MIL-STD-1755
15 January 1979

MILITARY STANDARD

KEYS AND PINS PREFERRED FOR DESIGN, LISTING OF

FSC 5315

DEPARTMENT OF DEFENSE
Washington, DC 20301

Keys and Pins Preferred For Design, Listing of

MIL-STD-1755

1. This Military Standard is approved for use by all Departments and Agencies of the Department of Defense.

2. Beneficial comments (recommendations, additions, deletions) and any pertinent data which may be of use in improving this document should be addressed to: Commander, Aeronautical Systems Division (AFSC), ATTN: ASD/ENESS, Wright-Patterson Air Force Base, Ohio 45433 by using the self-addressed Standardization Document Improvement Proposal (DD Form 1426) appearing at the end of this document or by letter.

FOREWORD

1. The purpose of this bookform standard is to provide a commodity type parts document on keys and pins to aid military equipment designers and engineers in the selection of preferred keys and pins.

2. This document consists of an index of preferred standardization documents and a listing of preferred parts within these documents that have been selected with respect to configuration, sizes, lengths, materials, and finishes for keys and pins.

3. The selection of preferred documents listed in this standard and the selection of part numbers within the preferred documents were made as follows:

a. Selection of Documents

(1) Documents listed or scheduled for listing in the Department of Defense Index of Specifications and Standards (DODISS).

(2) Documents which are active for design.

(3) Documents specifying part numbers (dash numbers) which designate specific sizes, materials and finishes.

b. Selection of Part Numbers

(1) By conducting a thorough search and evaluation of existing DoD procurement information.

(2) By evaluation of preferred parts listed in recent weapon system contracts.

(3) By evaluation of preferred parts lists obtained from industry.

4. To increase the scope and versatility of this keys and pins standard, periodic revisions will be developed. Results from Standardization studies, MILITARY PARTS CONTROL ADVISORY GROUP (MPCAG) evaluations, evaluation of a new family of keys and pins and recommendations from interested activities will form the basis for these revisions.

CONTENTS

SECTIONS

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SECTIONS - Continued

1. SCOPE

1.1 Scope. This standard provides a listing of preferred keys and pins encompassing the following characteristics:

a. Configuration

b. Size

c. Materials

d. Protective Coatings and Finishes

1.2 Purpose. The purpose of this standard is as follows:

a. provide the designer with a listing of preferred keys and pins to promote their use in design of weapon systems and equipments.

b. control and minimize the variety of keys and pins used in military equipment thereby facilitating logistic support of the equipment during its life cycle.

1.3 Application. To minimize the proliferation of keys and pins, only the preferred part numbers listed herein are authorized for use in new design. All other part numbers, even though shown on current Military Specification Sheets, Military Standards (MS), National Aerospace Standards (NAS), Aeronautical Standards (AS), and Air Force/ Navy Aeronautical Standards (AN), are not approved for use in new design unless approved by cognizant Government procuring activity.

1.4 Intended use. Implement this standard by including one of the following options in the contract:

a. Require this standard as a supplement to an end use type standard such as MIL-STD-1471 or MIL-STD-1515. When thus required, only the keys and pins listed in both the end use type and this standard are acceptable. Use of other keys and pins requires approval of the Government procuring activity.

b. Require this standard as a guide to be used with an end use type standard such as MIL-STD-1471 or MIL-STD-1515. When thus required, the keys and pins listed in the end use type standard and this standard are acceptable. The designer must assure himself the keys and pins listed in both the end use type standard and this standard are not adequate for his requirement before using keys and pins not listed herein. Use of keys and pins not listed in the end use type standard requires approval of the Government procuring activity.

c. Require this standard and indicate exceptions to it. When thus required, only the keys and pins listed in this standard are not excluded by the exceptions are acceptable. Use of other keys and pins requires approval of the Government procuring activity.

d. Require this standard as a guide. When thus required, the designer must assure himself the keys and pins listed in this standard are not adequate for the requirement before using other keys and pins.

2. REFERENCED DOCUMENTS

2.1 Issues of documents. The following documents of the issue in effect on date of invitation for bids or request for proposal form a part of this standard to the extent specified herein.

STANDARDS

MILITARY

MS9047	- Pin-Spring, Steel, Phosphate Finish.
MS9048	- Pin-Spring, Steel, Cadmium Plated.
MS9105	- Pin, Straight, Headless-AMS 5688, Lock.
MS9164	- Pin, Straight, Headless, Steel, Oversize.
MS9389	- Pin, Straight, Headless-AMS 5735, Lock.
MS9390	- Pin, Straight, Headless-CRES, AMS 5735, Dowel Standard and Oversize.
MS9462	- Pin, Straight, Headed-.124 Diameter, AMS 5735.
MS9463	- Pin, Straight, Headed-.186 Diameter, AMS 5735.
MS9464	- Pin, Straight, Headed-.248 Diameter, AMS 5735.
MS9465	- Pin, Straight, Headed-.311 Diameter, AMS 5735.
MS9466	- Pin, Straight, Headed-.373 Diameter, AMS 5735.
MS9468	- Pin, Straight, Headed-.497 Diameter, AMS 5735.
MS9486	- Pin, Straight, Headless-AMS 5132, Lock.
MS9841	- Key, Woodruff-Chamfered CRES AMS 5640.

STANDARDS

MILITARY - Continued

MS9842 - Pin, Straight, Headed-.0937 Diameter, AMS 5616.

MS9843 - Pin, Straight, Headed-.1249 Diameter, AMS 5616.

MS9844 - Pin, Straight, Headed-.1874 Diameter, AMS 5616.

MS9845 - Pin, Straight, Headed-.2499 Diameter, AMS 5616.

MS16555 - Pin, Straight, Headless (Dowel) (.0002 Over Nominal Size).

MS16556 - Pin, Straight, Headless (Dowel) (.001 Over Nominal Size).

MS16562 - Pin, Spring-Tubular, Slotted.

MS20066 - Key, Machine-Square in Cross Section, Both Ends Square.

MS20067 - Key, Machine-Square in Cross Section, One End Square, Other End Round.

MS20068 - Key, Machine-Square in Cross Section, Both Ends Round.

MS20392 - Pin, Straight, Headed-Drilled Shank.

MS24665 - Pin, Cotter (Split).

MS24692 - Pin, Tapered, Plain.

MS35671 - Pin, Grooved, Headless-Longitudinal Taper Groove, Carbon Steel.

MS35672 - Pin, Grooved, Headless-Longitudinal Taper Groove, Corrosion-Resisting Steel.

MS35674 - Pin, Grooved, Headless-Longitudinal Straight Groove, Carbon Steel.

MS35675 - Pin, Grooved, Headless-Longitudinal Straight Groove, Corrosion-Resisting Steel.

STANDARDS

MILITARY - Continued

MS35677	- Pin, Grooved, Headless-Longitudinal Center Groove, Carbon Steel.
MS35678	- Pin, Grooved, Headless-Longitudinal Center Groove, Corrosion Resisting Steel.
MS35756	- Key, Woodruff-Steel, Alloy, with Keyway and Key Slot Dimensions.
MS35810	- Pin, Straight, Headed (Clevis Pin) - Steel, Cadmium or Zinc Plated.
MS39086	- Pin, Spring - Tubular, Coiled, Heavy Duty.
MS51605	- Pin, Grooved, Headless (Half Length Taper Groove) Corrosion-Resisting Steel.
MS51606	- Pin, Grooved, Headless (Half Length Reverse Taper Groove) Corrosion-Resisting Steel.
MS51838	- Pin, Straight, Steel-Drill Rod.
MS51923	- Pin, Spring-Tubular, Coiled, Standard Duty.
MS51932	- Pin, Straight-Headless; Drilled for Cotter Pins.
MS51987	- Pin, Spring-Tubular, Coiled, Light Duty.
MS171401 thru MS171900	- Pin-Spring, Corrosion Resistant Steel.

AIR FORCE - NAVY AERONAUTICAL

AN415	- Pin, Lock (Hitch Pin).
AN416	- Pin-Retaining, Safety.
AN121601 thru AN121650	- Pin, Straight, Headed-.125 Nom.
AN121651 thru AN121700	- Pin, Straight, Headed-.187 Nom.
AN121701 thru AN121750	- Pin, Straight, Headed-.250 Nom.
AN121801 thru AN121850	- Pin, Straight, Headed-.375 Nom.
AN121851 thru AN121925	- Pin, Straight, Headed-.500 Nom.
AN122676 thru AN122775	- Pin, Straight, Headless, Steel.

(Copies of specifications, standards, drawings and publications required by contractors in connection with specific procurement functions should be obtained from the procuring activity or as directed by the contracting officer.)

2.2 Other Publications. The following documents form a part of this standard to the extent specified herein. Unless otherwise indicated, the issue in effect on date of invitation for bids or request for proposal shall apply.

AEROSPACE INDUSTRIES ASSOCIATION OF AMERICA, INC. (AIA)

NATIONAL AEROSPACE STANDARDS

NAS 558	- Keys-Square and Rectangular.
NAS 561	- Pins-Spring, Slotted & Coiled, Heavy Duty.
NAS 607	- Pin, Straight, Headless-(Dowel).
NAS 1407	- Pin-Spring, Coiled.

(Application for copies should be addressed to the Aerospace Industries Association of America, Inc., 1725 De Sales Street, N. W., Washington, DC 20036.)

3. DEFINITIONS

3.1 Adopted Industry Standards. Any Industry Specification or

Standard which is listed in the Department of Defense Index of Specifications and Standards (DODISS).

3.2 Commodity Type Document. A document which lists preferred parts within a Federal Supply Classification class or Item Name. This document is to be used for selecting preferred parts for a new design when the document is invoked as a contractual requirement in conjunction with a parts control requirement.

3.3 End Use Type Document. A document that lists preferred documents and establishes parts requirements which are contractually binding for the design and construction/manufacture of a weapon system or an established equipment category such as MIL-STD-1515.

3.4 Military Parts Control Advisory Group (MPCAG). A Department of Defense organization which provides advice to the Military Departments and military contractors on the selection of parts in assigned commodity classes, and collects data on nonstandard parts for developing or updating military specifications and standards.

3.5 Definitions of approved item names used in this standard are as follows:

a. Key, Machine. An item of solid metal, usually square or rectangular in cross section, usually longer in relation to its width and thickness, with or without a head, designed to fit into a slot on an axle or shaft, and into a mating slot in a hub or boss of a wheel, gear or pulley.

b. Key, Woodruff. An item in the form of a segment of a disk, which may have a flat bottom, with or without projecting shoulders, designed to fit into a keyway in an axle or shaft, and into a matching slot in the hub or boss of a wheel, gear or pulley.

c. Pin, Cotter. A half round, cylindrical, or flat piece of metal, bent to form a straight or crimped two-pronged device with an eye at one end, for inserting in a hole drilled at right angle to the axis of a stud, shaft, or like item. Its ends are separable or one end is bent to hold it in place.

d. Pin, Grooved, Headless. A headless item of various shapes, usually cylindrical, having either circular or longitudinal groove(s). Its length must not exceed twelve inches.

e. Pin, Lock. A fastening device formed from resilient wire stock into a shape resembling the letter "U", of which at least one of the prongs is straight for insertion into a hole; the other prong may have one or more curvatures along its length. It is designed to hold itself in place by its inherent spring action.

f. Pin, Retaining. A preformed wire fastening device bent to form a spring at one end, one prong being extended, the other being bent to form a hook to hold the extended prong in place.

g. Pin, Spring. A tubular item, so formed as to provide a spring action against the inside wall of a hole when driven into abutting pieces to position and hold them in place.

h. Pin, Straight, Headed. A headed cylindrically-shaped item having a solid shank for fitting into corresponding holes, used for aligning or fastening. It may have welding projections. It also may contain holes drilled perpendicular to axial centerline.

i. Pin, Straight, Headless. A headless, cylindrically-shaped item having a straight, smooth, solid body, with or without a drilled hole(s). It has an outside diameter equal to or less that its length. Its length must not exceed twelve inches. It is used for aligning or transfer of torque and/or thrust, by fitting into corresponding holes of another item.

j. Pin, Tapered, Plain. A cone-shaped, unthreaded, metallic or nonmetallic item, tapered through its entire length, primarily used to position and hold two or more mating parts in alignment.

4. GENERAL STATEMENTS

4.1 Selection procedure.

4.1.1 Document selection. The applicable section shall be selected after reviewing the table of contents.

4.1.2 Part number selection (preliminary). A preliminary selection of the applicable part number shall be made after reviewing the nominal parameters (sizes, materials, shear strength) listed in the sections.

4.1.3 Part number selection (final). A final selection of the applicable part number shall be made after reviewing the detailed requirements specified in the referenced key or pin documents for suitability in the particular military equipment being designed (considering the application and environmental conditions).

5. DETAILED REQUIREMENTS

5.1 The detailed requirements for preferred keys and pins are contained in the applicable key or pin document and associated procurement specification. If there is disagreement between the nominal parameters listed in this standard and the parameters specified in the applicable key or pin document or associated procurement specification, the parameters specified in the applicable key or pin document or associated procurement specification shall prevail.

6. NOTES

6.1 Dimensions. Dimensions shown in the sections contained herein are in inches.

Custodians:
Army - AR
Navy -
Air Force - 11

Review activities:
Army - EA, ER, MI
Navy - OS, SH
Air Force -
DLA - IS
NS

User activities:
Army -
Navy - MC
Air Force - 99

Preparing activity:
Air Force - 11

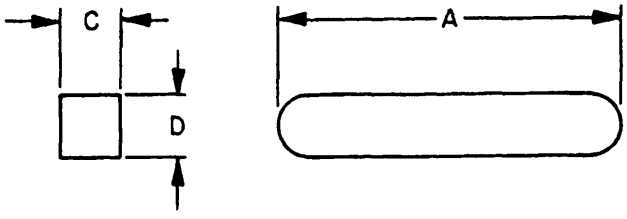
Agent:
DLA - IS

(Project 5315-0282)

SECTION 101

KEY, MACHINE-SQUARE IN CROSS SECTION BOTH ENDS ROUND

APPLICABLE DOCUMENT: MS20068



MATERIAL	PROTECTIVE FINISH	SHEAR STRENGTH (PSI)
ALLOY STEEL - GRADE B	NONE	90,000 MIN
CARBON STEEL - GRADE C	NONE	60,000 MIN

TABLE I. KEY CONFIGURATION DASH NUMBERS.

A LENGTH	MS20068 DASH NUMBER							
	C X D .062 X .062		C X D .094 X .094		C X D .125 X .125		C X D .188 X .188	
	GRADE B	GRADE C	GRADE B	GRADE C	GRADE B	GRADE C	GRADE B	GRADE C
.250	-1	-4	-7	-28	--	--	--	--
.312	-2	-5	-8	-29	--	--	--	--
.375	-3	-6	-9	-30	-51	-72	-93	-116
.438	--	--	-10	-31	-52	-73	-94	-117
.500	--	--	-11	-32	-53	-74	-95	-118
.750	--	--	-12	-33	-54	-75	-96	-119
.875	--	--	-13	-34	-55	-76	-97	-120
1.000	--	--	-14	-35	-56	-77	-98	-121
1.125	--	--	--	--	-57	-78	-99	-122
1.250	--	--	--	--	-58	-79	-100	-123
1.375	--	--	--	--	-59	-80	-101	-124
1.500	--	--	--	--	-60	-81	-102	-125
1.750	--	--	--	--	-61	-82	-103	-126
2.000	--	--	--	--	-62	-83	-104	-127
2.250	--	--	--	--	--	--	-105	-128
2.500	--	--	--	--	--	--	-106	-129
3.000	--	--	--	--	--	--	-107	-130

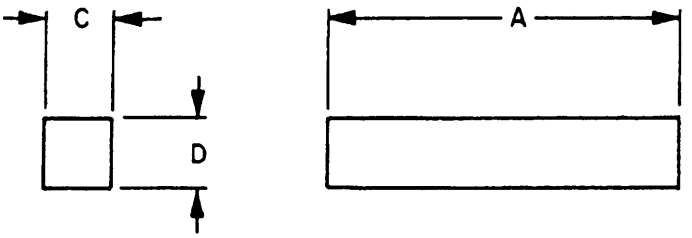
TABLE I. KEY CONFIGURATION DASH NUMBERS - CONTINUED

A LENGTH	MS20068 DASH NUMBER							
	C X D .250 X .250		C X D .312 X .312		C X D .375 X .375		C X D .500 X .500	
	GRADE B	GRADE C	GRADE B	GRADE C	GRADE B	GRADE C	GRADE B	GRADE C
.500	-141	-166	--	--	--	--	--	--
.750	-142	-167	--	--	--	--	--	--
.875	-143	-168	--	--	--	--	--	--
1.000	-144	-169	-194	-219	-244	-271	--	--
1.125	-145	-170	-195	-220	-245	-272	--	--
1.250	-146	-171	-196	-221	-246	-273	--	--
1.375	-147	-172	-197	-222	-247	-274	--	--
1.500	-148	-173	-198	-223	-248	-275	-360	-390
1.750	-149	-174	-199	-224	-249	-276	-361	-391
2.000	-150	-175	-200	-225	-250	-277	-362	-392
2.250	-151	-176	-201	-226	-251	-278	-363	-393
2.500	-152	-177	-202	-227	-252	-279	-364	-394
3.000	-153	-178	-203	-228	-253	-280	-365	-395
3.500	-154	-179	-204	-229	-254	-281	-366	-396
4.000	-155	-180	-205	-230	-255	-282	-367	-397
4.500	-156	-181	--	--	--	--	--	--
5.000	-157	-182	--	--	--	--	--	--
5.500	-158	-183	--	--	--	--	--	--
6.000	-159	-184	--	--	--	--	--	--

SECTION 102

KEY, MACHINE-SQUARE IN CROSS SECTION, BOTH ENDS SQUARE

APPLICABLE DOCUMENT: MS20066



MATERIAL	PROTECTIVE FINISH	SHEAR STRENGTH (PSI)
CRES - GRADE A	PASSIVATE	75,000 MIN
ALLOY STEEL - GRADE B	NONE	90,000 MIN
CARBON STEEL - GRADE C	NONE	60,000 MIN

TABLE I. KEY CONFIGURATION DASH NUMBERS.

A LENGTH	MS20066 DASH NUMBER								
	C X D .062 X .062			C X D .094 X .094			C X D .125 X .125		
	GRADE A	GRADE B	GRADE C	GRADE A	GRADE B	GRADE C	GRADE A	GRADE B	GRADE C
.250	-1	-4	-7	-10	-31	-52	-73	-94	-115
.312	-2	-5	-8	-11	-32	-53	-74	-95	-116
.375	-3	-6	-9	-12	-33	-54	-75	-96	-117
.438	--	--	--	-13	-34	-55	-76	-97	-118
.500	--	--	--	-14	-35	-56	-77	-98	-119
.750	--	--	--	-15	-36	-57	-78	-99	-120
.875	--	--	--	-16	-37	-58	-79	-100	-121
1.000	--	--	--	-17	-38	-59	-80	-101	-122
1.125	--	--	--	--	--	--	-81	-102	-123
1.250	--	--	--	--	--	--	-82	-103	-124
1.375	--	--	--	--	--	--	-83	-104	-125
1.500	--	--	--	--	--	--	-84	-105	-126
1.750	--	--	--	--	--	--	-85	-106	-127
2.000	--	--	--	--	--	--	-86	-107	-128
2.250	--	--	--	--	--	--	-87	-108	-129
2.500	--	--	--	--	--	--	-88	-109	-130
3.000	--	--	--	--	--	--	-89	-110	-131

TABLE I. KEY CONFIGURATION DASH NUMBERS. - CONTINUED

A LENGTH	MS20066 DASH NUMBER								
	C X D .188 X .188			C X D .250 X .250			C X D .312 X .312		
	GRADE A	GRADE B	GRADE C	GRADE A	GRADE B	GRADE C	GRADE A	GRADE B	GRADE C
.250	-136	-157	-178	--	--	--	--	--	--
.312	-137	-158	-179	--	--	--	--	--	--
.375	-138	-159	-180	--	--	--	--	--	--
.438	-139	-160	-181	--	--	--	--	--	--
.500	-140	-161	-182	-203	-226	-249	-272	-297	-322
.750	-141	-162	-183	-204	-227	-250	-273	-298	-323
.875	-142	-163	-184	-205	-228	-251	-274	-299	-324
1.000	-143	-164	-185	-206	-229	-252	-275	-300	-325
1.125	-144	-165	-186	-207	-230	-253	-276	-301	-326
1.250	-145	-166	-187	-208	-231	-254	-277	-302	-327
1.375	-146	-167	-188	-209	-232	-255	-278	-303	-328
1.500	-147	-168	-189	-210	-233	-256	-279	-304	-329
1.750	-148	-169	-190	-211	-234	-257	-280	-305	-330
2.000	-149	-170	-191	-212	-235	-258	-281	-306	-331
2.250	-150	-171	-192	-213	-236	-259	-282	-307	-332
2.500	-151	-172	-193	-214	-237	-260	-283	-308	-333
3.000	-152	-173	-194	-215	-238	-261	-284	-309	-334
3.500	-153	-174	-195	-216	-239	-262	--	--	--
4.000	-154	-175	-196	-217	-240	-263	--	--	--
4.500	--	--	--	-218	-241	-264	--	--	--
5.000	--	--	--	-219	-242	-265	--	--	--
5.500	--	--	--	-220	-243	-266	--	--	--
6.000	--	--	--	-221	-244	-267	--	--	--

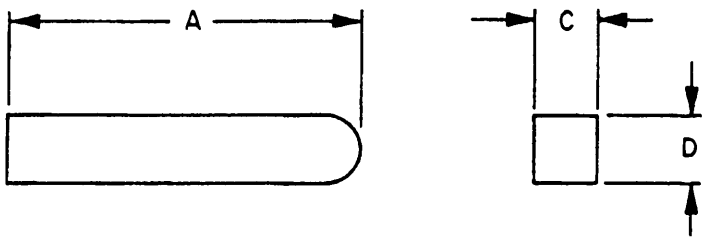
TABLE I. KEY CONFIGURATION DASH NUMBERS. - CONTINUED

A LENGTH	MS20066 DASH NUMBER					
	C X D .375 X .375			C X D .500 X .500		
	GRADE A	GRADE B	GRADE C	GRADE A	GRADE B	GRADE C
.500	-347	-372	-397	--	--	--
.750	-348	-373	-398	--	--	--
.875	-349	-374	-399	--	--	--
1.000	-350	-375	-400	-506	-535	-564
1.125	-351	-376	-401	-507	-536	-565
1.250	-352	-377	-402	-508	-537	-566
1.375	-353	-378	-403	-509	-538	-567
1.500	-354	-379	-404	-510	-539	-568
1.750	-355	-380	-405	-511	-540	-569
2.000	-356	-381	-406	-512	-541	-570
2.250	-357	-382	-407	-513	-542	-571
2.500	-358	-383	-408	-514	-543	-572
3.000	-359	-384	-409	-515	-544	-573
3.500	-360	-385	-410	-516	-545	-574
4.000	-361	-386	-411	-517	-546	-575
4.500	-362	-387	-412	-518	-547	-576
5.000	-363	-388	-413	-519	-548	-577
5.500	--	--	--	-520	-549	-578
6.000	--	--	--	-521	-550	-579

SECTION 103

KEY, MACHINE-SQUARE IN CROSS SECTION, ONE END SQUARE, OTHER END ROUND

APPLICABLE DOCUMENT: MS20067



MATERIAL	PROTECTIVE FINISH	SHEAR STRENGTH (PSI)
ALLOY STEEL - GRADE B	NONE	90,000 MIN
CARBON STEEL - GRADE C	NONE	60,000 MIN

TABLE I. KEY CONFIGURATION DASH NUMBERS.

