

High Strength Low-Alloy Steel Hot Rolled Sheet A715, Grade 80**1. SCOPE**

1.1 This standard is intended to cover high strength low-alloy (HSLA) hot-rolled steel sheet and strip with improved formability used in FNHA operations.

1.2 HSLA steel has the following physical characteristics: good notch toughness, high strength to weight ratio, good weather resistance and good weldability.

2. DESIGNATION**2.1 NH ONLY**

HR Sheet or Strip ASTM A715 GR80

3. RELATED SPECIFICATIONS**3.1 REFERENCE STANDARDS**

ASTM A572—High Strength Low-Alloy Columbium—Vanadium Steels of Structural Quality

ASTM A715—Steel Sheet and Strip Hot Rolled and Cold-Rolled, High Strength Low-Alloy with Improved Formability

86050115 (FNHA 2-A-026.00)—General Requirements for Carbon and High Strength Low-Alloy Hot-Rolled Sheet, Hot-Rolled Strip and Cold-Rolled Sheet Steel

86566169 (FNHA-2-A-011.01)—Raw Materials for STD A715 GR 80 HR SH

4. REQUIREMENTS**4.1 CHEMICAL REQUIREMENTS**

Elements	Percent Analysis
Carbon, max	0.15
Manganese, max	1.65
Phosphorus, max	0.020
Sulfur, max	0.025

These steels shall also contain one or more of the following elements: vanadium, titanium, or columbium.

4.2 MECHANICAL REQUIREMENTS

Tensile Strength, min. psi (MPa)	90,000 (620)
Yield Point, min. psi (MPa)	80,000 (550)
Elongation in 2 in (50 mm), Hot-Rolled, min%:	18

4.3 BEND REQUIREMENTS

Bend Radius to Thickness Ratio	
Transverse Specimen	Longitudinal Specimen
2	2

					NAME	STD A715 GR80 HR SH			
					 NEW HOLLAND			ENGINEERING SPECIFICATION	
ALL	E	TH	116097	31MAY01					
ALL	D	TH	113572	6-99					
ALL	C	RE	111807	4-98					
FRAME NO.	REV	BY	ECN NO.	DATE	THE INFORMATION HEREON IS THE CONFIDENTIAL AND PROPRIETARY PROPERTY OF NEW HOLLAND N.V. AND ITS SUBSIDIARIES. ANY USE, EXCEPT THAT FOR WHICH IT MAY BE LOANED, IS PROHIBITED.			FRAME	OF
APP.	DRAWN	TH	3-98					1	2
KH 4-08-98	CHECKED							PART NUMBER	

4.4 DIMENSIONAL TOLERANCES

HSLA steel shall conform to dimensional tolerances shown in 86050115 (FNHA-2-A-026.00) Appendix A6.

4.5 FINISH AND APPEARANCE

4.5.1 Surface Finish

Hot-Rolled—Unless otherwise specified, hot-rolled material shall have an as-rolled, not pickled surface finish. When required, material may be specified to be pickled or blast-cleaned.

4.5.2 Edges

Hot-Rolled—In the as-rolled condition, the material has mill edges. Pickled or blast-cleaned material has cut edges. When required, as-rolled material may be specified to have cut edges.

4.5.3 Oiling

Hot-Rolled—Unless otherwise specified, hot-rolled as-rolled material shall be furnished dry, and hot-rolled pickled or blast-cleaned material shall be furnished oiled. When required, pickled or blast-cleaned material may be specified to be furnished dry, and as-rolled material may be specified to be furnished oiled.

Copyright New Holland
 Provided by IHS Markit under license with NH
 No reproduction or networking permitted without license from IHS
 Full document details: NH 9848074 REV E 2001

	NAME				PART NUMBER	
	STD A715 GR80 HR SH				9848074	
ENGINEERING SPECIFICATION		REV. E	FRAME 2	OF 2		