



# 福建华南重工机械制造有限公司

FUJIAN SOUTHCHINA HEAVY MACHINERY MANUFACTURE CO., LTD.





福建华南重工机械制造有限公司致力于物流搬运机械和工程机械的研发和生产。

公司提供各行业定制车辆产品,针对金属铝冶炼行业已经定制开发多系列多型加料车及扒渣清炉车产品。

Fujian Southchina Heavy Machinery Manufacture Co. Ltd. is dedicating the research and development of material handling equipment and construction machinery.

We provide customized vehicle products for various industries. They have developed several models customized multi-series furnace-charging vehicle and furnace-tending vehicle for metal aluminum smelting industry.

## ※华南重工的使命

致力于为客户提供最为皮实耐用、高性价比、高回报率 的物流搬运机械及工程机械产品和服务

## ※华南重工的愿景

让SOCMA成为源自中国受人尊敬的国际品牌

## 华南重工的核心价值观

以客户为中心,以奋斗者为本,坚持自我批判与反省,华 南重工将长期处于成长阶段

## •The mission of SOCMA

Dedicating to provide the most rugged and durable, high cost-effectiveness, high return rate material handling equipment, construction machinery products and service to our client

### The vision of SOCMA

Let SOCMA become the respectable international brand from China

## The core value of SOCMA

Customer oriented, staff foremost, insist on self criticism and Introspection, SOCMA is growing up always