A LENGTH	MS20067 DASH NUMBER							
	C X D .062 X .062		C X D .094 X .094		C X D .125 X .125		C X D .188 X .188	
	GRADE B	GRADE C	GRADE B	GRADE C	GRADE B	GRADE C	GRADE B	GRADE C
.250	-1	-4	-7	-28	--	--	--	--
.312	-2	-5	-8	-29	--	--	--	--
.375	-3	-6	-9	-30	--	--	--	--
.438	--	--	-10	-31	--	--	--	--
.500	--	--	-11	-32	-53	-74	-95	-118
.750	--	--	-12	-33	-54	-75	-96	-119
.875	--	--	-13	-34	-55	-76	-97	-120
1.000	--	--	-14	-35	-56	-77	-98	-121
1.125	--	--	--	--	-57	-78	-99	-122
1.250	--	--	--	--	-58	-79	-100	-123
1.375	--	--	--	--	-59	-80	-101	-124
1.500	--	--	--	--	-60	-81	-102	-125
1.750	--	--	--	--	-61	-82	-103	-126
2.000	--	--	--	--	-62	-83	-104	-127
2.250	--	--	--	--	-63	-84	-105	-128
2.500	--	--	--	--	-64	-85	-106	-129
3.000	--	--	--	--	-65	-86	-107	-130

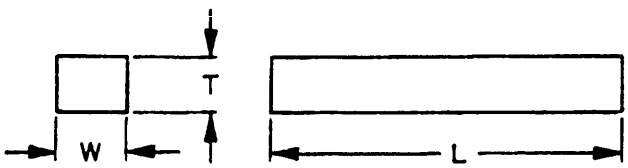
TABLE. I KEY CONFIGURATION DASH NUMBERS. - CONTINUED

A LENGTH	MS20067 DASH NUMBER							
	C X D .250 X .250		C X D .312 X .312		C X D .375 X .375		C X D .500 X .500	
	GRADE B	GRADE C	GRADE B	GRADE C	GRADE B	GRADE C	GRADE B	GRADE C
.500	-141	-166	-191	-216	-241	-268	--	--
.750	-142	-167	-192	-217	-242	-269	--	--
.875	-143	-168	-193	-218	-243	-270	--	--
1.000	-144	-169	-194	-219	-244	-271	--	--
1.125	-145	-170	-195	-220	-245	-272	--	--
1.250	-146	-171	-196	-221	-246	-273	--	--
1.375	-147	-172	-197	-222	-247	-274	--	--
1.500	-148	-173	-198	-223	-248	-275	-360	-390
1.750	-149	-174	-199	-224	-249	-276	-361	-391
2.000	-150	-175	-200	-225	-250	-277	-362	-392
2.250	-151	-176	-201	-226	-251	-278	-363	-393
2.500	-152	-177	-202	-227	-252	-279	-364	-394
3.000	-153	-178	-203	-228	-253	-280	-365	-395
3.500	-154	-179	-204	-229	--	--	--	--
4.000	-155	-180	-205	-230	--	--	--	--
4.500	--	--	-206	-231	--	--	--	--
5.000	--	--	-207	-232	--	--	--	--

SECTION 104

KEYS-SQUARE AND RECTANGULAR

APPLICABLE DOCUMENT: NAS558



MATERIAL	PROTECTIVE FINISH
ALLOY STEEL	CADMIUM PLATE

TABLE I. SQUARE KEY CONFIGURATION DASH NUMBERS.

W	T	L LENGTH	NAS558 DASH NUMBER
.125	.125	.250	P404-4
		.312	P404-5
		.375	P404-6
		.438	P404-7
		.500	P404-8
		.750	P404-12
		.875	P404-14
		1.000	P404-16
		1.125	P404-18
		1.250	P404-20
		1.375	P404-22
		1.500	P404-24
		1.750	P404-28
		2.000	P404-32
		2.250	P404-36
		2.500	P404-40
		3.000	P404-48

W	T	L LENGTH	NAS558 DASH NUMBER
.188	.188	.500	P606-8
		.750	P606-12
		.875	P606-14
		1.000	P606-16
		1.125	P606-18
		1.250	P606-20
		1.375	P606-22
		1.500	P606-24
		1.750	P606-28
		2.000	P606-32
		2.250	P606-36
		2.500	P606-40
		3.000	P606-48
		3.500	P606-56
		4.000	P606-64

TABLE I. SQUARE KEY CONFIGURATION DASH NUMBERS. - CONTINUED.

W	T	L LENGTH	NAS558 DASH NUMBER
.250	.250	.500	P808-8
		.750	P808-12
		.875	P808-14
		1.000	P808-16
		1.125	P808-18
		1.250	P808-20
		1.375	P808-22
		1.500	P808-24
		1.750	P808-28
		2.000	P808-32
		2.250	P808-36
		2.500	P808-40
		3.000	P808-48
		3.500	P808-56
		4.000	P808-64
.312	.312	.500	P1010-8
		.750	P1010-12
		.875	P1010-14
		1.000	P1010-16
		1.125	P1010-18
		1.250	P1010-20
		1.375	P1010-22
		1.500	P1010-24
		1.750	P1010-28
		2.000	P1010-32
		2.250	P1010-36
		2.500	P1010-40
		3.000	P1010-48
.375	.375	.500	P1212-8
		.750	P1212-12
		.875	P1212-14
		1.000	P1212-16
		1.125	P1212-18
		1.250	P1212-20
		1.375	P1212-22
		1.500	P1212-24
		1.750	P1212-28
		2.000	P1212-32
		2.250	P1212-36
		2.500	P1212-40
		3.000	P1212-48
		3.500	P1212-56
		4.000	P1212-64
.500	.500	1.000	P1616-16
		1.125	P1616-18
		1.250	P1616-20
		1.375	P1616-22
		1.500	P1616-24
		1.750	P1616-28
		2.000	P1616-32
		2.500	P1616-40
		3.000	P1616-48
		3.500	P1616-56
		4.000	P1616-64

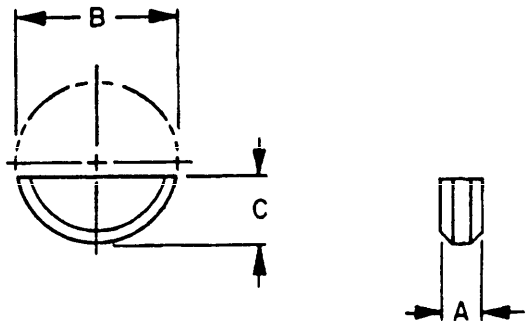
TABLE II. RECTANGULAR KEY CONFIGURATION DASH NUMBERS.

W	T	L LENGTH	NAS558 DASH NUMBER
.125	.094	.500	P403-8
		.750	P403-12
		.875	P403-14
		1.000	P403-16
		1.125	P403-18
		1.250	P403-20
		1.375	P404-22
		1.500	P403-24
		1.750	P403-28
		2.000	P403-32
.188	.125	.500	P604-8
		.750	P604-12
		.875	P604-14
		1.000	P604-16
		1.125	P604-18
		1.250	P604-20
		1.375	P604-22
		1.500	P604-24
		1.750	P604-28
		2.000	P604-32
.250	.188	.500	P806-8
		.750	P806-12
		.875	P806-14
		1.000	P806-16
		1.125	P806-18
		1.250	P806-20
		1.375	P806-22
		1.500	P806-24
		1.750	P806-28
		2.000	P806-32

SECTION 201

KEY, WOODRUFF-CHAMFERED CRES AMS5640

APPLICABLE DOCUMENT: MS9841



MATERIAL	PROTECTIVE FINISH
CRES	NONE

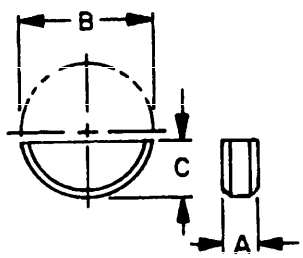
TABLE I. KEY CONFIGURATION DASH NUMBERS.

A	B DIA	C	MS9841 DASH NO.
.062	.250	.109	-01
.062	.312	.140	-02
.062	.375	.172	-03
.062	.500	.203	-04
.094	.312	.140	-05
.094	.375	.172	-06
.094	.500	.203	-07
.094	.625	.250	-08

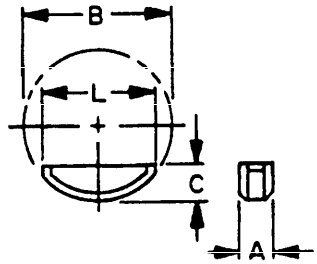
SECTION 202

KEY, WOODRUFF-STEEL, ALLOY

APPLICABLE DOCUMENT: MS35756



TYPE I



TYPE II

MATERIAL	PROTECTIVE FINISH
ALLOY STEEL	NONE

TABLE I. TYPE I DASH NUMBERS.

A	B DIA	C	MS35756 DASH NO.	A	B DIA	C	MS35756 DASH NO.
.062	.250	.109	-1	.188	1.250	.547	-39
.062	.312	.140	-31	.219	.875	.375	-36
.062	.375	.172	-32	.219	1.000	.438	-37
.062	.500	.203	-4	.219	1.125	.484	-38
.094	.312	.140	-2	.219	1.250	.547	-40
.094	.375	.172	-33	.250	.750	.313	-35
.094	.500	.203	-5	.250	.875	.375	-15
.094	.625	.250	-7	.250	1.000	.438	-17
.125	.375	.172	-3	.250	1.125	.484	-20
.125	.500	.203	-6	.250	1.250	.547	-22
.125	.625	.250	-8	.250	1.375	.594	-25
.125	.750	.313	-10	.250	1.500	.641	-28
.156	.625	.250	-9	.312	1.000	.438	-18
.156	.750	.313	-11	.312	1.125	.484	-21
.156	.875	.375	-13	.312	1.250	.547	-23
.188	.625	.250	-34	.312	1.375	.594	-26
.188	.750	.313	-12	.312	1.500	.641	-29
.188	.875	.375	-14	.375	1.250	.547	-24
.188	1.000	.438	-16	.375	1.375	.594	-27
.188	1.125	.484	-19	.375	1.500	.641	-30

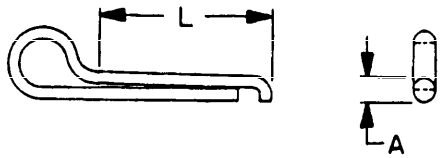
TABLE II. TYPE II DASH NUMBERS.

A	B DIA	C	L LENGTH	MS35756 DASH NO.
.188	2.125	.406	1.380	-109
.188	2.125	.531	1.723	-111
.250	2.125	.406	1.380	-101
.250	2.125	.531	1.723	-112
.250	2.750	.594	2.000	-103
.250	2.750	.750	2.317	-117
.312	2.125	.406	1.380	-110
.312	2.125	.531	1.723	-113
.312	2.750	.594	2.000	-115
.375	2.125	.406	1.380	-102
.375	2.125	.531	1.723	-114
.375	2.750	.594	2.000	-104
.375	2.750	.750	2.317	-119
.500	2.750	.594	2.000	-105
.500	2.750	.750	2.317	-121
.500	3.500	.938	2.880	-106
.625	3.500	.938	2.880	-107
.750	3.500	.938	2.880	-108

SECTION 301

PIN, COTTER (SPLIT)

APPLICABLE DOCUMENT: MS24665



MATERIAL	PROTECTIVE FINISH
CARBON STEEL	CADMIUM PLATE
BRASS	BLACK CHEMICAL
CRES 302 OR 304	PASSIVATE

TABLE I. PIN CONFIGURATION DASH NUMBERS.

A DIA	RECOMMENDED HOLE SIZE	L LENGTH	MS24665 DASH NUMBER		
			CARBON STEEL	CRES	BRASS
.031	.047	.250	-1	-18	-35
		.500	-5	-22	-39
		.750	-7	-24	-41
		1.000	-9	-26	-43
		1.250	-10	-27	-44
		1.500	-11	-28	-45
		1.750	-12	-29	-46
		2.000	-13	-30	-47
		2.500	-14	-31	-48
		3.000	-15	-32	-49
.047	.062	.250	-65	-82	-99
		.500	-69	-86	-103
		.750	-71	-88	-105
		1.000	-73	-90	-107
		1.250	-74	-91	-108
		1.500	-75	-92	-109
		1.750	-76	-93	-110
		2.000	-77	-94	-111
		2.500	-78	-95	-112
		3.000	-79	-96	-113

TABLE I. PIN CONFIGURATION DASH NUMBERS. - CONTINUED

A DIA	RECOMMENDED HOLE SIZE	L LENGTH	MS24665 DASH NUMBER		
			CARBON STEEL	CRES	BRASS
.062	.078	.250	--	-1010	--
		.500	-132	-151	-170
		.750	-134	-153	-172
		1.000	-136	-155	-174
		1.250	-138	-157	-176
		1.500	-140	-159	-178
		1.750	-142	-161	-180
		2.000	-143	-162	-181
		2.500	-144	-163	-182
		3.000	-145	-164	-183
---		.500	-281	-298	-315
		.750	-283	-300	-317
		1.000	-285	-302	-319
		1.250	-287	-304	-321
.094	.109	1.500	-289	-306	-323
		1.750	-291	-308	-325
		2.000	-292	-309	-326
		2.500	-294	-311	-328
		3.000	-295	-312	-329
.125	.141	.500	-349	-366	-383
		.750	-351	-368	-385
		1.000	-353	-370	-387
		1.250	-355	-372	-389
		1.500	-357	-374	-391
		1.750	-359	-376	-393
		2.000	-360	-377	-394
		2.500	-362	-379	-396
		3.000	-363	-380	-397

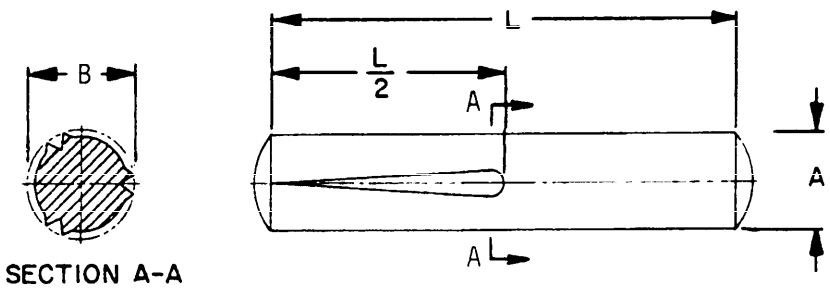
TABLE I. PIN CONFIGURATION DASH NUMBERS. - CONTINUED

A DIA	RECOMMENDED HOLE SIZE	L LENGTH	MS24665 DASH NUMBER		
			CARBON STEEL	CRES	BRASS
.156	.172	.750	-418	-436	-454
		1.000	-419	-437	-455
		1.250	-421	-439	-457
		1.500	-423	-441	-459
		1.750	-425	-443	-461
		2.000	-426	-444	-462
		2.500	-428	-446	-464
		3.000	-430	-448	-466
		4.000	-432	-450	-468
.188	.203	.750	-490	-508	-526
		1.000	-491	-509	-527
		1.250	-493	-511	-529
		1.500	-495	-513	-531
		1.750	-497	-515	-533
		2.000	-498	-516	-534
		2.500	-500	-518	-536
		3.000	-502	-520	-538
		4.000	-504	-522	-540
.250	.266	1.000	-621	-636	-651
		1.250	-622	-637	-652
		1.500	-623	-638	-653
		1.750	-624	-639	-654
		2.000	-625	-640	-655
		2.500	-627	-642	-657
		3.000	-628	-643	-658
		4.000	-630	-645	-660
.375	.375	1.500	-747	-763	--
		1.750	-748	-764	--
		2.000	-749	-765	--
		2.500	-751	-767	--
		3.000	-752	-768	--
		4.000	-754	-770	--

SECTION 401

PIN, GROOVED, HEADLESS (HALF LENGTH REVERSE TAPER GROOVE) CORROSION-RESISTING STEEL

APPLICABLE DOCUMENT: MS51606



SECTION A-A

MATERIAL	PROTECTIVE FINISH
CRES 300 SERIES	PASSIVATE

TABLE I. PIN CONFIGURATION DASH NUMBERS.

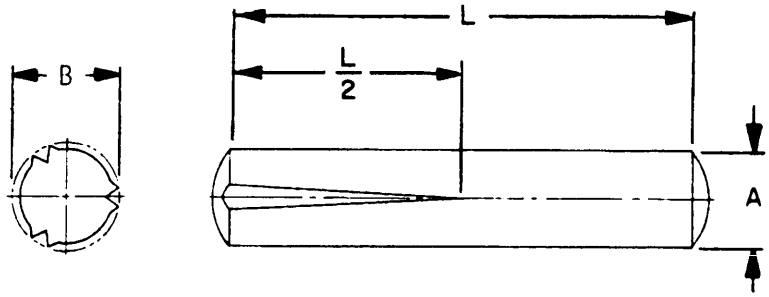
A DIA	SINGLE SHEAR STRENGTH (LBS-MIN)	RECOMMENDED HOLE SIZE		B	L LENGTH	MS51606 DASH NO.
		MAX	MIN			
.062	270	.0640	.0625	.066	.500 .625 .750 .875 1.000	-3 -4 -5 -6 -7
.094	620	.0956	.0938	.099	.500 .625 .750 .875 1.000	-13 -14 -15 -16 -17
.125	1,100	.1271	.1250	.132	.500 .625 .750 .875 1.000	-19 -20 -21 -22 -23

TABLE I. PIN CONFIGURATION DASH NUMBERS. - CONTINUED

A DIA	SINGLE SHEAR STRENGTH (LBS-MIN)	RECOMMENDED HOLE SIZE		B	L LENGTH	MS51606 DASH NO.
		MAX	MIN			
.156	1,720	.1587	.1563	.164	.500 .625 .750 .875 1.000	-26 -27 -28 -29 -30
.188	2,480	.1903	.1875	.195	.500 .625 .750 .875 1.000	-33 -34 -35 -36 -37
.250	4,420	.2534	.2500	.260	.500 .625 .750 .875 1.000	-47 -48 -49 -50 -51

SECTION 402

PIN, GROOVED, HEADLESS (HALF LENGTH TAPER GROOVE)
CORROSION-RESISTING STEEL
APPLICABLE DOCUMENT: MS51605



MATERIAL	PROTECTIVE FINISH
CRES 300 SERIES	PASSIVATE

TABLE I. PIN CONFIGURATION DASH NUMBERS.

A DIA	SINGLE SHEAR STRENGTH (LBS-MIN)	RECOMMENDED HOLE SIZE		B	L LENGTH	MS51605 DASH NO.
		MAX	MIN			
.062	270	.0640	.0625	.066	.500 .625 .750 .875 1.000	-3 -4 -5 -6 -7
.094	620	.0956	.0938	.099	.500 .625 .750 .875 1.000	-13 -14 -15 -16 -17
.125	1,100	.1271	.1250	.132	.500 .625 .750 .875 1.000	-19 -20 -21 -22 -23

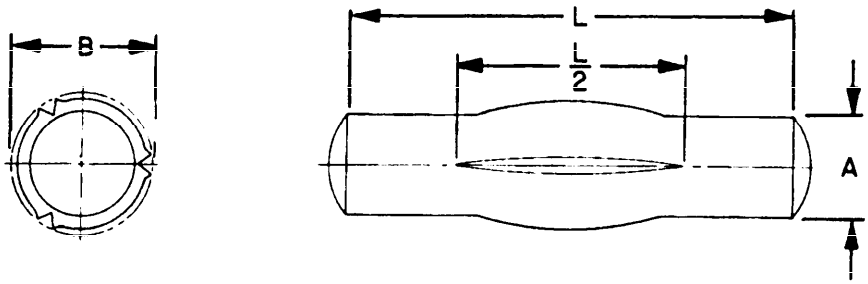
TABLE I. PIN CONFIGURATION DASH NUMBERS. - CONTINUED

A DIA	SINGLE SHEAR STRENGTH (LBS-MIN)	RECOMMENDED HOLE SIZE		B	L LENGTH	MS51605 DASH NO.
		MAX	MIN			
.156	1,720	.1587	.1563	.164	.500 .625 .750 .875 1.000	-26 -27 -28 -29 -30
.188	2,480	.1903	.1875	.195	.500 .625 .750 .875 1.000	-33 -34 -35 -36 -37
.250	4,420	.2534	.2500	.260	.500 .625 .750 .875 1.000	-47 -48 -49 -50 -51

SECTION 403

PIN, GROOVED, HEADLESS-LONGITUDINAL CENTER GROOVE, CARBON STEEL

APPLICABLE DOCUMENT: MS35677



MATERIAL	PROTECTIVE FINISH
CARBON STEEL	CADMIUM PLATE

TABLE I. PIN CONFIGURATION DASH NUMBERS.

A DIA	SHEAR STRENGTH (LBS-MIN)	RECOMMENDED HOLE SIZE		B	L LENGTH	MS35677 DASH NO.
		MAX	MIN			
.062	200	.0640	.0625	.068	.250 .375 .500 .625 .750	-1 -2 -3 -4 -5
.078	310	.0798	.0781	.084	.375 .500 .625 .750	-6 -7 -8 -9
.094	440	.0956	.0938	.101	.375 .500 .625 .750 1.000	-10 -11 -12 -13 -14
.125	790	.1271	.1250	.134	.375 .500 .625 .750 1.000 1.250 1.500	-15 -16 -17 -18 -19 -20 -21

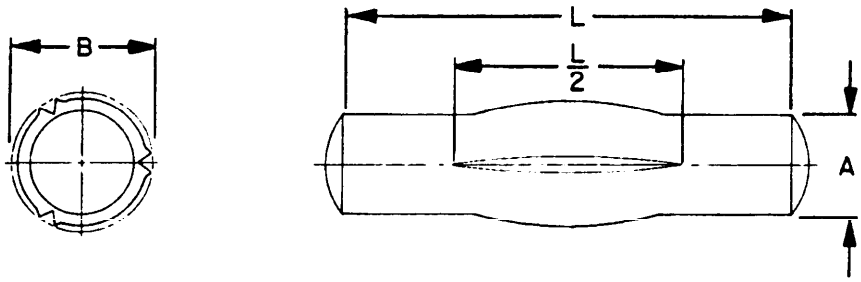
TABLE I. PIN CONFIGURATION DASH NUMBERS. - CONTINUED

A DIA	SHEAR STRENGTH (LBS-MIN)	RECOMMENDED HOLE SIZE		B	L LENGTH	MS35677 DASH NO.
		MAX	MIN			
.156	1,230	.1587	.1563	.166	.500 .625 .750 1.000 1.250 1.500	-22 -23 -24 -25 -26 -27
.188	1,770	.1903	.1875	.198	.500 .625 .750 1.000 1.250 1.500 1.750 2.000	-28 -29 -30 -31 -32 -33 -34 -35
.250	3,140	.2534	.2500	.263	.625 .750 1.000 1.250 1.500 1.750 2.000 2.250	-43 -44 -45 -46 -47 -48 -49 -50
.375	7,070	.3797	.3750	.394	.750 1.000 1.250 1.500 1.750 2.000 2.250 2.500 2.750	-51 -52 -53 -54 -55 -56 -57 -58 -59

SECTION 404

PIN, GROOVED, HEADLESS-LONGITUDINAL CENTER GROOVE, CORROSION-RESISTING STEEL

APPLICABLE DOCUMENT: MS35678



MATERIAL	PROTECTIVE FINSIH
CRES 300 SERIES	PASSIVATE

TABLE I. PIN CONFIGURATION DASH NUMBERS.

A DIA	SHEAR STRENGTH (LBS-MIN)	RECOMMENDED HOLE SIZE		B	L LENGTH	MS35678 DASH NO.
		MAX	MIN			
.062	270	.0640	.0625	.066	.250 .375 .500 .625 .750	-1 -2 -3 -4 -5
.078	430	.0798	.0781	.082	.375 .500 .625 .750	-6 -7 -8 -9
.094	620	.0956	.0938	.099	.375 .500 .625 .750 1.000	-10 -11 -12 -13 -14

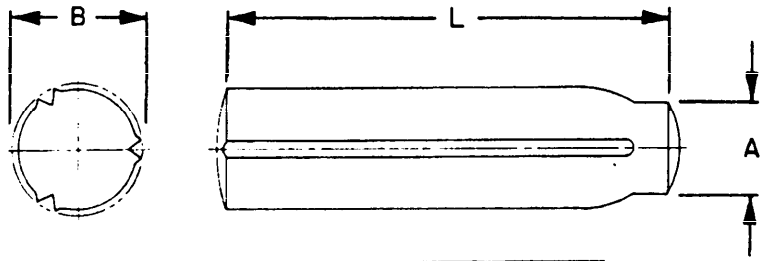
TABLE I. PIN CONFIGURATION DASH NUMBERS. - CONTINUED

A DIA	SHEAR STRENGTH (LBS-MIN)	RECOMMENDED HOLE SIZE		B	L LENGTH	MS35678 DASH NO.
		MAX	MIN			
.125	1,100	.1271	.1250	.132	.375	-15
					.500	-16
					.625	-17
					.750	-18
					1.000	-19
					1.250	-20
					1.500	-21
.156	1,720	.1587	.1562	.164	.500	-22
					.625	-23
					.750	-24
					1.000	-25
					1.250	-26
					1.500	-27
.188	2,480	.1903	.1875	.195	.500	-28
					.625	-29
					.750	-30
					1.000	-31
					1.250	-32
					1.500	-33
					1.750	-34
					2.000	-35
.250	4,420	.2534	.2500	.260	.625	-43
					.750	-44
					1.000	-45
					1.250	-46
					1.500	-47
					1.750	-48
					2.000	-49
					2.250	-50

SECTION 405

PIN, GROOVED, HEADLESS-LONGITUDINAL STRAIGHT GROOVE, CARBON STEEL

APPLICABLE DOCUMENT: MS35674



MATERIAL	PROTECTIVE FINISH
CARBON STEEL	CADMIUM PLATE

TABLE I. PIN CONFIGURATION DASH NUMBERS.

