

**KARARA MINING LIMITED**

# **Karara Mining Limited**

**Wheel Loader 2.1 – 5.0 m<sup>3</sup>**

**轮式装载机 2.1 – 5.0 m<sup>3</sup>**

JUL-2025

**KARARA MINING LIMITED**  
**WHEEL LOADER 轮式装载机**

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## SYNOPSIS

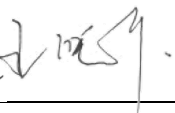
This document has been prepared for the procurement of the wheel loader with bucket capacity ranging from 2.1 m<sup>3</sup> to 5.0 m<sup>3</sup>, intended for use at the Karara Mining site in Western Australia. These wheel loaders are critical production support equipment and must comply with all applicable Australian mining, safety, and environmental regulations. The specification defines the technical, operational, environmental, and regulatory requirements to ensure safe, reliable, and compliant operation within the Karara mine’s demanding iron ore processing and handling environment.

本文件用于采购斗容量范围为 2.1 立方米至 5.0 立方米的轮式装载机，设备将应用于西澳 Karara 矿区。这些装载机作为关键的生产辅助设备，必须符合所有适用的澳大利亚采矿、安全及环境法规。技术规范明确了设备的技术性能、操作要求、环境适应性及合规性要求，以确保在 Karara 矿区严苛的铁矿石加工与物料处理环境下实现安全、可靠和合规的运行。

### **Disclaimer**

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WHEEL LOADER – TECHNICAL SPECIFICATION						
REV	DESCRIPTION	ORIG	MANAGER APPROVAL	THIRD PARTY APPROVAL	COMMERCIAL DEPARTMENT APPROVA	DATE
A	Issued for Review	JINDONG YAN <i>Jindong Yan</i>				Jul-25

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**KARARA MINING LIMITED**  
**WHEEL LOADER 轮式装载机**

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**TABLE OF CONTENTS**

1	Scope of Application 适用范围.....	1
2	Description of THE Wheel Loader 轮式装载机描述.....	2
3	Basic Requirements 基本要求.....	3
3.1	Performance Parameters 性能参数 .....	3
3.2	Environmental Adaptability Requirements 环境适应性要求 .....	5
3.3	Standards Compliance 标准合规性.....	5
3.4	Structural and Functional Design .....	6
3.5	Certification Requirements 认证要求.....	6
3.6	Warranty Period 质保期 .....	7
3.7	Reference Brand 参考品牌: Komatsu WA470-7 .....	7
3.8	Others 其他 .....	8
3.8.1	Attachment Technical Requirements 附件技术规范.....	8
3.8.2	Reverse Alarm 倒车警报 .....	8
3.8.3	Rotating Warning Light 旋转警示灯.....	9
3.8.4	"Etc." Items (Critical Additions for WA Mines) “其他”项目（西澳矿山关键补充项） .....	9
4	Transportation, Installation, Commissioning, and Acceptance 运输、安装、调试与验收 .....	11
4.1	Transportation 运输.....	11
4.1.1	Ocean Freight & Customs Clearance 海运与清关 .....	11
4.1.2	Inland Transport 内陆运输.....	11
4.2	Installation 安装.....	11
4.3	Commissioning 调试 .....	12

**KARARA MINING LIMITED**  
**WHEEL LOADER 轮式装载机**

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4.4	Acceptance 验收 .....	12
4.5	Notes 说明 .....	13
4.5.1	Third-Party Verification Framework 第三方验证框架 .....	13
4.5.2	Contractual Obligations 合同义务 .....	13
5	Documentation and Labelling 文档与标识 .....	15
5.1	Nameplates & Labels 铭牌与标签 .....	15
5.2	Technical Documentation 技术文档 .....	16
5.3	Required Document List 核心文件清单 .....	16
5.4	Specific Supplementary Clauses 补充条款 .....	17
5.4.1	Electrical Safety Certification 电气安全认证 .....	17
5.4.2	Documentation Upload Obligations 文件注册义务 .....	17
6	Others 其他 .....	19
7	KML STANDARD 卡拉拉设备标准列表 .....	21

## **1 SCOPE OF APPLICATION**

### **适用范围**

This specification applies to the procurement, delivery, and commissioning of the medium-to-large wheel loader with a bucket capacity between 2.1 m<sup>3</sup> and 5.0 m<sup>3</sup>, to be used in surface mining operations at the Karara iron ore site located in Western Australia. The wheel loaders shall be deployed across multiple operational zones, including the pit area, stockpiles, concentrate yard, tailings zone, and rail loading facility. Equipment must be engineered to handle high-dust, high-temperature, and corrosive environments typical of inland Western Australian mines. All equipment must comply with relevant Australian statutory requirements and site-specific operational and safety standards.

