

## Hex Nuts, Grade 5, Zn Cr Plated, Coarse Threads

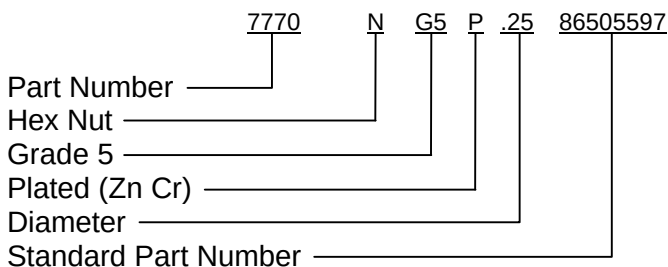
## 1. SCOPE

1.1 The fasteners defined by this specification are gold zinc chromate (Zn Cr) plated Grade 5 Hex Nut with coarse threads.

1.2 The Hex Nut Grade 5 Zn Cr plated is preferred item except for higher strength applications, welding applications, or where black color finish is needed.

## 2. DESIGNATION

2.1 Typical call out on a drawing shall be:



NOTE: The above 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 B18.2.2—Square and Hex Nuts

SAE J995—Mechanical and Material Requirements for Steel Nuts

SAE J122—Surface Discontinuities on Nuts

3.2 This standard replaces the following company standards:

|                       |          |
|-----------------------|----------|
| New Holland (Partial) | NA2.01.1 |
| Versatile (Partial)   | 1-A-035  |

## 4. REQUIREMENTS

## 4.1 MATERIAL

4.1.1 Grade 5 according to SAE J995—Steel with the following chemical composition: max. of .55% Carbon, min. of .30% Manganese, max. of .05 Phosphorus, and max. of .15% Sulfur.

4.1.2 Grade 5 Hex Nuts shall be marked according to SAE J995.

4.1.2.1 Style A Markings—consists of a dot and a radial or circumferential line at 120 degrees counterclockwise from the dot per SAE J995.

|           |         |     |         |         |                                                                                                                                                                                                                                                                                                        |                           |      |  |
|-----------|---------|-----|---------|---------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|------|--|
| ALL       | G       | BJF | 116564  | 18SEP01 | NAME                                                                                                                                                                                                                                                                                                   | STD N G5 UNC ZNCR         |      |  |
| ALL       | F       | BJF | 115375  | 11DEC00 |                                                                                                                                                                                                                                                                                                        |                           |      |  |
| ALL       | E       | BJF | 111422  | 2/98    | <div>NEW HOLLAND</div> <div>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.</div> | ENGINEERING SPECIFICATION |      |  |
| ALL       | D       | BJF | 110258  | 6/97    |                                                                                                                                                                                                                                                                                                        | FRAME 1                   | OF 4 |  |
| 4         | C       | BJF | 108931  | 1/97    |                                                                                                                                                                                                                                                                                                        |                           |      |  |
| 1         | B       | BJF | 104739  | 2/94    |                                                                                                                                                                                                                                                                                                        | PART NUMBER               |      |  |
| ALL       | A       | RE  | 104739  | 2/94    |                                                                                                                                                                                                                                                                                                        | Documents 86505597        |      |  |
| FRAME NO. | REV     | BY  | ECN NO. | DATE    |                                                                                                                                                                                                                                                                                                        | Document Sharing H        |      |  |
| APP.      | DRAWN   |     | BJFJR   | 8/93    |                                                                                                                                                                                                                                                                                                        |                           |      |  |
| KHH 9/93  | CHECKED |     |         |         |                                                                                                                                                                                                                                                                                                        |                           |      |  |

4.1.2.2 Style B Markings—consists of a dot at one corner of the nut and a radial line at the corner 120 degrees counterclockwise from the dot per SAE J995.

#### 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 | Nut Size Diameter   | Proof Load Stress | Hardness * |
|-------|---------------------|-------------------|------------|
|       | Inch                | PSI               | Rockwell   |
| 5     | 1/4" thru 1"        | 120000            | C32 max.   |
|       | over 1" thru 1-1/2" | 105000            | C32 max.   |

\* Hardness shall be determined on the top or bottom of the nut

#### 4.4 MECHANICAL DIMENSIONS

The Hex Nut thread geometry shall conform to UNC-2B per ANSI/ASME B1.1. The general dimensions shall meet the requirements in Table 1.

#### 4.5 SURFACE DISCONTINUITIES

All products under this specification shall meet the Surface Discontinuities on Nuts per SAE J122.

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

|                                                                                     |                   |  |  |           |             |         |
|-------------------------------------------------------------------------------------|-------------------|--|--|-----------|-------------|---------|
|  | NAME              |  |  |           | PART NUMBER |         |
|                                                                                     | STD N G5 UNC ZNCR |  |  |           | 86505597    |         |
| ENGINEERING SPECIFICATION                                                           |                   |  |  | REV.<br>G | FRAME<br>2  | OF<br>4 |