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# EM186H

New Energy Intelligent Mining Dump Truck With  
A Load Capacity of  
**130 Tons**



# 03

## About EM186H

Hybrid intelligent Multi Axle Driving & Steering



**EM186H** is a new generation of large new energy intelligent mining dump truck developed by Yimu Intelligence specially for mines, ports, steel mills, water conservation projects, highroad constructions and other working conditions. The standard load capacity can reach 130 tons, and it has features such as high transportation efficiency, energy saving, smart control, high safety and reliability, and configuration variety.

**EM186H** can be equipped with various power systems, including pure electric drive, fuel + battery drive, methanol extended range hybrid, and hydrogen extended range hybrid. It can also be equipped with manual or automatic transmission. The truck adopts drive-by wire technology and can be equipped with autonomous driving modules. Various configuration can be applied based on different working scenarios to achieve optimal economic benefits and work efficiency.

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## Product Advantages

# EM186H



- /// Large load capacity and high efficiency
- /// Domestically universal components, lower procurement and maintenance costs
- /// The intelligent hybrid power system provides a balance between power and energy saving
- /// High reliability and easy maintenance
- /// A comfortable and flexible driving experience

## Product Advantages

### /// Large load capacity and high efficiency

1. 130 tons load capacity provides higher efficiency.
2. Innovative four axle reinforced load bearing structure provides a more balanced load distribution. The load-bearing components are more durable, enabling the system.

### /// Domestic common core components, lower procurement and maintenance costs

1. The innovative vehicle design allows for the utilization of a domestic supply chain, ensuring the lead time less than 3 months.
2. The use of platform-based, domestically produced components not only lowers manufacturing and maintenance costs but also facilitates standardization and interchangeability.

### /// The intelligent hybrid power system provides a balance between power and energy saving

1. The adoption of multi-axle and hybrid driving technologies ensures that the mining dump truck can operate normally even on extreme slopes with a maximum gradient of 30%.
2. The IES (intelligent energy-saving) system, combined with the energy recovery system can achieve a minimum energy-saving rate of 20% per ton-kilometer.

### /// High reliability and easy maintenance

1. The intelligent regenerative braking system significantly enhances reliability and safety.
2. The hydropneumatics suspension improves durability and lowers component failure rates.
3. The intelligent remote management system provides real-time data collection, remote diagnostics and updates for the trucks.

### /// A comfortable and flexible driving experience

1. An innovative multi-axle steering system allows for a tighter turning radius of approximately 12.5 meters and enhances the flexibility.
2. The hydraulic steering system allows for an easier steering and more precisely handling.
3. The hydropneumatics suspension provides higher resistance and comfort.

Flexible options in power systems including pure electric drive  
fuel + battery drive  
methanol extended range hybrid  
and hydrogen extended range hybrid





05  
Product Specifications

EM186H



Vehicle

| MODEL  | EM186H   |
|--------|----------|
| Length | 12,500mm |
| Width  | 4,260mm  |
| Height | 4,900mm  |

Weights

| MODEL                        | EM186H |
|------------------------------|--------|
| Vehicle weight               | 58t    |
| Maximum gross vehicle weight | 188t   |
| Rated load capacity          | 130t   |

Body Specifications

| MODEL                       |        | EM186H  |
|-----------------------------|--------|---------|
| Standard capacity           |        | 75/85m³ |
| Body raise time /lower time |        | 35/30s  |
| Maximum internal dimensions | Length | 8,650mm |
|                             | Width  | 3,900mm |
|                             | Height | 2,415mm |

