

Modified figures in gearbox

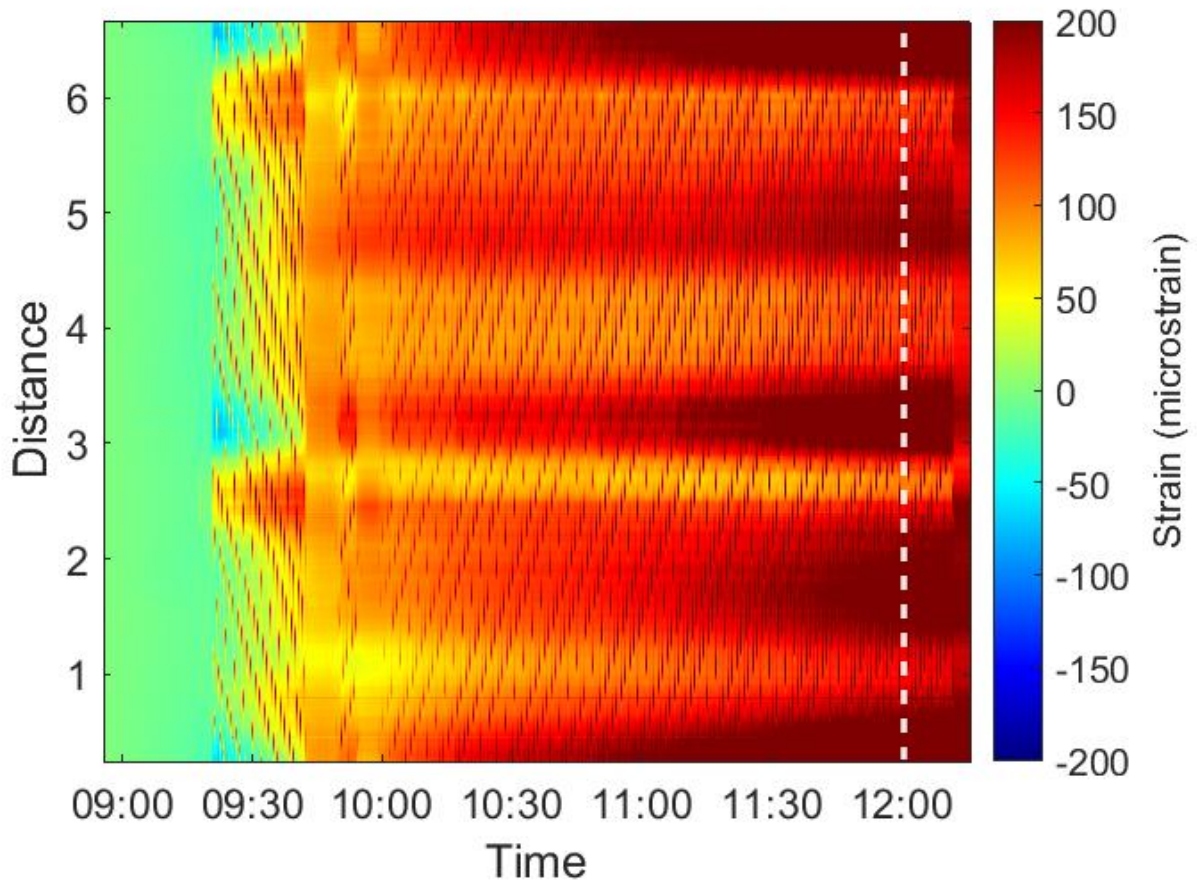


Figure 1 Waterfall representation of the strain profile over time for the circumference of the ring rear. The vertical axis denotes distance in meters, while the color gradient indicates strain in micro-strain. (a) Strain profile throughout the entire test period. (b) A magnified view of the strain profile corresponding to the region outlined by the white dashed square in the left panel.

