

# ZOOMLION

## ZMS1550G履带移动重型筛分站 技术规格书

### ZMS1550G Crawler Mobile Heavy-duty Screening Station Technical Specification



中联重科股份有限公司矿山机械事业部

Zoomlion Heavy Industry Science & Technology Co., Ltd  
Mining Machinery Division



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### 1 概述 Introduction

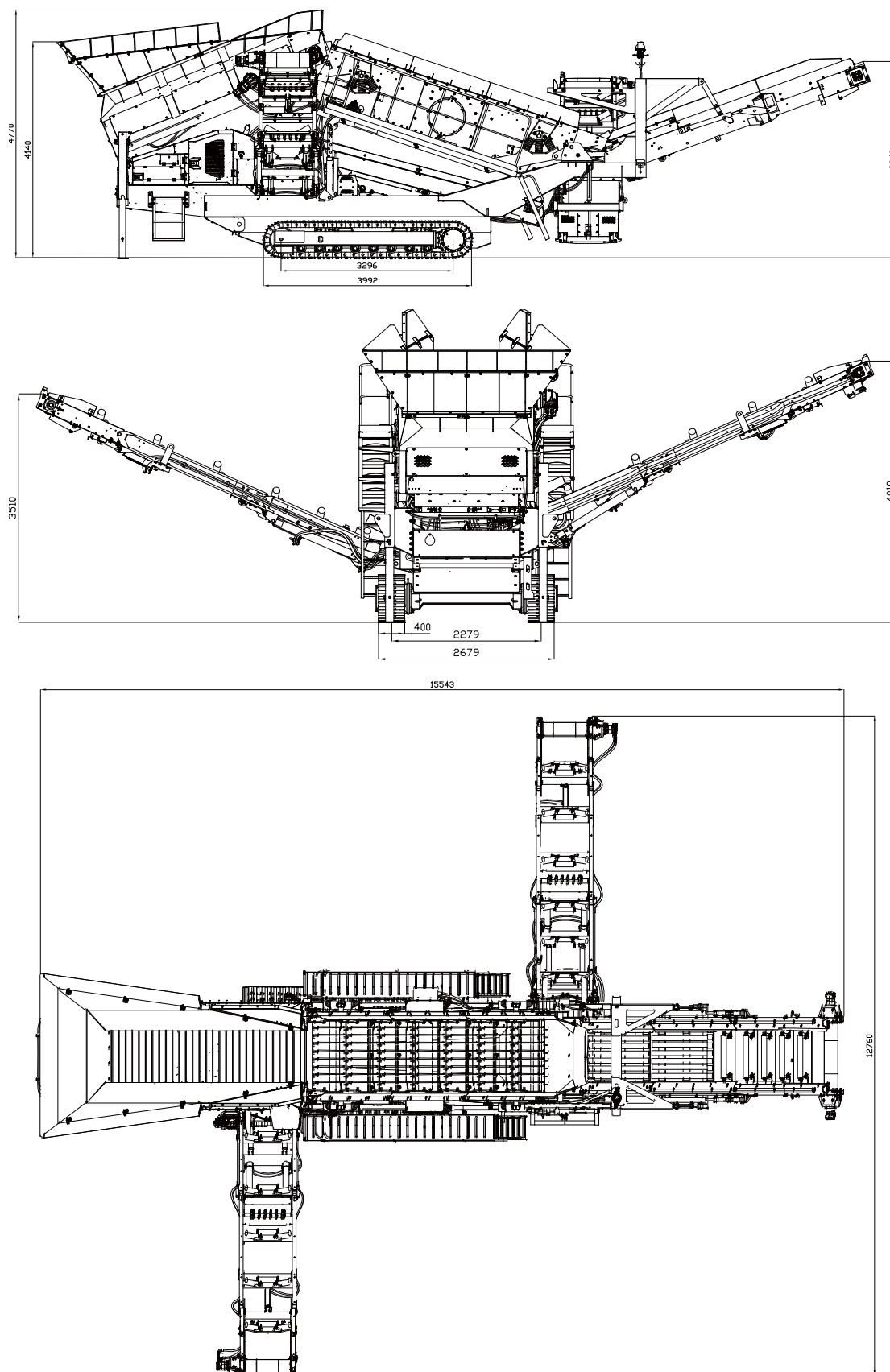
ZMS1550G 履带移动重型筛分站, 是中联重科矿山机械事业部基于中联重科在矿山机械领域数十年的技术积累, 并结合国内外最先进的设计理念, 推出的一款全液压驱动的移动破碎站设备。它具有性能优越、环保节能、高效可靠等特点。

