



上海粒沣传动技术有限公司

Shanghai Richfulcat Transmission Technology Co., Ltd



公司简介

Company Profile



大功率传动系统解决方案提供商 High-Power Transmission System Solution Provider

上海粒洋传动技术有限公司创立于2015年，主要从事大功率液力变矩器，动力换挡变速箱的设计、开发、生产，为轨道工程车、工程机械、矿山机械、石油机械使用的动力传动系统提供包括匹配选型，产品设计，仿真设计，生产制造，试验验证在内的系统解决方案。经过多年的创新发展，粒洋传动已经成长成为一家高新技术企业，主导产品覆盖两个大类别、十个产品系列，600多个品种。

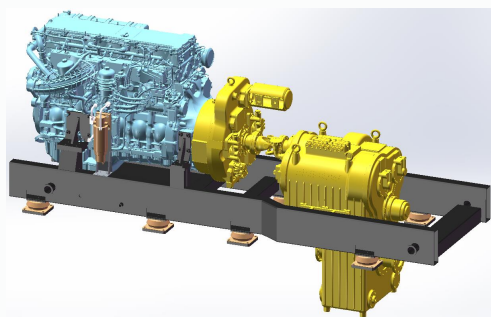
Shanghai Richfulcat Transmission Technology Co., Ltd., founded in 2015, specializes in the design, development, and production of high-power hydraulic torque converters and power shift transmissions. The company provides comprehensive system solutions for power transmission systems used in rail engineering vehicles, construction machinery, mining machinery, and petroleum machinery. These solutions include matching selection, product design, simulation design, manufacturing, and testing verification. Through years of innovation, Richfulcat has grown into a high-tech enterprise, with its leading products covering two main categories, ten product series, and over 600 variants.

内燃动力：“大功率、进口替代”

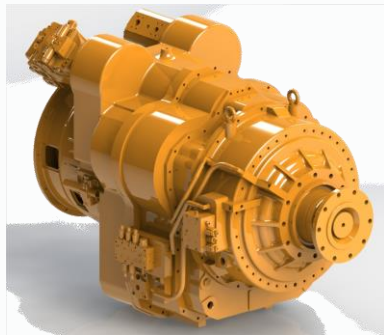
Internal Combustion Power: “High Power, Import Substitution”

公司产品自主研发，全系列正向平台化设计，以自己的核心专利技术为依托，动力换挡变速箱系列产品输入功率跨度从290-9000马力，满足了国内各工况对于载重、档位、坡度、速比的不同需求。公司以“大功率、进口替代”为战略发展方向，解决了国内大功率变速箱卡脖子问题。

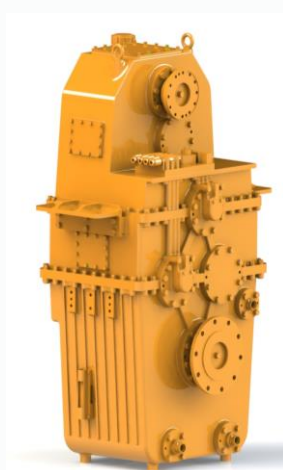
The company's products are independently developed, designed with a fully modular platform approach, and rely on proprietary core patent technology. Its power shift transmissions support input power ranges from 290 to 9,000 horsepower, meeting the diverse demands of domestic working conditions in terms of load, gear range, gradient, and speed ratio. With a strategic focus on “high power and import substitution,” the company addresses domestic bottlenecks in high-power transmissions



