

Brakes Dragging — Diagnostic Chart

A wheel that will not spin freely costs speed and fuel and makes heat. Six causes, each ending at something you can feel or see.

BRAKES

This sheet helps you find why a brake is dragging. It is not a repair procedure. Brake work done wrong does not fail gently, and a dragging brake that is freed incorrectly can become a brake that does not work at all. If you are not confident, have it done.

THE TEST

Get the wheel off the ground and spin it by hand. A healthy wheel turns several revolutions and coasts to a stop, perhaps with a light rub you can hear. A wheel that stops within half a turn is dragging. Do both, and note the difference between them — one much worse than the other is itself a finding.

FRONT: REVOLUTIONS BEFORE
STOPPING

REAR: REVOLUTIONS BEFORE STOPPING

EITHER WHEEL HOT AFTER A RIDE?

FIRST, THE FREE ONE — COMMON TO BOTH TYPES

1 Does the brake lever or pedal return fully to its rest position on its own?

YES It returns. Note it and go to the branch for your brake type.

NO A lever or pedal that does not fully return holds the brake slightly applied all the time. Look at the pivot for dirt and corrosion, at the cable for stiffness, and at the return spring. This costs nothing to fix and is commonly the whole answer.

DISC BRAKES

1 With the pads out, does the piston push back into the caliper with steady hand pressure?

YES The piston retracts. Go on.

NO A piston that will not push back is corroded in its bore or has a perished seal. It cannot release the pad, so the brake is permanently partly applied.

↓ still not solved — go on

2 Do the caliper slide pins move freely in and out by hand?

YES Slides are free. Go on.

NO Seized slides hold the caliper skewed so one pad stays in contact. Clean them and use the correct grease — the wrong one swells the rubber boots and seizes them again.

↓ still not solved — go on

3

When you crack the bleed nipple, does the brake release?

YES

Pressure was being held. That points at the master cylinder not returning, or a hose that has swollen internally and is acting as a one-way valve.

NO

No trapped pressure. The drag is mechanical — pads, slides, or a warped disc rubbing at one point.

DRUM BRAKES

1

With the adjuster fully slackened off, does the wheel spin freely?

YES

The brake was simply over-adjusted. Set it so there is free play at the lever before the shoes touch — and ask why it needed that much adjustment, because worn shoes are the usual reason.

NO

Still dragging with the adjuster off. The fault is inside. Go on.

↓ still not solved — go on

2

Does the operating cam return fully when you release the lever?

YES

The cam returns. Go on.

NO

A dry or corroded cam holds the shoes out. It needs cleaning and a trace of grease on the cam and pivot only — never anywhere it can reach the friction faces.

↓ still not solved — go on

3

Are both return springs present, unstretched, and the same as each other?

YES

Springs are good. Go on.

NO

A missing, broken or stretched return spring cannot pull the shoes back off the drum. Replace both together.

↓ still not solved — go on

4

Is the cable free, and does the outer casing look undamaged along its whole length?

YES

Cable is free. If everything above was normal, look at the shoes for a high spot and at the drum for ovality.

NO

A cable that has corroded or whose outer has been crushed will not let the brake return. Record where the damage is.

WHAT YOU FOUND

WHEEL	WHAT YOU OBSERVED	WHAT YOU DID	SPINS FREE NOW?

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WRITE DOWN WHAT YOU SAW, NOT WHAT YOU CONCLUDED

The observation is recoverable later and the conclusion is not. “Wheel would not spin more than half a turn” is still useful in a month. “Brake problem” is not, because you will not remember what made you think so.

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