

## TONGLI Heavy Machinery Conveyor Equipment



## Company History Introduction



Founded in 1958, Tongli Company's conveying products include FU-type chain conveyors, NE and NSE high-efficiency bucket elevators, DS (SDBF) type chain bucket clinker conveyors, N-TGD wire rope belt elevators, and TH-type ring chain elevators for fertilizer plants. All products utilize technology imported from Japan and Germany. In 1997, the company independently developed the DT75, TD II, and DJ type large-angle sidewall belt conveyors. With strong technical capabilities and rich experience in production and design, Tongli specializes in the design, manufacture, and development of next-generation high-efficiency and energy-saving material conveying machinery. It is one of the earliest, strongest, largest, and highest-quality conveying enterprises (groups) in the province and even nationwide. Its users are located throughout China, and its products are exported to many countries in Europe, Asia, Africa, and South America, enjoying a high reputation both domestically and internationally.

# Company Certificate



## ACHIEVEMENT AWARD

**Zhejiang Tongli Heavy Machinery Manufacturing Co., Ltd.**  
**浙江同力重型机械制造有限公司**

No.2289 Huancheng South Road, Tongxiang City, Zhejiang Province, China  
中国浙江省桐乡市环城南路 2289 号

has been assessed by Intertek as conforming to the requirements of:

### Workplace Conditions Assessment

Intertek has assessed the practices of the above facility according to the scope of the Workplace Conditions Assessment, which resulted in meeting the performance criteria required for the "Achievement Award". The evaluation of the facility covered the following areas:

1. Labour
2. Wages and Hours
3. Health and Safety
4. Management System
5. Environment
6. Business Practices



Registration Number  
**F\_IAR\_110467\_WCA**

Issue Date: September 22, 2023  
Expiry Date: September 21, 2024

*Guillaume Gignac*  
Guillaume Gignac  
Global Vice President,  
Technical Management & Quality  
Business Assurance, Intertek

*Cary Chan*  
Cary Chan  
Certification Administration Centre, Intertek

## Workplace Conditions Assessment Report

Measured Results — Improved Performance



**ZHEJIANG TONGLI HEAVY MACHINERY MANUFACTURING CO. LTD**

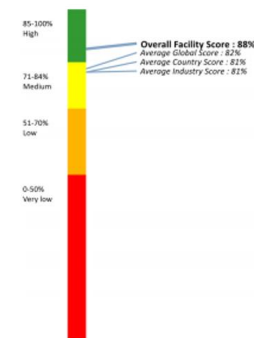
### GENERAL INFORMATION

**Overall Facility Score: 88%**

|             |                           |                   |           |
|-------------|---------------------------|-------------------|-----------|
| Reg No:     | F_IAR_110467              | Country:          | China     |
| Audit Date: | 11-Sep-2023 - 13-Sep-2023 | Assessment Stage: | Initial   |
| Last Audit: | NA                        | Schedule Type:    | Announced |
| Mandays:    | 3                         | Audit Firm:       | Intertek  |

### WORKPLACE PERFORMANCE INDEX AND SUMMARY

Participating facilities: 17503



| Assessment area    | Score results | Number of non-compliances by rating |       |                |       |       |
|--------------------|---------------|-------------------------------------|-------|----------------|-------|-------|
|                    |               | Major                               | Minor | Non-compliance | Minor | Major |
| Overall            | 88%           | -                                   | -     | 5              | 6     | -     |
| Labor              | 100%          | -                                   | -     | -              | -     | -     |
| Wages & Hours      | 100%          | -                                   | -     | -              | -     | -     |
| Health & Safety    | 83%           | -                                   | -     | 3              | 1     | -     |
| Management Systems | 85%           | -                                   | -     | -              | 4     | -     |
| Environment        | 100%          | -                                   | -     | -              | -     | -     |
| Business Practices | 78%           | -                                   | -     | 2              | 1     | -     |

The Performance Index Bar is used to measure and benchmark the facility's score against the other population of audit results in the database using a common scoring algorithm.

