



Standard Part

Hexagon Head Bolts - Metric Coarse Thread Class 10.9 PHC - Non-Preferred

STPB640

87028195

Rev AF

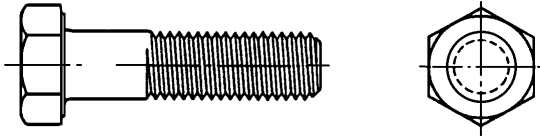
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REFERENCE DOCUMENTS

CNH STPA020	Fastener Finishes and Material Specifications
CNH STPB650	Hex Metric Coarse Full thread 10.9 PHC
ISO 4014	Hexagon head bolts – Product grades A and B
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 [PARTsolutions](#).



Thread Length:	ISO 888
Material:	Class 10.9 ISO 898-1
Finish:	Phosphate (PHC)
Head dimensions:	ISO 4014

Typical part description for BOM's and CAD drawings

BOLT, M12X30 10.9 PHC

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
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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.



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Table 1. Metric Hexagon Head Bolts With Shank– Phosphate Coated

Length	Bolt Nominal Diameter							
	6	8	10	12	14	16	20	24
45			87015535		92752117			
50	92662036		84361274	87015540	87612752			
55			84437627	87015724				
60			87015536	87378017		11119133		
65		51437497	87015587	86639228	84559732			
70	87026318	47971251	87015537	87015541		87015545		
75			86639212	87301326				
80			47866311	86634393		87015546	87015555	
85				87015725		87015726		
90						87015547	87015556	
100				84479329		87015548	87015557	
105			51670810					
110			87015538	87015542		87015549		
120			84129714			47507123	87015558	87015561
125						84543606		
130						87015550		
135				51668435				
150						86639230	87015559	
160			86639227	86639229		87015554	86624984	
170				87026184		87015727	84576088	
180				47389998			47461468	
190				84567301		87648723		
200								87015729
205				84567296				
210				47389991				
290							47577554	
340							47577582	
350						87301259		
370							47463422	
420						87301260		
Bolt Nominal Diameter	6	8	10	12	14	16	20	24
Coarse Thread Pitch	1	1.25	1.5	1.75	2	2	2.5	3
Length of thread for								
Bolt length to 125	18	22	26	30	34	38	46	54
Bolt length 126 to 200	24	28	32	36	40	44	52	60
Bolt length: >200	37	41	45	49	53	57	65	73
Width across flats nom./ max	10	13	16	18	21	24	30	36
Width across corners min.	11.05	14.38	17.77	20.03	23.35	26.75	32.95	39.55
Head height max.	4.16	5.45	6.58	7.68	8.98	10.18	12.72	15.22