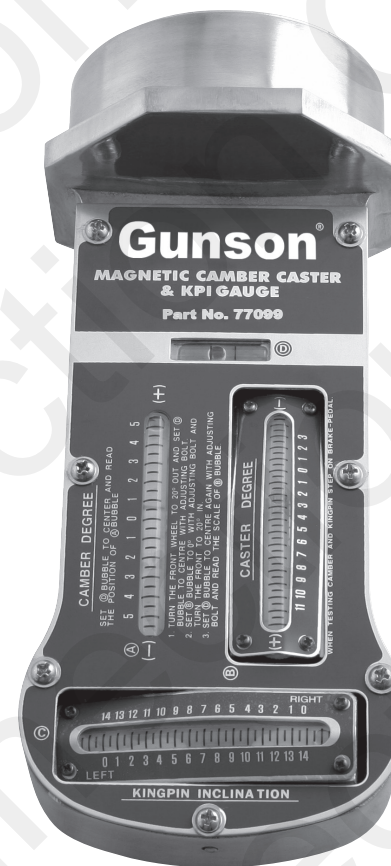


Gunson®

Caster - Camber and KPi Gauge C9296L - C9106L SUD KPI GAUGE

Part No. 77099

Instructions



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www.gunson.co.uk

Guarantee

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If this product fails through faulty materials or workmanship, contact our service department direct on: **+44 (0) 1926 818186**. Normal wear & tear are excluded as are consumable items & abuse.

77099

Caster - Camber and KPi Gauge

Precautions

Ensure the following:

- You are working on level ground
- The tyre pressures, wheel and tyre sizes are correct
- Ride height is correct
- Steering joints, linkages, wheel bearings are serviceable
- Wheels/tyres for run and spin out
- Check steering gear for leaks and damage
- Check steering wheel for security and free play
- Turns lock to lock to centralise steering
- The vehicle is positioned correctly on the Gunson turn angle plates Part No. 77099

Specification:

- Camber gauge with fixed graduation from +5 degrees to -5 degrees
- Castor gauge graduated from +11 degrees to -3 degrees
- King gauge from 0 to 14 degrees left to right
- Scaled in for both left and right side use.

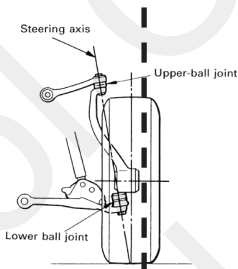
Useful Note:

NB: any adjustment made to the suspension or steering angles will affect the other suspension and steering angles

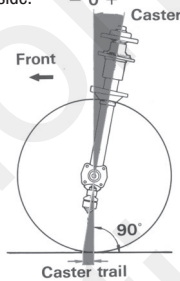
Always double check ALL angles after making adjustments.

Camber = the angle of the **wheel** viewed from the **front**

Zero Camber = zero° = wheel vertical

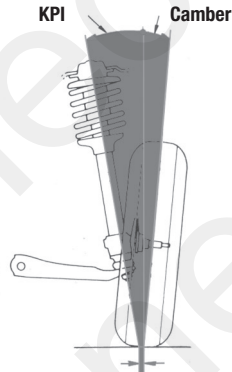


Caster = the angle of the steering swivel line when viewed from the side.



King Gauge Inclination = (KPI) or SAI (Steering Axis Inclination) is the angle of the **steering swivel** line compared with a vertical line (**viewed from the front**).

KPI and SAI should not be confused with caster.