本规范适用于在澳大利亚西部卡拉拉铁矿现场采购、交付与调试中型至大型轮式装载机（铲斗容量范围为 2.1 至 5.0 立方米）。设备将用于采场、中转料堆、精矿堆场、尾矿区及铁路装车区等多个生产区域，需具备应对高粉尘、高温和腐蚀性环境的能力，并全面符合澳大利亚相关法规和卡拉拉矿区现场使用规范的技术、安全和环保要求。

## 2 DESCRIPTION OF THE WHEEL LOADER 轮式装载机描述

The wheel loader is a self-propelled, diesel-powered, rubber-tyred vehicle designed to load, transport, and stockpile bulk materials within the mining and processing plant areas. It must be capable of safe and efficient operation in off-road conditions, including uneven terrain and loose surfaces commonly found in open pit mining environments. The machine must feature a fully enclosed, ROPS/FOPS Level II-certified operator cabin, a high-performance hydraulic system supporting quick-change attachments, and onboard safety features such as fire suppression, audible alarms, and 360° visibility aids. The equipment must be designed to operate continuously under heavy load, with an expected minimum availability of 90% over its service life.

轮式装载机是一种自驱动、柴油动力、橡胶轮胎车辆，设计用于在矿区及选厂区域内装载、转运和堆存散装物料。设备必须能够在非道路工况下安全高效运行，包括露天矿常见的不平整地形和松软地面。装载机应配备全封闭驾驶室，并通过 ROPS/FOPS 二级防护认证，具备高性能液压系统以支持快速更换附件，同时配置消防系统、声响警报和 360° 可视辅助等多项本地安全设施。设备须具备在重载条件下连续作业的能力，其全生命周期内的可用率不得低于 90%。

### 3 BASIC REQUIREMENTS 基本要求

The wheel loader shall be a heavy-duty, diesel-powered, four-wheel-drive machine designed for continuous operation in harsh mining environments typical of Western Australia. The equipment must be structurally robust, highly reliable, and engineered for high availability under abrasive, dusty, and corrosive conditions. The machine shall be delivered without a bucket as the bucket will be supplied as a separate attachment package. However, the wheel loader must fully support quick-coupler systems compatible with a bucket capacity range of 2.1 to 5.0 m<sup>3</sup> and comply with relevant Australian Standards.

整机须为重型柴油动力四轮驱动设备，设计用于西澳矿区常见的恶劣环境（包括高粉尘、高温及腐蚀性作业条件）下的连续运行。设备应具备优异的结构强度和作业可靠性，保障长期高可用性。铲斗将作为独立配件单独供货，整机需配备快换系统，支持安装 2.1 至 5.0 立方米范围的标准铲斗，并确保符合相关澳大利亚标准。

#### 3.1 Performance Parameters 性能参数

The wheel loader shall be engineered for high reliability, strong structural integrity, and consistent performance under demanding mining conditions, including high dust, heat, and corrosive exposure typical of Western Australia operations.

轮式装载机应具备高可靠性、结构强度及在严苛矿山环境下持续稳定运行的能力，能适应西澳典型的高粉尘、高温及腐蚀性工况。

It must feature:

- Certified ROPS/FOPS Level II cabin protection, in accordance with AS 2294.1 and ISO 3449, to ensure operator safety against rollovers and falling objects.
- Triple-redundant braking: Service + parking + emergency wet-disc brakes (AS 2956).
- Collision avoidance system comprising 360° surround-view cameras and radar sensors with a minimum detection range of 7 meters, compliant with AS 2359.2 safety standards.

