

The Belt Keeps Breaking

A belt that fails repeatedly is not a bad belt. Something is destroying it, and it is usually one of six things.

BEFORE YOU START

Petrol vapour ignites, batteries produce hydrogen, ignition coils carry thousands of volts and a machine on a stand can fall. Work outdoors or with the door open, disconnect the battery before probing wiring you are not deliberately measuring live, and never run an engine in a closed space. This sheet helps you observe and record. It is not a repair manual.

FIRST — HOW DID IT FAIL?

Lay the pieces out before ordering anything. This is the best evidence you have.

HOW IT FAILED	WHAT THAT POINTS AT
Shredded along one edge	Misalignment, or the belt running against something it should not touch
Cogs stripped off the inner face	Slip under load — the belt was being held while the pulley kept turning
Snapped clean across with little wear	A sudden load, a seized component, or something entering the case
Glazed and shiny before it parted	It had been slipping for a long time, which generates the heat that kills it
Worn narrow and even, then failed	Ordinary end of life — if that came quickly, look at load and gearing
Soft, swollen or oily to the touch	Contamination. A new belt will go the same way until the leak is found

HOW IT FAILED	MILES THIS BELT DID	HOW MANY BELTS RECENTLY

THE SIX CAUSES

1 Is there any oil or grease inside the transmission case?

- YES** Found it. The case runs dry by design — oil means a crankshaft seal, gearbox seal or over-greased bearing is leaking in. A new belt will glaze and fail too until that is fixed.
- NO** Case is dry. Note it and go on.

↓ still not solved — go on

2 Are the variator and clutch pulley faces smooth, or scored, stepped or grooved where the belt runs?

- YES** Smooth faces. Go on.
- NO** A scored or stepped face abrades a belt continuously. This is a common cause of short belt life and it does not improve on its own.

↓ still not solved — go on

3 Do all the rollers turn freely, with no flat spots?

- YES** Rollers are round and free. Go on.
- NO** A roller with a flat is sliding rather than rolling, which means the belt is being held at the wrong height and dragged. Note how many are flatted.

↓ still not solved — go on

4

Does the belt marking match what came off, and does the width match the marking?

YES

Correct length and an unworn width. Go on.

NO

A belt of the wrong length runs at the wrong height in the pulleys and works permanently against its design. Check the case length measurement before ordering the next one.

↓ still not solved — go on

5

Are the clutch shoes and bell in good condition, not glazed, scored or worn oval?

YES

Clutch looks serviceable. Go on.

NO

A slipping clutch makes heat, and heat in that case is what kills belts. Note the condition.

↓ still not solved — go on

6

Is the machine regularly carrying more load, or being ridden harder, than when belts used to last?

YES

That is a real cause and not a fault. A transmission set up for one rider on the flat will eat belts two-up on hills. Record it and expect a shorter interval.

NO

Load has not changed. If everything above was normal too, record the whole pattern before fitting another belt.

BELT LIFE RECORD

FITTED ON	MILES AT FITTING	MARKING	FAILED ON	MILES IT DID	HOW IT FAILED

WRITE DOWN WHAT YOU SAW, NOT WHAT YOU CONCLUDED

The observation is recoverable later and the conclusion is not. “Plug dry after six attempts” is still useful in a month. “Fuel problem” is not, because you will not remember what made you think so.

WHAT YOU FOUND IN THE CASE, AND WHAT YOU CHANGED

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