



Battlefield mobility for the modern military



TATA MOTORS
DEFENCE SOLUTIONS

Infusing the fighting spirit

Down the ages, the art of warfare has kept changing with the advent of new weapons, based on sophisticated technologies. This change is even more evident in the first decade of the 21st Century. Today, all trends point towards conflicts that will be short, intense engagements in which mobility through mechanized operations would assume critical importance.

Tata Motors ensures full mobility on the battlefield with its 6x6 tactical vehicle, LPTA 2038. This unique vehicle provides the support so necessary to infuse the fighting spirit in frontline troops. It follows the Tata 2.5T GS and 3.55T FAT vehicles which have built high confidence levels over the years.

Tata Motors is a member of the Tata Group, India's best known Industrial house. For nearly five decades, the Tata Group has been providing the wheels and a wide range of defence solutions that offer protection and help make the nation's borders impregnable.

Read on to discover how LPTA 2038 6x6 makes a critical difference when it comes to mobility of the modern military on the battlefield.



Supplying the essentials

Tata LPTA 2038 is a versatile 6x6 tactical vehicle that provides logistical support to the modern military on the battlefield. Frontline troops are kept in constant supply of essentials like ration, water, fuel, lubricants and ammunition, so that they remain in a constant state of fighting fitness.



Tata Motors offers you a choice of the following 10 variants of the LPTA 2038 6x6:



Ambulance



Container



Crash Fire Tender



**Field Artillery
Tractor - Green**



Multi Barrel Launcher



Water Tanker



Open Troop Carrier



High Mobility Vehicle



Armoured Troop Carrier



With Armoured Cabin



Performing to world standards



Tata LPTA 2038 6x6 meets the stringent standards laid down by modern military authorities with regard to Operational Characteristics, Physical Characteristics, Operation & Maintenance and Other Features.

Operational Characteristics of LPTA 2038 6X6



Step climbing ability: Min. 500 mm



Angle of departure: Min. 35°



Angle of approach: Min. 35°

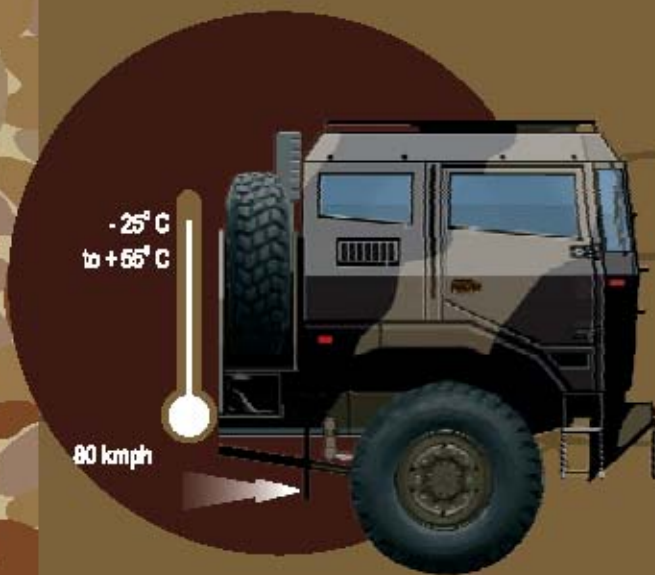


Fordability: Min. 800 mm



Gradeability with full payload: 25°

- Min. payload capacity: Not less than 10,000 kg
- Crew: Driver's cabin - 2 (driver & co-driver)
 - Cabin crew - 6 crew
- Vehicle speed: Max. speed on road - 80 kmph with full payload
 - Acceleration - 0-40 km/hr in 20-25 seconds
- Side slope stability: Upto min. 30% of side slope with full combat load
- Operational range on highway: 600 km
- Turning circle diameter: < 23 m
- Trafficability in mud: Min. 0.33 m mud depth
- Ground clearance: Min. 400 mm
- Overall length: Not less than 9200 mm
- Overall width: Not more than 2500 mm
- Silhouette: Low, with 3 m cabin height



