



## SAFETY ALERT

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DATE: August 23, 2002

**SUBJECT:** Model 1050 - Upper Link Retainers

**SERIAL NUMBERS:** 44, 150, 154, 155, 157, 158, 161, 164, 165, 167, 168, 170, 171, 172, 174, 176, 180, 182, 183, 184, 185, 188, 191, 194, 198, 201, 202, 204, 206, 207

**DISCUSSION:** When the upper links are detached from the bail or block assembly on top drives with the main housing Canrig P/N: 741-30-0, there is no means to prevent the upper links from swinging away from the top drive. This is a major concern when replacing or installing the upper links or the bail. When the top drive is in the vertical position and the upper links are not secured to the bail or block assembly, the upper links could easily swing down. This could result in serious or fatal injury to personnel or severe damage to equipment. Additionally, when the top drive is being transported on a flatbed truck, unrestrained upper links could swing away and be a hazard to other vehicles.

**RECOMMENDATION:** *The links should always be secured*, to prevent them from swinging away from the top drive. When the bail is removed and the upper links remain pinned to the main housing, the upper links could be secured by using chain, cable, or rope to lash them together.

As an additional safety measure, CANRIG can install upper link retainers (Canrig P/N: DT12217) onto the main housing (Canrig P/N: 741-30-0) to prevent the upper links from swinging completely away from the top drive. The Upper Link Retainer (DT12217) would be mounted flush with the edge of the Main Housing as shown in AY10014-Rev.B (see attached drawing for further details).

### **INFORMATION:**

For further information contact:

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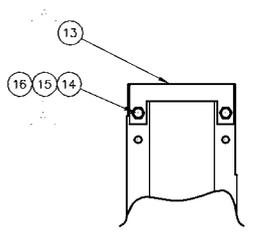
# Engineering Bill of Material

