**

TITLE: **HARDWARE SUBSTITUTIONS**

PREPARED BY:

SIGNATURE ON FILE

_____/_____

DENISE YAMAGATA **DATE**

APPROVED BY:

SIGNATURE ON FILE

_____/_____

JEFF FOX **DATE**

APPROVED BY:

SIGNATURE ON FILE

_____/_____

CHUCK LANDERS **DATE**

REV: AG

DATE: 12-10-25

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TABLE OF REVISIONS

REV	DESCRIPTION	BY	APPROVED	DATE
IR	INITIAL RELEASE	D. YAMAGATA	C. LANDERS	1/28/04
A	ADDED SUBSTITUTE FASTENER FOR P( ) AND XP( ) BLIND RIVETS.	D. YAMAGATA	J. FOX	7/14/04
B	ADDED SUBSTITUTE FASTENER FOR 100V( ) BLIND RIVETS. CHANGED TITLE OF SPECIFICATION TO "HARDWARE SUBSTITUTIONS". ADDED HI-LOK COLLAR SUBSTITUTIONS. ADDED STATEMENT REGARDING SOLID FASTENERS. ADDED SUBSTITUTE NUT FOR EB NUTS. ADDED SUBSTITUTE O-RINGS FOR MS29561 AND MS28778 O-RINGS. ADDED SUBSTITUTE FITTINGS FOR ER833 AND ER834 FITTINGS.	D. YAMAGATA	K.D. ROBERTS	9/07/04
C	ADDED ALTERNATE DATA PLATE FOR MS27253F( ) DATA PLATES. ADDED ALTERNATE SAFETY WIRE FOR MS20995NC( ) SAFETY WIRE.	D. YAMAGATA	J. FOX	10/08/04
D	ADDED ALTERNATE PARTS FOR AN366 NUTPLATES, AN960 WASHERS, NAS696 NUTPLATES, AN380 COTTER PINS, MS20364 NUTS, MS35490 GROMMETS, NAS680 NUTPLATES, AN509 SCREWS, NAS1598 WASHERS, AN507 SCREWS, AND NAS686 NUTPLATES.	D. YAMAGATA	J. FOX	12/16/04
E	ADDED ALTERNATE PARTS FOR MS20365 NUTS, SS7560 CLAMPS, AND NAS651 CLIPS. ADDED ALTERNATE NUTPLATES FOR LHTA55M/LHTA55M2860 NUTPLATES WITH CERTAIN TEMPERATURE RESTRICTIONS. ADDED ALLOWANCE FOR USE OF BOLTS IN LIEU OF SCREWS WHEN INSTALLING ADEL CLAMPS. ADDED ALPHABETICAL INDEX FOR TABLE I.	D. YAMAGATA	J. FOX	1/17/05
F	ADDED ALTERNATE PARTS FOR AN515 SCREW, MS20341 NUT, NAS42DD / NAS43DD SPACERS, AN6290 PACKING AND AS21919 CLAMP. UPDATED VERBIAGE IN SECTION 3 TO REFLECT NEW ENGINEERING PRACTICES. ADDED ALTERNATE PARTS TO ALPHABETICAL INDEX FOR TABLE I.	S. ADAMS	I. GIBSON	11/01/07

TABLE OF REVISIONS (continued)

REV	DESCRIPTION	BY	APPROVED	DATE
G	REVISED SECTION 3.1 TO CLARIFY WHEN TABLE I MAY BE USED. ADDED SUBSTITUTE HARDWARE FOR; MS20365, AN122576 THRU AN122600, AN381 AND AN900.	A. WARREN	C. NAVARRO	5/27/10
H	APPROVED ALL RESPECTIVE PART NUMBER DESIGNATIONS OF NAS1149 FOR USE AS A GLOBAL ALTERNATE TO AN960.	A. WARREN	JR AVGERIS	12/20/10
I	ADDED ALTERNATE PARTS FOR AN122586, AN834-6, AN6227-6, -7, -10 AND -12, EB098, AN535-4-2, AN535-2-3, AN364-1032, AN501A10-6, AN470-AD3-16, MS20365-428, NAS334-14, AN365-428, AN122584	D. MAYER	JR AVGERIS	3/04/11
J	ADDED MS20392-XCXX AS AN ALTERNATE TO MS20392-X-XX	D. MAYER	JR AVGERIS	4/07/11
K	ADDED SUBSTITUTE HARDWARE FOR NAS1303-1320 BOLTS, AND ROSAN LOCKRINGS PREVIOUSLY MADE WITH LOW GRADE CARBON STEEL	D. MAYER	JR AVGERIS	5/06/11
L	AN6289 IS SUBSTITUTED BY AS5179. ALSO ADDED AS5179 WITH SUBSTITUTE MATERIAL FOR "D"	K. GIBSON	JR AVGERIS	8/14/11
M	HL72 IS REPLACED BY HL86 OR HL87.	K. GIBSON	W. JOHNSON	12/13/11
N	NAS577B12A IS A REPLACEMENT FOR NAS577-12A	J. SCHAECHER	W. JOHNSON	6/25/12
P	ADDED MS25274 AS A SUBSTITUTE FOR AS25274. REVISED TABLE I TO LIST P/NS IN ALPHA-NUMERIC ORDER AND ADD NOTE COLUMN. ADD NOTES 1 AND 2. REMOVED ALPHABETIC INDEX (NO LONGER REQUIRED).	J. SCHAECHER	W. JOHNSON	9/13/12
R	ADDED THE FOLLOWING SUBSTITUTES: RDJ100( )SA( ) FOR RD100( )SA( ). RDJ200( )SA( ) FOR RD200( )SA( ). RDJ3607 FOR RD3607. RDJ3608 FOR RD3608. 1201-3( )-Z3CT FOR A3-( ). 121J-3( )-Z3CT FOR AJ3-( ). 1201-4( )-Z3CT FOR A4-( ). 1271-3( ) FOR GA3-( ). 1271-4( ) FOR GA4-( ). HL18PB( )-( ) FOR HL18-( )-( ). HL19PB( )-( ) FOR HL19-( )-( ). HL20PB( )-( ) FOR HL20-( )-( ). HL64PB( )-( ) FOR HL64-( )-( ). HL21PB( )-( ) FOR HL21-( )-( ).	D. SCHUCH	JR AVGERIS	7/05/13

TABLE OF REVISIONS (continued)

REV	DESCRIPTION	BY	APPROVED	DATE
R	(CONTINUE) HL75PB( )A FOR HL75-( )A. HL75PB( )APBW FOR HL75-( )AW. HL75-( )PBW FOR HL75-( )W. HL86PB( ) FOR HL86-( ). HL86PBW( ) FOR HL86W( ). AS3578-9XX FOR MS9020-XX. AS3578-( ) FOR MS9021-( ). M83248/1-( ) FOR MS9388-( ). AS3493-01 FOR AN4047-1. MS21909V( )P FOR MS21909-( ). MS21913V( )P FOR MS21913-( ). MS21914V( )P FOR MS21914-( ). AS3209-(001 THRU 475) FOR M83248/1-(001 THRU 475). AS3208-(01 THRU 32) FOR M83248/1-(901 THRU 932). AS5169-( ) FOR AN814-( ). ADDED NOTE 3 & 4.			
T	ADDED THE FOLLOWING SUBSTITUTES: AS5174( ) FOR AN815( ), AN919-( ), MS24392( ), & MS24399( ). AS15001-( ) FOR MS15001-( ). AS15002-( ) FOR MS15002-( ). MS35206-( ) FOR MS35223-( ). MS27976-2( ) & MS27976-3( ) FOR AN481-( ). MS27976-( ) FOR AN481-( )P. NAS514P( )-( ) FOR NAS514-( )-( ). MS14183L-( ) & MS14183P-( ) FOR MS14183-( ). MS14183L-C( ) & MS14183P-C( ) FOR MS14183-C( ). MS28775-( ) FOR AN6230-( ). NAS6203-( )D THRU NAS6214-( )D FOR NAS464P-3-( ) FOR NAS464P-14-( ). NAS6216-( )D FOR NAS464P-17-( ).ADDED NOTES 5 THRU 9. UPDATED NAS577-( ) SUBSTITUTIONS. ADDED SECTION 3.2.5.	D. SCHUCH	JR AVGERIS	9/20/13
U	ADDED THE FOLLOWING SUBSTITUTES: NASM35649 FOR AN340, AS1031 FOR AN783, AS3220 AND AS5176 FOR AN819, AS1038 FOR AN833, AS4863 FOR AN913, MS27769 FOR AN932, NASM35338 FOR AN935, AS5192 FOR AN938, AS3491 FOR MS9134, AS3492 FOR MS9135, AS3581 FOR MS9970, AS15003 FOR MS15003, MS21251 FOR NAS649, MS21069 FOR NAS697, NAS1756 FOR NAS1089, NAS1523 FOR NAS1598.	J. SCHAECHER	JR AVGERIS	4/10/14

TABLE OF REVISIONS (continued)

REV	DESCRIPTION	BY	APPROVED	DATE
U	(CONTINUE) ADD THE FOLLOWING: AN929, MS21900, MS21902, MS21904, MS21905, MS21907, MS21908, MS21910, MS21911, MS21912, MS21915, MS21916, MS24665, MS27769, NAS428, NAS592. REVISE THE FOLLOWING: AN380, AN509, MS21900, NAS577, NAS1598, P( ) & XP( ), RD3607, 100V( ). REVISED SECTION 2 BY ADDING MISSING SPECIFICATIONS AND PARA. 2.3 FOR MISCELLANEOUS SPECIFICATIONS REVISED NOTES AND RE-IDENTIFIED TABLE 1 AS REQUIRED. ADDED AN APPENDIX FOR SUBSTITUTE CROSS-REFERENCE DATA			
V	CORRECTED TYPO'S FROM REV U. PARA 2.1 ADDED: AN381, AN824, MS3498, NASM3498 PARA 2.3: REMOVED BN01088 & F2452 TABLE 1 REVISED: AN380, AN381, AN815, AN824(ADD), AN833, AN913, AN919, AN935, AN960, AN6230, MS3498, MS15001, MS15002, MS15003, MS20365, MS20392, MS20913, MS21900, MS21902, MS21904, MS21905, MS21907 THRU MS21916, MS21919(ADD), MS24392, MS24399, MS24665, MS25274, MS35223, NAS649, NAS697, NAS1598, P/XP, 100V. APPENDIX: ADDED REVISION LEVEL TO REFERENCE SPECS. REMOVED MS21900, MS21902, MS21904, MS21905, MS21907 THRU MS21916; ADDED AN380, AN381, AN824, AN935, MS9970, MS21919, NAS697	J. SCHAECHER	JR AVGERIS	5/28/14

TABLE OF REVISIONS (continued)

REV	DESCRIPTION	BY	APPROVED	DATE
W	PARA. 2.1: REVISE FOR REPEAT SPECIFICATIONS MS VS NASM; ADD AN924, AS5178, NAS1468, NASM20613, NASM20615, NASM21051. PARA 2.3: ADD DHN 35, EB, SL-RDJ3607. PARA 4: REVISE TBL 1 FOR AN366, AN381, AN783, AN814, AN924 (AS5178), EB (DHN35), FFG (HL 19), MS9970, MS20435 (MS20613 & MS20615), MS21075 (CODE N), MS21919, NAS43 (CODE FC AND NOTE), NAS680, NAS682, P/ XP, PPG, RD3608, R3001-T6 (NAS1466), R3001-T8 (NAS1468), NOTE 1; ADD NOTE 3. APPENDIX: DELETE 1, 3, 4 & 12. ADD NOTES TO APPENDIX 2 (AN381) AND 18 (MS21919).	J. SCHAECHER	JR AVGERIS	9/29/14
Y	PARA 4: REVISE TBL 1 FOR AN365, AS21919 (REMOVED), NAS680, NAS686, MS20365D, SS7560. ADD AN392, AN486, AN937, AN6227, AND10134,MS9136, NAS537, NAS538, NAS1031, NMC-G51H-C, MS33737, R205 CORRECT TYPO ON FFG AND PPG, NOTE 1 REMOVED FROM AN366, AN783, AN814, MS9970	J. SCHAECHER	JR Avgeris	1/29/15
AA	ADDED NEW PARA. 2.3 FOR MILITARY SPECS. CORRECT TYPO ON MS15003 ON TABLE 1 AND AN960 SUBS ON APPENDIX 10, TRANSFER FROM ES2000; AMS10136 SUPERSEDES AND10136, ES1049 SUPERSEDES SS1049, ES1050 SUPERSEDES SS1050, ES1051 SUPERSEDES SS1051, ES1052 SUPERSEDES SS1052, ES1053 SUPERSEDES SS1053, ES4007 SUPERSEDES SS4007, ES5075 SUPERSEDES SS5075, ES9054 SUPERSEDES SS9054, SS9991. ADD	J. SCHAECHER	JR Avgeris	10/17/17

	A-A-59826 SUPERSEDES V-T-295 AND MIL-T-7807, AN3 THRU 20 SUB FOR MS27039, AS1033 SUPERSEDES AN804, AS5168 SUPERSEDES AN806, AS5194 SUPERSEDES AN816, AS3220 & AS5176 SUPERSEDES AN819, AS1034 SUPERSEDES AN821, AS5195 SUPERSEDES AN822 AND MS20822, AS5196 SUPERSEDES AN823 AND MS20823, F2452 IS A SUB FOR 2452, AS9320 SUPERSEDES MS9320 AND AN122576 THRU AN122600, NAS1598 SUPERSEDES SS4021, MS20004-20024 SUPERSEDES NAS144-158, SS4409 AND SS7000.			
AB	ADD CR9117 SUB FOR MS20604, AN500 SUPERSEDED BY MS35265, MS35273, AND MS35275	J. SCHAECHER	JR Avgeris	4/10/18
AC	ADD MS20500 SUB FOR (ZE) 1802 (ESNA), AS1036 SUB FOR AN827, AS5172 SUB FOR AN893 & MS24397, NASM21078 SUB FOR NAS1023, NASM21047 & NASM21048 SUB FOR AN362, AS4860 SUB FOR AN911, ALSO ADDED AS4860W AS A SUB FOR AS4860D, NAS333 THRU NAS340 CPA OR CA SERIES FOR A SERIES, ADDED NOTE 4 REGARDING PREFIX "SL" ADDED NASM20426AD AS SUB FOR "100" AND "X100V" BLIND RIVETS. ADDED NASM20470AD AS SUB FOR "X" AND "XP" BLIND RIVETS. ADDED NOTE 5 REGARDING USE OF SOLID RIVETS IN PLACE OF BLIND RIVETS REVISED APPENDIX 1 FOR AN362, AN366, NAS608 AND NAS1023 REVISED RD AND RDJ INSERTS WITH "X" FACTOR. ADDED APPENDIX 33 THRU 36.	DOUG MCCAULEY	JR Avgeris	5/24/19

AD	REVISED TOC PAGE NUMBERS. ADDED NEW SECTION 2.2 FOR ERICKSON SPECIFICATIONS, RENUMBERS SUBSEQUENT SECTIONS. ADDED MS21208, MS51989, MS51990, MS51991, MS51992, MS51993, MS51997, MS21208 AND ALTERNATES MS122076 THRU MS122275 AND MS124651 THRU MS124850, NAS1329, SS5013 REVISED NOTE 4 TO ALLOW ALTERNATE PART NUMBER FOR LOCKRINGS.	JOE SCHAECHER	JR AVGERIS	3/17/20
AE	ADD AN763( )C SUB FOR AN763( ), BN01088 AND RJ1700 SERIES SUB FOR R1700 SERIES, WH SERIES SUB FOR RR, SS5086 SUB FOR SS5081 REVISED MS35266 SUB FOR AN501 AND ADD APPENDIX 37, 2452 MAKE GLOBAL, NOTE 4 CLARIFICATION AND ADD 4B.	JOE SCHAECHER	DAVID MAYER	5/27/22
AF	ADD TO SECTION 2.5 P/N'S RELATED TO DZUS AND DFCI ALONG WITH ADDING APPENDIX 38. ADD MS51551 and SFJ111 (SERIES) STUD. REFORMAT FOOTER HEIGHT AND NOTE 4A.	JOE SCHAECHER	DAVID MAYER	5/26/2023
AG	UPDATED TABLE 1 TO ADD THE FOLLOWING MS219(XX) HYDRAULIC FITTING SUBSTITUTES: MS219XXJ( ) FOR MS219XX-( )C MS219XXJ( ) FOR MS219XXC( ) UPDATED PARA 2.1 TO ADD MS21924, MS21926, AS21924 & AS21926 ADDED NOTES 6 & 7 TO NOTES AND TABLE 1 AS APPLICABLE FOR HYDRAULIC FITTINGS REPLACED APPENDIX 10: AN960 TO NAS1149 TABLE WITH TABLE FROM NAS1149, REV 2.	Eric Jones	DJMyr	12/10/2025

1. SCOPE:

This specification provides for the substitution of alternate hardware to those specified on Erickson Air-Crane drawings. This specification will continue to be updated for additional hardware as required.

2. APPLICABLE DOCUMENTS:

Specifications:
The following specifications shall form a part of this specification to the extent herein. The latest issue of the documents shall be used unless otherwise specified:

2.1 Industry Specifications:

AMS10134 – Angle – Unequal Led Extruded

AMS10136 – Tee – Extruded

AN3 thru AN20 – Bolt-Machine, Aircraft

AN340 – Nut, Plain, Hexagon, Non-Structural, Course Thread

AN362 – Nut, Self-Locking, Plate, Non- Countersunk, 550°F

AN365 – Nut, Self-Locking, 250°F

AN366 – Nut, Self-Locking, Plate, Non-Countersunk, 250°F

AN380 – Pin, Cotter

AN381 – Pin, Cotter (Corrosion-Resistant Steel)

AN392 – Pin – Flat Head (1/8)

AN481 – Clevis, Rod End

AN486 – Clevis, Rod End Adjusting

AN500 – Screw, Machine, Fillister Head, Course Thread

AN501 – Screw, Machine, Fillister Head, Fine Thread

AN507 – Screw, Machine, Flat Head, 100 Degree

AN509 – Screw, Machine, Flat Head, 100 Deg., Structural

AN515 – Screw, Machine, Round Head, Coarse Thread

AN535 – Screw, Drive, Round Head

AN763 – Gasket – Swivel Fitting, Flanged

AN783 – Tee, Flared Tube Internal Thread on Side

AN804 – Tee, Flared Tube with Bulkhead on Run

AN806 – Plug, Flared Tube

AN814 – Plug and Bleeder – Screw Thread

2.1 Industry Specifications (continued):

AN815 – Union-Flared Tube

AN816 – Adapter, Straight, Pipe to Tube

AN819 – Sleeve, Coupling

AN821 – Elbow, Flared Tube, 90°

AN822 – Elbow, Flared Tube & Pipe Threads, 90°

AN823 – Elbow, Flared Tube and Pipe Thread, 45°

AN824 – Tee, Flared Tube

AN827 – Cross – Flared Tube

AN833 – Elbow-Flared Tube and Bulkhead Universal, 90º

AN834 – Tee, Bulkhead and Universal Flared Tube

AN893 – Bushing, Screw Thread, Reducer

AN900 – Gasket – Copper – Asbestos Annular

AN911 – Nipple, Pipe

AN913 – Plug, Square Head Pipe Thread

AN919 – Reducer-External Thread Flared Tube

AN924 – Nut Tube, Bulkhead and Universal Fitting

AN929 – Cap Insert, Assembly, Pressure Seal, Flared Tube Fitting

AN932 – Plug, Pipe, Countersink Hex Head

AN935 – Washer – Lock, Spring

AN937 – Cross, Tube, Internal Thread

AN938 – Tee, Tube, Internal Thread

AN960 – Washer, Flat

AN4047 – Gasket – Type XII, or Type XIV –A and –B Engine Accessory Drive

AN6227 – Packing O-Ring Hydraulic

AN6230 – Gasket, “O” Ring Hydraulic

AN6289 – Nut, Tube

AN6290 – Gasket & Straight Thread Tube Fitting, Boss

AN122576 thru AN122600 – Washer-Plain, Steel

AND10134 – Angle – Unequal Led Extruded

AND10136 – Tee – Extruded

AS1008 – Fitting, Elbow, 90°, Standard and Reducer, Bulkhead, Flareless

AS1009 – Fitting, Tee, Standard and Reducer, Bulkhead on Side, Flareless

2.1 Industry Specifications (continued):

AS1023 – Nut, Self-Locking, Plate, Two Lug, Regular Height, Non-CSK

AS1031 – Fitting, Tee, Standard and Reducer, Bulkhead on Run, Internal Port on Side, Flared

AS1033 – Fitting, Tee, Standard and Reducer, Bulkhead on Run, Flared

AS1034 – Fitting, Elbow, 90°, Standard and Reducer, Flared

AS1036 – Fitting, Cross, Standard and Reducer, Flared

AS1038 – Fitting, Elbow, 90°, Standard and Reducer, Bulkhead, Flared

AS1039 – Fitting, Tee, Standard and Reducer, Bulkhead on Side, Flared

AS3208 – Packing, Preformed – AMS 7276 – Seal

AS3209 – Packing, Preformed – AMS 7276, 'O' Ring

AS3220 – Fitting, Sleeve, Flared, Aluminum

AS3491 – Gasket – Type X or XV Engine Accessory Drive

AS3492 – Gasket – Type XI Engine Accessory Drive

AS3493 – Gasket – Type XII, XIV A and XIV B Engine Accessory Drive

AS3578 – Packing, Preformed – O-Ring Seal AMS7271

AS3581 – Packing, Preformed – O-Ring Seal AMS7259

AS4860 – Fitting, Fitting Pipe, External Thread

AS4863 – Plug, Pipe, External Thread

AS5168 – Plug, Flared Tube

AS5169 – Fitting, Port Plug and Bleeder

AS5172 – Fitting, Adapter, Port, Reducer

AS5174 – Fitting, Union and Reducer, Flared

AS5176 – Fitting, Sleeve, Flared

AS5178 – Nut, Fitting, Bulkhead

AS5179 – Nut, Fitting, Port

AS5192 – Fitting, Tee, Internal Straight Thread Port

AS5193 – Fitting, Cross, Internal Straight Thread Port

AS5194 – Fitting, Adapter, Straight Pipe to Flared

AS5195 – Fitting, Elbow, 90°, Flared to Pipe

AS5196 – Fitting, Elbow, 45°, Flared to Pipe

AS9320 – Washer, Flat

AS15001 – Fitting, Lubrication, Hydraulic, Surface Check, .250-28 Taper Threads, Steel, Type I

AS15002 – Fitting, Lubrication, Hydraulic, Surface Check, Straight Threads, Steel, Type II

2.1 Industry Specifications (continued):

AS15003 – Fittings, Lubrication, Hydraulic, Surface Check, 1/8 Pipe Threads, Steel, Type III

AS21900 – Adapter, Flareless, Tube to a Flared Tube

AS21902 – Union, Flareless Tube

AS21904 – Elbow, Flared Tube, 90°

AS21905 – Tee, Flareless Tube

AS21907 – Elbow, Bulkhead Universal, 45°, Flareless Tube

AS21908 – Elbow, Bulkhead Universal 90°, Flareless Tube

AS21909 – Tee, Bulkhead and Universal, Flareless Tube

AS21910 – Tee, Bulkhead, Flareless Tube, Internal Thread on Side

AS21911 – Tee, Bulkhead, Flareless Tube, Internal Thread on Run

AS21912 – Tee, Flareless Tube with Bulkhead on Run

AS21913 – Plug, Flareless Tube

AS21914 – Cap, Pressure Seal, Flareless Tube Fitting

AS21915 – Adapter, Straight, Tube to Boss

AS21916 – Reducer, External Thread, Flareless Tube

AS21919 – Clamp, Loop Type, Cushioned Support

AS21924 – Union, Flareless Tube Bulkhead and Universal

AS21926 – Elbow, 90° Universal, Flareless Tube, Low Profile

AS25274 – Cap, Electrical

AS28775 – Packing, Preformed-MS28775 “O” Ring

AS28778 – Packing, Preformed, Straight Thread Tube Fitting Boss

AS51989 – Stud, Locked In-Ring Locked, Serrated

AS51990 – Ring, Lock, Serrated

AS51992 – Stud, Locked In-Ring Locked, Serrated, High Strength

AS51997 – Ring, Lock, Serrated-High Strength

CR9117 – MS Rivet Serrated Stem, Pull Through Universal Head

HL18, HL19, HL20, HL21, HL64 – Hi-Lok® Pins

HL72, HL75, HL86, HL87 – Hi-Lok® Collars

LHTA55M/LHTA55M2860 – Nut, Anchor, Corner, Thin, Miniature, 550°F & 900°F

MS9020 – Packing, Preformed, ‘O’ Ring

MS9021 – Packing, Preformed, ‘O’ Ring

MS9134 – Gasket-Type X or XV Engine Accessory Drive

2.1 Industry Specifications (continued):

MS9135 – Gasket-Type XL Engine Accessory Drive

MS9320 – Washer, Flat – AMS6350

MS9388 – Packing, Preformed, AMS 7278, O-Ring

MS9970 – Packing, Preformed, AMD 7279, 'O' Ring

MS15001 – Fittings, Lubrication (Hydraulic) Surface Check, ¼-28 Taper Threads, Steel, Type I

MS15002 –Fittings, Lubrication (Hydraulic) Surface Check, Straight Threads, Steel, Type II

MS15003 – Fittings, Lubrication (Hydraulic) Surface Check, 1/8 Pipe Threads, Steel, Type III

MS16625 – Ring, Retaining, Internal, Basic (Tapered Section Type)

MS20002 – Washer, Countersunk and Plain, High Strength

MS20341 – Nut, Plain, Hexagon, Electrical

MS20364 – Nut, Self-Locking, Thin, 250°F

MS20365 – Nut, Self-Locking, 250°F

MS20435 – Rivet, Round Head, Steel, Monel and Copper

MS20500 – Nut, Self-Locking, Hexagon 1200F, 125 KSI FTU

MS20604 – Rivet, Blind, Non-Structural, Universal Head, Class 1

MS20819 – Sleeve, Flared Tube Fitting

MS20822 – Elbow, Flared Pipe to Tube, 90°

MS20823 – Elbow, Flared Pipe to Tube, 45°

MS20913 – Plug, Pipe

MS21208 – Insert, Screw Thread, Course and Fine, Free Running, Helical Coil, CRES

MS21251 – Turnbuckle Body, Clip Locking

MS21256 – Clip, Locking, Turnbuckle

MS21266 – Grommet, Plastic Edging

MS21900 – Adapter, Flareless, Tube to a Flared Tube

MS21902 – Union, Flareless Tube

MS21904 – Elbow, Flared Tube

MS21905 – Tee, Flareless Tube

MS21907 – Elbow, Bulkhead Universal, 45°, Flareless Tube

MS21908 – Elbow, Bulkhead Universal 90°, Flareless Tube

MS21909 – Tee, Bulkhead and Universal, Flareless Tube

MS21910 – Tee, Bulkhead, Flareless Tube, Internal Thread on Side

MS21911 – Tee, Bulkhead, Flareless Tube, Internal Thread on Run

2.1 Industry Specifications (continued):

MS21912 – Tee, Flareless Tube with Bulkhead on Run

MS21915 – Adapter, Straight, Tube to Boss

MS21916 – Reducer, External Thread, Flareless Tube

MS21919 – Clamp, Loop Type, Cushioned Support

MS21924 – Union, Flareless Tube, Bulkhead and Universal

MS21926 – Elbow, 90 Degree Universal, Flareless Tube, Low Profile

MS24392 – Nipple, Tube, Precision Type

MS24397 – Reducer, Boss, Precision Type

MS24399 – Reducer, Tube, Precision Type

MS25036 – Terminal, Lug, Crimp Style, Copper, Insulated, Ring Tongue, Ball-Mounted, Type II, Class 1, (For 105°C Total Conductor Temperature)

MS27039 – Screw, Machine-Pan Head, Structural, Cross Recessed

MS27253 – Plate, Identification

MS25274 – Cap, Electrical

MS27769 – Plug, Pipe, Countersink Hex Head

MS28775 – Packing, Preformed, Hydraulic, +275°F ("O" Ring)

MS28778 – Packing, Preformed, Straight Thread Tube Fitting Boss

MS29561 – Packing, Preformed, "O" Ring, Synthetic Lubricant Resistant

MS33737 – Nut, Sheet Spring, Instrument Mounting

MS35218 – Screw, Machine – Pan Head, Cross-Recessed, Aluminum Alloy, UNC-2A

MS35223 – Screw, Machine, Pan Head, Slotted, Carbon Steel, Cad. Plated, NC-2A and UNC-2A

MS35265 – Screw, Machine Drilled Fillister Head, Slotted, Carbon Steel, UNC-2A

MS35266 – Screw, Machine-Drilled Fillister Head, Slotted, Carbon Steel, UNF-2A

MS35273 – Screw, Machine Drilled Fillister Head, Slotted, Brass, Black Chem. Finish, UNC-2A

MS35275 – Screw, Machine Drilled Fillister Head, Slotted, CRES, Passivated, UNC-2A

MS35489 – Grommets, Synthetic and Silicone Rubber, Hot-Oil and Coolant Resistant

MS35490 – Grommet, Rubber – Split, General Purpose

MS35769 – Gasket, Metallic, Encased, Annular, Copper

MS51551 – Stud, Locked In – Ring Locked, Serrated, UNJF Thread Nut End, Increased Stud End Length

MS51957 – Screw, Machine, Pan Head, Cross-Recessed, Corrosion Resistant Steel, UNC-2A

MS51991 – Insert, Screw Thread - Locked in, Ring Locked, Serrated

2.1 Industry Specifications (continued):

MS51993 – Insert, Screw Thread - Locked in, Ring Locked, Serrated, High Strength

NAS42 – Spacer, Sleeve, Rivet

NAS43 – Spacer, Sleeve, Screw and Bolt

NAS144 -158 – Bolt, Internal Wrenching, Steel

NAS333 thru NAS340 – Screw, Shear, 100° Standard Flush Hear, Close Tolerance, 95 KSI Fsu

NAS428 – Bolt, Machine, Crowned Hexagon Head

NAS464 – Bolt-Shear, Close Tolerance

NAS514 – Screw, Machine, 100°, Flat Head, Full Threaded, Alloy Steel

NAS537 – Bushing, Sleeve, Press Fit, Undersize Inside Diameter

NAS538 – Bushing, Flanged, Press Fit, Undersize Inside Diameter

NAS577 – Nut, Self-Locking, Barrel, Floating 180 KSI Ftu

NAS592 – Ring, Rigid Tube Connector, Aluminum

NAS649 – Barrel, Turnbuckle Clip Locking

NAS651 – Clip, Turnbuckle Locking

NAS680 – Nut, Self-Locking, Plate, Two Lug, Low Height, C'Bore

NAS682 – Nut, Self-Locking, Plate-One Lug, Low Height, C'Bore

NAS686 – Nut, Self-Locking, Plate – Two Lug, Low Height, C'Bore, Floating

NAS696 – Nut, Self-Locking, Plate, One Lug, Low Height, C'Bore, Reduced Rivet Spacing

NAS697 – Nut, Self-Locking, Plate-Two Lug, Low Height, C'Bore, Reduced Rivet Spacing

NAS1031 – Nut, Self-Locking, Plate, Two Lug, Regular Height, Floating

NAS1089 – Streamer, Warning

NAS1149 – Washer, Flat

NAS1329 – Nut, Blind Rivet, Flat Head, Internal Thread, Non-Locking and Self-Locking

NAS1465 thru 1472 – Pin, Swage, Locking Steel, Standard and Oversize, Protruding Head, Tension, Pull-Type

NAS1523 – Packing with Retainer

NAS1598 – Washer, Sealing

NAS1669 – Fastener – Blind, Internally Threaded, External Sleeve, General Purpose, Protruding Head, Self-Locking

NAS1670 – Fastener, Blind, Internally Threaded, External Sleeve, General Purpose, Flush Head, Self-Locking

NAS1756 – Streamer, Warning

2.1 Industry Specifications (continued):

NAS6203 thru NAS6220 – Bolt, Tension, Hex Head, Close Tolerance, Alloy Steel, Short Thread, Reduce Major Thread Dia., Self-Locking and Nonlocking, 160 KSI Ftu

NASM3 thru NASM20 – Bolt, Machine, Aircraft

NASM3498 – Screw Assembly, Panel

NASM14183 – Washer, Countersunk and Plain, for Use with Bolts and Nuts Up to and Including 220 KSI Ftu

NASM 3 thru 20 – Bolt, Machine, Aircraft

NASM20004 -20024 – Bolt, Internal Wrenching, Steel

NASM20392 – Pin, Straight, Headed Drilled Shank

NASM20426 – Rivet, Solid, Countersunk 100° Head, Aluminum and Titanium Columbian Alloy

NASM20470 – Rivet, Solid, Universal Head, Aluminum Alloy and Titanium Columbium Alloy

NASM20600 – Rivet, Blind, Structural, Pull Stem, Self-Plugging, Protruding Head, Type II

NASM20601 – Rivet, Blind, Structural, Pull Stem, Self-Plugging, 100° Flush Head, Type II

NASM20613 – Rivet, Solid, Universal Head, Steel, Carbon and Steel, Corrosion Resistant

NASM20615 – Rivet, Solid, Universal Head, Brass, Copper, Nickel-Copper Alloy

NASM20995 – Wire, Safety or Lock

NASM21042 – Nut, Self-Locking, 450°F, Reduced Hexagon, Reduced Height, Ring Base, Non-Corrosion Resistant Steel

NASM21044 – Nut, Self-Locking, Plate, Hexagon, Regular Height, 250°F, 125 KSI Ftu and 60 KSI Ftu

NASM21047 – Nut, Self-Locking, Plate, Two-Lug, Low Height, Steel, 125 KSI Ftu, 450°F

NASM21048 – Nut, Self-Locking, Plate, Two Lug, Low Height, CRES, 125 KSI Ftu, 450° and 800°F

NASM21051 – Nut, Self-Locking, Plate, One Lug, Low Height, Steel, 125 KSI Ftu, 450°F

NASM21059 – Nut, Self-Locking, Plate, Two Lug, Floating, Low Height Steel, 125 KSI Ftu, 450°F

NASM21060 – Nut, Self-Locking, Plate, Two Lug, Floating, Low Height, CRES, 125 KSI Ftu, 450°F & 800°F

NASM21069 – Nut, Self-Locking, Plate, Two-Lug, Reduced Rivet Spacing, Low Height, Steel, 125 KSI Ftu, 450°F

NASM21071 – Nut, Self-Locking, Plate, One-Lug, Reduced Rivet Spacing, Low Height, Steel, 125 KSI Ftu, 450°F

NASM21072 – Nut, Self-Locking, Plate, One-Lug, Reduced Rivet Spacing, Low Height, CRES, 125 KSI Ftu, 450°F and 800°F

2.1 Industry Specifications (continued):

NASM21073 – Nut, Self-Locking, Plate, Corner, Reduced Rivet Spacing, Low Height, Steel, 125 KSI Ftu, 450°F

NASM21074 – Nut, Self-Locking, Plate, Corner, Reduced Rivet Spacing, Low Height, CRES, 125 KSI Ftu, 450°F & 800°F

NASM21075 – Nut, Self-Locking, Plate, Two Lug, Floating, Reducing Rivet Spacing, Low Height, Steel, 125 KSI Ftu, 450°F

NASM21077 – Nut, Self-Locking, Plate, Two Lug, Floating, Non-Metallic Insert, Steel, 125 KSI Ftu, 250°F

NASM21078 – Nut, Self-Locking, Plate, Two Lug, Non-Metallic Insert, Steel, 125 KSI Ftu, 250°F

NASM21083 – Nut, Self-Locking, Hexagon, Non-Metallic Insert, Low Height, 250°F

NASM21244 – Nut, Castellated, Hexagon, Counterbored Assembled Washer, 450°F, for Self-Retaining Bolts

NASM21245 – Nut, Self-Locking, Hexagon, Thin, 450°F, 80 KSI Ftu

NASM21266 – Grommet, Plastic, Edging

NASM21318 – Screw, Drive, Round Head, Type U, Steel, Carbon, Cadmium Plated

NASM24665 – Pin, Cotter (Split)

NASM24693 – Screw, Machine, Flat CTSK, 100°, Cross Recessed, UNC-2A and UNF-2A

NASM24694 – Screw, Machine, Flat Countersunk Head, 100°, Structural, Cross Recessed, UNC-3A and UNF-3A

NASM27039 – Screw, Machine – Pan Head, Structural, Cross Recessed

NASM27975 – Clevis, Rod End, Adjusting, Wide and Narrow Forks

NASM27976 – Clevis, Rod End, Plain, Wide and Narrow Forks

NASM35206 – Screw, Machine, Pan Head, Cross-Recessed, Carbon Steel, Cad. Plated, UNC-2A

NASM35214 – Screw, Machine, Pan Head, Cross Recessed, Brass, UNC-2A

NASM35273 – Screw, Machine, Drilled Fillister Head, Slotted, Brass, Black Chemical Finish

NASM35275 – Screw, Machine-drilled Fillister Head, Slotted, Corrosion-Resistant Steel

NASM35338 – Washer, Lock-Spring, Helical, Regular (Medium) Series

NASM35649 – Nut, Plain, Hexagon, Machine Screw, UNC-2B

NASM35650 – Nut, Plain, Hexagon, Machine Screw, UNF-2B

NASM90353 – Fastener, Blind, High Strength, Pull Type, Positive Mechanical Lock, 100° Flush Head, Alloy Steel, 112 K.S.I. Fsu

NASM90354 – Fastener, Blind, High Strength, Pull Type, Positive Mechanical Lock, Protruding Head, Alloy Steel, 112 K.S.I. Fsu

2.1 Industry Specifications (continued):

NASM122076 thru 122115 – Insert, Cres, Helical Coil, Course Thread, 1 Dia Nominal Length

NASM122116 thru 122155 – Insert, Cres, Helical Coil, Course Thread, 1-½ Dia Nominal Length

NASM122156 thru 122195 – Insert, Cres, Helical Coil, Course Thread, 2 Dia Nominal Length

NASM122196 thru 122235 – Insert, Cres, Helical Coil, Course Thread, 2-½ Dia Nominal Length

NASM122236 thru 122275 – Insert, Cres, Helical Coil, Course Thread, 3 Dia Nominal Length

NASM124651 thru 124690 – Insert, Cres, Helical Coil, Fine Thread, 1 Dia Nominal Length

NASM124691 thru 124730 – Insert, Cres, Helical Coil, Fine Thread, 1-½ Dia Nominal Length

NASM124731 thru 124770 – Insert, Cres, Helical Coil, Fine Thread, 2 Dia Nominal Length

NASM124771 thru 124810 – Insert, Cres, Helical Coil, Fine Thread, 2-½ Dia Nominal Length

NASM124811 thru 124850 – Insert, Cres, Helical Coil, Fine Thread, 3 Dia Nominal Length

2.2 Erickson Specifications:

ES1049 – Clip Unequal Legs

ES1050 – Clip Unequal Legs

ES1051 – Clip, Equal Legs

ES1052 – Clip, Equal Legs

ES1053 – Clip, Open & Closed Angle

ES4007 – Bushing Close Tolerance Slide Fit

ES5075 – Lockwasher, Bearing

2.3 Sikorsky Specifications:

ES9054 – Correction Card Air Speed

SS1049 – Clip Unequal Legs

SS1050 – Clip Unequal Legs

SS1051 – Clip, Equal Legs

SS1052 – Clip, Equal Legs

SS1053 – Clip, Open & Closed Angle

SS4007 – Bushing Close Tolerance Slide Fit

SS4021 – Bolt or Stud Seal

SS4409 – Washer, Metallic Special

SS5013 – Screw, Washer Head, Regular & Self-Locking

SS5061 – Installation and Removal of Jo-Bolts

SS5063 – Jo-Bolt Fastener, Blind, High Strength Specification

SS5075 – Lockwasher Bearing Code Ident 78286

SS5081 – Nut, Self Locking Double Hex 180 ksi

SS5086 – Nut, Self Locking, 12 Point, LW. Aly Steel and A286

SS7000 – Plate Assembly Mounting, Console Type Aircraft

SS7560 – Clamp, Loop, Cushioned, Wedge, Self Retaining

SS9030 – Tape Identification Tubing – Printed

SS9054 – Correction Card Air Speed

SS9067 – Identification Plate Multiple Lines

SS9991 – Nut Plate, Self-Locking

2.4 Military Specifications:

MIL-R-83248 – Rubber, Fluorocarbon Elastomer, High Temperature, Fluid, and Compression Set Resistant

MIL-R-83248/1 – Rubber, Fluorocarbon Elastomer, High Temperature, Fluid, and Compression Set Resistant (O-Rings, Class 1, 75 Hardness)

MIL-T-7807 – Thread, Nylon

2.5 Miscellaneous Specifications:

1201-( )-( ) – ST-1200 Line – Size ( ) Stud (DFCI)

1219-( )-( ) – ST-1200 Line Size ( ) S-Spring (DFCI)

1219-L4-( )-( ) – ST-1200 Line Size ( ) Receptacle (DFCI)

1271-( ) – ST-1200 Line Size ( ) Aluminum Full Grommet (DFCI)

127H-( ) – ST-1200 Line Size ( ) Aluminum Half Grommet (DFCI)

(ZE) 1802 (ESNA) – Hex, High Temperature 8-32 thru ½-20 to 1200º F

2452 – Nut, Barrel, High Tensile, Lightweight (Harvard Industries)

2452 – Nut, Barrel, High Tensile, Lightweight, 180 KSI, 250°F (SPS Tech.)