主要适用于初级和二级筛分应用, 例如采石和采矿、铁矿石、拆建废料、砂砾、堆肥、表土和煤炭。筛分最大喂料粒度小于 400mm, 全液压驱动, 工作环境温度为-20℃~ 40℃, 海拔高度在 3000m 以下 (高海拔、极寒地区需更改部分配置)。

ZMS1550G crawler mobile heavy-duty screening station is developed by Zoomlion Heavy Industry Machinery Division, based on decades of technical accumulation in the field of mining machinery and combined with the most advanced design concepts both domestically and internationally. It is a fully hydraulic-driven mobile crushing unit with excellent performance, environmental protection, energy efficiency, and high reliability.

It is mainly applicable for primary and secondary screening applications, such as quarrying, mining, iron ore, demolition waste, gravel, compost, topsoil, and coal. The maximum feeding particle size is less than 400mm, fully hydraulic-driven, operating temperature range is -20℃~40℃, and altitude below 3000m (high altitude, extremely cold areas need to change some configuration).

工作外形示意图 (单位: mm): Working outline (Unit :mm)



整机关键尺寸 Key dimensions of the Screening ( Unit :mm )

| 参数描述<br>Description    | 数值<br>Value | 参数描述<br>Description           | 数值<br>Value | 参数描述<br>Description    | 数值<br>Value |
|------------------------|-------------|-------------------------------|-------------|------------------------|-------------|
| 工作总长<br>working length | 15545       | 主卸料高度<br>Unloading height     | 3840        | 喂料高度<br>Feeding height | 4140        |
| 工作总宽<br>working width  | 12760       | 一层卸料高度<br>Unloading height I  | 3510        |                        |             |
| 工作总高<br>working height | 4770        | 二层卸料高度<br>Unloading height II | 4010        |                        |             |

## 2 主要技术特点 Main technical characteristics

### 2.1 链板喂料机 Chain Feeder

液压马达加减速机驱动，大扭矩，大斗容，链板采用耐磨材质，使用寿命长；通过液压装置伸缩放低高度，料斗可拆卸，运输便捷；配备链条自润滑滚轮，使用方便，可使用挖机或装载机直接喂料。

Hydraulic motor + reducer drive, high torque, large hopper capacity, wear-resistant chain material for long service life.

Height can be adjusted via hydraulic extension and retraction; hopper is detachable for easy transportation.

Equipped with self-lubricating roller chains; compatible with direct feeding by excavators or loaders.

### 2.2 振动筛 Vibrating Screen

筛体采用高强钢板、螺栓连接，设备运行稳定可靠；筛箱倾斜角度可通过液压装置在 12° ~19° 之间进行调节，可在头筛与成品筛之间灵活切换；

高性能筛箱可安装多种筛网，包括篦条筛、针状筛、网格筛等；

检修或维保时，可通过液压装置将筛箱出料口举升，便于更换筛网，可选配筛网张紧油缸。

Screen frame made of high-strength steel plates with bolted connections, ensuring stable and reliable operation.

Screen box inclination can be hydraulically adjusted between 12°~19°, enabling flexible switching between head screen and finished product screen.

High-performance screen box supports various screen meshes, including bar screens, needle screens, and mesh screens.

Screen box outlet can be lifted via hydraulic devices for easy maintenance and screen mesh replacement; optional screen tensioning cylinders.

### 2.3 皮带输送系统 Belt Conveyor System

皮带通过液压折叠，灵活高效，便于运输和转场；

所有皮带装有刮料器，能清洁粘附在皮带表面的物料，避免残留物料进入滚筒导致皮带跑偏；

Belts can be hydraulically folded for efficient transportation and relocation.



All belts are equipped with scrapers to clean material residues, preventing belt misalignment caused by residual material.

