TREK Bicycle testing

Test levels:

Unit testing

- Check the speed switch
- Turn the steering wheel
- Turn the wheel by hand
- Check inflated tires

Integration testing

- Check if the switch switches transfer gears
- Check that the rear wheel is spinning

System testing

- Check all transmission systems
- How many kilometers is enough for a bicycle tire
- After how many kilometers do you need to lubricate the bicycle chain

Acceptance testing

- Ride a bike
- Check for paint damage on the bike

Alpha testing

- Let a friend ride the bike for a day to try all the systems in operation.

Beta testing

- Let a stranger ride a bicycle

Types of testing:

Functional :

Security

- Check the brakes on the bike

Functional

- Let the bike sit for a week and then check if it rides well

Interoperability

- Measure the maximum turning angle of the bicycle steering wheel

No-functional :

Performance

- Check how fast the wheel spins

Load

- Go down the hill as quickly as possible

Stress

- Check whether it is possible to switch gears while standing in one place
- Check how quickly it switches gears in motion

- Check how fast you can switch both gears at the same time
- Ride in the rain

Volume

- Too much oil on the bicycle chain

Usability

- It is comfortable to sit on a bicycle seat
- The bike is easy to ride

Configuration

- Ride on different types of surfaces

UI/GUI

- Look at the design of the bike
- Look, there are no scratches on the frame
- Rate as pasted Bicycle brand

Localization\Internationalization

- Check if there is a mistake in the name of the bike
- The text is drawn from right to left

Changes related :

Regression

- Repeat all priority tests

Re-testing

- When conducting the Localization test, a bug was detected in the engraving on the frame. After fixing the bug, you need to run this test again

Smoke

- A short bike ride to test all systems

Sanity

- After additional lubrication of the chain, ride the bike again and test all systems