设备必须配备：

- 经认证的 ROPS/FOPS Level II 防护驾驶室，符合 AS 2294.1 和 ISO 3449 标准，保障操作人员在翻车或坠物事故中的人身安全。
- 三重制动系统：行车+驻车+紧急湿式制动（AS 2956）

**KARARA MINING LIMITED**  
**WHEEL LOADER 轮式装载机**

- 防撞预警系统，配备 360°环视摄像头及雷达传感器（探测距离不小于 7 米），符合 AS 2359.2 安全要求。

Parameter 参数	Specification 技术规格	Standard / Reference 标准依据 / 参考来源
Rated engine power 额定功率	≥228 kW	WA470-7 benchmark 基准机型 WA470-7
Operating weight 操作重量	23,900–24,550 kg	AS 4324
Quick-coupler compatibility 快换系统兼容性	ISO 7546 interface	Must support rock and light material buckets 强制兼容岩石斗与轻质斗
Max travel speed 最大行驶速度	≥38.5 km/h	ISO 6014 – Determination of travel speeds 行驶速度测试标准
Gradeability 最大爬坡能力	≥58%	AS ISO 13333
Turning radius 转弯半径	≤6.6 m	ISO 14397-1 – Loaders turning radius 装载机性能标准
Fuel tank capacity 油箱容积	≥380 L	Supports ≥10 hours continuous operation 连续作业能力要求
Cycle time 作业循环时间（装载/提升/卸载）	≤12.5 sec	ISO 14397-1 – Cycle time benchmark 装载机循环指标
Hydraulic pressure 液压系统压力	≥20 MPa	AS 2671 – Hydraulic fluid power system performance 液压系统标准

### **3.2 Environmental Adaptability Requirements 环境适应性要求**

- Key electrical components of the lift, including the control cabinet, motor junction boxes, external sensors, and all wiring harness connectors, shall comply with a protection rating of IP67. Internal components within the control cabinet shall have a minimum rating of IP54. All wiring harnesses must be equipped with flame-retardant insulation to ensure safe operation under harsh conditions involving dust, humidity, and high vibration.  
防护等级：升降机关键电气部件（控制柜、电机接线盒、外部传感器）及所有线束连接器应达到 IP67 防护等级；控制柜内部组件不低于 IP54。所有线束须采用阻燃绝缘层，确保在多尘、潮湿、高振动的严苛工况下安全运行。
- Corrosion Resistance: Key components must be treated against corrosion in accordance with AS 4312:2008 to withstand exposure to dust, humidity, and salt spray typical of mining environments.  
耐腐蚀性：关键部件按 AS 4312:2008 标准进行防腐处理，适应矿区潮湿、多尘和盐雾环境。
- Temperature Range: The equipment must reliably operate in ambient temperatures ranging from -20°C to +55°C.  
工作温度范围：-20°C 至 +55°C，确保在极端温度条件下运行。

### **3.3 Standards Compliance 标准合规性**

The equipment shall obtain:

- Vehicle Import Approval (VIA)
- Concessional RAV Entry Approval via ROVER system
- Documentation must include:
  - Emission compliance certificate
  - Asbestos-free declaration
  - DMIRS equipment registration (WA)
  - NHVR non-road licensing
  - IECEx Zone 22 certification (if applicable)

设备须取得以下合规认证与文件：

- 澳大利亚车辆进口批准（VIA）
- 通过 ROVER 系统 获取减免车辆登记批准（Concessional RAV Entry）并提供以下文件：

## KARARA MINING LIMITED WHEEL LOADER 轮式装载机

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- 排放合规证书
- 无石棉声明
- 向西澳矿业与工业监管局（DMIRS）注册设备
- 国家重型车辆管理局（NHVR）非道路设备许可
- IECEx Zone 22 防爆认证（如适用）