Engine

- Fuel: Diesel
- Average engine life: Not less than 1,20,000 km before overhaul
- KLP: Not less than 2 km per litre of fuel with full payload on highways
- Type of engine: State-of-the-art technology diesel engine to provide adequate power to move on road as well as cross country with designated payload in plains, semi desert and desert
- Emission norms: As applicable at the time of delivery of the vehicle
- Operating temperature range: From -25° C to + 55° C without aid
- Can be upgraded to higher engine rating to meet future requirements
- Min. power-to-weight ratio: 12 kw/ton

Brakes

- Equipped with three mutually independent systems of brakes:
- Operation brake - pneumatic, two-circuit type
- Emergency & parking brake
- Auxiliary relief brake

All equipment of the pneumatic brake system are watertight.

Power Train

- Heavy duty fully automatic transmission, with torque converter
- Provision for locking inter axle and inter wheel differentials
- Compact, with excellent running characteristic for quick acceleration and maximum torque conversion
- Strong and sturdy, for optimum all-terrain mobility
- Robust enough to withstand prolonged cross-country running

Suspension

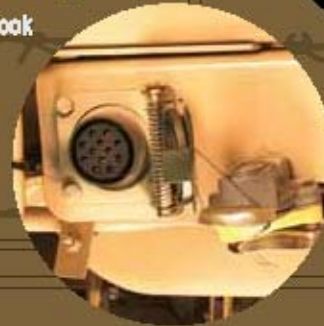
- Good riding comfort and full control in all terrains, at specified vehicle speeds
- Adequate spring deflection and high axle articulation, for good ground adhesion

Additional features

- State-of-the-art power assisted steering, with right hand drive
- Power-driven winch that enables self-recovery through soft patches of sand or slush, with a capacity of 10,000 kg; length of winch rope - 60 m
- Towing arrangement includes one swivelling tow hook each in rear, with self-locking devices. Two 'D' shackles and one tow pin in front, in addition to the towing hook

Electrical System

- 24-volt system with maintenance-free batteries
- Battery isolating switch provided, for carrying out repair/maintenance
- 12-pole NATO socket



- Transportable by rail on broad gauge & by air
- Steel hooks provided on outer body for tying/securing ropes/nets

Lighting

Besides head lamps, parking lights, tail and instrument lamps, it comes with:

- Light in cabin and crew cabin
- Light in engine compartment
- Blinkers on front, rear and sides
- A blackout head lamp, blackout tail and stop lamp, convoy lamp with change-over switch from normal to blackout driving
- Reverse light
- Light extension socket on dashboard
- Rear light socket for trailer lights
- Swivelling lamp fitted behind the cab
- A map reading lamp
- Light socket provided for trailer reverse light
- DPDT switch for interior lighting
- Headlights with halogen bulbs
- Hazard warning lamps in front and rear



Physical Characteristics of LPTA 2038 6x6

- Chassis is reinforced steel; tyres and suspension provide adequate flotation in cross-country at specified speeds

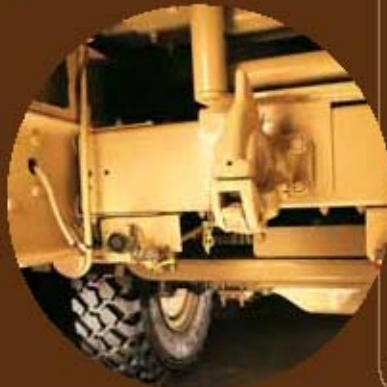


Cabin

- Robust, crash-tested design with tiltable features
- Easy for mounting and dismounting of co-driver
- Observation hatch for co-driver seat
- Bucket-type driver's seat, adjustable in height and length
- Co-driver's seat provided with a glove box and place for map-reading
- Both seats provided with seat straps
- Collapsible sleeping berth for driver
- Arrangement for fresh air circulation
- Brackets for placing weapons

Crew Cabin

- Accommodates 6 persons in cabin
- Brackets for placing personal weapons
- Mount atop cabin for LMG/rifle or machine gun/rifles of INSAS family
- Arrangement for personal kit
- Arrangement for fresh air circulation
- Two collapsible sleeping berths with backrest
- Communication arrangement between cabin crew and driver's cabin



