



# Standard Part

## Countersunk Plow Bolts - Inch Coarse Thread - Non-Preferred

<b>STPB270</b>
<b>87366886</b>
Rev U
Page 1 of 8

### 1. GENERAL

- 1.1 This standard conforms essentially to Plow Bolts described in ANSI B18.9. All dimensions in this standard are in inches. For dimensions not shown in this specification, refer to ANSI B18.9.
- 1.2 The No. 3 head is favored over all other head styles for plow bolts.

### 2. RELATED DOCUMENTS

#### 2.1 REFERENCE STANDARDS

- ANSI B18.9—Plow Bolts
- MAT0310—Zinc Plating
- STPA020—Fastener Finishes and Material Specifications
- Case MS-91—Zinc Phosphate Coating
- SAE J429—Mechanical and Material Requirements for Externally Threaded Fasteners

#### 2.2 REPLACED STANDARDS

- Case B-030—Plow Bolts (General Specifications)
- Case B-031—Plow Bolts No. 3 Head - Preferred
- Case B-032—Plow Bolts No. 3 Head - Non-Preferred
- Case B-033—Plow Bolts No. 4 Head - Non-Preferred
- FNHA 1-B-130.00—Bolt, Plow, Inch

### 3. PREFERRED PARTS POLICY

All standard parts measured in inches are considered non-preferred. See STPB850 for preferred parts (metric).

### 4. CROSS REFERENCE

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

### 5. MATERIAL

Bolts shall conform to the chemical composition, mechanical properties, and heat treatment requirements for steel per SAE J429.

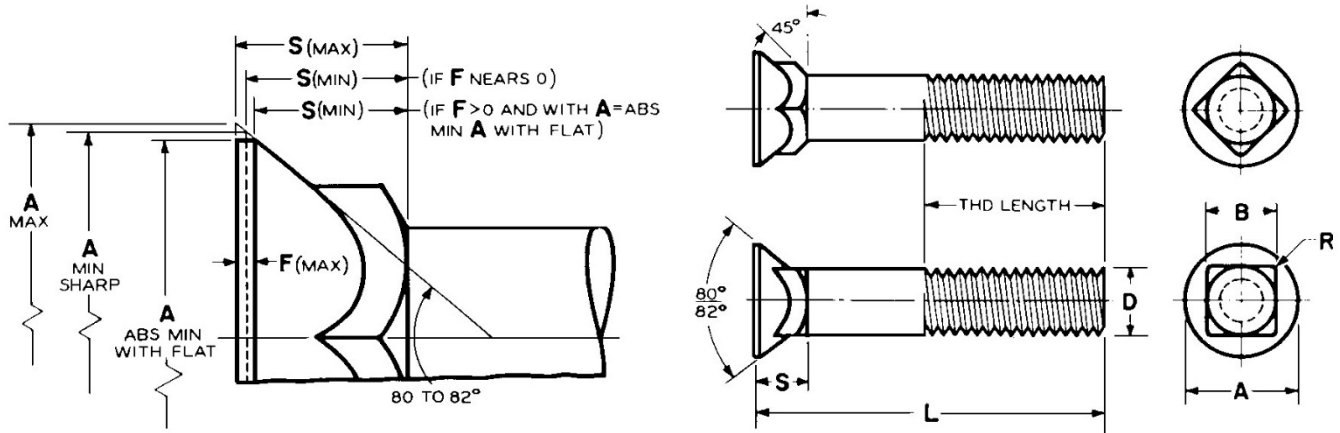
### 6. FINISH

6.1 Bolts shall be furnished plain (PLN), plated, or coated as designated by part number in accordance with CNH or former company Material Specifications.

To avoid hydrogen embrittlement, all SAE Grade 8 zinc plated fasteners must be baked immediately after plating per MAT0310.

AUTHOR	APPROVED BY	ECO	PART NUMBER
A KHAN	19DEC19 P TUPEK	19DEC19 35310657	<b>87366886</b>

THE INFORMATION HEREON IS THE CONFIDENTIAL AND PROPRIETARY PROPERTY OF CNH INDUSTRIAL N.V. AND/OR ITS SUBSIDIARIES OR DIVISIONS. ANY USE, EXCEPT THAT FOR WHICH IT MAY BE LOANED, IS PROHIBITED.

