

Specifying And Referencing Standards Numbers On Drawings

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1. INTRODUCTION

1.1 SCOPE.

This standard describes the procedure to be used when specifying or referencing FNHA standards on engineering drawings.

1.2. PURPOSE.

The purpose of this standard is to show by illustration the proper method of specifying various standards applications on engineering drawings. Some existing standards already include some of the drafting information contained in this standard, while other standards make reference to this standard for drafting application. The overall intent of this standard is to provide one document to serve as a quick drafting reference for the callout of required standards on drawings. An index arranged alphabetically according to the subject of the standard to be applied is provided at the beginning of this standard.

1.3 RESPONSIBILITY FOR DISTRIBUTION.

Where FNHA standards are specified on engineering drawings (whether in the parts list or in the applicable standards block) for parts that are purchased from suppliers, it is the responsibility of the New Holland Purchasing Department to assure that the supplier is furnished with current copies of those standards.

1.4 RELATED FNHA STANDARDS.

FNHA standards that may be applied to a subject shown in the index are included in the section of this standard wherein they apply.

2. SPECIFICATION OF STANDARDS

Applicable standards may be associated to parts by entering the standard into either the parts list or the applicable standards block of the drawing for the part. Usage of the parts list and applicable standards block is described in the remainder of this standard.

					NAME	STD REF STDS ON DWGS			
					 NEW HOLLAND			ENGINEERING SPECIFICATION	
ALL	L	BJF	115096	30SEP00					
ALL	K	BJF	113989	11/99					
ALL	J	BJF	113730	7/99					
FRAME NO.	REV	BY	ECN NO.	DATE	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	OF
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KHH 2/95	CHECKED							PART NUMBER	

2.1 ENTERING STANDARDS INTO THE PARTS LIST.

Where it has been determined to be a requirement to track the usage of a standard in the Worldwide Engineering Data Base (WEDB), the standard will be specified in the parts list of the drawing. The standard will receive a quantity of "0".

2.1.1 Part Name. Where a part drawing includes a parts list containing only standards with all quantities defined as "0", the name of the part will not include an "A" to designate it as an assembly. See FIG. 1

2.2 ENTERING STANDARDS INTO THE APPLICABLE STANDARDS BLOCK.

A standard that is applied to a part for information, interpretation, inspection, quality, etc. purposes and need not be tracked for usage will be entered into the applicable standards block of the drawing.

2.2.1 On A3, A2, A1, A0, and Roll size drawings the applicable standards block is aligned with the left border of the title block and the lower border of the drawing format. On A4 size drawings it is aligned with the upper border of the title block and the left border of the drawing format. See Appendix A at the rear of this standard for information on creation of the applicable standards block.

3. PLATING

3.1 RELATED FNHA STANDARDS

86508305(FNHA-2-H-500.00) - Zinc Electroplating on Ferrous Metals
 86508306(FNHA-2-H-501.00) - Zinc Phosphate Conversion Coating on Ferrous Surfaces
 86580475(FNHA-2-H-505.00) – Zinc Mechanical Coating on Ferrous Metals

3.2 SPECIFICATION OF PLATING STANDARDS ON DRAWINGS

All FNHA plating standards that are applied to a part must be entered into the parts list of the drawing for the part. The following guidelines apply

3.2.1 Single part number drawing. Except as noted in paragraph 3.2.1.1. A single part number drawing will be created for plated parts where both of the following conditions apply:

- (a) The part will always be plated at the level shown on the drawing (The part is not used in its unplated state in any application)
- (b) This part will only be plated to one plating standard.

This applies whether the part is an individual part, weld assembly, or assembly. See Figures 1 (a) and 1(b).

3.2.1.1 Where it is the practice of the design site creating the part to assign a part number to the unplated part for process purposes even though it has no usage unplated, a multiple part number drawing may be made as described in paragraph 3.2.2.1. See Figures 1(c) and 1(d).

3.2.2 Multiple Part Number Drawing. A multiple part number drawing will be created for plated parts where one or more of the following conditions apply:

- (a) The part is plated for one or more applications and is also used unplated in other applications.
- (b) The part will be plated to different plating specifications for different applications.

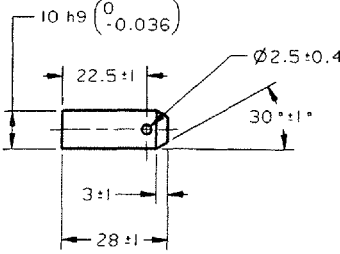
3.2.2.1 A drawing is made to create the unplated part (whether an individual part, weld assembly, or assembly). A part number is assigned to that part and entered into the part number space of the drawing format. An additional part block is added to the drawing above the title block for each plated variation of the part. Each part block shall contain a name and part number for the plated part along with a parts list containing the part number for the unplated part and the applied plating specifications. See Figure 2.