ISO9001



## QUALITY MANAGEMENT SYSTEM CERTIFICATE

Certificate No. : 04819Q12871R1M

We hereby certify that the organization:

**Zhejiang Tongli Heavy Machinery Manufacturing Co., Ltd.**

Unified social credit code: 913304831488335900

is in conformity with Quality Management System Standard:  
GB/T19001-2016 / ISO9001:2015

The certificate is valid to the following product(s)/service:  
Design and Production of Cement Machinery and Compound Fertilizer Machinery

Registration Address/ Physical Address: No. 2289, Huancheng South Road, Wutong Street, Tongxiang City, Jiaxing City, Zhejiang Province, P. R. China

Date of Issue: 2019-08-14  
Date of Expiry: 2022-08-13  
Date of Initial Issue: 2019-08-22

Issued By: *[Signature]*

The effectiveness of the Certificate is subject to QR Code in the lower left corner. Meanwhile, you can search the website of certification body: [www.bhcert.com.cn](http://www.bhcert.com.cn), or search the CNCA website: [www.cnca.gov.cn](http://www.cnca.gov.cn).

**Beijing Head International Certification Co., Ltd.**  
Address: Room 1801, Building 5, No. 18, Beiyuan East Road, Chaoyang District, Beijing, P. R. China (100012)

ISO14001

ISO14001



## ENVIRONMENTAL MANAGEMENT SYSTEM CERTIFICATE

Certificate No. : 04819E12409R0M

We hereby certify that the organization:

**Zhejiang Tongli Heavy Machinery Manufacturing Co., Ltd.**

Unified social credit code: 913304831488335900

is in conformity with Environmental Management System Standard:  
GB/T24001-2016 / ISO14001:2015

The certificate is valid to the following product(s)/service:  
Design, Production and Related Management Activities of Cement Machinery and Compound Fertilizer Machinery

Registration Address/ Physical Address: No. 2289, Huancheng South Road, Wutong Street, Tongxiang City, Jiaxing City, Zhejiang Province, P. R. China

Date of Issue: 2019-08-14  
Date of Expiry: 2022-08-13

Issued By: *[Signature]*

The effectiveness of the Certificate is subject to QR Code in the lower left corner. Meanwhile, you can search the website of certification body: [www.bhcert.com.cn](http://www.bhcert.com.cn), or search the CNCA website: [www.cnca.gov.cn](http://www.cnca.gov.cn).

**Beijing Head International Certification Co., Ltd.**  
Address: Room 1801, Building 5, No. 18, Beiyuan East Road, Chaoyang District, Beijing, P. R. China (100012)

ISO14001

ISO45001



## OCCUPATIONAL HEALTH AND SAFETY MANAGEMENT SYSTEM CERTIFICATE

Certificate No. : 04819S12233R0M

We hereby certify that the organization:

**Zhejiang Tongli Heavy Machinery Manufacturing Co., Ltd.**

Unified social credit code: 913304831488335900

is in conformity with Occupational Health Safety Management System Standard: GB/T45001-2020 / ISO45001:2018

The certificate is valid to the following product(s)/service:  
Design, Production and Related Management Activities of Cement Machinery and Compound Fertilizer Machinery

Registration Address/ Physical Address: No. 2289, Huancheng South Road, Wutong Street, Tongxiang City, Jiaxing City, Zhejiang Province, P. R. China

Date of Issue: 2019-08-14  
Date of Renewal: 2022-08-09  
Date of Expiry: 2022-08-13

Issued By: *[Signature]*

The effectiveness of the Certificate is subject to QR Code in the lower left corner. Meanwhile, you can search the website of certification body: [www.bhcert.com.cn](http://www.bhcert.com.cn), or search the CNCA website: [www.cnca.gov.cn](http://www.cnca.gov.cn).