卡特动力包替代
Caterpillar Substitute



双环替代
Twin Disc Substitute



福伊特替代
Voith Substitute



德纳替代
Dana Substitute

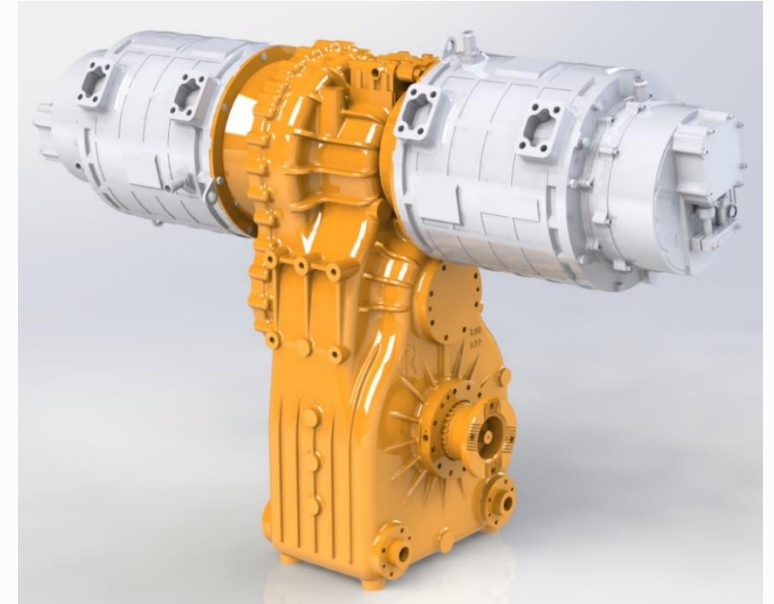


艾利逊替代
Allison Substitute

新能源：动力换挡变速箱、智能化解决方案

在国家“交通运输绿色低碳行动”机车新能源化战略转型中，为新能源不同工况提供动力换挡变速箱和智能化、新能源化整套解决方案。

New Energy: Power Shift Transmission and Intelligent Solutions
In alignment with the national “Green Low-Carbon Transport” initiative and locomotive new energy transformation strategy, Richfulcat offers power shift transmissions and integrated solutions for intelligentization and new energy adaptation, tailored to various working conditions.



公司愿景
Company Vision

成为核心关键零部件集大成者，解决中国制造缺芯的短板。
Become a leader in core critical components, addressing the shortage of chips in Chinese manufacturing

公司使命
Company Mission

聚焦客户痛点，提供有竞争力的核心关键零部件和服务，持续为客户创造最大价值。

Focusing on customer pain points, we provide competitive core components and services, continuously creating maximum value for our customers.

公司目标
Company Objectives

成为行业内与国外制造商比肩的优秀制造商

Become an excellent manufacturer that can compete on par with foreign manufacturers in the industry.