A DIA	SHEAR STRENGTH (LBS-MIN)	RECOMMENDED HOLE SIZE		B	L LENGTH	MS35674 DASH NO.
		MAX	MIN			
.062	200	.0640	.0625	.068	.250 .375 .500 .625	-1 -2 -3 -4
.078	310	.0798	.0781	.084	.250 .375 .500 .625 .750	-5 -6 -7 -8 -9
.094	440	.0956	.0938	.101	.375 .500 .625 .750	-10 -11 -12 -13
.125	790	.1271	.1250	.134 .134 .134 .134 .133 .132	.375 .500 .625 .750 1.000 1.250	-14 -15 -16 -17 -18 -19
.156	1,230	.1587	.1563	.166 .166 .166 .165 .164	.500 .625 .750 1.000 1.250	-20 -21 -22 -23 -24

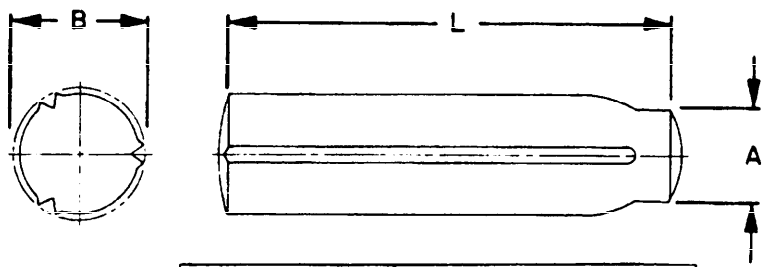
TABLE I. PIN CONFIGURATION DASH NUMBERS. - CONTINUED

A DIA	SHEAR STRENGTH (LBS-MIN)	RECOMMENDED HOLE SIZE		B	L LENGTH	MS35674 DASH NO.
		MAX	MIN			
.188	1,770	.1903	.1875	.198	.500	-25
				.198	.625	-26
				.198	.750	-27
				.198	1.000	-28
				.197	1.250	-29
				.197	1.500	-30
				.197	1.750	-31
.250	3,140	.2534	.2500	.263	.625	-38
				.263	.750	-39
				.263	1.000	-40
				.263	1.250	-41
				.262	1.500	-42
				.262	1.750	-43
				.262	2.000	-44
.312	4,910	.3166	.3125	.329	.625	-45
				.329	.750	-46
				.329	1.000	-47
				.329	1.250	-48
				.329	1.500	-49
				.328	1.750	-50
				.328	2.000	-51
				.328	2.250	-52
				.327	2.500	-53
				.327	2.750	-54
				.327	3.000	-55
.375	7,070	.3797	.3750	.394	.750	-57
				.394	1.000	-58
				.394	1.250	-59
				.394	1.500	-60
				.393	1.750	-61
				.393	2.000	-62
				.393	2.250	-63
				.393	2.500	-64
				.393	2.750	-65
				.392	3.000	-66
.500	12,600	.5060	.5000	.525	1.000	-81
				.525	1.250	-82
				.525	1.500	-83
				.525	1.750	-84
				.525	2.000	-85
				.524	2.250	-86
				.524	2.500	-87
				.524	2.750	-88
				.523	3.000	-89

SECTION 406

PIN, GROOVED, HEADLESS-LONGITUDINAL
STRAIGHT GROOVE, CORROSION-RESISTING STEEL

APPLICABLE DOCUMENT: MS35675



MATERIAL	PROTECTIVE FINISH
CRES 300 SERIES	PASSIVATE

TABLE I. PIN CONFIGURATION DASH NUMBERS.

A DIA	SHEAR STRENGTH (LBS-MIN)	RECOMMENDED HOLE SIZE		B	L LENGTH	MS35675 DASH NO.
		MAX	MIN			
.062	270	.0640	.0625	.066	.250 .375 .500 .625	-1 -2 -3 -4
.078	430	.0798	.0781	.082	.250 .375 .500 .625 .750	-5 -6 -7 -8 -9
.094	620	.0956	.0938	.099	.375 .500 .625 .750	-10 -11 -12 -13
.125	1,100	.1271	.1250	.132 .132 .132 .132 .131 .130	.375 .500 .625 .750 1.000 1.250	-14 -15 -16 -17 -18 -19
.156	1,720	.1587	.1562	.164 .164 .164 .163 .162	.500 .625 .750 1.000 1.250	-20 -21 -22 -23 -24

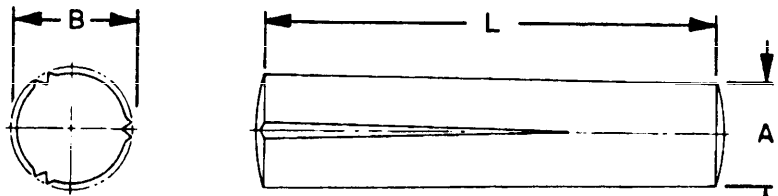
TABLE I. PIN CONFIGURATION DASH NUMBERS. - CONTINUED

A DIA	SHEAR STRENGTH (LBS-MIN)	RECOMMENDED HOLE SIZE		B	L LENGTH	MS35675 DASH NO.
		MAX	MIN			
.188	2,480	.1903	.1875	.195	.500	-25
				.195	.625	-26
				.195	.750	-27
				.195	1.000	-28
				.194	1.250	-29
				.194	1.500	-30
				.194	1.750	-31
.250	4,420	.2534	.2500	.260	.625	-38
				.260	.750	-39
				.260	1.000	-40
				.260	1.250	-41
				.259	1.500	-42
				.259	1.750	-43
				.259	2.000	-44
.312	6,900	.3166	.3125	.325	.625	-45
				.325	.750	-46
				.325	1.000	-47
				.325	1.250	-48
				.325	1.500	-49
				.324	1.750	-50
				.324	2.000	-51
				.324	2.250	-52
				.323	2.500	-53
				.323	2.750	-54
				.323	3.000	-55
.375	9,900	.3797	.3750	.389	.750	-57
				.389	1.000	-58
				.389	1.250	-59
				.389	1.500	-60
				.388	1.750	-61
				.388	2.000	-62
				.388	2.250	-63
				.388	2.500	-64
				.388	2.750	-65
				.387	3.000	-66
.500	17,600	.5060	.5000	.519	1.000	-81
				.519	1.250	-82
				.519	1.500	-83
				.519	1.750	-84
				.519	2.000	-85
				.518	2.250	-86
				.518	2.500	-87
				.518	2.750	-88
				.517	3.000	-89

SECTION 407

PIN, GROOVED, HEADLESS-LONGITUDINAL TAPER GROOVE, CARBON STEEL

APPLICABLE DOCUMENT: MS35671



MATERIAL	PROTECTIVE FINISH
CARBON STEEL	CADMIUM PLATE

TABLE I. PIN CONFIGURATION DASH NUMBERS.

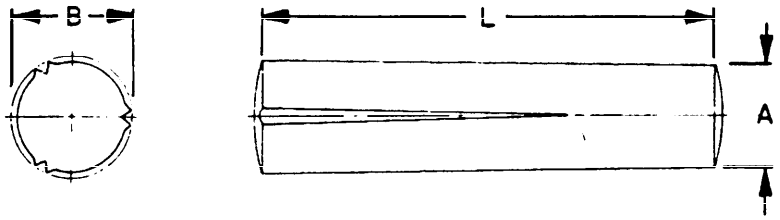
A DIA	SHEAR STRENGTH (LBS-MIN)	RECOMMENDED HOLE SIZE		B	L LENGTH	MS35671 DASH NO.
		MAX	MIN			
.047	110	.0478	.0465	.051	.188 .250 .375 .500 .625	-1 -2 -3 -4 -5
.062	200	.0640	.0625	.068	.250 .375 .500 .625 .750	-6 -7 -8 -9 -10
.078	310	.0798	.0781	.084	.250 .375 .500 .625 .750	-11 -12 -13 -14 -15
.094	440	.0956	.0938	.101	.375 .500 .625 .750 1.000	-16 -17 -18 -19 -20
.125	790	.1271	.1250	.134 .134 .134 .134 .133 .132 .132	.375 .500 .625 .750 1.000 1.250 1.500	-21 -22 -23 -24 -25 -26 -27

TABLE I. PIN CONFIGURATION DASH NUMBERS.- CONTINUED

A DIA	SHEAR STRENGTH (LBS-MIN)	RECOMMENDED HOLE SIZE		B	L LENGTH	MS35671 DASH NO.
		MAX	MIN			
.156	1,230	.1587	.1563	.166	.500	-28
				.166	.625	-29
				.166	.750	-30
				.165	1.000	-31
				.164	1.250	-32
				.164	1.500	-33
.188	1,770	.1903	.1875	.198	.500	-34
				.198	.625	-35
				.198	.750	-36
				.198	1.000	-37
				.197	1.250	-38
				.197	1.500	-39
				.197	1.750	-40
				.196	2.000	-41
				.196	2.250	-42
.250	3,140	.2534	.2500	.263	.625	-52
				.263	.750	-53
				.263	1.000	-54
				.263	1.250	-55
				.262	1.500	-56
				.262	1.750	-57
				.262	2.000	-58
				.262	2.250	-59
				.261	2.500	-60
				.261	2.750	-61
.375	7,070	.3797	.3750	.394	.750	-62
				.394	1.000	-63
				.394	1.250	-64
				.394	1.500	-65
				.393	1.750	-66
				.393	2.000	-67
				.393	2.250	-68
				.393	2.500	-69
				.393	2.750	-70

SECTION 408

PIN, GROOVED, HEADLESS-LONGITUDINAL
TAPER GROOVED, CORROSION-RESISTING STEEL
APPLICABLE DOCUMENT: MS35672



MATERIAL	PROTECTIVE FINISH
CRES 300 SERIES	PASSIVATE

TABLE I. PIN CONFIGURATION DASH NUMBERS.

A DIA	SHEAR STRENGTH (LBS-MIN)	RECOMMENDED HOLE SIZE		B	L LENGTH	MS35672 DASH NO.
		MAX	MIN			
.047	150	.0482	.0469	.050	.188 .250 .375 .500 .625	-1 -2 -3 -4 -5
.062	270	.0640	.0625	.066	.250 .375 .500 .625 .750	-6 -7 -8 -9 -10
.078	430	.0798	.0781	.082	.250 .375 .500 .625 .750	-11 -12 -13 -14 -15
.094	620	.0956	.0938	.099	.375 .500 .625 .750 1.000	-16 -17 -18 -19 -20

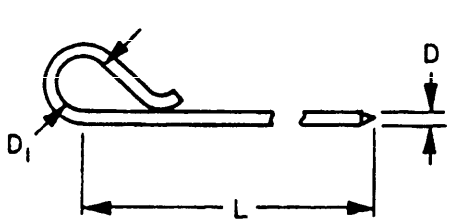
TABLE I. PIN CONFIGURATION DASH NUMBERS. - CONTINUED

A DIA	SHEAR STRENGTH (LBS-MIN)	RECOMMENDED HOLE SIZE		B	L LENGTH	MS35672 DASH NO.
		MAX	MIN			
.125	1,100	.1271	.1250	.132	.500	-21
				.132	.625	-22
				.132	.750	-23
				.131	1.000	-24
				.130	1.250	-25
				.130	1.500	-26
.156	1,720	.1587	.1562	.164	.500	-27
				.164	.625	-28
				.164	.750	-29
				.163	1.000	-30
				.162	1.250	-31
				.162	1.500	-32
.188	2,480	.1903	.1875	.195	.625	-33
				.195	.750	-34
				.195	1.000	-35
				.194	1.250	-36
				.194	1.500	-37
.250	4,420	.2534	.2500	.260	.625	-41
				.260	.750	-42
				.260	1.000	-43
				.260	1.250	-44
				.259	1.500	-45

SECTION 501

PIN, LOCK (HITCH PIN)

APPLICABLE DOCUMENT: AN415



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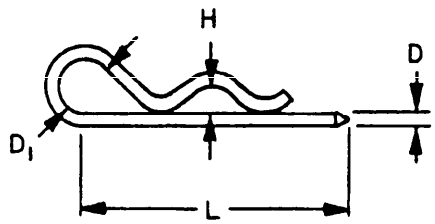


AN415-2

MATERIAL	PROTECTIVE FINISH
CRES 316	NONE

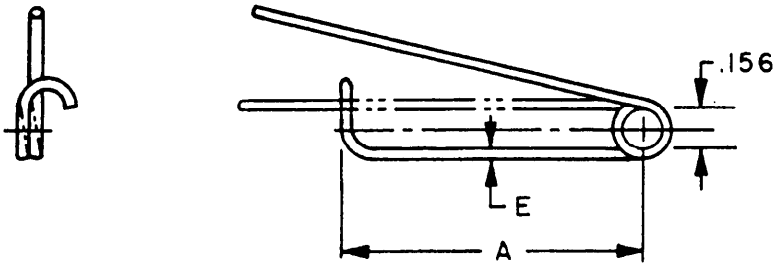
TABLE I. PIN CONFIGURATION DASH NUMBERS.

D	D_1	H	L LENGTH	AN415 DASH NO.
.080	.375	--	1.000	-1-1
			2.000	-1-2
			3.000	-1-3
			4.000	-1-4
			5.000	-1-5
			7.000	-1-7
			8.000	-1-8
			10.000	-1-10
			12.000	-1-12
			13.000	-1-13
		.188	1.938	-2

SECTION 601

PIN-RETAINING, SAFETY

APPLICABLE DOCUMENT: AN416



MATERIAL	PROTECTIVE FINISH
CARBON STEEL	CADMIUM PLATE

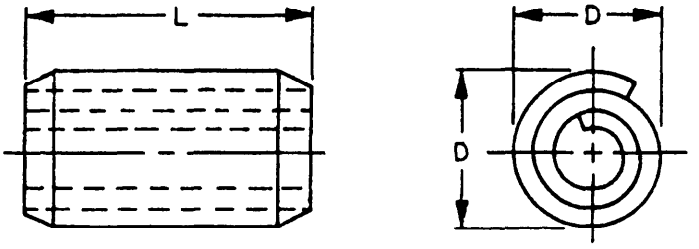
TABLE I. PIN CONFIGURATION DASH NUMBERS.

AN416 DASH NO.	A	E
-1	1.062	.051
-2	.750	.041

SECTION 701

PIN-SPRING, COILED

APPLICABLE DOCUMENT: NAS1407



MATERIAL	PROTECTIVE FINISH
CARBON STEEL	CADMIUM PLATE
CRES	PASSIVATE

TABLE I. COILED PIN CONFIGURATION.

D NOM. DIA.	MEDIUM DUTY (CLASS 2) DOUBLE SHEAR STRENGTH (LBS-MIN)		RECOMMENDED HOLE SIZE	
	CRES 302	CARBON STEEL	MAX	MIN
.031	60	75	.0325	.031
.039	100	120	.0405	.039
.047	140	170	.0485	.047
.052	190	230	.0535	.052
.062	250	300	.065	.061
.078	400	475	.081	.077
.094	550	700	.097	.093
.109	750	950	.112	.108
.125	1,000	1,250	.129	.124
.156	1,550	1,925	.160	.155
.188	2,250	2,800	.192	.185
.219	3,000	3,800	.224	.217
.250	4,000	5,000	.256	.247
.312	6,200	7,700	.319	.308
.375	9,000	11,200	.383	.370
.500	16,000	20,000	.510	.493

TABLE II. NAS1407 DASH NUMBERS (CARBON STEEL).

L LENGTH	D DIAMETER					
	.062	.078	.094	.109	.125	.156
.188	P5M3	P6M3	P7M3	P8M3	--	--
.250	P5M4	P6M4	P7M4	P8M4	--	--
.312	P5M5	P6M5	P7M5	P8M5	P9M5	--
.375	P5M6	P6M6	P7M6	P8M6	P9M6	--
.438	P5M7	P6M7	P7M7	P8M7	P9M7	P10M7
.500	P5M8	P6M8	P7M8	P8M8	P9M8	P10M8
.625	P5M10	P6M10	P7M10	P8M10	P9M10	P10M10
.750	P5M12	P6M12	P7M12	P8M12	P9M12	P10M12
.875	P5M14	P6M14	P7M14	P8M14	P9M14	P10M14
1.000	P5M16	P6M16	P7M16	P8M16	P9M16	P10M16
1.125	P5M18	P6M18	P7M18	P8M18	P9M18	P10M18
1.250	P5M20	P6M20	P7M20	P8M20	P9M20	P10M20
1.375	P5M22	P6M22	P7M22	P8M22	P9M22	P10M22
1.500	P5M24	P6M24	P7M24	P8M24	P9M24	P10M24
1.750	--	--	--	--	P9M28	P10M28
2.000	--	--	--	--	P9M32	P10M32
2.250	--	--	--	--	--	P10M36
2.500	--	--	--	--	--	P10M40

TABLE II. NAS1407 DASH NUMBERS (CARBON STEEL). - CONTINUED

L LENGTH	D DIAMETER					
	.188	.219	.250	.312	.375	.500
.500	P11M8	P12M8	P13M8	--	--	--
.625	P11M10	P12M10	P13M10	--	--	--
.750	P11M12	P12M12	P13M12	P14M12	P15M12	--
.875	P11M14	P12M14	P13M14	P14M14	--	--
1.000	P11M16	P12M16	P13M16	P14M16	P15M16	--
1.125	P11M18	P12M18	P13M18	P14M18	--	--
1.250	P11M20	P12M20	P13M20	P14M20	P15M20	P17M20
1.375	P11M22	P12M22	P13M22	P14M22	--	--
1.500	P11M24	P12M24	P13M24	P14M24	P15M24	P17M24
1.750	P11M28	P12M28	P13M28	P14M28	P15M28	P17M28
2.000	P11M32	P12M32	P13M32	P14M32	P15M32	P17M32
2.250	P11M36	P12M36	P13M36	P14M36	P15M36	P17M36
2.500	P11M40	P12M40	P13M40	P14M40	P15M40	P17M40
2.750	--	P12M44	P13M44	P14M44	P15M44	P17M44
3.000	--	P12M48	P13M48	P14M48	P15M48	P17M48
3.250	--	--	P13M52	P14M52	P15M52	P17M52
3.500	--	--	P13M56	P14M56	P15M56	P17M56
3.750	--	--	--	P14M60	P15M60	P17M60
4.000	--	--	--	P14M64	P15M64	P17M64

TABLE III. NAS1407 DASH NUMBERS (CRES TYPE 302).

L LENGTH	D DIAMETER							
	.031	.039	.047	.052	.062	.078	.094	.109
.188	N1M3	N2M3	N3M3	N4M3	N5M3	N6M3	N7M3	N8M3
.250	N1M4	N2M4	N3M4	N4M4	N5M4	N6M4	N7M4	N8M4
.312	N1M5	N2M5	N3M5	N4M5	N5M5	N6M5	N7M5	N8M5
.375	N1M6	N2M6	N3M6	N4M6	N5M6	N6M6	N7M6	N8M6
.438	N1M7	N2M7	N3M7	N4M7	N5M7	N6M7	N7M7	N8M7
.500	N1M8	N2M8	N3M8	N4M8	N5M8	N6M8	N7M8	N8M8
.625	--	--	--	--	N5M10	N6M10	N7M10	N8M10
.750	--	--	--	--	N5M12	N6M12	N7M12	N8M12
.875	--	--	--	--	N5M14	N6M14	N7M14	N8M14
1.000	--	--	--	--	N5M16	N6M16	N7M16	N8M16
1.125	--	--	--	--	N5M18	N6M18	N7M18	N8M18
1.250	--	--	--	--	N5M20	N6M20	N7M20	N8M20
1.375	--	--	--	--	N5M22	N6M22	N7M22	N8M22
1.500	--	--	--	--	N5M24	N6M24	N7M24	N8M24

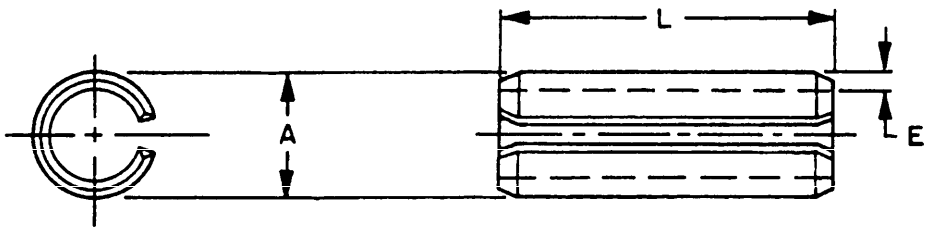
TABLE III. NAS1407 DASH NUMBERS (CRES TYPE 302). - CONTINUED

L LENGTH	D DIAMETER							
	.125	.156	.188	.219	.250	.312	.375	.500
.312	N9M5	--	--	--	--	--	--	--
.375	N9M6	--	--	--	--	--	--	--
.438	N9M7	N10M7	--	--	--	--	--	--
.500	N9M8	N10M8	N11M8	N12M8	N13M8	--	--	--
.625	N9M10	N10M10	N11M10	N12M10	N13M10	--	--	--
.750	N9M12	N10M12	N11M12	N12M12	N13M12	N14M12	N15M12	--
.875	N9M14	N10M14	N11M14	N12M14	N13M14	N14M14	--	--
1.000	N9M16	N10M16	N11M16	N12M16	N13M16	N14M16	N15M16	--
1.125	N9M18	N10M18	N11M18	N12M18	N13M18	N14M18	--	--
1.250	N9M20	N10M20	N11M20	N12M20	N13M20	N14M20	N15M20	N17M20
1.375	N9M22	N10M22	N11M22	N12M22	N13M22	N14M22	--	--
1.500	N9M24	N10M24	N11M24	N12M24	N13M24	N14M24	N15M24	N17M24
1.750	N9M28	N10M28	N11M28	N12M28	N13M28	N14M28	N15M28	N17M28
2.000	N9M32	N10M32	N11M32	N12M32	N13M32	N14M32	N15M32	N17M32
2.250	--	N10M36	N11M36	N12M36	N13M36	N14M36	N15M36	N17M36
2.500	--	N10M40	N11M40	N12M40	N13M40	N14M40	N15M40	N17M40
2.750	--	--	--	N12M44	N13M44	N14M44	N15M44	N17M44
3.000	--	--	--	N12M48	N13M48	N14M48	N15M48	N17M48
3.250	--	--	--	--	N13M52	N14M52	N15M52	N17M52
3.500	--	--	--	--	N13M56	N14M56	N15M56	N17M56
3.750	--	--	--	--	--	N14M60	N15M60	N17M60
4.000	--	--	--	--	--	N14M64	N15M64	N17M64

SECTION 702

PIN-SPRING, CORROSION RESISTANT STEEL

APPLICABLE DOCUMENT: MS171401 THRU 171900



MATERIAL	PROTECTIVE FINISH
CRES	NONE

TABLE I PIN CONFIGURATION.

A NOM	E	DOUBLE SHEAR STRENGTH (LBS-MIN)	RECOMMENDED HOLE SIZE	
			MAX	MIN
.062	.012	425	.065	.062
.094	.022	1,000	.097	.094
.125	.028	1,840	.129	.125
.156	.032	2,880	.160	.156
.188	.040	4,140	.192	.187
.219	.048	5,640	.224	.219
.250	.048	7,360	.256	.250
.312	.062	11,500	.318	.312
.375	.077	16,580	.382	.375
.500	.094	25,800	.510	.500

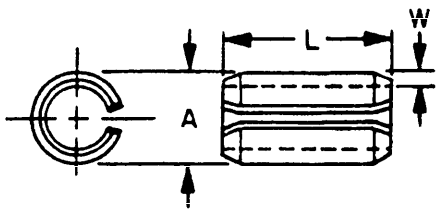
TABLE II. MS171401-171900 PART NUMBERS.