### 3.4 Structural and Functional Design

- Heavy-duty Z-bar linkage with forged pins ( $\text{Ø} \geq 80\text{mm}$ ) and 20,000h fatigue life (AS 3990).
- Safety systems: Dual-tone backup alarm (110dB), automatic fire suppression (engine/hydraulic bays), and electrostatic discharge chains.
- Operator cabin shall include:
  - Enhanced visibility and low blind-zone structure
  - Filtered pressurization system: Pressurized air filtration ( $\geq 99.9\%$  efficiency @  $10\mu\text{m}$ )
  - Certified ROPS/FOPS Level II protection
  - Air-conditioning system suitable for  $+55^\circ\text{C}$
  - CAN-bus interface (J1939) for real-time data output to site-wide FMS
  - Automatic engine shutdown when coolant temperature exceeds  $105^\circ\text{C}$
- 重型 Z 型连杆：锻制销轴（直径 $\geq 80\text{mm}$ ），疲劳寿命 20,000 小时。
- 安全系统：双音倒车警报（110dB）、双区自动灭火（引擎/液压舱）、防静电接地链。
- 驾驶室配置包括：
  - 高可视性与低盲区结构
  - 过滤加压系统：正压防尘系统（10 微米粉尘过滤 $\geq 99.9\%$ ）
  - 经认证的 ROPS/FOPS Level II 防护
  - 适用于 $+55^\circ\text{C}$  高温环境的空调系统
  - CAN-bus（J1939）通讯接口，可向现场 FMS 系统输出载荷、坡度、油耗等实时数据
  - 当冷却液温度超过  $105^\circ\text{C}$  时自动关闭发动机

### 3.5 Certification Requirements 认证要求

- Application via ROVER system: Submit an application through the ROVER system for Concessional RAV Entry Approval, including all technical documents, an NTC emission certificate, and an asbestos compliance declaration.  
ROVER 系统申请：通过 ROVER 系统申请 Concessional RAV Entry Approval，需提交技术文件、NTC 排放证书及石棉合规声明。

**KARARA MINING LIMITED**  
**WHEEL LOADER 轮式装载机**

- DMIRS-approved brake test data  
西澳矿业部制动测试报告
- Usage Restriction: The equipment must be restricted to use within Australian mining sites and is not permitted on public roads.  
使用范围限制：设备仅限澳洲矿区使用，禁止进入公共道路

**3.6 Warranty Period 质保期**

Component 部件	Warranty Period 质保期限
Whole machine 整机	24 months or 4,000 hours
Powertrain 动力总成	36 months or 6,000 hours
Structural frame 结构框架	60 months or 12,000 hours

**3.7 Reference Brand 参考品牌: Komatsu WA470-7**



Reference picture 参考图片:

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**WHEEL LOADER 轮式装载机**



### 3.8 Others 其他

#### 3.8.1 Attachment Technical Requirements 附件技术规范

Attachment Type 附件类型	Technical Specification 技术规格	Standard / Reference 标准依据
Quick Coupler 快换装置	PIN-GRABBER system with locking force $\geq 200$ kN PIN-GRABBER 系统，锁定力不小于 200 千牛	ISO 13031 – Earthmoving machinery – Quick couplers for attachments AS 4772 – Earth-moving machinery quick-hitch devices
Rock Bucket 岩石斗	5.0 m <sup>3</sup> capacity, 25 mm abrasion-resistant base plate, $\geq 15,000$ -hour service life 容量 5.0 立方米，底板厚度 25 mm 耐磨钢，设计寿命 $\geq 15,000$ 小时	AS 4983 – Earth-moving machinery – Buckets
Fork Attachment 叉具	ISO 2328 interface, load capacity $\geq 11.4$ tonnes, fork length 2.4 m ISO 2328 接口，载重 $\geq 11.4$ 吨，叉臂长度 2.4 米	ISO 2328

#### 3.8.2 Reverse Alarm 倒车警报

- AS 1319:1994 (Acoustic signals for mobile machinery).  
AS 1319:1994 (移动机械声响信号)
- The reverse alarm must emit a pulsed signal of 105–110 dB(A) at a distance of 1 meter, clearly distinguishable from background noise, in compliance with AS/NZS

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**WHEEL LOADER 轮式装载机**

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1269.3:2005.