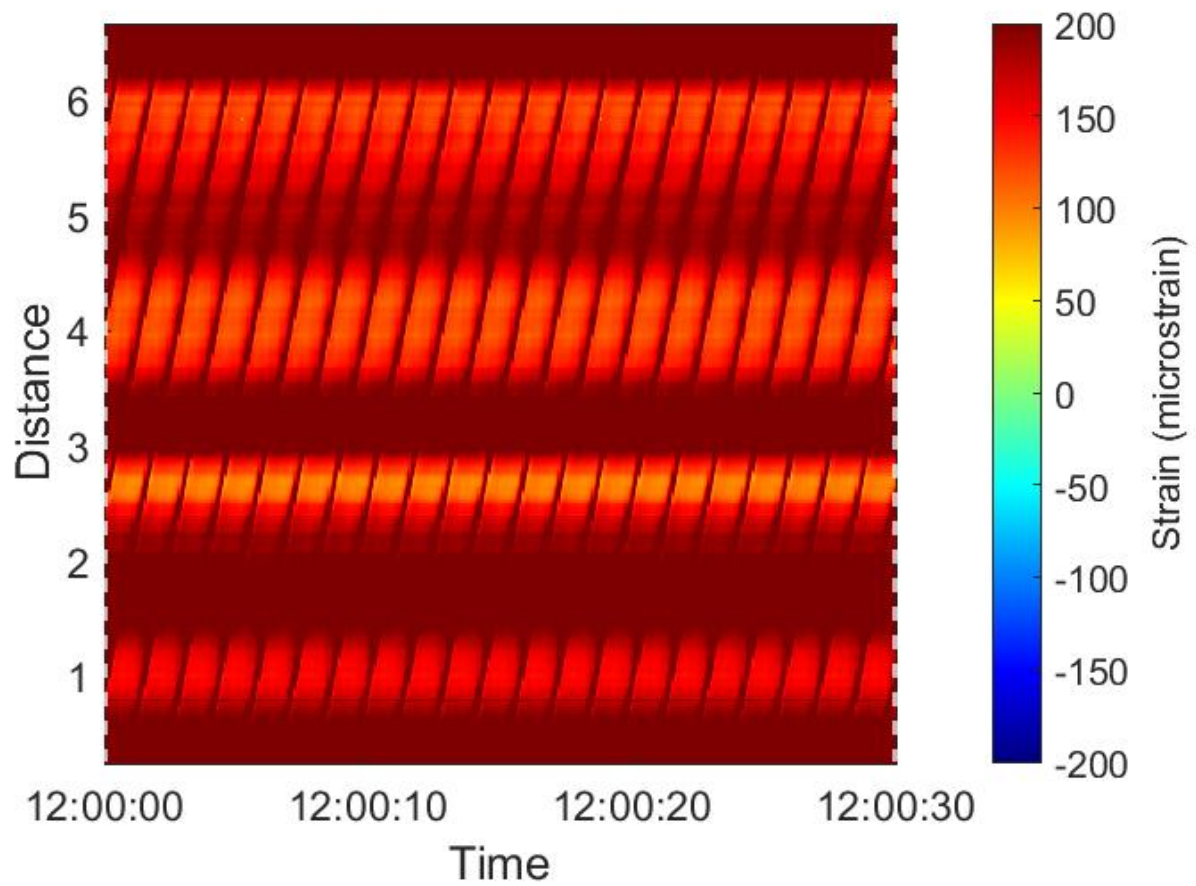


Figure 2 Waterfall representation of the strain profile over time for the circumference of the ring rear. The vertical axis denotes distance in meters, while the color gradient indicates strain in micro-strain. (a) Strain profile throughout the entire test period. (b) A magnified view of the strain profile corresponding to the region outlined by the white dashed square in the left panel.

