



## **Assembly Information** **RD2 Bellows Change**

**Please use guide in conjunction with manual**

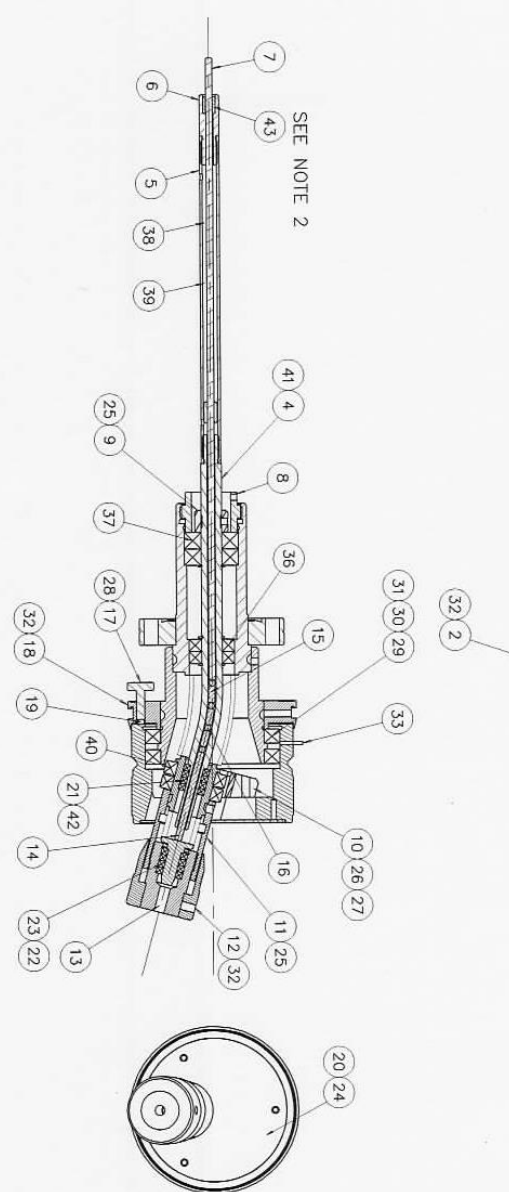
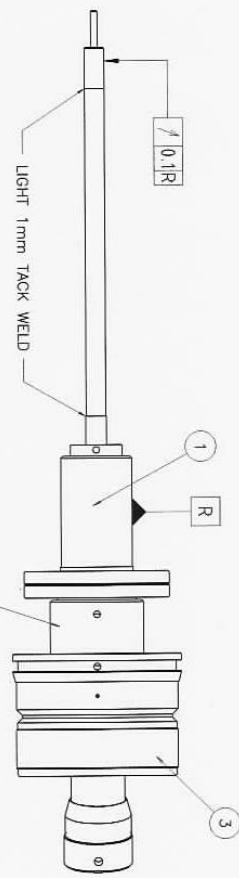
- 1) If fitted remove extended bearing support, or collar (8) if not fitted.
- 2) Look for joint in rotating shaft, (See notes on drawing)
- 3) **IMPORTANT SAFETY NOTE:**  
The inner push rod is under load by a spring, so when parting the shaft by unscrewing, it is very important that you have a good hold on the shaft, to stop it launching off the thread! So take care at the next stage.
- 4) Cut through the tack weld NEAREST the flange, with a triangular needle file and unscrew shaft.
- 5) Remove the inner shaft while holding the shaft vertical.
- 6) Within shaft removed, tip upside down into a pot and three slugs and 4 balls will fall out.  
NOTE: For refitting, it is: ball, slug, ball, slug ball, slug, ball.
- 7) Remove azimuthal index knob
- 8) Remove cover plate from top of main rotation knob.
- 9) Loosen screw in lower index ring (18).
- 10) Looking down on main knob and remove the 2 cap head screws that holds the retainer wobble bearing housing (10).
- 11) Now remove clip by index scale (31).
- 12) Remove the Grub Screws holding on the main bearing housing (2)
- 13) Remove main bearing housing, noting that it has to be angled slightly owing to the bent shaft.
- 14) Remove the azimuthal thimble (11) with azimuthal screw (13), by removing the screws at the base of the thimble.  
NOTE: You will need a cut down allen key to get into the tight recess.
- 15) NOTE: The next stage requires great care, so not to damage the bellows internally.
- 16) While hold the rotating shaft, careful pull and work the shaft out with the bearing attached to the shaft. The shaft will need to come out at a slight angle
- 17) NOTE: The shaft is bent so hold the bellows so it does not drag down the inside of the bellows.
- 18) There is an azimuthal shaft inside the main rotating shaft that sits inside the short section passed the bend in the shaft (14).