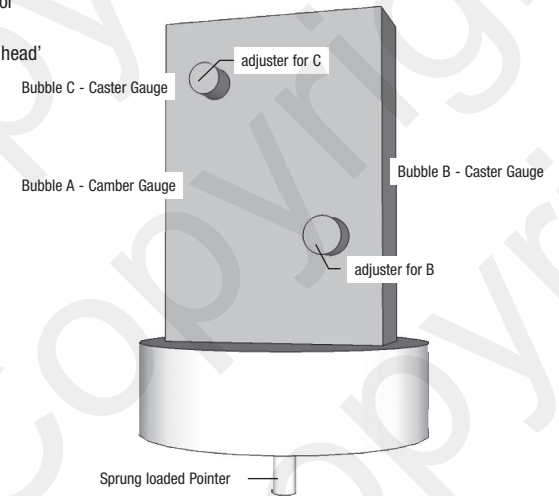
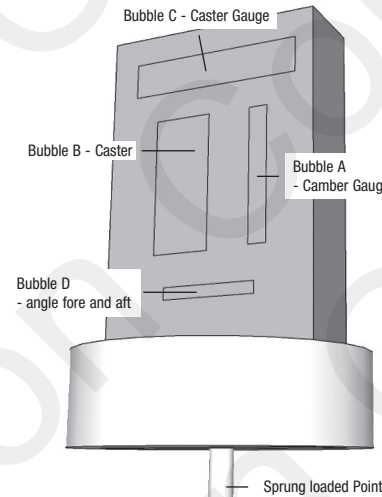
The Included Angle = KPI + Camber.

The following chart gives some useful information to help diagnose various suspension/steering faults from the results of the above measurements.

ALIGNMENT ANGLES			
K.P.I	Camber	Included angle	PROBLEM
Correct	Less than specification	Less than specification	Bent spindle
Less than	Greater than specification	Correct	Bent Lower Control Arm
Greater than	Less than specification	Correct	Bent Upper Control Arm
Less than	Greater than specification	Greater than specification	Bent Lower Control Arm and spindle

Instructions for use: Camber

- Ensure the vehicle manufacturer's recommendations for camber measurement are adhered to.
- Some manufacturers stipulate the vehicle should have a specific weight of fuel in the tank and/or weight placed on the driver's seat.
- Ensure the wheels are pointing in the 'dead a head' position



- Remove the magnetic protector plate from the pointer end of the 77099
- Fit the gauge on to the hub centre (wheel in place)
- Angle the 77099 so that the bubble in gauge (D) is between the 2 lines.
- Read off the Camber angle from the Camber Gauge (A).

Caster Angle

(process should be repeated for both sides of the vehicle)

- Ensure the vehicle manufacturer's recommendations for camber measurement are adhered to.
 - Some manufacturers stipulate the vehicle should have a specific weight of fuel in the tank and/or weight placed on the driver's seat.
 - Ensure the wheels are pointing in the dead a head position
 - Position the vehicle on the Turn Angle plates
 - Level vehicle by using leveling plates under the rear wheels to the same thickness as the turn angle plates
- Turn the steering so the wheel to be measured turns outwards by an indicated 20° (indicated on the turn angle plate)
 - Fit the 77099 to the centre of the hub so that the bubble in gauge (D) is between the 2 lines.

- Zero the castor gauge (B) using the thumb screw mounted on the rear face of the 77099.
- With gauge (B) zeroed turn the wheel back to indicate 20° in.

- Reset the bubble in gauge (D) to between the 2 lines by turning the whole of the 77099.
- Take the caster reading from the Castor angle gauge (B).

King Gauge Inclination (KPI/SAI)

(process should be repeated for both sides of the vehicle)

- Ensure the vehicle manufacturer's recommendations for camber measurement are adhered to.
 - Some manufacturers stipulate the vehicle should have a specific weight of fuel in the tank and/or weight placed on the driver's seat.
 - Ensure the wheels are pointing in the dead a head position
 - Position the vehicle on the Turn Angle plates
 - Level vehicle by using leveling plates under the rear wheels to the same thickness as the turn angle plates
- Turn the steering so the wheel to be measured turns outwards by an indicated 20° (indicated on the turn angle plate)
 - Fit the 77099 to the centre of the hub so that the bubble in gauge (D) is between the 2 lines.
 - Set the bubble in gauge (C) to zero using the appropriate thumb screw on the rear of the 77099.
 - Turn the wheel in to an indicated 20° and read off the castor angle from Gauge (C).