VIBRO
BIT

SCIENTIFIC-PRODUCTION
ENTERPRISE
VIBROBIT LLC

26.51.66.133

STAND СП33

Passport

ВШПА.421412.161 ПС

Rostov-on-Don
2025

SPE VIBROBIT LLC

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The enterprise VIBROBIT reserves the right to modify parts and accessories without loss of product performance.

1 General information

Stand СП33 is designed to simulate the rotation and vibration of the shafts of rotating mechanisms when testing performance and assessing the sensitivity of tachometers with eddy current sensors, Hall effect sensors, eddy current vibration meters.

2 Specifications and characteristics

Table 1 - Technical characteristics

The parameter name	Normal value
The specified speed range, rpm	0 — 250
Vibration displacement swing, μm	400±40
Number of teeth of the disc, pcs	36
Number of grooves on the disk plane	1
Dimensions "groove" (HxWxD), mm	14x10x2.8
Dimensions of "gear" (HxWxD), mm	15x4x2.5
Diameter of sensors of the tachometer, mm	10; 20
Diameter of sensors of vibration displacement, mm	10
Mass, kg, not exceeding	1.3
Overall dimensions, mm, not exceeding	67x134x94

3 Information on the content of precious materials and non-ferrous metals

The product of precious materials and non-ferrous metals to be recorded does not contain.

4 Delivery set

Table 2 - delivery set.

Designation	Name	Quantity	Note
ВШПА.421412.161	Stand СП33	1	
ВШПА.421412.161 ПС	Stand СП33. Passport	1	

5 Operation and description

Description of the design

The appearance of the stand is shown in Figure 1.

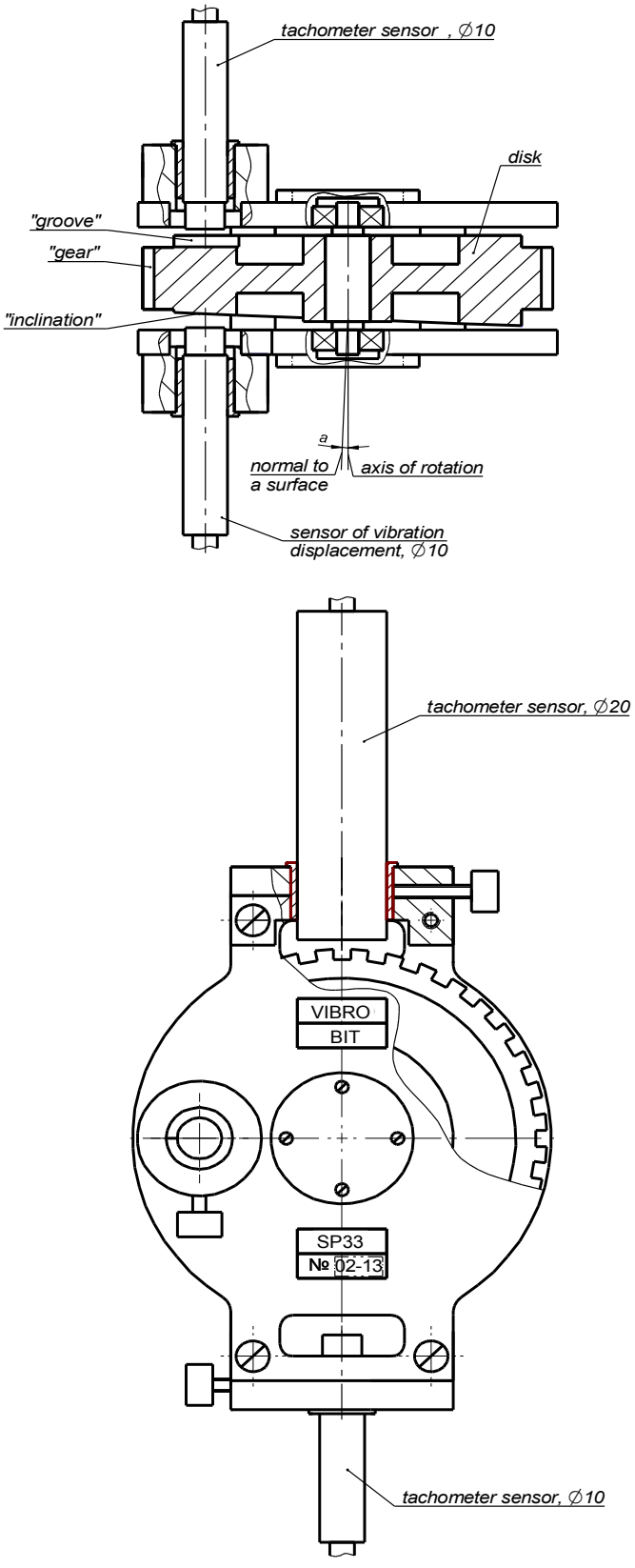


Figure 1

The main part of the stand is a metal disk mounted on a shaft rotating in bearings.

The disk has three control surfaces:

- "groove" located on the projecting concentric surface of the first plane;
- "gear", located on the cylindrical surface of the disk;
- "slope" - the entire second plane, beveled at an angle a.

Sensors are installed through adapter sleeves and clamped with screws.

The tachometer sensors are installed to the “groove”, “gear” control surfaces, and the vibration displacement sensor - to the “inclination” control surface.

Operating principle

The impulse for rotation is created manually.

When passing "groove" ("gear") of a check surface of an axis of the sensor of the tachometer voltage impulse is formed.

Vibration displacement is created by rotating the disk in which the surface normal the "inclination" and the axis of rotation are disposed to each other at an angle a.

6 Transportation and Storage

The stand in the package can withstand transportation over any distance by road and rail (in closed vehicles), water transport (in the holds of ships), and air transport (in sealed compartments).

Transportation conditions - J according to ГОСТ 25804.4–83.

Stand in the package withstands the following transport factors:

- temperatures from minus 50 ° C to plus 50 ° C;

- relative humidity of 95% at 35 ° C;

- vibrations (acting along three mutually perpendicular axes of the container) during transportation by railway, motor transport and aircraft in the frequency range (10 - 55) Hz with a vibration displacement amplitude of 0.35 mm and vibration acceleration 5g;

- impacts with a peak impact acceleration value of 10g, shock pulse duration 10 ms, number of impacts (1000 ± 10) in the direction indicated on the packaging.

Storage of the stand in terms of the impact of environmental climatic factors must comply with conditions 3 (J3) according to ГОСТ 15150–69. The shelf life of not more than 24 months from the date of manufacture.

Long-term storage of the stand is carried out in a package, in heated rooms with conditions 1 (L) according to ГОСТ 15150–69.

7 Warranty

The manufacturer guarantees the compliance of the stand with the technical characteristics provided the consumer observes the conditions of transportation, storage and operation.

The warranty period is 24 months from the date of commissioning, but not more than

48 months from the date of manufacture.

In the case of sending a stand for repair, the manufacturer should indicate the identified malfunction.

8 Packing certificate

The СП33 stand serial number _____ packed at the factory in accordance with the requirements of the existing technical documentation on it.

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post	personal signature	full name

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year, month, day

9 Acceptance certificate

The СП33 stand serial number _____ is made and accepted in accordance with the mandatory requirements of state standards, the existing technical documentation and found fit for service.

Head of Quality Department

LS

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personal signature	full name

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year, month, day