

ZF Steering Systems, LLC

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This Quality Agreement is by and between

ZF Steering Systems, LLC, 15 Spiral Drive, Florence KY 41042 ("ZFSS")

and
Company Name:
Street:
Zip Code/City:
and the following of its affiliates and subsidiaries:

(collectively "supplier").

#### 1. Preamble

ZFSS and Supplier have entered into a Purchase Agreement under which Supplier will supply Parts to ZFSS. ZFSS's Standard Terms and Conditions and this Quality Agreement apply to and are incorporated into the Purchase Agreement (the Purchase Agreement, ZFSS's Standard Terms and Conditions, and this Quality Agreement are collectively the "Contract Documents"). This Quality Agreement describes (i) ZFSS's expectations that Supplier will deliver zero-defect Parts, (ii) the parties' objectives for continuous quality improvement processes and permanent monitoring of quality performance, and (iii) the metrics by which Supplier's quality performance will be measured. By these means, customer satisfaction will be ensured and quality costs will be reduced. ZFSS and Supplier therefore agree on the following provisions:

## 2. General Requirements

- A. Supplier is responsible for delivering Parts that meet all of the quality requirements of the Contract Documents and all other ZFSS quality directives, including the QR83 Quality Assurance Directive for Purchased Items.
- B. Supplier will manufacture the Parts in conformance with all applicable drawings, technical instructions, and specifications as communicated to the Supplier by ZFSS and/or as jointly determined by ZFSS and Supplier.
- C. Supplier will test the raw materials used for production of Parts and the finished Parts before they are dispatched to ZFSS, using the test methods and specifications prescribed by ZFSS or coordinated with ZFSS. Supplier will maintain records of all such tests.
- D. Supplier will record information reflecting current data on material used in the Parts in the International Material Data System (<u>www.mdsystem.com</u>) as a prerequisite for the PPAP process.



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- E. Supplier will inform ZFSS of all subcontractors used in the production of the Parts. It is the responsibility of the Supplier to ensure the quality capability of subcontractors. The Supplier must employ a suitable quality management system for verification of the quality capability of subcontractors when a contract is placed, and check on that system at regular intervals. QR83 also applies to the relationship between Supplier and subcontractor.
- F. Following coordination with the Supplier, ZFSS may inspect production of the Parts at the Supplier's production sites at any time.

#### 3. Terms

- A. The Effective Date of this Quality Agreement is the Effective Date of the Purchase Agreement. This Quality Agreement will remain in effect during the entire term of the Purchase Agreement.
- B. Supplier's failure to meet the quality objectives of the Contract Documents may, in the sole discretion of ZFSS, constitute cause for termination of the Purchase Agreement, which is governed by Section 34 of ZFSS's Standard Terms and Conditions.

#### 4. Scope

This Quality Agreement covers all Parts delivered to ZFSS by the Supplier.

#### 5. Objective

Supplier acknowledges and agrees that the parties' goal for the Parts Supplier delivers to ZFSS is **Zero Defects**.

## 6. Metrics for Measuring Quality Performance

- A. The two quality-related metrics employed by ZFSS are:
- Fault Rate ("FR") as measured in defective Parts per million ("ppm")
- Quality Occurrences, as measured in a monthly Score Card
- B. Determination of the FR is based on the following formula:

Number of faulty units	
FR (ppm) =	x 1,000,000
Number of supplied units	



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- C. Defective Parts include the following:
  - i. Parts that do not conform to specifications or drawings
  - ii. Parts delivered with nonconforming or inaccurate labeling or packaging
  - iii. Parts that are determined to be nonconforming under Section 15 of ZFSS's Standard Terms and Conditions
- D. There are several points at which defective Parts may be brought to ZFSS's attention:
  - i. Supplier testing and quality control measures prior to delivery
  - ii. In-house complaints (from incoming goods to dispatch)
  - iii. At zero mileage, complaints from dealers or customers
  - iv. Field complaints (after sale)
- E. As explained in Section 15 of ZFSS's Standard Terms and Conditions, ZFSS will handle defective Parts in one of several ways depending on the circumstances. Accordingly, the measurement of Supplier's quality performance will vary depending on how the defective Parts are handled and counted. The following measurements will be used by ZFSS to calculate each Supplier's FR:
  - i. Rejects: Number of defective Parts rejected and returned to Supplier
  - ii. Sorting: Number of defective Parts after sorting; for returns to the Supplier, subsequent correction of the actual number of defective Parts is possible
  - iii. Rework: Number of defective Parts; for returns to the Supplier, subsequent correction of the actual number of reworked defective Parts is possible
- F. From time to time Supplier or ZFSS may determine that a design deviation from the specifications and drawings for a Part is appropriate. Supplier must inform ZFSS in advance of any such determination and request approval for the deviation. Supplier will use ZFSS form F05 (Deviation Request) as attached to QR83 for this purpose. If the design deviation application by Supplier prior to delivery is approved by ZFSS the Parts Supplier delivers that contain the deviation will not be counted as defective and will not go into the ppm to determine Supplier's FR. In all other cases, Parts that contain a design deviation that has not be approved in advance will be considered defective.
- G. In addition to determining each Supplier's FR in terms of ppm, ZFSS will prepare and provide to each Supplier a monthly Score Card reflecting the number of quality occurrences during the preceding month. Along with the FR and, from time to time the PSC described below, the Score Card will be used to measure the Supplier's overall quality performance.