**Part:** AY10014  
**Description:** HOUSING & SPINDLE ASSY, 500 TON

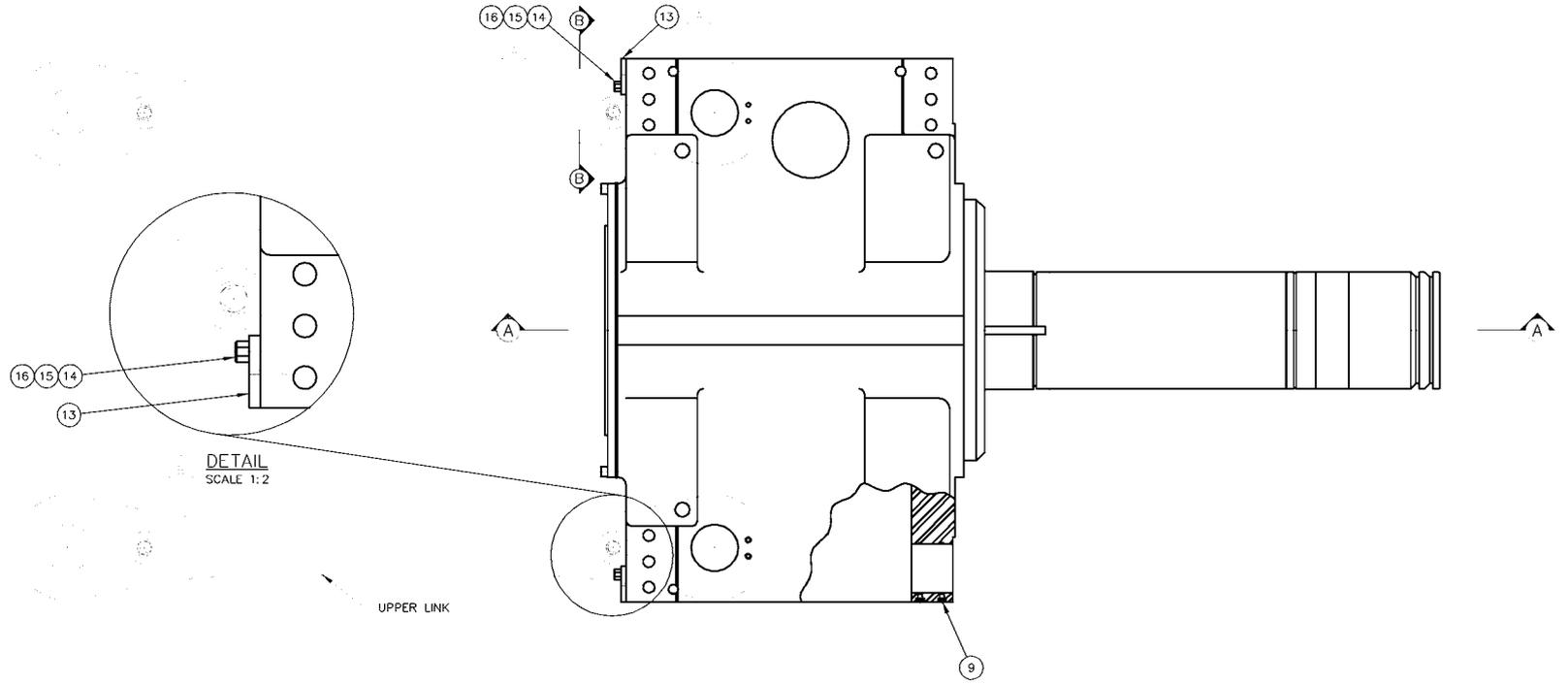
**Eng ID:** 0  
**Drawing ID:** AY10014

**Rev No:** B

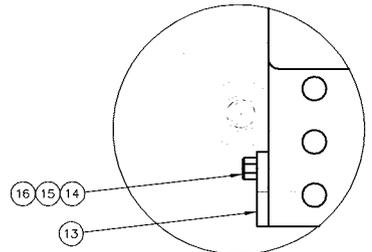
| Item | Qty   | Units | Part ID          | Eng ID | Description                           |
|------|-------|-------|------------------|--------|---------------------------------------|
| 01   | 1.00  | EA    | 681-11-0         | 0      | SEAT, UPPER BEARING, 350/500/650/750  |
| 02a  | 3.00  | EA    | 681-11-1-002     |        | SHIM, 0.002, BEARING/SEAT, MAIN DRIVE |
| 02b  | 3.00  | EA    | 681-11-1-003     |        | SHIM, 0.003, BEARING/SEAT, MAIN DRIVE |
| 02c  | 3.00  | EA    | 681-11-1-005     |        | SHIM, 0.005, BEARING/SEAT, MAIN DRIVE |
| 02d  | 3.00  | EA    | 681-11-1-010     |        | SHIM, 0.010, BEARING/SEAT, MAIN DRIVE |
| 02e  | 3.00  | EA    | 681-11-1-015     |        | SHIM, 0.015, BEARING/SEAT, MAIN DRIVE |
| 02f  | 3.00  | EA    | 681-11-1-020     |        | SHIM, 0.020, BEARING/SEAT, MAIN DRIVE |
| 02g  | 3.00  | EA    | 681-11-1-030     |        | SHIM, 0.030, BEARING/SEAT, MAIN DRIVE |
| 02h  | 3.00  | EA    | 681-11-1-060     |        | SHIM, 0.060, BEARING/SEAT, MAIN DRIVE |
| 02i  | 3.00  | EA    | 681-11-1-120     |        | SHIM, 0.120, BEARING/SEAT, MAIN DRIVE |
| 02j  | 3.00  | EA    | 681-11-1-125     |        | SHIM, 0.125, BEARING/SEAT, MAIN DRIVE |
| 03   | 1.00  | EA    | 741-29-0         | 0      | SPINDLE, 500 TON                      |
| 04   | 1.00  | EA    | 741-30-0         | 0      | HOUSING, MAIN, 500 TON                |
| 05   | 3.00  | EA    | H15-090109B-08   |        | PLUG, SOC HEX, 1/2 ORB                |
| 06   | 1.00  | EA    | M01-1017-010     |        | BRG, TPRD ROL, CUP                    |
| 07   | 1.00  | EA    | M01-1018-010     |        | BRG, TPRD ROL, CONE                   |
| 08   | 1.00  | EA    | M01-1037-010     |        | BRG, TPRD ROL, THRUST                 |
| 09   | 2.00  | EA    | M12-1003-010     |        | GREASE NIPPLE, 1/4-28 UNF, STRAIGHT   |
| 10   | 1.00  | EA    | S01-1473-01N     |        | O-RING                                |
| 11   | 12.00 | EA    | SH-0625NC-0250   |        | CAPSCR, HEX SOC HD, 5/8-11UNC x 2.50  |
| 12   | 12.00 | EA    | LW-0625-IT       |        | LOCKWASHER, 5/8 INT TOOTH             |
| 13   | 2.00  | EA    | DT12217          |        | RETAINER, UPPER LINK                  |
| 14   | 4.00  | EA    | SH-0750NC-0150-W |        | CAPSCR, HEX SOC HD, 3/4-10UNC x 1.50  |
| 15   | 4.00  | EA    | M19-3006-010     |        | FERRULE, 1/16, OVAL, ALUMINIUM        |
| 16   | 5.00  | FT    | M21-2000-010     |        | WIRE ROPE, 1/16, 7 x 7, STAINLESS     |



