

## Serrated Truss Head Screws Inch

### 1. SCOPE

1.1 The fasteners described in this standard are coarse thread inch serrated truss head screws with either a slotted or cross recess head.

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TABLE 1: Dimensions of Slotted, Serrated Truss Head Screws

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TABLE 3: Serrated Truss Head Screws

### 2. GENERAL

2.1 No national standard exists for this type of screw. These specifications are based on user requirements and available commercial products.

### 3. RELATED DOCUMENTS

#### 3.1 RELATED STANDARDS

STPA020—Fastener Finishes and Material Specifications

STPA110—Fastener Finishes and Design Considerations

STPA120—Hydrogen Embrittlement

MAT0310—Zinc Plating

ENPA110—Preferred Parts

ANSI B1.1—Unified Screw Threads

ANSI B18.3—Socket Cap, Shoulder, and Set Screws (Inch Series)

SAE J429—Mechanical and Material Requirements for Externally Threaded Fasteners

SAE J1061—Surface Discontinuities on General Application Bolts, Screws, and Studs

#### 3.2 REPLACED STANDARDS

Case C-091 Slotted Truss Head Serrated Screws

Case C-092 Cross Recessed Truss Head Serrated Screws

### 4. DIMENSIONS

All dimensions in this standard are in inches.

### 5. MATERIAL

Serrated flange truss head screws are made from 5SPL or Grade 8 steels.

ISSUED BY AK 10SEP14	ECN NO. 35201389	NAME <b>SERRATED TRUSS HEAD SCREWS INCH</b>		
APPROVED BY SWH 10SEP14	REV. G	PAGE 1 OF 4	CNH NUMBERS <b>87366936</b>	<b>STPC150</b>

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- 5.1 5SPL is a special, case-hardened steel material that meets mechanical and performance requirements for Grade 5 steel per SAE J429.
- 5.2 5SPL steel will mechanically bite into the base material.
- 5.3 TABLE 1 shows the material composition.

**TABLE 1: 5SPL Material Composition**

Material	Range
Carbon	.13 – .25%
Manganese	.60 – 1.50%
Silicon	.10 – .35%
Phosphorus	.05% maximum
Sulfur	.06% maximum
Alloying Elements	Optional
Boron (optional)	.0005 – .003 if present

- 5.4 Case-harden 5SPL material as follows:
  - Carbonitride per Case Spec P-2 or carburize per MAT4030
  - Case depth .08 - .18 mm for 9.5 mm and under and .18 - .30 mm for 11.1 minimum diameter and greater
  - Temper to a surface hardness between 79 to 86 HR15N
  - Core hardness of 25 to 34 HRC
- 5.5 Bake or otherwise treat these parts for hydrogen embrittlement relief as agreed by the supplier and local user.
- 5.6 Grade 8 steel shall conform to the chemical composition, mechanical properties, and heat treatment requirements of SAE J429.
- 5.7 Grade 8 is a softer alternative to 5SPL and might not bite into the base material.

## 6. FINISH

Screws shall be furnished plain, plated or coated in accordance with STPA020 and CNH materials specifications.

## 7. THREADS

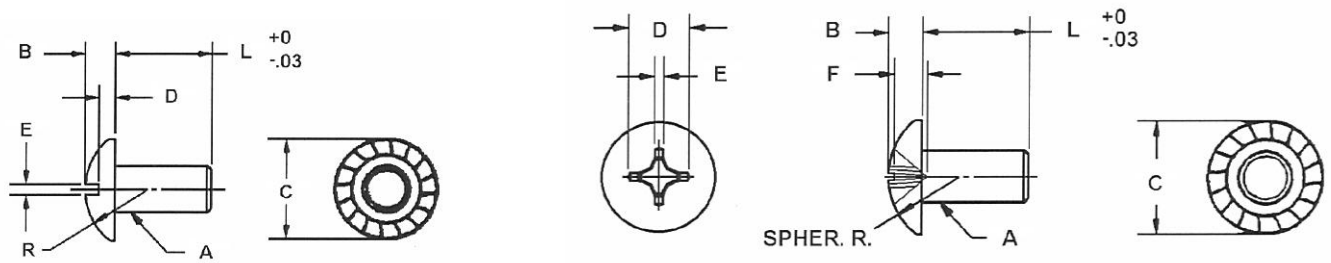
Thread form, diameters, and associated pitches are in accordance with ANSI B1.1. Threads shall be Unified coarse or fine thread series UNRC or UNRF, Class 2A or Class 3A.

## 8. CROSS REFERENCE

For cross reference listing of company part numbers, go to [CNH Catalogue](#).

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## Serrated Truss Head Screws



**TABLE 1: Dimensions of Slotted, Serrated Truss Head Screws**

A	1/4-20		5/16-18		3/8-16		1/2-13	
	Max	Min	Max	Min	Max	Min	Max	Min
B	0.165	0.130	0.195	0.162	0.225	0.191	0.295	0.265
C	0.573	0.545	0.698	0.660	0.823	0.787	1.070	1.020
D	0.087	0.070	0.106	0.085	0.124	0.100	0.161	0.131
E	0.075	0.064	0.084	0.072	0.094	0.081	0.106	0.091

**TABLE 2: Dimensions of Cross Recessed, Serrated Truss Head Screws**

A	1/4-20		5/16-18		3/8-16		1/2-13	
	Max	Min	Max	Min	Max	Min	Max	Min
B	0.165	0.130	0.195	0.162	0.225	0.191	0.295	0.265
C	0.573	0.545	0.698	0.660	0.823	0.787	1.070	1.020
D	0.281	0.268	0.350	0.337	0.389	0.376	0.416	0.403
E	...	0.036	...	0.059	...	0.065	...	0.068
F	0.161	0.135	0.193	0.169	0.233	0.210	0.256	0.231
Driver Size	3		4		4		4	

**TABLE 3: Serrated Truss Head Screws**

Diameter	Length	Head Type	Material	Finish	Part Number
1/4	1/2	SLT-TR	8	ZND	87327190
1/4	3/4	SLT-TR	5	ZND	80244244
1/4	3/4	SLT-TR	8	ZND	87327192
1/4	3/4	C/R-TR	8	ZND	87538570
1/4	1	SLT-TR	8	ZND	87327194
5/16	1/2	SLT-TR	5SPL	ZND	135632
5/16	1/2	SLT-TR	8	ZND	87327195
5/16	3/4	SLT-TR	5SPL	ZND	135270
5/16	3/4	SLT-TR	8	ZND	87327197
5/16	1	SLT-TR	5SPL	ZND	619978
5/16	1	SLT-TR	8	ZND	87327199
3/8	3/4	SLT-TR	8	ZND	87327201
3/8	3/4	SLT-TR	5SPL	ZND	86624124
3/8	1	SLT-TR	5SPL	ZND	86624125
3/8	1	SLT-TR	8	ZND	87327204
3/8	1-1/4	SLT-TR	8	ZND	87327205
3/8	1-1/4	C/R	5SPL	ZND	87605319