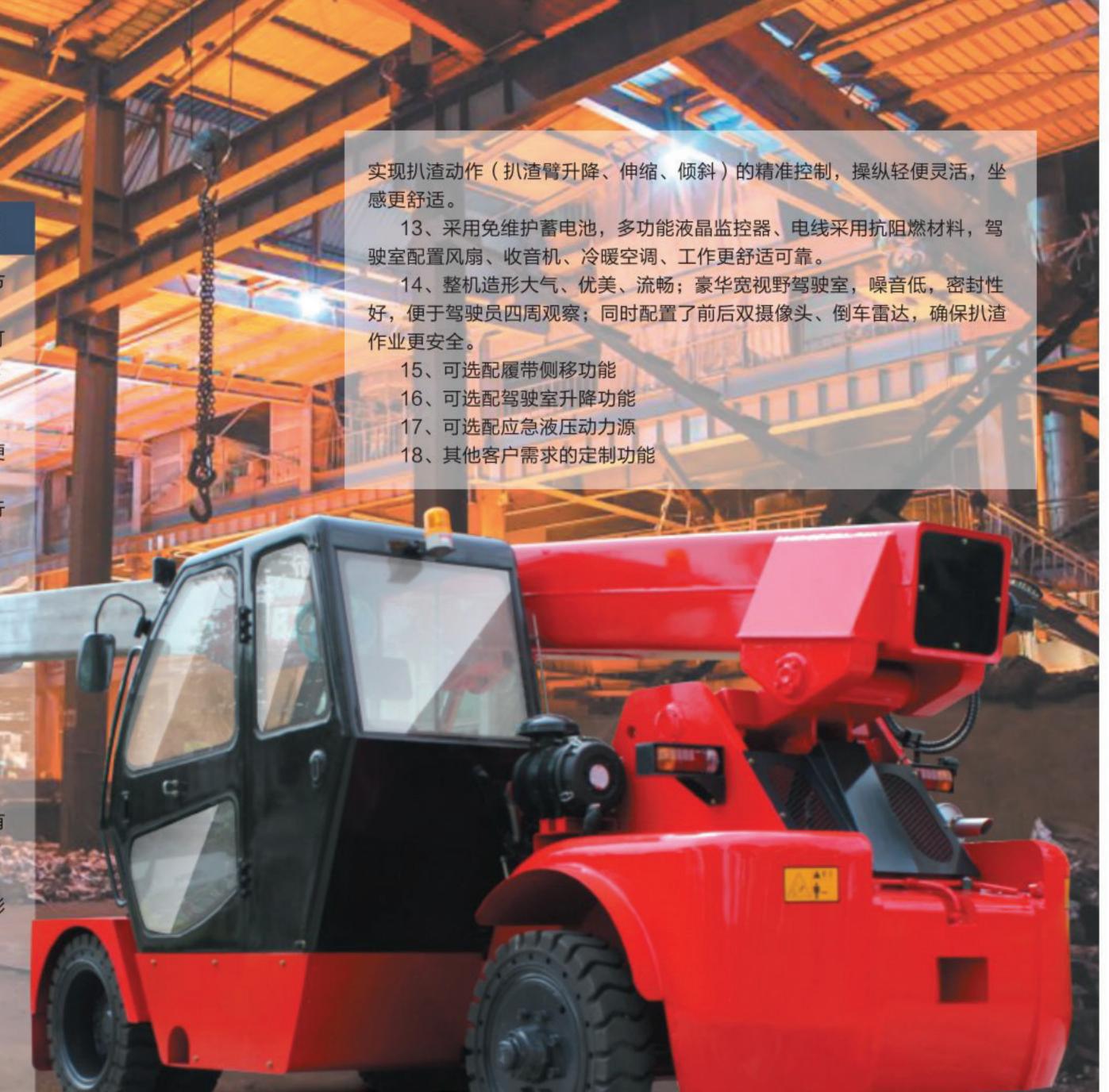


## HNBZ8512清炉扒渣车 产品描述

- 1、采用珀金斯或东风康明斯涡轮增压柴油机,国 Ⅲ 排放、动力强劲,节 能环保,满足高效作业要求。
- 2、采用动力换档定轴式液力变速器,联合工况牵引力大,双变系统更可靠;双涡轮液力变矩器无级变速;单杆操纵变速系统,前后各二挡,操纵更简便。
  - 3、采用双泵合流工作液压系统,降低能耗提高效率。
- 4、采用全液压同轴流量放大转向系统,后转向桥转向角度大,转向轻便 灵活。
- 5、采用前轮驱动、刚性悬挂,后桥转向结构。前桥螺旋伞齿轮和轮边行星轮减速增扭,负荷能力大;后桥采用横置液压缸式转向机构,有利于减小转向阻力,减轻轮胎磨损,提高行驶时的平顺性。
- 6、采用整体式车架,可提供良好的刚性和强度, 保证扒渣车底盘的高可靠性。
- 7、作业装置为三节箱型伸缩式工作 臂,伸缩臂采用大截面、高强度的箱 型结构;内臂与外臂通过前后滚轮 支承形成滚动副联接、传动 平稳、工作可靠、寿命长, 满足扒渣作业的要求。
- 8、伸缩臂和扒渣头采用耐高温不锈钢材质,在高温下能持续作业,具有 良好的耐腐蚀性和耐高温性;扒渣刮板多样,更换快捷,方便扒渣和清炉作 业。
- 9、基本臂、伸缩臂内置链轮链条,采用液压马达减速驱动,不受高温影响,确保伸缩装置的稳定性。

液压马达驱动减速机采用外置式安装于外臂上,方便维修保养。

- 10、配置车轮保护挡板,避免废渣飞溅造成轮胎及车体的破坏。
- 11、采用块状加深重型叉车实心轮胎,后转向桥可绕中心摆动,具有良好的牵引性能和通过性能。
  - 12、采用可调式方向机, 航空座椅, 先导阀控制分配阀和工作装置油路,