我们的价值观
Our Values

坦荡做人 踏实做事 积极进取 终身学习

Be Honest and Open, Work Diligently,

Strive for Progress, and Commit to Lifelong Learning



中国制造，服务全球

Made in China, Serving the World

动力传动系统解决方案

Power Transmission System Solutions



变矩器
变速箱

基于产品全生命周期的合作

Collaboration Based on the Full Product
Lifecycle



销售
应用匹配
设计
测试/调试
售后支持

制造 & 物流

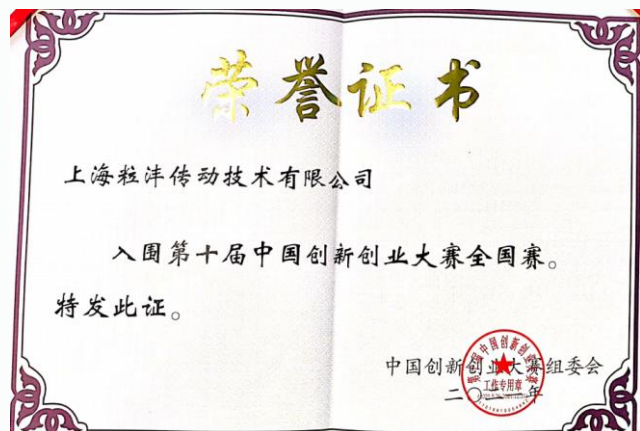
Manufacturing & Logistics



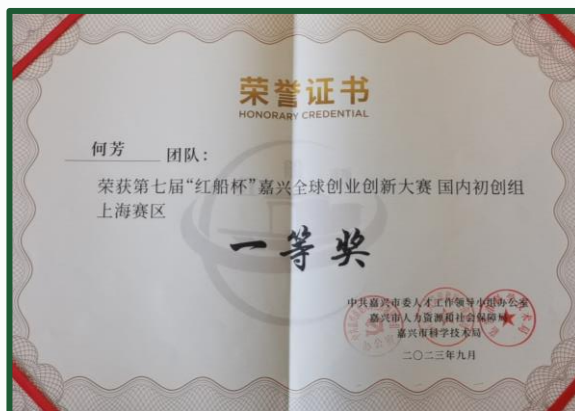
制造
仓储
进出口
分销及售后中心



高新技术企业

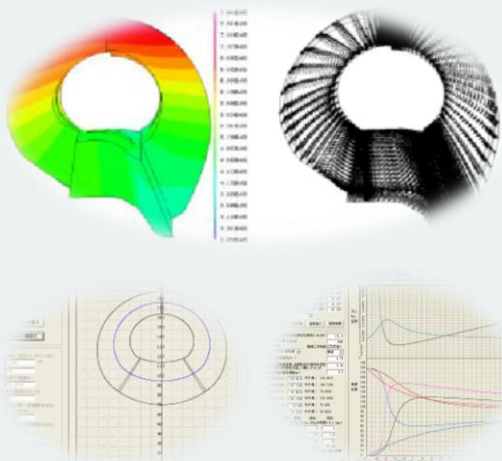


多次代表上海参加全国创新创业大赛



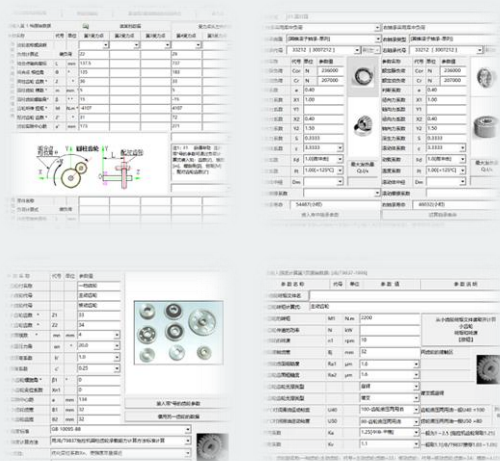
ISO9000体系认证

变矩器自主设计 Torque Converter Independent Design



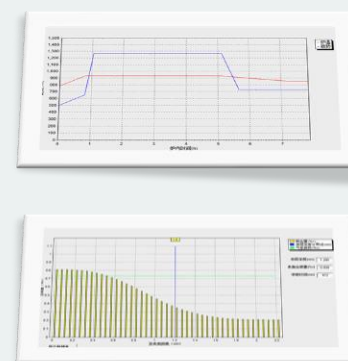
变矩器设计软件

变速箱自主设计 Transmission Independent Design



- 具有32种工况计算齿轮和轴承承载能力，轴系设计模块，各种齿轮参数设计模块，能根据设计参数出二维图

热处理工艺仿真 Heat Treatment Process Simulation



齿轮/轴等关键核心件质量的有力保证



强大的交付与验证能力 Strong Delivery and Validation Capability

生产流程的数字化管理
Digital Management of Production Processes



钉钉OA管理

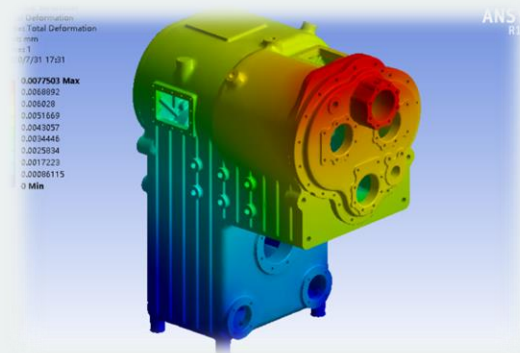
管理研发到交付全周期的OA系统确保生产交付

应用软件支持
Application Software Support



内燃/电机等驱动方式的精准匹配

仿真验证
Simulation and Validation



模拟仿真实验

动力单元性能测试 Power Unit Performance Testing



SUKON

发动机转速 1000 当前档位 空档 0

项目	空档	前进一	前进二	前进三	前进四	倒挡一	倒挡二	倒挡三	倒挡四
机油温度 °C	29	0	0	0	0	0	0	0	0
中冷温度 °C	22	0	0	0	0	0	0	0	0
机油压力 kPa	208	0	0	0	0	0	0	0	0
主油压 kPa	280	0	0	0	0	0	0	0	0
E1 kPa	0	0	0	0	0	0	0	0	0
E2 kPa	0	0	0	0	0	0	0	0	0
E3-4 kPa	0	0	0	0	0	0	0	0	0
0		R1	R2	R3	R4	R1	R2	R3	R4