1 米距离处 105–110 dB(A)脉冲报警，声频与环境噪音显著区分（符合 AS/NZS 1269.3:2005）。

- Distinctive dual-tone pulse pattern is required, such as 0.5 seconds on / 0.5 seconds off. 特征性间歇双音调（如 0.5 秒开/0.5 秒关）。

### **3.8.3 Rotating Warning Light 旋转警示灯**

- AS/NZS 1906.4:2010 (Retroreflective devices for heavy vehicles). AS/NZS 1906.4:2010（重型车辆逆反射装置）
- Must provide 360-degree visibility with intensity of at least 1.0 candela/lux/m<sup>2</sup>. 360 度可见，亮度≥1.0 坎德拉/勒克斯/平方米。
- Amber in colour, meeting Class RB requirements. 琥珀色（RB 级）。
- Surface use: Must meet IP67 rating with additional anti-dust coating. 地面使用：IP67 防护等级+防尘涂层

### **3.8.4 "Etc." Items (Critical Additions for WA Mines)** **“其他”项目（西澳矿山关键补充项）**

- Fire Extinguisher 便携式灭火器  
AS 1851:2021 (Portable fire extinguishers) – ABE class dry powder type, minimum 5kg capacity.  
AS 1851:2021（便携式灭火器）——至少 5 公斤 ABE 类干粉型。
- Automatic Fire Suppression System (Engine Compartment)
  - Certified to AS 5062-2022
  - Thermally activated agent release
  - Minimum 2.5 kg agent for engine bay + 1.5 kg for hydraulic bay
  - Supplier must provide MSDS for extinguishing agent发动机舱自动灭火系统
  - 符合 AS 5062-2022
  - 热感应触发
  - 发动机舱 2.5 公斤，液压舱 1.5 公斤灭火剂
  - 须提供 MSDS 化学品安全说明书
- Seatbelts 安全带  
4-point retractable harness

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**WHEEL LOADER 轮式装载机**

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四点式可伸缩安全带

- **Lighting 照明**

ISO 12508:2017, colour temperature 5,000K  $\pm$ 10%.

ISO 12508:2017 (色温 5,000K $\pm$ 10%)。

WA Mandatory: LED work lights must be installed at both front and rear, with an initial luminous output of  $\geq$ 3,000 lumens, and rated to IP68K for high-pressure cleaning environments.

西澳强制要求：前后 LED 工作灯（初始光通量 $\geq$ 3,000 流明，IP68K 防护等级）。

## **4 TRANSPORTATION, INSTALLATION, COMMISSIONING, AND ACCEPTANCE 运输、安装、调试与验收**

### **4.1 Transportation 运输**

#### **4.1.1 Ocean Freight & Customs Clearance 海运与清关**

- The supplier shall arrange sea transportation to Western Australia Port and provide real-time access to a logistics tracking system.
- Suppliers must complete Australian biosecurity inspections, including AQIS BMSB treatment, and submit customs duty exemption applications under Section 123 of the Mining Act 1978 (Mining Equipment Exemption).
- 供应商应安排海运至西澳港口并提供物流追踪系统的实时访问权限。
- 必须完成澳大利亚生物安全检验（包括 AQIS BMSB 处理），并根据《1978 年采矿法》第 123 条提交采矿设备关税豁免申请。

#### **4.1.2 Inland Transport 内陆运输**

- Main Roads WA Oversize Transport Permit must be obtained, including full dimensional and weight details.
- Transport route must avoid Aboriginal heritage areas per the Aboriginal Heritage Act 1972, with submission of route plans.
- 须取得 Main Roads WA 颁发的超限运输许可（包括设备尺寸与重量说明）。
- 运输路线应避开土著文化保护区，并根据《1972 年土著文化遗产法》提交路线图纸。

### **4.2 Installation 安装**

- The supplier shall supervise unloading and mechanical positioning of the equipment at the designated mine site installation area.
- Lifting operations must follow AS 1418.8-2008 for loader lifting points and AS 4991-2004 for lifting devices.
- Electrical connections must comply with AS/NZS 3000:2018 and be inspected by Western Power prior to energisation.
- 供应商需负责监督设备在矿区指定安装区域的卸载与就位。

**KARARA MINING LIMITED**  
**WHEEL LOADER 轮式装载机**

- 吊装作业需符合《AS 1418.8-2008 装载机吊点要求》及《AS 4991-2004 吊装装置》标准。
- 电气连接须符合《AS/NZS 3000:2018》规范，并由 Western Power 检验通过后方可通电。

