

Professionalism leads to quality



TONLY HEAVY INDUSTRIES (SINGAPORE) PTE. LTD.

Add:140 ROBINSON ROAD #08-02 TAHIR BUILDING SINGAPORE 068907

Website:www.tonlyglobal.com

Email: overseas@sntonly.com

Discover more here



TO BE INDUSTRY LEADING SUPPLIER OF ENGINEERING TRANSPORTATION SOLUTIONS AND EQUIPMENT

DRIVEN BY ELECTRIFICATION AND EMPOWERED BY INTELLIGENCE TONLY NEW MINING TRUCK

Helping to construct the green, smart, efficient and safe environment for mining operation



TONLY STRIVING FORWARD

DEVELOPING TONLY

Shaanxi Tonly Heavy Industries Co., Ltd.



- Initiative and professional high-tech enterprise in the R&D and manufacturing of off-road trucks
- Pioneer and leading enterprise in the off-road dump truck industry
- One of the main drafting units for national and industry standards of off-road dump trucks
- First engineering transport equipment enterprise listed on Beijing Stock Exchange
- The winner of 2020 Single Champion Product in Manufacturing granted by the National Ministry of Industry and Information Technology
- Top 10 most valuable listed enterprises on the Beijing Stock Exchange
- No. 1 in market ownership of off-road dump trucks
- Ranked 39th among the Top 50 global construction machinery manufacturers

NO.39
Ranked 39th among the Top 50 global construction machinery manufacturers

TOP 10
Most valuable listed enterprises on the Beijing Stock Exchange

834599
TONLY

NO.1
In market ownership of off-road dump trucks



SHAANXI TONLY HEAVY INDUSTRIES CO., LTD.



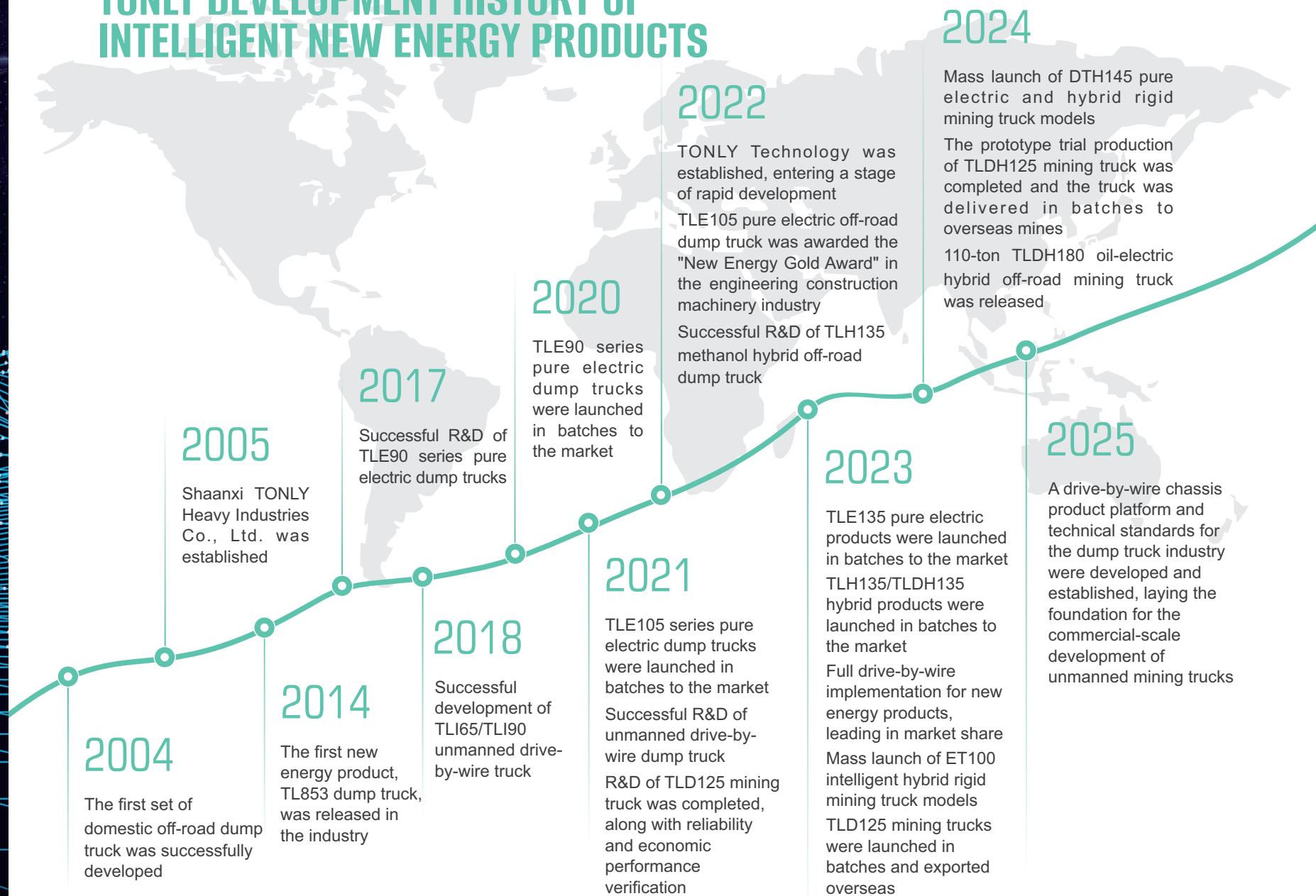
Shaanxi Tonly Heavy Industries Co., Ltd.