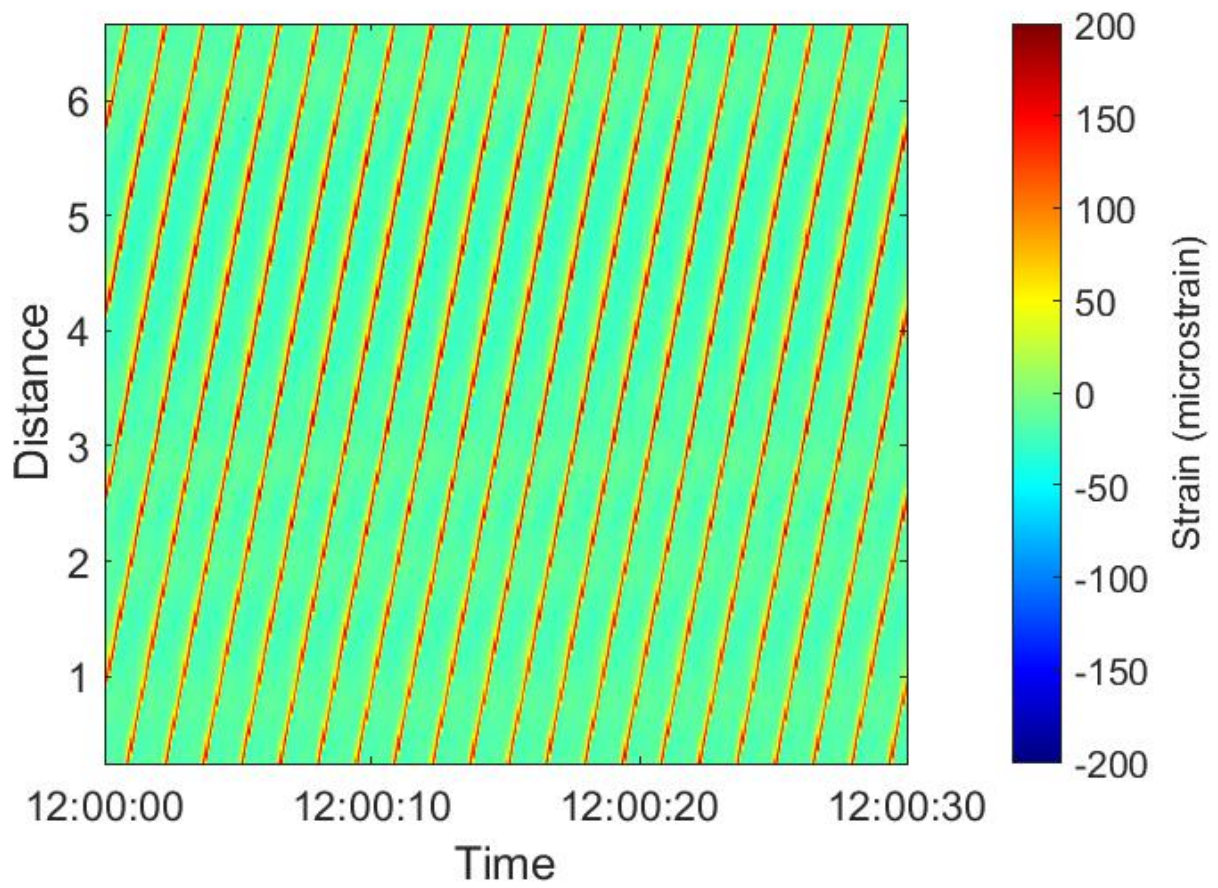


Figure 3 The waterfall of the strain response during the load test after 0.01 Hz high pass filter in period of 30 seconds when the load is at 100% torque, time domain shows strain profile collected with 12.5 Hz.

