

Round Head Short Square Neck Bolt, Class 8.8, Zn Cr Plated, Coarse Threads

1. SCOPE

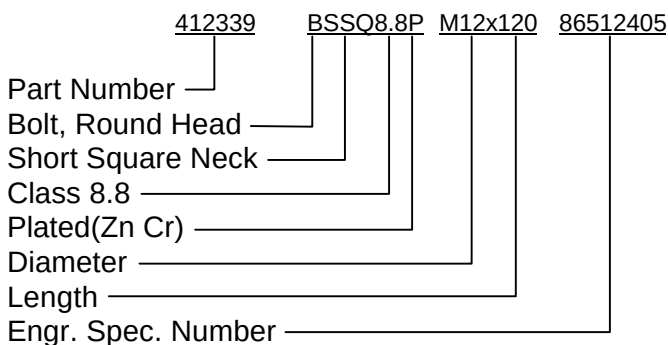
1.1 The fasteners defined by this specification are gold zinc chromate (Zn Cr) plated Class 8.8 Round Head Short Square Neck Bolts with coarse threads.

1.2 The Round Headed Short Square Necked Bolt Class 8.8 Zn Cr plated is 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.

1.3 Part numbers marked with (**) are controlled by Zedelgem standard or drawings. Although original control of the parts are by way of Zedelgem Engineering, standard or drawing, North American Engineering and Purchasing are to use the FNHA standard for part selection and purchasing.

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 be avoided 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-500.25)—Zinc Electroplating on Ferrous Surfaces

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

ANSI/ASME B18.5.2.1M—Round Head Short Square Neck Bolts

ISO 898/I—Mechanical Properties of Fasteners—Part I: Bolts, Screws, and Studs

ISO 965/II—ISO General Purpose Metric Screw Threads—Tolerances—Part 2: Limits of Sizes for General Purpose Bolt and Nut Threads—Medium Quality

ISO 8678—Round Head Short Square Neck Bolts

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

3.2 This standard replaces the following company standard:

New Holland
(For North American Use Only)

ES12.04

					NAME	STD BSSQ CL8.8 ZNCR		
					 NEW HOLLAND		ENGINEERING SPECIFICATION	
ALL	K	BJF	117881	19MAR02	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	J	BJF	116564	13SEP01				
ALL	H	BJF	115992	08JUN01				
FRAME NO.	REV	BY	ECN NO.	DATE				
APP. KHH 3/94	DRAWN		BJFJR	2/94			PART NUMBER	
	CHECKED							

4. REQUIREMENTS**4.1 MATERIAL**

4.1.1 Class 8.8 according to ISO 898/I—Medium carbon steel, quenched and tempered with the following chemical composition: .25% to .55% Carbon, max. .04% Phosphorus, max. .05% Sulfur, and min. of 450oC tempering temperature.

4.1.2 The head markings shall be according to ISO 898/I (see Table 1).

4.2 PLATING

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

4.3 MECHANICAL REQUIREMENTS

Class	Nominal Diameter	Proof Load	Min. Tensile Strength	Max. Surface Hardness	Core Hardness Rockwell *	
	mm	N/mm ²	N/mm ²	HV	Min.	Max.
8.8	≤ 16	580	800	320	C20	C30
	> 16	600	830	356	C23	C34

* Take measurement at 1/2 radius of threaded transverse section at a distance of one diameter from the end of the product (average of four readings).

4.4 MECHANICAL DIMENSIONS

The screw thread geometry shall be coarse pitch tolerance class 6g (medium class) according to ISO 965/II before plating. The general dimensions shall meet the requirements in Table 1. All other dimensions are to ISO 8678 or ANSI/ASME B18.5.2.1M.

4.5 SURFACE DISCONTINUITIES

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

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.

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 acknowledgement of the Materials Engineering activity. Test data, test samples and a new identification code are to be submitted with the request.

 NEW HOLLAND	NAME				PART NUMBER	
	STD BSSQ CL8.8 ZNCR				86512405	
ENGINEERING SPECIFICATION		REV. K	FRAME 2	OF 5	 Document Sharing Hub	