

Speedometer Test Bench

CAPABILITY SHEET · TRUE ONLY TO THE WHEEL DIAMETER · PROVED AGAINST A REFERENCE · ENGINEERED TO

THE ONE IDEA

PRINCIPLE	A speedometer is only as true as its wheel diameter.
WHY IT MATTERS	A speedometer counts the turns of an axle and multiplies them by the size of the wheel, so the bench proves the instrument against a reference and records the diameter setting with every test.

THE BENCH

BASE & DRIVE	A heavy bench base carrying a variable-speed motor and drive, joined to the sensor by a precision coupling on one common axis.
JIGS	Machined jigs and clamp blocks that hold each pulse generator or tachogenerator the customer names, quick to change.
REFERENCE	A reference encoder and counter better than the instrument they check, with a certificate from a laboratory the customer names.
CONSOLE & RECORD	A test console that runs the speed points, tries any over-speed contact and keeps a record for every instrument, wheel diameter setting included.

THE METHOD

ORDER	Specify, reference, drive, build, test and prove. Choosing the reference before the motor, and keeping the diameter in the record, are what a quick order skips.
LIMITS	Speeds, tolerances and diameters come from the specification the customer names and from the instrument, and are not printed here.

CONFIGURATIONS

MOTOR-DRIVEN BENCH	A motor turning a real pulse generator or tachogenerator through a precision coupling, for indicators and recorders.
PULSE SIMULATOR BENCH	A frequency source giving the indicator the pulses a chosen speed and diameter would make, for a quick check of the indicator alone.
COMBINED BENCH	Both lines side by side, with one record for every instrument.

STANDARDS & SCOPE

STANDARDS	Public reference: ISO/IEC 17025 for the competence of calibration laboratories.
SCOPE BOUNDARY	It is the speedometer test bench: not a brake test rig, not a bogie rig and not a pressure calibration bench.
STATUS	Neometrix engineers speedometer test benches to order, and no delivered speedometer test bench is claimed.

DEFENCE PROGRAMMES DESK

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