
Mauna Loa Solar Observatory Observer's Log

Mon Mar 8 17:24:52 GMT 2021

Year: 21 Doy: 067

Observer: mlso

WEATHER COMMENT: mcotter: Mon Mar 08 17:26:35 GMT 2021

Temp: 35.5f, Humidity: 90%, Pressure: 28.828in, Wind: 10mph from 153degs, Skies: Overcast skies. Rain and drizzle up to approximately 10,000' level. Cold and windy.

____end____

GENERAL COMMENT BY mcotter: Mon Mar 08 17:26:59 GMT 2021

Cannot open dome at this time.

____end____

GENERAL COMMENT BY mcotter: Tue Mar 09 04:08:20 GMT 2021

RA drive assembly was removed from spar, disassembled, inspected, and rebuilt with a new clutch pad, worm gear and spur gear assembly.. The entire assembly was broken down and all bearings, springs, and mechanical assemblies were cleaned and verified to be operational. The bearings were measured and size dimensions were recorded. The tension springs and clutch pad springs were cleaned, measured and recorded. All mechanical assemblies were found to be in used, but serviceable condition. All friction wheels surfaces were cleaned. The two outer drive friction surfaces that attach to spur gear were found to be pitted and scored. The north surface was found to be the worse of the two. We cleaned these surface thoroughly and buffed them with 400 grit abrasive paper. The corresponding surfaces of the intermediate drive were also found to be scored and pitted. Again these were thoroughly cleaned and buffed with 400 grit abrasive paper. The clutch pad looked worn and polished and the spur gear was chewed up and bits of brass from the spur gear could be found collected along the outer areas of the worm and spur gear assembly. Some effort was made to grind out the dog house to give clearance for the RA mounting assemblies. The tools on sight were not able to complete the clearance and in the future attention is needed to complete this task. We performed an un-powered testing found the clutch to slip in both direction with desired resistance. We estimate it took approximately 5lbs of hand pressure at the T-handle to move spur. The action felt smooth and consistent.

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ONSITE STAFF: berkey, mcotter