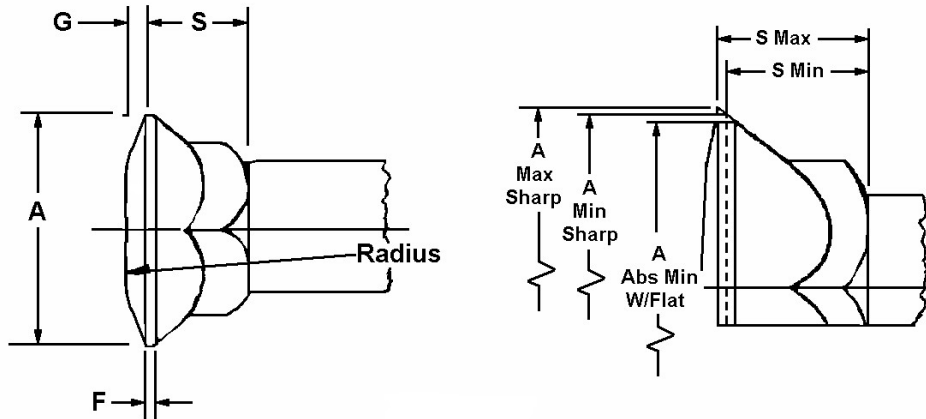


**FIGURE 1: Plow Bolt with No. 3 Head**  
Round Head, Countersunk, Square Neck

**TABLE 1: Basic No. 3 Dimensions in Inches**

Nominal Bolt Diameter	A			F	S		B		R
	Head Diameter			Feed Thickness	Head and Square Height		Square Width		Corner Radius
	Max	Min Sharp	Min Flat	Max	Max	Min	Max	Min	Max
<b>Regular</b>									
5/16	.605	.578	.563	.025	.269	.243	.325	.313	1/32
3/8	.708	.671	.656	.031	.312	.281	.387	.375	3/64
7/16	.826	.781	.766	.036	.364	.328	.450	.438	3/64
1/2	.945	.890	.875	.042	.417	.375	.515	.500	3/64
5/8	1.147	1.094	1.063	.050	.506	.456	.640	.625	5/64
3/4	1.303	1.250	1.219	.050	.541	.491	.765	.750	5/64
7/8	1.512	1.469	1.406	.063	.626	.563	.906	.875	3/32
1	1.700	1.656	1.594	.063	.690	.627	1.031	1.000	3/32
<b>Repair *</b>									
5/16	.556	.531	.516	.020	.232	.212	.325	.313	1/32
3/8	.659	.624	.609	.025	.272	.247	.387	.375	3/64
7/16	.779	.734	.719	.030	.324	.294	.450	.438	3/64
1/2	.898	.843	.828	.035	.375	.340	.515	.500	3/64
5/8	1.096	1.047	1.016	.040	.458	.418	.640	.625	5/64
3/4	1.252	1.203	1.172	.040	.493	.453	.765	.750	5/64
7/8	1.465	1.422	1.359	.050	.573	.523	.906	.875	3/32
1	1.653	1.609	1.547	.050	.637	.587	1.031	1.000	3/32

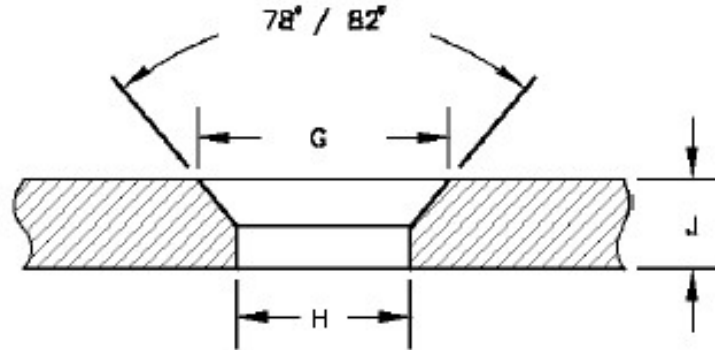
\* The letter "R" shall be shown on top of the repair head, to distinguish it from the regular head bolt.