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	STD REF STDS ON DWGS				86511126	
ENGINEERING SPECIFICATION				REV. L	FRAME 2	OF 23

3.2.3 Designation of Plating. Either standard 86508305 (FNHA-2-H-500.00), 86508306 (FNHA-2-H-501.00), or 86580475 (FNHA-2-H-505.00) (depending on the desired coating) is used as a base to define the plating requirements. The appropriate part number should be selected from Table 3 of the standard and entered into the part number space of the parts list. The corresponding description should be entered into the description space. See Figures 1 and 2.

3.2.4 Baking. Where baking is a requirement, the appropriate part number shall be selected from table 3 of either standard 86508305 (FNHA-2-H-500.00) or 86508306 (FNHA-2-H-501.00) (whichever applies) and entered into the part number space in the parts list. The corresponding description should be entered into the description space. See Figure 3.

Figure 1(a)



1	0	86508316	ZN YCR 5 STD 86508305
☒ METRIC DIMENSIONS IN MILLIMETERS	WEIGHT IN KG ☐ LB ☐	DESIGN	ITEM QUANTITY U/M PART NUMBER DESCRIPTION
☐ INCH DIMENSIONS IN INCHES	REF. PART	AMERICAN MATERIAL	AMER MAT NOM. SIZE
☐ FIRST ANGLE PROJECTION	DO NOT SCALE	C. D. ROUND AISI 1018	
☒ THIRD ANGLE PROJECTION	The information hereon is confidential	THE FOLLOWING TOLERANCES APPLY UNLESS OTHERWISE SPECIFIED.	
	NEW HOLLAND NORTH AMERICA, INC	90° SHEET METAL BENDS = 12°	
	and/or	MACHINED SURFACE FINISH 5 3/METRIC 25g/INCH	
	NEW HOLLAND CANADA, LTD	EXCEPT FOR DRILLED HOLES	
	Any use, except that for which it may be loaned, is prohibited	POSITION TOLERANCES ± AND RELATED DATUMS APPLY AT MMC. OTHER GEOMETRIC TOLERANCES APPLY RFS.	
		COMMERCIAL TOLERANCES APPLY TO SECTION DIMENSIONS OF RAW MATERIAL	
REV.	REL	NAME PIN	CAD
BY	ECN NO.	FRAME 1	OF 1
DATE		PART NUMBER	
APPROVED MATERIAL	APPROVED	DESIGN MFR.	APPROVED MATERIAL
			LEXICON CODE
		NEW HOLLAND	
		87654326	

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	NAME			PART NUMBER		
	STD REF STDS ON DWGS			86511126		
ENGINEERING SPECIFICATION			REV. L	FRAME 3	OF 23	

Figure 1(b)

3	0	86508339	ZN PH STD 86508306
2	1	87654320	ANGLE
1	1	87654321	PIN

☒ METRIC DIMENSIONS IN MILLIMETERS	WEIGHT IN Kg ☒ LB	DESIGN	ITEM	QUANTITY	U/M	PART NUMBER	DESCRIPTION	AMER. MAT NOM. SIZE
☐ INCH DIMENSIONS IN INCHES			AMERICAN MATERIAL					
☐ FIRST ANGLE PROJECTION	REF. PART							
☒ THIRD ANGLE PROJECTION	DO NOT SCALE							
The information herein is confidential NEW HOLLAND NORTH AMERICA, INC. and/or NEW HOLLAND CANADA, LTD. Any use, except that for which it may be loaned, is prohibited.			THE FOLLOWING TOLERANCES APPLY UNLESS OTHERWISE SPECIFIED. 90° SHEET METAL BENDS ± 12° FEATURES SHOWN ALIGNED OR AT 90° ± 4° POSITION TOLERANCES ϕ AND RELATED DATUMS APPLY AT MMC OTHER GEOMETRIC TOLERANCES APPLY RFS. COMMERCIAL TOLERANCES APPLY TO SECTION DIMENSIONS OF RAW MATERIAL					
REL. BY ECN NO. DATE			NAME ANGLE WA			CAD	FRAME 1	OF 1
REV. BY ECN NO. DATE			DRAWN			CHECKED	PART NUMBER	
APPROVED MATERIAL			APPROVED			DESIGN MOR.	APPROVED MATERIAL LEXICON CODE	
			NEW HOLLAND			87654327		

CLASS NO.