L LENGTH	NOMINAL DIAMETER									
	.062	.094	.125	.156	.188	.219	.250	.312	.375	.500
.125	--	--	--	--	--	--	--	--	--	--
.188	MS171431	--	--	--	--	--	--	--	--	--
.250	MS171432	MS171492	--	--	--	--	--	--	--	--
.312	MS171433	MS171493	--	--	--	--	--	--	--	--
.375	MS171434	MS171494	MS171524	--	--	--	--	--	--	--
.438	MS171435	MS171495	MS171525	--	--	--	--	--	--	--
.500	MS171436	MS171496	MS171526	MS171556	MS171586	--	--	--	--	--
.625	MS171438	MS171498	MS171528	MS171558	MS171588	--	--	--	--	--
.750	MS171440	MS171500	MS171530	MS171560	MS171590	MS171620	MS171650	--	--	--
.875	--	MS171502	MS171532	MS171562	MS171592	MS171622	MS171652	--	--	--
1.000	--	MS171504	MS171534	MS171564	MS171594	MS171624	MS171654	MS171684	--	--
1.125	--	MS171505	MS171535	MS171565	MS171595	MS171625	MS171655	MS171685	--	--
1.250	--	MS171506	MS171536	MS171566	MS171596	MS171626	MS171656	MS171686	MS171716	MS171776
1.375	--	MS171507	MS171537	MS171567	MS171597	MS171627	MS171657	MS171687	MS171717	MS171777
1.500	--	MS171508	MS171538	MS171568	MS171598	MS171628	MS171658	MS171688	MS171718	MS171778
1.750	--	--	MS171540	MS171570	MS171600	MS171630	MS171660	MS171690	MS171720	MS171780
2.000	--	--	--	MS171572	MS171602	MS171632	MS171662	MS171692	MS171722	MS171782
2.250	--	--	--	--	--	MS171633	MS171663	MS171693	MS171723	MS171783
2.500	--	--	--	--	--	MS171634	MS171664	MS171694	MS171724	MS171784
2.750	--	--	--	--	--	--	MS171665	MS171695	MS171725	MS171785
3.000	--	--	--	--	--	--	MS171666	MS171696	MS171726	MS171786
3.250	--	--	--	--	--	--	MS171667	MS171697	MS171727	MS171787
3.500	--	--	--	--	--	--	MS171668	MS171698	MS171728	MS171788
3.750	--	--	--	--	--	--	--	MS171699	MS171729	MS171789
4.000	--	--	--	--	--	--	--	MS171700	MS171730	MS171790

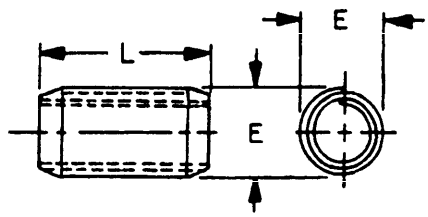
SECTION 703

PINS-SPRING, SLOTTED & COILED, HEAVY DUTY

APPLICABLE DOCUMENT: NAS561



SLOTTED TYPE



COILED TYPE

MATERIAL	PROTECTIVE FINISH
CRES	PASSIVATE
CARBON STEEL	CADMIUM PLATE

TABLE I. SLOTTED AND COILED PIN CONFIGURATION.

NOM DIA	SLOTTED PIN			COILED PIN		RECOMMENDED HOLE SIZE	
	A DIA MAX	W NOM	DOUBLE SHEAR STRENGTH (LBS-MIN)	E DIA MAX	DOUBLE SHEAR STRENGTH (LBS-MIN)	MAX	MIN
.062	.069	.012	425	.070	460	.065	.062
.094	.103	.022	1,000	.103	1,030	.097	.094
.125	.135	.028	2,100	.136	1,840	.129	.125
.156	.167	.032	3,000	.168	2,880	.160	.156
.188	.199	.040	4,400	.202	4,140	.192	.187
.219	.232	.048	5,700	.235	5,640	.224	.219
.250	.264	.048	7,700	.268	7,360	.256	.250
.312	.328	.062	11,500	.340	11,500	.318	.312
.375	.392	.077	17,600	.407	16,580	.382	.375
.500	.521	.094	25,800	.542	29,440	.510	.500

TABLE II. NAS561 DASH NUMBERS (COILED PINS, CARBON STEEL).

L LENGTH	NOMINAL DIAMETERS AND DASH NUMBERS				
	.062	.094	.125	.156	.188
.188	PF2-3	--	--	--	--
.250	PF2-4	PF3-4	--	--	--
.312	PF2-5	PF3-5	--	--	--
.375	PF2-6	PF3-6	PF4-6	--	--
.438	PF2-7	PF3-7	PF4-7	--	--
.500	PF2-8	PF3-8	PF4-8	PF5-8	PF6-8
.625	PF2-10	PF3-10	PF4-10	PF5-10	PF6-10
.750	PF2-12	PF3-12	PF4-12	PF5-12	PF6-12
.875	PF2-14	PF3-14	PF4-14	PF5-14	PF6-14
1.000	PF2-16	PF3-16	PF4-16	PF5-16	PF6-16
1.125	--	PF3-18	PF4-18	PF5-18	PF6-18
1.250	--	PF3-20	PF4-20	PF5-20	PF6-20
1.375	--	PF3-22	PF4-22	PF5-22	PF6-22
1.500	--	PF3-24	PF4-24	PF5-24	PF6-24
1.750	--	--	PF4-28	PF5-28	PF6-28
2.000	--	--	--	PF5-32	PF6-32
2.250	--	--	--	--	PF6-36
2.500	--	--	--	--	PF6-40

TABLE II. NAS561 DASH NUMBERS (COILED PINS, CARBON STEEL). - CONTINUED

L LENGTH	NOMINAL DIAMETERS AND DASH NUMBERS				
	.219	.250	.312	.375	.500
.500	PF7-8	PF8-8	--	--	--
.625	PF7-10	PF8-10	--	--	--
.750	PF7-12	PF8-12	--	--	--
.875	PF7-14	PF8-14	--	--	--
1.000	PF7-16	PF8-16	PF10-16	PF12-16	--
1.125	PF7-18	PF8-18	PF10-18	--	--
1.250	PF7-20	PF8-20	PF10-20	PF12-20	--
1.375	PF7-22	PF8-22	PF10-22	--	--
1.500	PF7-24	PF8-24	PF10-24	PF12-24	PF16-24
1.750	PF7-28	PF8-28	PF10-28	PF12-28	PF16-28
2.000	PF7-32	PF8-32	PF10-32	PF12-32	PF16-32
2.250	PF7-36	PF8-36	PF10-36	PF12-36	PF16-36
2.500	PF7-40	PF8-40	PF10-40	PF12-40	PF16-40
2.750	--	PF8-44	PF10-44	PF12-44	PF16-44
3.000	--	PF8-48	PF10-48	PF12-48	PF16-48
3.250	--	PF8-52	PF10-52	PF12-52	PF16-52
3.500	--	--	PF10-56	PF12-56	PF16-56
3.750	--	--	PF10-60	PF12-60	PF16-60
4.000	--	--	PF10-64	PF12-64	PF16-64

TABLE III. NAS561 DASH NUMBERS (SLOTTED PINS, CRES).

L LENGTH	NOMINAL DIAMETERS AND DASH NUMBERS				
	.062	.094	.125	.156	.188
.188	C2-3	--	--	--	--
.250	C2-4	C3-4	--	--	--
.312	C2-5	C3-5	--	--	--
.375	C2-6	C3-6	C4-6	--	--
.438	C2-7	C3-7	C4-7	--	--
.500	C2-8	C3-8	C4-8	C5-8	C6-8
.625	C2-10	C3-10	C4-10	C5-10	C6-10
.750	C2-12	C3-12	C4-12	C5-12	C6-12
.875	C2-14	C3-14	C4-14	C5-14	C6-14
1.000	C2-16	C3-16	C4-16	C5-16	C6-16
1.125	--	C3-18	C4-18	C5-18	C6-18
1.250	--	C3-20	C4-20	C5-20	C6-20
1.375	--	C3-22	C4-22	C5-22	C6-22
1.500	--	C3-24	C4-24	C5-24	C6-24
1.750	--	--	C4-28	C5-28	C6-28
2.000	--	--	--	C5-32	C6-32
2.250	--	--	--	--	C6-36
2.500	--	--	--	--	C6-40

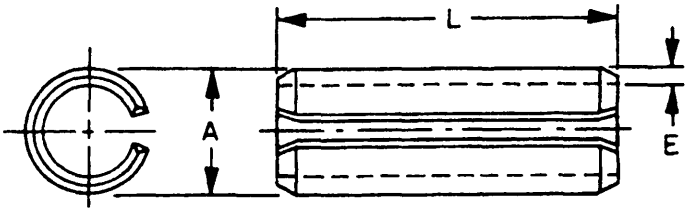
TABLE III. NAS561 DASH NUMBERS (SLOTTED PINS, CRES). - CONTINUED

L LENGTH	NOMINAL DIAMETERS AND DASH NUMBERS				
	.219	.250	.312	.375	.500
.500	C7-8	C8-8	--	--	--
.625	C7-10	C8-10	--	--	--
.750	C7-12	C8-12	--	--	--
.875	C7-14	C8-14	--	--	--
1.000	C7-16	C8-16	C10-16	C12-16	--
1.125	C7-18	C8-18	C10-18	--	--
1.250	C7-20	C8-20	C10-20	C12-20	--
1.375	C7-22	C8-22	C10-22	--	--
1.500	C7-24	C8-24	C10-24	C12-24	C16-24
1.750	C7-28	C8-28	C10-28	C12-28	C16-28
2.000	C7-32	C8-32	C10-32	C12-32	C16-32
2.250	C7-36	C8-36	C10-36	C12-36	C16-36
2.500	C7-40	C8-40	C10-40	C12-40	C16-40
2.750	--	C8-44	C10-44	C12-44	C16-44
3.000	--	C8-48	C10-48	C12-48	C16-48
3.250	--	C8-52	C10-52	C12-52	C16-52
3.500	--	--	C10-56	C12-56	C16-56
3.750	--	--	C10-60	C12-60	C16-60
4.000	--	--	C10-64	C12-64	C16-64

SECTION 704

PIN-SPRING, STEEL, CADMIUM PLATED

APPLICABLE DOCUMENT: MS9048



MATERIAL	PROTECTIVE FINISH
CARBON STEEL	CADMIUM PLATE

TABLE I. PIN CONFIGURATION.

A NOM	E	DOUBLE SHEAR STRENGTH (LBS-MIN)	RECOMMENDED HOLE SIZE	
			MAX	MIN
.062	.012	425	.065	.062
.094	.022	1,000	.097	.094
.125	.028	1,840	.129	.125
.156	.032	2,880	.160	.156
.188	.040	4,140	.192	.187
.219	.048	5,640	.224	.219
.250	.048	7,360	.256	.250
.312	.062	11,500	.318	.312
.375	.077	16,580	.382	.375
.500	.094	25,800	.510	.500

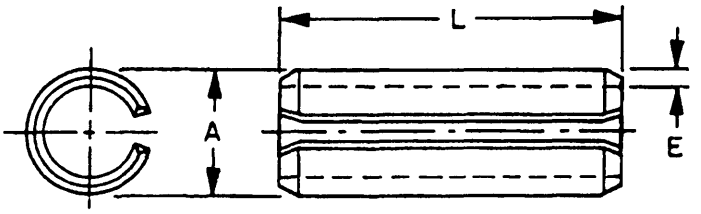
TABLE II. MS9048 DASH NUMBERS.

L LENGTH	NOMINAL DIAMETER									
	.062	.094	.125	.156	.188	.219	.250	.312	.375	.500
.188	-002	--	--	--	--	--	--	--	--	--
.250	-003	-065	--	--	--	--	--	--	--	--
.312	-004	-066	--	--	--	--	--	--	--	--
.375	-005	-067	-098	--	--	--	--	--	--	--
.438	-006	-068	-099	--	--	--	--	--	--	--
.500	-007	-069	-100	-131	-162	--	--	--	--	--
.625	-009	-071	-102	-133	-164	--	--	--	--	--
.750	-011	-073	-104	-135	-166	-197	-228	--	--	--
.875	--	-075	-106	-137	-168	-199	-230	--	--	--
1.000	--	-077	-108	-139	-170	-201	-232	-263	--	--
1.125	--	-078	-109	-140	-171	-202	-233	-264	--	--
1.250	--	-079	-110	-141	-172	-203	-234	-265	-296	-358
1.375	--	-080	-111	-142	-173	-204	-235	-266	-297	-359
1.500	--	-081	-112	-143	-174	-205	-236	-267	-298	-360
1.750	--	--	-114	-145	-176	-207	-238	-269	-300	-362
2.000	--	--	--	-147	-178	-209	-240	-271	-302	-364
2.250	--	--	--	--	-179	-210	-241	-272	-303	-365
2.500	--	--	--	--	-180	-211	-242	-273	-304	-366
2.750	--	--	--	--	-181	-212	-243	-274	-305	-367
3.000	--	--	--	--	-182	-213	-244	-275	-306	-368
3.250	--	--	--	--	-183	-214	-245	-276	-307	-369
3.500	--	--	--	--	-184	-215	-246	-277	-308	-370
3.750	--	--	--	--	--	--	--	-278	-309	-371
4.000	--	--	--	--	--	--	--	-279	-310	-372

SECTION 705

PIN-SPRING, STEEL, PHOSPHATE FINISH

APPLICABLE DOCUMENT: MS9047



MATERIAL	PROTECTIVE FINISH
CARBON STEEL	PHOSPHATE

TABLE I. PIN CONFIGURATION.

A NOM	E	DOUBLE SHEAR STRENGTH (LBS-MIN)	RECOMMENDED HOLE SIZE	
			MAX	MIN
.062	.012	425	.065	.062
.094	.022	1,000	.097	.094
.125	.028	1,840	.129	.125
.156	.032	2,880	.160	.156
.188	.040	4,140	.192	.187
.219	.048	5,640	.224	.219
.250	.048	7,360	.256	.250
.312	.062	11,500	.318	.312
.375	.077	16,580	.382	.375
.500	.094	25,800	.510	.500

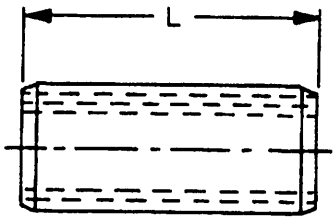
TABLE II. MS9047 DASH NUMBERS.

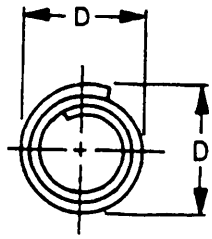
L LENGTH	NOMINAL DIAMETER									
	.062	.094	.125	.156	.188	.219	.250	.312	.375	.500
.188	-002	--	--	--	--	--	--	--	--	--
.250	-003	-065	--	--	--	--	--	--	--	--
.312	-004	-066	--	--	--	--	--	--	--	--
.375	-005	-067	-098	--	--	--	--	--	--	--
.438	-006	-068	-099	--	--	--	--	--	--	--
.500	-007	-069	-100	-131	-162	--	--	--	--	--
.625	-009	-071	-102	-133	-164	--	--	--	--	--
.750	-011	-073	-104	-135	-166	-197	-228	--	--	--
.875	--	-075	-106	-137	-168	-199	-230	--	--	--
1.000	--	-077	-108	-139	-170	-201	-232	-263	--	--
1.125	--	-078	-109	-140	-171	-202	-233	-264	--	--
1.250	--	-079	-110	-141	-172	-203	-234	-265	-296	-358
1.375	--	-080	-111	-142	-173	-204	-235	-266	-297	-359
1.500	--	-081	-112	-143	-174	-205	-236	-267	-298	-360
1.750	--	--	-114	-145	-176	-207	-238	-269	-300	-362
2.000	--	--	--	-147	-178	-209	-240	-271	-302	-364
2.250	--	--	--	--	--	-210	-241	-272	-303	-365
2.500	--	--	--	--	--	-211	-242	-273	-304	-366
2.750	--	--	--	--	--	--	-243	-274	-305	-367
3.000	--	--	--	--	--	--	-244	-275	-306	-368
3.250	--	--	--	--	--	--	-245	-276	-307	-369
3.500	--	--	--	--	--	--	-246	-277	-308	-370
3.750	--	--	--	--	--	--	--	-278	-309	-371
4.000	--	--	--	--	--	--	--	-279	-310	-372

SECTION 706

PIN, SPRING-TUBULAR, COILED, HEAVY DUTY

APPLICABLE DOCUMENT: MS39086





MATERIAL	PROTECTIVE FINISH
CARBON STEEL	CADMIUM PLATE
CRES	PASSIVATE

TABLE I. PIN CONFIGURATION.

NOM DIA	DOUBLE SHEAR STRENGTH (LBS-MIN)		RECOMMENDED HOLE SIZE	
	CRES 410 THRU 420 CARBON STEEL 1070 THRU 1095	CRES 302	MAX	MIN
.062	450	350	.065	.061
.094	1,000	800	.097	.093
.125	2,100	1,700	.129	.124
.156	3,000	2,400	.160	.155
.188	4,400	3,500	.192	.185
.250	7,700	6,200	.256	.247
.312	11,500	9,200	.319	.308
.375	17,600	14,000	.383	.370
.500	30,000	24,000	.510	.493

TABLE II. MS39086 DASH NUMBERS.

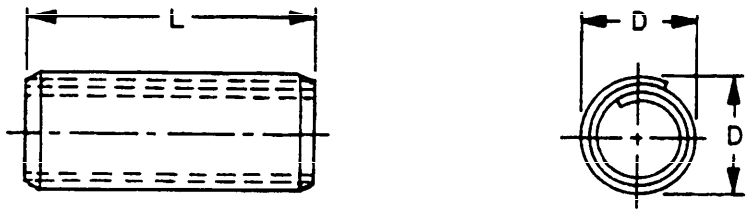
L LENGTH	DASH NUMBER		
	CARBON STEEL 1070 - 1095	CRES	
	CADMIUM	410 THRU 420	302
.062 NOMINAL DIAMETER			
.188	-1	-99	-462
.250	-2	-100	--
.312	-3	-101	--
.375	-4	-102	-465
.438	-5	-103	-466
.500	-6	-104	-467
.625	-8	-106	-469
.750	-10	-108	--
.875	-11	-109	-472
1.000	-13	-111	--
.094 NOMINAL DIAMETER			
.250	-27	-125	--
.312	-28	-126	--
.375	-29	-127	--
.438	-30	-128	--
.500	-31	-129	--
.625	-33	-131	-493
.750	-34	-132	-494
.875	-35	-133	--
1.000	-37	-135	--
1.125	-38	-136	--
.125 NOMINAL DIAMETER			
.375	-39	-137	-512
.438	-40	-138	--
.500	-41	-139	--
.625	-43	-141	--
.750	-44	-142	-517
.875	-45	-143	--
1.000	-47	-145	-520
1.125	-48	-146	--
1.250	-49	-147	-522
.156 NOMINAL DIAMETER			
.500	-148	-240	--
.625	-149	-241	-524
.750	-150	-242	--
.875	-151	-243	--
1.000	-153	-245	--
1.125	-154	-246	--
1.250	-155	-247	--

L LENGTH	DASH NUMBER		
	CARBON STEEL 1070 - 1095	CRES	
	CADMIUM	410 THRU 420	302
.188 NOMINAL DIAMETER			
.500	-156	-248	--
.625	-157	-249	-532
.750	-158	-250	--
.875	-159	-251	--
1.000	-161	-253	--
1.125	-162	-254	--
1.250	-163	-255	--
1.500	-164	-256	--
1.750	-165	-257	--
.250 NOMINAL DIAMETER			
.500	-301	-305	--
.625	-302	-306	--
.750	-166	-258	-552
.875	-167	-259	--
1.000	-169	-261	--
1.125	-170	-262	--
1.250	-171	-263	--
1.500	-172	-264	--
1.750	-173	-265	--
2.000	-174	-266	--
2.500	-175	-267	--
.312 NOMINAL DIAMETER			
.750	-176	-268	--
.875	-177	-269	--
1.000	-179	-271	--
1.125	-180	-272	--
1.250	-181	-273	--
1.500	-182	-274	--
1.750	-183	-275	--
2.000	-184	-276	--
2.500	-185	-277	--
.375 NOMINAL DIAMETER			
1.000	-186	-278	--
1.250	-188	-280	--
1.500	-189	-281	--
1.750	-190	-282	--
2.000	-191	-283	--
2.500	-192	-284	--
3.000	-193	-285	--
.500 NOMINAL DIAMETER			
1.500	-286	-296	--
1.750	-287	-297	--
2.000	-288	-298	--
2.500	-289	-299	--
3.000	-290	-300	--

SECTION 707

PIN, SPRING-TUBULAR, COILED, LIGHT DUTY

APPLICABLE DOCUMENT: MS51987



MATERIAL	PROTECTIVE FINISH
CARBON STEEL	CADMIUM PLATE
CRES	PASSIVATE

TABLE I. PIN CONFIGURATION.

D NOM DIA	DOUBLE SHEAR STRENGTH (LBS-MIN)		RECOMMENDED HOLE SIZE	
	CARBON STEEL 1070 THRU 1095	CRES 302	MAX	MIN
.062	--	135	.065	.061
.094	375	300	.097	.093
.125	675	550	.129	.124
.156	1,100	875	.160	.155
.188	1,500	1,200	.192	.185
.250	2,700	2,200	.256	.247
.312	4,400	3,500	.319	.308

TABLE II. MS51987 DASH NUMBERS.

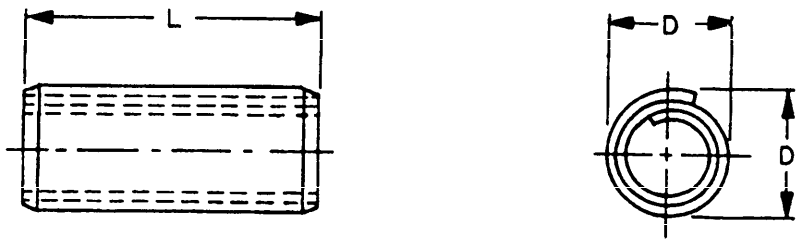
L LENGTH	DASH NUMBER	
	CARBON STEEL 1070 THRU 1095 CADMIUM	CRES 302
.062 NOMINAL DIAMETER		
.312	--	-369
.375	--	-370
.500	--	-371
.625	--	-372
.750	--	-373
.875	--	-374
1.000	--	-375
.094 NOMINAL DIAMETER		
.375	-13	-382
.438	-367	-383
.500	-14	-384
.625	-15	-385
.750	-16	-386
.875	-17	-387
1.000	-18	-388
.125 NOMINAL DIAMETER		
.375	-27	-397
.500	-28	-398
.625	-29	-399
.750	-30	-400
.875	-31	-401
1.000	-32	-402
1.250	-33	-403
1.500	-34	-404
.156 NOMINAL DIAMETER		
.500	-103	-405
.625	-104	-406
.750	-105	-407
.875	-106	-408
1.000	-107	-409
1.250	-108	-410
1.500	-109	-411
1.750	-110	-412
2.000	-111	-413

L LENGTH	DASH NUMBER	
	CARBON STEEL 1070 THRU 1095 CADMIUM	CRES 302
.188 NOMINAL DIAMETER		
.500	-112	-414
.625	-113	-415
.750	-114	-416
.875	-115	-417
1.000	-116	-418
1.250	-117	-419
1.500	-118	-420
1.750	-119	-421
2.000	-120	-422
2.250	-121	-423
2.500	-122	-424
.250 NOMINAL DIAMETER		
.500	-134	--
.625	-135	-435
.750	-136	-436
.875	-137	-437
1.000	-138	-438
1.250	-139	-439
1.500	-140	-440
1.750	-141	-441
2.000	-142	-442
2.250	-143	-443
2.500	-144	-444
2.750	-145	-445
3.000	-146	-446
.312 NOMINAL DIAMETER		
1.000	-235	-447
1.250	-236	-448
1.500	-237	-449
1.750	-238	-450
2.000	-239	-451
2.250	-240	-452
2.500	-241	-453
2.750	-242	-454
3.000	-243	-455

SECTION 708

PIN, SPRING-TUBULAR, COILED, STANDARD DUTY

APPLICABLE DOCUMENT: MS51923



MATERIAL	PROTECTIVE FINISH
CARBON STEEL	CADMIUM PLATE
CRES	PASSIVATE

TABLE I. PIN CONFIGURATION.

D NOM DIA.	DOUBLE SHEAR STRENGTH (LBS-MIN)		RECOMMENDED HOLE SIZE	
	CRES 410 THRU 420 CARBON STEEL 1070 THRU 1095	CRES 302	MAX	MIN
.031	75 1/	60	.032	.031
.047	170 1/	140	.048	.046
.062	300	250	.065	.061
.094	700	550	.097	.093
.125	1,250	1,000	.129	.124
.156	1,925	1,550	.160	.155
.188	2,800	2,250	.192	.185
.250	5,000	4,000	.256	.247
.312	7,700	6,200	.319	.308
.375	11,200	9,000	.383	.370
.500	20,000	16,000	.510	.493

1/ CRES 410 THRU 420 ONLY

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TABLE II. MS51923 DASH NUMBERS.