**FIGURE 2: Plow Bolt with Optional Dome No. 3 Head**  
For 5/8 and Larger Diameter Only

**TABLE 2: Additional No. 3 Dimensions in Inches**

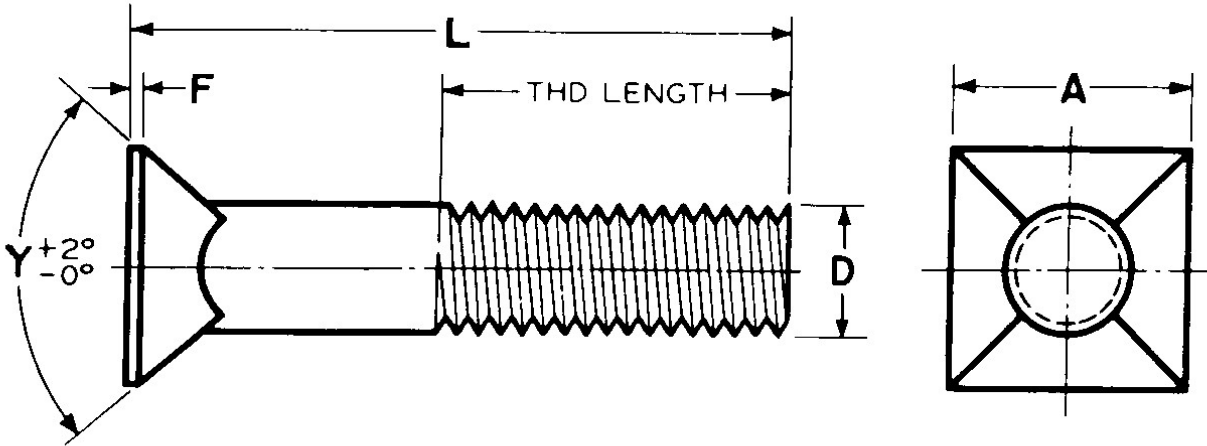
Nominal Bolt Diameter	A			F		G		S	
	Head Diameter			Feed Thickness		Dome Height		Head and Square Height	
	Max Sharp	Min Sharp	Absolute Min with Flat	Max	Min	Max	Min	Max	Min
5/8	1.197	1.044	1.013	.120	.050	.100	.070	.516	.466
3/4	1.353	1.200	1.169	.160	.090	.110	.080	.581	.541
7/8	1.571	1.409	1.369	.170	.100	.110	.080	.663	.613
1	1.759	1.597	1.557	.170	.100	.120	.090	.737	.677



**FIGURE 3: Plow Bolt with No. 3 Head Mounting**

**TABLE 3: No. 3 Mounting Dimensions in Inches**

Nominal Bolt Diameter		G		H		J
		Countersunk Diameter		Square Hole		Material Thickness
		Maximum	Minimum	Maximum	Minimum	Maximum
5/16	0.312	.670	.605	.340	.325	.31
3/8	0.375	.780	.708	.410	.387	.38
7/16	0.438	.910	.826	.470	.450	.44
1/2	0.500	1.050	.945	.530	.515	.47
5/8	0.625	1.250	1.147	.660	.640	.56
3/4	0.75	1.375	1.303	.780	.765	.625