Main Specifications

| MODEL                    |                                    | SPECIFICATIONS                                                                   |
|--------------------------|------------------------------------|----------------------------------------------------------------------------------|
| Engine                   | Model                              | YCK16775-T30                                                                     |
|                          | Displacement                       | 16L                                                                              |
|                          | Rated power                        | 570/1,900kW/rpm                                                                  |
|                          | Maximum Torque                     | 3,200/1,300-1,500Nm/rpm                                                          |
| Gearbox                  | Main drive                         | 8DS260                                                                           |
|                          | Auxiliary drive                    | AMT E-drive                                                                      |
| Axle                     |                                    | 35+45+45+60                                                                      |
| Tire                     |                                    | 460/95R25, 480/95R29                                                             |
| Drive motor power        |                                    | 260/400kW                                                                        |
| Battery                  | Battery power                      | 118kWh                                                                           |
|                          | Type                               | Lithium manganate                                                                |
| Drive mode               |                                    | 8x6                                                                              |
| Maximum travel speed     |                                    | 40km/h                                                                           |
| Gradeability             |                                    | 30%                                                                              |
| Steering performance     | Steering                           | Full hydraulic / Two-axle steering, 1st and 4th axle are the steering axles      |
|                          | Minimum turning radius             | 12,500mm                                                                         |
|                          | Minimum passing radius             | 14,500mm                                                                         |
| Braking performance      | Parking brake mode                 | Air brake                                                                        |
|                          | Parking slope                      | ≥25%                                                                             |
|                          | Driving brake mode                 | Air controlled double circuit drum brake + Motor reverse + Engine cylinder brake |
|                          | 30km/h Fully loaded brake distance | ≤15.75m                                                                          |
| Cabin                    | Suspension                         | Semi-suspended structure                                                         |
|                          | Seat                               | Air spring                                                                       |
|                          | Dashboard                          | Combination dashboard + 10 inch LCD screen                                       |
|                          | Air-condition                      | Cool + heat                                                                      |
| Fuel tank volume         |                                    | 1,000L                                                                           |
| Approach angle           |                                    | 24°                                                                              |
| Departure angle          |                                    | 65°                                                                              |
| Minimum ground clearance |                                    | 415mm                                                                            |
| Suspension structure     |                                    | Full hydropneumatics suspension                                                  |



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# EM165H

New Energy Intelligent Mining Dump Truck With  
A Load Capacity of  
**115 Tons**



# 03

## About EM165H

Hybrid intelligent Multi Axle Driving & Steering



**EM165H** is a new generation of large new energy intelligent mining dump truck developed by Yimu Intelligence specially for mines, ports, steel mills, water conservation projects, highroad constructions and other working conditions. The standard load capacity can reach 115 tons, and it has features such as high transportation efficiency, energy saving, smart control, high safety and reliability, and configuration variety.

**EM165H** can be equipped with various power systems, including pure electric drive, fuel + battery drive, methanol extended range hybrid, and hydrogen extended range hybrid. It can also be equipped with manual or automatic transmission. The truck adopts drive-by wire technology and can be equipped with autonomous driving modules. Various configuration can be applied based on different working scenarios to achieve optimal economic benefits and work efficiency.

# 04

## Product Advantages

# EM165H



- /// Large load capacity and high efficiency
- /// Domestically universal components, lower procurement and maintenance costs
- /// The intelligent hybrid power system provides a balance between power and energy saving
- /// High reliability and easy maintenance
- /// A comfortable and flexible driving experience



## Product Advantages

### /// Large load capacity and high efficiency

1. 115 tons load capacity provides higher efficiency.
2. Innovative four axle reinforced load bearing structure provides a more balanced load distribution. The load-bearing components are more durable, enabling the system.

### /// Domestic common core components, lower procurement and maintenance costs

1. The innovative vehicle design allows for the utilization of a domestic supply chain, ensuring the lead time less than 3 months.
2. The use of platform-based, domestically produced components not only lowers manufacturing and maintenance costs but also facilitates standardization and interchangeability.

### /// The intelligent hybrid power system provides a balance between power and energy saving

1. The adoption of multi-axle and hybrid driving technologies ensures that the mining dump truck can operate normally even on extreme slopes with a maximum gradient of 30%.
2. The IES (intelligent energy-saving) system, combined with the energy recovery system can achieve a minimum energy-saving rate of 20% per ton-kilometer.

### /// High reliability and easy maintenance

1. The intelligent regenerative braking system significantly enhances reliability and safety.
2. The hydropneumatics suspension improves durability and lowers component failure rates.
3. The intelligent remote management system provides real-time data collection, remote diagnostics and updates for the trucks.

### /// A comfortable and flexible driving experience

1. An innovative multi-axle steering system allows for a tighter turning radius of approximately 12.5 meters and enhances the flexibility.
2. The hydraulic steering system allows for an easier steering and more precisely handling.
3. The hydropneumatics suspension provides higher resistance and comfort.

Flexible options in power systems including pure electric drive  
fuel + battery drive  
methanol extended range hybrid  
and hydrogen extended range hybrid



05  
Product Specifications



Vehicle

| MODEL  | EM165H   |
|--------|----------|
| Length | 12,200mm |
| Width  | 4,160mm  |
| Height | 4,785mm  |

Weights

| MODEL                        | EM165H |
|------------------------------|--------|
| Vehicle weight               | 53t    |
| Maximum gross vehicle weight | 168t   |
| Rated load capacity          | 115t   |

Body Specifications

| MODEL                       |        | EM165H  |
|-----------------------------|--------|---------|
| Standard capacity           |        | 60/70m³ |
| Body raise time /lower time |        | 35/30s  |
| Maximum internal dimensions | Length | 8,650mm |
|                             | Width  | 3,900mm |
|                             | Height | 2,415mm |