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ISO45001

## Quality Inspection Certificate



## Strategic Partner

 合作伙伴 Strategic partner



史丹利农业集团  
股份有限公司

史丹利公司成立于1992年, 是专业从事高塔复合肥、高浓度复合肥、硝基复合肥、生物肥、缓释肥、海藻肥等新型肥料研发、生产和销售的国家重点高新技术企业。

中盐安徽红四方  
股份有限公司

中盐安徽红四方股份有限公司是中国盐业总公司控股, 合肥市工业投资控股有限公司参股的大型化工企业。



施可丰化工  
股份有限公司

公司隶属于山东翔龙实业集团有限公司, 是一家集科研、生产、销售及农化服务于一体的复合肥料高新技术骨干企业。

吉林云天化  
股份有限公司

吉林云天化是云天化集团在东北地区设立的战略发展基地, 为国有控股企业。是国内仅有的一家集“种、肥、药、粮”为一体的现代化农业产业链运营商。



江西开门子肥业集团  
有限公司

公司下辖江西景德镇、湖南湘潭、河南兰考、河北衡水四大复合肥生产基地, 复合肥料产能达210万吨。

## Manufacturing Equipment

Lazer Cutter x 1



Flame Cutter x 4



### Sand Blasting Room x 1



## Product Technical Features

4.1 The head sprocket of our bucket elevator adopts a modular (combined) structure, allowing convenient on-site maintenance and replacement.



4.2 The tail pulley adopts an integral machined structure, which effectively eliminates misalignment or tail shaft deviation caused by cumulative chain length errors. It also reduces impact loads on the chain, thereby extending chain service life.



4.3 The plate chain is manufactured from high-quality alloy steel. The chain plate holes are rough-machined and then precision-finished, followed by quenching, tempering, and shot blasting. The pins are surface carburized and ground after heat treatment to achieve the required breaking strength, significantly improving chain service life.



4.4 The equipment casing is fabricated using fully automatic laser cutting, and formed by CNC bending to reinforce stiffening ribs, increasing structural rigidity. The four corners of the casing adopt a hollow column structure, which provides better rigidity compared to conventional folded and welded structures, ensuring stable support of the entire machine. All casings are shot blasted to improve both appearance and paint adhesion. Inspection doors are designed with quick-opening structures.

4.5 The bucket side plates and mounting holes are processed in one step using automatic laser cutting, ensuring alignment on both sides and facilitating installation. For highly abrasive materials, wear-resistant toothed plates are added at the bucket head section to reduce digging resistance at the tail, extend bucket service life, and reduce chain operating load. **Our tallest Bucket elevator is 128m high used in high tower fertilizer production line and cement grinding plant.**



4.6 The high-speed bucket elevator adopts a hollow shaft direct drive system. The robust drive base is mounted with a floating support on the head casing, ensuring safe operation of the drive unit even under slight vibration or instability, without external force interference.

4.7 The bucket elevator is equipped with an auxiliary transmission device (automatically configured for full-load conditions), which facilitates installation, inspection, and maintenance. Unlike conventional reducers with built-in auxiliary drives, our system uses an independent K-series geared motor connected to the main reducer via a tooth-type clutch. This ensures reliable engagement and complete disengagement, effectively

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preventing situations where incomplete separation of the auxiliary drive causes the main reducer to fail to operate.

4.8 The distance between the head discharge outlet and the head shaft center is increased, extending discharge time and allowing complete emptying of materials from the buckets. This significantly reduces material backflow, minimizes the gap between buckets and casing, and prevents casing wear, tail blockage, and capacity reduction.