记录 保存 清除

变速箱状态

主油压	2128	kPa	变矩器油压	432	kPa
电磁阀1油压	0	kPa	变矩器油温	20	°C
电磁阀2油压	0	kPa	变速箱22转速	0	rpm
电磁阀3油压	0	kPa	变速箱25转速	0	rpm
电磁阀4油压	0	kPa	变速箱211转速	0	rpm
电磁阀5油压	0	kPa	目标档位	空档	0
电磁阀6油压	0	kPa	当前档位	空档	0

发动机状态 变速箱状态 转矩仪状态 试验项目

发动机状态

发动机转速	999	rpm
尿素液位	26	%
发动机负荷	19	%
发动机温度	38	°C
中冷器温度	22	°C
发动机机油压力	376	kPa

变矩器状态

变矩器油压	416	kPa
变矩器油温	21	°C

主页 发动机状态 变速箱状态 转矩仪状态 试验项目

硬件在环试验平台，可以模拟虚拟车的外部信号接口和不断变化的工况，对“虚拟车”进行模拟，实现控制策略的仿真。

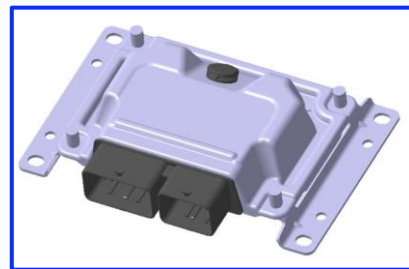
The hardware-in-the-loop testing platform can simulate the external signal interfaces and changing operating conditions of a 'virtual vehicle,' enabling the simulation of control strategies