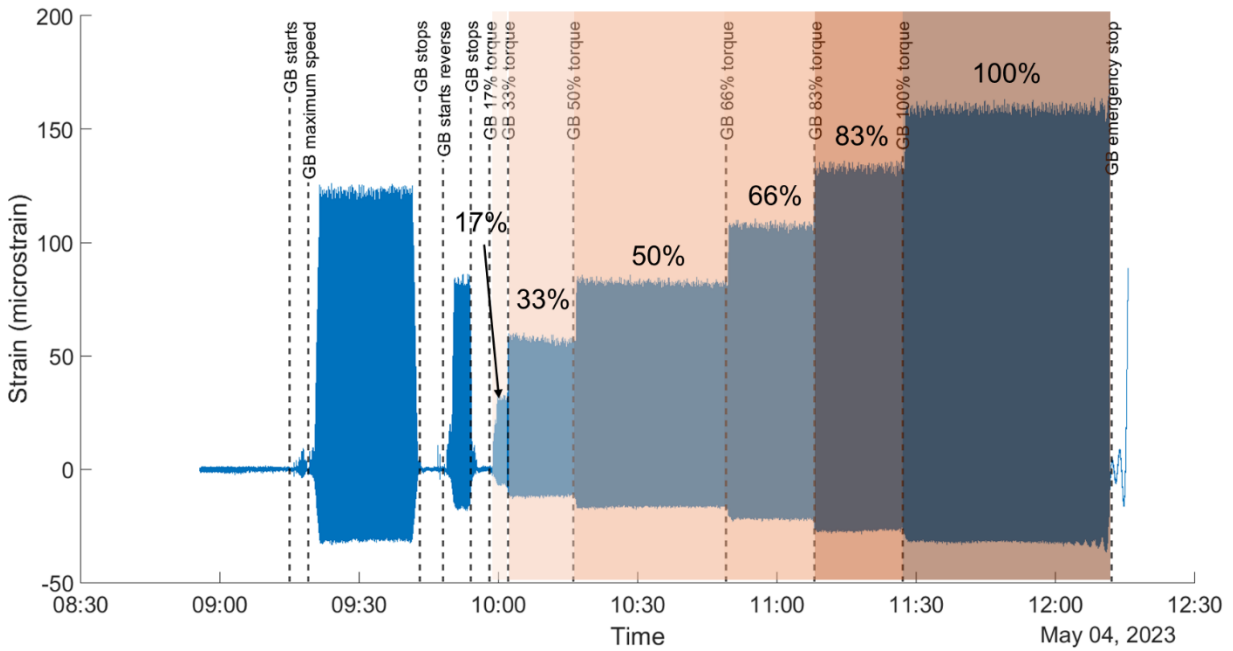


Figure 4 The strain response after 0.01 Hz high pass at location 4.62m (one tooth's strain response). The dash line shows the timing of each loading event listed in table 2. The color background shows the percentage of the rated torque input from 17% to 100%.

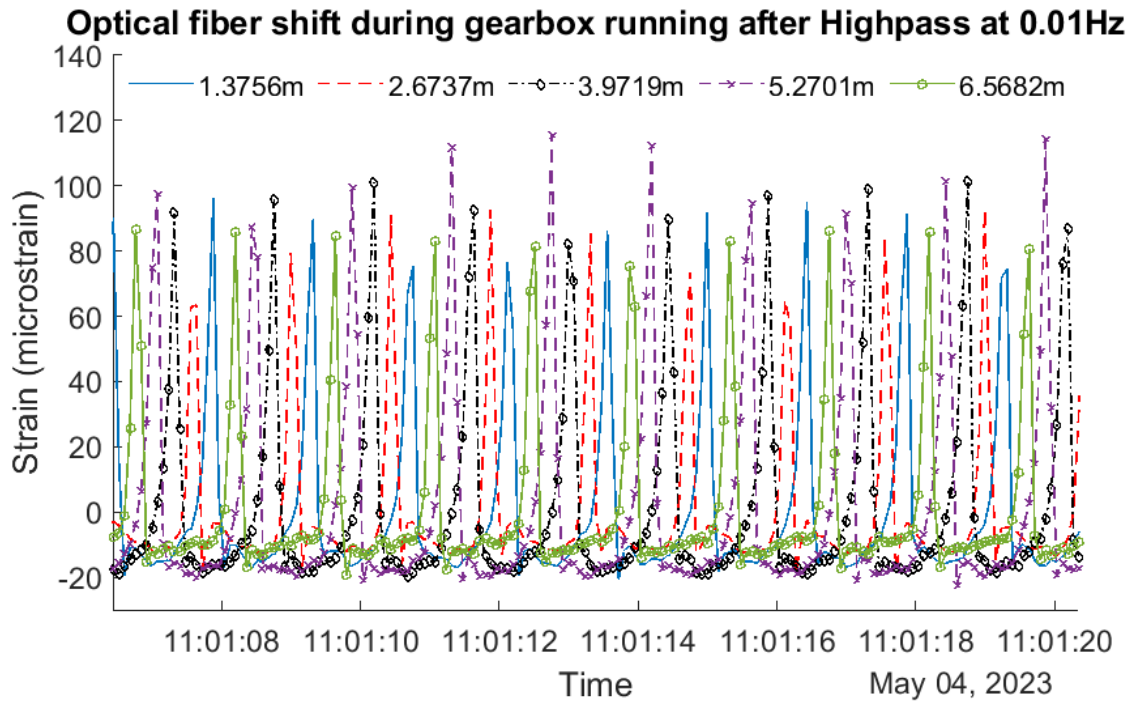


Figure 5 (a) An example of collected strain at 5 location with time and (b) the peak-peak strain at 49 locations on the ring gear for 6 torque load inputs.