3506-SC( )-( ) – Stud Assembly (Quarter Turn) (DFCI)

A( )-( ) – ST-1200 Line – Size ( ) Stud (DZUS)

A-A-59826 – Thread, Nylon

D4-A( )-( ) – ST-1200 Line – Size ( ) Stud (Southco)

D4-GA3-( ) – ST-1200 Line – Size ( ) Aluminum Full Grommet (Southco)

D4-GH( ) – ST-1200 Line – Size ( ) Aluminum Half Grommet (Southco)

D4-S( )-( ) – ST-1200 Line Size ( ) S-Spring (Southco)

2.5 Miscellaneous Specifications (continue):

D4-SL4-( ) – ST-1200 Line Size ( ) Receptacle (Southco)

D5-PFSC35-( ) – ST-1200 Line – Size ( ) Stud (Southco)

DHN 35 – Nut, Self-Locking, Double Hex. High Tensile, 180,000 psi, 250º F (ALCOA)

EB – Nut, Double Hexagon, Self-Locking Nylon, Flanged, 180 ksi, 250º F (SPS)

GA3-200 – ST-1200 Line Size ( ) Aluminum Full Grommet (DZUS)

GH4 – ST-1200 Line Size ( ) Aluminum Half Grommet (DZUS)

NMC-G51H-C, Grommet Caterpillar

PFSC35-( ) – ST-1200 Line – Size ( ) Stud (DZUS)

RD3607 – Insert, Ring Locked, High Strength (ALCOA, Fairchild Fasteners)

RJ200 (series) – Insert – Ring Locked (Rosan RJ205)

R3001 – Lockbolt Pin, Pull Type, Alloy Steel, Protruding Head, Tension

S( ) – ST-1200 Line Size ( ) Receptacle (DZUS)

S( )FJ Series – Stud, Ring Locked, Fine Thread Nut End and Course Thread Stud End

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SL-RDJ3607 – Insert, Ring Locked, High Strength (SHUR-LOK Corp), Rev A

V-T-295 – Thread, Nylon

3. HARDWARE SUBSTITUTIONS:

3.1 Table I lists common substitute fasteners. This table is to be read only from left to right (i.e., substitutions may not be reversed). Only items marked with an asterisk (*), are globally approved as direct alternates on Erickson Inc. engineering drawings. All other substitute hardware listed in this specification may only be used with specific engineering approval (e.g. CDR, ORR, QAR, ADCN).

3.2 The following substitutions require additional specific engineering approval.

3.2.1 MS21042-( ) nuts and AN960PD( ) / NAS1149D( )J washers may be used in lieu of HL70-( ) or HL86TW( ) collars, where interference with adjacent fasteners is a concern. This practice is to be limited to those areas where possible interference may exist in order that the faster method of installing Hi-Loks with standard tools may be utilized.

3.2.2 MS21073L( ) and MS21074-( ) nutplates may be used in lieu of 52LHTA55M-( ) and LHTA55M2860 nutplates, respectively. This substitution is only acceptable in areas which will not experience a temperature above 450°F.

3.2.3 MS27039-( ) screws may be replaced with AN3 thru AN20 bolts of appropriate size when the subject screws are specified for installation of Adel Clamps for hydraulic lines.

3.2.4 MS21919WDE, WDF, and WDG -1 size only, and MS21919WCE, WCF, WCG, and WCH -1 thru -8 sizes require specific engineering approval to be used in lieu of equivalent AS21919 clamps called out on drawings. Larger sizes may be substituted with no approval. (See table 1)

3.2.5 NAS6203-( )D thru NAS6220-( )D bolts (plated, drilled shank) may be used in lieu of NAS464P( )-( ) bolts (plated, drilled shank). NAS6203-( )D thru NAS6220-( )D bolts (plated, drilled shank) may also be used in lieu of NAS464-( )-( ) bolts (unplated, drilled shank) so long as a material evaluation is conducted to ensure that there is not a dissimilar metals condition that will be detrimental to the design (cadmium plated bolts shall not be used in applications where the mating material is a titanium alloy without thorough evaluation). With either of these substitution cases, a tolerance stack-up must be conducted to ensure proper fit, as the NAS6203 thru NAS6220 bolts have a longer overall length (grip lengths are equivalent). The NAS6203 thru NAS6220 bolts require a countersunk washer, such as MS20002C( ) and if a flat washer was originally required, a tolerance stack-up must be conducted to ensure proper fit, as the thickness of most countersunk washers differ from the flat washers.

4. TABLE 1: ORIGINAL TO SUBSTITUTE HARDWARE

ORIGINAL HARDWARE		SUBSTITUTE HARDWARE		NOTES
P/N	DESCRIPTION	P/N	DESCRIPTION	
* A3-25 (DZUS)	Stud	* 1201-3( )-Z3CT (DFCI) * D4-A3-25ZCTNA (Southco)	ST-1200 Line Size 3 Stud Fixed Length Undercut	NOTE 1 & APPENDIX 38
* A3-30 (DZUS)	Stud	* 1201-330-Z3CT (DFCI) * D4-A3-30ZCTNA (Southco)	ST-1200 Line Size 3 Stud Fixed Length Undercut	NOTE 1 & APPENDIX 38
* AJ3-( ) (DZUS)	Stud	* 121J-3( )-Z3CT (DFCI)	ST-1200 Line Size 3 Stud Oval Head	
* A4-( ) (DZUS)	Stud	* 1201-4( )-Z3CT (DFCI) * D4-A4-25ZCTNA (Southco)	ST-1200 Line-Size 4 Stud Fixed Length Undercut	NOTE 1 & APPENDIX 38
* AN340	Nut, Plain, Hexagon, Non-Structural, Course Thread	* MS35649 (NASM35649)	Nut, Plain, Hexagon, Machine Screw, UNC-2B	
*AN362	Nut, Self-Locking, Plate, Non-Countersink, 550°F	*MS21047 (NASM21047)	Nut, Self-Locking, Plate, Two-Lug Low Height, Steel, 125 KSI Ftu, 450°F	NOTE 1 & APPENDIX 1
*AN362	Nut, Self-Locking, Plate, Non-Countersink, 550°F	*MS21048 (NASM21048)	Nut, Self-Locking, Plate, Two-Lug Low Height, CRES, 125 KSI Ftu, 450°F and 800°F	NOTE 1 & APPENDIX 1
AN364-1032	Nut, self-locking, thin, 250°F	MS21042-3 (NASM21042)	Nut, Self-Locking 450°F, reduced hexagon, reduced height, ring base, non-corrosion resistant steel	
* AN365( )	Nut, self-locking, 250°F	* MS20365	Nut, Self-Locking, 250°F	SEE MS20365
*AN366F( ) *AN366F( )A	Nut, Self-Locking, Plate, Non-Countersunk, 250°F	*MS21078-( ) (NASM21078)	Nut, Self-Locking, Plate, Two Lug, Non-Metallic Insert, Steel, 125 KSI Ftu, 250°F	NOTE 1 & APPENDIX 1
*AN366F( ) *AN366F( )B	Nut, Self-Locking, Plate, Non-Countersunk, 250°F	*MS21047L( ) (NASM21047)	Nut, Self-Locking, Plate, Two-Lug, Low Height, Steel, 125 KSI Ftu, 450°F	NOTE 1 & APPENDIX 1
*AN366WC( ) *AN366WC( )B	Nut, Self-Locking, Plate, Non-Countersunk, 250°F	*MS21048L( )W (NASM21048)	Nut, Self-Locking, Plate, Two Lug, Low Height, CRES, 125 KSI Ftu, 450° and 800°F	NOTE 1 & APPENDIX 1
* AN380-( )-( )	Pin, Cotter	* MS24665-( ) (NASM24665)	Pin, Cotter (Split)	NOTE 1 & APPENDIX 2
* AN381-( )-( )	Pin, Cotter (Corrosion-Resistant Steel)	* MS24665-( ) (NASM24665)	Cotter Pin (Split)	NOTE 1 & APPENDIX 2
* AN392-( )	Pin – Flat Head (1/8)	* MS20392-1C( ) (NASM20392)	Pin, Straight, Headed, Drilled Shank	

ORIGINAL HARDWARE		SUBSTITUTE HARDWARE		NOTES
P/N	DESCRIPTION	P/N	DESCRIPTION	
* AN470-AD3-16	Rivet-universal head aluminum alloy	* MS20470AD3-16 (NASM20470)	Rivet, solid, universal head, aluminum alloy and titanium columbium alloy	
* AN481-1 thru -9 * AN481-10 thru -12	Clevis, Rod End (Unplated)	* MS27976-21 thru -29 * MS27976-30 thru -32 (NASM27976)	Clevis, Rod End, Plain, Wide and Narrow Forks	
* AN481-( )P	Clevis, Rod End (Cadmium Plated)	* MS27976-( ) NASM27976)	Clevis, Rod End, Plain, Wide and Narrow Forks	
* AN486-( )	Clevis, Rod End Adjusting	* MS27975-( ) (NASM27975)	Clevis, Rod End, Adjusting, Wide and Narrow Forks	'L' Would indicate left handed threads
AN500-( )-( )	Screw, Machine, Fillister Head, Course Thread	MS35265-( ) MS35273-( ) (NASM35273) MS35275-( ) (NASM35275)	Screw, Machine, Fillister Head, Course Thread	NOTE 1 & APPENDIX 32
* AN501( ) (NASM501)	Screw, machine, fillister head, fine thread	* MS35266( )	Screw, machine-drilled fillister head, slotted, carbon steel, UNF-2A	NOTE 1 & APPENDIX 37
* AN507-( ) * AN507UB( ) * AN507B( ) * AN507PB( ) * AN507C( ) * AN507C( )	Screw, Machine, Flat Head, 100 Deg.	* MS24693-S( ) * MS24693-B( ) * MS24693-BB( ) * MS24693-CB( ) * MS24693-C( ) * MS24693-A( ) (NASM24693)	Screw, Machine, Flat Countersunk Head, 100°, Cross-Recessed, UNC-2A and UNF-2A	
* AN509-( ) * AN509DD( ) * AN509C( )	Screw, Machine, Flat Head, 100 Deg., Structural	* MS24694-S( ) * MS24694-A( ) * MS24694-C( ) (NASM24694)	Screw, Machine, Flat Countersunk Head, 100°, Structural, Cross-Recessed, UNC-3A and UNF-3A	
AN515-( )	Screw, Machine, Round Head, Coarse Thread	MS35206-( ) (NASM35206)	Screw, Machine – Pan Head, Cross-Recessed, Carbon Steel, Cadmium Plated, UNC-2A	
AN515B( )	Screw, Machine, Round Head, Coarse Thread	MS35214-( ) (NASM35214)	Screw, Machine – Pan Head, Cross-Recessed, Brass, UNC-2A	
AN515DD( )	Screw, Machine, Round Head, Coarse Thread	MS35218-( )	Screw, Machine – Pan Head, Cross-Recessed, Aluminum Alloy, UNC-2A	
AN515C( )	Screw, Machine, Round Head, Coarse Thread	MS51957-( )	Screw, Machine – Pan Head, Cross-Recessed, CRES, UNC-2A	
* AN535-4-2 * AN535-2-3	Screw, drive, round head	* MS21318-19 * MS21318-14 (NASM21318)	Screw, drive, round head, type U, steel, carbon, cadmium plated	
* AN763( )	Gasket – Swivel Fitting, Flanged	* AN763( )C	Gasket – Swivel Fitting, Flanged	

ORIGINAL HARDWARE		SUBSTITUTE HARDWARE		NOTES
P/N	DESCRIPTION	P/N	DESCRIPTION	
* AN783-( ) * AN783D( ) * AN783J( ) * AN783K( ) * AN783S( ) * AN783T( ) * AN783W( )	Tee, Flared Tube Internal Thread on Side	* AS1031-( ) * AS1031D or W( ) * AS1031J( ) * AS1031K( ) * AS1031S or R( ) * AS1031T( ) * AS1031W( )	Fitting, Tee, Standard and Reducer, Bulkhead on Run, Internal Port on Side, Flared	
AN804	Tee, Flared Tube with Bulkhead on Run	* AS1033	Fitting, Tee, Standard and Reducer, Bulkhead on Run, Flared	NOTE 1 & APPENDIX 26
AN806	Plug – Flared Tube	* AS5168	Plug – Flared Tube	NOTE 1 & APPENDIX 27
* AN814-( ) * AN814-( )L * AN814-( )D * AN814-( )DL * AN814-( )J * AN814-( )JL * AN814-( )K * AN814-( )KL * AN814-( )S * AN814-( )SL * AN814-( )T * AN814-( )TL * AN814-( )W * AN814-( ) WL	Plug and Bleeder – Screw Thread	* AS5169- ( ) * AS5169- ( )L * AS5169- D( ) * AS5169- D( )L * AS5169- J( ) * AS5169- J( )L * AS5169- K( ) * AS5169- K( )L * AS5169- S( ) * AS5169- S( )L * AS5169- T( ) * AS5169- T( )L * AS5169- W( ) * AS5169- W( )L	Fitting, Port Plug and Bleeder	If size code is less than ten, add '0' preceding size code
* AN815-( )	Union – Flared Tube	* AS5174( )	Fitting, Union and Reducer, Flared	NOTE 1 & APPENDIX 5
AN816	Adapter, Straight, Pipe to Tube	* AS5194	Fitting, Adapter, Straight, Pipe to Flared	NOTE 1 & APPENDIX 28
* AN819-( ) * MS20819-( )	Sleeve, Coupling	AS3220 or AS5176	Sleeve, Flared Tube Fitting	NOTE 1 & APPENDIX 16
AN821	Elbow, Flared Tube, 90°	* AS1034	Fitting, Elbow, 90°, Standard and Reducer, Flared	NOTE 1 & APPENDIX 29
AN822 MS20822	Elbow, Flared Tube and Pipe Thread, 90°	* AS5195	Fitting, Elbow, 90°, Flared to Pipe	NOTE 1 & APPENDIX 30
AN823 MS20823	Elbow, Flared Tube and Pipe Thread, 45°	* AS5196	Fitting, Elbow, 45°, Flared to Pipe	NOTE 1 & APPENDIX 31
* AN824	Tee, Flared Tube	* AS1035	Tee, Flared Tube	NOTE 1 & APPENDIX 6
* AN827	Cross – Flared Tube	* AS1036	Fitting, Cross, Standard and Reducer, Flared	NOTE 1 & APPENDIX 33
* AN833-( )	Elbow-Flared Tube and Bulkhead Universal, 90 deg	* AS1038	Fitting, Elbow, 90 deg, Standard and Reducer, Bulkhead, Flared	NOTE 1 & APPENDIX 7
* AN834-6	Tee, bulkhead and universal flared tube	* AS1039-060606	Fitting, Tee, Standard and Reducer, Bulkhead on Side, Flared	

ORIGINAL HARDWARE		SUBSTITUTE HARDWARE		NOTES
P/N	DESCRIPTION	P/N	DESCRIPTION	
* AN893	Bushing Screw Thread Reducer	* AS5172	Fitting, Adapter, Port, Reducer	NOTE 1 & APPENDIX 35
* AN900-( )	Gasket – Copper – Asbestos Annular	* MS35769-( )	Gasket, Metallic, Encased, Annular, Copper	
* AN911	Nipple, Pipe	* AS4860	Fitting, Nipple, Pipe, External Thread	NOTE 1 & APPENDIX 34
* AN913( )	Plug, Square Head Pipe Thread	* MS20913( )	Plug, Pipe	SEE MS20913
* AN919-( )	Reducer – External Thread Flared Tube	* AS5174( )	Fitting, Union and Reducer, Flared	NOTE 1 & APPENDIX 8
* AN924-( ) * AN924-( )D * AN924-( )J * AN924-( )K * AN924-( )R * AN924-( )S * AN924-( )T * AN924-( )W	Nut, Tube, Bulkhead and Universal Fitting	* AS5178-( ) * AS5178-( )W * AS5178-( )J * AS5178-( )K * AS5178-( )R * AS5178-( )R * AS5178-( )T * AS5178-( )W	Nut, Tube, Bulkhead and Universal Fitting	
* AN929-( )D	Cap Insert, Assembly, Pressure Seal, Flared Tube Fitting	* AN929-( )W	Cap Insert, Assembly, Pressure Seal, Flared Tube Fitting	
* AN932	Plug, Pipe, Countersink Hex Head	* MS27769	Plug, Pipe, Countersink Hex Head	
* AN935	Washer, Lock, Spring	* MS35338 (NASM35338)	Washer, Lock-Spring, Helical, Regular	NOTE 1 & APPENDIX 9
* AN937-( ) * AN937D( ) * AN937J( ) * AN937K( ) * AN937S( ) * AN937T( ) * AN937W( )	Cross, Tube, Internal Thread	* AS5193-( ) * AS5193W( ) * AS5193J( ) * AS5193K( ) * AS5193R( ) * AS5193T( ) * AS5193W( )	Fitting, Cross, Internal Straight Thread Port	
* AN938	Tee, Tube, Internal Thread	* AS5192	Fitting, Tee, Internal Straight Thread Port	
* AN960	Washer, Flat	* NAS1149	Washer, Flat	NOTE 1 & APPENDIX 10
* AN4047-1	Gasket – Type XII, or Type XIV –A and –B Engine Accessory Drive	* AS3493-01	Gasket – Type XII A and XIV B Engine Accessory Drive	
* AN6227-( )	Packing, "O" ring hydraulic	* MS28775-( ) (AS28775)	Packing, preformed, hydraulic, +275°F ("O"-Ring)	NOTE 1 & APPENDIX 25
* AN6230-( )	Gasket, "O" Ring Hydraulic	* MS28775-( ) (AS28775)	Packing, Preformed-MS28775 O-Ring	NOTE 1 & APPENDIX 11
*AN6289	Nut, Tube	*AS5179	Nut, Fitting, Port	
* AN6290-	Gasket – Straight Thread Tube Fitting, Boss	* MS28778- (AS28778)	Packing, Preformed, Straight Thread Tube Fitting, Boss	

ORIGINAL HARDWARE		SUBSTITUTE HARDWARE		NOTES
P/N	DESCRIPTION	P/N	DESCRIPTION	
* AN122576 thru * AN122600	Washer – Plain, Steel	* MS9320-( ) * AS9320-( )	Washer, Flat – AMS6350 Washer, Flat – AMS6350	
* AND10134( )	Angle – Unequal Leg Extruded	* AMS10134( )	Angle – Unequal Leg Extruded	
* AND10136( )	Tee – Extruded	* AMS10136( )	Tee – Extruded	
* AS4860D( )	Fitting, Nipple, Pipe, External Thread is 2024-T6 AL AMS-QQ-A-225/6	* AS4860W( )	Fitting, Nipple, Pipe, External Thread is 7075-T73 AL AMS-QQ-A-225/9	
* AS5179D( )	Nut, Fitting, Port, Material is 2024-T6 AL ALY AMS-QQ-A-225/6	* AS5179W( )	Nut, Fitting, Port, Material is 7075-T73 AL ALY AMS-QQ-A-225/9	
* AS25274	Cap, Electrical	* MS25274 (AS25274)	Cap, Electrical	
* CRL( )SC	Lockring	* CRL( )SA	Lockring	NOTE 4
* CRLM( )SC	Lockring	* CRLM( )SA	Lockring	NOTE 4
* EB-( )	Nut – Double Hexagon, Self-Locking Nylon, Flanged, 180 KSI, 250°F	* DHN35-( )	Nut, Self-Locking, Double Hex, High Tensile, 180,000 PSI, 250°F	
EB098	Nut, self locking, extended washer, double hexagon	SS5081-09	Nut, self locking, double hex, 180 ksi	
ER833C( ) ER833D( )	Elbow, 90°, Bulkhead, Reducer	AS1008J( ) AS1008W( )	Fitting, Elbow, 90°	
ER834C( ) ER834D( )	Tee, Bulkhead on Side, Reducer	AS1009J( ) AS1009W( )	Fitting, Tee, Standard and Reducer	
* FFG164-( ) * FFG200-( ) * FFG260-( ) * FFG312-( ) * FFG375-( )	Jo-Bolt, Alloy Steel, Ground Shank, Flush Head	* HL19PB( )-5-( ) * HL19PB( )-6-( ) * HL19PB( )-8-( ) * HL19PB( )-10-( ) * HL19PB( )-12-( )	Blind Fastener, Internally Threaded, External Sleeve, Flush Head, Self-Locking	HL19PB is a direct replacement for the PPG as shown if accessible. Use HL70 Collars.
FFG164-( ) 200-( ) 260-( ) 312-( )	Jo-Bolt, Alloy Steel, Ground Shank, Flush Head	NAS1670-( )	Blind Fastener, Internally Threaded, External Sleeve, Flush Head, Self-Locking	
FFG375-( )	Jo-Bolt, Alloy Steel, Ground Shank, Flush Head	MS90353-( ) (NASM90353)	Blind Fastener, High Strength, Positive Mechanical Lock, 100° Flush Head, Alloy Steel, 112 KSI FSU	
*2452-( ) *2452-( )RET	Nut, Barrel, High Tensile, Lightweight, 180 KSI, 250°F	*F2452-( ) *F2452-( )RET	Nut, Barrel, High Tensile, Lightweight, 180 KSI, 250°F	Prefix “F” designates post plate treatment.

ORIGINAL HARDWARE		SUBSTITUTE HARDWARE		NOTES
P/N	DESCRIPTION	P/N	DESCRIPTION	
* GA3-( ) (DZUS)	Grommet	* 1271-3( ) (DFCI Solutions Inc)	ST-1200 Line-Size 3 Retainers-Aluminum Full Grommet	NOTE 1 & APPENDIX 38
* GA4-( ) (DZUS)	Grommet	* 1271-4( ) (DFCI Solutions Inc)	ST-1200 Line-Size 4 Retainers-Aluminum Full Grommet	NOTE 1 & APPENDIX 38
* GH3 (DZUS)	Grommet	* 127H-3 (DFCI) * D4-GH3NA (Southco)	ST-1200 Line-Size 3 Retainers-Aluminum Half Grommet	NOTE 1 & APPENDIX 38
* GH3-200 (DZUS)	Grommet	* 1271-3200 (DFCI) * D4-GA3-200NA (Southco)	ST-1200 Line-Size 3 Retainers-Aluminum Half Grommet	NOTE 1 & APPENDIX 38
* GH4 (DZUS)	Grommet	* 127H-4 (DFCI) * D4-GH4NA (Southco)	ST-1200 Line-Size 4 Retainers-Aluminum Half Grommet	NOTE 1 & APPENDIX 38
* HL18-( )-( )	Hi-Lok® Pin, Protruding Shear Head Alloy Steel, Type I, Class 2 Cadmium Plating per AMS-QQ-P-416 and Cetyl Alcohol Lube per Hi-Shear Spec. 305	* HL18PB( )-( )	Hi-Lok® Pin, Protruding Shear Head Alloy Steel, Type II, Class 2 Cadmium Plating per AMS-QQ-P-416 and Cetyl Alcohol Lube per Hi-Shear Spec. 305	
* HL19-( )-( )	Hi-Lok® Pin, 100° Reduced Flush Shear Head, Alloy Steel, Type I, Class 2 Cadmium Plating per AMS-QQ-P-416 and Cetyl Alcohol Lube per Hi-Shear Spec. 305	* HL19PB( )-( )	Hi-Lok® Pin, 100° Reduced Flush Shear Head, Alloy Steel, Type II, Class 2 Cadmium Plating per AMS-QQ-P-416 and Cetyl Alcohol Lube per Hi-Shear Spec. 305	
* HL20-( )-( )	Hi-Lok® Pin, Protruding Tension Head, Alloy Steel, Type I, Class 2 Cadmium Plating per AMS-QQ-P-416 and Cetyl Alcohol Lube per Hi-Shear Spec. 305	* HL20PB( )-( )	Hi-Lok® Pin, Protruding Tension Head, Alloy Steel, Type II, Class 2 Cadmium Plating per AMS-QQ-P-416 and Cetyl Alcohol Lube per Hi-Shear Spec. 305	
* HL21-( )-( )	Hi-Lok® Pin, 100° Flush MS24694 Tension Head Alloy Steel, Type I, Class 2 Cadmium Plating per AMS-QQ-P-416 and Cetyl Alcohol Lube per Hi-Shear Spec. 305	* HL21PB( )-( )	Hi-Lok® Pin, 100° Flush MS24694 Tension Head Alloy Steel, Type II, Class 2 Cadmium Plating per AMS-QQ-P-416 and Cetyl Alcohol Lube per Hi-Shear Spec. 305	

ORIGINAL HARDWARE		SUBSTITUTE HARDWARE		NOTES
P/N	DESCRIPTION	P/N	DESCRIPTION	
* HL64-( )-( )	Hi-Lok® Pin, Protruding Tension Head, Alloy Steel, 1/64" Oversize, Type I, Class 2 Cadmium Plating per AMS-QQ-P-416 and Cetyl Alcohol Lube per Hi-Shear Spec. 305	* HL64PB( )-( )	Hi-Lok® Pin, Protruding Tension Head, Alloy Steel, 1/64" Oversize, Type II, Class 2 Cadmium Plating per AMS-QQ-P-416 and Cetyl Alcohol Lube per Hi-Shear Spec. 305	
* HL75-( )A	Hi-Lok® Collar, Tension, Type I, Class 2 Cadmium Plating per AMS-QQ-P-416 and Cetyl Alcohol Lube per Hi-Shear Spec. 305	* HL75PB( )A	Hi-Lok® Collar, Tension, Type II, Class 2 Cadmium Plating per AMS-QQ-P-416 and Cetyl Alcohol Lube per Hi-Shear Spec. 305	
* HL75-( )AW	Hi-Lok® Collar and Washer Assy, Tension, Type I, Class 2 Cadmium Plating per AMS-QQ-P-416 and Cetyl Alcohol Lube per Hi-Shear Spec. 305	* HL75PB( )APBW	Hi-Lok® Collar and Washer Assy, Tension, Type II, Class 2 Cadmium Plating per AMS-QQ-P-416 and Cetyl Alcohol Lube per Hi-Shear Spec. 305	
* HL75-( )W	Hi-Lok® Washer, Type I, Class 2 Cadmium Plating per AMS-QQ-P-416	* HL75-( )PBW	Hi-Lok® Washer, Type II, Class 2 Cadmium Plating per AMS-QQ-P-416	
* HL86-( )	Hi-Lok® Collar, Tension, Type I, Class 2 Cadmium Plating per AMS-QQ-P-416 and Cetyl Alcohol Lube per Hi-Shear Spec. 305	* HL86PB( )	Hi-Lok® Collar, Tension, Type II, Class 2 Cadmium Plating per AMS-QQ-P-416 and Cetyl Alcohol Lube per Hi-Shear Spec. 305	
* HL86W( )	Hi-Lok® Collar and Washer Assy, Tension, Type I, Class 2 Cadmium Plating per AMS-QQ-P-416 and Cetyl Alcohol Lube per Hi-Shear Spec. 305	* HL86PBW( )	Hi-Lok® Collar and Washer Assy, Tension, Type II, Class 2 Cadmium Plating per AMS-QQ-P-416 and Cetyl Alcohol Lube per Hi-Shear Spec. 305	
* HL72	Hi-Lok® Collar	* HL86 OR HL87	Hi-Lok® Collar	
* MIL-T-7807	Thread, Nylon	* V-T-295 * A-A-59826	Thread, Nylon	
* M83248/1-(001 thru 475)	O Rings, Class 1, 75 Hardness	* AS3209-(001 thru 475)	Packing, Preformed – AMS 7276, 'O' Ring	
* M83248/1-(901 thru 932)	O Rings, Class 1, 75 Hardness	* AS3208-(01 thru 32)	Packing, Preformed – AMS 7276 – Seal	
* MS3498-2 MS3498-3 MS3498-9	Screw Assembly, Panel	* MS3498-8 (NASM3498)	Screw Assembly, Panel	Piece parts can be replaced by the assembly
* MS9020-(xx)	Packing, Preformed, 'O' Ring	* AS3578-(9xx)	Packing, Preformed, O-Ring Seal	
* MS9021-( )	Packing, Preformed, 'O' Ring	* AS3578-( )	Packing, Preformed, O-Ring Seal	

ORIGINAL HARDWARE		SUBSTITUTE HARDWARE		NOTES
P/N	DESCRIPTION	P/N	DESCRIPTION	
* MS9134	Gasket-Type X or XV Engine Accessory Drive	* AS3491	Gasket-Type X or XV Engine Accessory Drive	
* MS9135	Gasket-Type XL Engine Accessory Drive	* AS3492	Gasket-Type XI Engine Accessory Drive	
* MS9136-01	Gasket-Type XII, XIV-A, XIV-B, XIV-E, XVII-A and XVII-B Engine Accessory Drive	* AS3493-01	Gasket – Type XII A and XIV B Engine Accessory Drive	
* MS9388-( )	Packing, Preformed, AMS 7278, O-Ring	* M83248/1-( ) (MIL-R-83248)	O Rings, Class 1, 75 Hardness	
* MS9970-( )	Packing, Preformed, AMD 7279, 'O' Ring	* AS3581-( )	Packing Preformed, O-Ring Seal	
* MS14183-( ) * MS14183-C( )	Washer, Countersunk and Plain, for Use with Bolts and Nuts Up to and Including 220 KSI Ftu	* MS14183L-( ) * MS14183P-( ) * MS14183L-C( ) * MS14183P-C( ) (NASM14183)	Washer, Countersunk and Plain, for Use with Bolts and Nuts Up to and Including 220 KSI Ftu	
* MS15001-( )	Fittings, Lubrication (Hydraulic) Surface Check, ¼-28 Taper Threads, Steel, Type I	* AS15001-( )C * AS15001-( )P	Fitting, Lubrication, Hydraulic, Surface Check, .250-28 Taper Threads, Steel, Type I	NOTE 1 & APPENDIX 13
* MS15002-( )	Fittings, Lubrication (Hydraulic) Surface Check, Straight Threads, Steel, Type II	* AS15002-( )C * AS15002-( )P	Fitting, Lubrication, Hydraulic, Surface Check, Straight Threads, Steel, Type II	NOTE 1 & APPENDIX 14
* MS15003	Fittings, Lubrication, (Hydraulic) Surface Check, 1/8 Pipe Threads, Steel, Type III	* AS15003-( )C * AS15003-( )P	Fittings, Lubrication, Hydraulic, Surface Check, 1/8 Pipe Threads, Steel, Type III	NOTE 1 & APPENDIX 15
MS20341( ) (sizes 8 or lower)	Nut, Plain, Hexagon, Electrical	MS35649( ) (sizes 8 or lower) (NASM35649)	Nut, Plain, Hexagon, Machine Screw, UNC-2B	
MS20341( ) (sizes 10 and greater)	Nut, Plain, Hexagon, Electrical	MS35650( ) (sizes 10 and greater) (NASM35650)	Nut, Plain, Hexagon, Machine Screw, UNF-2B	
* MS20364-632C * MS20364-832C * MS20364-1032C * MS20364-428C * MS20364-524C * MS20364-624C	Nut, Self-Locking, Thin, 250°F	* MS21042-06 * MS21042-08 * MS21042-3 * MS21042-4 * MS21042-5 * MS21042-6 (NASM21042)	Nut, Self-Locking, 450°F, Reduced Hexagon, Reduced Height, Ring Base, Non-Corrosion Resistant Steel	
* MS20364-( ) * MS20364-( )A (Except for MS20364-1614, MS20364-1614A)	Nut, Self-Locking, Thin, 250°F	* MS21083N( ) (NASM21083)	Nut, Self-Locking, Hexagon, Non-Metallic Insert, Low Height, 250°F	

ORIGINAL HARDWARE		SUBSTITUTE HARDWARE		NOTES
P/N	DESCRIPTION	P/N	DESCRIPTION	
* MS20364D( ) * MS20364D( )C * MS20364D( )A (Except for MS20364D1614, MS20364D1614A, MS20364D1614C)	Nut, Self-Locking, Thin, 250°F	* MS21083D( ) (NASM21083)	Nut, Self-Locking, Hexagon, Non-Metallic Insert, Low Height, 250°F	
* MS20364B( ) * MS20364B( )C * MS20364B( )A (Except for MS20364B1614, MS20364B1614A, MS20364B1614C)	Nut, Self-Locking, Thin, 250°F	* MS21083B( ) (NASM21083)	Nut, Self-Locking, Hexagon, Non-Metallic Insert, Low Height, 250°F	
* MS20364-720C * MS20364-820C * MS20364-918C * MS20364-1018C * MS20364-1216C * MS20364-1414C * MS20364-1812C * MS20364-2012C	Nut, Self-Locking, Thin, 250°F	* MS21245-L( ) (NASM21245)	Nut, Self-Locking, Hexagon, Thin, 450°F, 80 KSI Ftu	
* MS20365-( ) (Except for MS20365-1614( ))	Nut, Self-Locking, 250°F	* MS21044N( ) (NASM21044)	Nut, Self-Locking, Hexagon, Regular Height, 250°F, 125 KSI Ftu and 60 KSI Ftu	
MS20365B( )( ) (Except for MS20365B1614( ))	Nut, Self-Locking, 250°F	MS21044B( ) (NASM21044)	Nut, Self-Locking, Hexagon, Regular Height, 250°F, 125 KSI Ftu and 60 KSI Ftu	
* MS20365D( ) (Except for MS20365D1614( ))	Nut, Self-Locking, 250°F	* MS21044D( ) (NASM21044)	Nut, Self-Locking, Hexagon, Regular Height, 250°F, 125 KSI Ftu and 60 KSI Ftu	
* MS20365-440C * MS20365-632C * MS20365-832C * MS20365-1032C * MS20365-428C * MS20365-524C * MS20365-624C	Nut, self-locking, 250°F	* MS21042-04 * MS21042-06 * MS21042-08 * MS21042-3 * MS21042-4 * MS21042-5 * MS21042-6 (NASM21042)	Nut, self-locking 450°F, reduced hexagon, reduced height, ring base, non-corrosion resistant steel	
* MS20392-( )-( )	Pin, straight, headed, drilled shank	* MS20392-( )C( ) (NASM20392)	Pin, straight, headed, drilled shank	
* MS20435-( )-( ) * MS20435-( )Z( ) * MS20435-( )C( ) * MS20435F( )-( )	Rivet, Round Head, Steel, Monel and Copper	* MS20613-( )P( ) * MS20613-( )P( ) * MS20613-( )P( ) * MS20613-( )C( ) (NASM20613)	Rivet, Solid, Universal Head, Steel, Carbon and Steel, Corrosion Resistant	
* MS20435M( )-( ) * MS20435M-( )C( ) * MS20435CU( )-( )	Rivet, Round Head, Steel, Monel and Copper	* MS20615-( )M( ) * MS20615-( )MP( ) * MS20615-( )CU( ) (NASM20615)	Rivet, Solid, Universal Head, Brass, Copper, Nickel-Copper Alloy	

ORIGINAL HARDWARE		SUBSTITUTE HARDWARE		NOTES
P/N	DESCRIPTION	P/N	DESCRIPTION	
*MS20604AD( )W( )	Rivet, Blind, Non-Structural, Universal Head, Class 1	*CR9117-( )-( )( ) (Excludes 5-02, 6-02, 8-02)	MS Rivet Serrated Stem, Pull-Through Universal Head	
* MS20819-( )D * MS20819-( )	Sleeve, Flared Tube Fitting Sleeve, Flared Tube Fitting	* AS3220W * AS5176	Fitting, Sleeve, Flared, Aluminum Fitting, Sleeve, Flared,	NOTE 1 & APPENDIX 16
* MS20913( )	Plug, Pipe	* AS4863( )	Plug, Pipe, External Thread	NOTE 1 & APPENDIX 17
MS20995NC( )	Wire, Safety or Lock, Ni-Cu Alloy (Monel)	MS20995C( ) (NASM20995)	Wire, Safety or Lock, Corrosion Resistant Steel	
* MS21075-( )	Nut, Self-Locking, Plate, Two-Lug, Floating, Reduced Rivet Spacing, Low Height, Steel, 125 KSI Ftu, 450°F	* MS21075-( )N (NASM21075)	Nut, Self-Locking, Plate, Two Lug, Floating, Reducing Rivet Spacing, Low Height, Steel, 125 KSI Ftu, 450°F	
* MS21208	Insert, Screw Thread, Course and Fine, Free Running, Helical Coil, CRES	*MS122076 thru 122115 *MS122116 thru 122155 *MS122156 thru 122195 *MS122196 thru 122235 *MS122236 thru 122275 *MS124651 thru 124690 *MS124691 thru 124730 *MS124731 thru 124770 *MS124771 thru 124810 *MS124811 thru 124850 (NASM)	Insert, Cres, Helical (Course) Insert, Cres, Helical (Course) Insert, Cres, Helical (Course) Insert, Cres, Helical (Course) Insert, Cres, Helical (Course) Insert, Cres, Helical (Fine) Insert, Cres, Helical (Fine) Insert, Cres, Helical (Fine) Insert, Cres, Helical (Fine) Insert, Cres, Helical (Fine)	
* MS21900-( ) * MS21900-( )C	Adapter, Flareless, Tube to a Flared Tube	* MS21900F( ) * MS21900J( ) (AS21900)	Adapter, Flareless, Tube to a Flared Tube	NOTE 6
* MS21902-( ) * MS21902D( ) * MS21902-( )C * MS21902C( )	Union, Flareless Tube	* MS21902V( )P * MS21902W( ) * MS21902J( ) * MS21902J( ) (AS21902)	Union, Flareless Tube	NOTE 6
* MS21904-( ) * MS21904D( ) * MS21904-( )C ** MS21904J( )	Elbow, Flared Tube	* MS21904V( )P * MS21904W( ) * MS21904J( ) (AS21904) ** AS1004J( )( )	Elbow, Flared Tube	NOTE 6 ** NOTE 7
* MS21905-( ) * MS21905D( ) * MS21905-( )C	Tee, Flareless Tube	* MS21905V( )P * MS21905W( ) * MS21905J( ) (AS21905)	Tee, Flareless Tube	NOTE 6
* MS21907-( ) * MS21907D( ) * MS21907-( )C * MS21907C( ) ** MS21907J( )	Elbow, Bulkhead Universal 45°, Flareless Tube	* MS21907V( )P * MS21907W( ) * MS21907J( ) * MS21907J( ) (AS21907) ** AS1010J( )( )	Elbow, Bulkhead Universal 45°, Flareless Tube	NOTE 6 ** NOTE 7
* MS21908-( ) * MS21908D( ) * MS21908-( )C ** MS21908J( )	Elbow, Bulkhead Universal 90°, Flareless Tube	* MS21908V( )P * MS21908W( ) * MS21908J( ) (AS21908) ** AS1008J( )( )	Elbow, Bulkhead Universal 90°, Flareless Tube	NOTE 6 ** NOTE 7

ORIGINAL HARDWARE		SUBSTITUTE HARDWARE		NOTES
P/N	DESCRIPTION	P/N	DESCRIPTION	
* MS21909-( ) * MS21909D( ) * MS21909-( )C	Tee, Bulkhead and Universal, Flareless Tube	* MS21909V( )P * MS21909W( ) * MS21909J( ) (AS21909)	Tee, Bulkhead and Universal, Flareless Tube	NOTE 6
* MS21910-( ) * MS21910D( ) * MS21910-( )C ** MS21910J( )	Tee, Bulkhead, Flareless Tube, Internal Thread on Side	* MS21910V( )P * MS21910W( ) * MS21910J( ) (AS21910) ** AS1001J( )( )( )	Tee, Bulkhead, Flareless Tube, Internal Thread on Side	NOTE 6 ** NOTE 7
* MS21911-( ) * MS21911D( ) * MS21911-( )C ** MS21911J( )	Tee, Bulkhead, Flareless Tube, Internal Thread on Run	* MS21911V( )P * MS21911W( ) * MS21911J( ) (AS21911) ** AS1002J( )( )( )	Tee, Bulkhead, Flareless Tube, Internal Thread on Run	NOTE 6 ** NOTE 7
* MS21912-( ) * MS21912D( ) * MS21912-( )C * MS21912C( ) ** MS21912J( )	Tee, Flareless Tube with Bulkhead on Run	* MS21912V( )P * MS21912W( ) * MS21912J( ) * MS21912J( ) (AS21912) ** AS1003J( )( )( )	Tee, Flareless Tube with Bulkhead on Run	NOTE 6 ** NOTE 7
* MS21913-( ) * MS21913D( )	Plug, Flareless Tube	* MS21913V( )P * MS21913W( ) (AS21913)	Plug, Flareless Tube	NOTE 6
* MS21914-( ) * MS21914D( )	Cap, Pressure Seal, Flareless Tube Fitting	* MS21914V( )P * MS21914W( ) (AS21914)	Cap, Pressure Seal, Flareless Tube Fitting	NOTE 6
* MS21915-( ) * MS21915D( )	Adapter, Straight, Tube to Boss	* MS21915V( )P * MS21915W( ) (AS21915)	Adapter, Straight, Tube to Boss	NOTE 6
* MS21916-( ) * MS21916D( ) * MS21916-( )-( )C	Reducer, External Thread, Flareless Tube	* MS21916V( )P * MS21916W( ) * MS21916J( )-( ) (AS21916)	Reducer, External Thread, Flareless Tube	NOTE 6
* MS21924-( )C * MS21924C( ) ** MS21924J( )	Union, Flareless Tube, Bulkhead and Universal	* MS21924J( ) * MS21924J( ) (AS21924) ** AS1007J( )( )	Union, Flareless Tube Bulkhead and Universal	NOTE 6 ** NOTE 7
* MS21926-( )C * MS21926C( )	Elbow, 90 Degree Universal, Flareless Tube, Low Profile	* MS21926J( ) * MS21926J( ) (AS21926)	Elbow, 90° Universal, Flareless Tube, Low Profile	NOTE 6
* MS21919( )	Clamp, Loop Type, Cushioned Support	* AS21919( )	Clamp, Loop Type, Cushioned Support	NOTE 1 & APPENDIX 18
* MS24392( )	Nipple, Tube, Precision Type	* AS5174( )	Fitting, Union and Reducer, Flared	NOTE 1 & APPENDIX 19
* MS24397	Reducer, Boss, Precision Type	* AS5172	Fitting, Adapter, Port, Reducer	NOTE 1 & APPENDIX 36
* MS24399( )	Reducer, Tube, Precision Type	* AS5174( )	Fitting, Union and Reducer, Flared	NOTE 1 & APPENDIX 20
* MS24665	Pin, Cotter (Split)	* MS24665 (NASM24665)	Pin, Cotter (Split)	NOTE 1 & APPENDIX 2
* MS25274	Cap, Electrical for 105ºC Total Conductor Temp.	* AS25274	Cap, Electrical for 105ºC Total Conductor Temp.	

