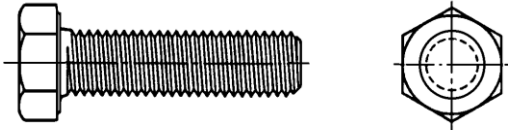


**REFERENCE DOCUMENTS**

CNH STPA020	Fastener Finishes and Material Specifications
CNH STPB510	Hex Metric Coarse 8.8 ZND Preferred Sizes
CNH STPB520	Hex Metric Coarse 8.8 ZND Non-preferred
ISO 4017	Hexagon head bolts – Product grades A and B Full Thread
ISO 888	Bolts screws and studs – Nominal lengths and thread lengths for general purpose bolts
ISO 898-1	Mechanical properties of fasteners made of carbon steel and alloy steel
ISO 6157-3	Fasteners - Surface Discontinuities

When a standard is referenced in a drawing or specification, it is understood that the reference is to the latest revision of the standard, unless stated otherwise.

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



Thread Length:	ISO 888
Material:	Class 8.8 ISO 898-1
Finish:	Zinc Dichromate Yellow (ZND) per STPA020 and MAT0310
Head dimensions:	ISO 4017

Typical part description for BOM's and CAD drawings

**BOLT, M12X30 FULL 8.8 ZND**

Bolts and screws shall be free from burrs, seams, laps, loose scale, irregular surfaces and any defects affecting their serviceability (ISO 6157-3).

AUTHOR	APPROVED BY	ECO	PART NUMBER
A KHAN	21SEP22	A KHAN	21SEP22
		35356814	<b>87027059</b>

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# Standard Part

## Hexagon Head Bolts - Metric Coarse Full Thread Class 8.8 ZND – Non-Preferred

STPB670

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### Head Size Issues.

At the time of the merger, Case was already using ISO standards as a basis for standard hardware parts, while New Holland was generally using DIN standards. CNH standard parts will be specified to ISO standards whenever available.

When we began to combine Case and New Holland standard parts there were systems issues preventing the use of the former Case alpha-numeric part numbers in the New Holland systems. To resolve this problem, it was determined to use the New Holland number as the surviving number whenever one was available. If an all numeric format number was not available, one was created.

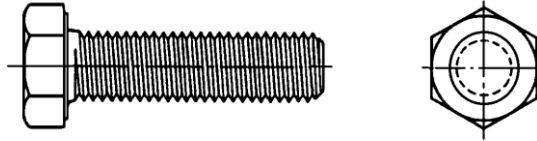
Cross references, were based on overall dimensions and performance characteristics. In the case of hex head screws, bolts and nuts, some dimensional mismatches resulted; namely head dimensions as follows:

Bolt size	Across flats dimension	
	Old DIN	CNH, ISO
M10	17	16
M12	19	18
M14	22	21
M22	32	34

Bolts in this standard, which may have formerly been supplied to these old across flats dimensions must now be delivered with the current ISO dimensions, unless explicit engineering deviation to use bolts to the old dimensions has been granted.

It is important that all bolts of a given diameter on a product be to the same head size. Therefore, bolts to the old and current standard should not be mixed.





Thread Length: ISO 888  
 Material: Class 8.8 ISO 898-1  
 Finish: Zinc Dichromate Yellow (ZND) per STPA020 and MAT0310  
 Specifications: ISO 4017

**Table 1 Continued. Non-Preferred Metric Hexagon Head Bolts**

Length	Bolt Nominal Diameter				
	18	20	24	30	48
10					
12					
14					
15					
16					
18					
20	15860221				
22	15860321	15861021			
25		2977292			
27					
28					
30		15861321			
32					
35	86629890	73172048	1608262		
40	15221821		84015757	1331504	
45	16162421				
50	16047021		11130621		
55	15221921	86503156			
60	11122121		15227921		
65	11122221	86601713	1570334		
70			43198	896683	
75		612903	11131121		
80		15224321	11131221	518107	2479690
85					
90		15224521		63243	
95					
100				1312407	
110		15224921			
150					
				84062747	
Bolt Nominal Diameter	<b>18</b>	<b>20</b>	<b>24</b>	<b>30</b>	<b>48</b>
Coarse thread pitch	2.5	2.5	3	3.5	5
Width across flats nom./ max	27	30	36	46	75
Width across corners min.	30.14	32.95	39.55	50.85	82.6
Head height max.	11.72	12.72	15.22	19.12	30.42



