JINGJIANG GEAO AUTOMOTIVE TECHNOLOGY CO., LTD.

JINGJIANG GEAO AUTOMOTIVE TECHNOLOGY CO., LTD.

PRODUCT DATASHEET

JZX90-02 90° Reverse Angle Steering Gear

Spiral bevel angle drive, i = 1:1 | QC/T 1227—2025 compliant



PRODUCT MODEL

JZX90-02

TRANSFER ANGLE / RATIO

90° / i = 1:1

Rotation **IN CW → OUT CW**

Spline **ZGN 79T both ends**

Torsion **≤ 30′ @ ±3 N·m**

Housing **Al die-cast**

+86 181 2173 5544

sales@gearautocn.com · **gearautocn.com**

PRODUCT OVERVIEW

The JZX90-02 redirects steering input by 90° while keeping the direction of rotation — input clockwise, output clockwise. That makes it the counterpart to the positive type where the column has to run on the same side as the drop arm. Torsional backlash is measured and controlled (≤30′ after ±150 N·m preload), and the assembly is verified against QC/T 1227—2025 for axial play, backlash, noise and cold-start torque.

KEY FEATURES

90° with same-hand rotation

Input and output turn the same way — solves column packaging on the opposite side.

Controlled torsional backlash

Measured ≤30′ after ±150 N·m loading, so steering free play stays tight.

QC/T 1227—2025 verified

Axial play, backlash, noise and −40 °C start torque all inside the standard limits.

Aluminium die-cast housing

Rigid four-bolt flange body, 60 dB(A) or quieter in operation.

Maintenance-free sealing

Skeleton seals with low-temperature grease packed at assembly (−40 °C).

Custom splines

ZGN 79T at both ends as standard; other spline parameters to customer drawing.