### 4.3 Commissioning 调试

- The equipment shall undergo initial commissioning including hydraulic system validation, engine parameter calibration, and safety interlock checks.
- Real-time emission interface shall be connected to the mine monitoring system for verification.
- Mechanical guarding for all rotating parts must be in place as per *Work Health and Safety (Mines) Regulations 2022, Clause 47*.
- 设备需完成初始调试，包括液压系统验证、发动机参数校准及安全连锁测试。
- 实时排放数据接口应接入矿区监控系统并完成验证。
- 所有旋转部件必须安装机械防护罩，符合《2022年矿山健康与安全条例》第47条。

### 4.4 Acceptance 验收

In addition to complying with applicable Australian standards and certifications, the equipment must also meet the regulatory requirements of the state government where the mine is located. These include but are not limited to the *Product Emissions Standards Act 2017*, the *Product Emissions Standards (Customs) Charges Act 2017*, and the *Product Emissions Standards (Excise) Charges Act 2017*.

该设备除需满足澳大利亚相关标准及认证外，还必须符合矿区所在地州政府的法规要求，包括但不限于：《2017年产品排放标准法》、《2017年产品排放标准（海关）收费法》及《2017年产品排放标准（消费税）收费法》等。

<p>Factory Acceptance Test (FAT) 工厂验收</p>	<ul style="list-style-type: none"> <li>• Tipping Load Test (ISO 14397-1)</li> <li>• Hydraulic Peak Pressure Test <math>\geq 110\%</math> of design pressure</li> </ul>	<p>FAT report signed by third-party laboratory (English) 第三方实验室签署的英文报告</p>
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**KARARA MINING LIMITED**  
**WHEEL LOADER 轮式装载机**

Site Acceptance Test (SAT) 现场验收	<ul style="list-style-type: none"> <li>72-hour continuous operation test (<math>\leq 1</math> failure)</li> <li>CAT Mine System integration check</li> </ul>	SAT log + compatibility certificate 试运行记录+系统兼容性证明
Regulatory Certification 合规认证	<ul style="list-style-type: none"> <li>ROPS/FOPS compliance</li> <li>Noise level <math>\leq 82</math> dB(A)</li> <li>Audit Tier 4 Final emissions data against Product Emissions Standards Act 2017</li> </ul>	Certificates issued by WorkSafe WA- authorised body 由 WorkSafe WA 授权机构出具的合规证书

#### 4.5 Notes 说明

##### 4.5.1 Third-Party Verification Framework 第三方验证框架

###### Verification Authority 验证机构资质

- Must hold NATA accreditation (ISO/IEC 17025) and WorkSafe WA authorization for mining equipment certification.  
需持有 NATA 认证 (ISO/IEC 17025) 及 WorkSafe WA 矿山设备授权。
- Scope includes Design review, FAT/SAT witnessing, compliance auditing.  
服务范围涵盖：设计审查、工厂/现场验收见证、合规审计。

##### 4.5.2 Contractual Obligations 合同义务

###### 1. Third Party as Karara's Technical Agent 第三方作为卡拉拉技术代理

- Review all design documents for AS 1418.10 compliance.  
审核全部设计文件是否符合 AS 1418.10。
- Hold veto power on SAT approval if safety standards are breached.  
若违反安全标准，对 SAT 验收拥有一票否决权。

###### 2. Deliverables 交付物

- Signed FAT/SAT certificates with NATA logo.  
签署带 NATA 标识的 FAT/SAT 证书。
- ROVER registration package submitted to DMIRS within 30 days.  
30 日内向 DMIRS 提交 ROVER 注册包。

###### 3. Cost & Liability 费用与责任

## KARARA MINING LIMITED

### WHEEL LOADER 轮式装载机

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- Verification costs borne by supplier (per WA Mines Regulation 12A).  
验证费用由 供应商承担（依据西澳矿山条例 12A 条）。
- Third party liable for negligent certification (Civil Liability Act 2002).  
第三方对 认证过失 承担法律责任（《2002 民事责任法》）。

## 5 DOCUMENTATION AND LABELLING 文档与标识

All product nameplates and labels shall be in English. All relevant technical documentation shall be provided in English. All products shall be accompanied by English labels that comply with regulatory requirements.

