

Mauna Loa Solar Observatory Observer's Log

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Sat Sep 16 18:34:54 GMT 1995

Year: 95 Doy: 259

Observer: koon console Sep 16 18:33

WEATHER COMMENT: Sat Sep 16 18:35:00 GMT 1995

Voggy, thin cirrostratus, wind=5 mph from the East, temp=45 F.

Sat Sep 16 18:39:53 GMT 1995: Patrol Start

LOW-L COMMENT: Sat Sep 16 18:45:20 GMT 1995

Removed L00310 and installed L00312 in drive #0.

Sat Sep 16 19:01:02 GMT 1995: Calibration

Sat Sep 16 20:01:04 GMT 1995: Calibration

COMMENT: Sat Sep 16 20:33:52 GMT 1995

Extended dome slot.

Sat Sep 16 21:01:00 GMT 1995: Calibration

Sat Sep 16 22:00:56 GMT 1995: Calibration

WEATHER COMMENT: Sat Sep 16 22:03:55 GMT 1995

Orographic clouds starting to pass by, from the NE.

MKIII COMMENT: Sat Sep 16 22:22:40 GMT 1995

Since it is cloudy I had the cover off over the half-wave plate for the last scan in an effort to examine the geartrain to see if it is OK, Eric noticed that it is operating louder than usual. I can hear the mechanism spinning but nothing indicates a problem (e.g., metal chips, bearing squeal, wobbling gears). I have stopped observations and will investigate further.

Sat Sep 16 22:27:59 GMT 1995: Patrol End

MKIII COMMENT: Sat Sep 16 22:52:34 GMT 1995

I think the half-wave plate geartrain is fine. There is some gear lash but it doesn't seem unusual. Manually rotating the gears shows that the cogs look fine (even on the plastic gear) and that there are no sticky positions, no noise evident either, I think the gears and bearings are fine. Straight cut gears such as those used are inherently noisy compared to helical gears or chain drives, lubing the gears would cut the noise but create the possibility of optical contamination if the lube flies off those fast moving gears. Since the gears aren't under a high load or variable load situation I wouldn't recommend lubing them unless they start to show signs of fast wear, we can check the plastic gear now and then to see if the cogs are getting pointy. I guess that the noise we hear here is caused by gear backlash

as the motor varies speed slightly to keep an even rotation of the half-wave plate.

COMMENT: Sun Sep 17 00:10:15 GMT 1995  
Activity report:  
QP: 35-45; 67-82; 124; 223; 287; 315.  
No coronal activity.

TAPES:  
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MKIII: H01117  
DPMON: P00449  
LOW-L: L00311 in drive #1

Sun Sep 17 00:55:55 GMT 1995: Filemark  
SCAN-LOG

SCAN-LOG	18:41:55.	9/16/95	DOY	259	
18:46:43	18:49:56	18:53:07	18:56:18	18:59:29	
19:02:42	19:05:54	19:09:07	19:12:19	19:15:31	
19:18:42	19:21:54	19:25:04	19:28:17	19:31:29	
19:34:45	19:37:55	19:41:07	19:44:17	19:47:28	
1956 0 CL	20:00:55	2005 15CL	20:10:13	2015 0 CL	
20:18:35	2022 15CL	20:27:58	20:34:54	20:38:06	
20:41:23	20:44:35	20:47:46	20:50:56	20:54:07	
20:57:16	21:00:28	21:03:38	21:06:49	21:09:58	
21:13:09	21:16:19	21:19:30	21:22:39	21:25:50	
21:28:59	21:32:09	21:35:18	21:38:28	21:41:36	
21:44:48	21:47:56	21:51:05	21:54:14	21:57:24	
22:00:32	22:03:47	22:06:56	22:10:05	22:13:15	

0 ERRORS

OK