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H. ZFSS may in some cases determine to apply refined metrics to assess a Supplier's quality performance by calculating a Problematic Supplier Code ("PSC"). The PSC, which assigns varying weights to quality issues depending on when and where the problem arises, is determined on the basis of the following formula:

$$PSC = 1xS + 2xW + 3xM + 4xF + 5xK$$

**S=** Number of shipments with design deviation (design deviation application filed by the Supplier prior to shipment – own request).

**W=** Number of complaints in incoming inspection (WEP).

**M=** Number of reminders due to late response to complaints.

**F=** Number of complaints from production or stockroom.

**K=** Number of complaints from customer (0 miles/field).

## 7. Processing of Complaints

- A. Incoming goods inspection at ZFSS is limited to the identity and quantity of the Parts supplied, and to damage in transit. The rules governing inspection of incoming Parts are set out in Section 14 of ZFSS's Standard Terms and Conditions.
- B. ZFSS will process defective Parts according to the 8-D Method based on the following procedures:
  - i. No later than 24 h after Supplier's receipt of a complaint, Supplier will report to the appropriate department in ZFSS on the immediate action taken or to be taken. Scope of the first response: 8D-Report down to and including the item "Immediate Measures".
  - ii. No later than **5 work days** after Supplier's receipt of a complaint, Supplier will inform ZFSS of the cause (finalized analysis).
  - iii. No later than 10 work days after Supplier's receipt of a complaint, ZFSS must receive a complete 8D-Report. Intermediate reports are required every 5 work days if extended processing times are needed for reasons of complexity and/or methods of analysis (step 6 of the action plan for remedial measures to be introduced). These reports must be submitted to the appropriate contact person at ZFSS without prior request. Such intermediate reports must contain a date on which the complete 8D-Report (or the next intermediate report) will be available. The term of 10 work days for the filing of a complete 8D-Report can only be extended on the basis of such comprehensive intermediate reports.
  - iv. The number of defective units of returned lots must be documented in the 8D-Report, so that the ppm-relevant number can be corrected if necessary.



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- v. Final reports of error analyses must be complete, consistent, and convincing. The 8D-Report is the reporting format to be used. The minimum requirement regarding the content is an Ishikawa and a logical 3x5xwhy analysis.
- vi. A different schedule for processing a complaint may be agreed on by ZFSS and the Supplier in special cases.
- vii. If Supplier's delivery of defective Parts is creating an impending standstill of the assembly line, if Supplier is unable to provide conforming goods within 1 hour with a new delivery or by sorting Parts to identify conforming Parts, ZFSS may deploy an in-house service provider at the expense of the Supplier.

## 8. Reporting

- A. Supplier will report all quality issues to ZFSS immediately.
- B. ZFSS will provide Supplier with a monthly Score Card reflecting quality issues.

#### 9. Defect Prevention

- A. Supplier consistently will engage in quality improvement and defect prevention programs. For this purpose, the Supplier will employ the commonly used fault-prevention methods, especially the FMEA.
- B. FMEAs are to be revised on the basis of each fault correction measure and the results obtained. Adequate proof (FMEA excerpts) will be made available to ZFSS together with the finalized 8D-Report.

## 10. Quality Costs

Supplier will monitor its quality costs at reasonable intervals. This monitoring will include calculation of Supplier's cost of manufacturing or delivering nonconforming Parts. Supplier will permit inspection of its monitoring records when requested by ZFSS.

## 11. Other Requirements

- A. From time to time ZFSS may determine that it needs to meet with Supplier about quality issues. Such meetings will occur when the need arises. ZFSS will verify proper implementation of product tests and processes and the monitoring of such processes by means of quality meetings and audits by ZFSS or Supplier.
- B. Supplier will allow ZFSS to inspect and obtain copies of all documents relating to the production of the Parts, including: SPC, process sequence plan, QM plan, test plan, and measuring equipment capability. In addition, ZFSS may inspect Supplier's FMEA reports.
- C. Supplier will assign a senior staff member to serve as the quality liaison with ZFSS to facilitate implementation of the quality requirements of the Contract Documents.



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- D. ZFSS and Supplier agree that the individual executing this Quality Agreement on their behalf is authorized to sign for the company and that his or her signature binds the company.
- E. If a Supplier chronically violates the quality requirements of the Contract Documents, ZFSS in its sole discretion may charge Supplier certain administrative fees to cover the costs that ZFSS incurs in processing complaints or otherwise dealing with Supplier's quality issues.

## 12. Warranty and Liability

This Quality Agreement does not limit the warranty and liability obligations imposed on Supplier by the Contract Documents.

#### 13. Additional Terms and Conditions

SIGNED AND AGREED TO as of the Effective Date:

If a conflict exists among the provisions of the Contract Documents, ZFSS's Standard Terms and Conditions will take precedence, followed by the Purchase Agreement and then this Quality Agreement and any other subsidiary agreements referenced in the Contract Documents.

ZF Steering Systems, LLC [Supplier]

By: Title:	By:	
Title:	Title:	