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Mauna Loa Solar Observatory Observer's Log  
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Thu Jan 8 17:28:52 GMT 2004

Year: 04 Doy: 008

Observer: stueben

WEATHER COMMENT: Thu Jan 8 17:29:42 GMT 2004

Clear, west wind 5-10 mph, temp 38F.

Thu Jan 8 17:33:01 GMT 2004 CHIP Start Patrol

Thu Jan 8 17:33:19 GMT 2004 PICS Start Patrol

Thu Jan 8 18:00:57 GMT 2004 CHIP LSD

Thu Jan 8 18:02:42 GMT 2004 CHIP End LSD

Thu Jan 8 18:02:48 GMT 2004 CHIP BiasLSD

Thu Jan 8 18:02:54 GMT 2004 PICS Flat

Thu Jan 8 18:03:38 GMT 2004 CHIP End BiasLSD

Thu Jan 8 18:03:45 GMT 2004 CHIP Bias

Thu Jan 8 18:04:36 GMT 2004 CHIP End Bias

Thu Jan 8 18:05:16 GMT 2004 PICS End Flat

Thu Jan 8 18:32:42 GMT 2004 MKIV Start Patrol

MKIV COMMENT: Thu Jan 8 18:32:59 GMT 2004

Centered 01 guider.

A NEW TAPE HAS BEEN PUT INTO KAIEE DLT DRIVE, Thu Jan 8 18:33:16 GMT 2004

PSPT COMMENT: Thu Jan 8 18:46:05 GMT 2004

Observing.

MKIV COMMENT: Thu Jan 8 19:14:08 GMT 2004

Centered 01 guider.

Thu Jan 8 19:20:21 GMT 2004 MKIV End Patrol

Thu Jan 8 19:20:34 GMT 2004 MKIV Start Cal

Thu Jan 8 19:39:23 GMT 2004 MKIV End Cal

Thu Jan 8 19:39:37 GMT 2004 MKIV Start Patrol

COMMENT: Thu Jan 8 20:04:57 GMT 2004

Dec axis reset. Repointed spar.

MKIV COMMENT: Thu Jan 8 20:29:50 GMT 2004

Centered 01 guider.

\*\*ECHO PROBLEM\*\*: Thu Jan 8 20:31:04 GMT 2004

Have been experimenting with the RA drive system to find what is slipping.

It seems to us that the motor shaft isn't slipping because we can see the

driven collar turning when we hear the clunking noise that Eric mentioned.

The noise occurs in time with the motor, seems to be one clunk per motor

revolution. Going from "stowed" position of -140 to 0.0 in RA it starts

clunking maybe 5 revolutions before stopping with the setscrew visible in the

access hole - repeatable everytime. Going from 0.0 to -140.0 it likewise

clunks in the last few revolutions but the setscrew isn't visible in the

access hole after stopping.

COMMENT: Thu Jan 8 20:52:42 GMT 2004

Spar bumped ladder and lost guiding, repointed and reset.

\*\*ECHO PROBLEM\*\*: Thu Jan 8 21:58:33 GMT 2004

Removed the motor, checked the shaft and setscrew, no signs of slippage

between them. I can't find anything else that can be causing the clunk.

\*\*ECHO PROBLEM\*\* : Thu Jan 8 22:22:43 GMT 2004

The head is unbalanced, it wants to point straight up when released without any friction on the movement. I can't find anything obviously wrong, the mechanism turns well by hand at slow speed but the teeth are apparently slipping between the Flexspline on the head and the Circular Spline which is fixed with respect to the earth. I'll go ahead and replace the Harmonic Drive with our spare. The slippage isn't constant, it happens at either side of zenith at about 70+ degrees.

MKIV COMMENT: Thu Jan 8 23:00:55 GMT 2004

Centered 01 guider.

\*\*ECHO PROBLEM\*\* : Thu Jan 8 23:19:59 GMT 2004

Bearing keeper for wave plate generator must be reversed to allow free movement when wave plate generator is bolted in place.