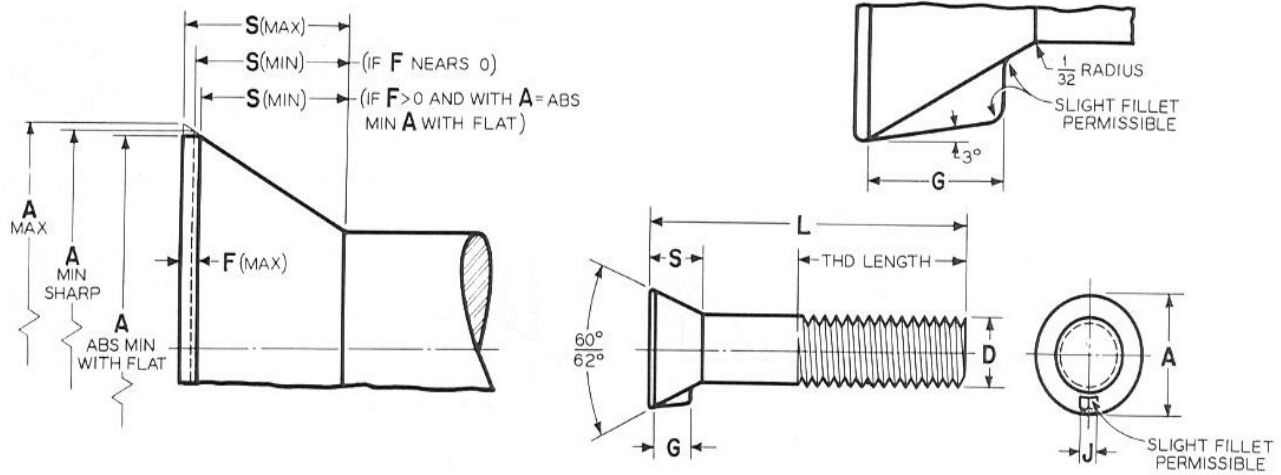


**FIGURE 4: Plow Bolt with No. 4 Head**  
Square Head, Countersunk

**TABLE 4: Basic No. 4 Dimensions in Inches**

D		A			F	Y
Nominal Bolt Diameter		Head Length			Feed Thickness	Included Angle
		Minimum	Basic	Maximum	Maximum	Degrees
<b>Regular</b>						
5/16	0.312	9/16	.563	.578	.025	80
3/8	0.375	11/16	.688	.703	.031	
7/16	0.438	3/4	.750	.765	.036	
1/2	0.500	13/16	.813	.828	.042	
5/8	0.625	1	1.000	1.031	.050	
3/4	0.750	1-1/8	1.125	1.156	.050	
7/8	0.875	1-5/16	1.313	1.344	.050	
1	1.000	1-1/2	1.500	1.531	.050	
<b>Repair *</b>						
5/16	0.312		.516	.531	.020	80
3/8	0.375		.641	.656	.025	
7/16	0.438		.703	.718	.030	
1/2	0.500		.766	.781	.035	
5/8	0.625		.953	.984	.040	
3/4	0.750		1.078	1.109	.040	
7/8	0.875		1.266	1.297	.040	
1	1.000		1.453	1.484	.040	

\* The letter "R" shall be shown on top of the repair head, to distinguish it from the regular head bolt.



**FIGURE 5: Plow Bolt with No. 7 Head**  
Round Head, Countersunk, Reverse Key

**TABLE 5: Basic No. 7 Dimensions in Inches**

Nominal Bolt Diameter	A			F	S		J		G	
	Head Diameter			Feed Thickness	Head Height		Key Width		Key Length	
	Max	Min Sharp	Min Flat	Max	Max	Min	Max	Min	Max	Min
<b>Regular</b>										
5/16	.592	.578	.563	.025	.233	.208	.156	.151	.185	.200
3/8	.661	.640	.625	.031	.239	.208			.187	.202
7/16	.776	.749	.734	.036	.282	.246			.227	.242
1/2	.892	.859	.844	.042	.328	.286			.267	.282
5/8	1.121	1.078	1.063	.050	.414	.364			.348	.363
3/4	1.277	1.234	1.219	.050	.440	.390			.375	.390
<b>Repair *</b>										
5/16	.554	.546	.531	.020	.201	.181	.156	.151	.158	.173
3/8	.623	.609	.594	.025	.207	.182			.158	.173
7/16	.738	.718	.703	.030	.250	.220			.199	.214
1/2	.853	.828	.813	.035	.295	.260			.239	.254
5/8	1.077	1.046	1.031	.040	.378	.338			.321	.336
3/4	1.234	1.203	1.188	.040	.404	.364			.347	.362

\* The letter "R" shall be shown on top of the repair head, to distinguish it from the regular head bolt.