L LENGTH	DASH NUMBER		
	CARBON STEEL 1070 THRU 1095	CRES	
	CADMIUM	302	410 THRU 420
.031 NOM DIA			
.125	--	-111	-166
.188	--	-112	-167
.250	--	-113	-168
.312	--	-114	-169
.375	--	-115	-170
.438	--	-116	-171
.500	--	-117	-172
.625	--	-119	-174
.047 NOM DIA			
.125	--	-129	-184
.188	--	-130	-185
.250	--	-131	-186
.312	--	-132	-187
.375	--	-133	-188
.438	--	-134	-189
.500	--	-135	-190
.625	--	-137	-192
.062 NOM DIA			
.188	-37	-147	-424
.250	-38	-148	-425
.312	-39	-149	-426
.375	-40	-150	-427
.438	-41	-151	-428
.500	-42	-152	-429
.625	-44	-154	-431
.750	-46	-156	-433

L LENGTH	DASH NUMBER		
	CARBON STEEL 1070 THRU 1095	CRES	
	CADMIUM	302	410 THRU 420
.094 NOM DIA			
.250	-47	-157	-442
.312	-48	-158	-443
.375	-49	-159	-444
.438	-50	-160	-445
.500	-51	-161	-446
.625	-53	-163	-448
.750	-54	-164	-449
.875	-55	-165	-450
1.000	-421	-423	-451
.125 NOM DIA			
.375	-202	-286	-460
.438	-203	-287	-461
.500	-204	-288	-462
.625	-206	-290	-464
.750	-207	-291	-465
.875	-208	-292	-466
1.000	-589	-599	-604
.156 NOM DIA			
.438	-328	-388	-468
.500	-329	-389	-469
.625	-331	-391	-471
.750	-332	-392	-472
.875	-333	-393	-473
.188 NOM DIA			
.500	-210	-294	-475
.625	-212	-296	-477
.750	-213	-297	-478
.875	-214	-298	-479
1.000	-215	-299	-480

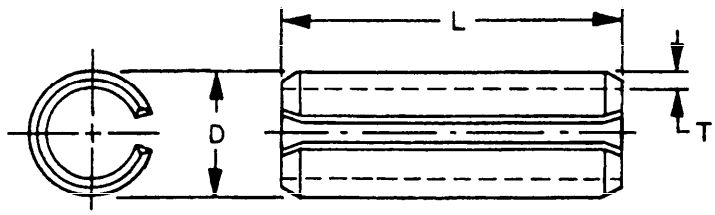
TABLE II. MS51923 DASH NUMBERS. - CONTINUED

L LENGTH	DASH NUMBER		
	CARBON STEEL 1070 THRU 1095 CADMIUM	CRES 302	CRES 410 THRU 420
.250 NOM DIA			
.500	-216	-300	-488
.625	-218	-302	-490
.750	-219	-303	-491
.875	-220	-304	-492
1.000	-221	-305	-493
1.125	-222	-306	-494
.312 NOM DIA			
.750	-341	-401	-495
.812	-342	-402	-496
.875	-343	-403	-497
1.000	-345	-405	-499
1.125	-346	-406	-500
1.250	-347	-407	-501
.375 NOM DIA			
.750	-223	-307	-502
1.000	-224	-308	-503
1.250	-225	-309	-504
1.750	-226	-310	-505
2.000	-227	-311	-506
.500 NOM DIA			
1.250	-353	-413	-512
1.500	-354	-414	-513
1.750	-355	-415	-514
2.000	-356	-416	-515

SECTION 709

PIN, SPRING-TUBULAR, SLOTTED

APPLICABLE DOCUMENT: MS16562



MATERIAL	PROTECTIVE FINISH
CARBON STEEL	CADMIUM PLATE
CRES 410 OR 420	PASSIVATE

TABLE I. PIN CONFIGURATION.

D NOM	T WALL THICKNESS	DOUBLE SHEAR STRENGTH (LBS-MIN)	RECOMMENDED HOLE SIZE	
			MAX	MIN
.062	.012	425	.065	.062
.094	.022	1,000	.097	.094
.125	.028	2,100	.129	.125
.156	.032	3,000	.160	.156
.188	.040	4,400	.192	.187
.219	.048	5,700	.224	.219
.250	.048	7,700	.256	.250
.312	.062	11,500	.318	.312
.375	.077	17,600	.382	.375
.500	.094	25,800	.510	.500

TABLE II. MS16562 DASH NUMBERS.

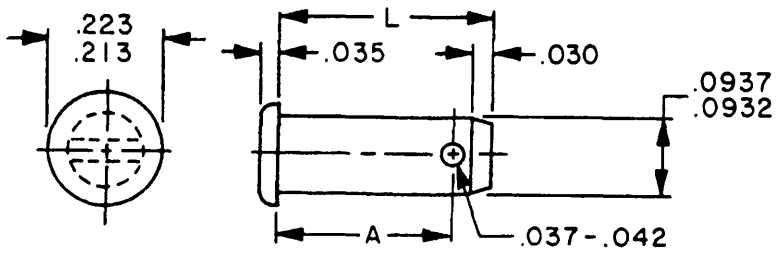
L LENGTH	DASH NO. CARBON STEEL CADMIUM	DASH NO. CRES
.062 NOMINAL SIZE		
.188	-1	-189
.250	-2	-190
.312	-3	-191
.375	-4	-192
.438	-5	-193
.500	-6	-194
.625	-8	-196
.750	-10	-198
.094 NOMINAL SIZE		
.250	-21	-209
.312	-22	-210
.375	-23	-211
.438	-24	-212
.500	-25	-213
.625	-27	-215
.750	-28	-216
.875	-29	-217
1.000	-30	-218
.125 NOMINAL SIZE		
.375	-31	-219
.438	-32	-220
.500	-33	-221
.625	-35	-223
.750	-36	-224
.875	-37	-225
1.000	-38	-226
1.250	-39	-227
.156 NOMINAL SIZE		
.500	-40	-228
.625	-41	-229
.750	-42	-230
.875	-43	-231
1.000	-44	-232
1.250	-45	-233
.188 NOMINAL SIZE		
.500	-46	-234
.625	-47	-235
.750	-48	-236
.875	-49	-237
1.000	-50	-238
1.250	-51	-239
1.500	-52	-240
1.750	-53	-241

L LENGTH	DASH NO. CARBON STEEL CADMIUM	DASH NO. CRES
.219 NOMINAL SIZE		
.750	-54	-242
.875	-55	-243
1.000	-56	-244
1.250	-57	-245
1.500	-58	-246
1.750	-59	-247
2.000	-60	-248
2.500	-61	-249
.250 NOMINAL SIZE		
.750	-62	-250
.875	-63	-251
1.000	-64	-252
1.250	-65	-253
1.500	-66	-254
1.750	-67	-255
2.000	-68	-256
2.500	-69	-257
.312 NOMINAL SIZE		
1.000	-70	-258
1.250	-71	-259
1.500	-72	-260
1.750	-73	-261
2.000	-74	-262
2.500	-75	-263
3.000	-76	-264
.375 NOMINAL SIZE		
1.000	-77	-265
1.250	-78	-266
1.500	-79	-267
1.750	-80	-268
2.000	-81	-269
2.500	-82	-270
3.000	-83	-271
.500 NOMINAL SIZE		
1.500	-90	-278
1.750	-91	-279
2.000	-92	-280
2.500	-93	-281
3.000	-94	-282

SECTION 801

PIN, STRAIGHT, HEADED-.0937 DIAMETER, AMS5616

APPLICABLE DOCUMENT: MS9842



MATERIAL	PROTECTIVE FINISH
ALLOY STEEL	NONE

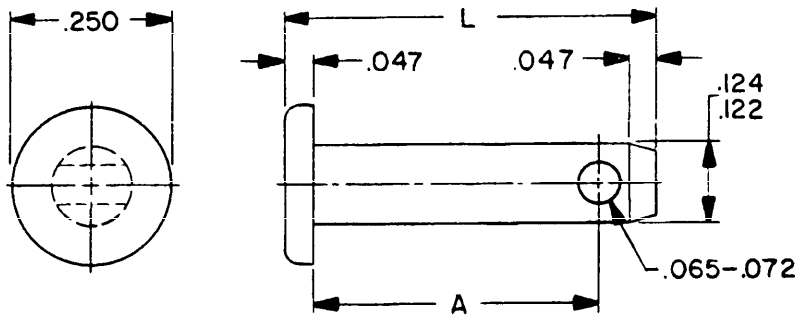
TABLE I. PIN CONFIGURATION DASH NUMBERS.

MS9842 DASH NUMBER	A	L
-09	.548	.605
-10	.611	.668
-11	.673	.730
-12	.736	.793
-13	.798	.855
-14	.861	.918
-15	.923	.980
-16	.986	1.043

SECTION 802

PIN, STRAIGHT, HEADED -.124 DIAMETER, AMS5735

APPLICABLE DOCUMENT: MS9462



MATERIAL	PROTECTIVE FINISH
CRES	NONE

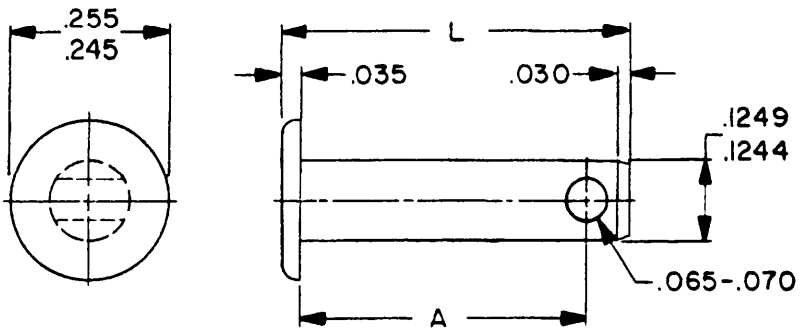
TABLE I. PIN CONFIGURATION DASH NUMBERS.

MS9462 DASH NUMBER	A	L	MS9462 DASH NUMBER	A	L
-04	.253	.391	-14	.878	1.016
-05	.315	.453	-15	.940	1.078
-06	.378	.516	-16	1.003	1.141
-07	.440	.578	-17	1.065	1.203
-08	.503	.641	-18	1.128	1.266
-09	.565	.703	-19	1.190	1.328
-10	.628	.766	-20	1.253	1.391
-11	.690	.828	-21	1.315	1.453
-12	.753	.891	-22	1.378	1.516
-13	.815	.953	-23	1.440	1.578
			-24	1.503	1.641

SECTION 803

PIN, STRAIGHT, HEADED -.1249 DIAMETER, AMS5616

APPLICABLE DOCUMENT: MS9843



MATERIAL	PROTECTIVE FINISH
ALLOY STEEL	NONE

TABLE I. PIN CONFIGURATION DASH NUMBERS.

MS9843 DASH NUMBER	A	L
-08	.503	.578
-09	.565	.640
-10	.628	.703
-11	.690	.765
-12	.753	.828
-13	.815	.890
-14	.878	.953
-15	.940	1.015

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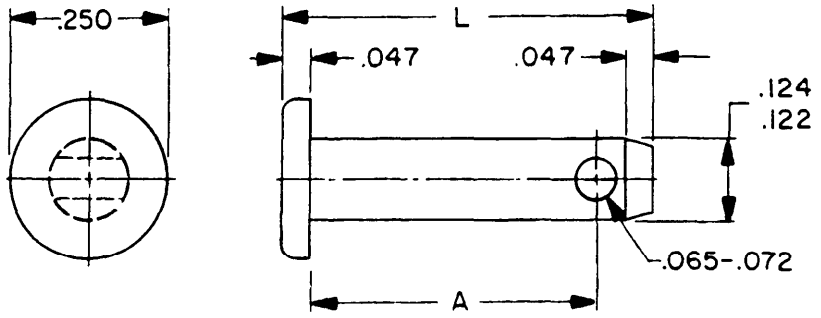
SECTION 804

PIN, STRAIGHT, HEADED -.125 NOM.

APPLICABLE DOCUMENT: AN121601 THRU AN121650



MATERIAL	PROTECTIVE FINISH
ALLOY STEEL	CADMIUM PLATE

TABLE I. PIN CONFIGURATION PART NUMBERS.

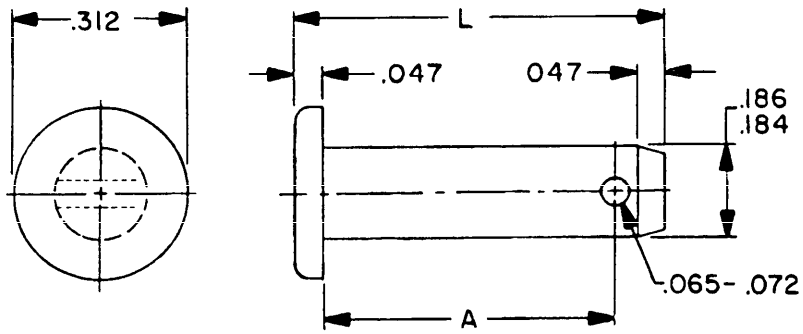
PART NO.	A	L
AN121603	.378	.516
AN121604	.440	.578
AN121605	.503	.641
AN121606	.565	.703
AN121607	.628	.766
AN121608	.690	.828
AN121609	.753	.891
AN121610	.815	.953
AN121611	.878	1.016

PART NO.	A	L
AN121612	.940	1.078
AN121613	1.003	1.141
AN121614	1.065	1.203
AN121615	1.128	1.266
AN121616	1.190	1.328
AN121617	1.253	1.391
AN121618	1.315	1.453
AN121619	1.378	1.516
AN121620	1.440	1.578
AN121621	1.503	1.641

SECTION 805

PIN, STRAIGHT, HEADED – .186 DIAMETER, AMS5735

APPLICABLE DOCUMENT: MS9463



MATERIAL	PROTECTIVE FINISH
CRES	NONE

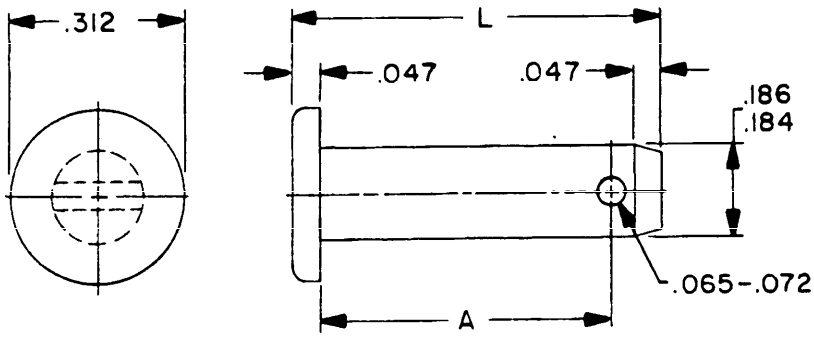
TABLE I. PIN CONFIGURATION DASH NUMBERS.

MS9463 DASH NUMBER	A	L	MS9463 DASH NUMBER	A	L
-04	.253	.391	-14	.878	1.016
-05	.315	.453	-15	.940	1.078
-06	.378	.516	-16	1.003	1.141
-07	.440	.578	-17	1.065	1.203
-08	.503	.641	-18	1.128	1.266
-09	.565	.703	-19	1.190	1.328
-10	.628	.766	-20	1.253	1.391
-11	.690	.828	-21	1.315	1.453
-12	.753	.891	-22	1.378	1.516
-13	.815	.953	-23	1.440	1.578
			-24	1.503	1.641

SECTION 806

PIN, STRAIGHT, HEADED – .187 NOM.

APPLICABLE DOCUMENT: AN121651 THRU AN121700



MATERIAL	PROTECTIVE FINISH
ALLOY STEEL	CADMIUM PLATE

TABLE I. PIN CONFIGURATION PART NUMBERS.

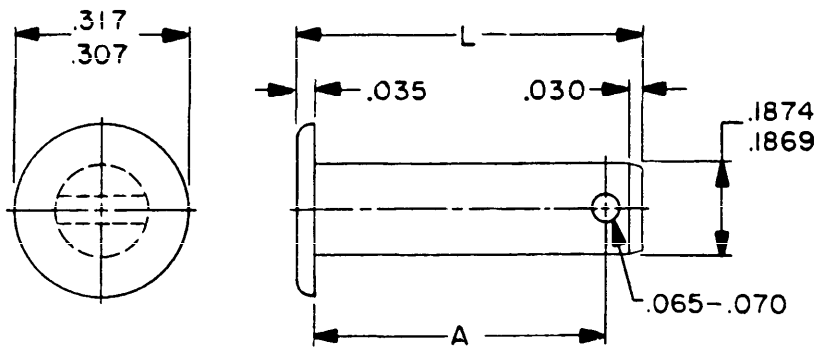
PART NO.	A	L
AN121653	.378	.516
AN121654	.440	.578
AN121655	.503	.641
AN121656	.565	.703
AN121657	.628	.766
AN121658	.690	.828
AN121659	.753	.891
AN121660	.815	.953
AN121661	.878	1.016

PART NO.	A	L
AN121662	.940	1.078
AN121663	1.003	1.141
AN121664	1.065	1.203
AN121665	1.128	1.266
AN121666	1.190	1.328
AN121667	1.253	1.391
AN121668	1.315	1.453
AN121669	1.378	1.516
AN121670	1.440	1.578
AN121671	1.503	1.641

SECTION 807

PIN, STRAIGHT, HEADED - .1874 DIAMETER, AMS5616

APPLICABLE DOCUMENT: MS9844



MATERIAL	PROTECTIVE FINISH
ALLOY STEEL	NONE

TABLE I. PIN CONFIGURATION DASH NUMBERS.

MS9844 DASH NUMBER	A	L	MS9844 DASH NUMBER	A	L
-08	.503	.578	-24	1.503	1.578
-09	.565	.640	-25	1.565	1.640
-10	.628	.703	-26	1.628	1.703
-11	.690	.765	-27	1.690	1.765
-12	.753	.828	-28	1.753	1.828
-13	.815	.890	-29	1.815	1.890
-14	.878	.953	-30	1.878	1.953
-15	.940	1.015	-31	1.940	2.015
-16	1.003	1.078	-32	2.003	2.078
-17	1.065	1.140	-33	2.065	2.140
-18	1.128	1.203	-34	2.128	2.203
-19	1.190	1.265	-35	2.190	2.265
-20	1.253	1.328	-36	2.253	2.328
-21	1.315	1.390	-37	2.315	2.390
-22	1.378	1.453	-38	2.378	2.453
-23	1.440	1.515	-39	2.440	2.515

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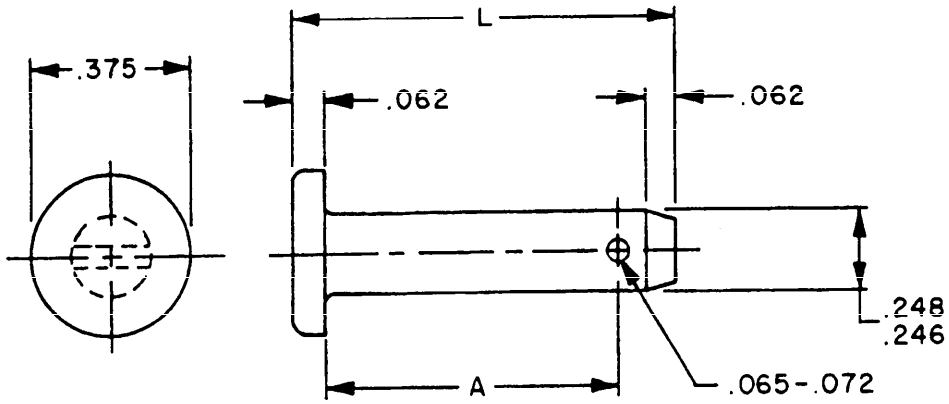
SECTION 808

PIN, STRAIGHT, HEADED-.248 DIAMETER, AMS5735

APPLICABLE DOCUMENT: MS9464



MATERIAL	PROTECTIVE FINISH
CRES	NONE

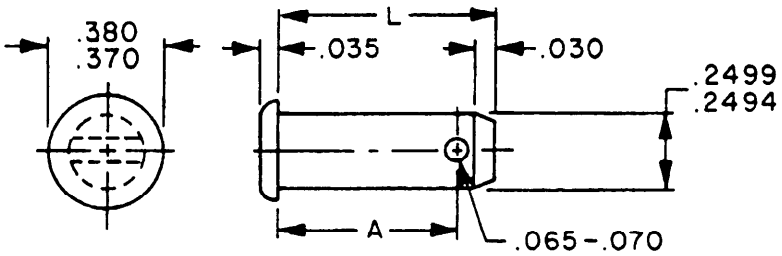
TABLE I. PIN CONFIGURATION DASH NUMBERS.

MS9464 DASH NUMBER	A	L	MS9464 DASH NUMBER	A	L
-08	.503	.672	-20	1.253	1.422
-09	.565	.734	-21	1.315	1.484
-10	.628	.797	-22	1.378	1.547
-11	.690	.859	-23	1.440	1.609
-12	.753	.922	-24	1.503	1.672
-13	.815	.984	-25	1.565	1.734
-14	.878	1.047	-26	1.628	1.797
-15	.940	1.109	-27	1.690	1.859
-16	1.003	1.172	-28	1.753	1.922
-17	1.065	1.234	-29	1.815	1.984
-18	1.128	1.297	-30	1.878	2.047
-19	1.190	1.359	-31	1.940	2.109

SECTION 809

PIN, STRAIGHT, HEADED-.2499DIAMETER, AMS5616

APPLICABLE DOCUMENT: MS9845



MATERIAL	PROTECTIVE FINISH
ALLOY STEEL	NONE

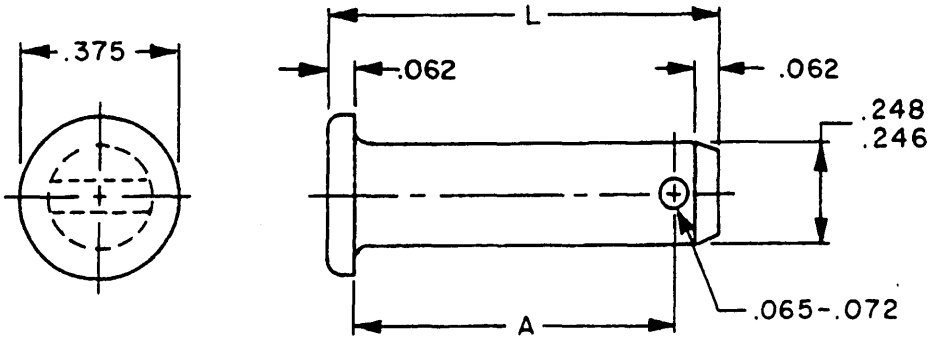
TABLE I. PIN CONFIGURATION DASH NUMBERS.

MS9845 DASH NUMBER	A	L	MS9845 DASH NUMBER	A	L
-08	.503	.578	-24	1.503	1.578
-09	.565	.640	-25	1.565	1.640
-10	.628	.703	-26	1.628	1.703
-11	.690	.765	-27	1.690	1.765
-12	.753	.828	-28	1.753	1.828
-13	.815	.890	-29	1.815	1.890
-14	.878	.953	-30	1.878	1.953
-15	.940	1.015	-31	1.940	2.015
-16	1.003	1.078	-32	2.003	2.078
-17	1.065	1.140	-33	2.065	2.140
-18	1.128	1.203	-34	2.128	2.203
-19	1.190	1.265	-35	2.190	2.265
-20	1.253	1.328	-36	2.253	2.328
-21	1.315	1.390	-37	2.315	2.390
-22	1.378	1.453	-38	2.378	2.453
-23	1.440	1.515	-39	2.440	2.515

SECTION 810

PIN, STRAIGHT, HEADED -.250 NOM.

APPLICABLE DOCUMENT: AN121701 THRU AN121750



MATERIAL	PROTECTIVE FINISH
ALLOY STEEL	CADMIUM PLATE

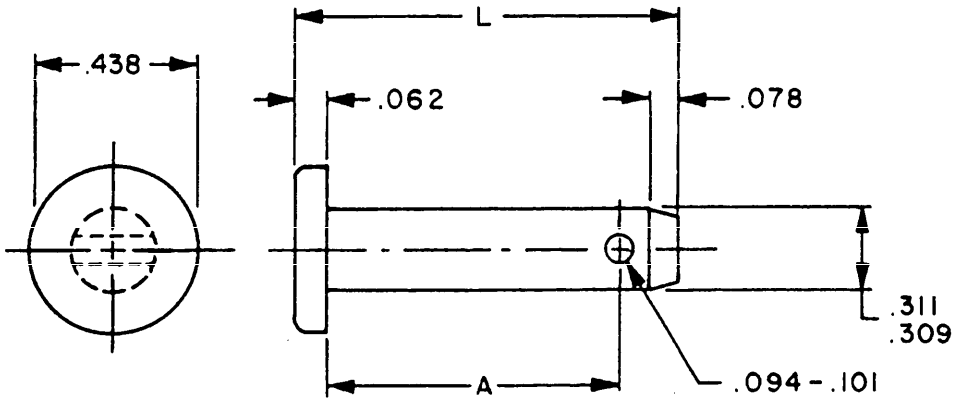
TABLE I. PIN CONFIGURATION PART NUMBERS.