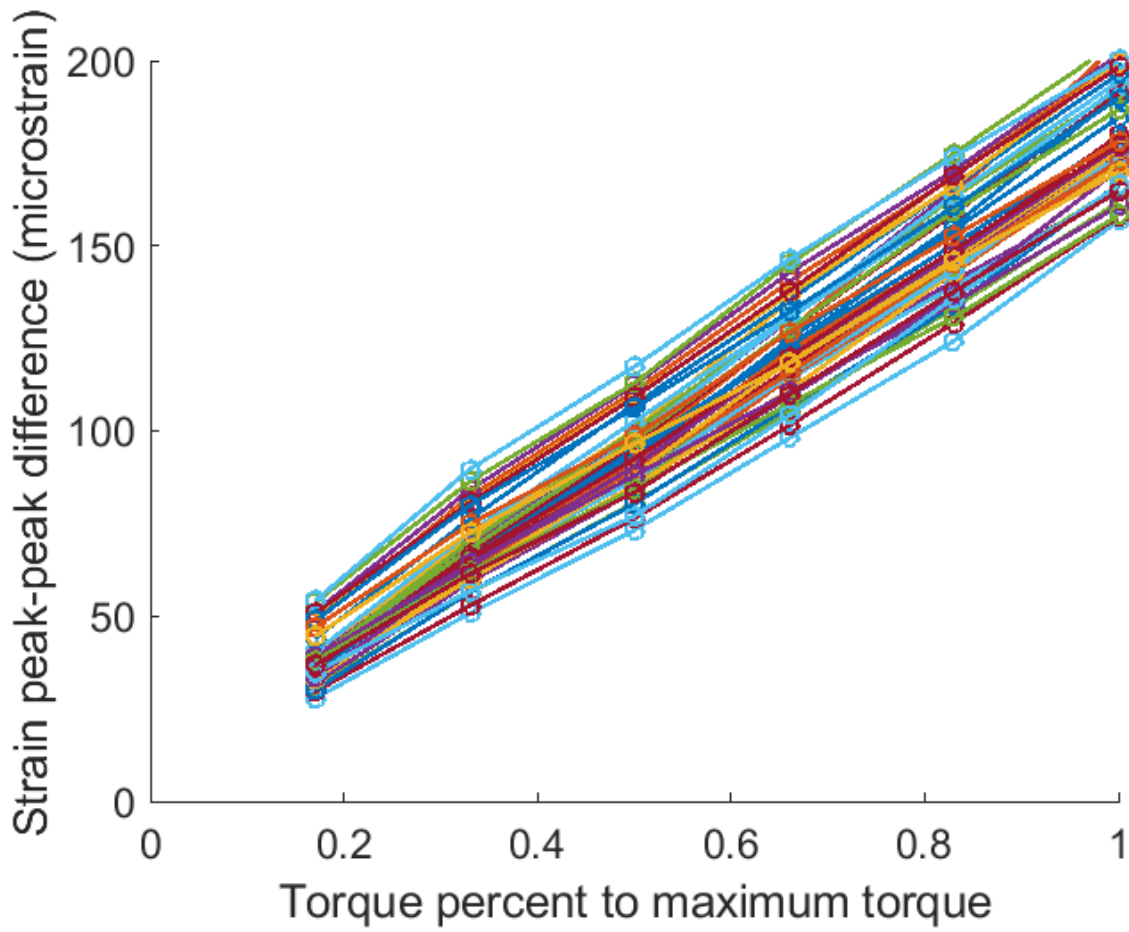


Figure 6 (a) An example of collected strain at 5 location with time and (b) the peak-peak strain at 49 locations on the ring gear for 6 torque load inputs.