

BOOM HOIST REEVING FOR 16 PART LINE  
BOOM HOIST WIRE ROPE, 1230 FT. LG., 1 1/8" DIA.  
6x31 REGULAR LAY (W.R.C. IMPROVED FLOW STEEL  
PREFORMED, 719119)

| RECOMMENDED FOR VARIOUS BOOM LENGTHS |         |       |             |             |                             |
|--------------------------------------|---------|-------|-------------|-------------|-----------------------------|
| DWG. NO.                             | 1813662 | 49360 | 276681      | 276682      | 73907                       |
| BOOM LENGTH                          | 20'     | 40'   | PENDANT 20' | PENDANT 40' | WIRE ROPE ROLLER GUIDE ASSY |
| 80 BASIC                             | 0       | 0     | 0           | 0           | 1                           |
| 100'                                 | 1       | 0     | 4           | 0           | 2                           |
| 120'                                 | 0       | 1     | 0           | 4           | 3                           |
| 140'                                 | 1       | 1     | 4           | 4           | 4                           |

SEE OPTIONAL PARTS (L)

| BILL OF MATERIAL (FOR BASIC BOOM) |      |                                  |            |
|-----------------------------------|------|----------------------------------|------------|
| NO.                               | QTY. | DESCRIPTION                      | REMARKS    |
| 2                                 | 2    | BOOM SIGN                        |            |
| 1                                 | 1    | WIRE ROPE GUIDE                  |            |
| 15053                             | 1    | WASHER                           |            |
| 43466                             | 1    | MAST ASSEMBLY                    |            |
| 30952                             | 1    | BOOM BUTT (40'-6")               |            |
| 30958                             | 1    | BOOM TOP (39'-6")                | SEE NOTE 5 |
| 72862                             | 2    | LINK                             |            |
| 137298                            | 4    | LINK                             |            |
| 72912                             | 2    | PIN                              |            |
| 73646                             | 1    | TIMBER GUARD                     |            |
| 17328                             | 1    | END FLATE                        |            |
| 90479                             | 1    | WIRE ROPE GUIDE-47" DIA. SHEAVE  | SEE NOTE 1 |
| 90687                             | 1    | UPPER BOOM POINT ASSEMBLY-SHEAVE | SEE NOTE 1 |
| 181361                            | 1    | MAST SUPPORT ASSEMBLY            |            |
| 180249                            | 1    | LOWER EQUALIZER ASSEMBLY         |            |
| 180250                            | 1    | UPPER EQUALIZER ASSEMBLY         |            |
| 276683                            | 4    | BASIC PENDANT-DWG. 72490         | 25'-0" LG. |
| 137296                            | 4    | PIN                              |            |
| 74681                             | 2    | TIMBER GUARD                     |            |

| OPTIONAL PARTS |        |                                            |                                  |
|----------------|--------|--------------------------------------------|----------------------------------|
| 1              | 24698  | WIRE ROPE ANCHOR JOINT FOR 3 PART LINE     |                                  |
| 1              | 33659  | WIRE ROPE ANCHOR JOINT WITH DOUBLE CONN.   |                                  |
| 1              | 90197  | WIRE ROPE ANCHOR JOINT WITH SINGLE CONN.   |                                  |
| 1              | 95304  | WIRE ROPE ANCHOR JOINT                     | SEE NOTE 2                       |
| 1              | 90987  | WIRE ROPE GUIDE ASSY-36" DIA. SHEAVE       | SEE NOTE 1                       |
| 1              | 162798 | WIRE ROPE GUIDE ASSEM.                     | PERMA-LUBE                       |
| 1              | 181566 | TAGLINE FAIRLEAD ASSY                      | 1/2" DIA. WITH 1/2" CON. TAGLINE |
| 1              | 418773 | LOWER BOOM PT. ASSY-SPECIAL 100% SHEAVE    |                                  |
| 1              | 183767 | SUB-ASSEMBLY-TRAVELING                     | NOT SHOWN                        |
| 4              | 277176 | PENDANT (DRWG. 72490) L.P.C. FOR 100' BOOM | 45'-0" LG.                       |
| 4              | 277177 | PENDANT (DRWG. 72490) L.P.C. FOR 120' BOOM | 65'-0" LG.                       |
| 1              | 162730 | UPPER BOOM POINT ASSEM-2 SH                | SEE NOTE 3                       |
| 1              | 163222 | UPPER BOOM POINT ASSEM-2 SH                | SEE NOTE 4                       |