PART NO.	A	L	PART NO.	A	L
AN121703	.503	.672	AN121713	1.128	1.297
AN121704	.565	.734	AN121714	1.190	1.359
AN121705	.628	.797	AN121715	1.253	1.422
AN121706	.690	.859	AN121716	1.315	1.484
AN121707	.753	.922	AN121717	1.378	1.547
AN121708	.815	.984	AN121718	1.440	1.609
AN121709	.878	1.047	AN121719	1.503	1.672
AN121710	.940	1.109	AN121720	1.565	1.734
AN121711	1.003	1.172	AN121721	1.628	1.797
AN121712	1.065	1.234	AN121722	1.690	1.859

SECTION 811

PIN, STRAIGHT, HEADED -.311 DIAMETER, AMS5735

APPLICABLE DOCUMENT: MS9465



MATERIAL	PROTECTIVE FINISH
CRES	NONE

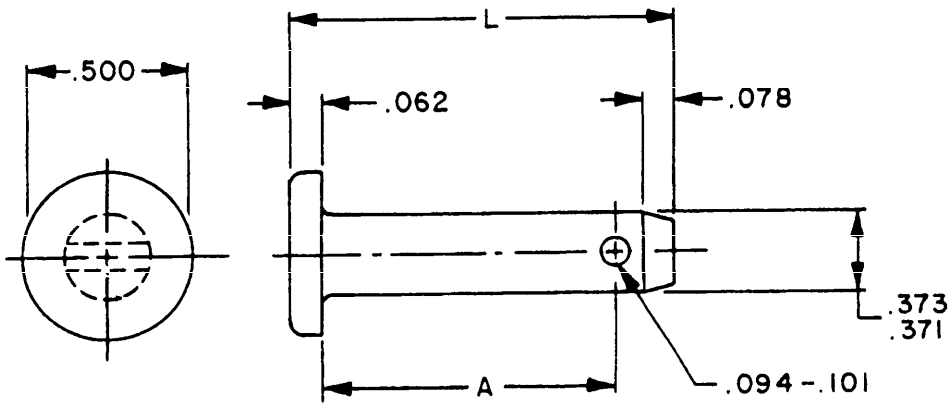
TABLE I. PIN CONFIGURATION DASH NUMBERS.

MS9465 DASH NUMBER	A	L	MS9465 DASH NUMBER	A	L
-09	.517	.719	-21	1.267	1.469
-10	.579	.781	-22	1.329	1.531
-11	.642	.844	-23	1.392	1.594
-12	.704	.906	-24	1.454	1.656
-13	.767	.969	-25	1.517	1.719
-14	.829	1.031	-26	1.579	1.781
-15	.892	1.094	-27	1.642	1.844
-16	.954	1.156	-28	1.704	1.906
-17	1.017	1.219	-29	1.767	1.969
-18	1.079	1.281	-30	1.829	2.031
-19	1.142	1.344	-31	1.892	2.094
-20	1.204	1.406	-32	1.954	2.156

SECTION 812

PIN, STRAIGHT, HEADED -.373 DIAMETER, AMS5735

APPLICABLE DOCUMENT: MS9466



MATERIAL	PROTECTIVE FINISH
CRES	NONE

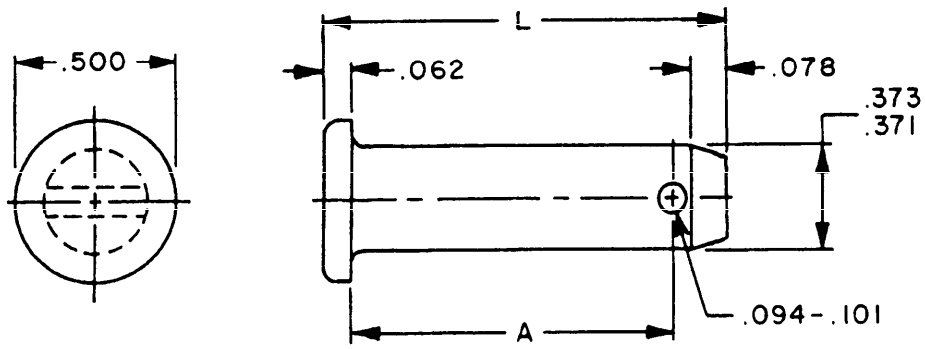
TABLE I. PIN CONFIGURATION DASH NUMBERS.

MS9466 DASH NUMBER	A	L	MS9466 DASH NUMBER	A	L
-09	.517	.719	-23	1.392	1.594
-10	.579	.781	-24	1.454	1.656
-11	.642	.844	-25	1.517	1.719
-12	.704	.906	-26	1.579	1.781
-13	.767	.969	-27	1.642	1.844
-14	.829	1.031	-28	1.704	1.906
-15	.892	1.094	-29	1.767	1.969
-16	.954	1.156	-30	1.829	2.031
-17	1.017	1.219	-31	1.892	2.094
-18	1.079	1.281	-32	1.954	2.156
-19	1.142	1.344	-33	2.017	2.219
-20	1.204	1.406	-34	2.079	2.281
-21	1.267	1.469	-35	2.142	2.344
-22	1.329	1.531	-36	2.204	2.406
			-37	2.267	2.469

SECTION 813

PIN, STRAIGHT, HEADED -.375 NOM.

APPLICABLE DOCUMENT: AN121801 THRU AN121850



MATERIAL	PROTECTIVE FINISH
ALLOY STEEL	CADMIUM PLATE

TABLE I. PIN CONFIGURATION PART NUMBERS.

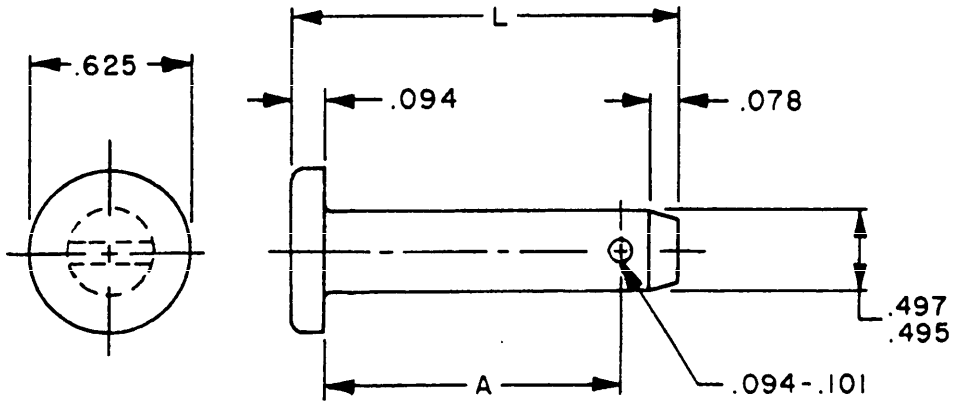
PART NO.	A	L
AN121803	.642	.844
AN121804	.704	.906
AN121805	.767	.969
AN121806	.829	1.031
AN121807	.892	1.094
AN121808	.954	1.156
AN121809	1.017	1.219

PART NO.	A	L
AN121810	1.079	1.281
AN121811	1.142	1.344
AN121812	1.204	1.406
AN121813	1.267	1.469
AN121814	1.329	1.531
AN121815	1.392	1.594
AN121816	1.454	1.656
AN121817	1.517	1.719

SECTION 814

PIN, STRAIGHT, HEADED -.497 DIAMETER, AMS5735

APPLICABLE DOCUMENT: MS9468



MATERIAL	PROTECTIVE FINISH
CRES	NONE

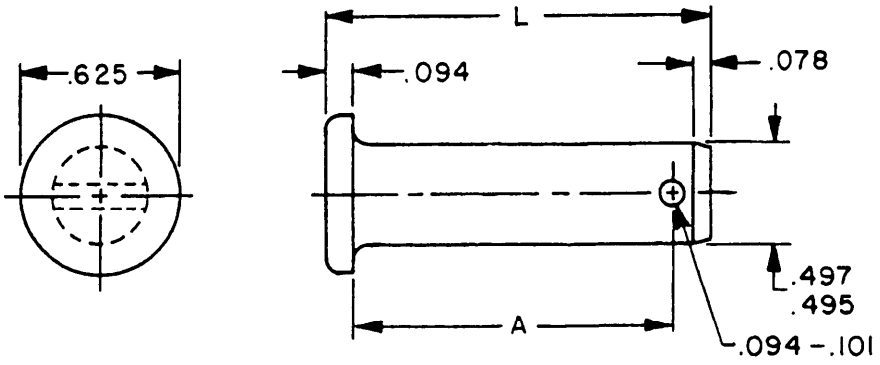
TABLE I. PIN CONFIGURATION DASH NUMBERS.

MS9468 DASH NUMBER	A	L	MS9468 DASH NUMBER	A	L
-18	1.017	1.250	-34	2.017	2.250
-19	1.079	1.312	-35	2.079	2.312
-20	1.142	1.375	-36	2.142	2.375
-21	1.204	1.438	-37	2.204	2.438
-22	1.267	1.500	-38	2.267	2.500
-23	1.329	1.562	-39	2.329	2.562
-24	1.392	1.625	-40	2.392	2.625
-25	1.454	1.688	-41	2.454	2.688
-26	1.517	1.750	-42	2.517	2.750
-27	1.579	1.812	-43	2.579	2.812
-28	1.642	1.875	-44	2.642	2.875
-29	1.704	1.938	-45	2.704	2.938
-30	1.767	2.000	-46	2.767	3.000
-31	1.829	2.062	-47	2.829	3.062
-32	1.892	2.125	-48	2.892	3.125
-33	1.954	2.188	-49	2.954	3.188

SECTION 815

PIN, STRAIGHT, HEADED -.500 NOM.

APPLICABLE DOCUMENT: AN121851 THRU AN121925



MATERIAL	PROTECTIVE FINISH
ALLOY STEEL	CADMIUM PLATE

TABLE I. PIN CONFIGURATION PART NUMBERS.

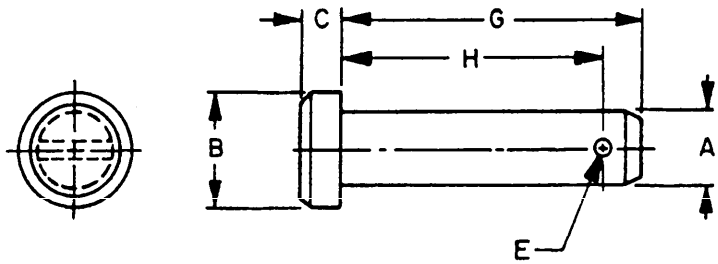
PART NO.	A	L
AN121857	.892	1.125
AN121858	.954	1.188
AN121859	1.017	1.250
AN121860	1.079	1.312
AN121861	1.142	1.375
AN121862	1.204	1.438
AN121863	1.267	1.500
AN121864	1.329	1.562
AN121865	1.392	1.625
AN121866	1.454	1.688
AN121867	1.517	1.750
AN121868	1.579	1.812
AN121869	1.642	1.875
AN121870	1.704	1.938
AN121871	1.767	2.000

PART NO.	A	L
AN121872	1.829	2.062
AN121873	1.892	2.125
AN121874	1.954	2.188
AN121875	2.017	2.250
AN121876	2.079	2.312
AN121877	2.142	2.375
AN121878	2.204	2.438
AN121879	2.267	2.500
AN121880	2.329	2.562
AN121881	2.392	2.625
AN121882	2.454	2.688
AN121883	2.517	2.750
AN121884	2.579	2.812
AN121885	2.642	2.875
AN121886	2.704	2.938
AN121887	2.767	3.000

SECTION 816

PIN, STRAIGHT, HEADED (CLEVIS PIN)-STEEL, CADMIUM OR ZINC PLATED

APPLICABLE DOCUMENT: MS35810



MATERIAL	PROTECTIVE FINISH
CARBON STEEL	CADMIUM PLATE

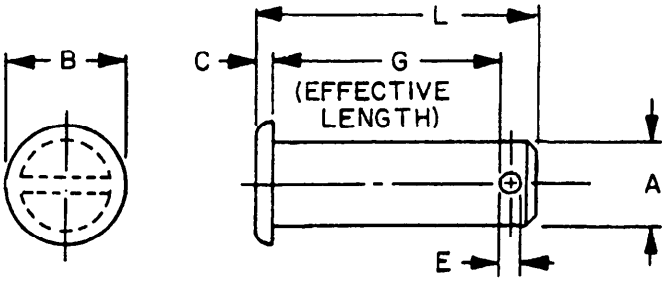
TABLE I. PIN CONFIGURATION DASH NUMBERS.

MS35810 DASH NUMBER	A DIA		B DIA	C	E HOLE DIA		G	H	DOUBLE SHEAR STRENGTH (LBS-MIN)
CADMIUM	MAX	MIN			MAX	MIN			
-1	.186	.181	.312	.062	.088	.073	.578	.484	1,800
-2	.248	.243	.375	.094	.088	.073	.766	.672	3,200
-3	.311	.306	.438	.094	.119	.104	.938	.812	5,000
-4	.373	.368	.500	.125	.119	.104	1.062	.938	7,300
-5	.436	.431	.562	.156	.119	.104	1.188	1.062	9,900
-6	.496	.491	.625	.156	.151	.136	1.359	1.203	12,900
-7	.621	.616	.812	.203	.151	.136	1.609	1.453	20,200
-8	.746	.741	.938	.250	.182	.167	1.906	1.719	29,100
-9	.871	.866	1.031	.312	.182	.167	2.156	1.969	39,700
-10	.996	.991	1.188	.344	.182	.167	2.406	2.219	51,800

SECTION 817

PIN, STRAIGHT, HEADED-DRILLED SHANK

APPLICABLE DOCUMENT: MS20392



MATERIAL	PROTECTIVE FINISH
ALLOY STEEL	CADMIUM PLATE

TABLE I. PIN CONFIGURATION.

DIM	NOMINAL SIZE				
	.125	.188	.250	.312	.375
A	.124	.186	.248	.311	.373
B	.250	.312	.375	.437	.500
C	.046	.046	.062	.062	.062
E	.070	.076	.076	.106	.106
DOUBLE SHEAR STRENGTH (LBS-MIN)					
--	1,840	4,140	7,360	11,500	16,580

TABLE I. PIN CONFIGURATION. - CONTINUED.

DIM	NOMINAL SIZE				
	.500	.625	.750	.875	1.000
A	.497	.622	.747	.871	.996
B	.625	.750	.875	1.062	1.187
C	.093	.093	.093	.125	.125
E	.106	.141	.141	.171	.171
DOUBLE SHEAR STRENGTH (LBS-MIN)					
--	29,440	46,020	66,280	90,200	117,820

TABLE II. MS20392 DASH NUMBERS.

PIN DIAMETER (NOMINAL)					
.125			.188		
DASH NO.	G	L	DASH NO.	G	L
-1C7	.219	.391	-2C7	.219	.391
-1C9	.281	.453	-2C9	.281	.453
-1C11	.344	.516	-2C11	.344	.516
-1C13	.406	.578	-2C13	.406	.578
-1C15	.469	.641	-2C15	.469	.641
-1C17	.531	.703	-2C17	.531	.703
-1C19	.594	.766	-2C19	.594	.766
-1C21	.656	.828	-2C21	.656	.828
-1C23	.719	.891	-2C23	.719	.891
-1C25	.781	.953	-2C25	.781	.953
-1C27	.844	1.016	-2C27	.844	1.016
-1C29	.906	1.078	-2C29	.906	1.078
-1C31	.969	1.141	-2C31	.969	1.141
-1C33	1.031	1.203	-2C33	1.031	1.203
-1C35	1.094	1.266	-2C35	1.094	1.266
-1C37	1.156	1.328	-2C37	1.156	1.328
-1C39	1.219	1.391	-2C39	1.219	1.391
-1C41	1.281	1.453	-2C41	1.281	1.453
-1C43	1.344	1.516	-2C43	1.344	1.516
-1C45	1.406	1.578	-2C45	1.406	1.578
-1C47	1.469	1.641	-2C47	1.469	1.641
-1C49	1.531	1.703	-2C49	1.531	1.703
-1C51	1.594	1.766	-2C51	1.594	1.766
-1C53	1.656	1.828	-2C53	1.656	1.828
-1C55	1.719	1.891	-2C55	1.719	1.891
-1C57	1.781	1.953	-2C57	1.781	1.953
-1C59	1.844	2.016	-2C59	1.844	2.016
-1C61	1.906	2.078	-2C61	1.906	2.078
-1C63	1.969	2.141	-2C63	1.969	2.141
-1C65	2.031	2.203	-2C65	2.031	2.203
-1C67	2.094	2.266	-2C67	2.094	2.266
			-2C69	2.156	2.328
			-2C71	2.219	2.391
			-2C73	2.281	2.453
			-2C75	2.344	2.516
			-2C77	2.406	2.578
			-2C79	2.469	2.641
			-2C81	2.531	2.703
			-2C83	2.594	2.766
			-2C85	2.656	2.828
			-2C87	2.719	2.891
			-2C89	2.781	2.953
			-2C91	2.844	3.016
			-2C93	2.906	3.078
			-2C95	2.969	3.141

TABLE II. MS20392 DASH NUMBERS.- CONTINUED

PIN DIAMETER (NOMINAL)					
.250			.312		
DASH NO.	G	L	DASH NO.	G	L
-3C11	.344	.547	-4C11	.344	.594
-3C13	.406	.609	-4C13	.406	.656
-3C15	.469	.672	-4C15	.469	.719
-3C17	.531	.734	-4C17	.531	.781
-3C19	.594	.797	-4C19	.594	.844
-3C21	.656	.859	-4C21	.656	.906
-3C23	.719	.922	-4C23	.719	.969
-3C25	.781	.984	-4C25	.781	1.031
-3C27	.844	1.047	-4C27	.844	1.094
-3C29	.906	1.109	-4C29	.906	1.156
-3C31	.969	1.172	-4C31	.969	1.219
-3C33	1.031	1.234	-4C33	1.031	1.281
-3C35	1.094	1.297	-4C35	1.094	1.344
-3C37	1.156	1.359	-4C37	1.156	1.406
-3C39	1.219	1.422	-4C39	1.219	1.469
-3C41	1.281	1.484	-4C41	1.281	2.531
-3C43	1.344	1.547	-4C43	1.344	1.594
-3C45	1.406	1.609	-4C45	1.406	1.656
-3C47	1.469	1.672	-4C47	1.469	1.719
-3C49	1.531	1.734	-4C49	1.531	1.781
-3C51	1.594	1.797	-4C51	1.594	1.844
-3C53	1.656	1.859	-4C53	1.656	1.906
-3C55	1.719	1.922	-4C55	1.719	1.969
-3C57	1.781	1.984	-4C57	1.781	2.031
-3C59	1.844	2.047	-4C59	1.844	2.094
-3C61	1.906	2.109	-4C61	1.906	2.156
-3C63	1.969	2.172	-4C63	1.969	2.219
-3C65	2.031	2.234	-4C65	2.031	2.281
-3C67	2.094	2.297	-4C67	2.094	2.344
-3C69	2.156	2.359	-4C69	2.156	2.406
-3C71	2.219	2.422	-4C71	2.219	2.469
-3C73	2.281	2.482	-4C73	2.281	2.531
-3C75	2.344	2.547	-4C75	2.344	2.594
-3C77	2.406	2.609	-4C77	2.406	2.656
-3C79	2.469	2.672	-4C79	2.469	2.719
-3C81	2.531	2.734	-4C81	2.531	2.781
-3C83	2.594	2.797	-4C83	2.594	2.844
-3C85	2.656	2.859	-4C85	2.656	2.906
-3C87	2.719	2.922	-4C87	2.719	2.969
-3C89	2.781	2.984	-4C89	2.781	3.031
-3C91	2.844	3.047	-4C91	2.844	3.094
-3C93	2.906	3.109	-4C93	2.906	3.156
-3C95	2.969	3.172	-4C95	2.969	3.219
-3C97	3.031	3.234	-4C97	3.031	3.281

TABLE II. MS20392 DASH NUMBERS. - CONTINUED

PIN DIAMETER (NOMINAL)					
.375			.500		
DASH NO.	G	L	DASH NO.	G	L
-5C15	.469	.719	-7C15	.469	.750
-5C17	.531	.781	-7C17	.531	.812
-5C19	.594	.844	-7C19	.594	.875
-5C21	.656	.906	-7C21	.656	.938
-5C23	.719	.969	-7C23	.719	1.000
-5C25	.781	1.031	-7C25	.781	1.062
-5C27	.844	1.094	-7C27	.844	1.125
-5C29	.906	1.156	-7C29	.906	1.188
-5C31	.969	1.219	-7C31	.969	2.250
-5C33	1.031	1.281	-7C33	1.031	1.312
-5C35	1.094	1.344	-7C35	1.094	1.375
-5C37	1.156	1.406	-7C37	1.156	1.438
-5C39	1.219	1.469	-7C39	1.219	1.500
-5C41	1.281	1.531	-7C41	1.281	1.562
-5C43	1.344	1.594	-7C43	1.344	1.625
-5C45	1.406	1.656	-7C45	1.406	1.688
-5C47	1.469	1.719	-7C47	1.469	1.750
-5C49	1.531	1.781	-7C49	1.531	1.812
-5C51	1.594	1.844	-7C51	1.594	1.875
-5C53	1.656	1.906	-7C53	1.656	1.938
-5C55	1.719	1.969	-7C55	1.719	2.000
-5C57	1.781	2.031	-7C57	1.781	2.062
-5C59	1.844	2.094	-7C59	1.844	2.125
-5C61	1.906	2.156	-7C61	1.906	2.188
-5C63	1.969	2.219	-7C63	1.969	2.250
-5C65	2.031	2.281	-7C65	2.031	2.312
-5C67	2.094	2.344	-7C67	2.094	2.375
-5C69	2.156	2.406	-7C69	2.156	2.438
-5C71	2.219	2.469	-7C71	2.219	2.500
-5C73	2.281	2.531	-7C73	2.281	2.562
-5C75	2.344	2.594	-7C75	2.344	2.625
-5C77	2.406	2.656	-7C77	2.406	2.688
-5C79	2.469	2.719	-7C79	2.469	2.750
-5C81	2.531	2.781	-7C81	2.531	2.812
-5C83	2.594	2.844	-7C83	2.594	2.875
-5C85	2.656	2.906	-7C85	2.656	2.938
-5C87	2.719	2.969	-7C87	2.719	3.000
-5C89	2.781	3.031	-7C89	2.781	3.062
-5C91	2.844	3.094	-7C91	2.844	3.125
-5C93	2.906	3.156	-7C93	2.906	3.188
-5C95	2.969	3.219	-7C95	2.969	3.250
-5C97	3.031	3.281	-7C97	3.031	3.312
-5C99	3.094	3.344	-7C99	3.094	3.375
-5C101	3.156	3.406	-7C101	3.156	3.438

TABLE II. MS20392 DASH NUMBERS. - CONTINUED

PIN DIAMETER (NOMINAL)					
.375			.500		
DASH NO.	G	L	DASH NO.	G	L
5C103	3.219	3.469	7C103	3.219	3.500
5C105	3.281	3.531	7C105	3.281	3.562
5C107	3.344	3.594	7C107	3.344	3.625
5C109	3.406	3.656	7C109	3.406	3.688
5C111	3.469	3.719	7C111	3.469	3.750
5C113	3.531	3.781	7C113	3.531	3.812
5C115	3.594	3.844	7C115	3.594	3.875
5C117	3.656	3.906	7C117	3.656	3.938
5C119	3.719	3.969	7C119	3.719	4.000
5C121	3.781	4.031	7C121	3.781	4.062
5C123	3.844	4.094	7C123	3.844	4.125
5C125	3.906	4.156	7C125	3.906	4.188
5C127	3.969	4.219	7C127	3.969	4.250

TABLE II. MS20392 DASH NUMBERS. - CONTINUED

PIN DIAMETER (NOMINAL)					
.625			.750		
DASH NO.	G	L	DASH NO.	G	L
-9C15	.469	.797	-10C15	.469	.797
-9C17	.531	.859	-10C17	.531	.859
-9C19	.594	.922	-10C19	.594	.922
-9C21	.656	.984	-10C21	.656	.984
-9C23	.719	1.047	-10C23	.719	1.047
-9C25	.781	1.109	-10C25	.781	1.109
-9C27	.844	1.172	-10C27	.844	1.172
-9C29	.906	1.234	-10C29	.906	1.234
-9C31	.969	1.297	-10C31	.969	1.297
-9C33	1.031	1.359	-10C33	1.031	1.359
-9C35	1.094	1.422	-10C35	1.094	1.422
-9C37	1.156	1.484	-10C37	1.156	1.484
-9C39	1.219	1.547	-10C39	1.219	1.547
-9C41	1.281	1.609	-10C41	1.281	1.609
-9C43	1.344	1.672	-10C43	1.344	1.672
-9C45	1.406	1.734	-10C45	1.406	1.734
-9C47	1.469	1.797	-10C47	1.469	1.797
-9C49	1.531	1.859	-10C49	1.531	1.859

TABLE II. MS20392 DASH NUMBERS. - CONTINUED

PIN DIAMETER (NOMINAL)					
.625			.750		
DASH NO.	G	L	DASH NO.	G	L
-9C51	1.594	1.922	-10C51	1.594	1.922
-9C53	1.656	1.984	-10C53	1.656	1.984
-9C55	1.719	2.047	-10C55	1.719	2.047
-9C57	1.781	2.109	-10C57	1.781	2.109
-9C59	1.844	2.172	-10C59	1.844	2.172
-9C61	1.906	2.234	-10C61	1.906	2.234
-9C63	1.969	2.297	-10C63	1.969	2.297
-9C65	2.031	2.359	-10C65	2.031	2.359
-9C67	2.094	2.422	-10C67	2.094	2.422
-9C69	2.156	2.484	-10C69	2.156	2.484
-9C71	2.219	2.547	-10C71	2.219	2.547
-9C73	2.281	2.609	-10C73	2.281	2.609
-9C75	2.344	2.672	-10C75	2.344	2.672
-9C77	2.406	2.734	-10C77	2.406	2.734
-9C79	2.469	2.797	-10C79	2.469	2.797
-9C81	2.531	2.859	-10C81	2.531	2.859
-9C83	2.594	2.922	-10C83	2.594	2.922
-9C85	2.656	2.984	-10C85	2.656	2.984
-9C87	2.719	3.047	-10C87	2.719	3.047
-9C89	2.781	3.109	-10C89	2.781	3.109
-9C91	2.844	3.172	-10C91	2.844	3.172
-9C93	2.906	3.234	-10C93	2.906	3.234
-9C95	2.969	3.297	-10C95	2.969	3.297
-9C97	3.031	3.359	-10C97	3.031	3.359
-9C99	3.094	3.422	-10C99	3.094	3.422
-9C101	3.156	3.484	-10C101	3.156	3.484
-9C103	3.219	3.547	-10C103	3.219	3.547
-9C105	3.281	3.609	-10C105	3.281	3.609
-9C107	3.344	3.672	-10C107	3.344	3.672
-9C109	3.406	3.734	-10C109	3.406	3.734
-9C111	3.469	3.797	-10C111	3.469	3.797
-9C113	3.531	3.859	-10C113	3.531	3.859
-9C115	3.594	3.922	-10C115	3.594	3.922
-9C117	3.656	3.984	-10C117	3.656	3.984
-9C119	3.719	4.047	-10C119	3.719	4.047
-9C121	3.781	4.109	-10C121	3.781	4.109
-9C123	3.844	4.172	-10C123	3.844	4.172
-9C125	3.906	4.234	-10C125	3.906	4.234
-9C127	3.969	4.297	-10C127	3.969	4.297

TABLE II. MS20392 DASH NUMBERS. - CONTINUED.