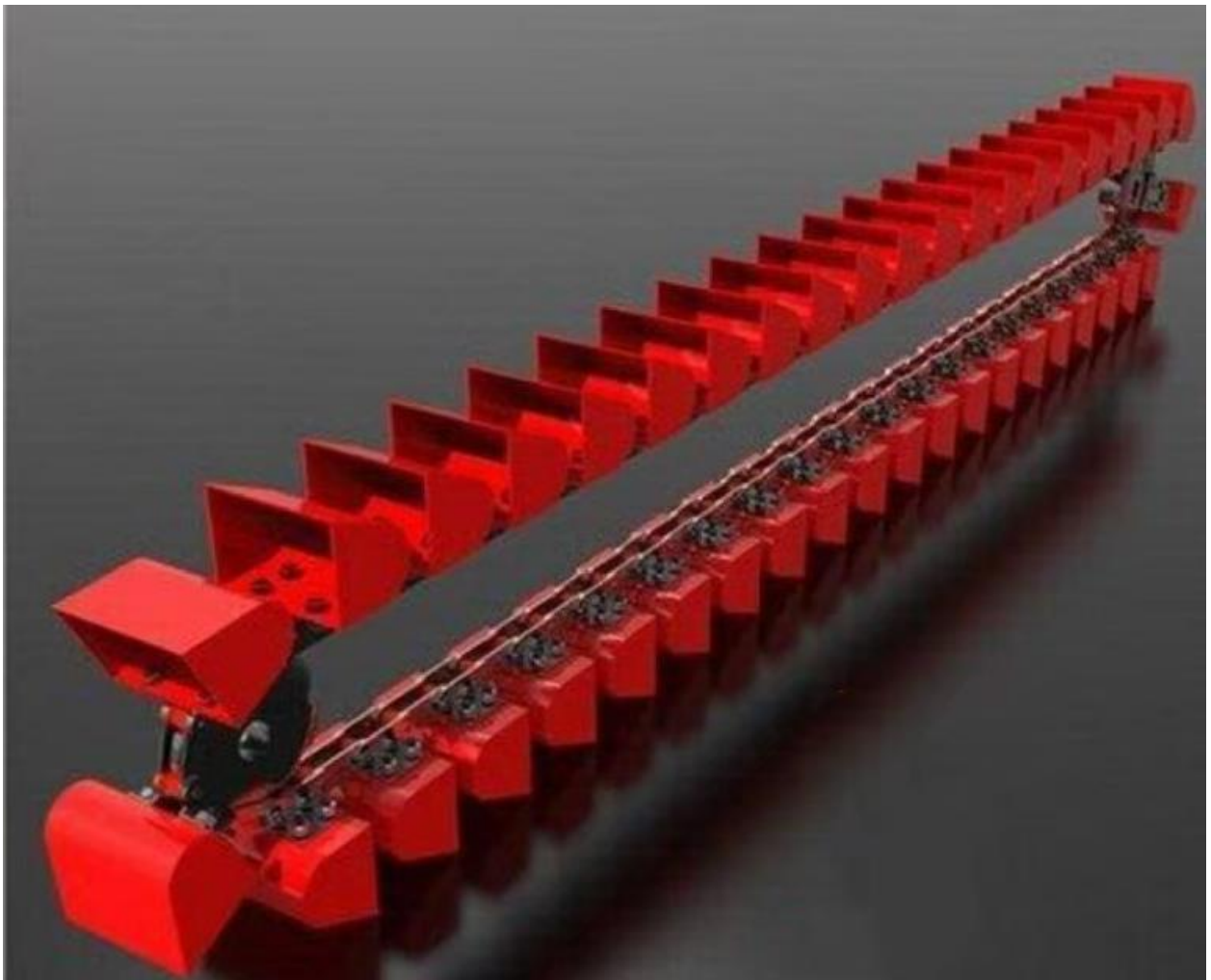
## Elevator head assembly — integrated with direct-coupled drive unit



