

Round Head Short Square Neck Bolt, Grade 5, Zn Cr Plated, Coarse Threads

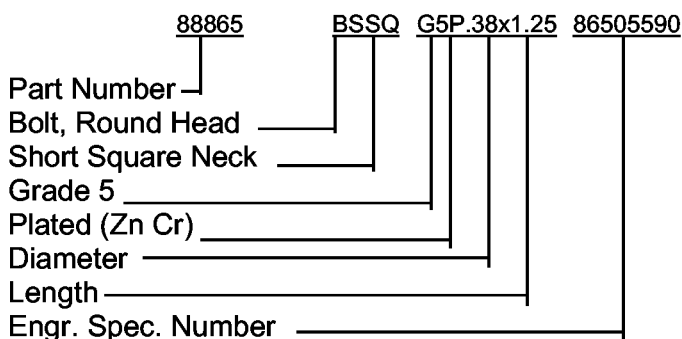
1. SCOPE

1.1 The fasteners defined by this specification are gold zinc chromate (Zn Cr) plated Grade 5 Round Head Short Square Necked Bolts with coarse threads.

1.2 The Short Square Neck Grade 5 Zn Cr plated bolt is the preferred Square Necked Bolt. Use the longer Square Necked Carriage Bolt when the longer neck length is needed to clear casting draft, to provide better engagement, or to engage more than one part. Use of a non-plated Carriage bolt is limited to welding applications only. Grade 8 Carriage Bolts are not readily available from Suppliers.

2. DESIGNATION

2.1 Typical call out on a drawing shall be:



NOTE: The above typical description is required for use in all company wide computer generated documents. The description on hand drawn assembly drawings should follow the same practice.

2.2 Table 2 contains the Preferred part numbers to be used in future designs. Table 3 lists the Non-Preferred part numbers which should not be used in future designs.

2.3 When requesting a new part number, refer to the instructions in standard 86505922 (FNHA-3-A-005.00).

3. RELATED SPECIFICATIONS

3.1 REFERENCE STANDARDS

86508305(FNHA-2-H-500.00) - Zinc Electroplating on Ferrous Surfaces

86505922(FNHA-3-A-005.00) - Assignment of Standard Part Numbers

ANSI/ASME B1.1 - Unified Inch Screw Threads

ANSI/ASME B18.5 - Round Head Bolts

SAE J429 - Mechanical and Material Requirements for Externally Threaded Fasteners

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

3.2 This standard replaces the following company standards.

New Holland
Versatile(Partial)

NA2.02.12
1-A-012

4. REQUIREMENTS

4.1 MATERIAL

4.1.1 Grade 5 according to SAE J429 - Medium carbon steel quenched and tempered steel with .28 to .55% Carbon, max. of .048% Phosphorus, and max. of .058% Sulfur.

4.1.2 Grade 5.2 according to SAE J429 - Low carbon martensite steel fully killed fine grain

					NAME	STD BSSQ G5 UNC ZNCR		
ALL	E	BJF	114706	5/00	 NEW HOLLAND	ENGINEERING SPECIFICATION		
ALL	D	BJF	111422	2/98				
ALL	C	BJF	110118	6/97				
3	B	BJF	108139	7/96	THE INFORMATION HEREON IS THE CONFIDENTIAL AND PROPRIETARY PROPERTY OF NEW HOLLAND N. V. AND/OR ITS SUBSIDIARIES. ANY USE, EXCEPT THAT FOR WHICH IT MAY BE LOANED, IS PROHIBITED.	FRAME 1	OF 5	
ALL	A	RE	104739	2/94		PART NUMBER		
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APP.	DRAWN		BJFJR	8/93		Document Sharing		
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quenched and tempered with .15 to .25% Carbon, min. of .74% Magnesium, max. of .048% Phosphorus, max. of .058% Sulfur, and min. of .0005% Boron.

4.1.3 The head markings shall be according to SAE J429 (See Table 1).

4.2 PLATING

The plating shall be gold Zinc Chromate (Zn Cr) Electroplate per FNHA-2-H-500.25 (86508316). Baking is not required, for hydrogen embrittlement relief.

4.3 MECHANICAL REQUIREMENTS

Grade	Nominal Diameter	Proof Load	Min. Tensile Strength	Min. Yield Strength	Max. Surface Hardness	Core Hardness Rockwell *	
	Inches	psi	psi	psi	Rockwell 30N	min.	max.
5	1/4 to 1	85000	120000	92000	54	C25	C34
	over 1 to 1 1/2	74000	105000	81000	50	C19	C30
5.2	1/4 to 1	85000	120000	92000	56	C26	C36

* To be Measured at 1/2 radius of thread transverse section at a distance of one diameter from the end of the product (average of four readings).

4.4 MECHANICAL DIMENSIONS

The bolt thread geometry shall conform to UNC-2A per ANSI/ASME B1.1 before plating. The general dimensions shall meet the requirements in Table 1.

4.5 SURFACE DISCONTINUITY

All products under this specification shall meet the Surface Discontinuities on General Application Bolts, Screws, and Studs per SAE J1061 requirements.

5.2 All materials supplied to this specification shall be equivalent in all characteristics to the material upon which approval was originally granted. Prior to making of any changes in the properties, composition, construction, color, dimensions, processing or labeling of the material originally approved under this specification, the supplier shall notify Purchasing and the affected Materials Engineering activity of the proposed changes and obtain the written acknowledgment of the Material Engineering activity. Test data, test samples and a new identification code are to be submitted with the request.

5. SUPPLIER RESPONSIBILITY

5.1 Suppliers shall perform the necessary test for sample approval for initial lots. After this approval, suppliers are not required to perform the specific tests, but ascertain that their product will conform to the specification limits. These specified requirements will be used to reconcile any disputed values.

	NAME				PART NUMBER	
	STD BSSQ G5 UNC ZNCR				86505590	
ENGINEERING SPECIFICATION				REV. E	FRAME 2	OF 5