MCU



TCU



VCU



Cyclic Test Platform

非公路车传动系统解决方案

Non-Road Vehicle Transmission System Solutions

轨道工程
Rail Engineering



井工矿山
Underground Mining



石油机械
Petroleum Machinery



工程机械
Construction Machinery



农业机械
Agricultural Machinery



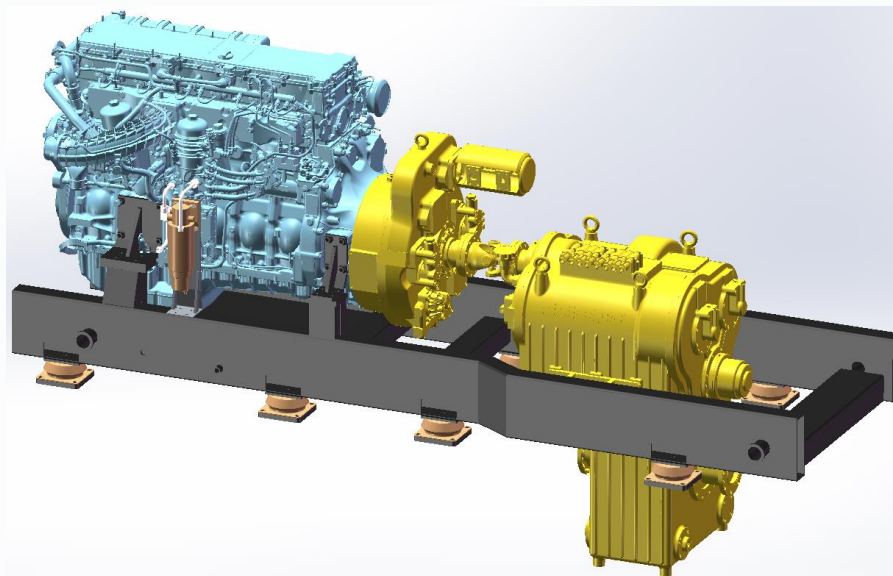
重型

高效

可靠

地铁调车传动系统

Metro Shunting Transmission System



地铁调车传动系统应用案例 Metro Shunting Application Case



炉前车传动系统

Furnace Front Vehicle Transmission System



河北安丰钢铁



河北东冶特钢



福建大东海



罗源闽光

隧道牵引机车传动系统

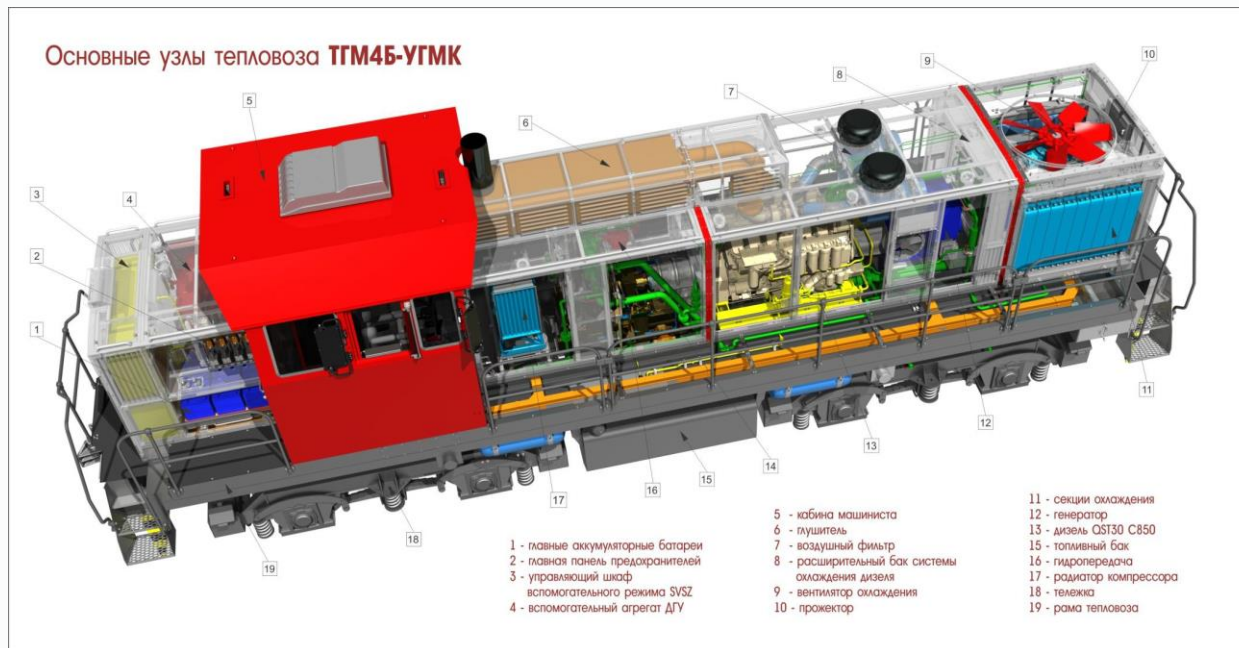
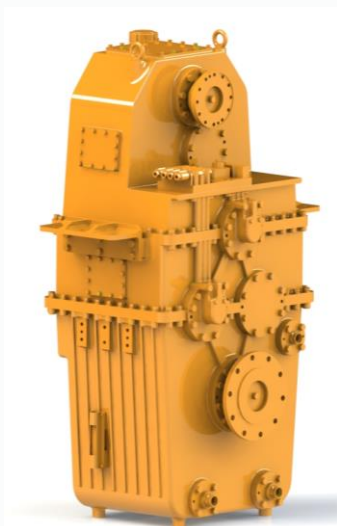
Tunnel Locomotive Drive System



