



ELECTRIC CRUISER



Catalogue

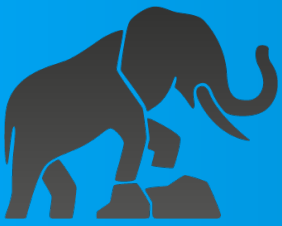
100% ELECTRIC SAFARI VEHICLES

Bring your guests closer to nature

100 % ELECTRIC SAFARI VEHICLES

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What is an Electric Cruiser?

BENEFITS OF ELECTRIC LIGHT VEHICLES

ENVIRONMENTAL ADVANTAGES

- ✓ Zero emissions
- ✓ Less noise
- ✓ Wildlife benefits
- ✓ Less vehicle heat
- ✓ Renewable energy

ECONOMIC ADVANTAGES

- ✓ Low maintenance cost
- ✓ Less downtime
- ✓ Low operational cost
- ✓ No need of expensive fuel infrastructure
- ✓ Employer branding
- ✓ Governmental preference
- ✓ Energy Security
- ✓ Eco-tourism

MORE COMFORTABLE DRIVING EXPERIENCE

- ✓ Smooth acceleration
- ✓ No engine noise
- ✓ Safety improvements

The Tembo e-LV Electric Cruiser is a Toyota Land Cruiser converted into a 100% electric vehicle.

The diesel engine and gearbox are replaced with an electric motor fitted with a newly designed Tembo 1:3 reduction gearbox. The rest of the vehicle is kept original.



The Toyota Land Cruiser 70 Series is the most used light vehicles in tough conditions worldwide. The heavy-duty frame and powertrain have proven to survive in these rough environments and the basic design makes the Land Cruiser the ideal base for special build conversions like an game drive vehicle. However, the standard Land Cruisers with diesel engines cannot meet future emission standards.



The Electric Cruiser uses high-quality components from the automotive industry. All parameters of the engine such as maximum speed and torque can be customised to a setting suitable for your requirements. Precise fleet management gives clients complete control over the vehicle, its usage and maintenance status.

The engine and gearbox have been replaced with the electric unit, which is powered by batteries mounted under the hood and where the fuel tank would normally be. The smoothness of the electric engine reduces strain on the vehicle, also enhancing the driving experience.

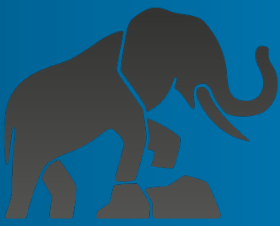
The Tembo e-LV conversion brings up-to-date comfort and zero emissions to the Game drive vehicles while retaining reliability.

Instrument panel

Custom designed instrument panel contains the following extra features:

- Time in operation
- Distance driven
- Service indicator set to workhours
- kWh used or regenerating
- Temperature of battery & E-motor
- Multiple main screens (km/h and/or kWh)
- Charging status/current in kW
- Customised logo's & background





Environmental advantages

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Zero emissions

EVs reduce harmful air pollution, as it has zero exhaust emissions and prevent guests inhaling toxic fumes.

Less noise generation

Electric motors are virtually silent so that is perfect when you are looking at wild animals and you don't want to scare them away with a big roaring engine.

Wildlife benefits

Reduction in air and noise pollution will safeguard wildlife health and preserve the serenity of nature.

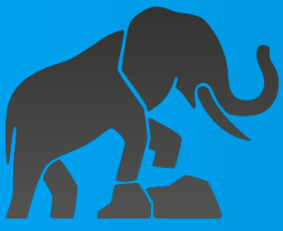
Less vehicle heat

Combustion engines have an approximate 40% efficiency of energy use and generate a lot of heat instead, where the e-motor has an efficiency over 90%.

Renewable energy

Use of renewable energy to recharge EVs will reduce greenhouse gas emissions . Even if recharged from the grid, greenhouse gas emissions are reduced.





Economic advantages

BENEFITS OF ELECTRIC LIGHT VEHICLES

ECONOMIC ADVANTAGES

- ✓ Low maintenance cost
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Low maintenance cost

Because of the regenerative braking using the e-motor, the brakes can be used for a much longer time. No servicing on air-, oil- or fuel filters and gearboxes or oil changes. By replacing the clutch and engine the maintenance is minimized.



Less downtime

The higher reliability of the electrical components and the reduced number of components guarantee that less maintenance is required and therefore less downtime will occur.

Low operational cost

A big advantage is that because electricity is a lot cheaper than diesel this results in an immediate decrease of fuel cost.

No need of expensive and hazardous fuel infrastructure

The transport and infrastructure for fossil fuels in nature reserves is very costly and potentially dangerous. With electric vehicles you can use the electric infrastructure, which is already there, and the risk is very low.

Employer branding

Working with modern technology in a clean environment makes the jobs a lot more appealing for potential new employees.

Governmental preference

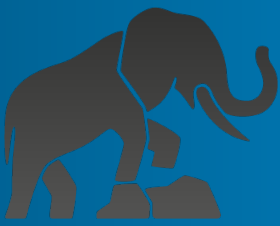
Regulatory bodies are gradually starting to favour safari parks that commit to an all-electric environment, resulting in approvals for permits that would otherwise be denied, along with a faster permitting process, both of which are potentially game-changing for safari companies around the world.