ORIGINAL HARDWARE		SUBSTITUTE HARDWARE		NOTES
P/N	DESCRIPTION	P/N	DESCRIPTION	
MS27039	Screw, Machine-Pan Head, Structural, Cross Recessed	AN3 thru AN20 (NASM 3 thru 20)	Screw, Machine-Pan Head, Cruciform Recess (Bolt, Machine, Aircraft)	SEE PARA3.2.3
MS27253F( )	Plate, Identification, Aluminum Foil Decal	MS27253-( )	Plate, Identification, Aluminum	
* MS27769D( )	Plug, Pipe, Countersink Hex Head	* MS27769W( )	Plug, Pipe, Countersink Hex Head	
MS29561-( ) MS28778-( )	Packings	M83248/1-( ) (MIL-R-83248)	Rubber, Fluorocarbon Elastomer, High Temperature, Fluid and Compression Set Resistant, O-Rings, Class 1, 75 Hardness	
* MS33737-( )	Nut, Sheet Spring, Instrument Mounting	* MS33737-( )C (NASM33737)	Nut, Sheet Spring, Instrument Mounting	
* MS35223-( )	Screw, Machine, Pan Head, Slotted, Carbon Steel, Cadmium Plated, NC-2A and UNC-2A	* MS35206-( ) (NASM35206)	Screw, Machine – Pan Head, Cross-Recessed, Carbon Steel, Cadmium Plated, UNC-2A	NOTE 1 & APPENDIX 21
MS35490-( )	Grommet, Rubber – Split, General Purpose	MS35489-( )	Grommets, Synthetic and Silicone Rubber, Hot-Oil and Coolant Resistant	MS35489 solid grommets should be split at assembly when necessary for replacement of MS35490 split grommets.
MS51989	Stud, Locked In-Ring Locked, Serrated	MS51989 (AS51989)	Stud, Locked In-Ring Locked, Serrated	NOTE 4
MS51990	Ring, Lock, Serrated	MS51990 (AS51990)	Ring, Lock, Serrated	NOTE 4
MS51991	Insert, Screw Thread – Locked in, Ring Locked, Serrated	MS51991	Insert, Screw Thread – Locked in, Ring Locked, Serrated	NOTE 4
MS51992	Stud, Locked In-Ring Locked, Serrated, High Strength	MS51992 (AS51992)	Stud, Locked In-Ring Locked, Serrated, High Strength	NOTE 4
MS51993	Insert, Screw Thread – Locked in, Ring Locked, Serrated, High Strength	MS51993	Insert, Screw Thread – Locked in, Ring Locked, Serrated, High Strength	NOTE 4
MS51997	Ring, Lock, Serrated-High Strength	MS51997 (AS51997)	Ring, Lock, Serrated-High Strength	NOTE 4
NAS42DD( )-( )	Spacer, Sleeve – Rivet	NAS42DD( )-( )N	Spacer, Sleeve – Rivet	
* NAS43DD( )-( )	Spacer, Sleeve – Screw and Bolt	* NAS43DD( )-( )N * NAS43DD( )-( )FC	Spacer, Sleeve – Screw and Bolt	'FC' Surface Finish Limited to Interior and Upper Fuselage
NAS144-158	Bolt, Internal Wrenching, Steel	* NASM20004-20024 (MS20004-20024)	Bolts, Internal Wrenching	NOTE 1
NAS334-14	Screw, shear, 100° standard flush head, close tolerance	NAS334CA14N	Screw, shear, 100° standard flush head, close tolerance	
NAS333 thru NAS340 A series	Screw, shear, 100° standard flush head, close tolerance	NAS333 thru NAS340 CPA or CA series	Screw, shear, 100° standard flush head, close tolerance	Determine Cotter Pin Req's

ORIGINAL HARDWARE		SUBSTITUTE HARDWARE		NOTES
P/N	DESCRIPTION	P/N	DESCRIPTION	
* NAS428-( )-( )	Bolt, Machine, Crowned Hexagon Head	* NAS428-( )A( ) * NAS428( )()A( )	Bolt, Machine, Crowned Hexagon Head	
NAS464P-3-( ) thru NAS464P-14-( ) NAS464P-17-( )	Bolt-Shear, Close Tolerance	NAS6203-( )D thru NAS6214-( )D NAS6216-( )D (NAS6203 thru 6220)	Bolt, Tension, Hex Head, Close Tolerance, Alloy Steel, Short Thread, Reduced Major Thread Dia., Self-Locking and Nonlocking, 160 KSI Ftu	See Section 3.2.5
* NAS514-( )-( )	Screw, Machine, 100°, Flat Head, Full Threaded, Alloy Steel	* NAS514P( )-( )	Screw, Machine, 100°, Flat Head, Full Threaded, Alloy Steel	
*NAS537-( )P-(XX)	Bushing, Sleeve, Press Fit, Undersize Diameter	*NAS537-( )P(XXX)	Bushing, Sleeve, Press Fit, Undersize Diameter	Length is a 3 Digit Callout
*NAS538-( )P-(XX)	Bushing, Flanged, Press Fit, Undersize Inside Diameter	*NAS538-( )P(XXX)	Bushing, Flanged, Press Fit, Undersize Inside Diameter	Length is a 3 Digit Callout
* NAS577-( ) * NAS577-( )A * NAS577-( )AX * NAS577-( )F * NAS577-( )FX	Nut, Self-Locking, Barrel, Floating 180 KSI Ftu	* NAS577B( )A * NAS577B( )A * NAS577B( )AX * NAS577B( )F * NAS577B( )FX	Nut, Self-Locking, Barrel, Floating 180 KSI Ftu	
* NAS592-( )	Ring, Rigid Tube Connector, Aluminum	* NAS592-( )E	Ring, Rigid Tube Connector, Aluminum	
* NAS649	Barrel, Turnbuckle Clip Locking	* MS21251	Turnbuckle Body, Clip Locking	
NAS651-( )	Clip, Turnbuckle Locking	MS21256-( )	Clip, Locking, Turnbuckle	
* NAS680X( ) * NAS680A( ) * NAS680A( )K * NAS680X( )K	Nut, Self-Locking, Plate, Two Lug, Low Height	* MS21047-( ) * MS21047L( ) * MS21047L( )K * MS21047-( )K (NASM21047)	Nut, Self-Locking, Plate, Two-Lug, Low Height, Steel, 125 KSI Ftu, 450°F	NOTE 1 & APPENDIX 1
* NAS680C( ) * NAS680C( )K * NAS680C( )M * NAS680C( )MK	Nut, Self-Locking, Plate, Two Lug, Low Height	* MS21048-( ) * MS21048-( )K * MS21048L( ) * MS21048L( )K (NASM21048)	Nut, Self-Locking, Plate, Two-Lug, Low Height, CRES, 125 KSI Ftu, 450° and 800°F	NOTE 1 & APPENDIX 1
* NAS682X( ) * NAS682X( )K * NAS682A( ) * NAS682A( )K		* MS21051-( ) * MS21051-( )K * MS21051L( ) * MS21051L( )K (NASM21051)	Nut, Self-Locking, Plate, One Lug, Low Height, Steel, 125 KSI Ftu, 450°F	
* NAS686A( ) * NAS686A( )K * NAS686X( ) * NAS686X( )K	Nut, Self-Locking, Plate – Two Lug, Low Height, C'Bore, Floating	* MS21059L( ) * MS21059L( )K * MS21059-( ) * MS21059-( )K (NASM21059)	Nut, Self-Locking, Plate, Two Lug, Floating, Low Height Steel, 125 KSI Ftu, 450°F	
NAS696A( ) NAS696X( )	Nut, Self-Locking, Plate – One Lug, Low Height, C'Bore, Reduced Rivet Spacing	MS21071L( ) MS21071-( ) (NASM21071)	Nut, Self-Locking, Plate – One Lug, Low Height, C'Bore, Reduced Rivet Spacing	

ORIGINAL HARDWARE		SUBSTITUTE HARDWARE		NOTES
P/N	DESCRIPTION	P/N	DESCRIPTION	
NAS696C( ) NAS696C( )M	Nut, Self-Locking, Plate – One Lug, Low Height, C'Bore, Reduced Rivet Spacing	MS21072-( ) MS21072L( ) (NASM21072)	Nut, Self-Locking, Plate – One Lug, Reduced Rivet Spacing, Low Height, CRES, 125 KSI Ftu, 450° and 800°F	
* NAS697	Nut, Self-Locking, Plate-Two Lug, Low Height, C'Bore, Reduced Rivet Spacing	* MS21069 (NASM21069)	Nut, Self-Locking, Plate, Two-Lug, Reduced Rivet Spacing, Low Height, Steel, 125 KSI Ftu, 450°F	NOTE 1 & APPENDIX 22
* NAS1031A( ) * NAS1031A( )K * NAS1031X( ) * NAS1031X( )K	Nut, Self-Locking, Plate, Two Lug, Regular Height, Floating	* MS21059L( ) * MS21059L( )K * MS21059-( ) * MS21059-( )K (NASM21059)	Nut, Self-Locking, Plate, Two Lug, Floating, Low Height Steel, 125 KSI Ftu, 450°F	
*NAS1023	Nut, Self-Locking, Plate, Two Lug, Regular Height, Non-CSK	*MS21078-( ) (NASM21078)	Nut, Self-Locking, Plate, Two Lug, Non-Metallic Insert, Steel, 125 KSI Ftu, 250°F	NOTE 1 & APPENDIX 1
* NAS1031C( )	Nut, Self-Locking, Plate, Two Lug, Regular Height, Floating	* MS21060-( ) (NASM21060)	Nut, Self-Locking, Plate, Two Lug, Floating, Low Height, CRES, 125 KSI Ftu, 450°F & 800°F	
* NAS1031N( )	Nut, Self-Locking, Plate, Two Lug, Regular Height, Floating	* MS21077-( ) (NASM21077)	Nut, Self-Locking, Plate, Two Lug, Floating, Non-Metallic Insert, Steel, 125 KSI Ftu, 250°F	
* NAS1089	Streamer, Warning	* NAS1756	Streamer, Warning	
* NAS1303-1320	Bolt, Tension, Hexagon Head 160 KSI Ftu	* NAS6603-6620	Bolt, Tension, Hex Head, Close Tolerance, Alloy Steel, Long Thread, Reduced Major Dia., Self locking and non locking, 160 KSI	
* NAS1598-( )N * NAS1598-( )R * NAS1598-( )Y * NAS1598C( )N * NAS1598C( )R * NAS1598C( )Y * NAS1598D( )N * NAS1598D( )R * NAS1598D( )Y	Washer – Sealing	* NAS1523-( )N * NAS1523-( )R * NAS1523-( )Y * NAS1523C( )N * NAS1523C( )R * NAS1523C( )Y * NAS1523AA( )N * NAS1523AA( )R * NAS1523AA( )Y	Packing with Retainer	
* NMC-G51H-C	Grommet, Caterpillar	* MS21266-3N	Grommet, Plastic, Edging	
* P( ) * XP( )	Blind Rivet, Conical, Keystone Lock, Self-Plugging, Locked Spindle, Protruding Head	CR3213-( ) * NAS1919	Blind Rivet, Universal Head	NOTE 1 & 3 & APPENDIX 23 XP4 thru XP6 are sub for XP04 thru XP06

ORIGINAL HARDWARE		SUBSTITUTE HARDWARE		NOTES
P/N	DESCRIPTION	P/N	DESCRIPTION	
* P( ) * XP( )	Blind Rivet, Conical, Keystone Lock, Self-Plugging, Locked Spindle, Protruding Head	*MS20470AD( )	Solid Rivet, Universal Head, Aluminum Alloy and Titanium Columbium Alloy	NOTE 5
* PFSC3 1/2-38AEPB (DZUS)	Stud Assy	* D5-PFSC35-38ASEBNA (DFCI) * 3506-SC38A-Z3B (Southco) * D5-PFSC35-38ACBBNA (Southco)	Stud Assy	NOTE 1 & APPENDIX 38
* PFSC35-38A (DZUS)	Stud Assy	* D5-PFSC35-38ASEBNA (Southco)	Stud Assy	NOTE 1 & APPENDIX 38
* PFSC35-38AZBB (DZUS)	Stud Assy	* D5-PFSC35-38AZCTNA (Southco)	Stud Assy	NOTE 1 & APPENDIX 38
* PPG164-( ) * PPG200-( ) * PPG260-( ) * PPG312-( ) * PPG375-( )	Jo-Bolt, Alloy Steel, Ground Shank, Protruding Head	* HL18PB( )-5-( ) * HL18PB( )-6-( ) * HL18PB( )-8-( ) * HL18PB( )-10-( ) * HL18PB( )-12-( )	Blind Fastener, Internally Threaded, External Sleeve, Protruding Head, Self-Locking	HL18PB is a direct replacement for the PPG as shown if accessible. Use HL70 Collars.
PPG164-( ) 200-( ) 260-( ) 312-( )	Jo-Bolt, Alloy Steel, Ground Shank, Protruding Head	NAS1669-( )	Blind Fastener, Internally Threaded, External Sleeve, Protruding Head, Self-Locking	
PPG375-( )	Jo-Bolt, Alloy Steel, Ground Shank, Protruding Head	MS90354-( ) (NASM90354)	Blind Fastener, High Strength, Positive Mechanical Lock, Protruding Head, Alloy Steel, 112 KSI FSU	
*R1700	Insert, Ring Locked, Hydraulic	*RJ1700 *SLRJ1700	Insert, (Series) Ring Locked, Hydraulic	NOTE 4
* RD10X( )SA( )	Insert	* RDJ10X( )SA( )	RDJ100 Inserts-Ring Locked, Fine Internal and Coarse External Threads, Alloy Steel, 125KSI FSU, Cadmium Plated	NOTE 2
* RD20X( )SA( )	Insert	* RDJ20X( )SA( )	RDJ200 Inserts-Ring Locked, Fine Internal and Coarse External Threads, Alloy Steel, 125KSI FSU, Cadmium Plated	NOTE 2
* RD20X( )SB( )	Insert	* RDJ20X( )SB( )	RDJ200 Inserts-Ring Locked, Fine Internal and Coarse External Threads, 1117 Steel, Cadmium Plated	NOTE 2

ORIGINAL HARDWARE		SUBSTITUTE HARDWARE		NOTES
P/N	DESCRIPTION	P/N	DESCRIPTION	
* RD3607	Insert	* RDJ3607 * SL-RDJ3607	RDJ3600 Inserts-Ring Locked, High Strength, 4340 Steel, 160-180KSI FSU, Cadmium Plated	NOTE 4
* RD3608	Insert	* RDJ3608 * SL-RDJ3607	RDJ3600 Inserts-Ring Locked, High Strength, 4340 Steel, 160-180KSI FSU, Cadmium Plated	NOTE 4
* RL( )SB( )	Lockring	* RL( )SA( )	Lockring	NOTE 4
* RLA( )SB( )	Washer Seat	* RLA( )SA( )	Washer Seat	
* RLM( )SC	Lockring	* RLM( )SA	Lockring	NOTE 4
* RLR( )SB( )	Lockring	* RLR( )SA( )	Lockring	NOTE 4
* RLRR( )SB( )	Lockring	* RLRR( )SA( )	Lockring	NOTE 4
* RLRRM( )SC	Lockring	* RLRRM( )SA	Lockring	NOTE 4
* RR( ) * RR( )C * RR( )CD * RR( )S	Retaining Ring	* WH( ) * WH( )CA * WH( )CD * WH( )S02	Retaining Ring	P/N MAY OR MAYNOT USE DASHES
* RRN( ) * RRN( )C * RRN( )CD * RRN( )CJ * RRN( )S	Retaining Ring	* WHM( ) * WHM( )CA * WHM( )CD * WHM( )CA * WHM( )S02	Retaining Ring	P/N MAY OR MAYNOT USE DASHES
* RRT( ) * RRT( )C * RRT( )CD * RRT( )S	Retaining Ring	* WHT( ) * WHT( )CA * WHT( )CD * WHT( )S02	Retaining Ring	P/N MAY OR MAYNOT USE DASHES
* R205( )	Insert	* RJ205( )	RJ200( ) Series Inserts-Ring Locked, Fine Internal and Coarse External Threads, Alloy Steel, 125KSI FSU, Cadmium Plated	NOTE 2
* R3001-T6-( ) * R3001-T8-( )	Lockbolt, Pin, Pull Type, Alloy Steel, Protruding Head Tension	* NAS1466-( ) * NAS1468-( )	Pin, Swage, Locking, Steel, Standard and Oversize, Protruding Head, Tension, Pull-Type	
* S3-150 (DZUS)	S-Spring	* 1219-3150-Z3CT (DFCI) * D4-S3-150ZCTNA (Southco)	S-Spring	NOTE 1 & APPENDIX 38

ORIGINAL HARDWARE		SUBSTITUTE HARDWARE		NOTES
P/N	DESCRIPTION	P/N	DESCRIPTION	
* S3-175 (DZUS)	S-Spring	* 1219-3175-Z3CT (DFCI) * D4-S3-175ZCTNA (Southco)	S-Spring	NOTE 1 & APPENDIX 38
* S4-200 (DZUS)	S-Spring	* 1219-4200-Z3CT (DFCI) * D4-S4-200ZCTNA (Southco)	S-Spring	NOTE 1 & APPENDIX 38
* S10K80	RIVNUT, Flat Head Round Body Open End (inch)	* NAS1329S3K80	Nut, Blind Rivet, Flat Head, Internal Thread, Non-Locking and Self-Locking	
* SFJ111-14AS-16A	Stud - Ring Locked	* HS4773-111-14-16A * HS4773M5616( ) * MS51551D106A16	Stud - Ring Locked	NOTE 1 & 4
* SS1049	Clip, Unequal Legs	* ES1049	Clip, Unequal Legs	
* SS1050	Clip, Unequal Legs	* ES1050	Clip, Unequal Legs	
* SS1051	Clip, Equal Legs	* ES1051	Clip, Equal Legs	
* SS1052	Clip, Equal Legs	* ES1052	Clip, Equal Legs	
* SS1053	Clip, Open & Closed Angle	* ES1053	Clip, Open & Closed Angle	
* SS4007	Bushing Close Tolerance Slide Fit	* ES4007	Bushing Close Tolerance Slide Fit	
* SS4021	Bolt or Stud Seal	* NAS1598	Washer, Sealing	NOTE 1
* SS4409	Washer, Metallic Special	* SS4409	Washer, Metallic Special	
* SS5013	Screw, Washer Head, Regular & Self-Locking	* SS5013	Screw, Washer Head, Regular & Self-Locking	
* SS5075	Lockwasher Bearing Code Indent 78286	* ES5075	Lockwasher, Bearing	
* SS5081	Nut, Self Locking Double Hex 180 ksi	*SS5086	Nut-Self Locking, 12 Point, LW, Aly Steel and A286	
* SS7000-( )A	Plate Assembly Mounting, Console Type, Aircraft	* SS7000-( )H	Plate Assembly Mounting, Console Type, Aircraft	
* SS7560D( ) * SS7560D( )AF	Clamp, Loop, Cushioned, Wedge, Self Retaining	* AS21919WDE( ) or * AS21919WDF( ) or * AS21919WDG( )	Clamp, Loop Type, Cushioned Support	
* SS7560H( ) * SS7560H( )AF	Clamp, Loop, Cushioned, Wedge, Self Retaining	* AS21919WCE( ) or * AS21919WCF( ) or * AS21919WCG( ) or	Clamp, Loop Type, Cushioned Support	
* SS7560H( )HR * SS7560H( )HY	Clamp, Loop, Cushioned, Wedge, Self Retaining	* AS21919WCH( )	Clamp, Loop Type, Cushioned Support	
* SS7560H( )FS * SS7560H( )R	Clamp, Loop, Cushioned, Wedge, Self Retaining	* AS21919WCH( ) or * AS21919WCJ( )	Clamp, Loop Type, Cushioned Support	

ORIGINAL HARDWARE		SUBSTITUTE HARDWARE		NOTES
P/N	DESCRIPTION	P/N	DESCRIPTION	
* SS9030	Tape Identification Tubing – Printed	* SS9030	Tape Identification Tubing – Printed	
* SS9054	Correction Card Air Speed	* ES9054	Correction Card Air Speed	
* SS9067	Identification Plate Multiple Lines	* SS9067	Identification Plate Multiple Lines	
* SS9991	Nut Plate, Self-Locking	Multiple	Nut Plate, Self-Locking	SS9991 PROVIDES A CROSS REFERENCE TO MULTIPLE SELF-LOCKING NUT PLATES
* 100V( )	Blind Rivet, “Keystone”, 100° CSK Head	* NAS1921 CR3212-( )	Blind Rivet, 100° CSK Head	NOTE 1 APPENDIX 24
* 100( ) * X100V( )	Blind Rivet, Conical, Keystone Lock, Self-Plugging, Locked Spindle, 100° Flush Head	*MS20426AD( ) (NASM20426)	Solid Rivet, Countersunk 100° Precision Head, Aluminum Alloy and Titanium Columbium Alloy	NOTE 5
* 1219-L4-305-Z3Y (DFCI)	Receptacle (DFCI)	* D4-SL4-305ZBYNA (Southco)	Receptacle	NOTE 1 & APPENDIX 38
(ZE)1802 (ESNA)	Hex, High Temperature 8-32 thru ½-20 to 1200°F	MS20500	Nut, Self Locking, Hexagon 1200°F, 125 KSI FTU	
* 3506-SC44CP26-Z3BT (DFCI)	Stud Assembly (DFCI)	* DS-PFSC3544CP26ZBTNA (Southco)	Stud Assembly	NOTE 1 & APPENDIX 38

NOTES:

1. The substitute item is an acceptable replacement; however, it is important to verify interchangeability by viewing the available part number cross reference chart since the material codes and dash numbers can differ.
2. Insert part numbers with a dash after the material codes are equivalent to ones without a dash after the material code (e.g. RD206SA-8 is equivalent to RD206SA8).
3. P4 thru P6 & XP4 thru XP6 rivets are the same as P04 thru P06 & XP04 thru XP06 rivets.
4. Prefix SL (Shur-Lok) is a manufacture designation and is acceptable as an alternate to ms51*** series (Arconic, Alcoa, Fairchild, etc.) fasteners and general series of Rosan products.
   a. For Lockring's, it is acceptable to use alternate MS series as direct replacements.
      Eg. Rosan Lockring RLRR series to MS51990 and MS51997 series;
      Rosan Stud SF, SC, series to MS51989 series;
      Rosan Stud SFT series to MS51992 series;
      Rosan Stud SFR series to MS51497;
      Rosan Insert RJ and RDJ series to MS51991;
      Rosan Insert RD series to MS51993.
   b. RLRR( )SA or SB( ) Lock Rings are a direct replacement for RL( )SA or SB( ) Lock Rings.
5. Use of solid rivet as a substitute for blind rivets is acceptable if sufficient room exists for installation.
6. CRES material codes J, K, R, S, V and V( )P may be used interchangeably for hydraulic fittings that reference this note. i.e. MS21902K( ) may be used as an alternate for MS21902J( ). MS21902-( )R may be used as an alternate for MS21902J( ).
7. When using the AS P/N size codes are repeated for how many ports the fitting has. i.e. An MS21908J16 elbow would alternate to AS1008J1616. An MS21910J10 Tee would alternate to AS1001J101010. Etc. Notes 6 and 7 may be used in conjunction with each other.

5. ALPHABETICAL INDEX FOR TABLE 1:

REMOVED.

APPENDIX

	Original Specification	Substitute Specification
1	AN362, AN366, NAS680, NAS1023	MS21047, MS21048, and MS21078
2	AN380 and AN381 w/MS24665 cancel's	MS24665
3	Removed AN783 ~ See Table 1	Removed AS1031
4	Removed AN814 ~ See Table 1	Removed AS5169
5	AN815	AS5174
6	AN824	AS1035
7	AN833	AS1038
8	AN919	AS5174
9	AN935	MS35338
10	AN960	NAS1149
11	AN6230	MS28775 (AS28775)
12	Removed MS9970 ~ See Table 1	Removed AS3581
13	MS15001	AS15001
14	MS15002	AS15002
15	MS15003	AS15003
16	MS20819 (AN819)	AS3220 or AS5176
17	MS20913	AS4863
18	MS21919	AS21919
19	MS24392	AS5174
20	MS24399	AS5174
21	MS35223	MS35206
22	NAS697	MS21069
23	P & XP	NAS1919
24	100V	NAS1921
25	AN6227	MS28775
26	AN804	AS1033
27	AN806	AS5168
28	AN816	AS5194
29	AN821	AS1034
30	AN822	AS5195
31	AN823	AS5196
32	AN500	MS35265 or MS35273 or MS35275
33	AN827	AS1036
34	AN911	AS4860
35	AN893	AS5172
36	MS24397	AS5172
37	AN501	MS35266
38	DZUS and DFCI	Southco

Appendix 1: AN362, AN366, NAS680, NAS1023 to MS21047, MS21048 and MS21078

INTERCHANGEABILITY RELATIONSHIP:

MS21047 NUTS CAN UNIVERSALLY REPLACE AN362, AN366, NAS680 AND NAS1023 NUTS OF LIKE MATERIAL, THREAD SIZE, LUBRICANT (DRY FILM OR NON-DRY FILM LUBRICANT) AND FASTENING METHOD (PLAIN RIVET HOLE; DIMPLED OR COUNTERSUNK RIVET HOLES). BUT THESE AN362, AN366, NAS680, AND NAS1023 NUTS CANNOT UNIVERSALLY REPLACE MS21047 NUTS.

TABLE II – INTERCHANGEABILITY TABLE

CANCELLED PART NUMBER	SUBSTITUTIVE PART NUMBER	CANCELLED PART NUMBER	SUBSTITUTIVE PART NUMBER
NAS1023A04	MS21047L04	NAS1023A5	MS21047L5
NAS1023A04K	MS21047L04K	NAS1023A5K	MS21047L5K
NAS1023AX04	MS21047-04	NAS1023AX5	MS21047-5
NAS1023AX04K	MS21047-04K	NAS1023AX5K	MS21047-5K
NAS1023A06	MS21047L06	NAS1023A6	MS21047L6
NAS1023A06K	MS21047L06K	NAS1023AX6	MS21047-6
NAS1023AX06	MS21047-06	NAS1023A7	MS21047L7
NAS1023AX06K	MS21047-06K	NAS1023AX7	MS21047-7
NAS1023A08	MS21047L08	NAS1023A8	MS21047L8
NAS1023A08K	MS21047L08K	NAS1023AX8	MS21047-8
NAS1023AX08	MS21047-08	NAS1023A9	MS21047L9
NAS1023AX08K	MS21047-08K	NAS1023AX9	MS21047-9
NAS1023A3	MS21047L3	NAS1023A10	MS21047L10
NAS1023A3K	MS21047L3K	NAS1023AX10	MS21047-10
NAS1023AX3	MS21047-3	---	---
NAS1023AX3K	MS21047-3K	---	---
NAS1023A4	MS21047L4	---	---
NAS1023A4K	MS21047L4K	---	---
NAS1023AX4	MS21047-4	---	---
NAS1023AX4K	MS21047-4K	---	---

TABLE II – INTERCHANGEABILITY (CONTINUED)

CANCELLED PART NUMBERS			SUBSTITUTIVE PART NUMBERS	CANCELLED PART NUMBERS			SUBSTITUTIVE PART NUMBERS
---	---	---	MS21047-04	---	AN366F1032B	---	MS21047L3
---	---	NAS680X04K	MS21047-04K	---	---	NAS680A3K	MS21047L3K
---	---	NAS680A04	MS21047L04	AN362F428	AN366F428	---	MS21047-4
---	---	NAS680A04K	MS21047L04K	---	AN366F428B	---	MS21047-4
AN362F632	AN366F632	---	MS21047-06	---	---	NAS680X4K	MS21047-4K
---	AN366F632B	---	MS21047-06	AN362F428	AN366F428	NAS680A4	MS21047L4
---	---	NAS680X06K	MS21047-06K	---	AN366F428B	---	MS21047L4
AN362F632	AN366F632	NAS680A06	MS21047L06	---	---	NAS680A4K	MS21047L4K
---	AN366F632B	---	MS21047L06	AN362F524	AN366F524	---	MS21047-5
---	---	NAS680A06K	MS21047L06K	---	AN366F524B	---	MS21047-5
AN362F832	AN366F832	---	MS21047-08	---	---	NAS680X5K	MS21047-5K
---	AN366F832B	---	MS21047-08	AN362F524	AN366F524	NAS680A5	MS21047L5
---	---	NAS680X08K	MS21047-08K	---	AN366F524B	---	MS21047L5
AN362F832	AN366F832	NAS680A08	MS21047L08	---	---	NAS680A5K	MS21047L5K
---	AN366F832B	---	MS21047L08	AN362F624	AN366F624	---	MS21047-6
---	---	NAS680A08K	MS21047L08K	---	AN366F624B	---	MS21047-6
AN362F1032	AN366F1032	---	MS21047-3	AN362F624	AN366F624	NAS680A6	MS21047L6
---	AN366F1032B	---	MS21047-3	---	AN366F624B	---	MS21047L6
---	---	NAS680X3K	MS21047-3K	---	---	NAS680A7	MS21047L7
AN362F1032	AN366F1032	NAS680A3	MS21047L3				

Appendix 1: AN362, AN366, NAS680, NAS1023 to MS21047, MS21048 and MS21078 (continue)

INTERCHANGEABILITY RELATIONSHIP

MS21048 NUTS CAN UNIVERSALLY REPLACE AN362, AN366, NAS680 AND NAS1023 NUTS OF LIKE MATERIAL, THREAD SIZE, LUBRICANT (DRY FILM OR NON-DRY FILM LUBRICANT), AND FASTENING METHOD (PLAIN RIVET HOLES; DIMPLED OR COUNTERSUNK RIVET HOLES OR PROJECTION WELDING), BUT THESE AN362, AN366, NAS680 AND NAS1023 NUTS CANNOT UNIVERSALLY REPLACE MS21048 NUTS.

TABLE II – INTERCHANGEABILITY

CANCELLED PART NUMBER	SUBSTITUTIVE PART NUMBER	CANCELLED PART NUMBER	SUBSTITUTIVE PART NUMBER
NAS1023C04	MS21048-04	NAS1023C4W	MS21048-4W
NAS1023C04K	MS21048-04K	NAS1023C5	MS21048-5
NAS1023C04W	MS21048-04W	NAS1023C5K	MS21048-5K
NAS1023C06	MS21048-06	NAS1023C5W	MS21048-5W
NAS1023C06K	MS21048-06K	NAS1023C6	MS21048-6
NAS1023C06W	MS21048-06W	NAS1023C6W	MS21048-6W
NAS1023C08	MS21048-08	NAS1023C7	MS21048-7
NAS1023C08K	MS21048-08K	NAS1023C7W	MS21048-7W
NAS1023C08W	MS21048-08W	NAS1023C8	MS21048-8
NAS1023C3	MS21048-3	NAS1023C8W	MS21048-8W
NAS1023C3K	MS21048-3K	NAS1023C9	MS21048-9
NAS1023C3W	MS21048-3W	NAS1023C9W	MS21048-9W
NAS1023C4	MS21048-4	NAS1023C10	MS21048-10
NAS1023C4K	MS21048-4K	NAS1023C10W	MS21048-10W

CANCELLED PART NUMBER			SUBSTITUTIVE PART NUMBER	CANCELLED PART NUMBER			SUBSTITUTIVE PART NUMBER
–	–	NAS680C04	MS21048-04	–	–	NAS680C3M	MS21048L3
–	–	NAS680C04K	MS21048-04K	–	–	NAS680C3MK	MS21048L3K
–	–	–	MS21048-04W	–	AN366WC1032	–	MS21048L3W
–	–	NAS680C04M	MS21048L04	AN362C428	–	NAS680C4	MS21048-4
–	–	NAS680C04MK	MS21048L04K	–	–	NAS680C4K	MS21048-4K
–	–	–	MS21048L04W	AN362WC428	–	–	MS21048-4W
AN362C632	–	NAS680C06	MS21048-06	–	AN366WC428B	–	MS21048L4W
–	–	NAS680C06K	MS21048-06K	–	–	NAS680C4M	MS21048L4
AN362WC632	–	–	MS21048-06W	–	–	NAS680C4MK	MS21048L4K
–	AN366WC632B	–	MS21048L06W	–	AN366WC428	–	MS21048L4W
–	–	NAS680C06M	MS21048L06	AN362C524	–	NAS680C5	MS21048-5
–	–	NAS680C06MK	MS21048L06K	–	–	NAS680C5K	MS21048-5K
–	AN366WC632	–	MS21048L06W	AN362WC524	–	–	MS21048-5W
AN362C832	–	NAS680C08	MS21048-08	–	–	NAS680C5M	MS21048L5
–	–	NAS680C08K	MS21048-08K	–	–	NAS680C5MK	MS21048L5K
AN362WC832	–	–	MS21048-08W	–	AN366WC524	–	MS21048L5W
–	AN366WC832B	–	MS21048L08W	AN362C624	–	NAS680C6	MS21048-6
–	–	NAS680C08M	MS21048L08	AN362WC624	–	–	MS21048-6W
–	–	NAS680C08MK	MS21048L08K	–	–	NAS680C6M	MS21048L6
–	AN366WC832	–	MS21048L08W	–	AN366WC624	–	MS21048L6W
AN362C1032	–	NAS680C3	MS21048-3	–	–	NAS680C7	MS21048-7
–	–	NAS680C3K	MS21048-3K	–	–	–	MS21048-7W
AN362WC1032	–	–	MS21048-3W	–	–	–	MS21048L7
–	AN366WC1032B	–	MS21048L3W	–	–	–	MS21048L7W

Appendix 1: AN362, AN366, NAS680, NAS1023 to MS21047, MS21048 and MS21078 (continue)

TABLE II – INTERCHANGEABILITY

CANCELLED PART NUMBERS		SUBSTITUTIVE PART NUMBERS
–	NAS1023N04	MS21078-04
–	NAS1023N04K	MS21078-04K
AN366F632	NAS1023N06	MS21078-06
AN366F632A	–	MS21078-06
–	NAS1023N06K	MS21078-06K
AN366F832	NAS1023N08	MS21078-08
AN366F832A	–	MS21078-08
–	NAS1023N08K	MS21078-08K
AN366F1032	NAS1023N3	MS21078-3
AN366F1032A	–	MS21078-3
–	NAS1023N3K	MS21078-3K
AN366F428	NAS1023N4	MS21078-4
AN366F428A	–	MS21078-4
–	NAS1023N4K	MS21078-4K
AN366F524	NAS1023N5	MS21078-5
AN366F524A	–	MS21078-5
–	NAS1023N5K	MS21078-5K
AN366F624	NAS1023N6	MS21078-6
AN366F624A	–	MS21078-6
–	NAS1023N6K	MS21078-6K
–	NAS1023N7	MS21078-7
–	NAS1023N8	MS21078-8
–	NAS1023N9	MS21078-9
–	NAS1023N10	MS21078-10

Appendix 2: AN380 and AN381 to MS24665 with MS24665 Cancellations

TABLE VII – CANCELLATIONS

THE PINS COVERED BY THE FOLLOWING DASH NUMBERS LISTED IN MS24665, REV. A ARE CANCELLED

CANCELLED MS24665 REV. A DASH NUMBER	USE MS24665 REV. E DASH NUMBER
3	5 /2/
20	22 /2//
	24 /2/
	24 /2/
	26 /2/
37	39 /2/
67	69 /2/
83	86 /2/
84	86 /2//
85	86 /2/
87	88 /2/
89	90 /2/
101	103 /2/
130	132 /2/
148	151 /2/
149	151 /2/
150	151 /2/
	153 /2/
	153 /2/
152	153 /2/
	155 /2/
154	155 /2/
	157 /2/
	159 /2/
	161 /2/
168	170 /2/
228	229 /2/
230	231 /2/
232	233 /2/
234	235 /2/
236	237 /2/
	298 /2/
	298 /2/
	300 /2/
299	300 /2/
301	302 /2/
303	304 /2/
305	306 /2/
307	308 /2/
	366 /2/
	368 /2/
	368 /2/
369	370 /2/
371	372 /2/
373	374 /2/
375	376 /2/
417	418 /2//
	436 /2/
	436 /2/
	436 /2/
435	436 /2/
	437 /2/
438	439 /2/
440	441 /2/
442	443 /2/
	513 /2/
514	515 /2/
757	758 /2/
773	774 /2/
789	790 /2/

/2/ SUGGESTED REPLACEMENT. DASH NUMBER INDICATED IS NEXT LONGER LENGTH.