Figure 1(c)

2	0	86508316	ZN YCR 5 STD 86508305
1	1	87654319	PIN

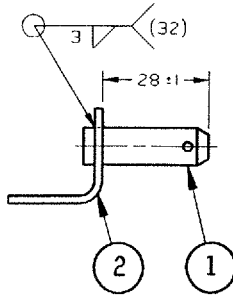
ITEM	QUANTITY	U/M	PART NO.	DESCRIPTION
NAME PIN A				
				87654326

☒ METRIC DIMENSIONS IN MILLIMETERS	WEIGHT IN Kg ☒ LB	DESIGN	ITEM	QUANTITY	U/M	PART NUMBER	DESCRIPTION	AMER. MAT NOM. SIZE
☐ INCH DIMENSIONS IN INCHES			AMERICAN MATERIAL					
☐ FIRST ANGLE PROJECTION	REF. PART							
☒ THIRD ANGLE PROJECTION	DO NOT SCALE							
The information herein is confidential NEW HOLLAND NORTH AMERICA, INC. and/or NEW HOLLAND CANADA, LTD. Any use, except that for which it may be loaned, is prohibited.			C. D. ROUND AISI 1018					
			THE FOLLOWING TOLERANCES APPLY UNLESS OTHERWISE SPECIFIED. 90° SHEET METAL BENDS ± 12° FEATURES SHOWN ALIGNED OR AT 90° ± 4° POSITION TOLERANCES ϕ AND RELATED DATUMS APPLY AT MMC OTHER GEOMETRIC TOLERANCES APPLY RFS. COMMERCIAL TOLERANCES APPLY TO SECTION DIMENSIONS OF RAW MATERIAL					
REL. BY ECN NO. DATE			NAME PIN			CAD	FRAME 1	OF 1
REV. BY ECN NO. DATE			DRAWN			CHECKED	PART NUMBER	
APPROVED MATERIAL			APPROVED			DESIGN MOR.	APPROVED MATERIAL LEXICON CODE	
			NEW HOLLAND			87654319		

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	NAME				PART NUMBER			
	STD REF STDS ON DWGS				86511126			
	ENGINEERING SPECIFICATION				Documents			
REV. L		FRAME 4		OF 23		Document Sharing Hub		

Figure 1(d)



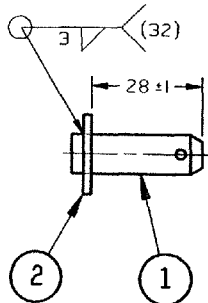
2	0		86508339	ZN PH STD 86508306
1	1		87654318	ANGLE WA
ITEM	QUANTITY	U/M	PART NO.	DESCRIPTION
NAME ANGLE WA				87654327

2	1		87654320	ANGLE
1	1		87654321	PIN

☒ METRIC DIMENSIONS IN MILLIMETERS		WEIGHT IN Kg ☒ LB		DESIGN	
☐ INCH DIMENSIONS IN INCHES		REF. PART		AMERICAN MATERIAL	
☐ FIRST ANGLE PROJECTION		DO NOT SCALE		AMER. MAT NOM. SIZE	
☒ THIRD ANGLE PROJECTION		The information herein is confidential		THE FOLLOWING TOLERANCES APPLY UNLESS OTHERWISE SPECIFIED.	
		NEW HOLLAND NORTH AMERICA, INC. and/or		90° SHEET METAL BENDS ± 12°	
		NEW HOLLAND CANADA, LTD.		MACHINED SURFACE FINISH 6.3 METRIC 250 INCH	
		Any use, except that for which it may be loaned, is prohibited.		EXCEPT FOR DRILLED HOLES	
				POSITION TOLERANCES ± AND RELATED DATUMS APPLY AT MMC OTHER GEOMETRIC TOLERANCES APPLY RFS	
				COMMERCIAL TOLERANCES APPLY TO SECTION DIMENSIONS OF RAW MATERIAL	
REV. BY ECN NO. DATE		APPROVED DESIGN MOD.		NAME ANGLE WA CAD FRAME 1 OF 1	
APPROVED MATERIAL		APPROVED		PART NUMBER	
				87654318	