## 2.4 车架 Frame

车架采用优质低合金高强度耐候钢制造，提高车架的强度及使用寿命，同时能适用低温环境。

The frame is made of high quality low alloy high strength resistant steel, which can improve the strength and service life of the frame, and can be suitable for low temperature environment

## 2.5 动力系统 Power system

发动机 Engine

品牌、型号：玉柴 YCA05175-T400（国Ⅳ）；

Model: Yuchai YCA05175-T400（Ⅳ）

额定功率：129kW@2200RPM；

Rated power: 129kW@2200RPM；

型式：直列、水冷、立式、四冲程；

Type: in-line、water-cooled、vertical、four-stroke；

进气方式：涡轮增压，中冷；

Intake mode: turbocharged, intercooled；

排放标准：非道路国Ⅳ；

Emission standard: Ⅳ；

动力系统采用玉柴动力搭配自主设计液压系统的成熟方案，性能稳定，性价比高。

Power system using Yuchai power with independent design of hydraulic system mature scheme, stable performance, cost-effective.

## 2.6 液压系统 Hydraulic System

全液压驱动，不需要外置发电机组，采用进口知名品牌主泵，液压马达，控制阀等，安全稳定，运行故障少。

通过手动阀和有线/无线远程遥控对设备进行控制，操作便捷。

Fully hydraulic-driven, no external power generator required.

Uses imported high-quality main pumps, hydraulic motors, and control valves,

ensuring safe and stable operation with minimal faults.

Operated via manual valves and wired/wireless remote controls for convenient control.

## 2.7 履带底盘 Crawler chassis

基于矿山机械履带设备的设计理念，自主研发履带底盘，加强加长轴距，运行更平稳。

The crawler chassis is based on the design concept of mining machinery crawler equipment. We have independently developed a crawler chassis, which strengthens and lengthens the wheelbase, making it smoother to operate, and can switch between high and low speed walking.

## 2.8 报警及照明系统 Alarm and lighting system

标配闪烁蜂鸣报警器，具备行走安全预警和故障蜂鸣报警功能，保证人员和设备安全；选配 LED 照明灯，提供夜间照明；明与警示灯的位置合理，满足各种天气环境下作业时的照明与警示要求。

Standard flashing horn alarm for walking safety warnings and fault alerts, ensuring personnel and equipment safety. Optional LED lighting for nighttime operations, with optimized placement for illumination and warning requirements in various weather conditions.

## 2.9 其他 Others

全方位行走平台、模块化装配设计、配置集中润滑，检修维护快速便捷。

All-round walking platform, modular assembly design, configuration centralized lubrication, repair and maintenance fast and convenient.

## 2.10 随机备件及工具 Random Spare Parts and Tools

配备一套随机工具。

Provided one set of random tools.

## 2.11 颜色 Color

主体色调：极光绿、砂砾灰、星耀灰。

Main color options: Aurora Green, Gravel Gray, Stellar Gray.



### 3 主要技术参数 Main technical parameters

| 类别<br>category           | 项目<br>project                                                   | 单位<br>unit | 参数<br>parameter                 |
|--------------------------|-----------------------------------------------------------------|------------|---------------------------------|
| 整机<br>Complete machine   | 处理能力<br>Processing capacity                                     | t/h        | 200 ~ 600                       |
|                          | 整机重量<br>Total mass                                              | t          | 35                              |
|                          | 运输尺寸（长×宽×高）<br>Transportation size<br>(length x width x height) | mm         | 15185x3290x3900                 |
|                          | 工作尺寸（长×宽×高）<br>Working size<br>(length x width x height)        | mm         | 15545×12760×4770                |
|                          | 爬坡能力<br>Climbing ability                                        | °          | 11                              |
|                          | 最大喂料尺寸<br>Maximum feeding dimension                             | mm         | 400                             |
|                          | 驱动形式<br>Drive Type                                              | /          | 全液压驱动<br>Full hydraulic drive   |
| 筛分装置<br>Screening System | 顶层筛箱尺寸（宽×长）<br>Top Screen Size<br>(Width×Length)                | mm         | 1550×4880                       |
|                          | 底层筛箱尺寸（宽×长）<br>Lower Screen Size<br>(Width×Length)              | mm         | 1550×4450                       |
|                          | 筛网层数<br>Screen decks                                            | /          | 2                               |
|                          | 筛分倾角<br>Screening inclination angle                             | °          | 12-19°                          |
|                          | 驱动形式<br>Drive Type                                              | /          | 液压马达驱动<br>Hydraulic motor drive |
| 发动机<br>engine            | 柴油发动机型号<br>（国Ⅳ）<br>Diesel engine model (GB IV)                  | /          | YCA05175-T400                   |
|                          | 缸数<br>Number of cylinders                                       | /          | 4                               |