Fri Jan 9 02:29:19 GMT 2004 CHIP End Patrol

Fri Jan 9 02:29:56 GMT 2004 MKIV End Patrol

Fri Jan 9 02:31:46 GMT 2004 PICS End Patrol

Fr tarting a new line with ^D

Don't use ECHO yet, still have problems. I replaced all the Harmonic Drive

parts with new parts but now the motor strain and makes a buzzing sound as

it slowly turns the head, too much friction somewhere apparently. The numbers

on the new parts don't exactly match the numbers on the old removed parts

which are 25-200-651345-2, the new parts have 25-200- (I'm not sure what

the rest are but they are different and possibly 24175-010, have to remove

one of those parts to be sure). So it looks like it all has to be taken

apart again to figure what is wrong. Things seemed fine during installation

the Flexspline and Circular spline were more difficult to get together than

the old ones but they are new and should be tighter. I put it all back

together but turned off echosys and put notes here and there

The tools are in the trashcan ready to be used again.an 9 02:41:59 GMT 2004

MkIV

00_01.rawmk4	01_35.rawmk4	19_16.rawmk4	21_02.rawmk4	22_40.rawmk4
00_04.rawmk4	01_38.rawmk4	19_23.rawmk4	21_04.rawmk4	22_43.rawmk4
00_07.rawmk4	01_41.rawmk4	19_29.rawmk4	21_07.rawmk4	22_46.rawmk4
00_10.rawmk4	01_44.rawmk4	19_36.rawmk4	21_10.rawmk4	22_48.rawmk4
00_13.rawmk4	01_47.rawmk4	19_39.rawmk4	21_13.rawmk4	22_51.rawmk4

00_16.rawmk4	01_53.rawmk4	19_42.rawmk4	21_16.rawmk4	22_54.rawmk4
00_19.rawmk4	01_57.rawmk4	19_45.rawmk4	21_19.rawmk4	22_57.rawmk4
00_22.rawmk4	02_00.rawmk4	19_48.rawmk4	21_22.rawmk4	23_00.rawmk4
00_24.rawmk4	02_03.rawmk4	19_51.rawmk4	21_25.rawmk4	23_03.rawmk4
00_27.rawmk4	02_06.rawmk4	19_54.rawmk4	21_31.rawmk4	23_06.rawmk4
00_30.rawmk4	02_09.rawmk4	19_57.rawmk4	21_35.rawmk4	23_09.rawmk4
00_33.rawmk4	02_12.rawmk4	20_00.rawmk4	21_38.rawmk4	23_12.rawmk4
00_36.rawmk4	02_14.rawmk4	20_03.rawmk4	21_41.rawmk4	23_15.rawmk4
00_39.rawmk4	02_17.rawmk4	20_06.rawmk4	21_44.rawmk4	23_18.rawmk4
00_42.rawmk4	02_20.rawmk4	20_09.rawmk4	21_47.rawmk4	23_21.rawmk4
00_45.rawmk4	02_23.rawmk4	20_11.rawmk4	21_50.rawmk4	23_24.rawmk4
00_48.rawmk4	02_26.rawmk4	20_15.rawmk4	21_53.rawmk4	23_27.rawmk4
00_51.rawmk4	18_32.rawmk4	20_17.rawmk4	21_55.rawmk4	23_30.rawmk4
00_54.rawmk4	18_35.rawmk4	20_20.rawmk4	21_58.rawmk4	23_39.rawmk4
00_57.rawmk4	18_38.rawmk4	20_23.rawmk4	22_01.rawmk4	23_43.rawmk4
01_00.rawmk4	18_41.rawmk4	20_26.rawmk4	22_04.rawmk4	23_46.rawmk4
01_03.rawmk4	18_44.rawmk4	20_29.rawmk4	22_07.rawmk4	23_49.rawmk4
01_06.rawmk4	18_47.rawmk4	20_32.rawmk4	22_10.rawmk4	23_52.rawmk4
01_09.rawmk4	18_50.rawmk4	20_35.rawmk4	22_13.rawmk4	23_55.rawmk4
01_12.rawmk4	18_53.rawmk4	20_38.rawmk4	22_16.rawmk4	23_58.rawmk4
01_15.rawmk4	18_56.rawmk4	20_41.rawmk4	22_19.rawmk4	c19_20.rawmk4
01_18.rawmk4	18_59.rawmk4	20_44.rawmk4	22_22.rawmk4	c19_26.rawmk4
01_20.rawmk4	19_02.rawmk4	20_47.rawmk4	22_25.rawmk4	c19_32.rawmk4
01_23.rawmk4	19_05.rawmk4	20_50.rawmk4	22_28.rawmk4	
01_26.rawmk4	19_08.rawmk4	20_53.rawmk4	22_31.rawmk4	
01_29.rawmk4	19_11.rawmk4	20_56.rawmk4	22_34.rawmk4	
01_32.rawmk4	19_14.rawmk4	20_59.rawmk4	22_37.rawmk4	