- Leading with intelligence
- Continuous innovation vitality
- New energy driven
- Committed to user value

- A wholly-owned subsidiary of TONLY, it is dedicated to new energy and intelligent technologies;
- Relying on TONLY's product technology, supply chain system, manufacturing techniques in off-road dump truck industry as well as all-round accumulation and industry advantages in market service, an independent and complete business operation system is established;
- With the electrification, intelligence and large-scale technology applications as core competencies, TONLY is committed to the R&D, manufacturing, sales and service of new energy and intelligent off-road dump trucks and rigid mining trucks, providing the green and smart mining transport equipment with high cost-performance and ecosystem solutions to users.



TONLY DEVELOPMENT HISTORY OF INTELLIGENT NEW ENERGY PRODUCTS



CHARACTERISTICS AND ADVANTAGES OF NEW ENERGY PRODUCTS

TLE Pure Electric Product Series are equipped with dual-motor drive system, multi-speed automatic transmission, and standardized lithium iron phosphate power battery system configured on demand, presenting abundant power, high economic effectiveness, comfortable driving, and excellent safety and reliability. Designed with systematic solutions such as "energy replenishment via intermittent charging in operation, rapid battery swapping, and continuous truck swapping for uninterrupted operation, the truck can work around the clock under all working conditions.

TLH hybrid power series products can be equipped with a variety of fuel-powered range extenders (including methanol, natural gas, diesel and hydrogen fuel), multi-speed automatic transmissions and high-rate charge/discharge power batteries. These vehicles offer remarkable advantages such as strong power output, easy operation, continuous operation capability and superior driving comfort. They serve as a high cost-performance replacement for mainstream products using the conventional "diesel engine + hydraulic automatic transmission" power configuration, with over 40% reduction in operation and maintenance costs. This makes them an ideal solution for heavy-duty uphill transport demands in large open-pit coal mines in northern regions.

TLDH/DTH hybrid mining dump truck series is a new energy mining truck platform independently researched and developed by TONLY, aiming to meet the mining industry's demand for cost reduction and efficiency improvement. It features high reliability, long service life, high efficiency, high safety and low energy consumption, integrating the latest advancements in new energy technology. This product platform supports both charging and battery-swapping systems and also enables hybrid power configuration, meeting the requirements of both manned and unmanned driving applications. The range extender technology enables the engine to operate at a fixed speed, while energy recovery during downhill driving effectively reduces energy consumption. It features a three-axle 6x4 drive and a self-developed rigid frame; By utilizing fuels with price advantages, such as LNG or methanol, it can significantly reduce energy costs and lower carbon emissions; It is suitable for heavy-duty uphill operations and complex road conditions, and can be compatible with electric shovels and large-capacity buckets.

80%⁺

TLE series products save the operation and maintenance cost

40%⁺

TLH series products save the operation and maintenance cost

20%⁺

DTH series products save the operation and maintenance cost



DIVERSE MODELS:

A complete series of models ranging from 60 to 90 tons meet the different customers' needs.

CORE TECHNOLOGIES:

The configuration of independently developed VCU + premium chassis makes it safe, reliable, environmentally friendly and economical.

RELIABLE QUALITY:

It is equipped with well-known domestic and international electric drive systems, and manufactured on professional assembly lines.

STRONG ADAPTABILITY:

Elaborately configured with the powertrain system, it is adaptable to various uphill, downhill and complex working conditions, and perfectly suitable for plateau, cold, hot and humid environments.