Energy Security

On a national level, EVs can help with the energy security. At present, Zimbabwe is highly dependent on other countries for petroleum and diesel imports. EVs are easy to power from local and renewable energy sources, reducing our dependence on foreign oil. There are also better employment benefits for Zimbabweans using locally produced electricity.

Eco-tourism

Eco-tourism is a growing market segment of people who want to be as eco-friendly as possible when traveling. Using an electric vehicle is a perfect solution for conservation of the natural environment and habitats and has economic benefits at the same time.



Comfortable driving experience

BENEFITS OF ELECTRIC LIGHT VEHICLES

MORE COMFORTABLE DRIVING EXPERIENCE

- ✓ Smooth acceleration
- ✓ No engine noise
- ✓ Safety improvements

Smooth acceleration

There is no gearbox so no gear changing and therefore there is no jerking of the vehicle when accelerating.

The EVCU is set to gradually increase the power to the drivetrain to provide a smooth ride. This gives less stress on the driveline.



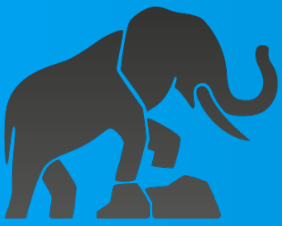
No engine-noise

An electric engine makes almost no sound, making this a huge benefit compared to big diesel engines, not only for the guests who can come closer to wildlife but also for the animals themselves.

Safety improvements

EVs have a lower center of gravity which makes them less likely to roll over. They also have a lower risk for fires or explosions than Internal combustion engines and the body construction and durability of EVs make them safer in a collision.





Safety



Batteries

The battery system is designed with the highest level of safety.

Heavy duty and water- and dustproof battery housing

Operational environment temperatures of battery and e-motor may vary from -20 up to +70 degrees Celsius with water cooling and heating for subzero areas.

Optional fire suppression system

This system uses water in combination with high pressure and a small amount of foam additive. All three components of the chain reaction that causes a fire – heat, oxygen and fuel – are attacked simultaneously.

Speed limiter

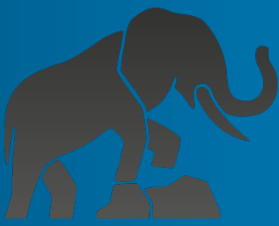
The speed limit of the vehicle can be set using the software that is accessible via the instrument panel in the dashboard (password protected).

Onboard diagnostics

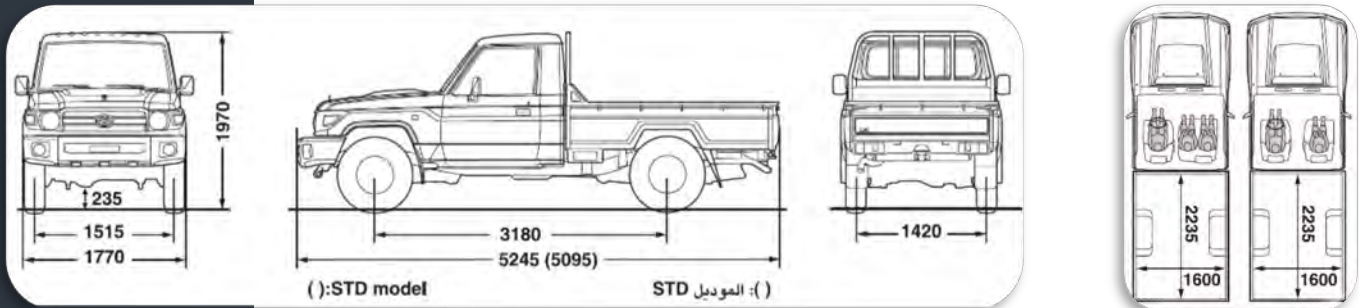
The instrument panel offers several fleet management options to keep the (electric) fleet in optimal condition.

Emergency failsafe brake system (optional)

Wet brake systems available as emergency brakes which can become active when a door is opened while driving, the E-stop button is pressed or when the engine key is turned off. This system ensures that the vehicle cannot roll away unexpectedly (uncontrolled vehicle movement) – a feature that provides an unprecedented level of safety for vehicle operators and site personnel. These brakes reduce vehicle operating costs, improve brake reliability and significantly enhance vehicle safety.



Measurements

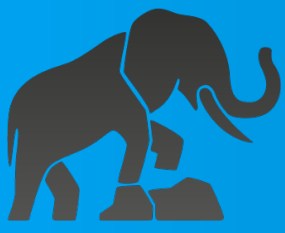


ELECTRIC CRUISER

Model: e-LV79 Single Cab

Part nr: TB3500

Minimal turn radius	7,2 meters
Suspension Front/Rear	Rigid axle coil springs/rigid axle, semi-elliptic leaf springs
Gross vehicle weight	3200 kg
Kerb weight	2195 kg
Payload	1060 kg
Tire size	Mud terrain 235/85R16 120/116Q
Axles	2
Dimensions (mm)	
• Length	5245
• Width	1770
• Height	1970
• Wheelbase	3180
• Ground Clearance	235



Turnkey solutions

We offer turnkey solutions to provide the perfect vehicle for your purpose.