Main Specifications

| MODEL                    |                                    | SPECIFICATIONS                                                                   |
|--------------------------|------------------------------------|----------------------------------------------------------------------------------|
| Engine                   | Model                              | YCK16775                                                                         |
|                          | Displacement                       | 16L                                                                              |
|                          | Rated power                        | 570/1,900kW/rpm                                                                  |
|                          | Maximum Torque                     | 3,200/1,300-1,500Nm/rpm                                                          |
| Gearbox                  | Main drive                         | 8DS260A                                                                          |
|                          | Auxiliary drive                    | AMT E-drive                                                                      |
| Axle                     |                                    | 30+45+45+45                                                                      |
| Tire                     |                                    | 16.00R25                                                                         |
| Drive motor power        |                                    | 260/400kW                                                                        |
| Battery                  | Battery power                      | 90/108kWh                                                                        |
|                          | Type                               | Lithium manganate                                                                |
| Drive mode               |                                    | 8x6                                                                              |
| Maximum travel speed     |                                    | 42km/h                                                                           |
| Gradeability             |                                    | 30%                                                                              |
| Steering performance     | Steering                           | Full hydraulic / Two-axle steering, 1st and 4th axle are the steering axles      |
|                          | Minimum turning radius             | 12,500mm                                                                         |
|                          | Minimum passing radius             | 14,200mm                                                                         |
| Braking performance      | Parking brake mode                 | Air brake                                                                        |
|                          | Parking slope                      | ≥25%                                                                             |
|                          | Driving brake mode                 | Air controlled double circuit drum brake + Motor reverse + Engine cylinder brake |
|                          | 30km/h Fully loaded brake distance | ≤15.75m                                                                          |
| Cabin                    | Suspension                         | Semi-suspended structure                                                         |
|                          | Seat                               | Air spring                                                                       |
|                          | Dashboard                          | Combination dashboard + 10 inch LCD screen                                       |
|                          | Air-condition                      | Cool + heat                                                                      |
| Fuel tank volume         |                                    | 1,000L                                                                           |
| Approach angle           |                                    | 24°                                                                              |
| Departure angle          |                                    | 65°                                                                              |
| Minimum ground clearance |                                    | 415mm                                                                            |
| Suspension structure     |                                    | Full hydropneumatics suspension                                                  |