所有产品的铭牌、标识均应用英文标示。所有相关的技术文档均应提供英文版本。所有产品均应附带符合法规要求的英文标识。

### 5.1 Nameplates & Labels 铭牌与标签

All nameplates and safety labels shall be written in 100% English, in compliance with Chapter 2.6 of the *Competition and Consumer Act 2010*.

语言：

所有铭牌及安全标签必须为 100%英文，符合《2010 年竞争与消费者法》第 2.6 章要求。

Mandatory Contents:

- Equipment serial number and date of manufacture
- ROPS/FOPS certification number (per ISO 3471 & ISO 3449)
- NTC emission compliance code (Tier 4 Final)
- Electrical safety rating (IP67 + AS/NZS 3000:2018)
- WA registration mark (RAV Entry Approval No.)

强制内容：

- 设备序列号、出厂日期
- ROPS/FOPS 认证编号（符合 ISO 3471 与 ISO 3449）
- NTC 排放认证码（Tier 4 Final）
- 电气安全等级（IP67 + AS/NZS 3000:2018）
- 西澳注册标识（RAV Entry Approval No.）

**KARARA MINING LIMITED**  
**WHEEL LOADER 轮式装载机**

**Durability:**

All plates must be laser-etched on stainless steel, resistant to salt spray corrosion per AS 4312:2008.

**耐久性:**

铭牌必须使用不锈钢激光蚀刻工艺，具备抗盐雾腐蚀能力，符合 AS 4312:2008 标准。

**5.2 Technical Documentation 技术文档**

Documentation shall be provided in English as the primary language. A Chinese version may be provided as a reference only and shall have no legal effect.

**语言:**

技术文档以英文为主，中文仅作为参考辅助，不具备法律效力。

**Submission Timeline:**

- Draft version: Due at least 45 days before Factory Acceptance Test (FAT)
- Final version: Due 7 days before delivery

**交付时效:**

- 初稿：需在工厂验收（FAT）前 45 天提交
- 终稿：需在交付前 7 天提交

**5.3 Required Document List 核心文件清单**

<b>Document Type</b> 文档类型	<b>Additional Compliance Requirement</b> 新增合规要求	<b>Reference</b> 依据
<b>Declaration of Conformity</b> 符合性声明	Must be signed by a licensed Australian engineer, covering AS/NZS 3000, ISO 3471, AS 5062:2022	<i>Work Health and Safety Act 2020</i>

**KARARA MINING LIMITED**  
**WHEEL LOADER 轮式装载机**

<b>Factory Acceptance Procedure</b> 工厂验收程序	Must include video of tipping load test (ISO 14397-1) and hydraulic peak pressure curve	<i>DEMIRS MDG 41</i>
<b>Inspection Report</b> 检验报告	Corrosion coating to be tested via $\geq 1,000$ -hour salt spray test per AS 4312:2008	<i>WA Mine Corrosion Guidelines</i>
<b>Noise Test Report</b> 噪音测试报告	Must be issued by WorkSafe WA accredited lab and include full-condition sound profiles (unloaded/loaded/steering)	<i>AS/NZS 1269.1:2005</i>
<b>IOM Manual</b> 使用维护手册	Dedicated section on maintenance in high-dust WA environments (HEPA filter change cycle $\leq 250$ hours)	<i>AS 2985:2009</i>
<b>Maintenance Strategy</b> 维护策略	Include critical component life prediction based on AS 4457.1-2018 mining equipment lifecycle model	<i>AS 4457.1</i>

## 5.4 Specific Supplementary Clauses 补充条款

### 5.4.1 Electrical Safety Certification 电气安全认证

- Requirement:  
All electrical schematics must bear a Western Power compliance stamp as required by the *WA Electricity Regulations 1991*.
- 要求:  
所有电路图须加盖 Western Power 合规印章, 符合《1991年西澳电气法规》(*WA Electricity Regulations 1991*) 要求。

### 5.4.2 Documentation Upload Obligations 文件注册义务

**Requirement:**

The supplier shall assist in uploading the following documents into the DEMIRS ROVER system as part of equipment registration:

**KARARA MINING LIMITED**  
**WHEEL LOADER 轮式装载机**

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- Noise test report (PDF format and original .CSV data file)
- Fire suppression system certificate compliant with *AS 5062:2022*

**要求:**

供应商需协助将以下文件上传至 DEMIRS ROVER 系统作为设备注册材料之一:

- 噪音测试报告 (PDF 格式及原始.CSV 数据文件)
- 灭火系统合规证书 (符合 *AS 5062:2022* 标准)

## 6 OTHERS 其他

The supplier must possess ISO 9001 Quality Management System certification.