### **Refit in reverse but noting:**

- 1) Make sure the azimuthal shaft inside the main rotating shaft (14) if fitted. This needs to be fitted with the cupped end inserted first, so it locates against the ball.
- 2) When refitting the shaft into the bellows, make sure the set of 4 ball bearing races on the drive shaft are correctly inserted inside the housing on top of the main bellows (21). These should move freely in the bore.
- 3) Once the drive is fully assembled, fit the slugs and balls in the following orientation: ball, slug, ball, slug ball, slug, ball
- 4) Do not do the cap headed screws up tight on the retainer wobble bearing housing (10) until the last stage, (i.e. The rest of the drive is fully assembled). Centralise the azimuthal housing clamp and then do up tight.
- 5) The shaft will need re-tack welding, with a 1mm to 2mm stitch weld.

DO NOT SCALE DRAWING IF IN DOUBT ASK ALL DIMENSIONS IN MILLIMETERS

THIRD ANGLE PROJECTION



SEE NOTE 2

- NOTES
- 1) - note 1 deleted, iss D -
  - 2) PRESS BUSH D3442 INTO GUIDE BUSH DH6023 AND ENSURE RUN FIT WITH PUSH ROD

THIS DRAWING IS THE PROPERTY OF YG SIENTA. IT IS TO BE USED FOR THE MANUFACTURE OF THE PARTS SPECIFIED THEREIN. IT IS NOT TO BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM, WITHOUT THE WRITTEN PERMISSION OF YG SIENTA.

ITEM	QTY	DESCRIPTION
43	1	BUSH
42	1	EXTERNAL CIRCLIP
41	3	EXTERNAL CIRCLIP
40	2	BEARING
39	4	SPRING
38	1	SPRING
37	2	BEARING
36	2	BEARING
35		
34		
33	1	PIN SPIRAL 1/16"x7/16"
32	9	SCREW SET M4x6
31	1	INTERNAL CIRCLIP
30	1	WAVE SPRING
29	2	BEARING
28	1	SPRING D21450
27	2	SCREW CAP M5x12
26	1	SCREW SET M5x6
25	5	SCREW SET M4x4
24	3	SCREW PAN M3x6
23	4	BEARING
22	1	INTERNAL CIRCLIP
21	4	BEARING
20	1	TOP PLATE (RD2S)
19	1	PAD
18	1	LOCKING RING ENGRAVING
17	1	THUMB SCREW
16	4	ø3.5 440C ST. STL. BALL
15	3	SILUC
14	1	PUSH ROD-AZIMUTH
13	1	SCREW-AZIMUTH
12	1	AZIMUTH THIMBLE ENGR'
11	1	AZIMUTH BARREL ENGR'
10	1	RETAINER WOBBLE BEARING
9	1	INNER COLLAR
8	1	OUTER COLLAR
7	1	PUSH ROD ASSEMBLY
6	1	GUIDE BUSH
5	1	ROTARY DRIVE EXTENSION
4	1	MAIN SHAFT (RD2)
3	1	THIMBLE ENGRAVING
2	1	MAIN BEARING HOUSING
1	1	FLANGE ASSY (RD2)

DRG No: \_\_\_\_\_

DESIGNED	CHECKED	DATE	SCALE
DATE	DATE	DATE	DATE
10/17/22	10/17/22	10/17/22	10/17/22

YG SIENTA  
 Precision Components  
 4400 KENNEDY BLVD, SUITE 100  
 HUNTSVILLE, TN 37416-1000  
 (615) 886-3333  
 WWW.YGSIENTA.COM

PART NO: DH6001  
 TITLE: ROTARY DRIVE ASSY (RD2)  
 SCALE: 1:1