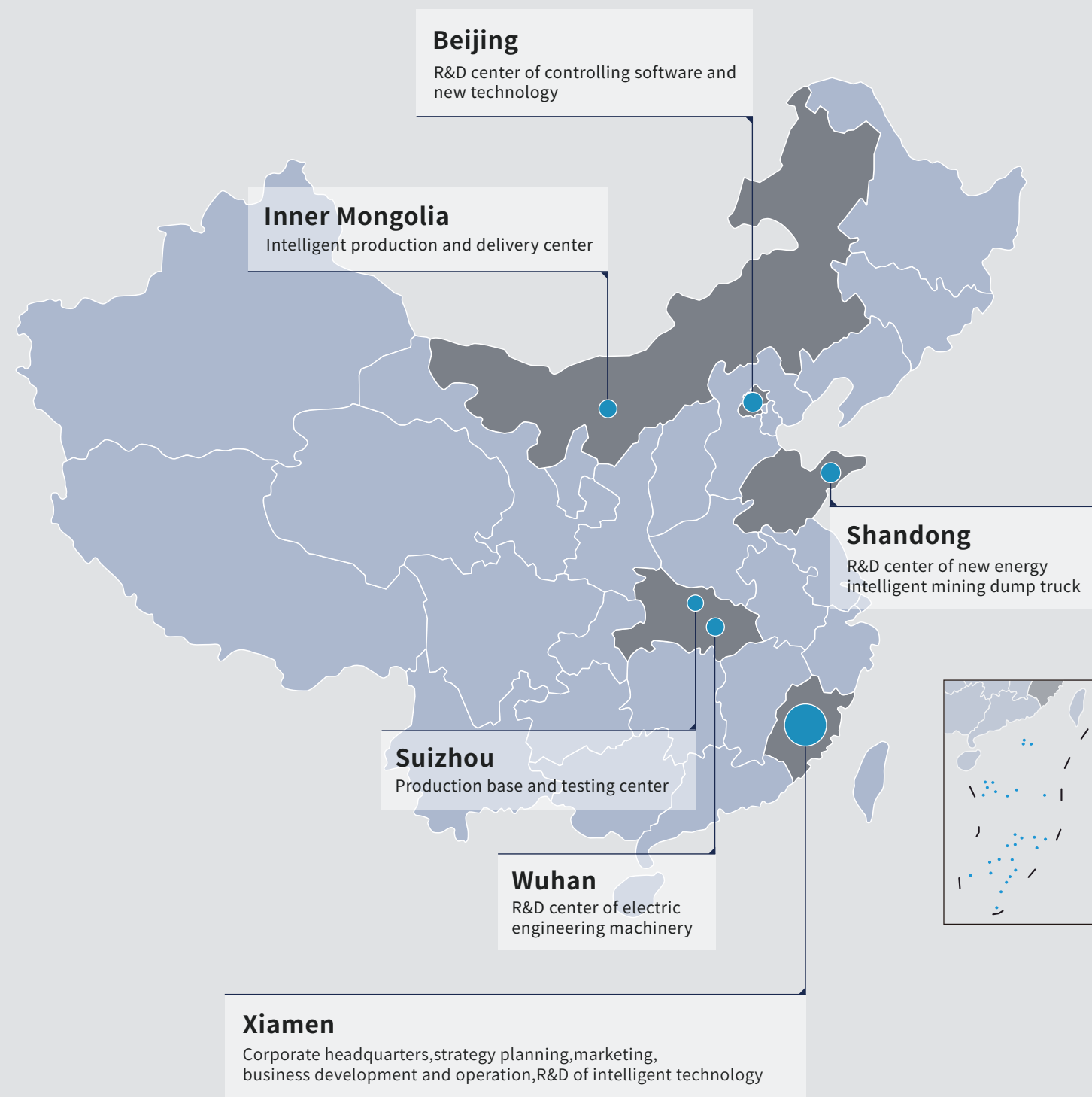




## About Us

Xiamen Yimu Intelligence Technology Co., Ltd. (referred to as “Yimu Intelligence” or “the company”) is a technology driven startup company, which designs and manufactures new energy intelligent large mining dump trucks, electric engineering machinery, and related products and services. The company’s main products are applicable for various engineering conditions, such as mines, ports, steel mill, water conservation projects, highroad constructions, which can significantly reduce costs and increase efficiency for clients.

Three founders of the company all graduated from Tsinghua University with a master degree of Automotive Engineering and have over 15 years of experiences in design, manufacture and sale of engineering machinery, new energy vehicle, assembly of electric drive and vehicle intelligence technology. We are committed to empowering mining with innovative operating platform and making transportation better.



# 02

## HiMADS

### Hybrid intelligent Multi Axle Driving & Steering

Based on the market demand for large-scale, intelligent and new energy mining dump trucks, Yimu Intelligence has innovatively built 'HiMADS' -a brand new generation of new energy intelligent mining dump truck platform to effectively addresses the issues faced by domestic mining dump trucks in terms of limited load capacity, restricted supply chain, and high costs in achieving large-scale operations, and well suited for future autonomous driving scenarios. Meanwhile, HiMADS can achieve multi-driving and multi-steering with various driving combinations and energy module.

After multiple iterations and validations, HiMADS has been successfully applied to the new energy intelligent mining dump truck EM165H series.

### Key Features of the HiMADS Platform:

1. Large load capacity: HiMADS can be used to produce large mining dump trucks with a load capacity of 115-200 tons.
2. Strong power: by adopting the new multi-axle driving technology, HiMADS ensures that the mining dump truck can maintain its maximum speed and robust climbing ability even when carrying its maximum payload.
3. High flexibility: by adopting the new multi-axle steering technology, HiMADS ensures that the mining dump truck can maintain a relatively small turning radius.
4. Diversity of energy supply: HiMADS adopts Hybrid and mixed power technology which can include various types of energy sources, such as fuel + battery, pure electric drive, methanol range extension, hydrogen range extension, and others.
5. Energy saving and environmentally friendly: fuel consumption per ton-kilometer can be reduced by at least 20% in tough working conditions.
6. Smart control: Equipped with a multi-controller domain control architecture and V2X system, HiMADS can achieve autonomous driving functions.







# 06

## After-sales Service



One-year vehicle warranty



Real-time online fault diagnosis, nearby service stations provide fast maintenance response



Spare Parts Supply Program: parts inventory management + parts sales + central warehouse management

# 07

## Production Capacity

Our self-owned production base and testing center, strictly adhering to the ISO9001 international quality management system standards, ensure product quality and stability. Located in Wuhai, Inner Mongolia, and Suizhou, Hubei, known as the "Special Vehicle City" in China, the center benefits from a well-developed industrial ecosystem and has the advantage of scale production capabilities.

Our manufacturing team has extensive experience in engineering management and mass production. Products developed based on the HiMADS platform can be rapidly prototyped and iterated, and delivered to clients within 3 months.