VIEW B-B

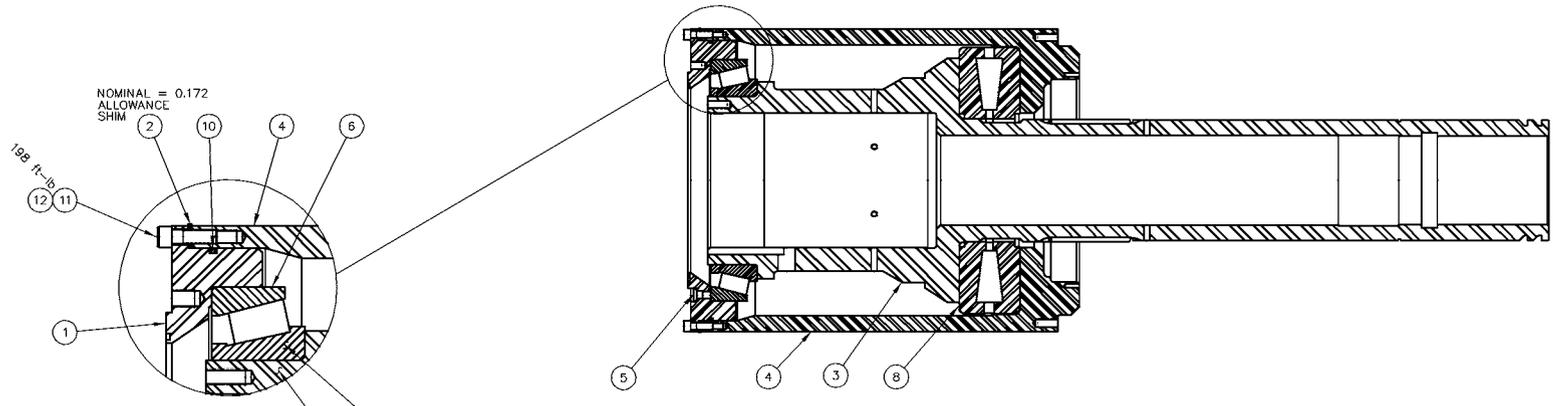


FRONT VIEW



DETAIL  
SCALE 1:2

UPPER LINK



SECTION A-A

DETAIL  
SCALE 1:2

|     |          |     |                           |   |  |  |  |  |  |   |  |  |  |  |  |             |  |           |  |                 |  |         |  |       |  |
|-----|----------|-----|---------------------------|---|--|--|--|--|--|---|--|--|--|--|--|-------------|--|-----------|--|-----------------|--|---------|--|-------|--|
|     |          |     |                           | THIS PRINT AND DESIGN AND DETAIL SHOWN THEREON ARE THE PROPERTY AND INVENTION OF CANRIG DRILLING TECHNOLOGY LTD., THIS PRINT IS FURNISHED WITH THE UNDERSTANDING THAT IT IS NOT TO BE REPRODUCED WITHOUT PERMISSION AND RETURNED UPON DEMAND. ALL RIGHTS OF DESIGN AND INVENTION ARE RESERVED BY CANRIG DRILLING TECHNOLOGY LTD.. |  |  |  | TOLERANCE - UNLESS OTHERWISE SPECIFIED   |  |   |  | DRAWN AKR 97/6/16  |  | CANRIG DRILLING TECHNOLOGY LTD.<br><b>MAIN HOUSING &amp; SPINDLE ASSY, 500 TON, 5.00:1</b> |  |             |  |           |  |                 |  |         |  |       |  |
|     |          |     |                           | REMOVE SHARP CORNERS AND BURRS  |  |  |  | CASTING ± 1/16<br>CONCENTRICITY .005 TIR<br>STRAIGHTNESS ± .005 IN 5 INCHES<br>SQUARENESS ± .010 IN 5 INCHES<br>PARALLELISM ± .010 IN 5 INCHES<br>TRUE POSITION .005 |  | FABRICATING [METRIC]<br>0 TO 600 mm ± 1 mm<br>> 600 mm ± 3 mm |  | MACHINING IMPERIAL<br>DECIMAL .x ± .030<br>.xx ± .015<br>.xxx ± .005 |  |  |  | EST. WEIGHT |  | SCALE 1:6 |  | PROJECT 500 TON |  | AY10014 |  | REV B |  |
| B   | 02/04/15 | JRS | REVISED FOR CLARITY       |   |  |  |  |  |  |   |  |  |  |  |  |             |  |           |  |                 |  |         |  |       |  |
| A   | 01/10/04 | JAB | ADDED ITEM 13 ,14,15, &16 |   |  |  |  |  |  |   |  |  |  |  |  |             |  |           |  |                 |  |         |  |       |  |
| No. | Y/M/D    | BY  | REVISION                  |   |  |  |  | MACHINED SURFACES 125/   |  |   |  | ANGULAR ± 2°   |  | ANGULAR ± 1°   |  |             |  |           |  |                 |  |         |  |       |  |

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