Excerpt from NASM24665, Rev 1

Appendix 2: AN380 and AN381 to MS24665 with MS24665 Cancellations (continue)

TABLE VIII – INTERCHANGEABILITY
THE PINS COVERED BY THE FOLLOWING DASH NUMBERS LISTED IN AN380 AND AN381 ARE INACTIVE. USE ONLY INTERCHANGEABLE PINS LISTED IN THIS TABLE.

IN-ACTIVE	USE	IN-ACTIVE	USE	IN-ACTIVE	USE	IN-ACTIVE	USE	IN-ACTIVE	USE
AN380	MS24665	AN380	MS24665	AN381	MS24665	AN381	MS24665	AN381	MS24665
DASH NUMBER		DASH NUMBER		DASH NUMBER		DASH NUMBER		DASH NUMBER	
1-1	/3/	5-7	425	2-5	/3/	3-22	/3/	6-28	515
1-2	5	5-8	426	2-6	/3/	3-24	306	6-32	516
1-3	7	5-10	428	2-7	/3/	3-26	/3/	6-36	517
1-4	9	6-6	495	2-8	151	3-28	308	6-40	518
2-1	/3/	6-8	498	2-10	/3/	3-32	309	6-48	520
2-2	132	6-10	500	2-12	153	4-8	366	7-32	580
2-3	134	6-12	502	2-14	/3/	4-12	368	7-36	581
2-4	136	8-8	625	2-16	155	4-14	/3/	7-40	582
2-5	138	8-10	627	2-20	157	4-16	370	8-32	640
2-6	140	8-12	628	2-24	159	4-18	/3/	8-36	641
2-7	142	8-14	629	2-28	161	4-20	372	8-40	642
2-8	143	8-16	630	2-32	162	4-22	/3/	8-48	643
3-2	281			25-8	227	4-24	374	8-56	644
3-3	283	AN381		25-10	/3/	4-26	/3/	8-64	645
3-4	285			25-12	229	4-28	376	10-32	701
3-5	287	1-6	/3/	25-14	/3/	4-32	377	10-36	702
3-6	289	1-8	22	25-16	231	4-36	378	10-40	703
3-7	291	1-12	24	25-18	/3/	5-8	/3/		
3-8	292	1-16	26	25-20	233	5-12	436		
4-2	349	15-5	/3/	25-22	/3/	5-16	437		
4-3	351	15-6	/3/	25-24	235	5-18	/3/		
4-4	353	15-7	/3/	25-26	/3/	5-20	439		
4-5	355	15-8	86	25-28	237	5-22	/3/		
4-6	357	15-10	/3/	25-32	238	5-24	441		
4-7	359	15-12	88	3-8	298	5-26	/3/		
4-8	360	15-14	/3/	3-10	/3/	5-28	443		
4-10	362	15-16	90	3-12	300	5-32	444		
5-2	/3/	15-20	91	3-14	/3/	5-36	445		
5-3	418	15-24	92	3-16	302	5-40	446		
5-4	419	15-28	93	3-18	/3/	6-24	513		
5-5	421	15-32	94	3-20	304	6-26	/3/		
5-6	423								

/3/ NO REPLACEMENT *

* Engineering Note: Acceptable to use next longer length and trim ends as required to fit.

Excerpt from NASM24665, Rev 1

Appendix 3: AN783 to AS1031

REMOVED

Appendix 4: AN814 to AS5169

REMOVED

Appendix 5: AN 815 to AS5174

AN815 REV 9
NOTICE 2

TABLE I. AN815 REV 9 to SAE-AS5174, cross-reference data.

Cancelled AN PIN	Tube Size	Replacement AS PIN		Cancelled AN PIN	Tube Size	Replacement AS PIN
AN815-2	.125	AS5174-0202		AN815-8	.500	AS5174-0808
AN815-2D	.125	AS5174D0202	1/	AN815-8D	.500	AS5174D0808 1/
AN815-2D	.125	AS5174W0202	2/	AN815-8D	.500	AS5174W0808 2/
AN815-2J	.125	AS5174J0202		AN815-8J	.500	AS5174J0808
AN815-2K	.125	AS5174K0202		AN815-8K	.500	AS5174K0808
AN815-2S	.125	AS5174S0202	3/	AN815-8S	.500	AS5174S0808 3/
AN815-2S	.125	AS5174R0202	4/	AN815-8S	.500	AS5174R0808 4/
AN815-2T	.125	AS5174T0202		AN815-8T	.500	AS5174T0808
AN815-2W	.125	AS5174W0202		AN815-8W	.500	AS5174W0808
AN815-3	.188	AS5174-0303		AN815-10	.625	AS5174-1010
AN815-3D	.188	AS5174D0303	1/	AN815-10D	.625	AS5174D1010 1/
AN815-3D	.188	AS5174W0303	2/	AN815-10D	.625	AS5174W1010 2/
AN815-3J	.188	AS5174J0303		AN815-10J	.625	AS5174J1010
AN815-3K	.188	AS5174K0303		AN815-10K	.625	AS5174K1010
AN815-3S	.188	AS5174S0303	3/	AN815-10S	.625	AS5174S1010 3/
AN815-3S	.188	AS5174R0303	4/	AN815-10S	.625	AS5174R1010 4/
AN815-3T	.188	AS5174T0303		AN815-10T	.625	AS5174T1010
AN815-3W	.188	AS5174W0303		AN815-10W	.625	AS5174W1010
AN815-4	.250	AS5174-0404		AN815-12	.750	AS5174-1212
AN815-4D	.250	AS5174D0404	1/	AN815-12D	.750	AS5174D1212 1/
AN815-4D	.250	AS5174W0404	2/	AN815-12D	.750	AS5174W1212 2/
AN815-4J	.250	AS5174J0404		AN815-12J	.750	AS5174J1212
AN815-4K	.250	AS5174K0404		AN815-12K	.750	AS5174K1212
AN815-4S	.250	AS5174S0404	3/	AN815-12S	.750	AS5174S1212 3/
AN815-3S	.188	AS5174R0303	4/	AN815-10S	.625	AS5174R1010 4/
AN815-4T	.250	AS5174T0404		AN815-12T	.750	AS5174T1212
AN815-4W	.250	AS5174W0404		AN815-12W	.750	AS5174W1212
AN815-5	.312	AS5174-0505		AN815-16	1.000	AS5174-1616
AN815-5D	.312	AS5174D0505	1/	AN815-16D	1.000	AS5174D1616 1/
AN815-5D	.312	AS5174W0505	2/	AN815-16D	1.000	AS5174W1616 2/
AN815-5J	.312	AS5174J0505		AN815-16J	1.000	AS5174J1616
AN815-5K	.312	AS5174K0505		AN815-16K	1.000	AS5174K1616
AN815-5S	.312	AS5174S0505	3/	AN815-16S	1.000	AS5174S1616 3/
AN815-5S	.312	AS5174R0505	4/	AN815-16S	1.000	AS5174R1616 4/
AN815-5T	.312	AS5174T0505		AN815-16T	1.000	AS5174T1616
AN815-5W	.312	AS5174W0505		AN815-16W	1.000	AS5174W1616
AN815-6	.375	AS5174-0606		AN815-20	1.250	AS5174-2020
AN815-6D	.375	AS5174D0606	1/	AN815-20D	1.250	AS5174D2020 1/
AN815-6D	.375	AS5174W0606	2/	AN815-20D	1.250	AS5174W2020 2/
AN815-6J	.375	AS5174J0606		AN815-20J	1.250	AS5174J2020

See notes at end of tables

Excerpt from AN815, Rev 9, Notice 2

Appendix 5: (continue) AN 815 to AS5174

AN815 REV 9
NOTICE 2

TABLE I. AN815 REV 9 to SAE-AS5174, cross-reference data – Continued.

Cancelled AN PIN	Tube Size	Replacement AS PIN		Cancelled AN PIN	Tube Size	Replacement AS PIN
AN815-6K	.375	AS5174K0606		AN815-20K	1.250	AS5174K2020
AN815-6S	.375	AS5174S0606	3/	AN815-20S	1.250	AS5174S2020 3/
AN815-6S	.375	AS5174R0606	4/	AN815-20S	1.250	AS5174R2020 4/
AN815-6T	.375	AS5174T0606		AN815-20T	1.250	AS5174T2020
AN815-6W	.375	AS5174W0606		AN815-20W	1.250	AS5174W2020
AN815-24	1.500	AS5174-2424		AN815-40	2.500	AS5174-4040
AN815-24D	1.500	AS5174D2424	1/	AN815-40D	2.500	AS5174D4040 1/
AN815-24D	1.500	AS5174W2424	2/	AN815-40D	2.500	AS5174W4040 2/
AN815-24J	1.500	AS5174J2424		AN815-40J	2.500	AS5174J4040
AN815-24K	1.500	AS5174K2424		AN815-40K	2.500	AS5174K4040
AN815-24S	1.500	AS5174R2424	3/	AN815-40S	2.500	AS5174R4040 3/
AN815-24S	1.500	AS5174S2424	4/	AN815-40S	2.500	AS5174S4040 4/
AN815-24T	1.500	AS5174T2424		AN815-40T	2.500	AS5174T4040
AN815-24W	1.500	AS5174W2424		AN815-40W	2.500	AS5174W4040
AN815-28	1.750	AS5174-2828		AN815-48	3.000	AS5174-4848
AN815-28D	1.750	AS5174D2828	1/	AN815-48D	3.000	AS5174D4848 1/
AN815-28D	1.750	AS5174W2828	2/	AN815-48D	3.000	AS5174W4848 2/
AN815-28J	1.750	AS5174J2828		AN815-48J	3.000	AS5174J4848
AN815-28K	1.750	AS5174K2828		AN815-48K	3.000	AS5174K4848
AN815-28S	1.750	AS5174S2828	3/	AN815-48S	3.000	AS5174S4848 3/
AN815-28S	1.750	AS5174R2828	4/	AN815-48S	3.000	AS5174R4848 4/
AN815-28T	1.750	AS5174T2828		AN815-48T	3.000	AS5174T4848
AN815-28W	1.750	AS5174W2828		AN815-48W	3.000	AS5174W4848
AN815-32	2.000	AS5174-3232				
AN815-32D	2.000	AS5174D3232	1/			
AN815-32D	2.000	AS5174W3232	2/			
AN815-32J	2.000	AS5174J3232				
AN815-32K	2.000	AS5174K3232				
AN815-32S	2.000	AS5174S3232	3/			
AN815-32S	2.000	AS5174R3232	4/			
AN815-32T	2.000	AS5174T3232				
AN815-32W	2.000	AS5174W3232				

1/ For replacements parts, use code letter "D". Reason: SAE-G3 and DoD liaisons agreed to use code "D" for replacement PINs.
2/ For new design parts, use code letter "W" . Reason: SAE-G3 and DoD liaisons agreed to use code "W" for new design.
3/ For replacement parts: Use code letter "S". Reason: SAE-G3 and DoD liaisons agreed to use code "S" for replacement PINs.
4/ For new design parts. Use code letter "R". Reason: SAE-G3 and DoD liaisons agreed to use code "R" for new design.

Excerpt from AN815, Rev 9, Notice 2

Appendix 6: AN824 to AS1035

TABLE I. AN824 Rev 7 to SAE-AS1035, cross-reference data.

Cancelled AN PIN	Tube Size	Replacement AS PIN	New Design	Cancelled AN PIN	Tube Size	Replacement AS PIN	New Design
AN824-2	.125	AS1035-020202		AN824-10	.625	AS1035-101010	
AN824-2D	.125	AS1035 D020202	AS1035 W020202	AN824-10D	.625	AS1035 D101010	AS1035 W101010
AN824-2J	.125	AS1035 J020202		AN824-10J	.625	AS1035 J101010	
AN824-2K	.125	AS1035 K020202		AN824-10K	.625	AS1035 K101010	
AN824-2S	.125	AS1035 S020202	AS1035 R020202	AN824-10S	.625	AS1035 S101010	AS1035 R101010
AN824-2T	.125	AS1035 T020202		AN824-10T	.625	AS1035 T101010	
AN824-2W	.125	AS1035 W020202		AN824-10W	.625	AS1035 W101010	
AN824-3	.188	AS1035-030303		AN824-12	.750	AS1035-121212	
AN824-3D	.188	AS1035 D030303	AS1035 W030303	AN824-12D	.750	AS1035 D121212	AS1035 W121212
AN824-3J	.188	AS1035 J030303		AN824-12J	.750	AS1035 J121212	
AN824-3K	.188	AS1035 K030303		AN824-12K	.750	AS1035 K121212	
AN824-3S	.188	AS1035 S030303	AS1035 R030303	AN824-12S	.750	AS1035 S121212	AS1035 R121212
AN824-3T	.188	AS1035 T030303		AN824-12T	.750	AS1035 T121212	
AN824-3W	.188	AS1035 W030303		AN824-12W	.750	AS1035 W121212	
AN824-4	.250	AS1035-040404		AN824-16	1.000	AS1035-161616	
AN824-4D	.250	AS1035 D040404	AS1035 W040404	AN824-16D	1.000	AS1035 D161616	AS1035 W161616
AN824-4J	.250	AS1035 J040404		AN824-16J	1.000	AS1035 J161616	
AN824-4K	.250	AS1035 K040404		AN824-16K	1.000	AS1035 K161616	
AN824-4S	.250	AS1035 S040404	AS1035 R040404	AN824-16S	1.000	AS1035 S161616	AS1035 R161616
AN824-4T	.250	AS1035 T040404		AN824-16T	1.000	AS1035 T161616	
AN824-4W	.250	AS1035 W040404		AN824-16W	1.000	AS1035 W161616	

Excerpt from AN824, Rev 7, Notice 2

Appendix 6: AN824 to AS1035 (continue)

TABLE I. AN824 Rev 7 to SAE-AS1035, cross-reference data – Continued.

Cancelled AN PIN	Tube Size	Replacement AS PIN	New Design	Cancelled AN PIN	Tube Size	Replacement AS PIN	New Design
AN824-5	.312	AS1035-050505		AN824-20	1.250	AS1035-202020	
AN824-5D	.312	AS1035 D050505	AS1035 W050505	AN824-20D	1.250	AS1035 D202020	AS1035 W202020
AN824-5J	.312	AS1035 J050505		AN824-20J	1.250	AS1035 J202020	
AN824-5K	.312	AS1035 K050505		AN824-20K	1.250	AS1035 K202020	
AN824-5S	.312	AS1035 S050505	AS1035 R050505	AN824-20S	1.250	AS1035 S202020	AS1035 R202020
AN824-5T	.312	AS1035 T050505		AN824-20T	1.250	AS1035 T202020	
AN824-5W	.312	AS1035 W050505		AN824-20W	1.250	AS1035 W202020	
AN824-6	.375	AS1035-060606		AN824-24	1.500	AS1035-242424	
AN824-6D	.375	AS1035 D060606	AS1035 W060606	AN824-24D	1.500	AS1035 D242424	AS1035 W242424
AN824-6J	.375	AS1035 J060606		AN824-24J	1.500	AS1035 J242424	
AN824-6K	.375	AS1035 K060606		AN824-24K	1.500	AS1035 K242424	
AN824-6S	.375	AS1035 S060606	AS1035 R060606	AN824-24S	1.500	AS1035 S242424	AS1035 R242424
AN824-6T	.375	AS1035 T060606		AN824-24T	1.500	AS1035 T242424	
AN824-6W	.375	AS1035 W060606		AN824-24W	1.500	AS1035 W242424	
AN824-8	.500	AS1035-080808		AN824-28	1.750	AS1035-282828	
AN824-8D	.500	AS1035 D080808	AS1035 W080808	AN824-28D	1.750	AS1035 D282828	AS1035 W282828
AN824-8J	.500	AS1035 J080808		AN824-28J	1.750	AS1035 J282828	
AN824-8K	.500	AS1035 K080808		AN824-28K	1.750	AS1035 K282828	
AN824-8S	.500	AS1035 S080808	AS1035 R080808	AN824-28S	1.750	AS1035 S282828	AS1035 R282828
AN824-8T	.500	AS1035 T080808		AN824-28T	1.750	AS1035 T282828	
AN824-8W	.500	AS1035 W080808		AN824-28W	1.750	AS1035 W282828	

Excerpt from AN824, Rev 7, Notice 2

Appendix 6: AN824 to AS1035 (continue)

TABLE I. AN824 Rev 7 to SAE-AS1035, cross-reference data – Continued.

Cancelled AN PIN	Tube Size	Replacement AS PIN	New Design
AN824-32	2.000	AS1035-323232	
AN824-32D	2.000	AS1035 D323232	AS1035 W323232
AN824-32J	2.000	AS1035 J323232	
AN824-32K	2.000	AS1035 K323232	
AN824-32S	2.000	AS1035 S323232	AS1035 R323232
AN824-32T	2.000	AS1035 T323232	
AN824-32W	2.000	AS1035 W323232	

Excerpt from AN824, Rev 7, Notice 2

Appendix 7: AN833 to AS1038

TABLE I. AN833 Rev 8 to SAE-AS1038, cross-reference data.

Cancelled AN PIN	Tube Size	Replacement AS PIN	New Design	Cancelled AN PIN	Tube Size	Replacement AS PIN	New Design
AN833-2	.125	AS1038-0202		AN833-10	.625	AS1038-1010	
AN833-2D	.125	AS1038 D0202	AS1038 W0202	AN833-10D	.625	AS1038 D1010	AS1038 W1010
AN833-2J	.125	AS1038 J0202		AN833-10J	.625	AS1038 J1010	
AN833-2K	.125	AS1038 K0202		AN833-10K	.625	AS1038 K1010	
AN833-2S	.125	AS1038 S0202	AS1038 R0202	AN833-10S	.625	AS1038 S1010	AS1038 R1010
AN833-2T	.125	AS1038 T0202		AN833-10T	.625	AS1038 T1010	
AN833-2W	.125	AS1038 W0202		AN833-10W	.625	AS1038 W1010	
AN833-3	.188	AS1038-0303		AN833-12	.750	AS1038-1212	
AN833-3D	.188	AS1038 D0303	AS1038 W0303	AN833-12D	.750	AS1038 D1212	AS1038 W1212
AN833-3J	.188	AS1038 J0303		AN833-12J	.750	AS1038 J1212	
AN833-3K	.188	AS1038 K0303		AN833-12K	.750	AS1038 K1212	
AN833-3S	.188	AS1038 S0303	AS1038 R0303	AN833-12S	.750	AS1038 S1212	AS1038 R1212
AN833-3T	.188	AS1038 T0303		AN833-12T	.750	AS1038 T1212	
AN833-3W	.188	AS1038 W0303		AN833-12W	.750	AS1038 W1212	
AN833-4	.250	AS1038-0404		AN833-16	1.000	AS1038-1616	
AN833-4D	.250	AS1038 D0404	AS1038 W0404	AN833-16D	1.000	AS1038 D1616	AS1038 W1616
AN833-4J	.250	AS1038 J0404		AN833-16J	1.000	AS1038 J1616	
AN833-4K	.250	AS1038 K0404		AN833-16K	1.000	AS1038 K1616	
AN833-4S	.250	AS1038 S0404	AS1038 R0404	AN833-16S	1.000	AS1038 S1616	AS1038 R1616
AN833-4T	.250	AS1038 T0404		AN833-16T	1.000	AS1038 T1616	
AN833-4W	.250	AS1038 W0404		AN833-16W	1.000	AS1038 W1616	

Excerpt from AN833, Rev 8, Notice 2

Appendix 7: AN833 to AS1038 (continue)

TABLE I. AN833 Rev 8 to SAE-AS1038, cross-reference data – Continued.

Cancelled AN PIN	Tube Size	Replacement AS PIN	New Design	Cancelled AN PIN	Tube Size	Replacement AS PIN	New Design
AN833-5	.312	AS1038-0505		AN833-20	1.250	AS1038-2020	
AN833-5D	.312	AS1038 D0505	AS1038 W0505	AN833-20D	1.250	AS1038 D2020	AS1038 W2020
AN833-5J	.312	AS1038 J0505		AN833-20J	1.250	AS1038 J2020	
AN833-5K	.312	AS1038 K0505		AN833-20K	1.250	AS1038 K2020	
AN833-5S	.312	AS1038 S0505	AS1038 R0505	AN833-20S	1.250	AS1038 S2020	AS1038 R2020
AN833-5T	.312	AS1038 T0505		AN833-20T	1.250	AS1038 T2020	
AN833-5W	.312	AS1038 W0505		AN833-20W	1.250	AS1038 W2020	
AN833-6	.375	AS1038-0606		AN833-24	1.500	AS1038-2424	
AN833-6D	.375	AS1038 D0606	AS1038 W0606	AN833-24D	1.500	AS1038 D2424	AS1038 W2424
AN833-6J	.375	AS1038J 0606		AN833-24J	1.500	AS1038 J2424	
AN833-6K	.375	AS1038 K0606		AN833-24K	1.500	AS1038 K2424	
AN833-6S	.375	AS1038 S0606	AS1038 R0606	AN833-24S	1.500	AS1038 S2424	AS1038 R2424
AN833-6T	.375	AS1038 T0606		AN833-24T	1.500	AS1038 T2424	
AN833-6W	.375	AS1038 W0606		AN833-24W	1.500	AS1038 W2424	
AN833-8	.500	AS1038-0808		AN833-28	1.750	AS1038-2828	
AN833-8D	.500	AS1038 D0808	AS1038 W0808	AN833-28D	1.750	AS1038 D2828	AS1038 W2828
AN833-8J	.500	AS1038 J0808		AN833-28J	1.750	AS1038 J2828	
AN833-8K	.500	AS1038 K0808		AN833-28K	1.750	AS1038 K2828	
AN833-8S	.500	AS1038 S0808	AS1038 R0808	AN833-28S	1.750	AS1038 S2828	AS1038 R2828
AN833-8T	.500	AS1038 T0808		AN833-28T	1.750	AS1038 T2828	
AN833-8W	.500	AS1038 W0808		AN833-28W	1.750	AS1038 W2828	

Excerpt from AN833, Rev 8, Notice 2

Appendix 7: AN833 to AS1038 (continue)

TABLE I. AN833 Rev 8 to SAE-AS1038, cross-reference data – Continued.

Cancelled AN PIN	Tube Size	Replacement AS PIN	New Design
AN833-32	2.000	AS1038-3232	
AN833-32D	2.000	AS1038 D3232	AS1038 W3232
AN833-32J	2.000	AS1038 J3232	
AN833-32K	2.000	AS1038 K3232	
AN833-32S	2.000	AS1038 S3232	AS1038 R3232
AN833-32T	2.000	AS1038 T3232	
AN833-32W	2.000	AS1038 W3232	

Excerpt from AN833, Rev 8, Notice 2

Appendix 8: AN919 to AS5174

TABLE I. AN919 REV 9 to SAE-AS5174, cross-reference data. 1/

Cancelled AN PIN	Tube Size	Replacement AS PIN	New design AS PIN	Cancelled AN PIN	Tube Size	Replacement AS PIN	New design AS PIN
AN919-0	.188	AS5174-0302		AN919-5	.375	AS5174-0603	
AN919-0D	.188	AS5174D0302	AS5174W0302	AN919-5D	.375	AS5174D0603	AS5174W0603
AN919-0J	.188	AS5174J0302		AN919-5J	.375	AS5174J0603	
AN919-0K	.188	AS5174K0302		AN919-5K	.375	AS5174K0603	
AN919-0S	.188	AS5174S0302	AS5174R0302	AN919-5S	.375	AS5174S0603	AS5174R0603
AN919-0T	.188	AS5174T0302		AN919-5T	.375	AS5174T0603	
AN919-0W	.188	AS5174W0302		AN919-5W	.375	AS5174W0603	
AN919-1	.250	AS5174-0402		AN919-6	.375	AS5174-0604	
AN919-1D	.250	AS5174D0402	AS5174W0402	AN919-6D	.375	AS5174D0604	AS5174W0604
AN919-1J	.250	AS5174J0402		AN919-6J	.375	AS5174J0604	
AN919-1K	.250	AS5174K0402		AN919-6K	.375	AS5174K0604	
AN919-1S	.250	AS5174S0402	AS5174R0402	AN919-6S	.375	AS5174S0604	AS5174R0604
AN919-1T	.250	AS5174T0402		AN919-6T	.375	AS5174T0604	
AN919-1W	.250	AS5174W0402		AN919-6W	.375	AS5174W0604	
AN919-2	.250	AS5174-0403		AN919-7	.375	AS5174-0605	
AN919-2D	.250	AS5174D0403	AS5174W0403	AN919-7D	.375	AS5174D0605	AS5174W0605
AN919-2J	.250	AS5174J0403		AN919-7J	.375	AS5174J0605	
AN919-2K	.250	AS5174K0403		AN919-7K	.375	AS5174K0605	
AN919-2S	.250	AS5174S0403	AS5174R0403	AN919-7S	.375	AS5174S0605	AS5174R0605
AN919-2T	.250	AS5174T0403		AN919-7T	.375	AS5174T0605	
AN919-2W	.250	AS5174W0403		AN919-7W	.375	AS5174W0605	
AN919-3	.312	AS5174-0504		AN919-8	.500	AS5174-0802	
AN919-3D	.312	AS5174D0504	AS5174W0504	AN919-8D	.500	AS5174D0802	AS5174W0802
AN919-3J	.312	AS5174J0504		AN919-8J	.500	AS5174J0802	
AN919-3K	.312	AS5174K0504		AN919-8K	.500	AS5174K0802	
AN919-3S	.312	AS5174S0504	AS5174R0504	AN919-8S	.500	AS5174S0802	AS5174R0802
AN919-3T	.312	AS5174T0504		AN919-8T	.500	AS5174T0802	
AN919-3W	.312	AS5174W0504		AN919-8W	.500	AS5174W0802	
AN919-4	.375	AS5174-0602		AN919-9	.500	AS5174-0803	
AN919-4D	.375	AS5174D0602	AS5174W0602	AN919-9D	.500	AS5174D0803	AS5174W0803
AN919-4J	.375	AS5174J0602		AN919-9J	.500	AS5174J0803	
AN919-4K	.375	AS5174K0602		AN919-9K	.500	AS5174K0803	
AN919-4S	.375	AS5174S0602	AS5174R0602	AN919-9S	.500	AS5174S0803	AS5174R0803
AN919-4T	.375	AS5174T0602		AN919-9T	.500	AS5174T0803	
AN919-4W	.375	AS5174W0602		AN919-9W	.500	AS5174W0803	

See note at end of table.

Excerpt from AN919, Rev 9, Notice 3

Appendix 8: (continue) AN919 to AS5174

TABLE I. AN919 REV 9 to SAE-AS5174, cross-reference data - Continued. 1/

Cancelled AN PIN	Tube Size	Replacement AS PIN	New design AS PIN	Cancelled AN PIN	Tube Size	Replacement AS PIN	New design AS PIN
AN919-10	.188	AS5174-0804		AN919-15	.375	AS5174-1008	
AN919-10D	.188	AS5174D0804	AS5174W0804	AN919-15D	.375	AS5174D1008	AS5174W1008
AN919-10J	.188	AS5174J0804		AN919-15J	.375	AS5174J1008	
AN919-10K	.188	AS5174K0804		AN919-15K	.375	AS5174K1008	
AN919-10S	.188	AS5174S0804	AS5174R0804	AN919-15S	.375	AS5174S1008	AS5174R1008
AN919-10T	.188	AS5174T0804		AN919-15T	.375	AS5174T1008	
AN919-10W	.188	AS5174W0804		AN919-15W	.375	AS5174W1008	
AN919-11	.250	AS5174-0805		AN919-16	.375	AS5174-1204	
AN919-11D	.250	AS5174D0805	AS5174W0805	AN919-16D	.375	AS5174D1204	AS5174W1204
AN919-11J	.250	AS5174J0805		AN919-16J	.375	AS5174J1204	
AN919-11K	.250	AS5174K0805		AN919-16K	.375	AS5174K1204	
AN919-11S	.250	AS5174S0805	AS5174R0805	AN919-16S	.375	AS5174S1204	AS5174R1204
AN919-11T	.250	AS5174T0805		AN919-16T	.375	AS5174T1204	
AN919-11W	.250	AS5174W0805		AN919-16W	.375	AS5174W1204	
AN919-12	.250	AS5174-0806		AN919-17	.375	AS5174-1205	
AN919-12D	.250	AS5174D0806	AS5174W0806	AN919-17D	.375	AS5174D1205	AS5174W1205
AN919-12J	.250	AS5174J0806		AN919-17J	.375	AS5174J1205	
AN919-12K	.250	AS5174K0806		AN919-17K	.375	AS5174K1205	
AN919-12S	.250	AS5174S0806	AS5174R0806	AN919-17S	.375	AS5174S1205	AS5174R1205
AN919-12T	.250	AS5174T0806		AN919-17T	.375	AS5174T1205	
AN919-12W	.250	AS5174W0806		AN919-17W	.375	AS5174W1205	
AN919-13	.312	AS5174-1004		AN919-18	.500	AS5174-1206	
AN919-13D	.312	AS5174D1004	AS5174W1004	AN919-18D	.500	AS5174D1206	AS5174W1206
AN919-13J	.312	AS5174J1004		AN919-18J	.500	AS5174J1206	
AN919-13K	.312	AS5174K1004		AN919-18K	.500	AS5174K1206	
AN919-13S	.312	AS5174S1004	AS5174R1004	AN919-18S	.500	AS5174S1206	AS5174R1206
AN919-13T	.312	AS5174T1004		AN919-18T	.500	AS5174T1206	
AN919-13W	.312	AS5174W1004		AN919-18W	.500	AS5174W1206	
AN919-14	.375	AS5174-1006		AN919-19	.500	AS5174-1208	
AN919-14D	.375	AS5174D1006	AS5174W1006	AN919-19D	.500	AS5174D1208	AS5174W1208
AN919-14J	.375	AS5174J1006		AN919-19J	.500	AS5174J1208	
AN919-14K	.375	AS5174K1006		AN919-19K	.500	AS5174K1208	
AN919-14S	.375	AS5174S1006	AS5174R1006	AN919-19S	.500	AS5174S1208	AS5174R1208
AN919-14T	.375	AS5174T1006		AN919-19T	.500	AS5174T1208	
AN919-14W	.375	AS5174W1006		AN919-19W	.500	AS5174W1208	

See note at end of table.

Excerpt from AN919, Rev 9, Notice 3

Appendix 8: (continue) AN919 to AS5174

TABLE I. AN919 REV 9 to SAE-AS5174, cross-reference data - Continued. 1/

Cancelled AN PIN	Tube Size	Replacement AS PIN	New design AS PIN	Cancelled AN PIN	Tube Size	Replacement AS PIN	New design AS PIN
AN919-20	.188	AS5174-1210		AN919-25	.375	AS5174-2012	
AN919-20D	.188	AS5174D1210	AS5174W1210	AN919-25D	.375	AS5174D2012	AS5174W2012
AN919-20J	.188	AS5174J1210		AN919-25J	.375	AS5174J2012	
AN919-20K	.188	AS5174K1210		AN919-25K	.375	AS5174K2012	
AN919-20S	.188	AS5174S1210	AS5174R1210	AN919-25S	.375	AS5174S2012	AS5174R2012
AN919-20T	.188	AS5174T1210		AN919-25T	.375	AS5174T2012	
AN919-20W	.188	AS5174W1210		AN919-25W	.375	AS5174W2012	
AN919-21	.250	AS5174-1604		AN919-26	.375	AS5174-2016	
AN919-21D	.250	AS5174D1604	AS5174W1604	AN919-26D	.375	AS5174D2016	AS5174W2016
AN919-21J	.250	AS5174J1604		AN919-26J	.375	AS5174J2016	
AN919-21K	.250	AS5174K1604		AN919-26K	.375	AS5174K2016	
AN919-21S	.250	AS5174S1604	AS5174R1604	AN919-26S	.375	AS5174S2016	AS5174R2016
AN919-21T	.250	AS5174T1604		AN919-26T	.375	AS5174T2016	
AN919-21W	.250	AS5174W1604		AN919-26W	.375	AS5174W2016	
AN919-22	.250	AS5174-1610		AN919-27	.375	AS5174-2416	
AN919-22D	.250	AS5174D1610	AS5174W1610	AN919-27D	.375	AS5174D2416	AS5174W2416
AN919-22J	.250	AS5174J1610		AN919-27J	.375	AS5174J2416	
AN919-22K	.250	AS5174K1610		AN919-27K	.375	AS5174K2416	
AN919-22S	.250	AS5174S1610	AS5174R1610	AN919-27S	.375	AS5174S2416	AS5174R2416
AN919-22T	.250	AS5174T1610		AN919-27T	.375	AS5174T2416	
AN919-22W	.250	AS5174W1610		AN919-27W	.375	AS5174W2416	
AN919-23	.312	AS5174-1612		AN919-28	.500	AS5174-2420	
AN919-23D	.312	AS5174D1612	AS5174W1612	AN919-28D	.500	AS5174D2420	AS5174W2420
AN919-23J	.312	AS5174J1612		AN919-28J	.500	AS5174J2420	
AN919-23K	.312	AS5174K1612		AN919-28K	.500	AS5174K2420	
AN919-23S	.312	AS5174S1612	AS5174R1612	AN919-28S	.500	AS5174S2420	AS5174R2420
AN919-23T	.312	AS5174T1612		AN919-28T	.500	AS5174T2420	
AN919-23W	.312	AS5174W1612		AN919-28W	.500	AS5174W2420	
AN919-24	.375	AS5174-2004		AN919-29	.500	AS5174-1608	
AN919-24D	.375	AS5174D2004	AS5174W2004	AN919-29D	.500	AS5174D1608	AS5174W1608
AN919-24J	.375	AS5174J2004		AN919-29J	.500	AS5174J1608	
AN919-24K	.375	AS5174K2004		AN919-29K	.500	AS5174K1608	
AN919-24S	.375	AS5174S2004	AS5174R2004	AN919-29S	.500	AS5174S1608	AS5174R1608
AN919-24T	.375	AS5174T2004		AN919-29T	.500	AS5174T1608	
AN919-24W	.375	AS5174W2004		AN919-29W	.500	AS5174W1608	

1/ For replacement parts the DoD prefers the “R” and “W” materials.

Excerpt from AN919, Rev 9, Notice 3

Appendix 9: AN935 to MS35338

TABLE II – INTERCHANGEABILITY

After 21 March 1966, (1) washers given on MS16214, MS35337, NAS1061, and this standard in part, are inactive for design and are cancelled, but their existing stocks should be used for maintenance purposes until depleted and (2) washers given on AN935 are inactivated for new design. Use only the following substitutive washers for new design and replacement.

CROSS REFERENCE OF PART NUMBERS							
CANCELLED INACTIVATED	SUBSTITUTIVE	CANCELLED INACTIVATED	SUBSTITUTIVE	CANCELLED INACTIVATED	SUBSTITUTIVE	CANCELLED INACTIVATED	SUBSTITUTIVE
MS16214-1	MS35338-135	MS35337-37	MS35338-56	MS35337-108	MS35338-108	AN935-2	MS35338-39
MS16214-2	MS35338-136	MS35337-38	MS35338-57	MS35337-109	MS35338-109	AN935-3	/1/
MS16214-3	MS35338-137	MS35337-39	MS35338-39	MS35337-110	MS35338-110	AN935-4	MS35338-40
MS16214-4	MS35338-138	MS35337-40	MS35338-40	MS35337-111	MS35338-111	AN935-5	/1/
MS16214-5	MS35338-139	MS35337-41	MS35338-41	MS35337-112	MS35338-112	AN935-6	MS35338-41
MS16214-6	MS35338-140	MS35337-42	MS35338-42	MS35337-113	MS35338-113	AN935-8	MS35338-42
MS16214-7	MS35338-141	MS35337-43	MS35338-43	MS35337-114	MS35338-114	AN935-10	MS35338-43
MS16214-8	MS35338-142	MS35337-44	MS35338-44			AN935-12	/1/
MS16214-9	MS35338-143	MS35337-45	MS35338-45	MS35338-1	MS35338-39	AN935-416	MS35338-44
MS16214-10	MS35338-145	MS35337-46	MS35338-46	MS35338-2	MS35338-40	AN935-516	MS35338-45
MS16214-11	MS35338-146	MS35337-47	MS35338-47	MS35338-3	MS35338-41	AN935-616	MS35338-46
MS16214-12	MS35338-147	MS35337-48	MS35338-48	MS35338-4	MS35338-42	AN935-716	MS35338-47
MS16214-13	MS35338-148	MS35337-49	MS35338-49	MS35338-5	MS35338-43	AN935-816	MS35338-48
MS16214-14	MS35338-149	MS35337-50	MS35338-50	MS35338-6	MS35338-44	AN935-916	MS35338-49
MS16214-15	MS35338-150	MS35337-51	MS35338-51	MS35338-7	MS35338-45	AN935-1016	MS35338-50
MS16214-16	MS35338-151	MS35337-52	MS35338-52	MS35338-8	MS35338-46	AN935-1216	MS35338-51
MS16214-17	MS35338-152	MS35337-53	MS35338-53	MS35338-9	MS35338-47	AN935-2L	MS35338-39
MS16214-18	MS35338-97	MS35337-54	MS35338-54	MS35338-10	MS35338-48	AN935-3L	/1/
MS16214-19	MS35338-98	MS35337-55	MS35338-55	MS35338-11	M535338-49	AN935-4L	MS35338-40
MS16214-20	MS35338-99	MS35337-56	MS35338-56	MS35338-12	MS35338-50	AN935-5L	/1/
MS16214-21	MS35338-100	MS35337-57	MS35338-57	MS35338-13	MS35338-51	AN935-6L	MS35338-41
MS16214-22	MS35338-101	MS35337-58	MS35338-58	MS35338-14	MS35338-52	AN935-8L	MS35338-42
MS16214-23	MS35338-102	MS35337-59	MS35338-59	MS35338-15	MS35338-53	AN935-10L	MS35338-43
MS16214-24	MS35338-103	MS35337-60	MS35338-60	MS35338-16	MS35338-54	AN935-12L	/1/
MS16214-25	MS35338-104	MS35337-61	MS35338-61	MS35338-17	MS35338-55	AN935-416L	MS35338-44
MS16214-26	MS35338-105	MS35337-62	MS35338-62	MS35338-18	MS35338-56	AN935-516L	MS35338-45
MS16214-27	MS35338-107	MS35337-63	MS35338-63	MS35338-19	MS35338-57	AN935-616L	M535338-46
MS16214-28	MS35338-108	MS35337-64	MS35338-64	MS35338-20	MS35338-39	AN935-716L	MS35338-47
MS16214-29	MS35338-109	MS35337-65	MS35338-65	MS35338-21	MS35338-40	AN935-816L	MS35338-48
MS16214-30	MS35338-110	MS35337-66	MS35338-66	MS35338-22	MS35338-41	AN935-916L	MS35338-49
MS16214-31	MS35338-111	MS35337-67	MS35338-67	MS35338-23	MS35338-42	AN935-1016L	MS35338-50
MS16214-32	MS35338-112	MS35337-68	MS35338-68	MS35338-24	MS35338-43	AN935-1216L	MS35338-51
MS16214-33	MS35338-113	MS35337-69	MS35338-69	MS35338-25	MS35338-44	AN935-B2	MS35338-96
MS16214-34	MS35338-114	MS35337-70	MS35338-70	MS35338-26	MS35338-45	AN935-B3	/1/
		MS35337-71	MS35338-71	MS35338-27	MS35338-46	AN935-B4	MS35338-97
MS35337-1	MS35338-39	MS35337-72	MS35338-72	MS35338-28	MS35338-47	AN935-B5	/1/
MS35337-2	MS35338-40	MS35337-73	MS35338-54	MS35338-29	MS35338-48	AN935-B6	MS35338-98
MS35337-3	MS35338-41	MS35337-74	MS35338-55	MS35338-30	MS35338-49	AN935-B8	MS35338-99
MS35337-4	MS35338-42	MS35337-75	MS35338-56	MS35338-31	MS35338-50	AN935-B10	MS35338-100
MS35337-5	MS35338-43	MS35337-76	MS35338-57	MS35338-32	MS35338-51	AN935-B12	/1/

/1/ NO REPLACEMENT

Excerpt from NASM35338 Rev 2

Appendix 10: AN960 to NAS1149

TABLE IV – INTERCHANGEABILITY
AFTER 6 AUGUST 1992, AN960 WASHERS ARE INACTIVE FOR NEW DESIGN. EXISTING STOCK MAY BE USED UNTIL DEPLETED. SUBSTITUTION SHALL BE IN ACCORDANCE WITH THE FOLLOWING TABLE.