NOTE 1 THE TABLES BELOW GIVE THE MINIMUM WORKING RADIUS FOR BOTH 90479 AND 90987 WIRE ROPE GUIDE ASSEMBLY. THE MAST POSITION IS AT 32" BACK FROM VERTICAL.

| WIRE ROPE GUIDE 90479-47" DIA. SHEAVE WITH 99 TOOTH FRONT DRUM GEAR |     |      |      |      |
|---------------------------------------------------------------------|-----|------|------|------|
| BOOM LENGTHS                                                        | 80' | 100' | 120' | 140' |
| MINIMUM WORKING RADIUS                                              | 30' | 35'  | 40'  | 50'  |

OPTIONAL-USED WITH LIFT AND CLAM COMBINATION

| WIRE ROPE GUIDE 90987-36" DIA. SHEAVE |     |      |      |      |
|---------------------------------------|-----|------|------|------|
| BOOM LENGTHS                          | 80' | 100' | 120' | 140' |
| MINIMUM WORKING RADIUS                | 19' | 21'  | 24'  | 27'  |

IMPORTANT MAST HOIST AND INDEPENDENT BOOM HOIST INSTRUCTIONS:

- (A) TO LIFT BOOM (MAST HOIST AND BOOM HOIST):
- SET MAST IN VERTICAL POSITION USING MAST HOIST WITH BOOM ON BLOCKING.
  - LIFT BOOM TO A BOOM ANGLE OF APPROXIMATELY 40°±5° BY THE INDEPENDENT BOOM HOIST.
  - MOVE MAST BACK (APPROXIMATELY 32°-35° FROM VERTICAL) WITH MAST HOIST, WITHOUT LOAD ON THE BOOM.
- (B) TO OPERATE BOOM (BOOM HOIST ONLY):
- OPERATE BOOM WITH LIFTED LOAD USING ONLY THE INDEPENDENT BOOM HOIST. THE MAST HOIST IS NOT TO BE USED.
- (C) TO LOWER BOOM (MAST HOIST AND BOOM HOIST):
- WITH MAST 32°-35° BACK FROM VERTICAL POSITION, MOVE MAST FORWARD TO VERTICAL POSITION BY THE MAST HOIST WITHOUT LOAD ON THE BOOM. MINIMUM BOOM ANGLE SHOULD NOT BE LESS THAN 35° WHILE POSITIONING THE MAST IN VERTICAL POSITION.
  - LOWER BOOM TO HORIZONTAL BY THE INDEPENDENT BOOM HOIST WITH THE MAST IN VERTICAL POSITION.

NOTE 2 WIRE ROPE ANCHOR JOINT ASSEMBLY MUST BE REMOVED WHEN USING MULTIPLE PARTS OF LINE.

NOTE 3 PERMA-LUBE, 47 DIA. SHEAVES WITH ROLLER CHEEK PLATES.

NOTE 4 PERMA-LUBE, 47 DIA. SHEAVES WITH STANDARD CHEEK PLATES.

NOTE 5 81010687 MAY BE USED IN PLACE OF 60958

| MANITOWOC ENGINEERING CO. |              |            |           |
|---------------------------|--------------|------------|-----------|
| SCALE: 1/8"=1'-0"         | UNLESS NOTED | FRAC. QTY. | HOLE DIA. |
| DR. P.K.B.                |              |            |           |
| CR. J.M.L.                |              |            |           |
| APP.                      |              |            |           |

| BOOM RIGGING ASSY-25' BOOM CLAM-SHELL INDEPENDENT BOOM HOIST |   |       |      |
|--------------------------------------------------------------|---|-------|------|
| MATERIAL                                                     | 5 | MODEL | 4600 |

| REVISED DATE |         |
|--------------|---------|
| DATE         | 1-24-72 |
| PATTERN NO.  |         |
| CODE NO.     |         |
| DWS. NO.     |         |
| 50971        |         |

DO NOT SCALE THIS DRAWING