PIN DIAMETER (NOMINAL)					
.875			1.000		
DASH NO.	G	L	DASH NO.	G	L
-11C19	.594	1.000	-12C19	.594	1.000
-11C21	.656	1.062	-12C21	.656	1.062
-11C23	.719	1.125	-12C23	.719	1.125
-11C25	.781	1.188	-12C25	.781	1.188
-11C27	.844	1.250	-12C27	.844	1.250
-11C29	.906	1.312	-12C29	.906	1.312
-11C31	.969	1.375	-12C31	.969	1.375
-11C33	1.031	1.438	-12C33	1.031	1.438
-11C35	1.094	1.500	-12C35	1.094	1.500
-11C37	1.156	1.562	-12C37	1.156	1.562
-11C39	1.219	1.625	-12C39	1.219	1.625
-11C41	1.281	1.688	-12C41	1.281	1.688
-11C43	1.344	1.750	-12C43	1.344	1.750
-11C45	1.406	1.812	-12C45	1.406	1.812
-11C47	1.469	1.875	-12C47	1.469	1.875
-11C49	1.531	1.938	-12C49	1.531	1.938
-11C51	1.594	2.000	-12C51	1.594	2.000
-11C53	1.656	2.062	-12C53	1.656	2.062
-11C55	1.719	2.125	-12C55	1.719	2.125
-11C57	1.781	2.188	-12C57	1.781	2.188
-11C59	1.844	2.250	-12C59	1.844	2.250
-11C61	1.906	2.312	-12C61	1.906	2.312
-11C63	1.969	2.375	-12C63	1.969	2.375
-11C65	2.031	2.438	-12C65	2.031	2.438
-11C67	2.094	2.500	-12C67	2.094	2.500
-11C69	2.156	2.562	-12C69	2.156	2.562
-11C71	2.219	2.625	-12C71	2.219	2.625
-11C73	2.281	2.688	-12C73	2.281	2.688
-11C75	2.344	2.750	-12C75	2.344	2.750
-11C77	2.406	2.812	-12C77	2.406	2.812
-11C79	2.469	2.875	-12C79	2.469	2.875
-11C81	2.531	2.938	-12C81	2.531	2.938
-11C83	2.594	3.000	-12C83	2.594	3.000
-11C85	2.656	3.062	-12C85	2.656	3.062
-11C87	2.719	3.125	-12C87	2.719	3.125
-11C89	2.781	3.188	-12C89	2.781	3.188
-11C91	2.844	3.250	-12C91	2.844	3.250
-11C93	2.906	3.312	-12C93	2.906	3.312
-11C95	2.969	3.375	-12C95	2.969	3.375

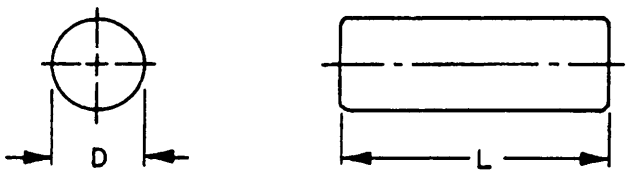
TABLE II. MS20392 DASH NUMBERS.- CONTINUED.

PIN DIAMETER (NOMINAL)					
.875			1.000		
DASH NO.	G	L	DASH NO.	G	L
-11C97	3.031	3.438	-12C97	3.031	3.438
-11C99	3.094	3.500	-12C99	3.094	3.500
-11C101	3.156	3.562	-12C101	3.156	3.562
-11C103	3.219	3.625	-12C103	3.219	3.625
-11C105	3.281	3.688	-12C105	3.281	3.688
-11C107	3.344	3.750	-12C107	3.344	3.750
-11C109	3.406	3.812	-12C109	3.406	3.812
-11C111	3.469	3.875	-12C111	3.469	3.875
-11C113	3.531	3.938	-12C113	3.531	3.938
-11C115	3.594	4.000	-12C115	3.594	4.000
-11C117	3.656	4.062	-12C117	3.656	4.062
-11C119	3.719	4.125	-12C119	3.719	4.125
-11C121	3.781	4.188	-12C121	3.781	4.188
-11C123	3.844	4.250	-12C123	3.844	4.250
-11C125	3.906	4.312	-12C125	3.906	4.312
-11C127	3.969	4.375	-12C127	3.969	4.375
-11C129	4.031	4.438	-12C129	4.031	4.438
-11C131	4.094	4.500	-12C131	4.094	4.500
-11C133	4.156	4.562	-12C133	4.156	4.562
-11C135	4.219	4.625	-12C135	4.219	4.625
-11C137	4.281	4.688	-12C137	4.281	4.688

SECTION 901

PIN, STRAIGHT, HEADLESS-AMS5132, LOCK

APPLICABLE DOCUMENT: MS9486



MATERIAL	PROTECTIVE FINISH
CARBON STEEL	NONE

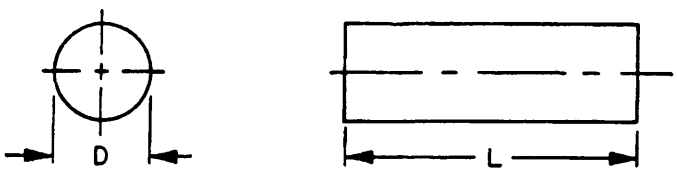
TABLE I. PIN CONFIGURATION DASH NUMBERS.

L LENGTH	D DIAMETER			
	.0625	.0938	.1250	.1875
	MS9486 DASH NUMBER			
.125	-01	-24	-47	--
.188	-02	-25	-48	-71
.250	-03	-26	-49	-72
.312	-04	-27	-50	-73
.375	-05	-28	-51	-74
.438	-06	-29	-52	-75
.500	-07	-30	-53	-76
.625	-09	-32	-55	-78
.750	-11	-34	-57	-80
.875	-13	-36	-59	-82
1.000	-15	-38	-61	-84

SECTION 902

PIN, STRAIGHT, HEADLESS-AMS5688, LOCK

APPLICABLE DOCUMENT: MS9105



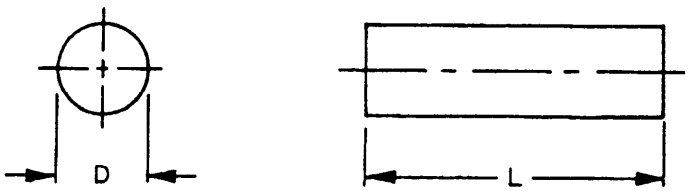
MATERIAL	PROTECTIVE FINISH
CRES	NONE

TABLE I. PIN CONFIGURATION DASH NUMBERS.

L LENGTH	D DIAMETER			
	.0625	.0938	.1250	.1875
	MS9105 DASH NUMBER			
.125	-01	-26	-51	-76
.188	-02	-27	-52	-77
.250	-03	-28	-53	-78
.312	-04	-29	-54	-79
.375	-05	-30	-55	-80
.438	-06	-31	-56	-81
.500	-07	-32	-57	-82
.625	-09	-34	-59	-84
.750	-11	-36	-61	-86
.875	-13	-38	-63	-88
1.000	-15	-40	-65	-90

SECTION 903

PIN, STRAIGHT, HEADLESS-AMS5735, LOCK
APPLICABLE DOCUMENT: MS9389



MATERIAL	PROTECTIVE FINISH
CRES	NONE

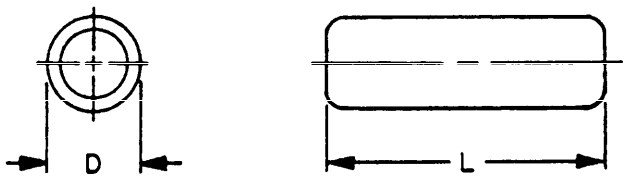
TABLE I. PIN CONFIGURATION DASH NUMBERS.

L LENGTH	D DIAMETER			
	.0625	.0938	.1250	.1875
	MS9389 DASH NUMBER			
.188	-02	-27	--	--
.250	-03	-28	-53	--
.312	-04	-29	-54	--
.375	-05	-30	-55	-80
.438	-06	-31	-56	-81
.500	-07	-32	-57	-82
.625	-09	-34	-59	-84
.750	-11	-36	-61	-86
.875	-13	-38	-63	-88
1.000	-15	-40	-65	-90

SECTION 904

PIN, STRAIGHT, HEADLESS-CRES, AMS5735
DOWEL STANDARD AND OVERSIZE

APPLICABLE DOCUMENT: MS9390



MATERIAL	PROTECTIVE FINISH
CRES	NONE

TABLE I. PIN CONFIGURATION DASH NUMBERS.

STANDARD SIZE					
D DIAMETER	.0625	.0937	.1250	.1875	.2500
L LENGTH	MS9390 DASH NUMBER				
.250	-010	-080	-160	-280	-400
.375	--	-090	-170	-290	-410
.500	--	--	-180	-300	-420
.625	--	--	-190	-310	-430
.750	--	--	-200	-320	-440
.875	--	--	-210	-330	-450
1.000	--	--	-220	-340	-460

D DIAMETER	.3125	.3750	.5000
L LENGTH	MS9390 DASH NUMBER		
.375	-530	-650	--
.500	-540	-660	-900
.625	-550	-670	-910
.750	-560	-680	-920
.875	-570	-690	-930
1.000	-580	-700	-940
1.125	-590	-710	-950
1.250	-600	-720	-960
1.500	--	-730	-970
1.750	--	--	-980
2.000	--	--	-990

12.3

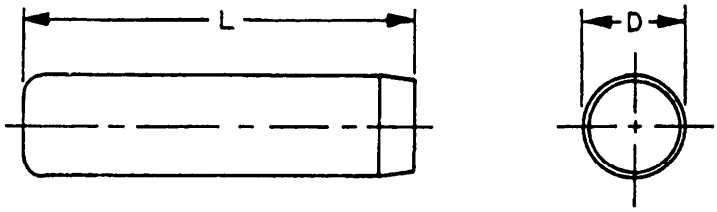
TABLE II. PIN CONFIGURATION DASH NUMBERS.

	OVERSIZE			
	.002 (2)	.005 (5)	.010 (10)	.015 (15)
D DIAMETER	.0645	.0675	.0725	.0775
L LENGTH	MS9390 DASH NUMBER			
.250	-011	-012	-013	-014
D DIAMETER	.1270	.1300	.1350	.1400
L LENGTH	MS9390 DASH NUMBERS			
.250	-161	-162	-163	-164
.375	-171	-172	-173	-174
.500	-181	-182	-183	-184
.625	-191	-192	-193	-194
.750	-201	-202	-203	-204
.875	-211	-212	-213	-214
1.000	-221	-222	-223	-224
D DIAMETER	.1895	.1925	.1975	.2025
L LENGTH	MS9390 DASH NUMBER			
.250	-281	-282	-283	-284
.375	-291	-292	-293	-294
.500	-301	-302	-303	-304
.625	-311	-312	-313	-314
.750	-321	-322	-323	-324
.875	-331	-332	-333	-334
1.000	-341	-342	-343	-344
D DIAMETER	.2520	.2550	.2600	.2650
L LENGTH	MS9390 DASH NUMBER			
.250	-401	-402	-403	-404
.375	-411	-412	-413	-414
.500	-421	-422	-423	-424
.625	-431	-432	-433	-434
.750	-441	-442	-443	-444
.875	-451	-452	-453	-454
1.000	-461	-462	-463	-464

SECTION 905

PIN, STRAIGHT, HEADLESS-(DOWEL)

APPLICABLE DOCUMENT: NAS607



MATERIAL	PROTECTIVE FINISH
CARBON STEEL	UNPLATED OR CADMIUM PLATE

TABLE I. NAS607 PIN CONFIGURATION DASH NUMBERS (UNPLATED).

D NOM DIA	L LENGTH						
	.250	.375	.500	.625	.750	.875	1.000
.062	-1-2	-1-3	-1-4	-1-5	-1-6	--	--
.125	--	-2-3	-2-4	-2-5	-2-6	-2-7	-2-8
.188	--	--	-3-4	-3-5	-3-6	-3-7	-3-8
.250	--	--	-4-4	-4-5	-4-6	-4-7	-4-8
.312	--	--	-5-4	-5-5	-5-6	-5-7	-5-8
.375	--	--	-6-4	-6-5	-6-6	-6-7	-6-8
.500	--	--	--	--	-8-6	--	-8-8
.625	--	--	--	--	--	--	-10-8

TABLE I. NAS607 PIN CONFIGURATION DASH NUMBERS (UNPLATED). - CONTINUED

D NOM DIA	L LENGTH						
	1.250	1.500	1.750	2.000	2.250	2.500	3.000
.125	-2-10	-2-12	-2-14	-2-16	--	--	--
.188	-3-10	-3-12	-3-14	-3-16	--	--	--
.250	-4-10	-4-12	-4-14	-4-16	-4-18	-4-20	--
.312	-5-10	-5-12	-5-14	-5-16	-5-18	-5-20	-5-24
.375	-6-10	-6-12	-6-14	-6-16	-6-18	-6-20	-6-24
.500	-8-10	-8-12	-8-14	-8-16	-8-18	-8-20	-8-24
.625	-10-10	-10-12	-10-14	-10-16	-10-18	-10-20	-10-24
.750	--	--	--	-12-16	--	-12-20	-12-24
.875	--	--	--	-14-16	--	-14-20	-14-24
1.000	--	--	--	-16-16	--	-16-20	-16-24

TABLE II. NAS607 PIN CONFIGURATION DASH NUMBERS (PLATED).

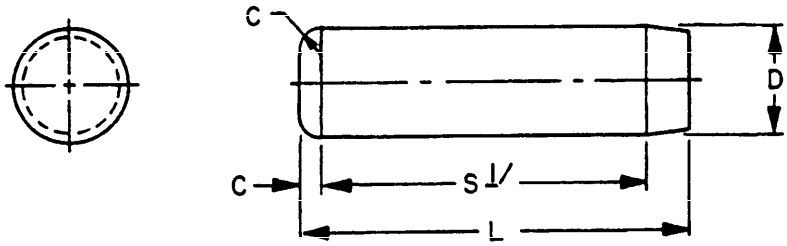
D NOM DIA	L LENGTH						
	.250	.375	.500	.625	.750	.875	1.000
.062	-1-2P	-1-3P	-1-4P	-1-5P	-1-6P	--	--
.125	--	-2-3P	-2-4P	-2-5P	-2-6P	-2-7P	-2-8P
.188	--	--	-3-4P	-3-5P	-3-6P	-3-7P	-3-8P
.250	--	--	-4-4P	-4-5P	-4-6P	-4-7P	-4-8P
.312	--	--	-5-4P	-5-5P	-5-6P	-5-7P	-5-8P
.375	--	--	-6-4P	-6-5P	-6-6P	-6-7P	-6-8P
.500	--	--	--	--	-8-6P	--	-8-8P
.625	--	--	--	--	--	--	-10-8P

TABLE II. NAS607 PIN CONFIGURATION DASH NUMBERS (PLATED). - CONTINUED

D NOM DIA	L LENGTH						
	1.250	1.500	1.750	2.000	2.250	2.500	3.000
.125	-2-10P	-2-12P	-2-14P	-2-16P	--	--	--
.188	-3-10P	-3-12P	-3-14P	-3-16P	--	--	--
.250	-4-10P	-4-12P	-4-14P	-4-16P	-4-18P	-4-20P	--
.312	-5-10P	-5-12P	-5-14P	-5-16P	-5-18P	-5-20P	-5-24P
.375	-6-10P	-6-12P	-6-14P	-6-16P	-6-18P	-6-20P	-6-24P
.500	-8-10P	-8-12P	-8-14P	-8-16P	-8-18P	-8-20P	-8-24P
.625	-10-10P	-10-12P	-10-14P	-10-16P	-10-18P	-10-20P	-10-24P
.750	--	--	--	-12-16P	--	-12-20P	-12-24P
.875	--	--	--	-14-16P	--	-14-20P	-14-24P
1.000	--	--	--	-16-16P	--	-16-20P	-16-24P

SECTION 906

PIN, STRAIGHT, HEADLESS (DOWEL)
(.0002 OVER NOMINAL SIZE)
APPLICABLE DOCUMENT: MS16555



1/ EFFECTIVE LENGTH "S" SHALL BE A MINIMUM OF 75% OF TOTAL PIN LENGTH "L".

MATERIAL	PROTECTIVE FINISH
CARBON OR ALLOY STEEL	PLAIN
CRES 410 OR 416	PASSIVATE

TABLE I. PIN CONFIGURATION.

NOMINAL SIZE	D DIAMETER		C CROWN HEIGHT AND RADIUS		DOUBLE SHEAR STRENGTH (LBS-MIN)	
	MAX	MIN	MAX	MIN	CARBON OR ALLOY STEEL	CRES
.0625	.0628	.0626	.020	.008	800	610
.0938	.0941	.0939	.031	.012	1,800	1,000
.125	.1253	.1251	.041	.016	3,200	1,800
.1875	.1878	.1876	.062	.023	7,200	4,000
.250	.2503	.2501	.083	.031	12,800	7,200
.3125	.3128	.3126	.104	.039	20,000	11,000
.375	.3753	.3751	.125	.047	28,000	16,000
.500	.5003	.5001	.167	.063	50,000	29,000
.625	.6253	.6251	.208	.078	78,000	45,000

TABLE II. MS16555 DASH NUMBERS.

L LENGTH	CARBON OR ALLOY STEEL - PLAIN								
	NOMINAL SIZE								
	.0625	.0938	.125	.1875	.250	.3125	.375	.500	.625
	DASH NUMBER								
.188	-1	--	--	--	--	--	--	--	--
.250	-2	--	--	--	--	--	--	--	--
.312	-3	-17	--	--	--	--	--	--	--
.375	-4	-18	-25	--	--	--	--	--	--
.438	-5	-19	-26	--	--	--	--	--	--
.500	-6	-20	-27	--	--	--	--	--	--
.625	-7	-21	-28	-40	--	--	--	--	--
.750	-8	-22	-29	-41	-46	--	--	--	--
.875	--	-23	-30	-42	-47	--	--	--	--
1.000	--	-24	-31	-43	-48	-53	--	--	--
1.250	--	--	-32	-44	-49	-54	-60	--	--
1.500	--	--	-33	-45	-50	-55	-61	-77	--
1.750	--	--	--	--	-51	-56	-62	-78	--
2.000	--	--	--	--	-52	-57	-63	-79	-88
2.250	--	--	--	--	--	-58	-64	-80	-89
2.500	--	--	--	--	--	-59	-65	-81	-90
2.750	--	--	--	--	--	--	-66	-82	-91
3.000	--	--	--	--	--	--	-67	-83	-92

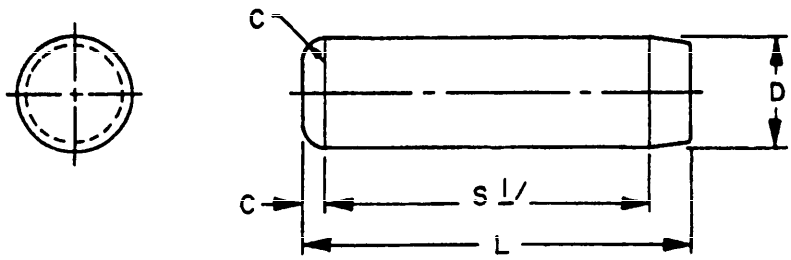
TABLE III. MS16555 DASH NUMBERS.

L LENGTH	CORROSION RESISTING STEEL								
	NOMINAL SIZE								
	.0625	.0938	.125	.1875	.250	.3125	.375	.500	.625
	DASH NUMBER								
.188	-601	--	--	--	--	--	--	--	--
.250	-602	--	--	--	--	--	--	--	--
.312	-603	-617	--	--	--	--	--	--	--
.375	-604	-618	-625	--	--	--	--	--	--
.438	-605	-619	-626	--	--	--	--	--	--
.500	-606	-620	-627	--	--	--	--	--	--
.625	-607	-621	-628	-640	--	--	--	--	--
.750	-608	-622	-629	-641	-646	--	--	--	--
.875	--	-623	-630	-642	-647	--	--	--	--
1.000	--	-624	-631	-643	-648	-653	--	--	--
1.250	--	--	-632	-644	-649	-654	-660	--	--
1.500	--	--	-633	-645	-650	-655	-661	-677	--
1.750	--	--	--	--	-651	-656	-662	-678	--
2.000	--	--	--	--	-652	-657	-663	-679	-688
2.250	--	--	--	--	--	-658	-664	-680	-689
2.500	--	--	--	--	--	-659	-665	-681	-690
2.750	--	--	--	--	--	--	-666	-682	-691
3.000	--	--	--	--	--	--	-667	-683	-692

SECTION 907

PIN, STRAIGHT, HEADLESS (DOWEL)
(.001 OVER NOMINAL SIZE)

APPLICABLE DOCUMENT: MS16556



1/ EFFECTIVE LENGTH "S" SHALL BE A MINIMUM OF 75% OF TOTAL PIN LENGTH "L".

MATERIAL	PROTECTIVE FINISH
CARBON OR ALLOY STEEL	PLAIN OR CADMIUM PLATE
CRES 410 OR 416	PASSIVATE

TABLE I. PIN CONFIGURATION.

NOMINAL SIZE	D DIAMETER		C CROWN HEIGHT AND RADIUS		DOUBLE SHEAR STRENGTH (LBS-MIN)	
	MAX	MIN	MAX	MIN	CARBON OR ALLOY STEEL	CRES
.0625	.0636	.0634	.020	.008	800	610
.0938	.0949	.0947	.031	.012	1,800	1,000
.125	.1261	.1259	.041	.016	3,200	1,800
.1875	.1886	.1884	.062	.023	7,200	4,000
.250	.2511	.2509	.083	.031	12,800	7,200
.3125	.3136	.3134	.104	.039	20,000	11,000
.375	.3761	.3759	.125	.047	28,000	16,000
.500	.5011	.5009	.167	.063	50,000	29,000
.625	.6261	.6259	.208	.078	78,000	45,000

TABLE II. MS16556 DASH NUMBERS.

L LENGTH	CARBON OR ALLOY STEEL - PLAIN								
	NOMINAL SIZE								
	.0625	.0938	.125	.1875	.250	.3125	.375	.500	.625
	DASH NUMBER								
.188	-1	--	--	--	--	--	--	--	--
.250	-2	--	--	--	--	--	--	--	--
.312	-3	-17	--	--	--	--	--	--	--
.375	-4	-18	-25	--	--	--	--	--	--
.438	-5	-19	-26	--	--	--	--	--	--
.500	-6	-20	-27	--	--	--	--	--	--
.625	-7	-21	-28	-40	--	--	--	--	--
.750	-8	-22	-29	-41	-46	--	--	--	--
.875	--	-23	-30	-42	-47	--	--	--	--
1.000	--	-24	-31	-43	-48	-53	--	--	--
1.250	--	--	-32	-44	-49	-54	-60	--	--
1.500	--	--	-33	-45	-50	-55	-61	-77	--
1.750	--	--	--	--	-51	-56	-62	-78	--
2.000	--	--	--	--	-52	-57	-63	-79	-88
2.250	--	--	--	--	--	-58	-64	-80	-89
2.500	--	--	--	--	--	-59	-65	-81	-90
2.750	--	--	--	--	--	--	-66	-82	-91
3.000	--	--	--	--	--	--	-67	-83	-92

TABLE III. MS16556 DASH NUMBERS.