PART NUMBERS					
INACTIVE PART NUMBER	SUBSTITUTE PART NUMBER	INACTIVE PART NUMBER	SUBSTITUTE PART NUMBER	INACTIVE PART NUMBER	SUBSTITUTE PART NUMBER
AN960-2L	NAS1149FN216P	AN960C2L	NAS1149CN216R	AN960XC2L	NAS1149CN216B
AN960-2	NAS1149FN232P	AN960C2	NAS1149CN232R	AN960XC2	NAS1149CN232B
AN960-3L	NAS1149FN316P	AN960C3L	NAS1149CN316R	AN960XC3L	NAS1149CN316B
AN960-3	NAS1149FN332P	AN960C3	NAS1149CN332R	AN96X0C3	NAS1149CN332B
AN960-4L	NAS1149FN416P	AN960C4L	NAS1149CN416R	AN96X0C4L	NAS1149CN416B
AN960-4	NAS1149FN432P	AN960C4	NAS1149CN432R	AN960XC4	NAS1149CN432B
AN960-5	NAS1149FN542P	AN960C5	NAS1149CN542R	AN960XC5	NAS1149CN542B
AN960-6L	NAS1149FN616P	AN960C6L	NAS1149CN616R	AN960XC6L	NAS1149CN616B
AN960-6	NAS1149FN632P	AN960C6	NAS1149CN632R	AN960XC6	NAS1149CN632B
AN960-8L	NAS1149FN816P	AN960C8L	NAS1149CN816R	AN960XC8L	NAS1149CN816B
AN960-8	NAS1149FN832P	AN960C8	NAS1149CN832R	AN960XC8	NAS1149CN832B
AN960-9	NAS1149FN949P	AN960C9	NAS1149CN949R	AN960XC9	NAS1149CN949B
AN960-10L	NAS1149F0332P	AN960C10L	NAS1149C0332R	AN960XC10LL	NAS1149C0316B
AN960-10	NAS1149F0363P	AN960C10	NAS1149C0363R	AN960XC10L	NAS1149C0332B
AN960-11	NAS1149F1165P	AN960C11	NAS1149C1165R	AN960XC10	NAS1149C0363B
AN960-416L	NAS1149F0432P	AN960C416L	NAS1149C0432R	AN960XC11	NAS1149C1165B
AN960-416	NAS1149F0463P	AN960C416	NAS1149C0463R	AN960XC416L	NAS1149C0432B
AN960-516L	NAS1149F0532P	AN960C516L	NAS1149C0532R	AN960XC416	NAS1149C0463B
AN960-516	NAS1149F0563P	AN960C516	NAS1149C0563R	AN960XC516L	NAS1149C0532B
AN960-616LL	NAS1149F0616P	AN960C616LL	NAS1149C0616R	AN960XC516	NAS1149C0563B
AN960-616L	NAS1149F0632P	AN960C616L	NAS1149C0632R	AN960XC616LL	NAS1149C0616B
AN960-616	NAS1149F0663P	AN960C616	NAS1149C0663R	AN960XC616L	NAS1149C0632B
AN960-716L	NAS1149F0732P	AN960C716L	NAS1149C0732R	AN960XC616	NAS1149C0663B
AN960-716	NAS1149F0763P	AN960C716	NAS1149C0763R	AN960XC716LL	NAS1149C0716B
AN960-816L	NAS1149F0832P	AN960C816L	NAS1149C0832R	AN960XC716L	NAS1149C0732B
AN960-816	NAS1149F0863P	AN960C816	NAS1149C0863R	AN960XC716	NAS1149C0763B
AN960-916L	NAS1149F0932P	AN960C916L	NAS1149C0932R	AN960XC816L	NAS1149C0832B
AN960-916	NAS1149F0963P	AN960C916	NAS1149C0963R	AN960XC816	NAS1149C0863B
AN960-1016L	NAS1149F1032P	AN960C1016L	NAS1149C1032R	AN960XC916L	NAS1149C0932B
AN960-1016	NAS1149F1063P	AN960C1016	NAS1149C1063R	AN960XC916	NAS1149C0963B
AN960-1216L	NAS1149F1232P	AN960C1216L	NAS1149C1232R	AN960XC1016L	NAS1149C1032B
AN960-1216	NAS1149F1290P	AN960C1216	NAS1149C1290R	AN960XC1016	NAS1149C1063B
AN960-1416L	NAS1149F1432P	AN960C1416L	NAS1149C1432R	AN960XC1216L	NAS1149C1232B
AN960-1416	NAS1149F1490P	AN960C1416	NAS1149C1490R	AN960XC1216	NAS1149C1290B
AN960-1616L	NAS1149F1632P	AN960C1616L	NAS1149C1632R	AN960XC1416L	NAS1149C1432B
AN960-1616	NAS1149F1690P	AN960C1616	NAS1149C1690R	AN960XC1416	NAS1149C1490B
AN960-1716L	NAS1149F1732P	AN960C1716	NAS1149C1790R	AN960XC1616L	NAS1149C1632B
AN960-1716	NAS1149F1790P	AN960C1816	NAS1149C1890R	AN960XC1616	NAS1149C1690B
AN960-1816L	NAS1149F1832P	AN960C2016	NAS1149C2090R	AN960XC1716	NAS1149C1790B
AN960-1816	NAS1149F1890P	AN960C2116	NAS1149C2190R	AN960XC1816	NAS1149C1890B
AN960-2016L	NAS1149F2032P	AN960C2616	NAS1149C2690R	AN960XC2016	NAS1149C2090B
AN960-2016	NAS1149F2090P	AN960C3016	NAS1149C3090R	AN960XC2116	NAS1149C2190B
AN960-2116L	NAS1149F2132P	AN960C3616	NAS1149C3690R	AN960XC2616	NAS1149C2690B
AN960-2116	NAS1149F2190P	AN960C4016	NAS1149C4090R	AN960XC3016	NAS1149C3090B
AN960-2616L	NAS1149F2632P			AN960XC3616	NAS1149C3690B
AN960-2616	NAS1149F2690P			AN960XC4016	NAS1149C4090B
AN960-3016L	NAS1149F3032P				
AN960-3016	NAS1149F3090P				
AN960-3616L	NAS1149F3632P				
AN960-3616	NAS1149F3690P				
AN960-4016L	NAS1149F4032P				
AN960-4016	NAS1149F4090P				

Excerpt from NAS1149, Rev 2

Appendix 10 (continue) AN960 to NAS1149

TABLE IV – INTERCHANGEABILITY (CONTINUE)
AFTER 6 AUGUST 1992, AN960 WASHERS ARE INACTIVE FOR NEW DESIGN. EXISTING STOCK MAY BE USED UNTIL DEPLETED. SUBSTITUTION SHALL BE IN ACCORDANCE WITH THE FOLLOWING TABLE.

PART NUMBERS					
INACTIVE PART NUMBER	SUBSTITUTE PART NUMBER	INACTIVE PART NUMBER	SUBSTITUTE PART NUMBER	INACTIVE PART NUMBER	SUBSTITUTE PART NUMBER
AN960JD2L	NAS1149DN216J	AN960B2	NAS1149BN232H	AN960KD2L	NAS1149DN216K
AN960JD2	NAS1149DN232J	AN960B3	NAS1149BN332H	AN960KD2	NAS1149DN232K
AN960JD3L	NAS1149DN316J	AN960B4	NAS1149BN432H	AN960KD3L	NAS1149DN316K
AN960JD3	NAS1149DN332J	AN960B5	NAS1149BN542H	AN960KD3	NAS1149DN332K
AN960JD4L	NAS1149DN416J	AN960B6	NAS1149BN632H	AN960KD4L	NAS1149DN416K
AN960JD4	NAS1149DN432J	AN960B8	NAS1149BN832H	AN960KD4	NAS1149DN432K
AN960JD5	NAS1149DN542J	AN960B9	NAS1149BN949H	AN960KD5	NAS1149DN542K
AN960JD6L	NAS1149DN616J	AN960B10	NAS1149B0363H	AN960KD6L	NAS1149DN616K
AN960JD6	NAS1149DN632J	AN960B11	NAS1149B1165H	AN960KD6	NAS1149DN632K
AN960JD8L	NAS1149DN816J	AN960B416	NAS1149B0463H	AN960KD8L	NAS1149DN816K
AN960JD8	NAS1149DN832J	AN960B516	NAS1149B0563H	AN960KD8	NAS1149DN832K
AN960JD9	NAS1149DN949J	AN960B616	NAS1149B0663H	AN960KD9	NAS1149DN949K
AN960JD10LL	NAS1149D0316J	AN960B716	NAS1149B0763H	AN960KD10LL	NAS1149D0316K
AN960JD10L	NAS1149D0332J	AN960B816	NAS1149B0863H	AN960KD10L	NAS1149D0332K
AN960JD10	NAS1149D0363J	AN960B916	NAS1149B0963H	AN960KD10	NAS1149D0363K
AN960JD11	NAS1149D1165J	AN960B1016	NAS1149B1063H	AN960KD11	NAS1149D1165K
AN960JD416L	NAS1149D0416J	AN960B1216	NAS1149B1290H	AN960KD416L	NAS1149D0416K
AN960JD416	NAS1149D0463J	AN960B1416	NAS1149B1490H	AN960KD416	NAS1149D0463K
AN960JD516L	NAS1149D0516J	AN960B1616	NAS1149B1690H	AN960KD516L	NAS1149D0516K
AN960JD516	NAS1149D0563J	AN960B1716	NAS1149B1790H	AN960KD516	NAS1149D0563K
AN960JD616L	NAS1149D0616J	AN960B1816	NAS1149B1890H	AN960KD616L	NAS1149D0616K
AN960JD616	NAS1149D0663J	AN960B2016	NAS1149B2090H	AN960KD616	NAS1149D0663K
AN960JD716L	NAS1149D0716J	AN960B2116	NAS1149B2190H	AN960KD716L	NAS1149D0716K
AN960JD716	NAS1149D0763J	AN960B2616	NAS1149B2690H	AN960KD716	NAS1149D0763K
AN960JD816L	NAS1149D0816J	AN960B3016	NAS1149B3090H	AN960KD816L	NAS1149D0816K
AN960JD816	NAS1149D0863J	AN960B3616	NAS1149B3690H	AN960KD816	NAS1149D0863K
AN960JD916L	NAS1149D0916J	AN960B4016	NAS1149B4090H	AN960KD916L	NAS1149D0916K
AN960JD916	NAS1149D0963J			AN960KD916	NAS1149D0963K
AN960JD1016L	NAS1149D1016J			AN960KD1016L	NAS1149D1016K
AN960JD1016	NAS1149D1063J			AN960KD1016	NAS1149D1063K
AN960JD1216L	NAS1149D1216J			AN960KD1216L	NAS1149D1216K
AN960JD1216	NAS1149D1290J			AN960KD1216	NAS1149D1290K
AN960JD1416L	NAS1149D1416J			AN960KD1416L	NAS1149D1416K
AN960JD1416	NAS1149D1490J			AN960KD1416	NAS1149C1490B
AN960JD1616L	NAS1149D1616J			AN960KD1616L	NAS1149C1616B
AN960JD1616	NAS1149D1690J			AN960KD1616	NAS1149C1490B
AN960JD1716L	NAS1149D1716J			AN960KD1716L	NAS1149C1716B
AN960JD1716	NAS1149D1790J			AN960KD1716	NAS1149C1790B
AN960JD1816L	NAS1149D1816J			AN960KD1816L	NAS1149C1816B
AN960JD1816	NAS1149D1890J			AN960KD1816	NAS1149C1890B
AN960JD2016L	NAS1149D2016J			AN960KD2016L	NAS1149C2016B
AN960JD2016	NAS1149D2090J			AN960KD2016	NAS1149C2090B
AN960JD2116L	NAS1149D2116J			AN960KD2116L	NAS1149C2116B
AN960JD2116	NAS1149D2190J			AN960KD2116	NAS1149C2190B
AN960JD2616L	NAS1149D2616J			AN960KD2616L	NAS1149C2616B
AN960JD2616	NAS1149D2690J			AN960KD2616	NAS1149C2690B
AN960JD3016L	NAS1149D3016J			AN960KD3016L	NAS1149C3016B
AN960JD3016	NAS1149D3090J			AN960KD3016	NAS1149C3090B
AN960JD3616L	NAS1149D3616J			AN960KD3616L	NAS1149C3616B
AN960JD3616	NAS1149D3690J			AN960KD3616	NAS1149C3690B
AN960JD4016L	NAS1149D4016J			AN960KD4016L	NAS1149C4016B
AN960JD4016	NAS1149D4090J			AN960KD4016	NAS1149C4090B

Excerpt from NAS1149, Rev 5

Appendix 10 (continue) AN960 to NAS1149

PART NUMBERS					
INACTIVE PART NUMBER	SUBSTITUTE PART NUMBER	INACTIVE PART NUMBER	SUBSTITUTE PART NUMBER	INACTIVE PART NUMBER	SUBSTITUTE PART NUMBER
AN960PD2L	NAS1149DN216J	AN960PD2L	NAS1149DN216K	AN960D2L	NAS1149DN216H
AN960PD2	NAS1149DN232J	AN960PD2	NAS1149DN232K	AN960D2	NAS1149DN232H
AN960PD3L	NAS1149DN316J	AN960PD3L	NAS1149DN316K	AN960D3L	NAS1149DN316H
AN960PD3	NAS1149DN332J	AN960PD3	NAS1149DN332K	AN960D3	NAS1149DN332H
AN960PD4L	NAS1149DN416J	AN960PD4L	NAS1149DN416K	AN960D4L	NAS1149DN416H
AN960PD4	NAS1149DN432J	AN960PD4	NAS1149DN432K	AN960D4	NAS1149DN432H
AN960PD5	NAS1149DN542J	AN960PD5	NAS1149DN542K	AN960D5	NAS1149DN542H
AN960PD6L	NAS1149DN616J	AN960PD6L	NAS1149DN616K	AN960D6L	NAS1149DN616H
AN960PD6	NAS1149DN632J	AN960PD6	NAS1149DN632K	AN960D6	NAS1149DN632H
AN960PD8L	NAS1149DN816J	AN960PD8L	NAS1149DN816K	AN960D8L	NAS1149DN816H
AN960PD8	NAS1149DN832J	AN960PD8	NAS1149DN832K	AN960D8	NAS1149DN832H
AN960PD9	NAS1149DN949J	AN960PD9	NAS1149DN949K	AN960D9	NAS1149DN949H
AN960PD10L	NAS1149D0316J	AN960PD10L	NAS1149D0316K	AN960D10L	NAS1149D0316H
AN960PD10	NAS1149D0363J	AN960PD10	NAS1149D0363K	AN960D10	NAS1149D0363H
AN960PD11	NAS1149D1165J	AN960PD11	NAS1149D1165K	AN960D11	NAS1149D1165H
AN960PD416L	NAS1149D0416J	AN960PD416L	NAS1149D0416K	AN960D416L	NAS1149D0416H
AN960PD416	NAS1149D0463J	AN960PD416	NAS1149D0463K	AN960D416	NAS1149D0463H
AN960PD516L	NAS1149D0516J	AN960PD516L	NAS1149D0516K	AN960D516L	NAS1149D0516H
AN960PD516	NAS1149D0563J	AN960PD516	NAS1149D0563K	AN960D516	NAS1149D0563H
AN960PD616L	NAS1149D0616J	AN960PD616L	NAS1149D0616K	AN960D616L	NAS1149D0616H
AN960PD616	NAS1149D0663J	AN960PD616	NAS1149D0663K	AN960D616	NAS1149D0663H
AN960PD716L	NAS1149D0716J	AN960PD716L	NAS1149D0716K	AN960D716L	NAS1149D0716H
AN960PD716	NAS1149D0763J	AN960PD716	NAS1149D0763K	AN960D716	NAS1149D0763H
AN960PD816L	NAS1149D0816J	AN960PD816L	NAS1149D0816K	AN960D816L	NAS1149D0816H
AN960PD816	NAS1149D0863J	AN960PD816	NAS1149D0863K	AN960D816	NAS1149D0863H
AN960PD916L	NAS1149D0916J	AN960PD916L	NAS1149D0916K	AN960D916L	NAS1149D0916H
AN960PD916	NAS1149D0963J	AN960PD916	NAS1149D0963K	AN960D916	NAS1149D0963H
AN960PD1016L	NAS1149D1016J	AN960PD1016L	NAS1149D1016K	AN960D1016L	NAS1149D1016H
AN960PD1016	NAS1149D1063J	AN960PD1016	NAS1149D1063K	AN960D1016	NAS1149D1063H
AN960PD1216L	NAS1149D1216J	AN960PD1216L	NAS1149D1216K	AN960D1216L	NAS1149D1216H
AN960PD1216	NAS1149D1290J	AN960PD1216	NAS1149D1290K	AN960D1216	NAS1149D1290H
AN960PD1416L	NAS1149D1416J	AN960PD1416L	NAS1149D1416K	AN960D1416L	NAS1149D1416H
AN960PD1416	NAS1149D1490J	AN960PD1416	NAS1149D1490K	AN960D1416	NAS1149D1490H
AN960PD1616L	NAS1149D1616J	AN960PD1616L	NAS1149D1616K	AN960D1616L	NAS1149D1616H
AN960PD1616	NAS1149D1690J	AN960PD1616	NAS1149D1690K	AN960D1616	NAS1149D1690H
AN960PD1716L	NAS1149D1716J	AN960PD1716L	NAS1149D1716K	AN960D1716L	NAS1149D1716H
AN960PD1716	NAS1149D1790J	AN960PD1716	NAS1149D1790K	AN960D1716	NAS1149D1790H
AN960PD1816L	NAS1149D1816J	AN960PD1816L	NAS1149D1816K	AN960D1816L	NAS1149D1816H
AN960PD1816	NAS1149D1890J	AN960PD1816	NAS1149D1890K	AN960D1816	NAS1149D1890H
AN960PD2016L	NAS1149D2016J	AN960PD2016L	NAS1149D2016K	AN960D2016L	NAS1149D2016H
AN960PD2016	NAS1149D2090J	AN960PD2016	NAS1149D2090K	AN960D2016	NAS1149D2090H
AN960PD2116L	NAS1149D2116J	AN960PD2116L	NAS1149D2116K	AN960D2116L	NAS1149D2116H
AN960PD2116	NAS1149D2190J	AN960PD2116	NAS1149D2190K	AN960D2116	NAS1149D2190H
AN960PD2616L	NAS1149D2616J	AN960PD2616L	NAS1149D2616K	AN960D2616L	NAS1149D2616H
AN960PD2616	NAS1149D2690J	AN960PD2616	NAS1149D2690K	AN960D2616	NAS1149D2690H
AN960PD3016L	NAS1149D3016J	AN960PD3016L	NAS1149D3016K	AN960D3016L	NAS1149D3016H
AN960PD3016	NAS1149D3090J	AN960PD3016	NAS1149D3090K	AN960D3016	NAS1149D3090H
AN960PD3616L	NAS1149D3616J	AN960PD3616L	NAS1149D3616K	AN960D3616L	NAS1149D3616H
AN960PD3616	NAS1149D3690J	AN960PD3616	NAS1149D3690K	AN960D3616	NAS1149D3690H
AN960PD4016L	NAS1149D4016J	AN960PD4016L	NAS1149D4016K	AN960D4016L	NAS1149D4016H
AN960PD4016	NAS1149D4090J	AN960PD4016	NAS1149D4090K	AN960D4016	NAS1149D4090H

Excerpt from NAS1149, Rev 5

Appendix 11: AN6230 to MS28775 (AS28775)

PART NUMBER CROSS REFERENCE CHART

DASH NO. AN6230	DASH NO. MS28775
1	223
2	224
3	225
4	226
5	227
6	228
7	229
8	230
9	231
10	232
11	233
12	234
13	235
14	236
15	237
16	238
17	239

DASH NO. AN6230	DASH NO. MS28775
18	240
19	241
20	242
21	243
22	244
23	245
24	246
25	247
26	248
27	249
28	250
29	251
30	252
31	253
32	254
33	255
34	256

DASH NO. AN6230	DASH NO. MS28775
35	257
36	258
37	259
38	260
39	261
40	262
41	263
42	264
43	265
44	266
45	267
46	268
47	269
48	270
49	271
50	272
51	273
52	274

Excerpt from AN6230, Rev 9, Notice 1

Excerpt from AS28775:
* (-248 thru -274) THESE O-RING SIZES ARE NOT SUPPORTED BY AS4716 AND ARE INTENDED FOR NONSTANDARD APPLICATIONS.

APPLICATION

THESE O-RINGS TYPICALLY ARE USED IN CONTACT WITH PETROLEUM BASED HYDRAULIC FLUIDS CONFORMING TO MIL-PRF-5606, AND MIL-PRF-6083 AND TYPE 1 AND TYPE 2 SHOCK STRUT FLUIDS, BUT USAGE IS NOT LIMITED TO SUCH APPLICATIONS. EACH APPLICATION SHOULD BE CONSIDERED SEPARATELY. THESE O-RINGS HAVE A SERVICE TEMPERATURE RANGE OF -65 TO +275 °F (-54 TO +135 °C) FOR HYDRAULIC FLUIDS AND -65 TO +175 °F (-54 TO +80 °C) FOR SHOCK STRUT FLUIDS.

O-RING SIZES -013 THROUGH -028, -117 THROUGH -149, AND -223 THROUGH -247 ARE INTENDED ONLY FOR USE AS STATIC SEALS AND ARE NOT TO BE USED IN APPLICATIONS WITH RECIPROCATING OR ROTARY INVOLVEMENT. THIS IS DUE TO THE POSSIBILITY OF SPIRAL FAILURE OCCURING IN THE SMALLER CROSS-SECTION - LARGER DIAMETER O-RING SIZES.

Appendix 12: MS9970 to AS3581

REMOVED

Appendix 13: MS15001 to AS15001

Cross-Reference Data

Cancelled MS PIN 1/	Replacement AS15001 PIN
MS15001-1	AS15001-1P
MS15001-1	AS15001-1C
MS15001-2	AS15001-2P
MS15001-2	AS15001-2C
MS15001-3	AS15001-3P
MS15001-3	AS15001-3C
MS15001-4	AS15001-4P
MS15001-4	AS15001-4C

/1 These parts were originally listed in MS15001 as a single part type. Due to special handling/disposal and corrosion resistance requirements the parts have been separated in SAE AS15001. To the users of the replacing document, it is recommended that the use of carbon steel and cadmium plating be used only when other materials and finishes specified in the document cannot meet performance requirements.

Excerpt from MS15001, Rev A, Notice 4

Note:
Ensure that when replacing the MS15001-( ) with AS15001-( )C or AS15001-( )P that AS15001-( )C Fittings (Cadmium Plated) are not used in applications where the mating component is made from titanium alloy.

Excerpt from AS15001, Rev C
NOTES:

1. FINISH: CADMIUM PLATE OR ZINC PLATE. SEE PROCUREMENT SPECIFICATION.
   a. CODE LETTER C - CADMIUM PLATE
   b. CODE LETTER P - ZINC PLATE
   c. CODE LETTER U - ZINC NICKEL PLATE, SEE PROCUREMENT SPECIFICATION.

Appendix 14: MS15002 to AS15002

TABLE I. Cross-reference data.

Cancelled MS PIN1/	Replacement AS15002 PIN
MS15002-1	AS15002-1P
MS15002-1	AS15002-1C
MS15002-2	AS15002-2P
MS15002-2	AS15002-2C
MS15002-3	AS15002-3P
MS15002-3	AS15002-3C
MS15002-4	AS15002-4P
MS15002-4	AS15002-4C

1/ These parts were originally listed in MS15002 as a single part type. Due to special handling/disposal and corrosion resistance requirements the parts have been separated in SAE AS15002. To the users of the replacing document, it is recommended that the use of carbon steel and cadmium plating be used only when other materials and finishes specified in the document cannot meet performance requirements.

Excerpt from MS15002, Rev A, Notice 4

Note:
Ensure that when replacing the MS15002-( ) with AS15002-( )C or AS15002-( )P that AS15002-( )C Fittings (Cadmium Plated) are not used in applications where the mating component is made from titanium alloy.

Excerpt from AS15002, Rev C
NOTES:

2. FINISH: CADMIUM PLATE OR ZINC PLATE. SEE PROCUREMENT SPECIFICATION.
   a. CODE LETTER C - CADMIUM PLATE
   b. CODE LETTER P - ZINC PLATE
   c. CODE LETTER U - ZINC NICKEL PLATE, SEE PROCUREMENT SPECIFICATION.

Appendix 15: MS15003 to AS15003

Cross-Reference Data

Cancelled MS PIN	Replacement AS15003 PIN
MS15003-1	AS15003-1P
MS15003-1	AS15003-1C
MS15003-2	AS15003-2P
MS15003-2	AS15003-2C
MS15003-3	AS15003-3P
MS15003-3	AS15003-3C
MS15003-4	AS15003-4P
MS15003-4	AS15003-4C
MS15003-5	AS15003-5P
MS15003-5	AS15003-5C
MS15003-6	AS15003-6P
MS15003-6	AS15003-6C
MS15003-7	AS15003-7P
MS15003-7	AS15003-7C

Excerpt from MS15003, Rev, IR, Notice 4

Excerpt from AS15003
Note 3. FINISH:

a. CODE LETTER C - CADMIUM PLATE, SEE PROCUREMENT SPECIFICATION.
b. CODE LETTER P - ZINC PLATE, SEE PROCUREMENT SPECIFICATION.
c. CODE LETTER U - ZINC-NICKEL PLATE, SEE PROCUREMENT SPECIFICATION.

Appendix 16: MS20819 (AN819) to AS3220 or AS5176

TABLE I. MS20819G to SAE-AS3220 cross-reference data.

Canceled MS PIN	Tube Size	Replacement AS PIN	Canceled MS PIN	Tube Size	Replacement AS PIN
MS20819-2D	.125	AS3220-W02	MS20819-16D	1.000	AS3220-W16
MS20819-3D	.188	AS3220-W03	MS20819-20D	1.250	AS3220-W20
MS20819-4D	.250	AS3220-W04	MS20819-24D	1.500	AS3220-W24
MS20819-5D	.312	AS3220-W05	MS20819-28D	1.750	AS3220-W28
MS20819-6D	.375	AS3220-W06	MS20819-32D	2.000	AS3220-W32
MS20819-8D	.500	AS3220-W08	MS20819-40D	2.500	AS3220-W40
MS20819-10D	.625	AS3220-W10	MS20819-48D	3.000	AS3220-W48
MS20819-12D	.750	AS3220-W12			

TABLE II. MS20819G to SAE-AS5176 cross-reference data.

Canceled MS PIN	Tube Size	Replacement AS PIN	Canceled MS PIN	Tube Size	Replacement AS PIN
MS20819-2	.125	AS5176-02	MS20819-16	1.000	AS5176-16
MS20819-2B	.125	AS5176B02	MS20819-16B	1.000	AS5176B16
MS20819-2J	.125	AS5176J02	MS20819-16J	1.000	AS5176J16
MS20819-2K	.125	AS5176K02	MS20819-16K	1.000	AS5176K16
MS20819-3	.188	AS5176-03	MS20819-20	1.250	AS5176-20
MS20819-3B	.188	AS5176B03	MS20819-20B	1.250	AS5176B20
MS20819-3J	.188	AS5176J03	MS20819-20J	1.250	AS5176J20
MS20819-3K	.188	AS5176K03	MS20819-20K	1.250	AS5176K20
MS20819-4	.250	AS5176-04	MS20819-24	1.500	AS5176-24
MS20819-4B	.250	AS5176B04	MS20819-24B	1.500	AS5176B24
MS20819-4J	.250	AS5176J04	MS20819-24J	1.500	AS5176J24
MS20819-4K	.250	AS5176K04	MS20819-24K	1.500	AS5176K24
MS20819-5	.312	AS5176-05	MS20819-28	1.750	AS5176-28
MS20819-5B	.312	AS5176B05	MS20819-28B	1.750	AS5176B28
MS20819-5J	.312	AS5176J05	MS20819-28J	1.750	AS5176J28
MS20819-5K	.312	AS5176K05	MS20819-28K	1.750	AS5176K28
MS20819-6	.375	AS5176-06	MS20819-32	2.000	AS5176-32
MS20819-6B	.375	AS5176B06	MS20819-32B	2.000	AS5176B32
MS20819-6J	.375	AS5176J06	MS20819-32J	2.000	AS5176J32
MS20819-6K	.375	AS5176K06	MS20819-32K	2.000	AS5176K32

Excerpt from MS20819, Rev G, Notice 3

Appendix 16: MS20819 to AS3220 (continue)

MS20819G
NOTICE 3

TABLE II. MS20819G to SAE-AS5176 cross-reference data – Continued.

Canceled MS PIN	Tube Size	Replacement AS PIN
MS20819-8	.500	AS5176-08
MS20819-8B	.500	AS5176B08
MS20819-8J	.500	AS5176J08
MS20819-8K	.500	AS5176K08
MS20819-10	.625	AS5176-10
MS20819-10B	.625	AS5176B10
MS20819-10J	.625	AS5176J10
MS20819-10K	.625	AS5176K10
MS20819-12	.750	AS5176-12
MS20819-12B	.750	AS5176B12
MS20819-12J	.750	AS5176J12
MS20819-12K	.750	AS5176K12

Canceled MS PIN	Tube Size	Replacement AS PIN
MS20819-40	2.500	AS5176-40
MS20819-40B	2.500	AS5176B40
MS20819-40J	2.500	AS5176J40
MS20819-40K	2.500	AS5176K40
MS20819-48	3.000	AS5176-48
MS20819-48B	3.000	AS5176B48
MS20819-48J	3.000	AS5176J48
MS20819-48K	3.000	AS5176K48

Excerpt from MS20819, Rev G, Notice 3

Appendix 17: MS20913 to AS4863

TABLE 1 - Cross-Reference Data

Cancelled AN PIN	Pipe Thread	Replacement AS PIN	Cancelled AN PIN	Pipe Thread	Replacement AS PIN
MS20913-0	.063	AS4863-00	MS20913-8	1.000	AS4863-08
MS20913-0D	.063	AS4863D00	MS20913-8D	1.000	AS4863D08
MS20913-0J	.063	AS4863J00	MS20913-8J	1.000	AS4863J08
MS20913-0K	.063	AS4863K00	MS20913-8K	1.000	AS4863K08
MS20913-0S	.063	None	MS20913-8S	1.000	None
MS20913-0W	.063	AS4863W00	MS20913-8W	1.000	AS4863W08
MS20913-1	.125	AS4863-01	MS20913-10	1.250	AS4863-10
MS20913-1D	.125	AS4863D01	MS20913-10D	1.250	AS4863D10
MS20913-1J	.125	AS4863J01	MS20913-10J	1.250	AS4863J10
MS20913-1K	.125	AS4863K01	MS20913-10K	1.250	AS4863K10
MS20913-1S	.125	None	MS20913-10S	1.250	None
MS20913-1W	.125	AS4863W01	MS20913-10W	1.250	AS4863W10
MS20913-2	.250	AS4863-02	MS20913-12	1.500	AS4863-12
MS20913-2D	.250	AS4863D02	MS20913-12D	1.500	AS4863D12
MS20913-2J	.250	AS4863J02	MS20913-12J	1.500	AS4863J12
MS20913-2K	.250	AS4863K02	MS20913-12K	1.500	AS4863K12
MS20913-2S	.250	None	MS20913-12S	1.500	None
MS20913-2W	.250	AS4863W02	MS20913-12W	1.500	AS4863W12
MS20913-3	.375	AS4863-03	MS20913-16	2.000	AS4863-16
MS20913-3D	.375	AS4863D03	MS20913-16D	2.000	AS4863D16
MS20913-3J	.375	AS4863J03	MS20913-16J	2.000	AS4863J16
MS20913-3K	.375	AS4863K03	MS20913-16K	2.000	AS4863K16
MS20913-3S	.375	None	MS20913-16S	2.000	None
MS20913-3W	.375	AS4863W03	MS20913-16W	2.000	AS4863W16
MS20913-4	.500	AS4863-04	MS20913-20	2.500	AS4863-20
MS20913-4D	.500	AS4863D04	MS20913-20D	2.500	AS4863D20
MS20913-4J	.500	AS4863J04	MS20913-20J	2.500	AS4863J20
MS20913-4K	.500	AS4863K04	MS20913-20K	2.500	AS4863K20
MS20913-4S	.500	None	MS20913-20S	2.500	None
MS20913-4W	.500	AS4863W04	MS20913-20W	2.500	AS4863W20
MS20913-6	.750	AS4863-06			
MS20913-6D	.750	AS4863D06			
MS20913-6J	.750	AS4863J06			
MS20913-6K	.750	AS4863K06			
MS20913-6S	.750	None			
MS20913-6W	.750	AS4863W06			

Excerpt from MS20913, Rev G, Notice 1

Appendix 18: MS21919 to MS21919 or AS21919 as shown

CANCELLED PART NUMBER LISTED IN INTERCHANGEABILITY TABLE ARE CANCELLED AFTER 31 January 2001. REPLACEMENT PART NUMBER CAN REPLACE CANCELLED PART NUMBER UNIVERSALLY BUT CANCELLED PART NUMBER CAN NOT REPLACE REPLACEMENT PART NUMBER UNIVERSALLY."

INTERCHANGABLEABILITY TABLE: Delete and substitute:

INTERCHANGABLEABILITY TABLE			
FOR -1 THRU -48		FOR -50 THRU -66	
CANCELLED PART NUMBER	REPLACEMENT PART NUMBER	CANCELLED PART NUMBER	REPLACEMENT PART NUMBER
MS21919WB(F,G,H,)( ) OR MS21919B(F,G,H,)( ) OR MS21919(F,G,H,)( )	MS21919W(F,G,H,)( )	MS21919WB(F,G,H,)( ) OR MS21919B(F,G,H,)( ) OR MS21919W(F,G,H,)( )	MS21919W(F,G,H,)( )
MS21919D(E,F,G)( ) OR MS21919WD(E,F,G)( )	AS21919WD(E,F,G)( )	MS21919WD(E,F,G)( ) OR MS21919D(E,F,G)( )	AS21919D(E,F,G)( )
MS21919C(E,F,G,H,J)( ) OR MS21919WC(E,F,G,H,J)( )	AS21919WC(E,F,G,H,J)( )	MS21919WC(E,F,G,H,J)( ) OR MS21919C(E,F,G,H,J)( )	AS21919C(E,F,G,H,J)( )
MS21919DH( ) OR MS21919WDH( )	AS21919WCH( )	MS21919DH( ) OR MS21919WDH( )	AS21919CH( )
MS21919C(E,F,G,H,J) 1	AS21919C(E,F,G,H,J) 01		
MS21919D(E,F,G) 1	AS21919D(E,F,G,) 01		

( ) REPRESENTS THE SAME DASH NO. FOR MS & AS NUMBER (AS PART NUMBER REQUIRES "0" BE ADDED TO DASH NO. FOR DASH NO. THAT IS LESS THAN 10).

EXAMPLES:

MS21919WCF8	AS21919WCF08
MS21919WDG6	AS21919WDG06
MS21919WCE11	AS21919WCE11

Engineering Note: WDG is a direct replacement for DG for -2 thru -48 clamps

Excerpt from MS21919, Rev E, Amend 1

Appendix 19: MS24392 to AS5174

TABLE I. MS24392F to SAE-AS5174, cross-reference data.

Cancelled MS PIN	Tube Size	Replacement AS PIN	Cancelled MS PIN	Tube Size	Replacement AS PIN
MS24392-2	.125	AS5174-0202	MS24392-8	.500	AS5174-0808
MS24392D2	.125	AS5174D0202 1/	MS24392D8	.500	AS5174D0808 1/
MS24392D2	.125	AS5174W0202 2/	MS24392D8	.500	AS5174W0808 2/
MS24392J2	.125	AS5174J0202	MS24392J8	.500	AS5174J0808
MS24392K2	.125	AS5174K0202	MS24392K8	.500	AS5174K0808
MS24392S2	.125	AS5174S0202 3/	MS24392S8	.500	AS5174S0808 3/
MS24392S2	.125	AS5174R0202 4/	MS24392S8	.500	AS5174R0808 4/
MS24392T2	.125	AS5174T0202	MS24392T8	.500	AS5174T0808
MS24392W2	.125	AS5174W0202	MS24392W8	.500	AS5174W0808
MS24392-3	.188	AS5174-0303	MS24392-10	.625	AS5174-1010
MS24392D3	.188	AS5174D0303 1/	MS24392D10	.625	AS5174D1010 1/
MS24392D3	.188	AS5174W0303 2/	MS24392D10	.625	AS5174W1010 2/
MS24392J3	.188	AS5174J0303	MS24392J10	.625	AS5174J1010
MS24392K3	.188	AS5174K0303	MS24392K10	.625	AS5174K1010
MS24392S3	.188	AS5174S0303 3/	MS24392S10	.625	AS5174S1010 3/
MS24392S3	.188	AS5174R0303 4/	MS24392S10	.625	AS5174R1010 4/
MS24392T3	.188	AS5174T0303	MS24392T10	.625	AS5174T1010
MS24392W3	.188	AS5174W0303	MS24392W10	.625	AS5174W1010
MS24392-4	.250	AS5174-0404	MS24392-12	.750	AS5174-1212
MS24392D4	.250	AS5174D0404 1/	MS24392D12	.750	AS5174D1212 1/
MS24392D4	.250	AS5174W0404 2/	MS24392D12	.750	AS5174W1212 2/
MS24392J4	.250	AS5174J0404	MS24392J12	.750	AS5174J1212
MS24392K4	.250	AS5174K0404	MS24392K12	.750	AS5174K1212
MS24392S4	.250	AS5174S0404 3/	MS24392S12	.750	AS5174S1212 3/
MS24392S4	.250	AS5174R0404 4/	MS24392S12	.750	AS5174R1212 4/
MS24392T4	.250	AS5174T0404	MS24392T12	.750	AS5174T1212
MS24392W4	.250	AS5174W0404	MS24392W12	.750	AS5174W1212
MS24392-5	.312	AS5174-0505 5/	MS24392-16	1.000	AS5174-1616
MS24392D5	.312	AS5174D0505 1/,5/	MS24392D16	1.000	AS5174D1616 1/
MS24392D5	.312	AS5174W0505 2/,5/	MS24392D16	1.000	AS5174W1616 2/
MS24392J5	.312	AS5174J0505 5/	MS24392J16	1.000	AS5174J1616
MS24392K5	.312	AS5174K0505 5/	MS24392K16	1.000	AS5174K1616
MS24392S5	.312	AS5174S0505 3/,5/	MS24392S16	1.000	AS5174S1616 3/
MS24392S5	.312	AS5174R0505 5/,4/	MS24392S16	1.000	AS5174R1616 4/
MS24392T5	.312	AS5174T0505 5/	MS24392T16	1.000	AS5174T1616
MS24392W5	.312	AS5174W0505 5/	MS24392W16	1.000	AS5174W1616
MS24392-6	.375	AS5174-0606	MS24392-20	1.250	AS5174-2020
MS24392D6	.375	AS5174D0606 1/	MS24392D20	1.250	AS5174D2020 1/
MS24392D6	.375	AS5174W0606 2/	MS24392D20	1.250	AS5174W2020 2/
MS24392J6	.375	AS5174J0606	MS24392J20	1.250	AS5174J2020
MS24392K6	.375	AS5174K0606	MS24392K20	1.250	AS5174K2020

See notes at end of tables.

Excerpt from MS24392, Rev F, Notice 2

Appendix 19: (continue) MS24392 to AS5174

TABLE I. MS24392F to SAE-AS5174, cross-reference data – Continued.