TLE105 was honored with the title of "New Energy Gold Award" in the industry



TLE

Pure Electric Series Off-Road Dump Truck

- TLE Pure Electric Series Off-Road Dump Trucks are developed based on the first domestically-produced new energy Pure Electric Series Off-Road Dump Truck by TONLY in 2014. After long-term development experience accumulation, it integrates the application and development results of years of pure electric drive technology research and is a zero-emission and zero-pollution off-road engineering transportation dump truck.
- TLE Pure Electric Product Series are equipped with dual-motor drive system, multi-speed automatic transmission, and standardized lithium iron phosphate power battery systems configured on demand, presenting abundant power, high economic effectiveness, comfortable driving, and excellent safety and reliability. Designed with systematic solutions such as "energy replenishment via intermittent charging in operation, rapid battery swapping, and continuous operating truck swapping", these trucks can work around the clock under all working conditions.

Vehicle model	TLE105 (pure electric)	TLE120 (pure electric)	TLE138 (pure electric)
Rated load (T)	70	75	90
Power battery (kwh)	350/400	600/801	801
Drive Power (kW)	500/800	500/800	620/900
Axle Load (t)	25+40+40	30+45+45	30+55+55
Cab	Fourth generation left cab	Fourth generation left cab	Fourth generation left cab
Suspension system	Front oil-gas suspension / rear steel leaf spring	Front oil-gas suspension / rear steel leaf spring	Front oil-gas suspension / rear steel leaf spring
Steering system	Fully hydraulic steering + emergency steering	Fully hydraulic steering + emergency steering	Fully hydraulic steering + emergency steering
Tires size	16.00R25	460/95R25	480/95R29
Standard bucket capacity (m ³)	40	45	52
Max. speed (km/h)	40	40	40
Drive form	6X4	6X4	6X4
Drive-by-wire system	Optional	Optional	Optional



TLH

Hybrid Off-Road Dump Truck Series

TLH hybrid power series products can be equipped with a variety of fuel-powered range extenders (including methanol, natural gas, diesel and hydrogen fuel), multi-speed automatic transmissions and high-rate charge/discharge power batteries. These vehicles offer remarkable advantages such as strong power output, easy operation and superior driving comfort, meeting the transport requirements of different working conditions. They serve as a high cost-performance replacement for mainstream products using the conventional "diesel engine + hydraulic automatic transmission" power configuration, with a reduction of over 40% in operation and maintenance costs, providing an ideal solution featuring "high efficiency, energy saving and emission reduction" for large open-pit mines.

Hybrid power model	TLH138H	TLH138N	TLH138
Curb weight (T)	56	52	55.5
Rated load (t)	90	90	90
Power battery (kwh)	176	176	176
Drive Power (kW)	620/900	620/900	620/900
Generator (KW)	320	350	400
Engine (hp)	470	580	775
Axle Load (t)	30+55+55	30+55+55	30+55+55
Cab	Fourth generation left cab	Fourth generation left cab	Fourth generation left cab
Suspension system	Front oil-gas suspension / rear steel leaf spring	Front oil-gas suspension / rear steel leaf spring	Front oil-gas suspension / rear steel leaf spring
Steering system	Fully hydraulic steering + emergency steering	Fully hydraulic steering + emergency steering	Fully hydraulic steering + emergency steering
Tires size	480/95R29	480/95R29	480/95R29
Standard bucket capacity (m³)	52	52	52
Max. speed (km/h)	45	40	45
Drive form	6X4	6X4	6X4
Drive-by-wire system	Optional	Optional	Optional



DTH145 won the title of "New Energy Equipment Star Product" and was granted the "Annual Product Award of Mining Equipment"

NEW ENERGY Mining Dump Truck

Performance features:

- Equipped with a range-extending system consisting of a diesel engine and generator, the engine always operates in its high-efficiency area, the generator is highly efficient, and the range-extending system offers strong energy replenishment capability;
- Low energy consumption: compared with conventional fuel vehicles of the same tonnage class, overall fuel cost is significantly reduced;
- Powerful performance: dual drive motors for driving provide strong gradeability and high transport efficiency;
- AMT transmission combined with dual-motor-assisted shifting strategy enables the automatic gear shifting without power interruption during the midway;
- Conventional pneumatic brake combined with electric regenerative brake provides the higher safety, reliability and economy. During downhill driving, whether the vehicle is unloaded or fully loaded, as long as the throttle pedal is released, the electric regenerative brake system automatically engages to slow the vehicle, converting kinetic energy into electrical energy and storing it in the power battery. Additionally, this also reduces the frequency of mechanical brake use, prevents heat fade caused by mechanical brake and ensures the driving safety;
- Fully hydraulic steering + emergency steering system: TONLY has independently developed a full hydraulic steering system to ensure the reliability, easy operation and high responsiveness of steering system. The high-pressure filtration system in the hydraulic system effectively protects the cleanliness of the priority valve and steering unit, greatly improving the system reliability. The emergency steering unit provides the short-term steering capability in critical situations, greatly enhancing the driver safety;
- The entire vehicle adopts a drive-by-wire design with reserved interfaces for unmanned driving, allowing direct integration with unmanned driving systems.

