

DIAGNOSIS GUIDE · AK-DG-002

STEERING PLAY: FIND THE WORN PART THE FIRST TIME

A quarter turn of slop before anything happens up front? Play is never "the steering" — it's one specific joint in the chain between your hands and the tires. The trick is tracing it instead of guessing, because replacing the wrong part fixes nothing and costs real money.

[START THE TRACE](#)[GET THE \\$9.95 HANDBOOK](#)

Applies to: 1949–1979 VW Type 1, 2, 3 · Porsche 356

Time: ~20 min · needs a helper **Difficulty:** Beginner

Cost to diagnose: \$0

TRACE IT — DON'T GUESS — FIX THE RIGHT PART ONCE

\$0 FREE CHECKS FIRST

READ THIS BEFORE YOU BUY ANYTHING — FROM US OR ANYONE

BEFORE YOU SPEND A DIME

We sell steering boxes for a living, and we'd still rather you check the free stuff first. Sometimes play is nothing but loose hardware: the **pitman arm nut**, the **coupler pinch bolts**, the **box mounting bolts**, the **steering wheel nut**, and the **tie rod jam nuts**. Put a torque wrench on all of it and go feel the wheel again.

If the play is gone — great. You owe us nothing; go enjoy the car and tell a friend who we are. If it's still there, it's real wear in one specific joint, and the trace below will point at it. (*The exact torque values and sequence for every one of these fasteners are in the \$9.95 handbook.*)

MOTION GOES IN. WATCH WHERE IT **DOESN'T** COME OUT.

You need a helper, a flashlight, and five minutes. Helper rocks the steering wheel an inch each way — gently, steadily — while you work your way down the chain with the light: coupler, box input, pitman arm, tie rods, spindles. Every healthy joint passes the motion through instantly.

The first place motion goes in but doesn't come out — that's your worn part. The five causes below are the chain, in order.

THE 5-MINUTE TRACE · 5 CAUSES

WORK THE CHAIN, FRONT OF CAR TO THE WHEELS

Each cause tells you what it feels like, what to watch for during the trace, and the fix that ends it. Play often stacks — a sixteenth here, an eighth there — so finish the whole chain even after you find one.



The first inch of your steering, disappearing into cracked rubber.

1

2-MIN CHECK · CHEAPEST CURE FIRST

THE STEERING COUPLER

The flexible disc between the steering shaft and the box. Rubber ones crack and delaminate with age; when they do, the first inch of your input just winds up the coupler instead of turning anything.

WATCH FOR: The shaft side turning while the box side sits still, visible cracks, or wallowed-out bolt holes. This is the first joint in the chain — rule it out before blaming the box.

THE FIX: A new HD coupler — the cheapest cure on this page. Part of our **steering components** lineup.

Coupler inspection points and bolt torque: in the handbook.

2

2-MIN CHECK · THE MOST COMMON SERIOUS CAUSE

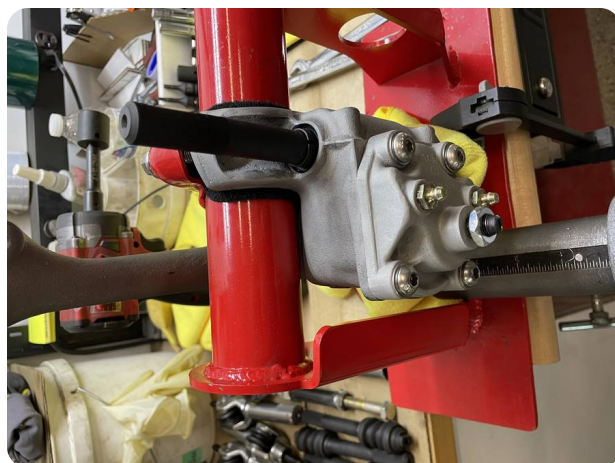
THE STEERING BOX ITSELF

Input shaft turns, pitman arm doesn't — motion dies inside the box. That's internal wear between the worm and roller, and on a 60-year-old car it's the most common serious cause of play.

WATCH FOR: The coupler moving as one piece while the pitman arm lags behind. One honest warning: cranking the adjustment screw down on a worn box buys you two good weeks, then binding in the corners. Wear isn't adjustable.

THE FIX: If you can vouch for your box, keep it and keep tracing. If it's an unknown, replace it once with a **PRObuilt HD steering box** — stripped, rebuilt, set to spec and bench-tested before it ships. Lifetime warranty, install guide included.

Exact lash check procedure and spec: in the handbook.



Rebuilt, shimmed, tested — before it ever sees your car.



A torn boot is a countdown, not a cosmetic issue.

3

5-MIN CHECK · THE SAFETY ONE

TIE ROD ENDS

Four to six of them depending on year, and any one with a worn ball socket adds its own slice of slop. They're also the joints that fail dangerously, not just annoyingly — this check is about more than feel.

WATCH FOR: The stud moving inside its socket while the helper rocks the wheel — or lift the front and push-pull each rod by hand. Any click is a dead end (literally). A torn boot means the joint is already eating grit.

THE FIX: Replace as a set with new ends, then align. Never reuse a torn boot "for now."

Tie rod torque specs and the push-pull test: in the handbook.

4

2-MIN CHECK · WORTH 30 SECONDS EACH

PITMAN ARM & STEERING SHAFT

Less common, cheap to rule out: a pitman arm nut that's backed off lets the arm rock on its splines, and a worn shaft bushing up in the column adds a vague, rattly play you can feel more than see.

WATCH FOR: Movement between the pitman arm and the box's sector shaft during the trace; the steering shaft visibly shifting sideways in the column tube.

THE FIX: Torque the arm to spec; replace the column bushing if the shaft wanders. Both covered in the free-checks box above — this cause is usually hardware, not parts.

Pitman arm torque value and bushing replacement: in the handbook.



A loose nut here imitates a \$400 problem.



What 60 years looks like when it finally comes out.

5

5-MIN CHECK · THE END OF THE CHAIN

KING PINS, LINK PINS & BALL JOINTS

Strictly speaking they're suspension, not steering — but worn ones let the whole spindle move, which your hands read as play plus wander plus clunks over bumps. If you've traced the whole chain and everything above checked out, this is where the slop lives.

WATCH FOR: With the front jacked up, rock the tire at 12 and 6. Movement there, with tie rods already ruled out, is pins or joints.

THE FIX: If the pins are gone, the honest math usually favors a **PRObuilt assembled beam** over piecemeal parts — fresh pins, arms and seals, set up and ready to bolt on.

The 12-and-6 check, with what each kind of movement means: in the handbook.

TRACED IT? FIX IT ONCE.

Three ways forward — pick the one that fits how you like to work.

SCAN WITH YOUR PHONE CAMERA



STEERING SYSTEMS

PRObuilt HD boxes,
couplers & kits



ASSEMBLED BEAMS

Fresh pins, arms & seals —
bolt-on



THE \$9.95 HANDBOOK

Every spec & procedure in
this guide



TALK TO A PRO

Scan to call/text 1-623-518-
3537

STUCK? WE ANSWER.

REAL HUMANS. REAL PHONES. REAL VW PEOPLE.

If the trace found two worn joints and you're not sure which to fix first, or your symptoms don't match the chain — reach out. We pick up the phone. That's the Airkewld way.



THIS GUIDE ONLINE

Scan for the live page & latest
revision

CALL / TEXT
1-623-518-3537

EMAIL
help@airkewld.com

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COME BACK.** · AK-DG-002 · REV 1.0 · 2026-10