Cancelled MS PIN	Tube Size	Replacement MS PIN	Cancelled MS PIN	Tube Size	Replacement MS PIN
MS24392S6	.375	AS5174S0606 3/	MS24392S20	1.250	AS5174S2020 3/
MS24392S6	.375	AS5174R0606 4/	MS24392S20	1.250	AS5174R2020 4/
MS24392T6	.375	AS5174T0606	MS24392T20	1.250	AS5174T2020
MS24392W6	.375	AS5174W0606	MS24392W20	1.250	AS5174W2020
MS24392-24	1.500	AS5174-2424	MS24392-40	2.500	AS5174-4040
MS24392D24	1.500	AS5174D2424 1/	MS24392D40	2.500	AS5174D4040 1/
MS24392D24	1.500	AS5174W2424 2/	MS24392D40	2.500	AS5174W4040 2/
MS24392J24	1.500	AS5174J2424	MS24392J40	2.500	AS5174J4040
MS24392K24	1.500	AS5174K2424	MS24392K40	2.500	AS5174K4040
MS24392S24	1.500	AS5174S2424 3/	MS24392S40	2.500	AS5174S4040 3/
MS24392S24	1.500	AS5174R2424 4/	MS24392S40	2.500	AS5174R4040 4/
MS24392T24	1.500	AS5174T2424	MS24392T40	2.500	AS5174T4040
MS24392W24	1.500	AS5174W2424	MS24392W40	2.500	AS5174W4040
MS24392-28	1.750	AS5174-2828	MS24392-48	3.000	AS5174-4848
MS24392D24	1.750	AS5174D2424 1/	MS24392D40	3.000	AS5174D4040 1/
MS24392D24	1.750	AS5174W2424 2/	MS24392D40	3.000	AS5174W4040 2/
MS24392J28	1.750	AS5174J2828	MS24392J48	3.000	AS5174J4848
MS24392K28	1.750	AS5174K2828	MS24392K48	3.000	AS5174K4848
MS24392S28	1.750	AS5174S2828 3/	MS24392S48	3.000	AS5174S4848 3/
MS24392S28	1.750	AS5174R2828 4/	MS24392S48	3.000	AS5174R4848 4/
MS24392T28	1.750	AS5174T2828	MS24392T48	3.000	AS5174T4848
MS24392W28	1.750	AS5174W2828	MS24392W48	3.000	AS5174W4848
MS24392-32	2.000	AS5174-3232			
MS24392D32	2.000	AS5174D3232 1/			
MS24392D32	2.000	AS5174W3232 2/			
MS24392J32	2.000	AS5174J3232			
MS24392K32	2.000	AS5174K3232			
MS24392S32	2.000	AS5174S3232 3/			
MS24392S32	2.000	AS5174R3232 4/			
MS24392T32	2.000	AS5174T3232			
MS24392W32	2.000	AS5174W3232			

1/ For replacements parts, use code letter “D”. Reason: SAE G3 and DoD-SAE liaisons agreed to use code “D” for replacement PINs.

2/ For new design parts, use code letter “W” . Reason: SAE G3 and DoD-SAE liaisons agreed to use code “W” for new design.

3/ For replacement parts use code letter “S”. Reason: SAE G3 and DoD-SAE liaisons agreed to use code “S” for replacement PINs.

4/ For new design parts use code Letter “R”. Reason: SAE G3 and DoD-SAE liaisons agreed to use code “R” for new design.

5/ Users are cautioned that the overall length of the "AS" part is less than the overall length of the "MS" part.

Excerpt from MS24392, Rev F, Notice 2

Appendix 20: MS24399 to AS5174

TABLE I. MS24399F to SAE-AS5174, cross-reference data.

Cancelled MS PIN	Tube Size	Replacement AS PIN	Cancelled MS PIN	Tube Size	Replacement AS PIN
MS24399-1	.188	AS5174-0302	MS24399-6	.375	AS5174-0603
MS24399D1	.188	AS5174D0302 1/	MS24399D6	.375	AS5174D0603 1/
MS24399D1	.188	AS5174W0302 2/	MS24399D6	.375	AS5174W0603 2/
MS24399J1	.188	AS5174J0302	MS24399J6	.375	AS5174J0603
MS24399K1	.188	AS5174K0302	MS24399K6	.375	AS5174K0603
MS24399S1	.188	AS5174S0302 3/	MS24399S6	.375	AS5174S0603 3/
MS24399S1	.188	AS5174R0302 4/	MS24399S6	.375	AS5174R0603 4/
MS24399T1	.188	AS5174T0302	MS24399T6	.375	AS5174T0603
MS24399W1	.188	AS5174W0302	MS24399W6	.375	AS5174W0603
MS24399-2	.250	AS5174-0402	MS24399-7	.375	AS5174-0604
MS24399D2	.250	AS5174D0402 1/	MS24399D7	.375	AS5174D0604 1/
MS24399D2	.250	AS5174W0402 2/	MS24399D7	.375	AS5174W0604 2/
MS24399J2	.250	AS5174J0402	MS24399J7	.375	AS5174J0604
MS24399K2	.250	AS5174K0402	MS24399K7	.375	AS5174K0604
MS24399S2	.250	AS5174S0402 3/	MS24399S7	.375	AS5174S0604 3/
MS24399S2	.250	AS5174R0402 4/	MS24399S7	.375	AS5174R0604 4/
MS24399T2	.250	AS5174T0402	MS24399T7	.375	AS5174T0604
MS24399W2	.250	AS5174W0402	MS24399W7	.375	AS5174W0604
MS24399-3	.250	AS5174-0403	MS24399-8	.375	AS5174-0605
MS24399D3	.250	AS5174D0403 1/	MS24399D8	.375	AS5174D0605 1/
MS24399D3	.250	AS5174W0403 2/	MS24399D8	.375	AS5174W0605 2/
MS24399J3	.250	AS5174J0403	MS24399J8	.375	AS5174J0605
MS24399K3	.250	AS5174K0403	MS24399K8	.375	AS5174K0605
MS24399S3	.250	AS5174S0403 3/	MS24399S8	.375	AS5174S0605 3/
MS24399S3	.250	AS5174R0403 4/	MS24399S8	.375	AS5174R0605 4/
MS24399T3	.250	AS5174T0403	MS24399T8	.375	AS5174T0605
MS24399W3	.250	AS5174W0403	MS24399W8	.375	AS5174W0605
MS24399-4	.312	AS5174-0504	MS24399-9	.500	AS5174-0802
MS24399D4	.312	AS5174D0504 1/	MS24399D9	.500	AS5174D0802 1/
MS24399D4	.312	AS5174W0504 2/	MS24399D9	.500	AS5174W0802 2/
MS24399J4	.312	AS5174J0504	MS24399J9	.500	AS5174J0802
MS24399K4	.312	AS5174K0504	MS24399K9	.500	AS5174K0802
MS24399S4	.312	AS5174S0504 3/	MS24399S9	.500	AS5174S0802 3/
MS24399S4	.312	AS5174R0504 4/	MS24399S9	.500	AS5174S0802 4/
MS24399T4	.312	AS5174W0504	MS24399W9	.500	AS5174T0802
MS24399W4	.312	AS5174W0504	MS24399W9	.500	AS5174W0802
MS24399-5	.375	AS5174-0602	MS24399-10	.500	AS5174-0803
MS24399D5	.375	AS5174D0602 1/	MS24399D10	.500	AS5174D0803 1/
MS24399D5	.375	AS5174W0602 2/	MS24399D10	.500	AS5174W0803 2/
MS24399J5	.375	AS5174J0602	MS24399J10	.500	AS5174J0803
MS24399K5	.375	AS5174K0602	MS24399K10	.500	AS5174K0803
MS24399S5	.375	AS5174S0602 3/	MS24399S10	.500	AS5174S0803 3/
MS24399S5	.375	AS5174R0602 4/	MS24399S10	.500	AS5174R0803 4/
MS24399T5	.375	AS5174T0602	MS24399T10	.500	AS5174T0803
MS24399W5	.375	AS5174W0602	MS24399W10	.500	AS5174W0803

See notes at end at tables

Excerpt from MS24399, Rev F, Notice 2

Appendix 20: (continue) MS24399 to AS5174

TABLE I. MS24399F to SAE-AS5174, cross-reference data – Continued.

Cancelled MS PIN	Tube Size	Replacement AS PIN		Cancelled MS PIN	Tube Size	Replacement AS PIN	
MS24399-11	.500	AS5174-0804		MS24399-16	.625	AS5174-1008	
MS24399D11	.500	AS5174D0804	1/	MS24399D16	.625	AS5174D1008	1/
MS24399D11	.500	AS5174W0804	2/	MS24399D16	.625	AS5174W1008	2/
MS24399J11	.500	AS5174J0804		MS24399J16	.625	AS5174J1008	
MS24399K11	.500	AS5174K0804		MS24399K16	.625	AS5174K1008	
MS24399S11	.500	AS5174S0804	3/	MS24399S16	.625	AS5174S1008	3/
MS24399S11	.500	AS5174R0804	4/	MS24399S16	.625	AS5174R1008	4/
MS24399T11	.500	AS5174T0804		MS24399T16	.625	AS5174T1008	
MS24399W11	.500	AS5174W0804		MS24399W16	.625	AS5174W1008	
MS24399-12	.500	AS5174-0805		MS24399-17	.750	AS5174-1204	
MS24399D12	.500	AS5174D0805	1/	MS24399D17	.750	AS5174D1204	1/
MS24399D12	.500	AS5174W0805	2/	MS24399D17	.750	AS5174W1204	2/
MS24399J12	.500	AS5174J0805		MS24399J17	.750	AS5174J1204	
MS24399K12	.500	AS5174K0805		MS24399K17	.750	AS5174K1204	
MS24399S12	.500	AS5174S0805	3/	MS24399S17	.750	AS5174S1204	3/
MS24399S12	.500	AS5174R0805	4/	MS24399S17	.750	AS5174R1204	4/
MS24399T12	.500	AS5174T0805		MS24399T17	.750	AS5174T1204	
MS24399W12	.500	AS5174W0805		MS24399W17	.750	AS5174W1204	
MS24399-13	.500	AS5174-0806		MS24399-18	.750	AS5174-1205	
MS24399D13	.500	AS5174D0806	1/	MS24399D18	.750	AS5174D1205	1/
MS24399D13	.500	AS5174W0806	2/	MS24399D18	.750	AS5174W1205	2/
MS24399J13	.500	AS5174J0806		MS24399J18	.750	AS5174J1205	
MS24399K13	.500	AS5174K0806		MS24399K18	.750	AS5174K1205	
MS24399S13	.500	AS5174S0806	3/	MS24399S18	.750	AS5174S1205	3/
MS24399S13	.500	AS5174R0806	4/	MS24399S18	.750	AS5174R1205	4/
MS24399T13	.500	AS5174T0806		MS24399T18	.750	AS5174T1205	
MS24399W13	.500	AS5174W0806		MS24399W1	.750	AS5174W1205	
MS24399-14	.625	AS5174-1004		MS24399-19	.750	AS5174-1206	
MS24399D14	.625	AS5174D1004	1/	MS24399D19	.750	AS5174D1206	1/
MS24399D14	.625	AS5174W1004	2/	MS24399D19	.750	AS5174W1206	2/
MS24399J14	.625	AS5174J1004		MS24399J19	.750	AS5174J1206	
MS24399K14	.625	AS5174K1004		MS24399K19	.750	AS5174K1206	
MS24399S14	.625	AS5174S1004	3/	MS24399S19	.750	AS5174S1206	3/
MS24399S14	.625	AS5174R1004	4/	MS24399S19	.750	AS5174R1206	4/
MS24399T14	.625	AS5174T1004		MS24399T19	.750	AS5174T1206	
MS24399W14	.625	AS5174W1004		MS24399W19	.750	AS5174W1206	
MS24399-15	.625	AS5174-1006		MS24399-20	.750	AS5174-1208	
MS24399D15	.625	AS5174D1006	1/	MS24399D20	.750	AS5174D1208	1/
MS24399D15	.625	AS5174W1006	2/	MS24399D20	.750	AS5174W1208	2/
MS24399J15	.625	AS5174J1006		MS24399J20	.750	AS5174J1208	
MS24399K15	.625	AS5174K1006		MS24399K20	.750	AS5174K1208	
MS24399S15	.625	AS5174S1006	3/	MS24399S20	.750	AS5174S1208	3/
MS24399S15	.625	AS5174R1006	4/	MS24399S20	.750	AS5174R1208	4/
MS24399T15	.625	AS5174T1006		MS24399T20	.750	AS5174T1208	
MS24399W15	.625	AS5174W1006		MS24399W20	.750	AS5174W1208	

See notes at end at tables

Excerpt from MS24399, Rev F, Notice 2

Appendix 20: (continue) MS24399 to AS5174

TABLE I. MS24399 to SAE-AS5174, cross-reference data – Continued.

Cancelled MS PIN	Tube Size	Replacement AS PIN		Cancelled MS PIN	Tube Size	Replacement AS PIN	
MS24399-21	.750	AS5174-1210		MS24399-26	1.250	AS5174-2012	
MS24399D21	.750	AS5174D1210	1/	MS24399D26	1.250	AS5174D2012	1/
MS24399D21	.750	AS5174W1210	2/	MS24399D26	1.250	AS5174W2012	2/
MS24399J21	.750	AS5174J1210		MS24399J26	1.250	AS5174J2012	
MS24399K21	.750	AS5174K1210		MS24399K26	1.250	AS5174K2012	
MS24399S21	.750	AS5174S1210	3/	MS24399S26	1.250	AS5174S2012	3/
MS24399S21	.750	AS5174R1210	4/	MS24399R26	1.250	AS5174R2012	4/
MS24399T21	.750	AS5174T1210		MS24399T26	1.250	AS5174T2012	
MS24399W21	.750	AS5174W1210		MS24399W26	1.250	AS5174W2012	
MS24399-22	1.000	AS5174-1604		MS24399-27	1.250	AS5174-2016	
MS24399D22	1.000	AS5174D1604	1/	MS24399D27	1.250	AS5174D2016	1/
MS24399D22	1.000	AS5174W1604	2/	MS24399D27	1.250	AS5174W2016	2/
MS24399J22	1.000	AS5174J1604		MS24399J27	1.250	AS5174J2016	
MS24399K22	1.000	AS5174K1604		MS24399K27	1.250	AS5174K2016	
MS24399S22	1.000	AS5174S1604	3/	MS24399S27	1.250	AS5174S2016	3/
MS24399S22	1.000	AS5174R1604	4/	MS24399R27	1.250	AS5174R2016	4/
MS24399T22	1.000	AS5174T1604		MS24399T27	1.250	AS5174T2016	
MS24399W22	1.000	AS5174W1604		MS24399W27	1.250	AS5174W2016	
MS24399-23	1.000	AS5174-1610		MS24399-28	1.500	AS5174-2416	
MS24399D23	1.000	AS5174D1610	1/	MS24399D28	1.500	AS5174D2416	1/
MS24399D23	1.000	AS5174W1610	2/	MS24399D28	1.500	AS5174W2416	2/
MS24399J23	1.000	AS5174J1610		MS24399J28	1.500	AS5174J2416	
MS24399K23	1.000	AS5174K1610		MS24399K28	1.500	AS5174K2416	
MS24399S23	1.000	AS5174S1610	3/	MS24399S28	1.500	AS5174S2416	3/
MS24399S23	1.000	AS5174R1610	4/	MS24399S28	1.500	AS5174R2416	4/
MS24399T23	1.000	AS5174T1610		MS24399T28	1.500	AS5174T2416	
MS24399W23	1.000	AS5174W1610		MS24399W28	1.500	AS5174W2416	
MS24399-24	1.000	AS5174-1612		MS24399-29	1.500	AS5174-2420	
MS24399D24	1.000	AS5174D1612	1/	MS24399D29	1.500	AS5174D2420	1/
MS24399D24	1.000	AS5174W1612	2/	MS24399D29	1.500	AS5174W2420	2/
MS24399J24	1.000	AS5174J1612		MS24399J29	1.500	AS5174J2420	
MS24399K24	1.000	AS5174K1612		MS24399K29	1.500	AS5174K2420	
MS24399S24	1.000	AS5174S1612	3/	MS24399S29	1.500	AS5174S2420	3/
MS24399S24	1.000	AS5174R1612	4/	MS24399S29	1.500	AS5174R2420	4/
MS24399T24	1.000	AS5174T1612		MS24399T29	1.500	AS5174T2420	
MS24399W24	1.000	AS5174W1612		MS24399W29	1.500	AS5174W2420	
MS24399-25	1.250	AS5174-2004		MS24399-30	1.000	AS5174-1608	
MS24399D25	1.250	AS5174D2004	1/	MS24399D30	1.000	AS5174D1608	1/
MS24399D25	1.250	AS5174W2004	2/	MS24399D30	1.000	AS5174W1608	2/
MS24399J25	1.250	AS5174J2004		MS24399J30	1.000	AS5174J1608	
MS24399K25	1.250	AS5174K2004		MS24399K30	1.000	AS5174K1608	
MS24399S25	1.250	AS5174S2004	3/	MS24399S30	1.000	AS5174S1608	3/
MS24399S24	1.000	AS5174R1612	4/	MS24399S29	1.500	AS5174R2420	4/
MS24399T25	1.250	AS5174T2004		MS24399T30	1.000	AS5174T1608	
MS24399W25	1.250	AS5174W2004		MS24399W30	1.000	AS5174W1608	

1/ For replacements parts, use code letter "D". Reason: SAE G3 and DoD/SAE liaisons agreed to use code "D" for replacement PINs.

Excerpt from MS24399, Rev F, Notice 2

Appendix 20: (continue) MS24399 to AS5174

TABLE I. MS24399 to SAE-AS5174, cross-reference data – Continued.

2/ For new design parts use code letter "W" . Reason: SAE G3 and DoD/SAE liaisons agreed to use code "W" for new design.
3/ For replacement parts use code letter "S". Reason: SAE G3 and DoD/ SAE liaisons agreed to use code "D" for replacement PINs.
4/ For new design parts use code letter "R". Reason: SAE G3 and DoD/-SAE liaisons agreed to use code "R" for new design.

Excerpt from MS24399, Rev F, Notice 2

Appendix 21: MS35223 to MS35206

TABLE II – INTERCHANGEABILITY

PART NUMBERS											
CANCELLED		NEW	CANCELLED		NEW	CANCELLED		NEW	CANCELLED		NEW
MS24584 MS35204 MS35206 MS35208 MS35210	MS35221 MS35223 MS35225 MS35227	MS35206	MS24584 MS35204 MS35206 MS35208 MS35210	MS35221 MS35223 MS35225 MS35227	MS35206	MS35204 MS35206 MS35208 MS35210	MS35221 MS35223 MS35225 MS35227	MS35206	MS35204 MS35206 MS35208 MS35210	MS35221 MS35223 MS35225 MS35227	MS35206
1	1	201	27	30	230	51	59	259	79	89	289
2	2	202	28	31	231	52	60	260	--	90	290
3	3	203	29	32	232	53	61	261	--	91	291
4	4	204	30	33	233	54	62	262	80	92	292
5	5	205	31	34	234	55	63	263	81	93	293
6	6	206	32	35	235	56	64	264	82	94	294
7	7	207	33	36	236	57	65	265	83	95	295
8	8	208	34	37	237	58	66	266	84	96	296
9	9	209	35	38	238	59	67	267	85	97	297
--	10	210	36	39	239	60	68	268	86	98	298
10	11	211	37	40	240	61	69	269	87	99	299
11	12	212	38	41	241	62	70	270	88	100	300
12	13	213	39	42	242	63	71	271	89	101	301
13	14	214	40	43	243	64	72	272	90	102	302
14	15	215	41	44	244	65	73	273	91	103	303
15	16	216	42	45	245	--	74	274	92	104	304
16	17	217	43	46	246	--	75	275	--	105	305
17	18	218	44	47	247	66	76	276	--	106	306
18	19	219	45	48	248	67	77	277	93	107	307
19	20	220	46	49	249	68	78	278	94	108	308
20	21	221	47	50	250	69	79	279	95	109	309
--	22	222	48	51	251	70	80	280	96	110	310
--	23	223	49	52	252	71	81	281	97	111	311
21	24	224	50	53	253	72	82	282	98	112	312
22	25	225	--	54	254	73	83	283	99	113	313
23	26	226	--	55	255	74	84	284	100	114	314
24	27	227	--	56	256	75	85	285	101	115	315
25	28	228	--	57	257	76	86	286	102	116	316
26	29	229	--	58	258	77	87	287	103	117	317
						78	88	288	104	118	318
									105	119	319

Excerpt from NASM35206 Rev 3

Appendix 22: NAS697 to MS21069

INTERCHANGEABILITY RELATIONSHIP

MS21069 NUTS CAN UNIVERSALLY REPLACE NAS697 NUTS OF LIKE MATERIAL, THREAD SIZE, LUBRICANT (DRY FILM OR NON-DRY FILM LUBRICANT), AND FASTENING METHOD (PLAIN RIVET HOLES; DIMPLED OR COUNTERSUNK RIVET HOLES), BUT THESE NAS697 NUTS CANNOT UNIVERSALLY REPLACE MS21069 NUTS.

TABLE II – INTERCHANGEABILITY TABLE /6/

CANCELLED PART NUMBER	SUBSTITUTIVE PART NUMBERS	CANCELLED PART NUMBERS	SUBSTITUTIVE PART NUMBERS
NAS697X02	MS21069-02	NAS697X3K	MS21069-3K
NAS697A02	MS21069L02	NAS697A3K	MS21069L3K
NAS697X03	MS21069-03	NAS697X4	MS21069-4
NAS697A03	MS21069L03	NAS697A4	MS21069L4
NAS697X04L	MS21069-04	NAS697X4K	MS21069-4K
NAS697A04L	MS21069L04	NAS697A4K	MS21069L4K
NAS697X04LK	MS21069-04K	NAS697X5	MS21069-5
NAS697A04LK	MS21069L04K	NAS697A5	MS21069L5
NAS697X06L	MS21069-06	NAS697X5K	MS21069-5K
NAS697A06L	MS21069L06	NAS697A5K	MS21069L5K
NAS697X06LK	MS21069-06K	NAS697X6	MS21069-6
NAS697A06LK	MS21069L06K	NAS697A6	MS21069L6
NAS697X08	MS21069-08		
NAS697A08	MS21069L08		
NAS697X08K	MS21069-08K		
NAS697A08K	MS21069L08K		
NAS697X3	MS21069-3		
NAS697A3	MS21069L3		

Excerpt from NASM21069, Rev 1

Appendix 23: P & XP to NAS1919

PROTRUDING HEAD				
RIVET DIA.	DRAWING CALLOUT HUCK PART NO.	GRIP RANGE	AUTHORIZED HUCK SUBSTITUTE	GRIP RANGE
1/8	P4A or XP4A	.020 - .036	NAS1919B04-01	.020 - .062
	P4B or XP4B	.037 - .061	NAS1919B04-01	.020 - .062
	P4C or XP4C	.062 - .086	NAS1919B04-02	.063 - .125
	P4D or XP4D	.087 - .111	NAS1919B04-02	.063 - .125
	*P4E or XP4E	.112 - .136	NAS1919B04-02	.063 - .125
	P4F or XP4F	.137 - .161	NAS1919B04-03	.126 - .187
	P4G or XP4G	.162 - .186	NAS1919B04-03	.126 - .187
	P4H or XP4H	.187 - .211	NAS1919B04-04	.188 - .250
	P4J or XP4J	.212 - .236	NAS1919B04-04	.188 - .250
5/32	P5A or XP5A	.025 - .045	NAS1919B05-01	.025 - .062
	*P5B or XP5B	.046 - .076	NAS1919B05-01	.025 - .062
	P5C or XP5C	.077 - .107	NAS1919B05-02	.063 - .125
	*P5D or XP5D	.108 - .138	NAS1919B05-02	.063 - .125
	P5E or XP5E	.139 - .169	NAS1919B05-03	.126 - .187
	*P5F or XP5F	.170 - .200	NAS1919B05-03	.126 - .187
	P5G or XP5G	.201 - .231	NAS1919B05-04	.188 - .250
	*P5H or XP5H	.232 - .262	NAS1919B05-04	.188 - .250
	P5J or XP5J	.263 - .293	NAS1919B05-05	.251 - .312
	*P5K or XP5K	.294 - .324	NAS1919B05-05	.251 - .312
	P5L or XP5L	.324 - .355	NAS1919B05-06	.313 - .375
	*P5M or XP5M	.356 - .386	NAS1919B05-06	.313 - .375
	P5N or XP5N	.387 - .417	NAS1919B05-07	.376 - .437
3/16	P6A or XP6A	.030 - .054	NAS1919B06-01	.030 - .062
	*P6B or XP6B	.055 - .091	NAS1919B06-02	.063 - .125
	P6C or XP6C	.092 - .128	NAS1919B06-02	.063 - .125
	P6D or XP6D	.129 - .165	NAS1919B06-03	.126 - .187
	*P6E or XP6E	.166 - .202	NAS1919B06-03	.126 - .187
	P6F or XP6F	.203 - .239	NAS1919B06-04	.188 - .250
	*P6G or XP6G	.240 - .276	NAS1919B06-05	.251 - .312
	P6H or XP6H	.277 - .313	NAS1919B06-05	.251 - .312
	P6J or XP6J	.314 - .350	NAS1919B06-06	.313 - .375
	*P6K or XP6K	.351 - .387	NAS1919B06-06	.313 - .375
	P6L or XP6L	.388 - .424	NAS1919B06-07	.376 - .437
	*P6M or XP6M	.425 - .461	NAS1919B06-08	.438 - .500
	P6N or XP6N	.462 - .498	NAS1919B06-08	.438 - .500
	P6P or XP6P	.499 - .535	NAS1919B06-09	.501 - .562

* Not a direct substitute. Grip should be measured to determine correct fastener substitution.

1. Use same drill sizes as specified on SS5100 except #30 drill should be substituted in place of #3.3 MM for 1/8 in NAS1919B rivet diameter.

2. Interchangeability is in one direction due to increase grip sensitivity of the NAS1919 rivets, i.e. NAS1919 can replace CKL rivets but on conversely.

Excerpt from SS9953 Rev IR

Appendix 24: 100V to NAS1921

FLUSH HEAD				
RIVET DIA	DRAWING CALLOUT HUCK PART NO.	GRIP RANGE	AUTHORIZED HUCK SUBSTITUTE	GRIP RANGE
1/8	100V4A or X100V4A	.062 - .078	NAS1921B04-02	.062 - .125
	100V4B or X100V4B	.079 - .103	NAS1921B04-02	.062 - .125
	100V4C or X100V4C	.104 - .128	NAS1921B04-02	.062 - .125
	100V4D or X100V4D	.129 - .153	NAS1921B04-03	.126 - .187
	100V4E or X100V4E	.154 - .178	NAS1921B04-03	.126 - .187
	*100V4F or X100V4F	.179 - .203	NAS1921B04-04	.188 - .250
	100V4G or X100V4G	.204 - .228	NAS1921B04-04	.188 - .250
	100V4H or X100V4H	.229 - .253	NAS1921B04-04	.188 - .250
	100V4J or X100V4J	.254 - .278	NAS1921B04-05	.251 - .312
5/32	100V5A or X100V5A	.080 - .100	NAS1921B05-02	.080 - .125
	*100V5B or X100V5B	.101 - .131	NAS1921B05-02	.080 - .125
	100V5C or X100V5C	.132 - .162	NAS1921B05-03	.126 - .187
	*100V5D or X100V5D	.163 - .193	NAS1921B05-03	.126 - .187
	100V5E or X100V5E	.194 - .224	NAS1921B05-04	.188 - .250
	*100V5F or X100V5F	.225 - .255	NAS1921B05-04	.188 - .250
	100V5G or X100V5G	.256 - .286	NAS1921B05-05	.251 - .312
	*100V5H or X100V5H	.287 - .317	NAS1921B05-05	.251 - .312
	100V5J or X100V5J	.318 - .348	NAS1921B05-06	.313 - .375
	100V5K or X100V5K	.349 - .379	NAS1921B05-06	.313 - .375
	100V5L or X100V5L	.380 - .410	NAS1921B05-07	.376 - .437
	100V5M or X100V5M	.411 - .441	NAS1921B05-07	.376 - .437
	100V5N or X100V5N	.442 - .472	NAS1921B05-08	.438 - .500
3/16	100V6A or X100V6A	.100 - .124	NAS1921B06-02	.100 - .125
	100V6B or X100V6B	.125 - .161	NAS1921B06-03	.126 - .187
	*100V6C or X100V6C	.162 - .198	NAS1921B06-03	.126 - .187
	100V6D or X100V6D	.199 - .235	NAS1921B06-04	.188 - .250
	*100V6E or X100V6E	.236 - .272	NAS1921B06-05	.251 - .312
	100V6F or X100V6F	.273 - .309	NAS1921B06-05	.251 - .312
	100V6G or X100V6G	.310 - .346	NAS1921B06-06	.313 - .375
	*100V6H or X100V6H	.347 - .383	NAS1921B06-06	.313 - .375
	100V6J or X100V6J	.384 - .420	NAS1921B06-07	.376 - .437
	*100V6K or X100V6K	.421 - .457	NAS1921B06-08	.438 - .500
	100V6L or X100V6L	.458 - .494	NAS1921B06-08	.438 - .500
	*100V6M or X100V6M	.495 - .531	NAS1921B06-09	.501 - .562
	*100V6N or X100V6N	.532 - .568	NAS1921B06-09	.501 - .562
	100V6P or X100V6P	.569 - .605	NAS1921B06-10	.563 - .625

*Not a direct substitute. Grip should be measured to determine correct fastener substitution.

* Not a direct substitute. Grip should be measured to determine correct fastener substitution.

1. Use same drill sizes as specified on SS5100 except #30 drill should be substituted in place of #3.3 MM for 1/8 in NAS1921B rivet diameter.

2. Interchangeability is in one direction due to increase grip sensitivity of the NAS1919 rivets, i.e. NAS1921 can replace CKL rivets but on conversely.

Excerpt from SS9953 Rev IR

Appendix 25: AN6227 to MS28775

INTERCHANGEABILITY
AFTER 13 JULY 1991, AN6227 PACKING "O" RINGS ARE INACTIVE FOR NEW DESIGN.
EXISTING STOCK MAY BE USED UNTIL DEPLETED.
SUBSTITUTION SHALL BE IN ACCORDANCE WITH THE FOLLOWING TABLE.

PART NUMBERS			
INACTIVE PART NUMBER	SUBSTITUTE PART NUMBER	INACTIVE PART NUMBER	SUBSTITUTE PART NUMBER
AN6227-1	MS28775-006	AN6227-45	MS28775-342
AN6227-2	MS28775-007	AN6227-46	MS28775-343
AN6227-3	MS28775-008	AN6227-47	MS28775-344
AN6227-4	MS28775-009	AN6227-48	MS28775-345
AN6227-5	MS28775-010	AN6227-49	MS28775-346
AN6227-6	MS28775-011	AN6227-50	MS28775-347
AN6227-7	MS28775-012	AN6227-51	MS28775-348
AN6227-8	MS28775-110	AN6227-52	MS28775-349
AN6227-9	MS28775-111	AN6227-53	MS28775-426
AN6227-10	MS28775-112	AN6227-54	MS28775-427
AN6227-11	MS28775-113	AN6227-55	MS28775-428
AN6227-12	MS28775-114	AN6227-56	MS28775-429
AN6227-13	MS28775-115	AN6227-57	MS28775-430
AN6227-14	MS28775-116	AN6227-58	MS28775-431
AN6227-15	MS28775-210	AN6227-59	MS28775-432
AN6227-16	MS28775-211	AN6227-60	MS28775-433
AN6227-17	MS28775-212	AN6227-61	MS28775-434
AN6227-18	MS28775-213	AN6227-62	MS28775-435
AN6227-19	MS28775-214	AN6227-63	MS28775-436
AN6227-20	MS28775-215	AN6227-64	MS28775-437
AN6227-21	MS28775-216	AN6227-65	MS28775-438
AN6227-22	MS28775-217	AN6227-66	MS28775-439
AN6227-23	MS28775-218	AN6227-67	MS28775-440
AN6227-24	MS28775-219	AN6227-68	MS28775-441
AN6227-25	MS28775-220	AN6227-69	MS28775-442
AN6227-26	MS28775-221	AN6227-70	MS28775-443
AN6227-27	MS28775-222	AN6227-71	MS28775-444
AN6227-28	MS28775-325	AN6227-72	MS28775-445
AN6227-29	MS28775-326	AN6227-73	MS28775-446
AN6227-30	MS28775-327	AN6227-74	MS28775-447
AN6227-31	MS28775-328	AN6227-75	MS28775-448
AN6227-32	MS28775-329	AN6227-76	MS28775-449
AN6227-33	MS28775-330	AN6227-77	MS28775-450
AN6227-34	MS28775-331	AN6227-78	MS28775-451
AN6227-35	MS28775-332	AN6227-79	MS28775-452
AN6227-36	MS28775-333	AN6227-80	MS28775-453
AN6227-37	MS28775-334	AN6227-81	MS28775-454
AN6227-38	MS28775-335	AN6227-82	MS28775-455
AN6227-39	MS28775-336	AN6227-83	MS28775-456
AN6227-40	MS28775-337	AN6227-84	MS28775-457
AN6227-41	MS28775-338	AN6227-85	MS28775-458
AN6227-42	MS28775-339	AN6227-86	MS28775-459
AN6227-43	MS28775-340	AN6227-87	MS28775-460
AN6227-44	MS28775-341	AN6227-88	MS28775-425

Appendix 26: AN804 to AS1033

AN804 Rev G
NOTICE 2

TABLE I. AN804 Rev G to SAE-AS1033, cross-reference data.

Cancelled AN PIN	Tube Size	Replacement AS PIN	New Design	Cancelled AN PIN	Tube Size	Replacement AS PIN	New Design
AN804-2	.125	AS1033-020202		AN804-10	.625	AS1033-101010	
AN804D2	.125	AS1033 D020202	AS1033 W020202	AN804D10	.625	AS1033 D101010	AS1033 W101010
AN804J2	.125	AS1033 J020202		AN804J10	.625	AS1033 J101010	
AN804K2	.125	AS1033 K020202		AN804K10	.625	AS1033 K101010	
AN804S2	.125	AS1033 S020202	AS1033 R020202	AN804S10	.625	AS1033 S101010	AS1033 R101010
AN804T2	.125	AS1033 T020202		AN804T10	.625	AS1033 T101010	
AN804W2	.125	AS1033 W020202		AN804W10	.625	AS1033 W101010	
AN804-3	.188	AS1033-030303		AN804-12	.750	AS1033-121212	
AN804D3	.188	AS1033 D030303	AS1033 W030303	AN804D12	.750	AS1033 D121212	AS1033 W121212
AN804J3	.188	AS1033 J030303		AN804J12	.750	AS1033 J121212	
AN804K3	.188	AS1033 K030303		AN804K12	.750	AS1033 K121212	
AN804S3	.188	AS1033 S030303	AS1033 R030303	AN804S12	.750	AS1033 S121212	AS1033 R121212
AN804T3	.188	AS1033 T030303		AN804T12	.750	AS1033 T121212	
AN804W3	.188	AS1033 W030303		AN804W12	.750	AS1033 W121212	
AN804-4	.250	AS1033-040404		AN804-16	1.000	AS1033-161616	
AN804D4	.250	AS1033 D040404	AS1033 W040404	AN804D16	1.000	AS1033 D161616	AS1033 W161616
AN804J4	.250	AS1033 J040404		AN804J16	1.000	AS1033 J161616	
AN804K4	.250	AS1033 K040404		AN804K16	1.000	AS1033 K161616	
AN804S4	.250	AS1033 S040404	AS1033 R040404	AN804S16	1.000	AS1033 S161616	AS1033 R161616
AN804T4	.250	AS1033 T040404		AN804T16	1.000	AS1033 T161616	
AN804W4	.250	AS1033 W040404		AN804W16	1.000	AS1033 W161616	

Appendix 26 (continue): AN804 to AS1033

AN804 Rev G
NOTICE 2

TABLE I. AN804 Rev G to SAE-AS1033, cross-reference data – Continued.

Cancelled AN PIN	Tube Size	Replacement AS PIN	New Design	Cancelled AN PIN	Tube Size	Replacement AS PIN	New Design
AN804-5	.312	AS1033-050505		AN804-20	1.250	AS1033-202020	
AN804D5	.312	AS1033 D050505	AS1033 W050505	AN804D20	1.250	AS1033 D202020	AS1033 W202020
AN804J5	.312	AS1033 J050505		AN804J20	1.250	AS1033 J202020	
AN804K5	.312	AS1033 K050505		AN804K20	1.250	AS1033 K202020	
AN804S5	.312	AS1033 S050505	AS1033 R050505	AN804S20	1.250	AS1033 S202020	AS1033 R202020
AN804T5	.312	AS1033 T050505		AN804T20	1.250	AS1033 T202020	
AN804W5	.312	AS1033 W050505		AN804W20	1.250	AS1033 W202020	
AN804-6	.375	AS1033-060606		AN804-24	1.500	AS1033-242424	
AN804D6	.375	AS1033 D060606	AS1033 W060606	AN804D24	1.500	AS1033 D242424	AS1033 W242424
AN804J6	.375	AS1033 J060606		AN804J24	1.500	AS1033 J242424	
AN804K6	.375	AS1033 K060606		AN804K24	1.500	AS1033 K242424	
AN804S6	.375	AS1033 S060606	AS1033 R060606	AN804S24	1.500	AS1033 S242424	AS1033 R242424
AN804T6	.375	AS1033 T060606		AN804T24	1.500	AS1033 T242424	
AN804W6	.375	AS1033 W060606		AN804W24	1.500	AS1033 W242424	
AN804-8	.500	AS1033-080808		AN804-28	1.750	AS1033-282828	
AN804D8	.500	AS1033 D080808	AS1033 W080808	AN804D28	1.750	AS1033-D282828	AS1033-W282828
AN804J8	.500	AS1033 J080808		AN804J28	1.750	AS1033-J282828	
AN804K8	.500	AS1033 K080808		AN804K28	1.750	AS1033-K282828	
AN804S8	.500	AS1033 S080808	AS1033 R080808	AN804S28	1.750	AS1033-S282828	AS1033-R282828
AN804T8	.500	AS1033 T080808		AN804T28	1.750	AS1033-T282828	
AN804W8	.500	AS1033 W080808		AN804W28	1.750	AS1033-W282828	

Appendix 26 (continue): AN804 to AS1033

AN804 Rev G
NOTICE 2

TABLE I. AN804 Rev G to SAE-AS1033, cross-reference data – Continued.