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Figure 2



2	0		86508339	ZN PH STD 86508306
1	1		87654323	PIN WA
ITEM	QUANTITY	U/M	PART NO.	DESCRIPTION
NAME PIN WA				87654325

2	0		86508316	ZN YCR 5 STD 86508305
1	1		87654323	PIN WA
ITEM	QUANTITY	U/M	PART NO.	DESCRIPTION
NAME PIN WA				87654324

2	1		87654322	WASHER
1	1		87654321	PIN

☒ METRIC DIMENSIONS IN MILLIMETERS		WEIGHT IN Kg ☒ LB		DESIGN	
☐ INCH DIMENSIONS IN INCHES		REF. PART		AMERICAN MATERIAL	
☐ FIRST ANGLE PROJECTION		DO NOT SCALE		AMER. MAT NOM. SIZE	
☒ THIRD ANGLE PROJECTION		The information herein is confidential		THE FOLLOWING TOLERANCES APPLY UNLESS OTHERWISE SPECIFIED.	
		NEW HOLLAND NORTH AMERICA, INC. and/or		90° SHEET METAL BENDS ± 12°	
		NEW HOLLAND CANADA, LTD.		MACHINED SURFACE FINISH 6.3 METRIC 250 INCH	
		Any use, except that for which it may be loaned, is prohibited.		EXCEPT FOR DRILLED HOLES	
				POSITION TOLERANCES ± AND RELATED DATUMS APPLY AT MMC OTHER GEOMETRIC TOLERANCES APPLY RFS	
				COMMERCIAL TOLERANCES APPLY TO SECTION DIMENSIONS OF RAW MATERIAL	
REV. BY ECN NO. DATE		APPROVED DESIGN MOD.		NAME PIN WA CAD FRAME 1 OF 1	
APPROVED MATERIAL		APPROVED		PART NUMBER	
				87654323	

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NAME

STD REF STDS ON DWGS

ENGINEERING SPECIFICATION

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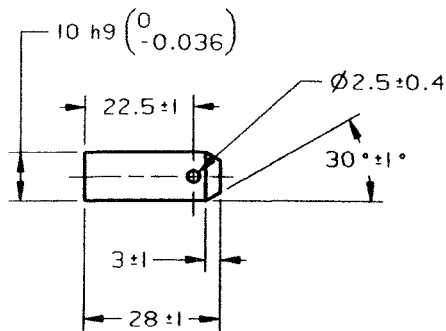
86511126



Documents

Document Sharing Hub

Figure 3



2	0	86512106	BAKE PER STD 86508305
1	0	86508316	ZN YCR 5 STD 86508305

☒ METRIC DIMENSIONS IN MILLIMETERS	WEIGHT IN KG ☒ LB	DESIGN	ITEM	QUANTITY	U/M	PART NUMBER	DESCRIPTION
☐ INCH DIMENSIONS IN INCHES			AMERICAN MATERIAL				AMER. MAT NOM. SIZE
☐ FIRST ANGLE PROJECTION	REF. PART						
☒ THIRD ANGLE PROJECTION	DO NOT SCALE		C. D. ROUND AISI 1045				
The information hereon is confidential		THE FOLLOWING TOLERANCES APPLY UNLESS OTHERWISE SPECIFIED.					
NEW HOLLAND NORTH AMERICA, INC.		90° SHEET METAL BENDS : 12°					
and/or		MACHINED SURFACE FINISH 6.3/METRIC 250/INCH					
NEW HOLLAND CANADA, LTD.		EXCEPT FOR DRILLED HOLES					
Any use, except that for which it may be loaned, is prohibited.		POSITION TOLERANCES AND RELATED DATUMS APPLY AT MMC. OTHER GEOMETRIC TOLERANCES APPLY RFS.					
		COMMERCIAL TOLERANCES APPLY TO SECTION DIMENSIONS OF RAW MATERIAL					
REL	ECN NO.	DATE	NAME	PIN	CAD	FRAME 1	OF 1
REV.	BY	ECN NO.	DATE	DRAWN	CHECKED	PART NUMBER	
APPROVED MATRICAL			APPROVED	DESIGN MOR.	APPROVED MATERIAL	LEXICON CODE	
			NEW HOLLAND			87654328	

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4. PAINTING

4.1 RELATED FNHA STANDARDS

86505483(FNHA-2-J-005.00) - Color Designation

86509537(FNHA-2-J-061.00) - Alkyd Paint Performance

86511034(FNHA-2-J-062.00) - Premium Paint Performance

86511032(FNHA-2-J-063.00) - Powder Coating Paint Performance

86511033(FNHA-2-J-064.00) - Epoxy Paint Performance

86529862(FNHA-4-A-007.00) - Surface Requirements

4.2 SPECIFICATION OF PAINT STANDARDS ON DRAWINGS

All painted parts shall be controlled by a paint color and a paint performance standard. These standards are entered into the parts list on the drawing for the part to which they are applied. The following guidelines apply.