## Furnace-tending vehicle

- 1, Adopt Perkins, or Dongfeng CUMMINS turbocharge diesel engine, China stage III emissions, power strong, energy saving and environmental protection, meet the efficient working requirements.
- 2, Adpot fixed shaft type hydraulic transmission, the traction force of the combined condition is large, and the double-variable system is more reliable. Twin-turbo hydraulic torque converter stepless speed change; single-lever control transmission system, two forward and two backward gear shift, operation is easier.
- 3, Adopt dual-pump confluence working hydraulic system, reduce fuel consumption and improve working efficiency.
- 4, Adopt full hydraulic coaxial flow amplification steering system, the steering angle of rear axle is big, steering light and flexible.
- 5, Adopt front wheel drive, rigid suspension, rear axle steering structure. The front axle spiral bevel gear and the wheel side planetary gear increase toqrue, big load capacity. The rear axle adopts the transverse hydraulic cylinder type steering mechanism, which is helpful to reduce the steering resistance, reduce the tire wear and improve the ride comfort.
- Adopt unitary frame, can provide good rigidity and strength, ensure that the slagging truck chassis has high reliability.
- 7.The working device is a three-section telescopic work arm, Telescopic arm with large cross-section, High-intensity box-type structure, internal and external arms form the secondary joint by front and rear roller bearing. Transmission is smooth, reliable, long life-span, can meet the requirement of slag work.
- 8. Telescopic arm and slag head adopts the high temperature resistant and anti-corrosion stainless steel material, which guarantee that it can continue to work at high temperature environment.

fication, The slag scraper is diversified, easy to change, convenient for slagging and prepurging furnace.

- 9. The basic arm, telescopic arm with inner sprocket chain, using hydraulic motor deceleration drive, would not affected by high temperature, to ensure the stability of telescopic device. Hydraulic motor drive reducer with external mounted on the outer arm, easy maintenance.
- Equipped with wheel protection baffle, to avoid waste residue to cause the tires and car body damage.
- 11. Using the massive deepening heavy forklift solid tires, the rear steering axle can swing around the center, with Good traction performance and traffic-ability.
- Matched with adjustable drection, airline seat, joystick control distributing valve and working device control, to achieve the precise cont

control distributing valve and working device control, to achieve the precise control of the slag-removing action (slag-lifting arm, telescopic, inclined).

- 13. Matched with maintenance-free batteries, multi-function LCD monitor, anti-flame retardant materials wire, cab with fan, radio, air conditioning, comfortable and reliable.
- 14. The truck shape is high-grade, beautiful, mellifluence; luxury wide view cab, low noise, good sealing, easy to observe around. At the same time euipped with dual cameras front&rear, reverse monitor, to ensure safe operation when slagging.
- 15. Track side shift function as an option.
- 16.Cab lifting function as an option.
- 17.Emergency hydraulic power source as option.
- 18.Other optional Customization function.



## 产品参数配置 Performance parameters of furnace-tending vehicle HNBZ8512清炉扒渣车性能参数 参数 SPECIFICATIONS 性能 PERFORMANCE 性能 PERFORMANCE 参数 SPECIFICATIONS 6000-8000 mm (可定制Can be customized) 整机质量 全长 (臂架全部缩回) 11000-12000 kg Overall width(The boom is fully retracted) Truck weight 基本 水平≥90% 宽度 参数 2340 mm 10 kN Width Level≥90% 扒渣力 Basic Slag removing force 垂直 ≥90% parameter 高度 10 kN 2360 mm 基本 Vertical≥90% Height 参数 最小离地间隙 康明斯DongFeng Cummins 型号 Model Basic 160 mm Min.ground clearance QSB3.9-C100-31 parameter 珀金斯Perkins 1104D-44TA 最大外伸距 8600 mm/9500mm/11300mm Max.extension (可定制Can be customized) 康明斯DongFeng Cummins 发动机 额定功率/额定转速 臂架最大仰角 74kW/2400 rpm Engine Rated power/rotate speed 珀金斯Perkins 74KW/2200 rpm (可定制Can be customized) Max.elevation angle of boom 变幅仰角 Range elevation 臂架最小仰角 最大扭矩/转速 -12° 330N.m/1400 ~ 1600 rpm (可定制Can be customized) Max.torque/rotate speed Min.elevation angle of boom