Cancelled AN PIN	Tube Size	Replacement AS PIN	New Design
AN804-32	2.000	AS1033-323232	
AN804D32	2.000	AS1033 D323232	AS1033 W323232
AN804J32	2.000	AS1033 J323232	
AN804K32	2.000	AS1033 K323232	
AN804S32	2.000	AS1033 S323232	AS1033 R323232
AN804T32	2.000	AS1033 T323232	
AN804W32	2.000	AS1033 W323232	

Appendix 27: AN806 to AS5168

AN806 REV 7
NOTICE 1

TABLE 1 - Cross-Reference Data

Cancelled AN PIN	Tube Size	Replacement AS PIN	Cancelled AN PIN	Tube Size	Replacement AS PIN
AN806-2	.125	AS5168-02	AN806-8	.500	AS5168-08
AN806-D2	.125	AS5168D02	AN806-D8	.500	AS5168D08
AN806-J2	.125	AS5168J02	AN806-J8	.500	AS5168J08
AN806-K2	.125	AS5168K02	AN806-K8	.500	AS5168K08
AN806-S2	.125	AS5168R02	AN806-S8	.500	AS5168R08
AN806-T2	.125	AS5168T02	AN806-T8	.500	AS5168T08
AN806-W2	.125	AS5168W02	AN806-W8	.500	AS5168W08
AN806-3	.188	AS5168-03	AN806-10	.625	AS5168-10
AN806-D3	.188	AS5168D03	AN806-D10	.625	AS5168D10
AN806-J3	.188	AS5168J03	AN806-J10	.625	AS5168J10
AN806-K3	.188	AS5168K03	AN806-K10	.625	AS5168K10
AN806-S3	.188	AS5168R03	AN806-S10	.625	AS5168R10
AN806-T3	.188	AS5168T03	AN806-T10	.625	AS5168T10
AN806-W3	.188	AS5168W03	AN806-W10	.625	AS5168W10
AN806-4	.250	AS5168-04	AN806-12	.750	AS5168-12
AN806-D4	.250	AS5168D04	AN806-D12	.750	AS5168D12
AN806-J4	.250	AS5168J04	AN806-J12	.750	AS5168J12
AN806-K4	.250	AS5168K04	AN806-K12	.750	AS5168K12
AN806-S4	.250	AS5168R04	AN806-S12	.750	AS5168R12
AN806-T4	.250	AS5168T04	AN806-T12	.750	AS5168T12
AN806-W4	.250	AS5168W04	AN806-W12	.750	AS5168W12
AN806-5	.312	AS5168-05	AN806-16	1.000	AS5168-16
AN806-D5	.312	AS5168D05	AN806-D16	1.000	AS5168D16
AN806-J5	.312	AS5168J05	AN806-J16	1.000	AS5168J16
AN806-K5	.312	AS5168K05	AN806-K16	1.000	AS5168K16
AN806-S5	.312	AS5168R05	AN806-S16	1.000	AS5168R16
AN806-T5	.312	AS5168T05	AN806-T16	1.000	AS5168T16
AN806-W5	.312	AS5168W05	AN806-W16	1.000	AS5168W16
AN806-6	.375	AS5168-06	AN806-20	1.250	AS5168-20
AN806-D6	.375	AS5168D06	AN806-D20	1.250	AS5168D20
AN806-J6	.375	AS5168J06	AN806-J20	1.250	AS5168J20
AN806-K6	.375	AS5168K06	AN806-K20	1.250	AS5168K20
AN806-S6	.375	AS5168R06	AN806-S20	1.250	AS5168R20
AN806-T6	.375	AS5168T06	AN806-T20	1.250	AS5168T20
AN806-W6	.375	AS5168W06	AN806-W20	1.250	AS5168W20

Appendix 27 (continue): AN806 to AS5168

AN806 REV 7
NOTICE 1

TABLE 1 - Cross-Reference Data (Continued)

Cancelled AN PIN	Tube Size	Replacement AS PIN
AN806-24	1.500	AS5168-24
AN806-D24	1.500	AS5168D24
AN806-J24	1.500	AS5168J24
AN806-K24	1.500	AS5168K24
AN806-S24	1.500	AS5168R24
AN806-T24	1.500	AS5168T24
AN806-W24	1.500	AS5168W24
AN806-28	1.750	AS5168-28
AN806-D28	1.750	AS5168D28
AN806-J28	1.750	AS5168J28
AN806-K28	1.750	AS5168K28
AN806-S28	1.750	AS5168R28
AN806-T28	1.750	AS5168T28
AN806-W28	1.750	AS5168W28

Cancelled AN PIN	Tube Size	Replacement AS PIN
AN806-32	2.000	AS5168-32
AN806-D32	2.000	AS5168D32
AN806-J32	2.000	AS5168J32
AN806-K32	2.000	AS5168K32
AN806-S32	2.000	AS5168R32
AN806-T32	2.000	AS5168T32
AN806-W32	2.000	AS5168W32

Appendix 28: AN816 to AS5194

AN816 REV 13
NOTICE 1

TABLE 1 - Cross-Reference Data

Cancelled AN PIN	Tube Size	Pipe Size	Replacement AS PIN
AN816-2	.125	.125	AS5194-0202
AN816-2B	.125	.125	AS5194B0202
AN816-2D	.125	.125	AS5194D0202
AN816-2J	.125	.125	AS5194J0202
AN816-2K	.125	.125	AS5194K0202
AN816-2S	.125	.125	AS5194R0202
AN816-2W	.125	.125	AS5194W0202
AN816-3	.188	.125	AS5194-0302
AN816-3B	.188	.125	AS5194B0302
AN816-3D	.188	.125	AS5194D0302
AN816-3J	.188	.125	AS5194J0302
AN816-3K	.188	.125	AS5194K0302
AN816-3S	.188	.125	AS5194R0302
AN816-3W	.188	.125	AS5194W0302
AN816-4	.250	.125	AS5194-0402
AN816-4B	.250	.125	AS5194B0402
AN816-4D	.250	.125	AS5194D0402
AN816-4J	.250	.125	AS5194J0402
AN816-4K	.250	.125	AS5194K0402
AN816-4S	.250	.125	AS5194R0402
AN816-4W	.250	.125	AS5194W0402
AN816-4-4	.250	.250	AS5194-0404
AN816-4-4B	.250	.250	AS5194B0404
AN816-4-4D	.250	.250	AS5194D0404
AN816-4-4J	.250	.250	AS5194J0404
AN816-4-4K	.250	.250	AS5194K0404
AN816-4-4S	.250	.250	AS5194R0404
AN816-4-4W	.250	.250	AS5194W0404
AN816-5	.312	.125	AS5194-0502
AN816-5B	.312	.125	AS5194B0502
AN816-5D	.312	.125	AS5194D0502
AN816-5J	.312	.125	AS5194J0502
AN816-5K	.312	.125	AS5194K0502
AN816-5S	.312	.125	AS5194R0502
AN816-5W	.312	.125	AS5194W0502
AN816-5-4	.312	.250	AS5194-0504
AN816-5-4B	.312	.250	AS5194B0504
AN816-5-4D	.312	.250	AS5194D0504
AN816-5-4J	.312	.250	AS5194J0504
AN816-5-4K	.312	.250	AS5194K0504
AN816-5-4S	.312	.250	AS5194R0504
AN816-5-4W	.312	.250	AS5194W0504
AN816-6-2	.375	.125	AS5194-0602
AN816-6-2B	.375	.125	AS5194B0602
AN816-6-2D	.375	.125	AS5194D0602
AN816-6-2J	.375	.125	AS5194J0602
AN816-6-2K	.375	.125	AS5194K0602
AN816-6-2S	.375	.125	AS5194R0602
AN816-6-2W	.375	.125	AS5194W0602
AN816-6	.375	.250	AS5194-0604
AN816-6B	.375	.250	AS5194B0604
AN816-6D	.375	.250	AS5194D0604
AN816-6J	.375	.250	AS5194J0604
AN816-6K	.375	.250	AS5194K0604
AN816-6S	.375	.250	AS5194R0604
AN816-6W	.375	.250	AS5194W0604
AN816-6-6	.375	.375	AS5194-0606
AN816-6-6B	.375	.375	AS5194B0606
AN816-6-6D	.375	.375	AS5194D0606
AN816-6-6J	.375	.375	AS5194J0606
AN816-6-6K	.375	.375	AS5194K0606
AN816-6-6S	.375	.375	AS5194R0606
AN816-6-6W	.375	.375	AS5194W0606
AN816-6-8	.375	.500	AS5194-0608
AN816-6-8B	.375	.500	AS5194B0608
AN816-6-8D	.375	.500	AS5194D0608
AN816-6-8J	.375	.500	AS5194J0608
AN816-6-8K	.375	.500	AS5194K0608
AN816-6-8S	.375	.500	AS5194R0608
AN816-6-8W	.375	.500	AS5194W0608

Appendix 28 (continue): AN816 to AS5194

AN816 REV 13
NOTICE 1
TABLE 1 - Cross-Reference Data (Continued)

Cancelled AN PIN	Tube Size	Pipe Size	Replacement AS PIN
AN816-7	.500	.250	AS5194-0804
AN816-7B	.500	.250	AS5194B0804
AN816-7D	.500	.250	AS5194D0804
AN816-7J	.500	.250	AS5194J0804
AN816-7K	.500	.250	AS5194K0804
AN816-7S	.500	.250	AS5194R0804
AN816-7W	.500	.250	AS5194W0804
AN816-8	.500	.375	AS5194-0806
AN816-8B	.500	.375	AS5194B0806
AN816-8D	.500	.375	AS5194D0806
AN816-8J	.500	.375	AS5194J0806
AN816-8K	.500	.375	AS5194K0806
AN816-8S	.500	.375	AS5194R0806
AN816-8W	.500	.375	AS5194W0806
AN816-10	.625	.500	AS5194-1008
AN816-10B	.625	.500	AS5194B1008
AN816-10D	.625	.500	AS5194D1008
AN816-10J	.625	.500	AS5194J1008
AN816-10K	.625	.500	AS5194K1008
AN816-10S	.625	.500	AS5194R1008
AN816-10W	.625	.500	AS5194W1008
AN816-10-12	.625	.750	AS5194-1012
AN816-10-12B	.625	.750	AS5194B1012
AN816-10-12D	.625	.750	AS5194D1012
AN816-10-12J	.625	.750	AS5194J1012
AN816-10-12K	.625	.750	AS5194K1012
AN816-10-12S	.625	.750	AS5194R1012
AN816-10-12W	.625	.750	AS5194W1012
AN816-12-8	.750	.500	AS5194-1208
AN816-12-8B	.750	.500	AS5194B1208
AN816-12-8D	.750	.500	AS5194D1208
AN816-12-8J	.750	.500	AS5194J1208
AN816-12-8K	.750	.500	AS5194K1208
AN816-12-8S	.750	.500	AS5194R1208
AN816-12-8W	.750	.500	AS5194W1208

Cancelled AN PIN	Tube Size	Pipe Size	Replacement AS PIN
AN816-12	.750	.750	AS5194-1212
AN816-12B	.750	.750	AS5194B1212
AN816-12D	.750	.750	AS5194D1212
AN816-12J	.750	.750	AS5194J1212
AN816-12K	.750	.750	AS5194K1212
AN816-12S	.750	.750	AS5194R1212
AN816-12W	.750	.750	AS5194W1212
AN816-12-16	.750	1.000	AS5194-1216
AN816-12-16B	.750	1.000	AS5194B1216
AN816-12-16D	.750	1.000	AS5194D1216
AN816-12-16J	.750	1.000	AS5194J1216
AN816-12-16K	.750	1.000	AS5194K1216
AN816-12-16S	.750	1.000	AS5194R1216
AN816-12-16W	.750	1.000	AS5194W1216
AN816-16-12	1.000	.750	AS5194-1612
AN816-16-12B	1.000	.750	AS5194B1612
AN816-16-12D	1.000	.750	AS5194D1612
AN816-16-12J	1.000	.750	AS5194J1612
AN816-16-12K	1.000	.750	AS5194K1612
AN816-16-12S	1.000	.750	AS5194R1612
AN816-16-12W	1.000	.750	AS5194W1612
AN816-16	1.000	1.000	AS5194-1616
AN816-16B	1.000	1.000	AS5194B1616
AN816-16D	1.000	1.000	AS5194D1616
AN816-16J	1.000	1.000	AS5194J1616
AN816-16K	1.000	1.000	AS5194K1616
AN816-16S	1.000	1.000	AS5194R1616
AN816-16W	1.000	1.000	AS5194W1616
AN816-20	1.250	1.250	AS5194-2020
AN816-20B	1.250	1.250	AS5194B2020
AN816-20D	1.250	1.250	AS5194D2020
AN816-20J	1.250	1.250	AS5194J2020
AN816-20K	1.250	1.250	AS5194K2020
AN816-20S	1.250	1.250	AS5194R2020
AN816-20W	1.250	1.250	AS5194W2020

Appendix 28 (continue): AN816 to AS5194

AN816 REV 13
NOTICE 1

Cancelled AN PIN	Tube Size	Pipe Size	Replacement AS PIN
AN816-21	1.250	1.000	AS5194-2016
AN816-21B	1.250	1.000	AS5194B2016
AN816-21D	1.250	1.000	AS5194D2016
AN816-21J	1.250	1.000	AS5194J2016
AN816-21K	1.250	1.000	AS5194K2016
AN816-21S	1.250	1.000	AS5194R2016
AN816-21W	1.250	1.000	AS5194W2016
AN816-25	1.500	1.250	AS5194-2420
AN816-25B	1.500	1.250	AS5194B2420
AN816-25D	1.500	1.250	AS5194D2420
AN816-25J	1.500	1.250	AS5194J2420
AN816-25K	1.500	1.250	AS5194K2420
AN816-25S	1.500	1.250	AS5194R2420
AN816-25W	1.500	1.250	AS5194W2420

Cancelled AN PIN	Tube Size	Pipe Size	Replacement AS PIN
AN816-28	1.750	1.500	AS5194-2824
AN816-28B	1.750	1.500	AS5194B2824
AN816-28D	1.750	1.500	AS5194D2824
AN816-28J	1.750	1.500	AS5194J2824
AN816-28K	1.750	1.500	AS5194K2824
AN816-28S	1.750	1.500	AS5194R2824
AN816-28W	1.750	1.500	AS5194W2824
AN816-32	2.000	2.000	AS5194-3232
AN816-32B	2.000	2.000	AS5194B3232
AN816-32D	2.000	2.000	AS5194D3232
AN816-32J	2.000	2.000	AS5194J3232
AN816-32K	2.000	2.000	AS5194K3232
AN816-32S	2.000	2.000	AS5194R3232
AN816-32W	2.000	2.000	AS5194W3232

Appendix 29: AN821 to AS1034

AN821 Rev 8
NOTICE 2

TABLE I. AN821 Rev 8 to SAE-AS1034, cross-reference data.

Cancelled AN PIN	Tube Size	Replacement AS PIN	New Design	Cancelled AN PIN	Tube Size	Replacement AS PIN	New Design
AN821-2	.125	AS1034-0202		AN821-10	.625	AS1034-1010	
AN821-2D	.125	AS1034 D0202	AS1034 W0202	AN821-10D	.625	AS1034 D1010	AS1034 W1010
AN821-2J	.125	AS1034 J0202		AN821-10J	.625	AS1034 J1010	
AN821-2K	.125	AS1034 K0202		AN821-10K	.625	AS1034 K1010	
AN821-2S	.125	AS1034 S0202	AS1034 R0202	AN821-10S	.625	AS1034 S1010	AS1034 R1010
AN821-2T	.125	AS1034 T0202		AN821-10T	.625	AS1034 T1010	
AN821-2W	.125	AS1034 W0202		AN821-10W	.625	AS1034 W1010	
AN821-3	.188	AS1034-0303		AN821-12	.750	AS1034-1212	
AN821-3D	.188	AS1034 D0303	AS1034 W0303	AN821-12D	.750	AS1034 D1212	AS1034 W1212
AN821-3J	.188	AS1034 J0303		AN821-12J	.750	AS1034 J1212	
AN821-3K	.188	AS1034 K0303		AN821-12K	.750	AS1034 K1212	
AN821-3S	.188	AS1034 S0303	AS1034 R0303	AN821-12S	.750	AS1034 S1212	AS1034 R1212
AN821-3T	.188	AS1034 T0303		AN821-12T	.750	AS1034 T1212	
AN821-3W	.188	AS1034 W0303		AN821-12W	.750	AS1034 W1212	
AN821-4	.250	AS1034-0404		AN821-16	1.000	AS1034-1616	
AN821-4D	.250	AS1034 D0404	AS1034 W0404	AN821-16D	1.000	AS1034 D1616	AS1034 W1616
AN821-4J	.250	AS1034 J0404		AN821-16J	1.000	AS1034 J1616	
AN821-4K	.250	AS1034 K0404		AN821-16K	1.000	AS1034 K1616	
AN821-4S	.250	AS1034 S0404	AS1034 R0404	AN821-16S	1.000	AS1034 S1616	AS1034 R1616
AN821-4T	.250	AS1034 T0404		AN821-16T	1.000	AS1034T1616	
AN821-4W	.250	AS1034 W0404		AN821-16W	1.000	AS1034W1616	

Appendix 29 (continue): AN821 to AS1034

AN821 Rev 8
NOTICE 2

TABLE I. AN821 Rev 8 to SAE-AS1034, cross-reference data – Continued.

Cancelled AN PIN	Tube Size	Replacement AS PIN	New Design	Cancelled AN PIN	Tube Size	Replacement AS PIN	New Design
AN821-5	.312	AS1034-0505		AN821-20	1.250	AS1034-2020	
AN821-5D	.312	AS1034 D0505	AS1034 W0505	AN821-20D	1.250	AS1034 D2020	AS1034 W2020
AN821-5J	.312	AS1034 J0505		AN821-20J	1.250	AS1034 J2020	
AN821-5K	.312	AS1034 K0505		AN821-20K	1.250	AS1034 K2020	
AN821-5S	.312	AS1034 S0505	AS1034 R0505	AN821-20S	1.250	AS1034 S2020	AS1034 R2020
AN821-5T	.312	AS1034 T0505		AN821-20T	1.250	AS1034 T2020	
AN821-5W	.312	AS1034 W0505		AN821-20W	1.250	AS1034 W2020	
AN821-6	.375	AS1034-0606		AN821-24	1.500	AS1034-2424	
AN821-6D	.375	AS1034 D0606	AS1034 W0606	AN821-24D	1.500	AS1034 D2424	AS1034 W2424
AN821-6J	.375	AS1034 J0606		AN821-24J	1.500	AS1034 J2424	
AN821-6K	.375	AS1034 K0606		AN821-24K	1.500	AS1034 K2424	
AN821-6S	.375	AS1034 S0606	AS1034 R0606	AN821-24S	1.500	AS1034 S2424	AS1034 R2424
AN821-6T	.375	AS1034 T0606		AN821-24T	1.500	AS1034 T2424	
AN821-6W	.375	AS1034 W0606		AN821-24W	1.500	AS1034 W2424	
AN821-8	.500	AS1034-0808		AN821-28	1.750	AS1034-2828	
AN821-8D	.500	AS1034 D0808	AS1034 W0808	AN821-28D	1.750	AS1034 D2828	AS1034 W2828
AN821-8J	.500	AS1034 J0808		AN821-28J	1.750	AS1034 J2828	
AN821-8K	.500	AS1034 K0808		AN821-28K	1.750	AS1034 K2828	
AN821-8S	.500	AS1034 S0808	AS1034 R0808	AN821-28S	1.750	AS1034 S2828	AS1034 R2828
AN821-8T	.500	AS1034 T0808		AN821-28T	1.750	AS1034 T2828	
AN821-8W	.500	AS1034 W0808		AN821-28W	1.750	AS1034 W2828	

Appendix 29 (continue): AN821 to AS1034

AN821 Rev 8
NOTICE 2

TABLE I. AN821 Rev 8 to SAE-AS1034, cross-reference data – Continued.

Cancelled AN PIN	Tube Size	Replacement AS PIN	New Design
AN821-32	2.000	AS1034-3232	
AN821-32D	2.000	AS1034 D3232	AS1034 W3232
AN821-32J	2.000	AS1034 J3232	
AN821-32K	2.000	AS1034 K3232	
AN821-32S	2.000	AS1034 S3232	AS1034 R3232
AN821-32T	2.000	AS1034 T3232	
AN821-32W	2.000	AS1034 W3232	

Appendix 30: AN822 to MS20822 to AS5195
AN822 superseded by MS20822; MS20822 replaced by AS5195
AN822-( )C: see either code J or K

MS20822F
NOTICE 1

TABLE 1 - Cross-Reference Data

Cancelled MS PIN	Tube Size	Pipe Size	Replacement AS PIN
MS20822-2	.125	.125	AS5195-0202
MS20822-2B	.125	.125	AS5195B0202
MS20822-2D	.125	.125	AS5195W0202
MS20822-2J	.125	.125	AS5195J0202
MS20822-2K	.125	.125	AS5195K0202
MS20822-2S	.125	.125	AS5195R0202
MS20822-2W	.125	.125	AS5195W0202
MS20822-3	.188	.125	AS5195-0302
MS20822-3B	.188	.125	AS5195B0302
MS20822-3D	.188	.125	AS5195W0302
MS20822-3J	.188	.125	AS5195J0302
MS20822-3K	.188	.125	AS5195K0302
MS20822-3S	.188	.125	AS5195R0302
MS20822-3W	.188	.125	AS5195W0302
MS20822-4	.250	.125	AS5195-0402
MS20822-4B	.250	.125	AS5195B0402
MS20822-4D	.250	.125	AS5195W0402
MS20822-4J	.250	.125	AS5195J0402
MS20822-4K	.250	.125	AS5195K0402
MS20822-4S	.250	.125	AS5195R0402
MS20822-4W	.250	.125	AS5195W0402
MS20822-4-4	.250	.250	AS5195-0404
MS20822-4-4B	.250	.250	AS5195B0404
MS20822-4-4D	.250	.250	AS5195W0404
MS20822-4-4J	.250	.250	AS5195J0404
MS20822-4-4K	.250	.250	AS5195K0404
MS20822-4-4S	.250	.250	AS5195R0404
MS20822-4-4W	.250	.250	AS5195W0404
MS20822-5	.312	.125	AS5195-0502
MS20822-5B	.312	.125	AS5195B0502
MS20822-5D	.312	.125	AS5195W0502
MS20822-5J	.312	.125	AS5195J0502
MS20822-5K	.312	.125	AS5195K0502
MS20822-5S	.312	.125	AS5195R0502
MS20822-5W	.312	.125	AS5195W0502

Cancelled MS PIN	Tube Size	Pipe Size	Replacement AS PIN
MS20822-5-4	.312	.250	AS5195-0504
MS20822-5-4B	.312	.250	AS5195B0504
MS20822-5-4D	.312	.250	AS5195W0504
MS20822-5-4J	.312	.250	AS5195J0504
MS20822-5-4K	.312	.250	AS5195K0504
MS20822-5-4S	.312	.250	AS5195R0504
MS20822-5-4W	.312	.250	AS5195W0504
MS20822-6-2	.375	.125	AS5195-0602
MS20822-6-2B	.375	.125	AS5195B0602
MS20822-6-2D	.375	.125	AS5195W0602
MS20822-6-2J	.375	.125	AS5195J0602
MS20822-6-2K	.375	.125	AS5195K0602
MS20822-6-2S	.375	.125	AS5195R0602
MS20822-6-2W	.375	.125	AS5195W0602
MS20822-6	.375	.250	AS5195-0604
MS20822-6B	.375	.250	AS5195B0604
MS20822-6D	.375	.250	AS5195W0604
MS20822-6J	.375	.250	AS5195J0604
MS20822-6K	.375	.250	AS5195K0604
MS20822-6S	.375	.250	AS5195R0604
MS20822-6W	.375	.250	AS5195W0604
MS20822-6-6	.375	.375	AS5195-0606
MS20822-6-6B	.375	.375	AS5195B0606
MS20822-6-6D	.375	.375	AS5195W0606
MS20822-6-6J	.375	.375	AS5195J0606
MS20822-6-6K	.375	.375	AS5195K0606
MS20822-6-6S	.375	.375	AS5195R0606
MS20822-6-6W	.375	.375	AS5195W0606
MS20822-6-8	.375	.500	AS5195-0608
MS20822-6-8B	.375	.500	AS5195B0608
MS20822-6-8D	.375	.500	AS5195W0608
MS20822-6-8J	.375	.500	AS5195J0608
MS20822-6-8K	.375	.500	AS5195K0608
MS20822-6-8S	.375	.500	AS5195R0608
MS20822-6-8W	.375	.500	AS5195W0608

Appendix 30 (continue): AN822 to MS20822 to AS5195

MS20822F
NOTICE 1

TABLE 1 - Cross-Reference Data (Continued)

Cancelled MS PIN	Tube Size	Pipe Size	Replacement AS PIN
MS20822-8	.500	.375	AS5195-0806
MS20822-8B	.500	.375	AS5195B0806
MS20822-8D	.500	.375	AS5195W0806
MS20822-8J	.500	.375	AS5195J0806
MS20822-8K	.500	.375	AS5195K0806
MS20822-8S	.500	.375	AS5195R0806
MS20822-8W	.500	.375	AS5195W0806
MS20822-10	.625	.500	AS5195-1008
MS20822-10B	.625	.500	AS5195B1008
MS20822-10D	.625	.500	AS5195W1008
MS20822-10J	.625	.500	AS5195J1008
MS20822-10K	.625	.500	AS5195K1008
MS20822-10S	.625	.500	AS5195R1008
MS20822-10W	.625	.500	AS5195W1008
MS20822-10-12	.625	.750	AS5195-1012
MS20822-10-12B	.625	.750	AS5195B1012
MS20822-10-12D	.625	.750	AS5195W1012
MS20822-10-12J	.625	.750	AS5195J1012
MS20822-10-12K	.625	.750	AS5195K1012
MS20822-10-12S	.625	.750	AS5195R1012
MS20822-10-12W	.625	.750	AS5195W1012
MS20822-12-8	.750	.500	AS5195-1208
MS20822-12-8B	.750	.500	AS5195B1208
MS20822-12-8D	.750	.500	AS5195W1208
MS20822-12-8J	.750	.500	AS5195J1208
MS20822-12-8K	.750	.500	AS5195K1208
MS20822-12-8S	.750	.500	AS5195R1208
MS20822-12-8W	.750	.500	AS5195W1208
MS20822-12	.750	.750	AS5195-1212
MS20822-12B	.750	.750	AS5195B1212
MS20822-12D	.750	.750	AS5195W1212
MS20822-12J	.750	.750	AS5195J1212
MS20822-12K	.750	.750	AS5195K1212
MS20822-12S	.750	.750	AS5195R1212
MS20822-12W	.750	.750	AS5195W1212

Cancelled MS PIN	Tube Size	Pipe Size	Replacement AS PIN
MS20822-12-16	.750	1.000	AS5195-1216
MS20822-12-16B	.750	1.000	AS5195B1216
MS20822-12-16D	.750	1.000	AS5195W1216
MS20822-12-16J	.750	1.000	AS5195J1216
MS20822-12-16K	.750	1.000	AS5195K1216
MS20822-12-16S	.750	1.000	AS5195R1216
MS20822-12-16W	.750	1.000	AS5195W1216
MS20822-16-12	1.000	.750	AS5195-1612
MS20822-16-12B	1.000	.750	AS5195B1612
MS20822-16-12D	1.000	.750	AS5195W1612
MS20822-16-12J	1.000	.750	AS5195J1612
MS20822-16-12K	1.000	.750	AS5195K1612
MS20822-16-12S	1.000	.750	AS5195R1612
MS20822-16-12W	1.000	.750	AS5195W1612
MS20822-16	1.000	1.000	AS5195-1616
MS20822-16B	1.000	1.000	AS5195B1616
MS20822-16D	1.000	1.000	AS5195W1616
MS20822-16J	1.000	1.000	AS5195J1616
MS20822-16K	1.000	1.000	AS5195K1616
MS20822-16S	1.000	1.000	AS5195R1616
MS20822-16W	1.000	1.000	AS5195W1616
MS20822-20	1.250	1.250	AS5195-2020
MS20822-20B	1.250	1.250	AS5195B2020
MS20822-20D	1.250	1.250	AS5195W2020
MS20822-20J	1.250	1.250	AS5195J2020
MS20822-20K	1.250	1.250	AS5195K2020
MS20822-20S	1.250	1.250	AS5195R2020
MS20822-20W	1.250	1.250	AS5195W2020
MS20822-21	1.250	1.000	AS5195-2016
MS20822-21B	1.250	1.000	AS5195B2016
MS20822-21D	1.250	1.000	AS5195W2016
MS20822-21J	1.250	1.000	AS5195J2016
MS20822-21K	1.250	1.000	AS5195K2016
MS20822-21S	1.250	1.000	AS5195R2016
MS20822-21W	1.250	1.000	AS5195W2016

Appendix 30 (continue): AN822 to MS20822 to AS5195

MS20822F
NOTICE 1

TABLE 1 - Cross-Reference Data (Continued)

Cancelled MS PIN	Tube Size	Pipe Size	Replacement AS PIN
MS20822-25	1.500	1.250	AS5195-2420
MS20822-25B	1.500	1.250	AS5195B2420
MS20822-25D	1.500	1.250	AS5195W2420
MS20822-25J	1.500	1.250	AS5195J2420
MS20822-25K	1.500	1.250	AS5195K2420
MS20822-25S	1.500	1.250	AS5195R2420
MS20822-25W	1.500	1.250	AS5195W2420
MS20822-28	1.750	1.500	AS5195-2824
MS20822-28B	1.750	1.500	AS5195B2824
MS20822-28D	1.750	1.500	AS5195W2824
MS20822-28J	1.750	1.500	AS5195J2824
MS20822-28K	1.750	1.500	AS5195K2824
MS20822-28S	1.750	1.500	AS5195R2824
MS20822-28W	1.750	1.500	AS5195W2824

Cancelled MS PIN	Tube Size	Pipe Size	Replacement AS PIN
MS20822-32	2.000	2.000	AS5195-3232
MS20822-32B	2.000	2.000	AS5195B3232
MS20822-32D	2.000	2.000	AS5195W3232
MS20822-32J	2.000	2.000	AS5195J3232
MS20822-32K	2.000	2.000	AS5195K3232
MS20822-32S	2.000	2.000	AS5195R3232
MS20822-32W	2.000	2.000	AS5195W3232

Appendix 31: AN823 to MS20823 to AS5196
AN823 superseded by MS20823; MS20823 replaced by AS5196
AN823-( )C: see either code J, K or R

MS20823E
NOTICE 1

TABLE 1 - Cross-Reference Data

Cancelled MS PIN	Tube Size	Pipe Size	Replacement AS PIN
MS20823-2	.125	.125	AS5196-0202
MS20823-2B	.125	.125	AS5196B0202
MS20823-2D	.125	.125	AS5196W0202
MS20823-2J	.125	.125	AS5196J0202
MS20823-2K	.125	.125	AS5196K0202
MS20823-2S	.125	.125	AS5196R0202
MS20823-2W	.125	.125	AS5196W0202
MS20823-3	.188	.125	AS5196-0302
MS20823-3B	.188	.125	AS5196B0302
MS20823-3D	.188	.125	AS5196W0302
MS20823-3J	.188	.125	AS5196J0302
MS20823-3K	.188	.125	AS5196K0302
MS20823-3S	.188	.125	AS5196R0302
MS20823-3W	.188	.125	AS5196W0302
MS20823-4	.250	.125	AS5196-0402
MS20823-4B	.250	.125	AS5196B0402
MS20823-4D	.250	.125	AS5196W0402
MS20823-4J	.250	.125	AS5196J0402
MS20823-4K	.250	.125	AS5196K0402
MS20823-4S	.250	.125	AS5196R0402
MS20823-4W	.250	.125	AS5196W0402
MS20823-5	.312	.125	AS5196-0502
MS20823-5B	.312	.125	AS5196B0502
MS20823-5D	.312	.125	AS5196W0502
MS20823-5J	.312	.125	AS5196J0502
MS20823-5K	.312	.125	AS5196K0502
MS20823-5S	.312	.125	AS5196R0502
MS20823-5W	.312	.125	AS5196W0502
MS20823-6	.375	.250	AS5196-0604
MS20823-6B	.375	.250	AS5196B0604
MS20823-6D	.375	.250	AS5196W0604
MS20823-6J	.375	.250	AS5196J0604
MS20823-6K	.375	.250	AS5196K0604
MS20823-6S	.375	.250	AS5196R0604
MS20823-6W	.375	.250	AS5196W0604
MS20823-8	.500	.375	AS5196-0806
MS20823-8B	.500	.375	AS5196B0806
MS20823-8D	.500	.375	AS5196W0806
MS20823-8J	.500	.375	AS5196J0806
MS20823-8K	.500	.375	AS5196K0806
MS20823-8S	.500	.375	AS5196R0806
MS20823-8W	.500	.375	AS5196W0806
MS20823-10	.625	.500	AS5196-1008
MS20823-10B	.625	.500	AS5196B1008
MS20823-10D	.625	.500	AS5196W1008
MS20823-10J	.625	.500	AS5196J1008
MS20823-10K	.625	.500	AS5196K1008
MS20823-10S	.625	.500	AS5196R1008
MS20823-10W	.625	.500	AS5196W1008
MS20823-12	.750	.750	AS5196-1212
MS20823-12B	.750	.750	AS5196B1212
MS20823-12D	.750	.750	AS5196W1212
MS20823-12J	.750	.750	AS5196J1212
MS20823-12K	.750	.750	AS5196K1212
MS20823-12S	.750	.750	AS5196R1212
MS20823-12W	.750	.750	AS5196W1212
MS20823-16-12	1.000	.750	AS5196-1612
MS20823-16-12B	1.000	.750	AS5196B1612
MS20823-16-12D	1.000	.750	AS5196W1612
MS20823-16-12J	1.000	.750	AS5196J1612
MS20823-16-12K	1.000	.750	AS5196K1612
MS20823-16-12S	1.000	.750	AS5196R1612
MS20823-16-12W	1.000	.750	AS5196W1612
MS20823-16	1.000	1.000	AS5196-1616
MS20823-16B	1.000	1.000	AS5196B1616
MS20823-16D	1.000	1.000	AS5196W1616
MS20823-16J	1.000	1.000	AS5196J1616
MS20823-16K	1.000	1.000	AS5196K1616
MS20823-16S	1.000	1.000	AS5196R1616
MS20823-16W	1.000	1.000	AS5196W1616

Appendix 31 (continue): AN823 to MS20823 to AS5196

MS20823E
NOTICE 1

TABLE 1 - Cross-Reference Data (Continued)

Cancelled MS PIN	Tube Size	Pipe Size	Replacement AS PIN
MS20823-20	1.250	1.250	AS5196-2020
MS20823-20B	1.250	1.250	AS5196B2020
MS20823-20D	1.250	1.250	AS5196W2020
MS20823-20J	1.250	1.250	AS5196J2020
MS20823-20K	1.250	1.250	AS5196K2020
MS20823-20S	1.250	1.250	AS5196R2020
MS20823-20W	1.250	1.250	AS5196W2020
MS20823-21	1.250	1.000	AS5196-2016
MS20823-21B	1.250	1.000	AS5196B2016
MS20823-21D	1.250	1.000	AS5196W2016
MS20823-21J	1.250	1.000	AS5196J2016
MS20823-21K	1.250	1.000	AS5196K2016
MS20823-21S	1.250	1.000	AS5196R2016
MS20823-21W	1.250	1.000	AS5196W2016
MS20823-25	1.500	1.250	AS5196-2420
MS20823-25B	1.500	1.250	AS5196B2420
MS20823-25D	1.500	1.250	AS5196W2420
MS20823-25J	1.500	1.250	AS5196J2420
MS20823-25K	1.500	1.250	AS5196K2420
MS20823-25S	1.500	1.250	AS5196R2420
MS20823-25W	1.500	1.250	AS5196W2420

Cancelled MS PIN	Tube Size	Pipe Size	Replacement AS PIN
MS20823-28	1.750	1.500	AS5196-2824
MS20823-28B	1.750	1.500	AS5196B2824
MS20823-28D	1.750	1.500	AS5196W2824
MS20823-28J	1.750	1.500	AS5196J2824
MS20823-28K	1.750	1.500	AS5196K2824
MS20823-28S	1.750	1.500	AS5196R2824
MS20823-28W	1.750	1.500	AS5196W2824
MS20823-32	2.000	2.000	AS5196-3232
MS20823-32B	2.000	2.000	AS5196B3232
MS20823-32D	2.000	2.000	AS5196W3232
MS20823-32J	2.000	2.000	AS5196J3232
MS20823-32K	2.000	2.000	AS5196K3232
MS20823-32S	2.000	2.000	AS5196R3232
MS20823-32W	2.000	2.000	AS5196W3232

Appendix 32: AN500 to MS35265, MS35273 and MS35275

Table I lists examples of carbon steel, brass and corrosion resistant steel part numbers that have undrilled heads and are inactive for new design:

TABLE I. Inactive, Undrilled Head, Sample Part Numbers.

Part Number	Material
AN500-2-3	Steel
AN500B2-3	Brass
AN500D2-3	Corrosion Resistant Steel

All "C" coded corrosion resistant steel screw part numbers such as AN500C2-3 and AN500AC2-3 are cancelled.

Excerpt from AN500 Rev 7, Notice 2

Appendix 32 (continue): AN500 to MS35265, MS35273 and MS35275

Tables II thru IV list carbon steel, brass and corrosion resistant steel part numbers that have drilled heads and are inactive for new design:

TABLE II. Inactive, Carbon Steel, Drilled Head, Part Numbers.

AN500A3-3	AN500A5-3	AN500A6-18	AN500A416-18	AN500A616-6
AN500A3-4	AN500A5-4	AN500A6-22	AN500A416-22	AN500A616-7
AN500A3-5	AN500A5-5			AN500A616-18
AN500A3-6	AN500A5-6	AN500A8-18	AN500A516-18	AN500A616-22
AN500A3-7	AN500A5-7	AN500A8-22	AN500A516-22	
AN500A3-8	AN500A5-8			
AN500A3-10	AN500A5-10	AN500A10-18		
AN500A3-12	AN500A5-12	AN500A10-22		

TABLE III. Inactive, Brass, Drilled Head, Part Numbers.

AN500AB3-3	AN500AB5-3	AN500AB6-18	AN500AB416-18	AN500AB616-6
AN500AB3-4	AN500AB5-4	AN500AB6-22	AN500AB416-22	AN500AB616-7
AN500AB3-5	AN500AB5-5			AN500AB616-18
AN500AB3-6	AN500AB5-6	AN500AB8-18	AN500AB516-18	AN500AB616-22
AN500AB3-7	AN500AB5-7	AN500AB8-22	AN500AB516-22	
AN500AB3-8	AN500AB5-8			
AN500AB3-10	AN500AB5-10	AN500AB10-18		
AN500AB3-12	AN500AB5-12	AN500AB10-22		

TABLE IV. Inactive, Corrosion Resistant Steel, Drilled Head, Part Numbers.

AN500AD3-3	AN500AD5-3	AN500AD6-18	AN500AD416-18	AN500AD616-6
AN500AD3-4	AN500AD5-4	AN500AD6-22	AN500AD416-22	AN500AD616-7
AN500AD3-5	AN500AD5-5			AN500AD616-18
AN500AD3-6	AN500AD5-6	AN500AD8-18	AN500AD516-18	AN500AD616-22
AN500AD3-7	AN500AD5-7	AN500AD8-22	AN500AD516-22	
AN500AD3-8	AN500AD5-8			
AN500AD3-10	AN500AD5-10	AN500AD10-18		
AN500AD3-12	AN500AD5-12	AN500AD10-22		

Excerpt from AN500 Rev 7, Notice 2

Appendix 32 (continue): AN500 to MS35265, MS35273 and MS35275

Tables V, VI and VII drilled head AN500 part numbers are cancelled and replaced by the corresponding MS part numbers.

TABLE V. Cancelled, Carbon Steel, AN500 and Superseding MS35265 Part Numbers.

AN500 Part Number	MS35265 Part Number	AN500 Part Number	MS35265 Part Number	AN500 Part Number	MS35265 Part Number
AN500A2-3	MS35265-2	AN500A8-4	MS35265-41	AN500A416-10	MS35265-80
AN500A2-4	MS35265-3	AN500A8-5	MS35265-42	AN500A416-12	MS35265-81
AN500A2-5	MS35265-4	AN500A8-6	MS35265-43	AN500A416-14	MS35265-82
AN500A2-6	MS35265-5	AN500A8-7	MS35265-44	AN500A416-16	MS35265-83
AN500A2-7	MS35265-6	AN500A8-8	MS35265-45	AN500A416-20	MS35265-84
AN500A2-8	MS35265-7	AN500A8-10	MS35265-46	AN500A416-24	MS35265-85
AN500A2-10	MS35265-8	AN500A8-12	MS35265-47	AN500A416-28	MS35265-86
AN500A2-12	MS35265-9	AN500A8-14	MS35265-48	AN500A416-32	MS35265-87
		AN500A8-16	MS35265-49	AN500A416-40	MS35265-89
AN500A4-3	MS35265-12	AN500A8-20	MS35265-50	AN500A416-48	MS35265-91
AN500A4-4	MS35265-13	AN500A8-24	MS35265-51		
AN500A4-5	MS35265-14	AN500A8-28	MS35265-52	AN500A516-6	MS35265-92
AN500A4-6	MS35265-15	AN500A8-32	MS35265-53	AN500A516-7	MS35265-93
AN500A4-7	MS35265-16			AN500A516-8	MS35265-94
AN500A4-8	MS35265-17	AN500A10-4	MS35265-59	AN500A516-10	MS35265-95
AN500A4-10	MS35265-18	AN500A10-5	MS35265-60	AN500A516-12	MS35265-96
AN500A4-12	MS35265-19	AN500A10-6	MS35265-61	AN500A516-14	MS35265-97
		AN500A10-7	MS35265-62	AN500A516-16	MS35265-98
AN500A6-3	MS35265-25	AN500A10-8	MS35265-63	AN500A516-20	MS35265-99
AN500A6-4	MS35265-26	AN500A10-10	MS35265-64	AN500A516-24	MS35265-100
AN500A6-5	MS35265-27	AN500A10-12	MS35265-65	AN500A516-28	MS35265-101
AN500A6-6	MS35265-28	AN500A10-14	MS35265-66	AN500A516-32	MS35265-102
AN500A6-7	MS35265-29	AN500A10-16	MS35265-67	AN500A516-40	MS35265-104
AN500A6-8	MS35265-30	AN500A10-20	MS35265-68	AN500A516-48	MS35265-106
AN500A6-10	MS35265-31	AN500A10-24	MS35265-69		
AN500A6-12	MS35265-32	AN500A10-28	MS35265-70	AN500A616-8	MS35265-107
AN500A6-14	MS35265-33	AN500A10-32	MS35265-71	AN500A616-10	MS35265-108
AN500A6-16	MS35265-34	AN500A10-40	MS35265-73	AN500A616-12	MS35265-109
AN500A6-20	MS35265-35	AN500A10-48	MS35265-75	AN500A616-14	MS35265-110
AN500A6-24	MS35265-36			AN500A616-16	MS35265-111
AN500A6-28	MS35265-37	AN500A416-6	MS35265-77	AN500A616-20	MS35265-112
AN500A6-32	MS35265-38	AN500A416-7	MS35265-78	AN500A616-24	MS35265-113
		AN500A416-8	MS35265-79	AN500A616-28	MS35265-114
				AN500A616-32	MS35265-115
				AN500A616-40	MS35265-117
				AN500A616-48	MS35265-119

Excerpt from AN500 Rev 7, Notice 2

Appendix 32 (continue): AN500 to MS35265, MS35273 and MS35275

Tables V, VI and VII drilled head AN500 part numbers are cancelled and replaced by the corresponding MS part numbers.