4.2.1 Single Part Number Drawing. Except as noted in section 4.2.1.1, a single part number drawing will be created for painted parts where both of the following conditions apply:

- The part will always be painted at the level shown on the drawing (The part is not used in its unpainted state in any application)
- The part will only be painted to one paint color and performance.

This applies whether the part is an individual part, weld assembly, or assembly. See Figures 4(a) and 4(b).

4.2.1.1 Where it is the practice of the design site creating the part to assign a part number to the unpainted part for process purposes even though it has no usage unpainted, a multiple part number drawing may be made as described in section 4.2.2.1. See Figures 4(c) and 4(d).

	NAME				PART NUMBER	
	STD REF STDS ON DWGS				86511126	
ENGINEERING SPECIFICATION				REV. L	FRAME 6	OF 23

4.2.2 Multiple Part Number Drawing. A multiple part number drawing will be created for painted parts where one or more of the following conditions apply:

- (a) The part is painted for one or more applications and is also used unpainted in other applications.
- (b) The part will be painted to different color and/or performance specifications for different applications.

NOTE: Any components used in the painted assembly should not contain any 3-D graphics other than the weld assembly number that is the mother number and shown in the title block. The painted assembly number is not a graphic model and cannot be activated on the graphics system. It is possible that a specific 2-D graphics part, such as a decal, could be added to the painted assembly. Decals are drawn in 2-D and are not inserted into graphics layouts and not used by Tool Design. If requiring additional parts to be added to the parts list of the painted assembly that contains 3-D graphics models, the multi-part number option will not apply and a separate drawing will need to be created.

4.2.2.1 A drawing is made to create the unpainted part (whether an individual part, weld assembly, or assembly). A part number is assigned to that part and is entered into the part number space in the drawing format. An additional part block is added to the drawing above the title block for each painted variation of the part. Each part block shall contain a name and part number for that painted part along with a parts list containing the part number of the unpainted part and the applied paint color and performance specification. See Figure 5.

4.2.3 Designation of Color. Standard 86505483 (FNHA-2-J-005.00) is used as the base to define the color of the paint. The part number for the desired color should be selected from Table 1 and entered into the part number space in the parts list. The corresponding description should be entered into the description space. See Figures 4 and 5.

4.2.4 Designation of Performance. The part number for the paint performance standard for the desired type of paint (Alkyd, Premium, Powder Coating, Epoxy) should be entered into the part number space in the parts list. The corresponding description should be entered into the description space. See Figures 4 and 5.

4.2.5 Designation of Surface Requirements. Standard 86529862 (FNHA-4-A-007.00) is used to define acceptance levels for surface finish of painted parts. The surface requirements should be specified on the Engineering drawing as shown in Figure 6(d). When not specified on the Engineering drawings, surface finish shall be considered as a "B" surface.

4.2.6 Where all the components of a machine are not painted prior to assembly, a drawing named "PAINT SPECIFICATIONS" should be added to the specifications list for the complete machine, as shown in the illustration below. The same applies to dealer installed options and attachments.

GT	SP	ST	PART NUMBER	R E V	QUANTITY	ITEM	NAME	BRK DN	DWG SIZE	R /	G U A M
			B 9861546	E			650 RB TWINE AM MY94	N			
			F 684668	C	1		HITCH WA	B			PC
			F 9614800	K	1		COMMON GROUP	N			PC
			F 9614809	Q	1		SHIELD+CONTROL GP	R			PC
			F 9614810	V	1		SIGN GROUP	N			PC
			F 9804952	O	1		AUTO WRAP TWINE A	R			PC
			F 9825830	J	1		STD PICKUP GROUP	N			PC
			F 86509422	B	1		MAIN FRAME WA - AW	N			PC
			F 87654321	B	1		PAINT SPECIFICATIONS	N			PC

4.2.6.1 A word drawing may be used where it is sufficient to clearly define the paint requirements for the complete machine, as shown in Figure 6(a) and 6(b). The color and performance standards for each paint application performed by the New Holland facility shall be included in the parts list.

4.2.6.2 A pictorial drawing must be made when a word drawing will not clearly define the specific details of how a complete machine must be painted. See Figure 6(c). The paint color and performance standards for each paint application shall be included in the parts list of the drawing along with a note relating it to its application.

	NAME				PART NUMBER	
	STD REF STDS ON DWGS				86511126	
ENGINEERING SPECIFICATION				REV. L	FRAME 7	OF 23