

Bike Load Testing

Interface Mini™ and Wireless Telemetry System

Industry: Test and Measurement

Summary

Customer Challenge

A mountain bike manufacturing company wants a system that measures their bike frames load capacities and vibrations on the frame. They want to ensure the bike's high quality and frame load durability during this final step of the product testing process.

Interface Solution

Interface suggests installing Model SSMF Fatigue Rated S-Type Load Cell, connected to the WTS-AM-1E Wireless Strain Bridge, between the mountain bike's seat and the bike frame. This will measure the vibrations and load forces applied onto the bike frame. The results will be captured by the WTS-AM-1E and transmitted to the customer's PC using the WTS-BS-6 Wireless Telemetry Dongle Base Station.

Results

The mountain bike manufacturing company was able to gather highly accurate data to determine that their bikes met performance standards through this final testing.

Materials

- SSMF Fatigue Rated S-Type Load Cell
- WTS-AM-1E Wireless Strain Bridge
- WTS-BS-6 Wireless Telemetry Dongle Base Station
- Customer PC or Laptop

How It Works

1. The SSMF Fatigue Rated S-Type Load Cell is connected to the WTS-AM-1E Wireless Strain Bridge, and installed between the mountain bike's seat and the bike frame.
2. A heavy load is added to the seat, where the SSMF Fatigue Rated S-Type Load Cell measures the vibrations and load forces applied to the bike to indicate any stress points through a number of cycles.
3. The data is read and transmitted through the WTS-AM-1E Wireless Strain Bridge, to the WTS-BS-6 Wireless Telemetry Dongle Base Station. From there, the customer can log the force data measured.