TABLE V. Cancelled, Carbon Steel, AN500 and Superseding MS35265 Part Numbers.

AN500 Part Number	MS35265 Part Number	AN500 Part Number	MS35265 Part Number	AN500 Part Number	MS35265 Part Number
AN500A2-3	MS35265-2	AN500A8-4	MS35265-41	AN500A416-10	MS35265-80
AN500A2-4	MS35265-3	AN500A8-5	MS35265-42	AN500A416-12	MS35265-81
AN500A2-5	MS35265-4	AN500A8-6	MS35265-43	AN500A416-14	MS35265-82
AN500A2-6	MS35265-5	AN500A8-7	MS35265-44	AN500A416-16	MS35265-83
AN500A2-7	MS35265-6	AN500A8-8	MS35265-45	AN500A416-20	MS35265-84
AN500A2-8	MS35265-7	AN500A8-10	MS35265-46	AN500A416-24	MS35265-85
AN500A2-10	MS35265-8	AN500A8-12	MS35265-47	AN500A416-28	MS35265-86
AN500A2-12	MS35265-9	AN500A8-14	MS35265-48	AN500A416-32	MS35265-87
		AN500A8-16	MS35265-49	AN500A416-40	MS35265-89
AN500A4-3	MS35265-12	AN500A8-20	MS35265-50	AN500A416-48	MS35265-91
AN500A4-4	MS35265-13	AN500A8-24	MS35265-51		
AN500A4-5	MS35265-14	AN500A8-28	MS35265-52	AN500A516-6	MS35265-92
AN500A4-6	MS35265-15	AN500A8-32	MS35265-53	AN500A516-7	MS35265-93
AN500A4-7	MS35265-16			AN500A516-8	MS35265-94
AN500A4-8	MS35265-17	AN500A10-4	MS35265-59	AN500A516-10	MS35265-95
AN500A4-10	MS35265-18	AN500A10-5	MS35265-60	AN500A516-12	MS35265-96
AN500A4-12	MS35265-19	AN500A10-6	MS35265-61	AN500A516-14	MS35265-97
		AN500A10-7	MS35265-62	AN500A516-16	MS35265-98
AN500A6-3	MS35265-25	AN500A10-8	MS35265-63	AN500A516-20	MS35265-99
AN500A6-4	MS35265-26	AN500A10-10	MS35265-64	AN500A516-24	MS35265-100
AN500A6-5	MS35265-27	AN500A10-12	MS35265-65	AN500A516-28	MS35265-101
AN500A6-6	MS35265-28	AN500A10-14	MS35265-66	AN500A516-32	MS35265-102
AN500A6-7	MS35265-29	AN500A10-16	MS35265-67	AN500A516-40	MS35265-104
AN500A6-8	MS35265-30	AN500A10-20	MS35265-68	AN500A516-48	MS35265-106
AN500A6-10	MS35265-31	AN500A10-24	MS35265-69		
AN500A6-12	MS35265-32	AN500A10-28	MS35265-70	AN500A616-8	MS35265-107
AN500A6-14	MS35265-33	AN500A10-32	MS35265-71	AN500A616-10	MS35265-108
AN500A6-16	MS35265-34	AN500A10-40	MS35265-73	AN500A616-12	MS35265-109
AN500A6-20	MS35265-35	AN500A10-48	MS35265-75	AN500A616-14	MS35265-110
AN500A6-24	MS35265-36			AN500A616-16	MS35265-111
AN500A6-28	MS35265-37	AN500A416-6	MS35265-77	AN500A616-20	MS35265-112
AN500A6-32	MS35265-38	AN500A416-7	MS35265-78	AN500A616-24	MS35265-113
		AN500A416-8	MS35265-79	AN500A616-28	MS35265-114
				AN500A616-32	MS35265-115
				AN500A616-40	MS35265-117
				AN500A616-48	MS35265-119

Appendix 32 (continue): AN500 to MS35265, MS35273 and MS35275

TABLE VII. Cancelled, Corrosion Resisting Steel, AN500 and Superseding NASM35275 Part Numbers.

AN500 Part Number	NASM35275 Part Number	AN500 Part Number	NASM35275 Part Number	AN500 Part Number	NASM35275 Part Number
AN500AD2-3	MS35275-202	AN500AD8-4	MS35275-241	AN500AD416-10	MS35275-280
AN500AD2-4	MS35275-203	AN500AD8-5	MS35275-242	AN500AD416-12	MS35275-281
AN500AD2-5	MS35275-204	AN500AD8-6	MS35275-243	AN500AD416-14	MS35275-282
AN500AD2-6	MS35275-205	AN500AD8-7	MS35275-244	AN500AD416-16	MS35275-283
AN500AD2-7	MS35275-206	AN500AD8-8	MS35275-245	AN500AD416-20	MS35275-284
AN500AD2-8	MS35275-207	AN500AD8-10	MS35275-246	AN500AD416-24	MS35275-285
AN500AD2-10	MS35275-208	AN500AD8-12	MS35275-247	AN500AD416-28	MS35275-286
AN500AD2-12	MS35275-209	AN500AD8-14	MS35275-248	AN500AD416-32	MS35275-287
		AN500AD8-16	MS35275-249	AN500AD416-40	MS35275-289
AN500AD4-3	MS35275-212	AN500AD8-20	MS35275-250	AN500AD416-48	MS35275-291
AN500AD4-4	MS35275-213	AN500AD8-24	MS35275-251		
AN500AD4-5	MS35275-214	AN500AD8-28	MS35275-252	AN500AD516-6	MS35275-292
AN500AD4-6	MS35275-215	AN500AD8-32	MS35275-253	AN500AD516-7	MS35275-293
AN500AD4-7	MS35275-216			AN500AD516-8	MS35275-294
AN500AD4-8	MS35275-217	AN500AD10-4	MS35275-259	AN500AD516-10	MS35275-295
AN500AD4-10	MS35275-218	AN500AD10-5	MS35275-260	AN500AD516-12	MS35275-296
AN500AD4-12	MS35275-219	AN500AD10-6	MS35275-261	AN500AD516-14	MS35275-297
		AN500AD10-7	MS35275-262	AN500AD516-16	MS35275-298
AN500AD6-3	MS35275-225	AN500AD10-8	MS35275-263	AN500AD516-20	MS35275-299
AN500AD6-4	MS35275-226	AN500AD10-10	MS35275-264	AN500AD516-24	MS35275-300
AN500AD6-5	MS35275-227	AN500AD10-12	MS35275-265	AN500AD516-28	MS35275-301
AN500AD6-6	MS35275-228	AN500AD10-14	MS35275-266	AN500AD516-32	MS35275-302
AN500AD6-7	MS35275-229	AN500AD10-16	MS35275-267	AN500AD516-40	MS35275-304
AN500AD6-8	MS35275-230	AN500AD10-20	MS35275-268	AN500AD516-48	MS35275-306
AN500AD6-10	MS35275-231	AN500AD10-24	MS35275-269		
AN500AD6-12	MS35275-232	AN500AD10-28	MS35275-270	AN500AD616-8	MS35275-307
AN500AD6-14	MS35275-233	AN500AD10-32	MS35275-271	AN500AD616-10	MS35275-308
AN500AD6-16	MS35275-234	AN500AD10-40	MS35275-273	AN500AD616-12	MS35275-309
AN500AD6-20	MS35275-235	AN500AD10-48	MS35275-275	AN500AD616-14	MS35275-310
AN500AD6-24	MS35275-236			AN500AD616-16	MS35275-311
AN500AD6-28	MS35275-237	AN500AD416-6	MS35275-277	AN500AD616-20	MS35275-312
AN500AD6-32	MS35275-238	AN500AD416-7	MS35275-278	AN500AD616-24	MS35275-313
		AN500AD416-8	MS35275-279	AN500AD616-28	MS35275-314
				AN500AD616-32	MS35275-315
				AN500AD616-40	MS35275-317
				AN500AD616-48	MS35275-319

Excerpt from AN500 Rev 7, Notice 2

Appendix 33: AN827 to AS1036

TABLE I. AN827 Rev 7 to SAE-AS1036, cross-reference data.

Cancelled AN PIN	Tube Size	Replacement AS PIN	New Design	Cancelled AN PIN	Tube Size	Replacement AS PIN	New Design
AN827-2	.125	AS1036-02020202		AN827-10	.625	AS1036-10101010	
AN827-2D	.125	AS1036 D02020202	AS1036 W02020202	AN827-10D	.625	AS1036 D10101010	AS1036 W10101010
AN827-2J	.125	AS1036 J02020202		AN827-10J	.625	AS1036 J10101010	
AN827-2K	.125	AS1036 K02020202		AN827-10K	.625	AS1036 K10101010	
AN827-2S	.125	AS1036 S02020202	AS1036 R02020202	AN827-10S	.625	AS1036 S10101010	AS1036 R10101010
AN827-2T	.125	AS1036 T02020202		AN827-10T	.625	AS1036 T10101010	
AN827-2W	.125	AS1036 W02020202		AN827-10W	.625	AS1036 W10101010	
AN827-3	.188	AS1036-03030303		AN827-12	.750	AS1036-12121212	
AN827-3D	.188	AS1036 D03030303	AS1036 W03030303	AN827-12D	.750	AS1036 D12121212	AS1036 W12121212
AN827-3J	.188	AS1036 J03030303		AN827-12J	.750	AS1036 J12121212	
AN827-3K	.188	AS1036 K03030303		AN827-12K	.750	AS1036 K12121212	
AN827-3S	.188	AS1036 S03030303	AS1036 R03030303	AN827-12S	.750	AS1036 S12121212	AS1036 R12121212
AN827-3T	.188	AS1036 T03030303		AN827-12T	.750	AS1036 T12121212	
AN827-3W	.188	AS1036 W03030303		AN827-12W	.750	AS1036 W12121212	
AN827-4	.250	AS1036-04040404		AN827-16	1.000	AS1036-16161616	
AN827-4D	.250	AS1036 D04040404	AS1036 W04040404	AN827-16D	1.000	AS1036 D16161616	AS1036 W16161616
AN827-4J	.250	AS1036 J04040404		AN827-16J	1.000	AS1036 J16161616	
AN827-4K	.250	AS1036 K04040404		AN827-16K	1.000	AS1036 K16161616	
AN827-4S	.250	AS1036 S04040404	AS1036 R04040404	AN827-16S	1.000	AS1036 S16161616	AS1036 R16161616
AN827-4T	.250	AS1036 T04040404		AN827-16T	1.000	AS1036 T16161616	
AN827-4W	.250	AS1036 W04040404		AN827-16W	1.000	AS1036 W16161616	

Excerpt from AN827 Rev 7, Notice 2

Appendix 33 (continue): AN827 to AS1036

TABLE I. AN827 Rev 7 to SAE-AS1036, cross-reference data – Continued.

Cancelled AN PIN	Tube Size	Replacement AS PIN	New Design	Cancelled AN PIN	Tube Size	Replacement AS PIN	New Design
AN827-5	.312	AS1036-05050505		AN827-20	1.250	AS1036-20202020	
AN827-5D	.312	AS1036 D05050505	AS1036 W05050505	AN827-20D	1.250	AS1036 D20202020	AS1036 W20202020
AN827-5J	.312	AS1036J 05050505		AN827-20J	1.250	AS1036 J20202020	
AN827-5K	.312	AS1036 K05050505		AN827-20K	1.250	AS1036 K20202020	
AN827-5S	.312	AS1036 S05050505	AS1036 R05050505	AN827-20S	1.250	AS1036 S20202020	AS1036 R20202020
AN827-5T	.312	AS1036 T05050505		AN827-20T	1.250	AS1036 T20202020	
AN827-5W	.312	AS1036 W05050505		AN827-20W	1.250	AS1036 W20202020	
AN827-6	.375	AS1036-06060606		AN827-24	1.500	AS1036-24242424	
AN827-6D	.375	AS1036 D06060606	AS1036 W06060606	AN827-24D	1.500	AS1036 D24242424	AS1036 W24242424
AN827-6J	.375	AS1036J 06060606		AN827-24J	1.500	AS1036 J24242424	
AN827-6K	.375	AS1036 K06060606		AN827-24K	1.500	AS1036 K24242424	
AN827-6S	.375	AS1036 S06060606	AS1036 R06060606	AN827-24S	1.500	AS1036 S24242424	AS1036 R24242424
AN827-6T	.375	AS1036 T06060606		AN827-24T	1.500	AS1036 T24242424	
AN827-6W	.375	AS1036 W06060606		AN827-24W	1.500	AS1036 W24242424	
AN827-8	.500	AS1036-08080808		AN827-28	1.750	AS1036-28282828	
AN827-8D	.500	AS1036 D08080808	AS1036 W08080808	AN827-28D	1.750	AS1036 D28282828	AS1036 W28282828
AN827-8J	.500	AS1036 J08080808		AN827-28J	1.750	AS1036 J28282828	
AN827-8K	.500	AS1036 K08080808		AN827-28K	1.750	AS1036 K28282828	
AN827-8S	.500	AS1036 S08080808	AS1036 R08080808	AN827-28S	1.750	AS1036 S28282828	AS1036 R28282828
AN827-8T	.500	AS1036 T08080808		AN827-28T	1.750	AS1036 T28282828	
AN827-8W	.500	AS1036 W08080808		AN827-28W	1.750	AS1036 W28282828	

Excerpt from AN827 Rev 7, Notice 2

Appendix 33 (continue): AN827 to AS1036

TABLE I. AN827 Rev 7 to SAE-AS1036, cross-reference data – Continued.

Cancelled AN PIN	Tube Size	Replacement AS PIN	New Design
AN827-32	2.000	AS1036-32323232	
AN827-32D	2.000	AS1036 D32323232	AS1036 W32323232
AN827-32J	2.000	AS1036 J32323232	
AN827-32K	2.000	AS1036 K32323232	
AN827-32S	2.000	AS1036 S32323232	AS1036 R32323232
AN827-32T	2.000	AS1036 T32323232	
AN827-32W	2.000	AS1036 W32323232	

Excerpt from AN827 Rev 7, Notice 2

Appendix 34: AN911 to AS4860

AN911 Rev 10

TABLE II. Cross-reference data.

AN PIN (inactive)	Pipe size	Replacement AS PIN (for new design)	Replacement AN PIN (inactive)
AN911-1	.125	AS4860-01	
AN911-1D	.125	AS4860W01	AN911-1W
AN911-1J	.125	AS4860J01	
AN911-1K	.125	AS4860K01	
AN911-1R	.125	AS4860R01	
AN911-1S	.125	AS4860R01	AN911-1R
AN911-1T	.125	None	
AN911-1W	.125	AS4860W01	
AN911-2	.250	AS4860-02	
AN911-2D	.250	AS4860W02	AN911-2W
AN911-2J	.250	AS4860J02	
AN911-2K	.250	AS4860K02	
AN911-2R	.250	AS4860R02	
AN911-2S	.250	AS4860R02	AN911-2R
AN911-2T	.250	None	
AN911-2W	.250	AS4860W02	
AN911-3	.375	AS4860-03	
AN911-3D	.375	AS4860W03	AN911-3W
AN911-3J	.375	AS4860J03	
AN911-3K	.375	AS4860K03	
AN911-3R	.375	AS4860R03	
AN911-3S	.375	AS4860R03	AN911-3R
AN911-3T	.375	None	
AN911-3W	.375	AS4860W03	
AN911-4	.500	AS4860-04	
AN911-4D	.500	AS4860W04	AN911-4W
AN911-4J	.500	AS4860J04	
AN911-4K	.500	AS4860K04	
AN911-4R	.500	AS4860R04	
AN911-4S	.500	AS4860R04	AN911-4R
AN911-4T	.500	None	
AN911-4W	.500	AS4860W04	

Excerpt from AN911 Rev 10, Notice 2

Appendix 34 (continue): AN911 to AS4860

AN911 Rev 10

TABLE II. Cross-reference data - Continued.

AN PIN (inactive)	Pipe size	Replacement AS PIN (for new design)	Replacement AN PIN (inactive)
AN911-6	.750	AS4860-06	
AN911-6D	.750	AS4860W06	AN911-6W
AN911-6J	.750	AS4860J06	
AN911-6K	.750	AS4860K06	
AN911-6R	.750	AS4860R06	
AN911-6S	.750	AS4860R06	AN911-6R
AN911-6T	.750	None	
AN911-6W	.750	AS4860W06	
AN911-8	1.000	AS4860-08	
AN911-8D	1.000	AS4860W08	AN911-8W
AN911-8J	1.000	AS4860J08	
AN911-8K	1.000	AS4860K08	
AN911-8R	1.000	AS4860R08	
AN911-8S	1.000	AS4860R08	AN911-8R
AN911-8T	1.000	None	
AN911-8W	1.000	AS4860W08	
AN911-10	1.250	AS4860-10	
AN911-10D	1.250	AS4860W10	AN911-10
AN911-10J	1.250	AS4860J10	
AN911-10K	1.250	AS4860K10	
AN911-10R	1.250	AS4860R10	
AN911-10S	1.250	AS4860R10	AN911-10R
AN911-10T	1.250	None	
AN911-10W	1.250	AS4860W10	

Excerpt from AN911 Rev 10, Notice 2

Appendix 35: AN893 to AS5172

AN893
NOTICE 2

Table I. Cross-Reference Data

Cancelled AN PIN	Replacement AS PIN 1/	Cancelled AN PIN	Replacement AS PIN 1/
AN893-1	AS5172-0405L	AN893-5	AS5172-0416L
AN893-1D	AS5172D0405L	AN893-5D	AS5172D0416L
AN893-1J	AS5172J0405L	AN893-5J	AS5172J0416L
AN893-1K	AS5172K0405L	AN893-5K	AS5172K0416L
AN893-1S	AS5172R0405L	AN893-5S	AS5172R0416L
AN893-1T	AS5172T0405L	AN893-5T	AS5172T0416L
AN893-1W	AS5172W0405L	AN893-5W	AS5172W0416L
AN893-2	AS5172-0406L	AN893-6	AS5172-0420L
AN893-2D	AS5172D0406L	AN893-6D	AS5172D0420L
AN893-2J	AS5172J0406L	AN893-6J	AS5172J0420L
AN893-2K	AS5172K0406L	AN893-6K	AS5172K0420L
AN893-2S	AS5172R0406L	AN893-6S	AS5172R0420L
AN893-2T	AS5172T0406L	AN893-6T	AS5172T0420L
AN893-2W	AS5172W0406L	AN893-6W	AS5172W0420L
AN893-3	AS5172-0408L	AN893-7	AS5172-0506L
AN893-3D	AS5172D0408L	AN893-7D	AS5172D0506L
AN893-3J	AS5172J0408L	AN893-7J	AS5172J0506L
AN893-3K	AS5172K0408L	AN893-7K	AS5172K0506L
AN893-3S	AS5172R0408L	AN893-7S	AS5172R0506L
AN893-3T	AS5172T0408L	AN893-7T	AS5172T0506L
AN893-3W	AS5172W0408L	AN893-7W	AS5172W0506L
AN893-31	AS5172-0410L	AN893-8	AS5172-0508L
AN893-31D	AS5172D0410L	AN893-8D	AS5172D0508L
AN893-31J	AS5172J0410L	AN893-8J	AS5172J0508L
AN893-31K	AS5172K0410L	AN893-8K	AS5172K0508L
AN893-31S	AS5172R0410L	AN893-8S	AS5172R0508L
AN893-31T	AS5172T0410L	AN893-8T	AS5172T0508L
AN893-31W	AS5172W0410L	AN893-8W	AS5172W0508L
AN893-4	AS5172-0412L	AN893-81	AS5172-0510L
AN893-4D	AS5172D0412L	AN893-81D	AS5172D0510L
AN893-4J	AS5172J0412L	AN893-81J	AS5172J0510L
AN893-4K	AS5172K0412L	AN893-81K	AS5172K0510L
AN893-4S	AS5172R0412L	AN893-81S	AS5172R0510L
AN893-4T	AS5172T0412L	AN893-81T	AS5172T0510L
AN893-4W	AS5172W0412L	AN893-81W	AS5172W0510L

Excerpt from AN893 Rev 10, Notice 2

Appendix 35 (continue): AN893 to AS5172

AN893
NOTICE 2

Table I. Cross-Reference Data (Continued)

Cancelled AN PIN	Replacement AS PIN	Cancelled AN PIN	Replacement AS PIN 1/
AN893-9	AS5172-0512L	AN893-13	AS5172-0612L
AN893-9D	AS5172D0512L	AN893-13D	AS5172D0612L
AN893-9J	AS5172J0512L	AN893-13J	AS5172J0612L
AN893-9K	AS5172K0512L	AN893-13K	AS5172K0612L
AN893-9S	AS5172R0512L	AN893-13S	AS5172R0612L
AN893-9T	AS5172T0512L	AN893-13T	AS5172T0612L
AN893-9W	AS5172W0512L	AN893-13W	AS5172W0612L
AN893-10	AS5172-0516L	AN893-14	AS5172-0616L
AN893-10D	AS5172D0516L	AN893-14D	AS5172D0616L
AN893-10J	AS5172J0516L	AN893-14J	AS5172J0616L
AN893-10K	AS5172K0516L	AN893-14K	AS5172K0616L
AN893-10S	AS5172R0516L	AN893-14S	AS5172R0616L
AN893-10T	AS5172T0516L	AN893-14T	AS5172T0616L
AN893-10W	AS5172W0516L	AN893-14W	AS5172W0616L
AN893-11	AS5172-0520L	AN893-15	AS5172-0620L
AN893-11D	AS5172D0520L	AN893-15D	AS5172D0620L
AN893-11J	AS5172J0520L	AN893-15J	AS5172J0620L
AN893-11K	AS5172K0520L	AN893-15K	AS5172K0620L
AN893-11S	AS5172R0520L	AN893-15S	AS5172R0620L
AN893-11T	AS5172T0520L	AN893-15T	AS5172T0620L
AN893-11W	AS5172W0520L	AN893-15W	AS5172W0620L
AN893-12	AS5172-0608L	AN893-151	AS5172-0810L
AN893-12D	AS5172D0608L	AN893-151D	AS5172D0810L
AN893-12J	AS5172J0608L	AN893-151J	AS5172J0810L
AN893-12K	AS5172K0608L	AN893-151K	AS5172K0810L
AN893-12S	AS5172R0608L	AN893-151S	AS5172R0810L
AN893-12T	AS5172T0608L	AN893-151T	AS5172T0810L
AN893-12W	AS5172W0608L	AN893-151W	AS5172W0810L
AN893-121	AS5172-0610L	AN893-16	AS5172-0812L
AN893-121D	AS5172D0610L	AN893-16D	AS5172D0812L
AN893-121J	AS5172J0610L	AN893-16J	AS5172J0812L
AN893-121K	AS5172K0610L	AN893-16K	AS5172K0812L
AN893-121S	AS5172R0610L	AN893-16S	AS5172R0812L
AN893-121T	AS5172T0610L	AN893-16T	AS5172T0812L
AN893-121W	AS5172W0610L	AN893-16W	AS5172W0812L

Excerpt from AN893 Rev 10, Notice 2

Appendix 35 (continue): AN893 to AS5172

AN893
NOTICE 2

Table I. Cross-Reference Data (Continued)

Cancelled AN PIN	Replacement AS PIN	Cancelled AN PIN	Replacement AS PIN 1/
AN893-17	AS5172-0816L	AN893-21	AS5172-1020L
AN893-17D	AS5172D0816L	AN893-21D	AS5172D1020L
AN893-17J	AS5172J0816L	AN893-21J	AS5172J1020L
AN893-17K	AS5172K0816L	AN893-21K	AS5172K1020L
AN893-17S	AS5172R0816L	AN893-21S	AS5172R1020L
AN893-17T	AS5172T0816L	AN893-21T	AS5172T1020L
AN893-17W	AS5172W0816L	AN893-21W	AS5172W1020L
AN893-18	AS5172-0820L	AN893-22	AS5172-1216L
AN893-18D	AS5172D0820L	AN893-22D	AS5172D1216L
AN893-18J	AS5172J0820L	AN893-22J	AS5172J1216L
AN893-18K	AS5172K0820L	AN893-22K	AS5172K1216L
AN893-18S	AS5172R0820L	AN893-22S	AS5172R1216L
AN893-18T	AS5172T0820L	AN893-22T	AS5172T1216L
AN893-18W	AS5172W0820L	AN893-22W	AS5172W1216L
AN893-19	AS5172-1012L	AN893-23	AS5172-1220L
AN893-19D	AS5172D1012L	AN893-23D	AS5172D1220L
AN893-19J	AS5172J1012L	AN893-23J	AS5172J1220L
AN893-19K	AS5172K1012L	AN893-23K	AS5172K1220L
AN893-19S	AS5172R1012L	AN893-23S	AS5172R1220L
AN893-19T	AS5172T1012L	AN893-23T	AS5172T1220L
AN893-19W	AS5172W1012L	AN893-23W	AS5172W1220L
AN893-20	AS5172-1016L	AN893-24	AS5172-1620L
AN893-20D	AS5172D1016L	AN893-24D	AS5172D1620L
AN893-20J	AS5172J1016L	AN893-24J	AS5172J1620L
AN893-20K	AS5172K1016L	AN893-24K	AS5172K1620L
AN893-20S	AS5172R1016L	AN893-24S	AS5172R1620L
AN893-20T	AS5172T1016L	AN893-24T	AS5172T1620L
AN893-20W	AS5172W1016L	AN893-24W	AS5172W1620L

Excerpt from AN893 Rev 10, Notice 2

Appendix 36: MS24397 to AS5172

MS24397
NOTICE 2

Table I. Cross-Reference Data

Cancelled MS PIN	Replacement AS PIN 1/	Cancelled MS PIN	Replacement AS PIN 1/
MS24397-1	AS5172-0405L	MS24397-5	AS5172-0416L
MS24397D1	AS5172D0405L	MS24397D5	AS5172D0416L
MS24397J1	AS5172J0405L	MS24397J5	AS5172J0416L
MS24397K1	AS5172K0405L	MS24397K5	AS5172K0416L
MS24397S1	AS5172R0405L	MS24397S5	AS5172R0416L
MS24397T1	AS5172T0405L	MS24397T5	AS5172T0416L
MS24397W1	AS5172W0405L	MS24397W5	AS5172W0416L
MS24397-2	AS5172-0406L	MS24397-6	AS5172-0420L
MS24397D2	AS5172D0406L	MS24397D6	AS5172D0420L
MS24397J2	AS5172J0406L	MS24397J6	AS5172J0420L
MS24397K2	AS5172K0406L	MS24397K6	AS5172K0420L
MS24397S2	AS5172R0406L	MS24397S6	AS5172R0420L
MS24397T2	AS5172T0406L	MS24397T6	AS5172T0420L
MS24397W2	AS5172W0406L	MS24397W6	AS5172W0420L
MS24397-3	AS5172-0408L	MS24397-7	AS5172-0506L
MS24397D3	AS5172D0408L	MS24397D7	AS5172D0506L
MS24397J3	AS5172J0408L	MS24397J7	AS5172J0506L
MS24397K3	AS5172K0408L	MS24397K7	AS5172K0506L
MS24397S3	AS5172R0408L	MS24397S7	AS5172R0506L
MS24397T3	AS5172T0408L	MS24397T7	AS5172T0506L
MS24397W3	AS5172W0408L	MS24397W7	AS5172W0506L
MS24397-31	AS5172-0410L	MS24397-8	AS5172-0508L
MS24397D31	AS5172D0410L	MS24397D8	AS5172D0508L
MS24397J31	AS5172J0410L	MS24397J8	AS5172J0508L
MS24397K31	AS5172K0410L	MS24397K8	AS5172K0508L
MS24397S31	AS5172R0410L	MS24397S8	AS5172R0508L
MS24397T31	AS5172T0410L	MS24397T8	AS5172T0508L
MS24397W31	AS5172W0410L	MS24397W8	AS5172W0508L
MS24397-4	AS5172-0412L	MS24397-81	AS5172-0510L
MS24397D4	AS5172D0412L	MS24397D81	AS5172D0510L
MS24397J4	AS5172J0412L	MS24397J81	AS5172J0510L
MS24397K4	AS5172K0412L	MS24397K81	AS5172K0510L
MS24397S4	AS5172R0412L	MS24397S81	AS5172R0510L
MS24397T4	AS5172T0412L	MS24397T81	AS5172T0510L
MS24397W4	AS5172W0412L	MS24397W81	AS5172W0510L

Excerpt from MS24397 Rev F, Notice 2

Appendix 36 (continue): MS24397 to AS5172

MS24397
NOTICE 2

Table I. Cross-Reference Data (Continued)

Cancelled MS PIN	Replacement AS PIN 1/	Cancelled MS PIN	Replacement AS PIN 1/
MS24397-9	AS5172-0512L	MS24397-13	AS5172-0612L
MS24397D9	AS5172D0512L	MS24397D13	AS5172D0612L
MS24397J9	AS5172J0512L	MS24397J13	AS5172J0612L
MS24397K9	AS5172K0512L	MS24397K13	AS5172K0612L
MS24397S9	AS5172R0512L	MS24397S13	AS5172R0612L
MS24397T9	AS5172T0512L	MS24397T13	AS5172T0612L
MS24397W9	AS5172W0512L	MS24397W13	AS5172W0612L
MS24397-10	AS5172-0516L	MS24397-14	AS5172-0616L
MS24397D10	AS5172D0516L	MS24397D14	AS5172D0616L
MS24397J10	AS5172J0516L	MS24397J14	AS5172J0616L
MS24397K10	AS5172K0516L	MS24397K14	AS5172K0616L
MS24397S10	AS5172R0516L	MS24397S14	AS5172R0616L
MS24397T10	AS5172T0516L	MS24397T14	AS5172T0616L
MS24397W10	AS5172W0516L	MS24397W14	AS5172W0616L
MS24397-11	AS5172-0520L	MS24397-15	AS5172-0620L
MS24397D11	AS5172D0520L	MS24397D15	AS5172D0620L
MS24397J11	AS5172J0520L	MS24397J15	AS5172J0620L
MS24397K11	AS5172K0520L	MS24397K15	AS5172K0620L
MS24397S11	AS5172R0520L	MS24397S15	AS5172R0620L
MS24397T11	AS5172T0520L	MS24397T15	AS5172T0620L
MS24397W11	AS5172W0520L	MS24397W15	AS5172W0620L
MS24397-12	AS5172-0608L	MS24397-151	AS5172-0810L
MS24397D12	AS5172D0608L	MS24397D151	AS5172D0810L
MS24397J12	AS5172J0608L	MS24397J151	AS5172J0810L
MS24397K12	AS5172K0608L	MS24397K151	AS5172K0810L
MS24397S12	AS5172R0608L	MS24397S151	AS5172R0810L
MS24397T12	AS5172T0608L	MS24397T151	AS5172T0810L
MS24397W12	AS5172W0608L	MS24397W151	AS5172W0810L
MS24397-121	AS5172-0610L	MS24397-16	AS5172-0812L
MS24397D121	AS5172D0610L	MS24397D16	AS5172D0812L
MS24397J121	AS5172J0610L	MS24397J16	AS5172J0812L
MS24397K121	AS5172K0610L	MS24397K16	AS5172K0812L
MS24397S121	AS5172R0610L	MS24397S16	AS5172R0812L
MS24397T121	AS5172T0610L	MS24397T16	AS5172T0812L
MS24397W121	AS5172W0610L	MS24397W16	AS5172W0812L

Excerpt from MS24397 Rev F, Notice 2

Appendix 36 (continue): MS24397 to AS5172

MS24397
NOTICE 2

Table I. Cross-Reference Data (Continued)

Cancelled MS PIN	Replacement AS PIN	Cancelled MS PIN	Replacement AS PIN 1/
MS24397-17	AS5172-0816L	MS24397-21	AS5172-1020L
MS24397D17	AS5172D0816L	MS24397D21	AS5172D1020L
MS24397J17	AS5172J0816L	MS24397J21	AS5172J1020L
MS24397K17	AS5172K0816L	MS24397K21	AS5172K1020L
MS24397S17	AS5172R0816L	MS24397S21	AS5172R1020L
MS24397T17	AS5172T0816L	MS24397T21	AS5172T1020L
MS24397W17	AS5172W0816L	MS24397W21	AS5172W1020L
MS24397-18	AS5172-0820L	MS24397-22	AS5172-1216L
MS24397D18	AS5172D0820L	MS24397D22	AS5172D1216L
MS24397J18	AS5172J0820L	MS24397J22	AS5172J1216L
MS24397K18	AS5172K0820L	MS24397K22	AS5172K1216L
MS24397S18	AS5172R0820L	MS24397S22	AS5172R1216L
MS24397T18	AS5172T0820L	MS24397T22	AS5172T1216L
MS24397W18	AS5172W0820L	MS24397W22	AS5172W1216L
MS24397-19	AS5172-1012L	MS24397-23	AS5172-1220L
MS24397D19	AS5172D1012L	MS24397D23	AS5172D1220L
MS24397J19	AS5172J1012L	MS24397J23	AS5172J1220L
MS24397K19	AS5172K1012L	MS24397K23	AS5172K1220L
MS24397S19	AS5172R1012L	MS24397S23	AS5172R1220L
MS24397T19	AS5172T1012L	MS24397T23	AS5172T1220L
MS24397W19	AS5172W1012L	MS24397W23	AS5172W1220L
MS24397-20	AS5172-1016L	MS24397-24	AS5172-1620L
MS24397D20	AS5172D1016L	MS24397D24	AS5172D1620L
MS24397J20	AS5172J1016L	MS24397J24	AS5172J1620L
MS24397K20	AS5172K1016L	MS24397K24	AS5172K1620L
MS24397S20	AS5172R1016L	MS24397S24	AS5172R1620L
MS24397T20	AS5172T1016L	MS24397T24	AS5172T1620L
MS24397W20	AS5172W1016L	MS24397W24	AS5172W1620L

Excerpt from MS24397 Rev F, Notice 2

Appendix 37: AN501 to MS35266

FED. SUP CLASS 5305

INTERCHANGEABILITY

Screws covered by dash numbers given in MS35264, MS35268, MS35270 and in part AN501 are canceled after 12 November 1964. The canceled screws cannot always replace the new screws and should be used until existing stocks are depleted. Use only the new screws for new design and replacement. Replacement shall be in accordance with Table III.

TABLE III

PART NUMBER	
CANCELED	SUPERSEDED BY
MS35264 MS35268 MS35270	MS35266
1	1
2	2
3	3
4	4
5	5
6	6
7	7
8	8
9	9
10	10
11	11
12	12
13	13
14	14
15	15
16	16
17	17
18	18
19	19
20	20
21	21
22	22
23	23
24	24
25	25
26	26
27	27
28	28
29	29
30	30
31	31
32	32
33	33
34	34
35	35
36	36
37	37
38	38
39	39
40	40
41	41
42	42
43	43

PART NUMBER		
CANCELED		SUPERSEDED BY
MS35264 MS35268 MS35270	AN501	MS35266
44		44
45		45
46		46
47		47
48		48
49		49
50		50
51		51
52		52
53		53
54		54
55		55
56		56
57		57
58		58
59	A10-4	59
60	A10-5	60
61	A10-6	61
62	A10-7	62
63	A10-8	63
64	A10-10	64
65	A10-12	65
66	A10-14	66
67	A10-16	67
	A10-18	NR
68	A10-20	68
	A10-22	NR
69	A10-24	69
70	A10-28	70
71	A10-32	71
72		72
73	A10-40	73
74		74
75	A10-48	75
76	A416-5	76
77	A416-6	77
78	A416-7	78
79	A416-8	79
80	A416-10	80
81	A416-12	81
82	A416-14	82
83	A416-16	83

PART NUMBER		
CANCELED		SUPERSEDED BY
MS35264 MS35268 MS35270	AN501	MS35266
	A416-18	NR
84	A416-20	84
	A416-22	NR
85	A416-24	85
86	A416-28	86
87	A416-32	87
88		88
89	A416-40	89
90		90
91	A416-48	91
92		92
93		93
94	A516-6	94
95	A516-10	95
96	A516-12	96
97	A516-14	97
98	A516-16	98
	A516-18	NR
99	A516-20	99
	A516-22	NR
100	A516-24	100
101	A516-28	101
102	A516-32	102
103		103
104	A516-40	104
105		105
106	A516-48	106
107	A616-8	107
108	A616-10	108
109	A616-12	109
110	A616-14	110
111	A616-16	111
	A616-18	NR
112	A616-20	112
	A616-22	NR
113	A616-24	113
114	A616-28	114
115	A616-32	115
116		116
117	A616-40	117
118		118
119	A616-48	119

NR = No Replacement

REVISED (A) 15 JUN 1962 (B) 12 NOV 1964 (C) FOR CHANGES SEE SHEETS 1 AND 2.

Excerpt from MS35266 Rev C

Appendix 38: DZUS and DFCI substituted by SOUTHCO

Original DZUS Part Number	DFCI Part Number	Southco Part Number	Other Alternates	Description
A3-25	1201-325-Z3CT	D4-A3-25ZCTNA		Stud
A3-30	1201-330-Z3CT	D4-A3-30ZCTNA		Stud
A4-25	1201-425-Z3CT	D4-A4-25ZCTNA		Stud
GH3	127H-3	D4-GH3NA		Grommet
GH4	127H-4	D4-GH4NA		Grommet
GA3-200	1271-3200	D4-GA3-200NA		Grommet
PFSC3 1/2-38AEPB	3506-SC38A-EEB	D5-PFSC35-38ASEBNA	3506-SC38A-Z3B D5-PFSC35-38ACBBNA	Stud Assy
PFSC35-38A	3506-SC38A-Z3CT	D5-PFSC35-38AZCTNA		Stud Assy

Excerpt from SOUTHCO for DZUS and DFCI Fasteners

Appendix 38 (continue): DZUS and DFCI substituted by SOUTHCO

Original DZUS Part Number	DFCI Part Number	Southco Part Number	Other Alternates	Description
PFSC35-38AZBB	3506-SC38A-Z3B	D5-PFSC35-38AZBBNA		Stud Assy
S3-150	1219-3150-Z3CT	D4-S3-150ZCTNA		S-Spring
S3-175	1219-3175-Z3CT	D4-S3-175ZCTNA		S-Spring
S4-200	1219-4200-Z3CT	D4-S4-200ZCTNA		S-Spring
N/A	1219-L4-305-Z3Y	D4-SL4-305ZBYNA		Receptacle
N/A	3506-SC44CP26-Z3BT	D5-PFSC3544CP26ZBTNA		Stud Assy

Excerpt from SOUTHCO for DZUS and DFCI Fasteners