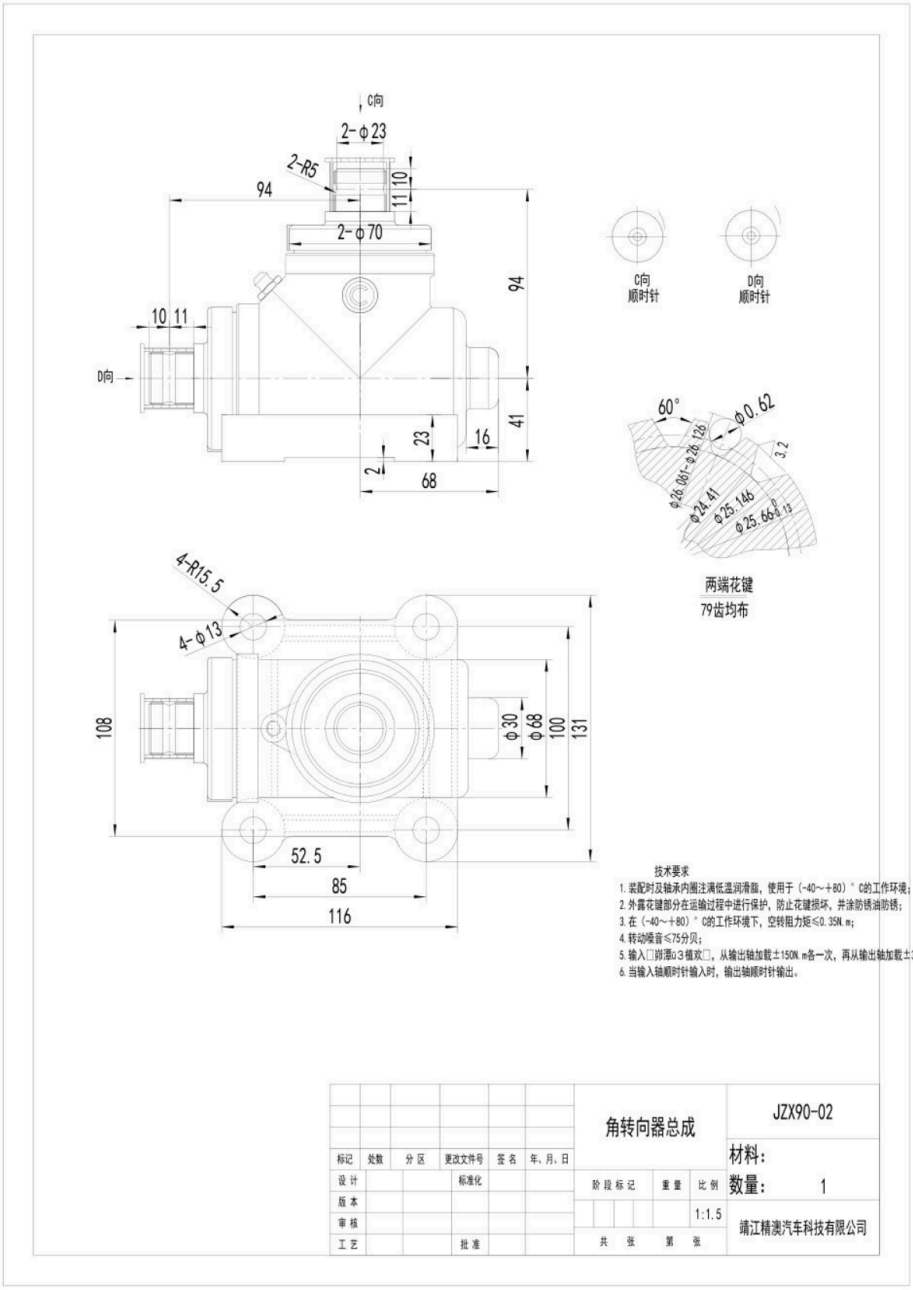


Fig. 1 — JZX90-02 reverse angle steering gear, scale 1:1. Outline, mounting and section views.

1. Spiral bevel gear pair, ratio i = 1:1, input-output angle 90°;
2. Axial clearance ≤ 0.05 mm, circumferential backlash ≤ 0.05°;
3. No-load resistance torque ≤ 0.35 N·m at −40 to +80 °C;
4. Lubricant volume 60 – 65 ml, skeleton oil seals, maintenance-free;
5. Aluminium die-cast housing, noise level ≤ 60 dB(A).

TECHNICAL SPECIFICATIONS

ANGLE STEERING GEAR · JZX90-02

ITEM	SPECIFICATION
Product model	JZX90-02 (90° reverse angle steering gear)
Transmission type	Spiral bevel gear, ratio i = 1:1
Angle / rotation	Input CW → output CW; input-output angle 90°
Input / output spline	ZGN 79 teeth both ends (changeable to customer requirement)
Mounting dimensions	100 / 85 / 52.5 mm (see product drawing)
Axial clearance	≤ 0.05 mm
Circumferential backlash	≤ 0.05°
No-load resistance torque	≤ 0.35 N·m (−40 to +80 °C)
Operating temperature	−40 to +80 °C (low-temperature grease packed at assembly)
Noise level	≤ 60 dB(A)
Torsional backlash	Input fixed, output loaded ±150 N·m once each, then ±3 N·m → ≤ 30′
Housing material	Aluminium die-casting
Sealing	Skeleton oil seal (maintenance-free)
Standard compliance	QC/T 1227—2025 Automotive angle steering gear — requirements met

Values above are taken from the JZX90-02 assembly drawing and type-test data.

OPERATING & SERVICE NOTES

Operating environment

Ambient −40 to +80 °C, suitable for high-temperature variation and dusty or humid conditions common to bus front-axle steering.

Lubrication & service

Factory-filled with 60 – 65 ml of special lubricant. Skeleton oil seals are maintenance-free for the whole service life.

Installation

Four-bolt flange mounting; the mating surface must be flat and clean, and bolts tightened evenly to the specified torque.

Port customisation

Input/output spline parameters and mounting dimensions can be changed to suit the vehicle model, verified by sample before series supply.