|                                           |                               |         |                                       |
|-------------------------------------------|-------------------------------|---------|---------------------------------------|
|                                           | 最大扭矩/转速<br>Maximum torque     | N·m/rpm | 650/1600                              |
|                                           | 发动机额定功率<br>Rated engine power | kW      | 129                                   |
|                                           | 排量<br>displacement            | L       | 4.8                                   |
| 履带底盘<br>Crawler chassis                   | 行走速度<br>Walking speed         | km/h    | 0.8                                   |
|                                           | 履带轨距<br>gauge                 | mm      | 2279                                  |
|                                           | 履带轴距<br>wheelbase             | mm      | 3296                                  |
| 链板喂料机<br>Chain Feeder                     | 驱动形式<br>Drive Type            | /       | 液压马达+减速机<br>Hydraulic motor + reducer |
|                                           | 料斗容量<br>Magazine capacity     | m3      | 8                                     |
|                                           | 喂料高度<br>Feeding height        | mm      | 4140                                  |
| 筛下中转皮带机<br>Screen Under Transfer Conveyor | 驱动形式<br>Drive Type            | /       | 液压马达<br>Hydraulic motor drive         |
|                                           | 皮带带宽<br>Belt bandwidth        | mm      | 1200                                  |
| 主卸料皮带机<br>Main belt conveyor              | 驱动形式<br>Drive Type            | /       | 液压马达<br>Hydraulic motor drive         |
|                                           | 卸料高度<br>Unloading height      | mm      | 3840                                  |
|                                           | 皮带带宽<br>Belt bandwidth        | mm      | 1200                                  |
| 一层卸料皮带机<br>Finished belt conveyor I       | 驱动形式<br>Drive Type            | /       | 液压马达<br>Hydraulic motor drive         |
|                                           | 卸料高度<br>Unloading height      | mm      | 3510                                  |
|                                           | 皮带带宽<br>Belt bandwidth        | mm      | 800                                   |
| 二层卸料皮带机<br>Finished belt                  | 驱动形式<br>Drive Type            | /       | 液压马达<br>Hydraulic motor drive         |



|                                                                                                                                                                              |                                        |      |       |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|------|-------|
| conveyor II                                                                                                                                                                  | 卸料高度<br>Unloading height               | mm   | 4010  |
|                                                                                                                                                                              | 皮带带宽<br>Belt bandwidth                 | mm   | 800   |
| 液压系统<br>Hydraulic system                                                                                                                                                     | 主泵额定排量<br>Main pump rate               | cc/r | 34-34 |
|                                                                                                                                                                              | 副泵额定排量<br>Auxiliary pump rate          | cc/r | 46-27 |
|                                                                                                                                                                              | 行走系统压力<br>Travel system pressure       | Mpa  | ≤24.5 |
|                                                                                                                                                                              | 设备运行压力<br>Equipment operating pressure | Mpa  | 17.5  |
|                                                                                                                                                                              | 辅助系统压力<br>Subsystem pressure           | Mpa  | 20.5  |
| 油类容量<br>Oil capacity                                                                                                                                                         | 燃油箱容积<br>Fuel tank volume              | L    | 350   |
|                                                                                                                                                                              | 液压油箱容积<br>Hydraulic tank volume        | L    | 500   |
|                                                                                                                                                                              | 发动机机油容量<br>Engine oil capacity         | L    | 12    |
| 注：筛分处理能力与被筛分物料湿度、进料粒度和出料粒度相关<br>Note: The screening processing capacity is related to the humidity of the screened material, feed particle size, and discharge particle size |                                        |      |       |