- 4. Swing axel working with rigid locking cylinder, to ensure the stability of the truck during rotation.
- 5. High-strength upper and lower frame design ,Rotary range of upper structure: 360°, Improve the efficiency of slagging operations.
- 6. Three-section slag boom arm made of special material, special design for slagging and furnace cleaning conditions ,with high strength and long life.
- 7. The telescopic boom arm has a built-in sprocket chain, driven by a motor reducer. It is not affected by high temperature, ensuring the reliability of the telescopic device and the convenience of maintenance.
- 8. Special cab configuration include sound insulation design and high temperature air conditioning. Ensure the good and comfortable operating environment for operators.
- 9. The slagging and cleaning actions are all electronically controlled, based on a large amount of operating data combined with a built-in optimization program for furnace size, reducing operating difficulty and improving operating efficiency
- 10. Equipped with panoramic camera and radar system to assist driving system. Improve the safety of equipment operation

- 1、采用珀金斯或东风康明斯涡轮增压柴油机,国III排放、动力强劲、节能环保,满足高效作业要求。同时提供磷酸铁锂纯电动力系统可选配。
  - 2、变量泵静压传动行走系统,高可靠性、操作简便、低噪音。
  - 3、全液压同轴流量放大转向系统,转向轻便灵活。
  - 4、摆动桥配合刚性锁止油缸,保证回转工作时整车稳定性。
  - 5、高强度上下车架设计,上车可360°回转,提高扒渣作业效率。
  - 6、特殊材质三节式扒渣臂,针对扒渣及清炉工况特殊设计,强度高寿命长。
- 7、伸缩臂内置链轮链条,采用马达减速机驱动,不受高温影响,确保伸缩装置的可靠性同时兼 顾维护保养的便利性。
  - 8、特殊的驾驶室隔音隔热设计以及高温空调的配置,保证操作手良好舒适的操作环境。
- 9、扒渣清炉动作均为电控设计,根据大量操作数据结合炉型尺寸内置优化程序,降低操作难度同时提高作业效率。
  - 10、整车配置全景影像和雷达系统辅助驾驶系统,提高设备操作的安全性。



	Contract of the second	
1	刮板臂伸缩行程 Boom Arm extension range	6000mm-12000mm(根据客户炉型可定制) Customized
2	刮板臂伸缩速度 Stretching speed of boom arm	0-1000mm/s范围内可调 Adjustable within the range
3	刮板臂倾斜角度 Boom arm tilt angle	0-25°
4	刮板臂倾斜速度 Boom arm tilt speed	0−6° /s范围内可调 Adjustable within the range
5	刮板臂最大垂直行程 Max. vertical extension range of Boom Arm	750mm-1400mm(根据客户炉型可定制) Customized
6	上部结构旋转范围 Rotary range of upper structure	360°
7	上部结构旋转速度 Rotary Speed of upper structure	0−12° /s范围内可调 Adjustable within the range
8	最大爬坡能力 Maximum Grade ability	10%
9	扒渣机最大行走速度 Maximum Travel Speed	10Km/h
10	提升速度 Max. speed of elevating	0-0.3m/s范围内可调 Adjustable within the range
11	作业范围 Operating range	覆盖炉膛内铝液表面、铝液面线下所有炉膛内壁和炉底 covering the surface of molten aluminum in the furnace, and all the inner walls and bottom of the furnace under the line of molten aluminum
	3 4 5 6 7 8 9	2 刮板臂伸缩速度 Stretching speed of boom arm 3 刮板臂倾斜角度 Boom arm tilt angle 4 刮板臂倾斜速度 Boom arm tilt speed 5 刮板臂最大垂直行程 Max. vertical extension range of Boom Arm 6 上部结构旋转范围 Rotary range of upper structure 7 上部结构旋转速度 Rotary Speed of upper structure 8 最大爬坡能力 Maximum Grade ability 9 扒渣机最大行走速度 Maximum Travel Speed 10 提升速度 Max. speed of elevating