供应商需具备 ISO9001 质量管理体系认证。

This specification ensures that the design, manufacturing, installation, and commissioning of the skid steer loader fully comply with the safety and environmental regulations of the Australian mining area. For any other unspecified requirements related to design, installation, certification, etc., the supplier must clarify with the owner's senior project engineer or technical personnel of equivalent or higher qualification.

本规范确保滑移装载机的设计、制造、使用全面符合澳大利亚矿区的安全和环保法规。其它未尽的设计、安装、认证等的要求供应商须与业主方项目高级工程师或以上资格的技术人员澄清。

The equipment needs to comply with Australian standards and Australian mining area usage standards, including but not limited to:

该设备需符合澳大利亚相关标准及澳大利亚矿区使用标准，包括但不限于：

<b>Document No.</b> 文件编号	<b>Document Title</b> 文件名称
<b>AS 4024:2019</b>	focuses on the safety of machinery
<b>AS 2294</b>	Earth-moving machinery-Protective structures
<b>ISO 3471</b>	Earth-moving machinery – Roll-over protective structures – Laboratory tests and performance requirement
<b>ISO 3449</b>	Earth-moving machinery – Falling-object protective structures – Laboratory tests and performance requirement
<b>AS 3000:2018</b>	focuses on ensuring safe work practices for electrical and refrigeration/air-conditioning workers
<b>AS 3820</b>	standard for suppliers of electrical equipment, including compressors

**KARARA MINING LIMITED**  
**WHEEL LOADER 轮式装载机**

<b>AS 3760</b>	focuses on the safety of portable electrical equipment. This is relevant for any electrical tools or equipment used in conjunction with a skid loader.
<b>ISO 20474-3</b>	provides safety requirements for earthmoving machinery
<b>AS 1418.8-2008</b>	focuses on cranes, hoists, and winches, and includes specific provisions for wheel loaders used to lift suspended loads, relevant to some skid loader applications
<i>AS 4772:2008</i>	Earth-moving machinery – Quick hitches for excavators and backhoe loaders
<b>AS 5062-2022</b>	Fire prevention and protection for mobile and transportable equipment
	<i>Mines Safety and Inspection Act 1994 (WA)</i>
	<i>Work Health and Safety (Mines) Regulations 2022 (WA)</i>

## 7 KML STANDARD 卡拉拉设备标准列表

<b>Document No.</b> 文件编号	<b>Document Title</b> 文件名称
CORP-GE-SPC-1001_1	EQUIPMENT LABELLING SPECIFICATION
CORP-GE-SPC-1002_0	SPECIFICATION FOR PACKING, MARKING AND DOCUMENTATION REQUIREMENTS
CORP-GE-SPC-1004_1	SPECIFICATION FOR SURFACE TREATMENT OF STRUCTURAL STEELWORK AND PIPEWORK
CORP-GE-SPC-1005_0	TECHNICAL SPECIFICATION FOR SHOP DETAILING OF STRUCTURAL AND MECHANICAL ITEMS
CORP-EL-SPC-1008_0	SPECIFICATON FOR ELECTRIC MOTORS
CORP-IN-SPC-1001_0	SPECIFICATION FOR GENERAL INSTRUMENTS
CORP-IN-SPC-1002_0	SPECIFICATION FOR CONTROL AND INSTRUMENTATION FOR PACKAGES
CORP-IN-SPC-1007_0	SPECIFICATION FOR INSTRUMENTATION INSTALLATION
CORP-IN-SPC-1016_0	SPECIFICATION FOR CONTROL SYSTEM HARDWARE
CORP-IN-SPC-1018_0	SPECIFICATION FOR CONTROL SYSTEM SOFTWARE