

## RAW MATERIALS / FERROUS MATERIALS

FNHA-2-A-905.00

## Wire Rope

## 1. SCOPE

This specification covers Improved Plow Steel and Aircraft Wire Rope.

## 2. APPLICABLE STANDARDS

This standard replaces the following company standard:

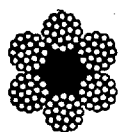
New Holland

2.27.1

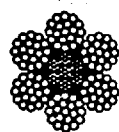
## 3. REQUIREMENTS

## 3.1 MATERIAL

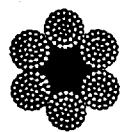
## 3.1.1 Improved Plow Steel



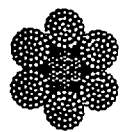
6 x 19 FC



6 x 19 IWRC

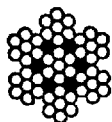


6 x 37 FC



6 x 37 IWRC

## 3.1.2 Galvanized Aircraft Steel (for High Strength)

7 x 7  
Galv. Aircraft7 x 19  
Galv. Aircraft

## 3.2 CONSTRUCTION

## 3.2.1 Fiber Core (FC)

## 3.2.2 Independent Wire Rope Core (IWRC)

## 3.2.3 Wire Strand Core (WSC)

## 3.3 STRANDING

## 3.3.1 Improved Plow Steel - 6 x 19, 6 x 37

## 3.3.2 Galvanized Aircraft Steel - 7 x 7, 7 x 19

## NOTE: 6 x 19

L Average number of wires per strand  
Number of strands

The more wires per strand, the greater flexibility for a given diameter. In class 6 x 19, the number of wires per strand can vary from 15 to 26 and Class 6 x 37 can vary from 27 to 49. Breaking strength is the same for all ropes of the same size in each class.

NOTE: Galvanized Aircraft Cable has a center strand of the same construction as the six outer strands - Wire Strand Core (WSC).

NOTE: Generally all wires in each cable are of the same diameter. When special requirements of size, flexibility, and/or strength exist, special constructions are available. The "Warrington" is a construction which has one layer of each strand composed of alternating large and small wires. "Type W" construction has small filler wires between outer and inner layers. These constructions are used where flexibility and abrasion are a major factor. Rope suppliers should be consulted for the proper specification of special construction.

|            |         |     |         |         |                                                                                                                                                                                                        |               |                           |      |
|------------|---------|-----|---------|---------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|---------------------------|------|
|            |         |     |         |         | NAME                                                                                                                                                                                                   | STD WIRE ROPE |                           |      |
|            |         |     |         |         |  <b>NEW HOLLAND</b>                                                                                                 |               | ENGINEERING SPECIFICATION |      |
| ALL        | C       | RLF | 110244  | JUL 97  |                                                                                                                                                                                                        |               | FRAME 1                   | OF 3 |
| ALL        | B       | RLF | 109326  | 970226  |                                                                                                                                                                                                        |               | PART NUMBER               |      |
| ALL        | A       | RE  | 107244  | 960111  |                                                                                                                                                                                                        |               | 86529779                  |      |
| FRAME NO.  | REV     | BY  | ECN NO. | DATE    | THE INFORMATION HEREON IS THE CONFIDENTIAL AND PROPRIETARY PROPERTY OF NEW HOLLAND NORTH AMERICA, INC. AND/OR NEW HOLLAND CANADA, LTD. ANY USE, EXCEPT THAT FOR WHICH IT MAY BE LOANED, IS PROHIBITED. |               |                           |      |
| APP.       | DRAWN   |     | NE      | SEPT 96 |                                                                                                                                                                                                        |               |                           |      |
| KHH JAN 96 | CHECKED |     |         |         |                                                                                                                                                                                                        |               |                           |      |

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## 3.4 BREAKING STRENGTHS (lbs)

TABLE 1 - IMPROVED PLOW STEEL

| Rope Diameter | Class 6 x 10 |        | Class 6 x 37 |        |
|---------------|--------------|--------|--------------|--------|
|               | FC           | IWRC   | FC           | IWRC   |
| 1/4           | 5,480        | 5,880  | 5,180        | 5,560  |
| 5/16          | 8,520        | 9,160  | ---          | ---    |
| 3/8           | 12,200       | 13,120 | 11,540       | 12,400 |

TABLE 2 - GALVANIZED AIRCRAFT STEEL

| Rope Diameter | Class 7 x 7 WSC | Class 7 x 19 WSC |
|---------------|-----------------|------------------|
| 3/32          | 920             | ---              |
| 1/8           | 1,700           | ---              |
| 5/32          | 2,600           | ---              |
| 3/16          | ---             | 4,200            |
| 5/16          | ---             | 9,800            |
| 3/8           | ---             | 14,400           |

**NOTE:** The diameter of a wire rope is the diameter of a circle that will enclose it.

## 4. DESIGNATION

## 4.1 Plain Wire Rope - No parts or assembly.

Word drawing is sufficient.

## 4.1.1 Name - "WIRE ROPE"

## 4.1.2 Material - "PURCHASED"

## 4.1.3 Body

**Example 1:** "1/4 Dia. (6 x 19 Class) 6 x 25, 67 in, long.

Improved Plow Steel IWRC  
Performed Right Regular Lay  
Breaking Strength 5880 lbs."

**Example 2:** "3/16 Dia. (7 x 19 Class) 18 in. long  
Galvanized Aircraft Steel WSC  
Performed Right Regular Lay  
Breaking Strength 4200 lbs".

## 4.2 Rope with additional parts or fabrication.

4.2.1 For parts purchased completely assembled, detailed drawings are not required for the included parts. Drawing dimensions should cover all special requirements, thimble size, loop size, rope construction (as in Section 4.1.3), etc. See Figure 1.

4.2.2 For parts assembled by New Holland, a parts list shall be included on the assembly drawing and detail drawings of the components are required

|                                                                                                    |               |  |           |             |         |  |
|----------------------------------------------------------------------------------------------------|---------------|--|-----------|-------------|---------|--|
| <br>NEW HOLLAND | NAME          |  |           | PART NUMBER |         |  |
|                                                                                                    | STD WIRE ROPE |  |           | 86529779    |         |  |
| ENGINEERING SPECIFICATION                                                                          |               |  | REV.<br>C | FRAME<br>2  | OF<br>3 |  |