**NE 100 model Dual chain structure(Double Plate chain/bushed roller chain)**



**NE30 NE model - single chain bar structure NE30**



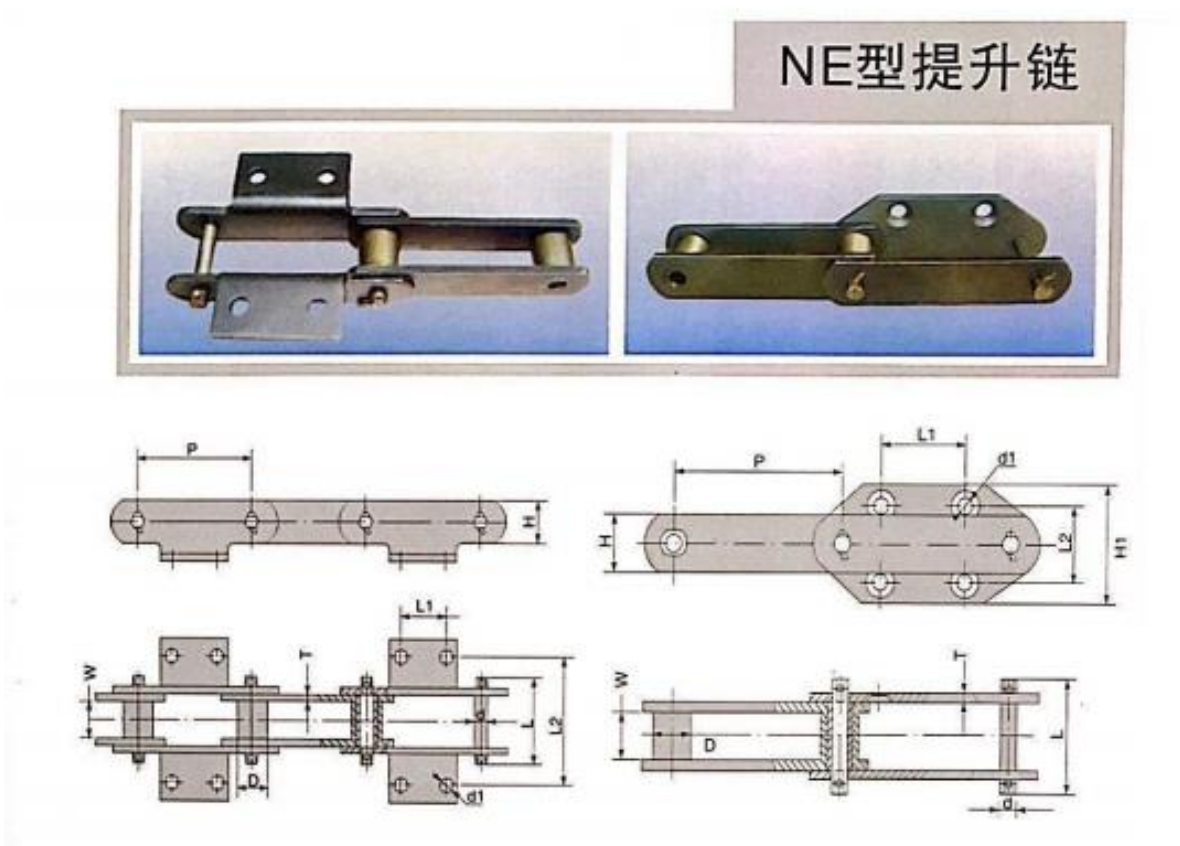
### **Single row plate chain - suitable for NE30 model**



### **Double row board chain - suitable for models such as NE50/100/150/200**



## NE Elevator Chain Technical Parameters Table



| NE型提升链技术参数  |        |          |          |          |          |         |         |           |                |
|-------------|--------|----------|----------|----------|----------|---------|---------|-----------|----------------|
| 型号          | 节距 $P$ | 滚子外径 $D$ | 销轴直径 $d$ | 销轴长度 $L$ | 内节内宽 $W$ | 链板厚 $T$ | 链板宽 $H$ | 链板宽 $H_1$ | 破断载荷 $F_{min}$ |
| NE15        | 101.6  | 26.5     | 11.5     | 70       | 27       | 6       | 35      |           | 100            |
| NE30        | 152.4  | 36       | 15.5     | 90       | 36.5     | 8       | 50      |           | 240            |
| NE50        | 152.4  | 36       | 15.5     | 90       | 36.5     | 8       | 50      | 110       | 240            |
| NE50(强)     | 152.4  | 36       | 18       | 90       | 36.5     | 8       | 50      | 110       | 360            |
| NE100 NE150 | 200    | 44.5     | 19.1     | 120      | 51.8     | 10      | 60      | 125       | 370            |
| NE150(强)    | 200    | 48.5     | 22.2     | 126      | 57.6     | 10      | 75      | 125       | 550            |
| NE200 NE300 | 250    | 63.5     | 31.75    | 146      | 67.4     | 12      | 90      | 150       | 750            |
| NE300(强)    | 250    | 70       | 35       | 170      | 75       | 16      | 100     | 180       | 1000           |
| NE400       | 300    | 70       | 35       | 170      | 75       | 16      | 100     | 180       | 1000           |
| NE500       | 300    | 75       | 38.5     | 177      | 82.5     | 16      | 115     | 180       | 1250           |

**Flat hopper mounting plate — suitable for hoppers with boss structures**



**Curved hopper mounting plate — suitable for hoppers without boss structures**



**Head pulley — integral structure and combined structure = hub + segmented gear ring**



**Segmented gear ring: Our Segmented gear ring diameter is bigger than others also easy replacement.**



## **Hopper with wear/corrosion-resistant racks(Liner) — double-chain structure**



## **Hopper with wear/corrosion resistant racks(Liner) — Single- chain structure**