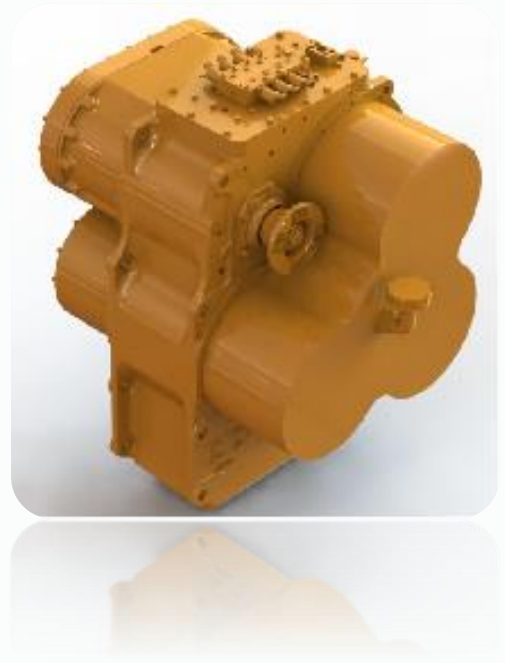
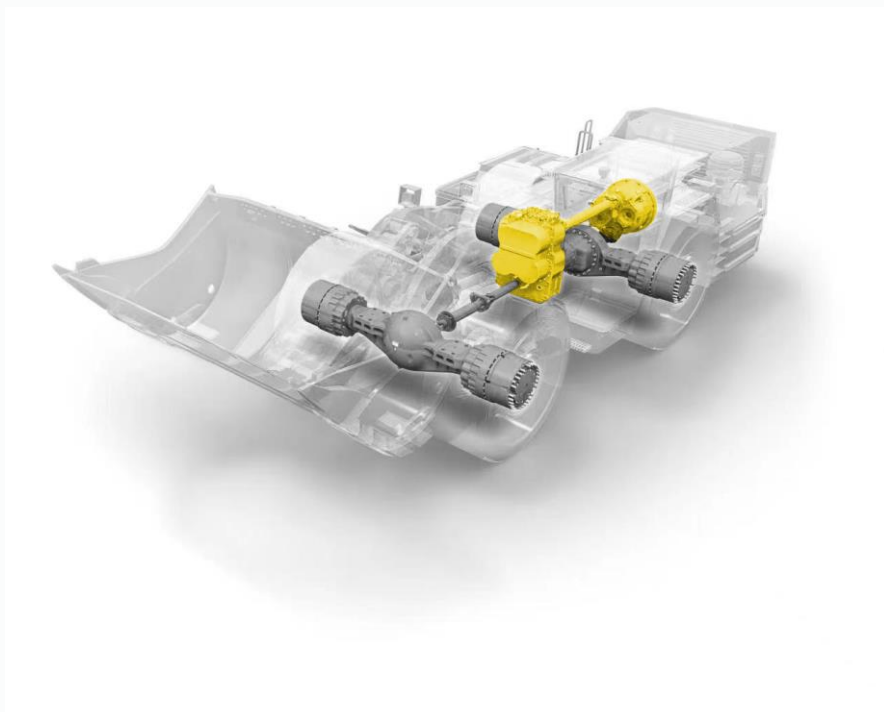