# Standard Part

## Countersunk Plow Bolts - Inch Coarse Thread - Non-Preferred

**STPB270**  
**87366886**  
Rev U  
Page 7 of 8

**TABLE 6: Inch Plow No. 3, Grade 5, ZND**

Length L †	Nominal Bolt Diameter					
	5/16	3/8	7/16	1/2	5/8	3/4*
0.5						
0.75						
1	280762	86516317				
1.125*		86517871				
1.25	86511045	281004	86516318	280668		
1.5	86511741	281005	6644	280320		
1.75			86516319	280969		
2		280534	280723	280970	86548338	
2.25		9602219		280131	50238	
2.5				87021837		86606797
2.75					280540	
3						
3.25					86517892	
3.5				2425		
3.75						
4						
6					87564737	
	<b>5/16</b>	<b>3/8</b>	<b>7/16</b>	<b>1/2</b>	<b>5/8</b>	<b>3/4*</b>
Coarse Thread Pitch	18	16	14	13	11	10

\* Do not use these sizes in new designs † Parts above broken heavy line are always fully threaded  
 Parts below solid heavy line adhere to basic thread length defined in ANSI B18.9  
 Parts in between heavy lines may be fully threaded or have basic thread length, at the discretion of the manufacturer

**TABLE 7: Inch Plow Bolts, Miscellaneous**

Nominal Diameter (E)	Threads Per Inch	Length (L)	Head Style	Basic Thread Length (L <sub>T</sub> )	Grade	Finish	Part Number
0.312	18	1.75	3	0.875	2	ZND	87531
0.375	16	1.25	3	FULL	8	ZND	47609004
0.375	16	1.50	3	0.75	8	ZND	47704282
0.375	16	1.50	3	1.0	8	ZND	47609080
0.438	14	1	3	FULL	8	ZND	87301263
0.438	14	1.25	3	FULL	8	ZND	87495295
0.438 REPAIR	14	1.5	3	FULL	5	ZND	87495293
0.438 REPAIR	14	1.5	3	FULL	8	ZND	47651894
0.438 REPAIR	14	2.25	3	1.125	5	ZND	87315244
0.500 REPAIR	13	2	3	1.25	5	ZND	87495294
0.625	11	1.75	3	FULL	5	PLN	47518220
0.625	11	1.75	3	FULL	5	ZND	47518204
0.625	11	2	3	FULL	8	PLN	86635723
0.625 REPAIR	11	2.25	3	1.5	5	ZND	87495292

THE INFORMATION HEREON IS THE CONFIDENTIAL AND PROPRIETARY PROPERTY OF CNH INDUSTRIAL N.V. AND/OR ITS SUBSIDIARIES OR DIVISIONS. ANY USE, EXCEPT THAT FOR WHICH IT MAY BE LOANED, IS PROHIBITED.



# Standard Part

## Countersunk Plow Bolts - Inch Coarse Thread - Non-Preferred

**STPB270**  
**87366886**  
Rev U  
Page 8 of 8

**TABLE 7: Inch Plow Bolts, Miscellaneous (Continued)**

Nominal Diameter (E)	Threads Per Inch	Length (L)	Head Style	Basic Thread Length (L <sub>T</sub> )	Grade	Finish	Part Number
0.625	11	2.25	3	1.5	8	ZND	87672193
0.625	11	2.25	3	1.5	9	PLN	85801371
0.625	11	2.5	3	1.5	8	PLN	70931930
0.625	11	2.5	3	1.5	8	ZND	90335526
0.625	11	2.75	3	1.5	8	PLN	70931936
0.625	11	3.25	3	1.5	8	PLN	70932590
0.625	11	4	3	1.5	8	ZND	87645500
0.625	11	4.5	3	1.5	8	ZND	87645503
0.750	10	2	3	FULL	8	PLN	86624951
0.750	10	2	3	FULL	8	ZND	86624950
0.750	10	2.25	3	1.75	8	ZND	87672192
0.750	10	2.25	3	FULL	5	PLN	87698789
0.750	10	2.5	3	1.75	8	ZND	87547968
0.750	10	3	3	1.75	8	ZND	87552800
0.750	10	6.25	3	2.0	2	PLN	86900822
0.875	9	3	3	2.0	8	PHC	87495291
1	8	3.25	3 DOME	2.25	8	PLN	87607618
1	8	3.5	3 DOME	2.5	8	PLN	76088882
1.250	7	3.75	3 DOME		8	PLN	87698813