Model	DTE145	DTH145	TLDH180
Rated load (T)	91	91	110
Engine (hp)	/	775	/
Generator (KW)	/	400	450
Power battery (kwh)	801	176	176
Drive Power (kW)	620	620	840
Axle Load (t)	35+55+55	35+55+55	40+70+70
Cab	Mining Truck Cab	Mining Truck Cab	Mining Truck Cab
Suspension system	All oil-gear suspension	All oil-gear suspension	All oil-gear suspension
Steering system	Full hydraulic steering	Full hydraulic steering	Full hydraulic steering
Tires size	505/95R29	505/95R29	24.00R35
Standard bucket capacity (m³)	45/55	45/52	56/70
Max. speed (km/h)	45	40	40
Drive form	6X4	6X4	6X4
Drive-by-wire system	Optional	Optional	Optional

LEADING TECHNOLOGY

for off-road dump trucks

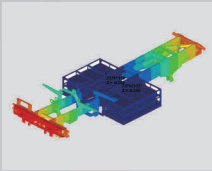
CAB

- Industry-standard fourth-generation cab certified by FOPS & ROPS tests
- Tilt-forward windshield for improved visibility
- Rear-hinged vehicle door for safer driver evacuation
- Industry-exclusive integrated beam + bumper + anti-collision beam structure for enhanced safety



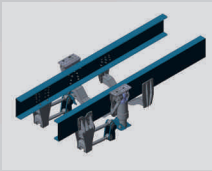
MAIN FRAME

- TONLY's proprietary triple-side-beam flexible frame technology
- High load-bearing capacity, strong impact resistance and long service life
- Reinforced rigid frame supports the large loading device with a service life of over 8 years



FRONT SUSPENSION

- The oil-gas suspension features a compact structure, enhancing the vehicle comfort and reliability



REAR SUSPENSION

- The structure of steel leaf spring + balanced suspension + reverse V-shaped thrust rod enhances lateral stability of overall machine, improves stress distribution on the leaf springs, and increases the reliability of suspension system
- Reinforced rigid frame supports optional oil-gas suspension



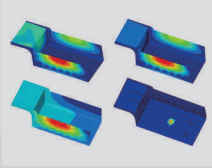
LIFTING SYSTEM

- HYVA brand mining series hydraulic cylinders with trusted quality and performance assurance
- Unique functional safety protection strategies ensure driver and vehicle safety
- Rigid mining trucks above 91-ton class can be equipped with dual-cylinder forward tilting systems for more efficient unloading



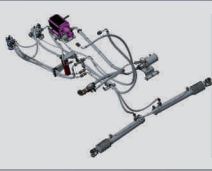
DUMP BODY

- The structure of five longitudinal-beams + integrated frame featuring light weight, high strength, high hardness, high rigidity, strong impact and wear resistance, and minimal dynamic deformation



STEERING SYSTEM

- Specially developed fully hydraulic steering system paired with high-efficiency electric hydraulic oil pumps for quick response
- Dedicated hydraulic cylinders for new energy models ensure the sensitive, rapid and reliable steering action



BRAKE SYSTEM

- Four-level safety brake system: regenerative brake, eddy current retardation brake, motor active short-circuit brake and pneumatic brake, offering the stronger brake performance, enhanced safety and reduced tire wear



POWER BATTERY SYSTEM

- CATL fast-charging lithium iron phosphate battery equipped with liquid-cooled thermal management system, featuring reliable quality, short charging time, excellent consistency and long service life



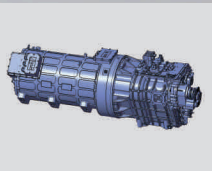
BATTERY THERMAL MANAGEMENT SYSTEM

- Water-cooled A/C unit with compact structure, powerful and reliable cooling, ensuring battery safety and extending battery life



ELECTRIC DRIVE ASSEMBLY

- The specific dual electric motors for mining truck, oil enable and hairpin winding technology, and dual-transmission coupling enables gear shifts without power interruption, providing strong power, high efficiency, easy operation, safety and reliability, and full working condition coverage



ELECTRIC DRIVE CONTROL SYSTEM

- The specific drive control system for mining truck adopts the platform-based design, and features the strong compatibility, compact structure, high power density, high protection rating, excellent durability, and full working condition coverage



UNMANNED DRIVING DRIVE-BY-WIRE SYSTEM

- All new energy vehicle series support the drive-by-wire control; TONLY's independently developed VCU supports pre-installation according to the solutions of unmanned driving companies, enables in-and enable plant testing, and has efficient calibration. The implementation cycle of unmanned driving is short.