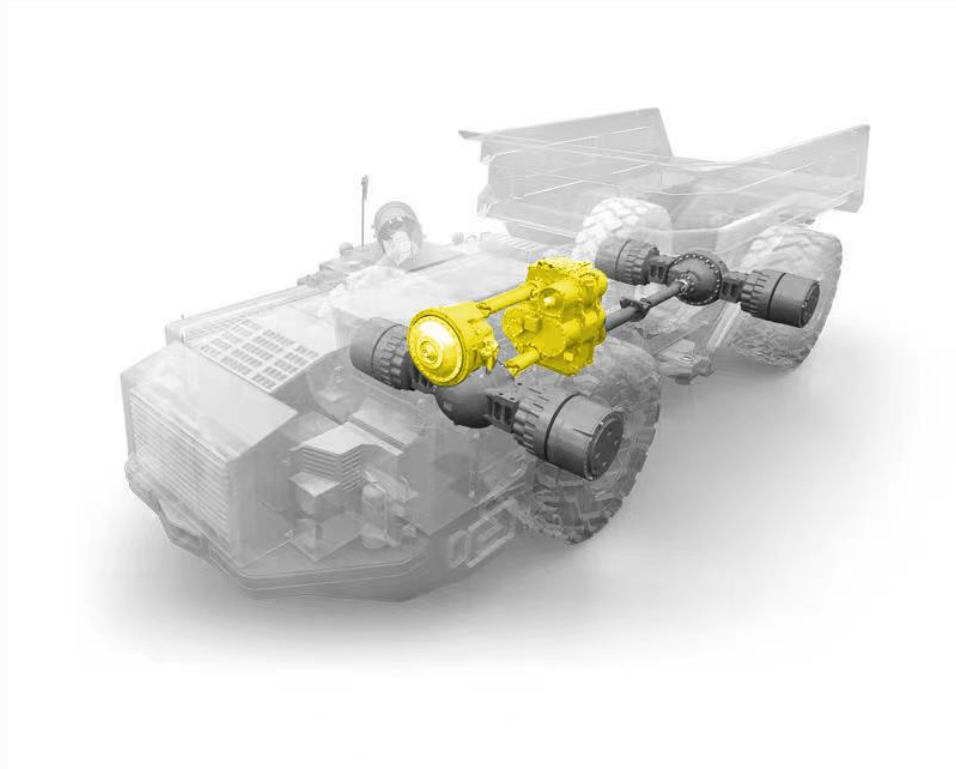
福伊特替代方案：TGM4车型应用

Voith Substitute Solution: Application on TGM4 Model



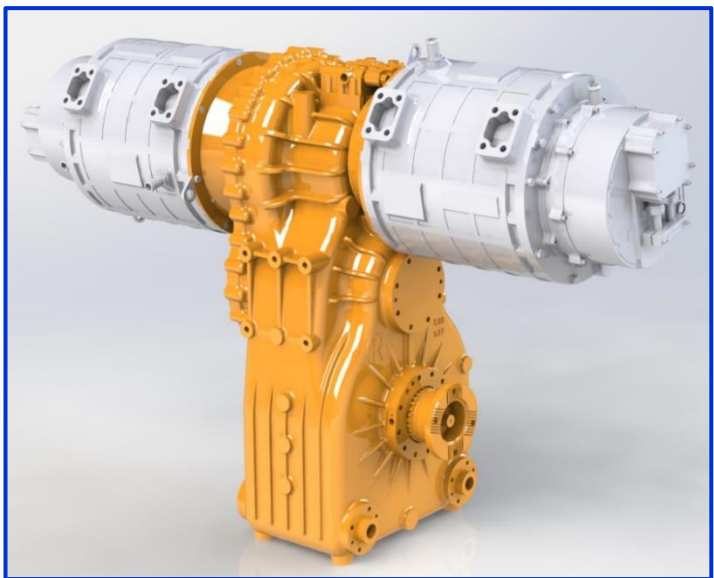
地下铲运机解决方案 Underground LHD Solutions





新能源动力换挡变速箱/减速箱

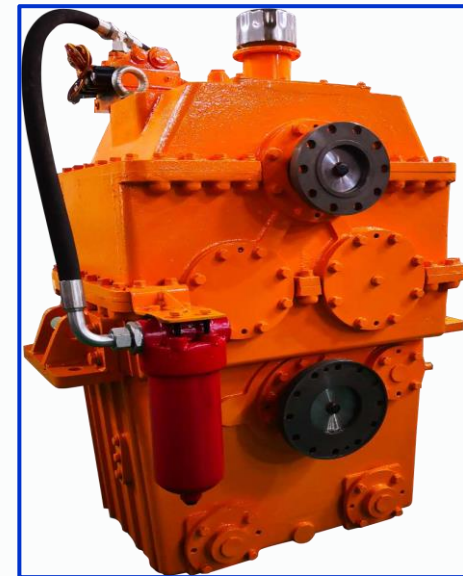
New Energy Power Shift Transmission/ Gear Reducer



牵引机车单电机/双电机减速箱
Traction Locomotive Single Motor /
Dual Motor Reduction Gearbox



RJ4001
400KW 单电机/双电
机新能源减速箱



RJ5501
600KW 单电机/双电
机新能源减速箱

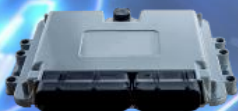
牵引机车智能化应用 Intelligent Application of Traction Locomotives

精准停车功能

无线遥控功能

无人驾驶功能

控制器



显示屏



传感器



无线遥控手柄





模块化设计
Modular design



质量可靠
Reliable quality



使用方便
Easy to use



快速交付
Fast delivery

我们的主要客户

Our main customers





联系我们 Contact

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