L LENGTH	CARBON OR ALLOY STEEL - CADMIUM PLATE								
	NOMINAL SIZE								
	.0625	.0938	.125	.1875	.250	.3125	.375	.500	.625
	DASH NUMBER								
.188	-801	--	--	--	--	--	--	--	--
.250	-802	--	--	--	--	--	--	--	--
.312	-803	-817	--	--	--	--	--	--	--
.375	-804	-818	-825	--	--	--	--	--	--
.438	-805	-819	-826	--	--	--	--	--	--
.500	-806	-820	-827	--	--	--	--	--	--
.625	-807	-821	-828	-840	--	--	--	--	--
.750	-808	-822	-829	-841	-846	--	--	--	--
.875	--	-823	-830	-842	-847	--	--	--	--
1.000	--	-824	-831	-843	-848	-853	--	--	--
1.250	--	--	-832	-844	-849	-854	-860	--	--
1.500	--	--	-833	-845	-850	-855	-861	-877	--
1.750	-	--	--	--	-851	-856	-862	-878	--
2.000	--	--	--	--	-852	-857	-863	-879	-888
2.250	--	--	--	--	--	-858	-864	-880	-889
2.500	--	--	--	--	--	-859	-865	-881	-890
2.750	--	--	--	--	--	--	-866	-882	-891
3.000	--	--	--	--	--	--	-867	-883	-892

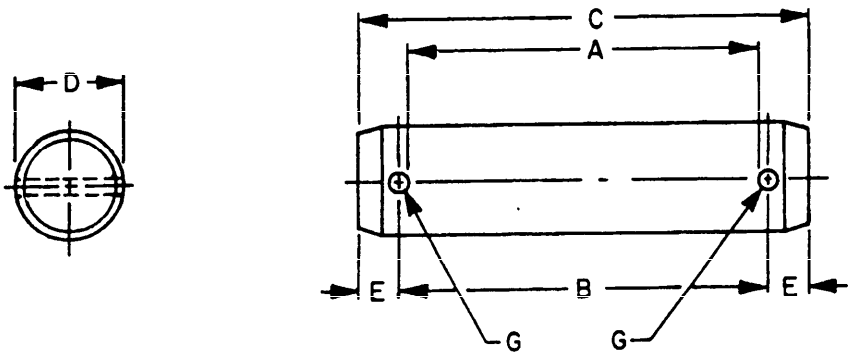
TABLE IV. MS16556 DASH NUMBERS.

L LENGTH	CORROSION RESISTING STEEL								
	NOMINAL SIZE								
	.0625	.0938	.125	.1875	.250	.3125	.375	.500	.625
	DASH NUMBER								
.188	-601	--	--	--	--	--	--	--	--
.250	-602	--	--	--	--	--	--	--	--
.312	-603	-617	--	--	--	--	--	--	--
.375	-604	-618	-625	--	--	--	--	--	--
.438	-605	-619	-626	--	--	--	--	--	--
.500	-606	-620	-627	--	--	--	--	--	--
.625	-607	-621	-628	-640	--	--	--	--	--
.750	-608	-622	-629	-641	-646	--	--	--	--
.875	--	-623	-630	-642	-647	--	--	--	--
1.000	--	-624	-631	-643	-648	-653	--	--	--
1.250	--	--	-632	-644	-649	-654	-660	--	--
1.500	--	--	-633	-645	-650	-655	-661	-677	--
1.750	--	--	--	--	-651	-656	-662	-678	--
2.000	--	--	--	--	-652	-657	-663	-679	-688
2.250	--	--	--	--	--	-658	-664	-680	-689
2.500	--	--	--	--	--	-659	-665	-681	-690
2.750	--	--	--	--	--	--	-666	-682	-691
3.000	--	--	--	--	--	--	-667	-683	-692

SECTION 908

PIN, STRAIGHT-HEADLESS; DRILLED FOR COTTER PINS

APPLICABLE DOCUMENT: MS51932



MATERIAL	PROTECTIVE FINISH
CARBON STEEL	CADMIUM PLATE

TABLE I. PIN CONFIGURATION DASH NUMBERS.

D DIAMETER		.250			.3125		
	MAX						
	MIN	.248			.310		
E CENTER TO END		EQUIDISTANT ON BOTH ENDS					
G DRILL DIA		#48 (.076)			#36 (.107)		
A LENGTH CLEAR		B LENGTH C/C	C LENGTH OVERALL	MS51932 DASH NO.	B LENGTH C/C	C LENGTH OVERALL	MS51932 DASH NO.
1.050		1.126	1.375	-6	1.157	1.468	-29
1.180		1.256	1.500	-7	1.287	1.594	-30
1.300		1.376	1.625	-8	1.407	1.718	-31
1.375		--	--	--	1.482	1.789	-32
1.430		1.506	1.750	-10	1.537	1.844	-33
1.550		1.626	1.875	-11	1.657	1.968	-34
1.680		1.756	2.000	-12	1.787	2.094	-35
1.800		1.876	2.125	-13	1.907	2.218	-36
1.930		2.006	2.250	-14	2.037	2.344	-37
2.050		2.126	2.375	-15	2.157	2.468	-38
2.180		2.256	2.500	-16	2.287	2.594	-39
2.300		2.376	2.625	-17	2.407	2.718	-40
2.430		2.506	2.750	-18	2.537	2.844	-41
2.550		2.626	2.875	-19	2.657	2.968	-42
2.680		2.756	3.000	-20	2.787	3.094	-43
2.800		2.876	3.125	-21	2.907	3.218	-44
2.930		3.006	3.250	-22	3.037	3.344	-45
3.050		3.126	3.375	-23	3.157	3.468	-46

TABLE I. PIN CONFIGURATION DASH NUMBERS. - CONTINUED.

D DIAMETER	MAX	.375		
	MIN	.372		
E CENTER TO END		EQUIDISTANT ON BOTH ENDS		
G DRILL DIA		#36 (.107)		
A LENGTH CLEAR		B LENGTH C/C	C LENGTH OVERALL	MS51932 DASH NO.
1.050		1.157	1.468	-52
1.180		1.287	1.594	-53
1.300		1.407	1.718	-54
1.430		1.537	1.844	-56
1.550		1.657	1.968	-57
1.680		1.787	2.094	-58
1.800		1.907	2.218	-59
1.930		2.037	2.344	-60
2.050		2.157	2.468	-61
2.180		2.287	2.594	-62
2.300		2.407	2.718	-63
2.430		2.537	2.844	-64
2.550		2.657	2.968	-65
2.680		2.787	3.094	-66
2.800		2.907	3.218	-67
2.930		3.037	3.344	-68
3.050		3.157	3.468	-69

TABLE I. PIN CONFIGURATION DASH NUMBERS. - CONTINUED

D DIAMETER	MAX	.500			.625		
	MIN	.497			.622		
E CENTER TO END		EQUIDISTANT ON BOTH ENDS					
G DRILL DIA		#28 (.140)			#28 (.140)		
A LENGTH CLEAR		B LENGTH C/C	C LENGTH OVERALL	MS51932 DASH NO.	B LENGTH C/C	C LENGTH OVERALL	MS51932 DASH NO.
1.050		1.190	1.625	-101	1.190	1.688	-130
1.180		1.320	1.750	-102	1.320	1.813	-131
1.300		1.440	1.875	-103	1.440	1.938	-132
1.430		1.570	2.000	-104	1.570	2.063	-133
1.550		1.690	2.125	-105	1.690	2.188	-134
1.680		1.820	2.250	-106	1.820	2.313	-135
1.800		1.940	2.375	-107	1.940	2.438	-136
1.930		2.070	2.500	-108	2.070	2.563	-137
2.050		2.190	2.625	-109	2.190	2.688	-138
2.180		2.320	2.750	-110	2.320	2.813	-139
2.300		2.440	2.875	-111	2.440	2.938	-140
2.430		2.570	3.000	-112	2.570	3.063	-141
2.550		2.690	3.125	-113	2.690	3.188	-142
2.680		2.820	3.250	-114	2.820	3.313	-143
2.800		2.940	3.375	-115	2.940	3.438	-144
2.930		3.070	3.500	-116	3.070	3.563	-145
3.050		3.190	3.625	-117	3.190	3.688	-146
3.180		3.320	3.750	-118	3.320	3.813	-147
3.300		3.440	3.875	-119	3.440	3.938	-148
3.430		3.570	4.000	-120	3.570	4.063	-149
3.550		3.690	4.125	-121	3.690	4.188	-150
3.800		--	--	--	3.940	4.313	-151

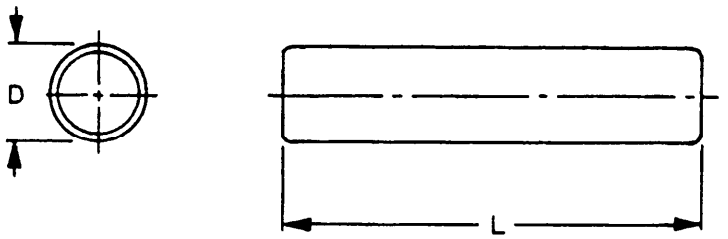
TABLE I. PIN CONFIGURATION DASH NUMBERS. - CONTINUED

D DIAMETER	MAX	.750		
	MIN	.747		
E CENTER TO END		EQUIDISTANT ON BOTH ENDS		
G DRILL DIA		#17 (.173)		
A LENGTH CLEAR		B LENGTH C/C	C LENGTH OVERALL	MS51932 DASH NO.
1.050		1.223	1.813	-160
1.180		1.353	1.938	-161
1.300		1.473	2.063	-162
1.430		1.603	2.188	-163
1.550		1.723	2.313	-164
1.680		1.853	2.438	-165
1.800		1.973	2.563	-166
1.930		2.103	2.688	-167
2.050		2.223	2.813	-168
2.180		2.353	2.938	-169
2.300		2.473	3.063	-170
2.430		2.603	3.188	-171
2.550		2.723	3.313	-172
2.680		2.853	3.438	-173
2.800		2.973	3.563	-174
2.930		3.103	3.688	-175
3.050		3.223	3.813	-176
3.180		3.353	3.938	-177
3.300		3.473	4.063	-178
3.430		3.603	4.188	-179
3.550		3.723	4.313	-180
3.800		3.973	4.563	-181

SECTION 909

PIN, STRAIGHT, HEADLESS, STEEL

APPLICABLE DOCUMENT: AN122676 THRU AN122775



MATERIAL	PROTECTIVE FINISH
CARBON STEEL	NONE

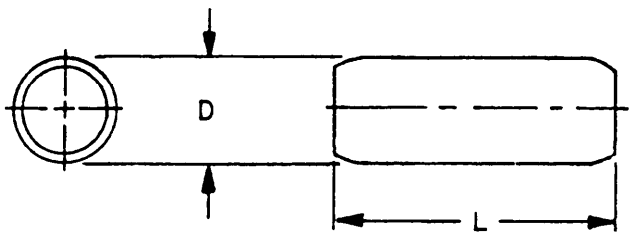
TABLE I. PIN CONFIGURATION PART NUMBERS.

L LENGTH	D DIAMETER							
	.0625	.09375	.1250	.1875	.2500	.3125	.3750	.5000
.250	AN122676	AN122683	AN122691	AN122703	AN122715	--	--	--
.375	AN122677	AN122684	AN122692	AN122704	AN122716	AN122728	AN122740	--
.500	AN122678	AN122685	AN122693	AN122705	AN122717	AN122729	AN122741	AN122765
.625	--	AN122686	AN122694	AN122706	AN122718	AN122730	AN122742	AN122766
.750	--	--	AN122695	AN122707	AN122719	AN122731	AN122743	AN122767
.875	--	--	AN122696	AN122708	AN122720	AN122732	AN122744	AN122768
1.000	--	--	AN122697	AN122709	AN122721	AN122733	AN122745	AN122769
1.125	--	--	--	--	--	AN122734	AN122746	AN122770
1.250	--	--	--	--	--	AN122735	AN122747	AN122771
1.500	--	--	--	--	--	--	AN122748	AN122772
1.750	--	--	--	--	--	--	--	AN122773
2.000	--	--	--	--	--	--	--	AN122774

SECTION 910

PIN, STRAIGHT, HEADLESS, STEEL, OVERSIZE

APPLICABLE DOCUMENT: MS9164



MATERIAL	PROTECTIVE FINISH
CARBON STEEL	NONE

TABLE I. PIN CONFIGURATION DASH NUMBERS.

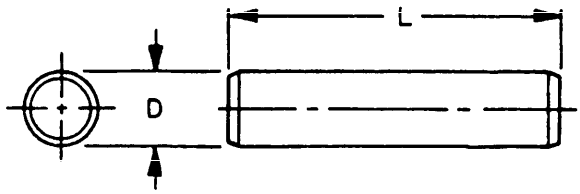
OVERSIZE IDENTIFICATION	.002 OVERSIZE (2)	.005 OVERSIZE (5)	.010 OVERSIZE (10)	.015 OVERSIZE (15)
D DIAMETER	.12700	.13000	.13500	.14000
L LENGTH	MS9164 DASH NO.			
.250	-004	-024	-044	-064
.375	-005	-025	-045	-065
.500	-006	-026	-046	-066
.625	-007	-027	-047	-067
.750	-008	-028	-048	-068
.875	-009	-029	-049	-069
1.000	-010	-030	-050	-070
D DIAMETER	.18950	.19250	.19750	.20250
L LENGTH	MS9164 DASH NO.			
.250	-084	-104	-124	-144
.375	-085	-105	-125	-145
.500	-086	-106	-126	-146
.625	-087	-107	-127	-147
.750	-088	-108	-128	-148
.875	-089	-109	-129	-149
1.000	-090	-110	-130	-150

TABLE I. PIN CONFIGURATION DASH NUMBERS. - CONTINUED

OVERSIZE IDENTIFICATION	.002 OVERSIZE (2)	.005 OVERSIZE (5)	.010 OVERSIZE (10)	.015 OVERSIZE (15)
D DIAMETER	.25200	.25500	.26000	.26500
L LENGTH	MS9164 DASH NO.			
.250	-164	-184	-204	-224
.375	-165	-185	-205	-225
.500	-166	-186	-206	-226
.625	-167	-187	-207	-227
.750	-168	-188	-208	-228
.875	-169	-189	-209	-229
1.000	-170	-190	-210	-230
D DIAMETER	.37700	.38000	.38500	.39000
L LENGTH	MS9164 DASH NO.			
.375	-325	-345	-365	-385
.500	-326	-346	-366	-386
.625	-327	-347	-367	-387
.750	-328	-348	-368	-388
.875	-329	-349	-369	-389
1.000	-330	-350	-370	-390
1.125	-331	-351	-371	-391
1.250	-332	-352	-372	-392
1.500	-333	-353	-373	-393

SECTION 911

PIN, STRAIGHT, STEEL-DRILL ROD
APPLICABLE DOCUMENT: MS51838



MATERIAL	PROTECTIVE FINISH
CARBON STEEL	PLAIN

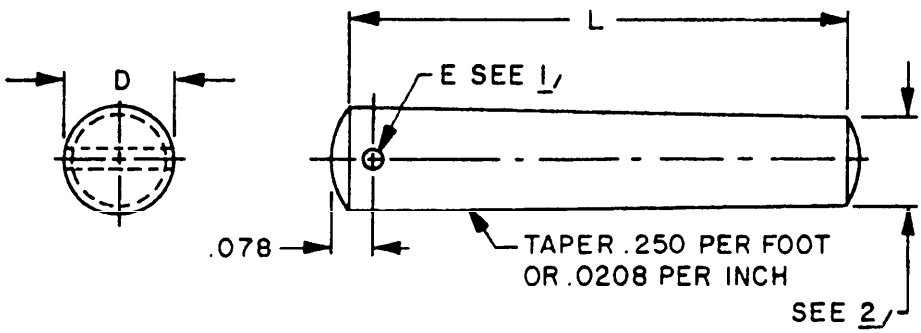
TABLE I. PIN CONFIGURATION DASH NUMBERS.

D DIA						
	MAX	.0628	.1255	.1880	.3130	.3755
	MIN	.0622	.1245	.1870	.3120	.3745
L LENGTH		MS51838 DASH NUMBER				
		PLAIN				
.250		-2	--	--	--	--
.312		-3	-63	--	--	--
.375		-4	-64	--	--	--
.438		-5	-65	--	--	--
.500		-6	-66	--	--	--
.625		-8	-68	-148	--	--
.750		--	-70	-150	--	--
.875		--	-72	-152	-232	--
1.000		--	-74	-154	-234	-274
1.125		--	--	--	-235	-275
1.250		--	--	--	-236	-276
1.375		--	--	--	-237	-277
1.500		--	--	--	-238	-278
1.750		--	--	--	-240	-280
2.000		--	--	--	-242	-282

SECTION 1001

PIN, TAPERED, PLAIN

APPLICABLE DOCUMENT: MS24692



FOR DRILLED PIN ADD "D" AFTER THE DASH NUMBER

1/ FOR DRILLED PIN ADD "D" AFTER THE DASH NUMBER. E DIA. SHALL BE .024 ±.005 FOR SIZES 7/0 THRU 4/0 AND .046 ±.005 FOR SIZES 3/0 THRU 6. SIZES 7 AND 8 SHALL NOT BE DRILLED.

2/ TO OBTAIN THE DIA. OF THE SMALL END, MULTIPLY THE LENGTH BY .02083 AND SUBTRACT THE PRODUCT FROM THE LARGE END NOMINAL DIAMETER.

MATERIAL	PROTECTIVE FINISH
CARBON STEEL	UNPLATED
CRES	PASSIVATE

TABLE I. PIN CONFIGURATION DASH NUMBERS.

SIZE NO.	7/0		6/0		5/0		4/0	
D NOM DIA	.0625		.0780		.0940		.1090	
L LENGTH	MS24692 DASH NUMBER							
	CARBON STEEL	CRES	CARBON STEEL	CRES	CARBON STEEL	CRES	CARBON STEEL	CRES
.375	-1	-3	-25	-27	-49	-51	-73	-75
.500	-4	-6	-28	-30	-52	-54	-76	-78
.625	-7	-9	-31	-33	-55	-57	-79	-81
.750	-10	-12	-34	-36	-58	-60	-82	-84
.875	-13	-15	-37	-39	-61	-63	-85	-87
1.000	-16	-18	-40	-42	-64	-66	-88	-90

TABLE I. PIN CONFIGURATION DASH NUMBERS. - CONTINUED

SIZE NO.	3/0		2/0		0		1	
D NOM DIA	.1250		.1410		.1560		.1720	
L LENGTH	MS24692 DASH NUMBER							
	CARBON STEEL	CRES	CARBON STEEL	CRES	CARBON STEEL	CRES	CARBON STEEL	CRES
.500	-97	-99	-121	-123	-145	-147	--	--
.625	-100	-102	-124	-126	-148	-150	-172	-174
.750	-103	-105	-127	-129	-151	-153	-175	-177
.875	-106	-108	-130	-132	-154	-156	-178	-180
1.000	-109	-111	-133	-135	-157	-159	-181	-183
1.250	--	--	--	--	-160	-162	-184	-186
1.500	--	--	--	--	-163	-165	-187	-189
1.750	--	--	--	--	-166	-168	-190	-192
2.000	--	--	--	--	-169	-171	-193	-195

TABLE I. PIN CONFIGURATION DASH NUMBERS. - CONTINUED

SIZE NO.	2		3		4		5	
D NOM. DIA.	.1930		.2190		.2500		.2890	
L LENGTH	MS24692 DASH NUMBER							
	CARBON STEEL	CRES	CARBON STEEL	CRES	CARBON STEEL	CRES	CARBON STEEL	CRES
.750	-208	-210	-241	-243	--	--	--	--
.875	-211	-213	-244	-246	--	--	--	--
1.000	-214	-216	-247	-249	-274	-276	-301	-303
1.250	-217	-219	-250	-252	-277	-279	-304	-306
1.500	-220	-222	-253	-255	-280	-282	-307	-309
1.750	-223	-225	-256	-258	-283	-285	-310	-312
2.000	-226	-228	-259	-261	-286	-288	-313	-315

TABLE I. PIN CONFIGURATION DASH NUMBERS. - CONTINUED

SIZE NO.	6		7		8	
D NOM. DIA.	.3410		.4090		.4920	
L LENGTH	MS24692 DASH NUMBER					
	CARBON STEEL	CRES	CARBON STEEL	CRES	CARBON STEEL	CRES
1.250	-328	-330	--	--	--	--
1.500	-331	-333	--	--	--	--
1.750	-334	-336	--	--	--	--
2.000	-337	-339	-364	-366	-391	-393
2.250	-340	-342	-367	-369	-394	-396
2.500	-343	-345	-370	-372	-397	-399
2.750	-346	-348	-373	-375	-400	-402
3.000	-349	-351	-376	-378	-403	-405

TABLE IIA. CARBON STEEL SHEAR LOAD.

L LENGTH	SHEAR LOAD IN POUNDS - CARBON STEEL						
	7/0	6/0	5/0	4/0	3/0	2/0	0
.375	49	79	120	165	--	--	--
.500	45	75	115	155	210	275	340
.625	42	71	110	150	205	265	330
.750	38	66	105	145	195	255	320
.875	35	62	98	140	190	250	310
1.000	32	58	93	130	185	240	305
1.250	--	--	--	--	--	--	285
1.500	--	--	--	--	--	--	270
1.750	--	--	--	--	--	--	250
2.000	--	--	--	--	--	--	235

TABLE IIA. CARBON STEEL SHEAR LOAD.- CONTINUED

L LENGTH	SHEAR LOAD IN POUNDS - CARBON STEEL							
	1	2	3	4	5	6	7	8
.625	410	--	--	--	--	--	--	--
.750	395	510	670	--	--	--	--	--
.875	385	500	650	--	--	--	--	--
1.000	375	490	640	850	1,160	--	--	--
1.250	355	460	610	820	1,130	1,610	--	--
1.500	340	440	590	790	1,090	1,560	--	--
1.750	320	420	560	760	1,060	1,520	--	--
2.000	300	400	540	740	1,020	1,480	2,210	3,300
2.250	--	--	--	--	--	1,440	2,170	3,240
2.500	--	--	--	--	--	1,410	2,120	3,180
2.750	--	--	--	--	--	1,370	2,070	3,130
3.000	--	--	--	--	--	1,330	2,020	3,070

TABLE IIB. CRES SHEAR LOAD.

L LENGTH	SHEAR LOAD IN POUNDS - CORROSION RESISTANT STEEL						
	7/0	6/0	5/0	4/0	3/0	2/0	0
.375	70	115	175	240	--	--	--
.500	65	110	165	230	305	395	490
.625	60	100	155	220	295	385	480
.750	56	96	150	210	285	375	470
.875	51	90	140	200	275	360	450
1.000	47	84	135	190	265	350	440
1.250	--	--	--	--	--	--	410
1.500	--	--	--	--	--	--	390
1.750	--	--	--	--	--	--	365
2.000	--	--	--	--	--	--	340

TABLE IIB. CRES SHEAR LOAD.- CONTINUED.

L LENGTH	SHEAR LOAD IN POUNDS - CORROSION RESISTANT STEEL							
	1	2	3	4	5	6	7	8
.625	590	--	--	--	--	--	--	--
.750	580	740	970	--	--	--	--	--
.875	560	720	950	--	--	--	--	--
1.000	550	700	930	1,240	1,680	--	--	--
1.250	520	670	890	1,190	1,630	2,330	--	--
1.500	490	640	850	1,150	1,580	2,270	--	--
1.750	460	610	820	1,110	1,530	2,210	--	--
2.000	440	580	780	1,070	1,490	2,150	3,210	4,780
2.250	--	--	--	--	--	2,100	3,140	4,700
2.500	--	--	--	--	--	2,040	3,070	4,620
2.750	--	--	--	--	--	1,980	3,000	4,530
3.000	--	--	--	--	--	1,930	2,930	4,450

TABLE III. RECOMMENDED PIN SIZE BY SHAFT DIAMETER FOR AVERAGE CONDITIONS.

SIZE NO.	7/0	6/0	5/0	4/0	3/0	2/0	0
DIA. OF SHAFT	.188	.219	.250	.312	.375	.438	.500

TABLE III. RECOMMENDED PIN SIZE BY SHAFT DIAMETER FOR AVERAGE CONDITIONS. - CONTINUED.

SIZE NO.	1	2	3	4	5	6	7	8
DIA. OF SHAFT	.562	.625	.750	.812	.875	1.000	1.250	1.500

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