PRODUCT TECHNICAL ADVANTAGES - Off-road Mining Trucks



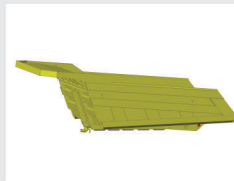
► RIGID FRAME - THE SERVICE LIFE IS UP TO 8 YEARS

The key stress-bearing parts of frame are made of castings, which can meet the requirements of 7-10m³ loading, with extra-high loading capacity, excellent resistance to loading impact, high reliability, and a service life of more than 8 years.



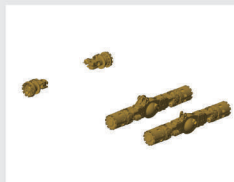
► INDEPENDENT FRONT HYDRO-PNEUMATIC SUSPENSION - EXCELLENT ROAD ADAPTABILITY

The individual oil-gas front suspension is equipped with mature structure for mining vehicle, and advantaged by good shock absorption and high reliability. It can ensure the good driving comfort under higher cycle speed, and realize the wider adaptive range compared with overall front-axle suspension.



► DUSTPAN COMPARTMENT STRUCTURE - SMOOTH LOADING AND THOROUGH UNLOADING

Dustpan dump body ensures smoother loading and more complete unloading; It supports unloading over 1000mm high retaining walls without requiring loaders to push material; Capable of transporting large rocks without material jamming, ensuring safer unloading; The canopy over the dump body fully covers the cab, effectively protecting driver and passenger safety.



► DISC BRAKE - GOOD HEAT DISSIPATION EFFECT AND HIGH BRAKING EFFICIENCY

Large brake torque with stable brake force; Excellent heat dissipation performance eliminates the need for water spraying for cooling; Fewer disc brake components, higher brake efficiency; Friction plates are easy to replace; Higher safety: no risk of brake drum cracking that could compromise brake safety.



PRODUCT ADAPTABILITY

► SMOOTHER LOADING

It can meet requirements for loading materials from the side and rear of vehicle on 1250-type excavator and above loading equipment.

► IT MAKES UNLOADING SAFER, MORE THOROUGH AND EFFICIENT

The compartment adopts the structure of "tail up + long rear suspension", and can go over 1000mm retaining wall and make unloading more thorough without the need of loader for pushing; It can unload the large material without jamming, and make unloading safer.

► WIDER ADAPTIVE RANGE OF LOADING EQUIPMENT

The vehicle can be matched with 7-10 m³ excavators or electric shovels for loading, with 4-6 buckets needed to fully load it truck, meeting the optimal loading efficiency conditions; The vehicle can withstand a loading impact mass of 20 tons per bucket.

CUSTOMER-ORIENTED "ZERO DISTANCE" WARMHEARTED SERVICE

CAREFUL SERVICE



OBJECT

Create the first service brand of Off-Road Dump Truck

COMMITMENTS

The equipment attendance rate within warranty period is not lower than **90%**

"2123-3" SERVICE RESPONSE MECHANISM

- ②

Arrive at side in 2h
- ③

Solve major fault in 3 days
- ①

Solve common fault in 1 day
- ③

Arrival: the service personnel, accessory and trainers arrive at the construction site together with the vehicle.
- ②

Offer solution for special fault in 2 days

"SPECIALIZED" TRAINING

The operation training, maintenance training, management personnel training, safety training and special trainings are organized and implemented exclusively.



TECHNICAL SUPPORT

- Lifelong technical consulting service
- Product lifelong technology upgrading and improvement service
- All-round mine engineering transport solution

Technical Hotline 029-38001222 Service Hotline 029-33687772 400-6863853

APPLICATION CASE AND PRODUCT VALUE

Since the successful development of the first pure electric dump truck in the industry in 2014, over 1,000 units of TONLY's intelligent new energy products have been launched in the market, covering more than 100+ mines. They have been widely applied in open-pit coal mines, construction material mines, metal mines, ports and terminals, and earth leveling projects. These vehicles have achieved full coverage of transport scenarios in open-pit mining, contributed to energy saving, carbon reduction and the construction of green and smart mines, created considerable social and economic value.

3000⁺

More than 3000+ units accumulatively launched into the market

100⁺

Operating across more than 100+ mines

