What length are my Swing Axles? A walkthrough of the variations..

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On swing axle Beetle and Karmann Ghias, the rear axle shaft length varies by model year due to changes in track width, brake design, and overall stability improvements introduced by Volkswagen.

The differences fall into three main configurations:

Short Axle / Short Spline (up to 1965)

• Overall axle shaft length: approximately 676 mm (26 5/8 ´´)

• Spline length: approximately 50–53 mm

This is the earliest and narrowest arrangement, typically found on 6-volt vehicles produced until 1965.

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Long Axle / Short Spline (1966–1967)

• Overall axle shaft length: approximately 708 mm (27 7/8 ´´)

• Spline length: approximately 50–53 mm

• Increase over short axle: approximately +32 mm per side

This revision widened the rear track to improve handling and stability. The spline length remained unchanged, making this a transitional configuration.

Long Axle / Long Spline (1968 onwards, Swing Axle Markets)

• Overall axle shaft length: approximately 720–721 mm (28 3/8 ´´)

• Spline length: approximately 66–68 mm

• Increase over short axle: approximately +44 mm per side

Whilst the axle shaft itself is only slightly longer than the 1966–67 version, the spline length is significantly increased. This allows fitment of wider brake drums and accommodates different wheel offsets.

Summary of Axle Dimensions

Technical Considerations

• Moving from short to long axles increases track width by roughly 60-70mm overall.

• The 1968 onwards change is mainly a longer spline rather than a large increase in shaft length.

• Brake drums must match spline length (short vs long spline).

• Wheel fitment and offset are directly affected by axle length.

• Mixing incompatible parts can prevent correct seating of the brake drum or proper tightening of the axle nut.

It is also worth noting that axle shaft length is only one part of the assembly; axle tubes, bearing housings, and spacers all contribute to the final installed width.

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