# Sanland Group Quality Assurance Plan

## —SC80X51 jaw crusher and SG185 hydraulic cone crusher

**1. Drawing Design**

The SC80X51 jaw crusher and SG185 hydraulic cone crusher involved in this project are mature products of Shenyang Shantai. Years of production experience and end-user feedback have proven their stable performance, rational design, and full compliance with operational and capacity requirements. As such, the drawings and process arrangements provide a solid foundation for manufacturing high-quality equipment.

Technical Lead: Li Yingchang

**2. Procurement Control**

Procure high-quality raw materials per drawings and technical requirements.

Partner steelmaking, casting, non-ferrous foundry, forging, and heat treatment suppliers must meet drawing, process, contract, and qualification standards.

Auxiliary equipment (e.g., motors) undergoes operational tests and inspections before delivery to ensure compliance.

Procurement Lead: Zhang Dan

**3. Production Process Control**

The Production Department develops manufacturing plans and executes blank/component production, assembly, and painting strictly per drawings, processes, and standards.

Manage tools, fixtures, instruments, and measuring devices to prevent loss, deformation, or damage.

Ensure on-site technical documents (drawings/processes/standards) are accurate, complete, and legible.

Maintain equipment precision and capability; use only calibrated measuring instruments within validity periods.

Welders must hold national certifications and follow drawing/process specifications.

Assembly personnel adhere to processes/drawings, use proper tooling, and conduct pre-delivery tests with QA to verify performance.

Implement proper packaging/loading per drawings and packing lists to prevent transit issues.
Production Lead: Zhao Haipeng

**4. Inspection & Testing**

QA monitors procurement/production to ensure full compliance, with records archived.

Non-conforming products are tagged, quarantined, and reviewed by Technical for rework/scrap decisions.

Pre-delivery tests are executed per the test protocol (see table below).

## Jaw Crusher Test Protocol

Header Information
Plan No.: _____
Production No.: _____
Drawing No.: _____

1. Test Type: Factory Acceptance Test
2. Test Standards
2.1 Product drawings
2.2 JB/T 1388-2002 Compound Pendulum Jaw Crushers
2.3 JB/T 53535-1999 Quality Grading for Compound Pendulum Jaw Crushers
2.4 JB/T 5000 General Technical Specifications for Heavy Machinery

3. Test Items & Requirements
3.1 Measuring instruments must comply with relevant standards and provide valid calibration certificates.
3.2 Installation: The crusher shall be installed per technical specifications.
3.3 Voltage stability: Input voltage fluctuation ≤ ±5% of rated value during testing.
3.4 Fault handling: Stop immediately to resolve faults, then complete remaining tests.
3.5 Maintenance: Perform routine maintenance adhering to safety requirements.
3.6 Test scope: 8-hour no-load operation. Inspection items are below:

**Jaw Crusher Test Specification**

| No. | Test Item | Unit | Technical Requirement | Test Standard | Measured Result |
|---|---|---|---|---|---|
| 1 | Movable jaw & moving parts operation | - | Smooth movement, no jamming or abnormal noise | JB/T 1388-2002 | |
| 2 | Maximum bearing temperature | °C | ≤75 | JB/T 1388-2002 | |
| 3 | Bearing temperature rise | °C | ≤40 | JB/T 1388-2002 | |
| 4 | Motor rotation speed | r/min | As per actual test motor | - | |
| 5 | Eccentric shaft speed | r/min | As per general assembly drawing | - | |
| 6 | Noise level | dB(A) | ≤85 | JB/T 1388-2002 | |
| 7 | Lubrication points & system | - | Unobstructed oil passages, no clogging | JB/T 1388-2002 | |

Jaw Crusher Test Completion Notes

※ During testing:

Record all issues and corrective actions in detail.

Repeat tests until all problems are resolved.

Post-test requirements:

Prepare the crusher per factory standards for shipment.

Signatures

Plant Representative: _____

Company Representative: _____

Supervisor: _____

Date: _____

## Cone Crusher General Test Report

Header Information

Plan No.: _____

Production No.: _____

Drawing No.: _____

1. Test Type: Factory Acceptance Test

2. Test Standards:

2.1 Product drawings

2.2 JB/T 6988-2002 Cone Crushers

2.3 JB/T 53569-2000 Quality Grading for Cone Crushers

2.4 JB/T 5000 General Technical Specifications for Heavy Machinery

3. Test Items & Requirements:

3.1 Use calibrated instruments with valid certificates.

3.2 Install the crusher per technical specifications.

3.3 Maintain input voltage within ±5% of rated value.

3.4 Stop to resolve faults, then complete remaining tests.

3.5 Perform routine maintenance complying with safety standards.

3.6 Conduct 2-hour no-load test, then inspect per table below.

**Cone Crusher Test Specification**

| No. | Test Item | Unit | Technical Requirement | Test Standard | Measured Result |
|---|---|---|---|---|---|
| 1 | Cone head rotation speed | r/min | ≤15 | JB/T 6988-2002 | |
| 2 | Maximum return oil temperature | °C | ≤50 | JB/T 6988-2002 | |
| 3 | Bevel gear meshing sound | - | No periodic noise | JB/T 6988-2002 | |
| 4 | Contact between spherical body and bronze bushing | - | No grinding marks or damage | JB/T 6988-2002 | |
| 5 | Noise level | dB(A) | ≤90 | JB/T 6988-2002 | |
| 6 | Hydraulic system pressure test | - | Refer to relevant drawings | JB/T 6988-2002 | |

※ During the above test run, all encountered issues and subsequent corrective actions must be documented in detail. Repeat the test run until all problems are resolved.

After testing, prepare the cone crusher according to relevant regulations to meet factory delivery standards.

Assembly Inspection: _____

Overall Supervisor: _____

Date: _____

Quality Supervisor: Zhang Zhenyu