4.1扒渣/清炉工作行程	Boom Arm extension range	6000mm-12000mm(根据客户炉型可定制) 6000mm-12000mm(Customize		
4.2扒渣臂结构形式	Structure form of slag boom arm	单臂 Sing		
4.3扒渣/清炉头伸缩速度	Stretching speed of boom arm	0-1000㎜/S(可调) Adjustable within the rang		
4.4最大下推力	Maximum downward thrust	10-20KN(可设置) programmab		
4.5最大水平推/拉力	Maximum horizontal push/pull force	10-20KN(可设置) programmab		
4.6最小离地间隙	Minimum ground clearance	150mm 150mm		
4.7最大爬坡度	Maximum Grade ability	10%		
4.8最大行驶速度	Maximum Travel Speed	5-10Km/h(可设置) 5-10Km/h(programmable		
4.9前后轮胎	Tire	实心胎 Solid Ti		
4.10动力机	Engine	QSB4.5-C130 东风康明斯/1104D-E44TA 珀金斯,可选配磷酸铁锂电池纯电动 The pure electric power system of lithium iron phosphate is also available for option		
4.11满载爬坡度	Full Load Grade ability	大于10% >10		
4.12整机自重	Weight	16000Kg 16000K		
		长: 6800mm-9500mm(根据客户现场需求可定制) Length: 6800mm-9500m		
4.13整机外形 Dim		宽: 2500mm (根据客户现场需求可定制 ) Width: 2500m		
		高: 2800mm (根据客户现场需求可定制 ) Height; 2800m		
4.14动力形式	Engine Type	柴油发动机		
4 4 F 10 / F T / F	Operate Type	坐式、密闭隔热空调驾驶室 Sealed Cab configuration include sound insulation design and high temperature air conditionin 前驱后转向/四转四驱 Forward Drive, Rear Steer/4Drive 4 Stee		
4.15操作形式				
4.15操作形式 4.16行走驱动方式	Drive Model	前驱后转向/四转四驱 Forward Drive,Rear Steer/4Drive 4 Ste		









- 6、采用整体式车架,可提供良好的刚性和强度,保证加料车底盘的高可靠性。
- 7、作业装置为全自由提升门架,配三节伸缩臂液压推料,工作平稳可靠,满足加料 作业的要求。
- 8、采用块状加深重型叉车实心轮胎,后转向桥可绕中心摆动,具有良好的牵引性能和通过性能。
- 9、采用可调式方向机, 航空座椅, 先导阀控制分配阀和工作装置油路, 操纵轻便灵活, 坐感更舒适。
- 10、采用免维护蓄电池,电线采用抗阻燃材料,驾驶室配置风扇、收音机、冷暖空调、工作更舒适可靠。
- 11、整机造形大气、优美、流畅;豪华宽视野驾驶室,噪音低,密封性好,便于驾驶员四周观察。

HNF-1807 is a customized furnace-charging vehicle, with full free lift structure, hopper climb does not increase the vehicle height to meet the actual conditions of the high limit requirements, the maximum lift height and load are custom designed according to the needs of the customer's melting furnace all the charging action is through hydraulic pilot operation Handle to complete it.