#### 4 主要配置表 Standard configuration table

| 序号<br>NO. | 部件<br>Part                                   | 系统<br>System                      | 生产厂家<br>Brand   |
|-----------|----------------------------------------------|-----------------------------------|-----------------|
| 1         | 链板喂料机<br>Chain Feeder                        | 喂料模块<br>Feed module               | 中联<br>Zoomlion  |
| 2         | 振动筛<br>Vibrating Screen                      | 筛分模块<br>Screening module          | 中联<br>Zoomlion  |
| 3         | 筛下中转皮带机<br>Screen Under Transfer<br>Conveyor | 皮带输送模块<br>Belt conveyor<br>module | 中联<br>Zoomlion  |
| 4         | 主卸料皮带机<br>Main belt conveyor                 |                                   |                 |
| 5         | 一层卸料皮带机<br>Finished belt conveyor I          |                                   |                 |
| 6         | 二层卸料皮带机<br>Finished belt conveyor II         |                                   |                 |
| 7         | 车架<br>frame                                  | 机架模块<br>Rack module               | 中联<br>Zoomlion  |
| 8         | 发动机<br>engine                                | 动力模块<br>Power module              | 中联<br>Zoomlion  |
| 9         | 履带底盘<br>crawler chassis                      | 行走模块<br>Walking module            | 中联<br>Zoomlion  |
| 10        | 主泵<br>Main pump                              | 液压模块<br>Hydraulic module          | 凯斯帕<br>Kapps    |
| 11        | 副泵<br>Auxiliary pump                         |                                   | 泊姆克<br>Pomac    |
| 12        | 摆线马达（皮带）<br>Motor (belt)                     |                                   | 丹佛斯<br>Danfoss  |
| 13        | 摆线马达（振动筛）<br>Motor (Screen)                  |                                   | 派克<br>Parker    |
| 14        | 减速机<br>Reducer                               |                                   | 布罗维尼<br>Brownny |
| 15        | 控制阀<br>Control valve                         |                                   | 沃尔福<br>Wolf     |
| 16        | 油缸<br>oil cylinder                           |                                   | 中联<br>Zoomlion  |

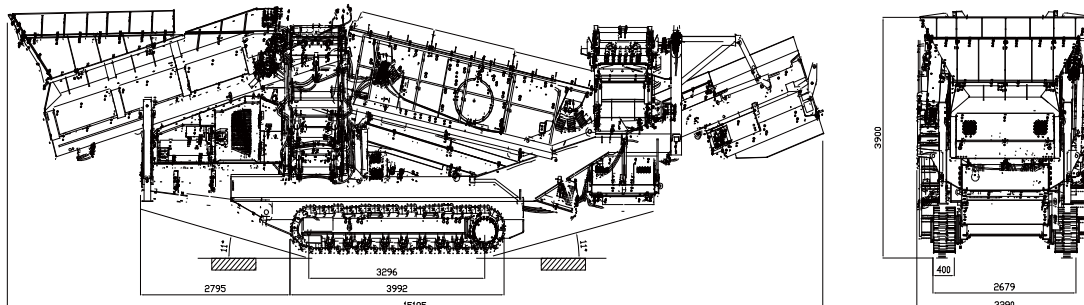
注：1、以产品实物为准，可根据用户需求选择不同配置。

Note: The actual product shall prevail, and different configurations can be selected according to user requirements.



## 5 运输方案 Transportation Scheme

### 5.1 运输外形示意图 Transportation Outline （单位 Unit: mm）



| 参数<br>Parameter | 重量<br>Weight | 总长度<br>Length | 总宽度<br>Width | 总高度<br>Height |
|-----------------|--------------|---------------|--------------|---------------|
| 单位 Unit         | kg           | mm            | mm           | mm            |
| ZMS1550G        | 35000        | 15185         | 3290         | 3900          |

### 5.2 运输车辆 Transport Vehicle

运输所需一辆 0.7m 高、13.5m 长的 3 线 5 轴车，载重 35t 以上。

Transportation requires a 0.7m high and 13.5m long 3-line 6-axle car with a load of more than 35 tons.

## **ZOOMLION**

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