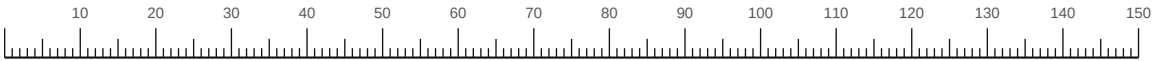


Clutch And Clutch Bell Measurement

The half of the CVT that gets blamed on the belt. Four measurements and a wear inspection, with true-size circles for the bell.

PRINT CALIBRATION — CHECK BEFORE MEASURING

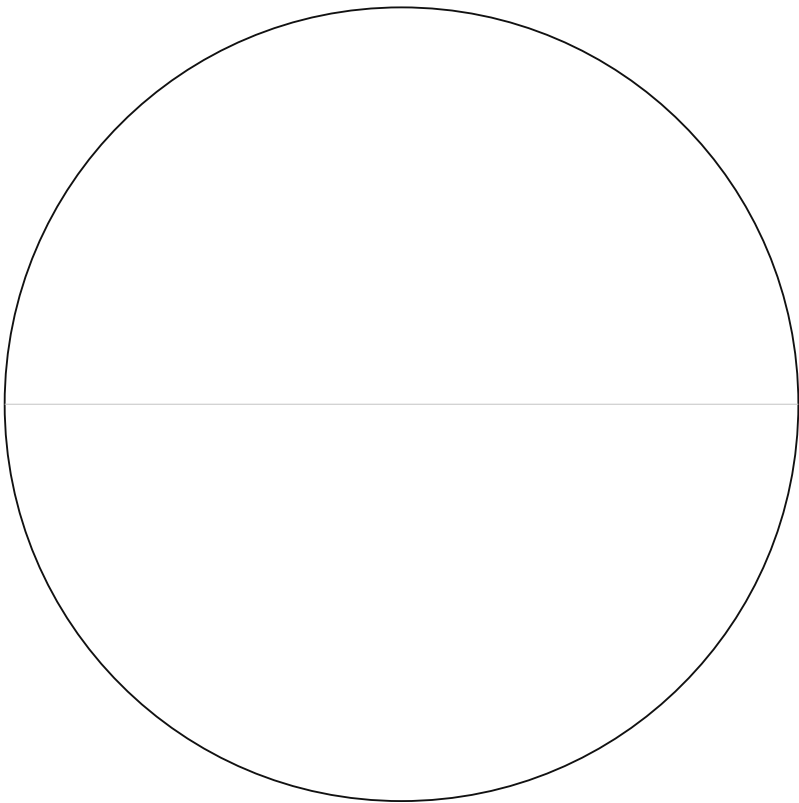


Lay a steel rule along this scale. The 150mm mark must fall at exactly 150mm. If it does not, reprint at 100% / "Actual size" with page scaling off — every measurement you take from a scaled sheet will be wrong.

BELL INSIDE DIAMETER

Stand the bell mouth-down on the circles below and find the one its inner rim sits on. This is far more accurate than trying to get a rule squarely across the inside of a bell, which is the reason most people never measure it at all.

TRUE-SIZE BELL INSIDE DIAMETERS — MILLIMETRES



105

WHAT THE CIRCLES ARE

Geometry, not a claim. A 112mm circle is a 112mm circle. What this sheet will not tell you is which size your machine takes, because that follows from the transmission it was built with — and the only reliable way to know is the bell in your hand.

THE FOUR MEASUREMENTS

BELL INSIDE DIAMETER

 mm

BELL DEPTH

 mm

Mouth to inner face

CLUTCH OUTSIDE DIAMETER

 mm

Shoes at rest

FRICTION THICKNESS

 mm

At its thinnest point

NUMBER OF SHOES

NUMBER OF SPRINGS

SPRING COLOUR, IF ANY

CENTRE BOSS SPLINE COUNT

BOSS INSIDE DIAMETER

 mm

NUT THREAD SIZE

WHAT MEASUREMENT CANNOT SHOW

THE SHOES

- ☐ Friction faces matt, not shiny and glazed
Glaze means it has been slipping
- ☐ Material remaining and even across all shoes
- ☐ No cracking or crumbling at the edges
- ☐ Spring mounting holes round, not worn oval
- ☐ Shoes pivot freely on their posts

THE BELL

- ☐ Inner surface smooth, not scored or grooved
- ☐ Not blued or browned from heat
- ☐ Measures the same diameter at more than one angle
A bell worn oval reads differently depending where you measure
- ☐ No cracks radiating from the centre or the mounting

THE REST OF IT

- ☐ Contra spring not collapsed or sagging
- ☐ Torque driver pin and its groove not worn
- ☐ No oil or grease anywhere on a friction face
- ☐ Nut and washer present and correctly torqued

OVAL IS THE ONE PEOPLE MISS

Measure the bell's inside diameter at two or three different angles. If they disagree by more than a small amount the bell has worn oval, and no set of new shoes will engage smoothly in it — they will grab at the tight point and slip at the wide one, which presents as exactly the judder that gets blamed on the belt.

RECORD

DATE	MILES	WHAT WAS MEASURED OR REPLACED	READING	NOTES

THIS SHEET RECORDS, IT DOES NOT RECOMMEND
Nothing here tells you which part to buy. It tells you what you currently have, in the units a seller works in. Machines built to the same nominal specification were fitted with different components by different suppliers, sometimes inside one model year, so the only reliable reference is the item in your hand.

Need to work out what you actually own?

The Scooter Parts Registry is a free public record of the Chinese factories behind US-market scooters, ATVs and go-karts — brand, engine family, VIN prefix, factory and related machines. No account, no email.

thescooterparts.com/identify