

Tooth Lockwashers, ZnCr Plated

1. SCOPE

1.1 The fasteners defined by this specification are gold Inc chromate (ZnCr) plated Type A Toothed Lockwashers which includes external toothed, internal toothed, external/internal toothed, and external countersunk toothed lockwashers.

1.2 Preferred lockwasher is Belleville Spring lockwasher ZnCr plated. For instance, where toothed lockwasher is needed, the following are guidelines to use.

1.2.1 External—most widely used because of having the largest radius. Fastener must cover teeth for best locking action.

1.2.2 Internal—use only for better appearance or to prevent snagging and with small screw head which will not contact teeth of external tooth lockwasher.

1.2.3 Countersunk External—use with countersunk head type fasteners with conical bearing surfaces.

1.2.4 External/Internal—use for larger bearing area over slots, etc., and for electrical bonding purposes.

2. DESIGNATION

2.1 The following are typical call outs on drawings:

2.1.1 External Toothed Lockwasher

Part Number 280295 LW EXT P .38 86505630
 Lockwasher
 External Toothed
 Plated (ZnCr)
 Nominal Washer Size
 Standard Part Number

2.1.2 Internal Toothed Lockwasher

Part Number 86529539 LW INT P .25 86505630
 Lockwasher
 Internal Toothed
 Plated (ZnCr)
 Nominal Washer Size
 Standard Part Number

2.1.3 External/Internal Toothed Lockwasher

Part Number 88538 LW EXT-INT P .25 86505630
 Lockwasher
 External/Internal Toothed
 Plated (ZnCr)
 Nominal Washer Size
 Standard Part Number

2.1.4 External Countersunk Toothed Lockwasher

Part Number 81545 LW EXT-CSK P .25 86505630
 Lockwasher
 External Toothed
 Plated (ZnCr)
 Nominal Washer Size
 Standard Part Number

					NAME	STD LW TOOTH ZNCR			
					 NEW HOLLAND			ENGINEERING SPECIFICATION	
ALL	H	BJF	117333	24JAN02	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 8
FRAME NO.	REV	BY	ECN NO.	DATE				PART NUMBER	
APP.	DRAWN		BJFJR	12/96				26505630 Documents Document Sharing H	
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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 Tables 5–8 list 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-500.00)—Zinc Electroplating on Ferrous Surfaces

86505922 (FNHA-3-A-005.00)—Assignment of Standard Part Numbers
ANSI/ASME B18.21.1—Lockwashers

3.2 This standard replaces the following company standards:

New Holland	NA2.03.4
New Holland	NA2.03.5
New Holland	NA2.03.6
New Holland	NA2.03.7
Versatile	1-A-034

4. REQUIREMENTS

4.1 MATERIALS

Carbon Steel

4.2 HARDNESS

Rockwell C 40-50 or equivalent. Decarburization shall be removed before testing hardness.

4.3 PLATING

The plating shall be gold Zinc Chromate (ZnCr) Electroplate 86508316 (FNHA-2-H-500.25) per 86508305 (FNHA-2-H-500.00). Baking (86512106) per 86508305 (FNHA-2-H-500.00) is required for hydrogen embrittlement relief.

4.4 The general dimensions shall meet the requirements according to Type A Toothed Lockwashers per ANSI/ASME B18.21.1 are as follows:

External Tooth	Table 1
Internal Tooth	Table 2
External/Internal Tooth	Table 3
External Countersunk Tooth	Table 4

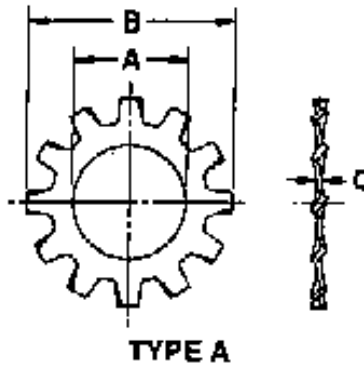
5. SUPPLIER

5.1 Suppliers shall perform the necessary test for sample approval 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 or Standards Engineering activity of the proposed changes and obtain the written acknowledgement of the Materials or Standards Engineering activity. Test data, test samples, and a new identification code are to be submitted with the request.

 NEW HOLLAND	NAME				PART NUMBER	
	STD LW TOOTH ZNCR				86505630	
ENGINEERING SPECIFICATION				REV. H	FRAME 2	OF 8

Table 1: External Tooth



		#6	#8	#10	#12	1/4	5/16	3/8	7/16	1/2	9/16	5/8	3/4
Inside Dia. (A)	Max.	.150	.176	.204	.231	.267	.332	.398	.464	.530	.596	.663	.795
	Min.	.141	.168	.195	.221	.256	.320	.384	.448	.513	.576	.641	.768
Outside Dia. (B)	Max.	.320	.381	.410	.475	.510	.610	.694	.760	.900	.985	1.070	1.260
	Min.	.305	.365	.395	.460	.494	.588	.670	.740	.880	.960	1.045	1.220
Thickness (C)	Max.	.020	.023	.025	.028	.028	.034	.040	.040	.045	.045	.050	.055
	Min.	.016	.018	.020	.023	.023	.028	.032	.032	.037	.037	.042	.047



NAME

STD LW TOOTH ZNCR

PART NUMBER

ENGINEERING SPECIFICATION

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86505630