# Standard Part

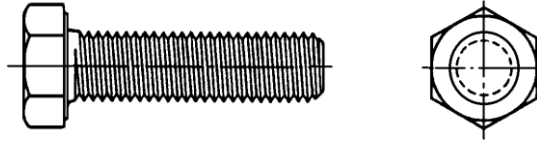
## Hexagon Head Bolts - Metric Coarse Full Thread Class 8.8 ZND – Non-Preferred

STPB670

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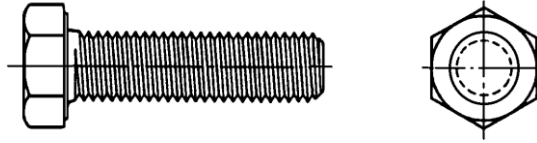
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Thread Length: ISO 888  
 Material: Class 8.8 ISO 898-1  
 Finish: Zinc Dichromate Yellow (ZND) per STPA020 and MAT0310  
 Specifications: ISO 4017

**Table 1 Continued. Non-Preferred Metric Hexagon Head Bolts**

Length	Bolt Nominal Diameter								
	6	8	10	12	14	16	18	20	24
120	328873		120118	321802		72182307		925477	
130		84022180	766540	325424					
140	2900717			412150					
150		51457458	212668			359211		87034470	
160		87639786	120212	412586		9835228			
170			91876407	51644864					
180			84057658	51410830					56687
190						9814566			
195			84071795						
200				90468828				2168314	
220						47435665			
240						84072773		9835096	
250			84077701						
251						389034			
260				51428432					
285				364818					
314						84036409			
360					356383	379281			
370			84072445			386290			
Bolt Nominal Diameter	<b>6</b>	<b>8</b>	<b>10</b>	<b>12</b>	<b>14</b>	<b>16</b>	<b>18</b>	<b>20</b>	<b>24</b>
Coarse thread pitch	1	1.25	1.5	1.75	2	2	2.5	2.5	3
Width across flats nom./ max	10	13	16	18	21	24	27	30	36
Width across corners min.	11.05	14.38	17.77	20.03	23.35	26.75	29.56	32.95	39.55
Head height max.	4.15	5.45	6.58	7.68	8.98	10.15	11.72	12.72	15.22



Thread length: ISO 888  
 Material: Class 8.8 ISO 898-1  
 Finish: Zinc Dichromate Yellow (ZND)  
 per  
 STPA020 and MAT0310  
 Specifications: DIN 933 (Withdrawn standard)

DIN 933 has been withdrawn, and is replaced by ISO 4017

**Table 2. Bolts with heads per obsolete DIN standards**

Do NOT use for new design

Length	Nominal Diameter		
	10	12	14
12	10857221		
14	10979321		
16	10979221	16055221	
18	11103021		
20	11106021	11112121	
22	11106121	11109221	
25	11106221	11112221	11115321
28	11106321	11112321	
30	11106421		
32	11106521		
35	11106621	11112621	
38	11106721		
40	16040821	11112821	11115821
45	11098621	11599521	11116021
50	16160121	15215721	16041121
55	15214721	933293	
60	15214821	15215821	15217821
65	15214921		
70	15215021	15216021	
75		15216121	15218121
80	15215221	15216221	
90	15215421		
100	15215621	15216621	
110			15218821
130		15217221	
140		15217321	
150		811213-4725	
Bolt Nominal Diameter	<b>10</b>	<b>12</b>	<b>14</b>
Coarse thread pitch	1.5	1.75	2
Width across flats nom./max	17	19	22
Width across corners min.	18.9	21.1	24.49
Head heightmax.	6.58	7.68	8.98