- 1, Adopt Dongfeng Cummins turbocharged diesel engine, China stage III emissions, power strong, energy saving and environmental protection, meet the efficient working requirements.
- 2, Adpot fixed shaft type hydraulic transmission, the traction force of the combined condition is large, and the double-variable system is more reliable. Twin-turbo hydraulic torque converter stepless speed change; single-lever control transmission system, two forward and two backward gear shift, operation is easier.
- 3, Adopt dual-pump confluence working hydraulic system, a significant reduction in fuel consumption and energy consumption.
- 4, Adopt full hydraulic coaxial flow amplification steering system, the turning radius of rear axle is small, steering light and flexible.
- 5, Adopt front wheel drive, rigid suspension, rear axle steering structure. The front axle spiral bevel gear and the wheel side planetary gear increase toqrue, big load capacity. The rear axle adopts the transverse hydraulic cylinder type steering mechanism, which is helpful to reduce the steering resistance, reduce the tire wear and improve the ride comfort.
- 6, Adopt unitary frame, can provide good rigidity and strength, ensure that the furnace charging vehicle chassis has high reliability.
- 7. The working device is full free lift mast, Three section telescopic arm hydraulic push material, work smoothly and reliably, meet the requirement of feeding operation.
- 8, Adopt block deepening solid forklift truck solid tires, rear steering bridge can swing around the center, with Good traction performance and traffic-ability.
- 9. Matched with adjustable drection, airline seat, joystick control distributing valve and working device control, fexible and convient munipulation, sit confortable.
- 10. Matched with maintenance-free batteries, multi-function LCD monitor, anti-flame retardant materials wire, cab with fan, radio, air conditioning, comfortable and reliable.
- 11. The truck shape is high-grade, beautiful, mellifluence; luxury wide view cab, low noise, good sealing, easy to observe around.

## 产品参数配置

Specifications of furnace-charging vehicle
加料车性能参数 HNF-120FT

# 9/20

项目 ITEM		项目内容 ITEM DESCRIPTION	单位 UNIT	HNT-1505	HNT-1807
特性	1.1	起重量/载荷 Rated Load	Q(t)	5 (可定制Can be customized)	7 (可定制Can be customized)
Features	1.2	轴距 Wheelbase	y(mm)	3000	3800
车轮 底盘	2.3	轮胎规格,前 Tyre Specs:Front		10.00x20/16PR	12.00-24
	2.4	轮胎规格,后 Tyre Specs:Rear		10.00X20/16PR	12.00-24
Chassis	2.5	车轮,数量前/后(×=驱动轮) Tyres Qty,front/rear(X-drive wheels)		4X/2	4X/2
	3.1	门架/货叉架前/后倾角 Mast/carriage tilt angle(front/rear)	度Degree	6/6	6/6
	3.2	门架回缩时高度 Mast height(fork lowering)	h1(mm)	3000 (可定制Can be customized)	3365 (可定制Can be customized)
基本	3.3	标准起升高度(全自由提升) Mast lifting height(full free lift)	h3(mm)	1000~1600 (可定制Can be customized)	1000~1600 (可定制Can be customized)
尺寸 Dimension	3.4	总长(含斗) Overall height(with bucket)	11(mm)	8100 (可定制Can be customized)	9000 (可定制Can be customized)
	Ø Ø	总宽 Overall width	b1/b2(mm)	4000	4000
	3.6	斗尺寸 Bucket dimension	s/e/1(mm)	4000x3000x1200 (可定制Can be customized)	4000x3000x1200 (可定制Can be customized)
功能	4.1	运行速度(满载/无载) Travel speed(with load/without load)	km/h	23/26	23/26
参数	4.2	四地舟 / 洪井/工井 \	%	25	25
Performance	4.3	行车制动 Driving brake		钳盘式制动器 dise brake	钳盘式制动器 dise brake
	5.1	内燃机生产厂名称/型号 Engine brand/model		东康QSB4.5-C130 Dongfeng Cummins	珀金斯1106D-70TA
内燃机	5.2	内燃机功率 按 ISO 1585 Engine power	KW	97	126
Engine	5.3	额定转速 Rated rotor speed	min <sup>-1</sup>	2200	2200
	5.4	气缸数目 No.of Cylinder	cm <sup>3</sup>	4	6
其他 Others	6.1	行驶控制方式Control type for driving		液力变矩器 Hydrulic torque	液力变矩器 Hydrulic torque