Vehicle Body

- Robust design
- Facilitates loading/unloading of ammunition from side or rear, with collapsible side boards and tail boards
- Seat for limber crew close to tail board
- Arrangement for erection of camouflage equipment over vehicle
- Tarpaulin provided with buttoning up facility, for protection of ammunition and stores
- Lashing arrangement with railway flats, aircraft and landing ship
- Side walls with hinges that can be opened



Stowage

- Stowage space for one spare wheel
- Detachable stainless steel water tank of 100-litre capacity, with tap facility
- Brackets for four spare jerricans of fuel
- Box for carriage of vehicle's tools, tow and no-skid cabin
- Stowage space for:
 - NBC protective clothing for driver and crew
 - bracket for NBC/First Aid Kit Type A
 - bracket for portable NBC de-contamination apparatus

Winch

- Control from the driver's cabin
- Positive locking device

Wheels & Tyres

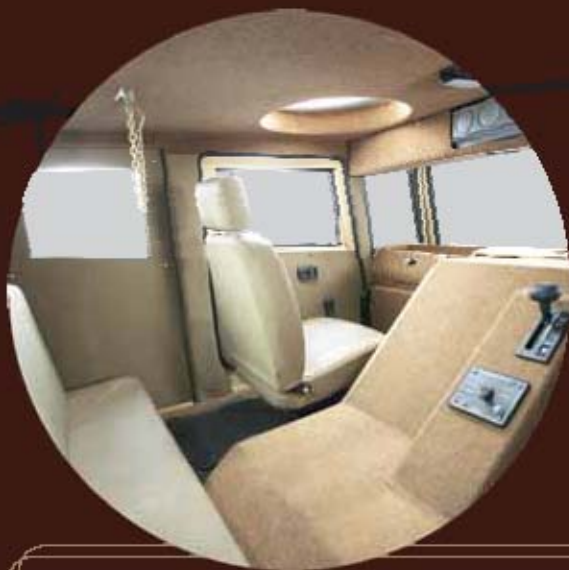
- Sand-cum-highway indigenous tyres
- Tyre locks provided to prevent the tyre from sliding from the rim in the event of tyre puncture
- Central Tyre Inflation System (CTIS); provision to inflate/deflate tyres from cabin
- Punctured wheel assembly is easily repairable under field conditions



Spare Wheel • Easily accessible

Warning Devices

- Audio/visual (lamp) devices to warn the driver of:
 - drop in engine oil pressure below safe limits
 - alternator not charging
 - engine temperature exceeding safe limits
 - tyre puncture
- Fire alarm system
- Differential locked/axle locks engaged
- Engine heating on



Display Panel

- State-of-the-art display panel for driver to observe easily

Camouflage Equipment

- Collapsible, lightweight camouflage equipment to camouflage vehicle in approx 2-3 minutes

Fire Safety

- Hand-held fire extinguishers provided in driver's cabin, crew cabin and body next to crew seat

Operation & Maintenance of LPTA 2038 6x6

Operation

- All tools and connected equipment, and general engineering items like head lights, tail lights, bulbs, batteries, hydraulic jacks and other electrical items provided as per MIL standards



Maintenance

- Can be driven by drivers of all Arms and Services, with scope to carry out minor repairs through replacement of failed parts/assemblies
- Tilt cab helps in easy accessibility to aggregates
- Easy removal and fitment of aggregates & spares
- All aggregates are accessible from underneath the chassis



User Maintenance

- Routine maintenance is minimum and easy; oil and lubricants are standardized; a lubrication chart, etched in aluminium, put up in driver's cabin shows recommended lubricants, periodicity of change, etc. Also provided is a maintenance periodicity chart



Vehicle Kit List

- Indicates the essential tools, lifting jack spares and documents, etc. necessary for vehicle maintenance by a driver on his own

Audio/Visual Indicators

- Instrument panel indicates essential symptoms like low fuel, oil pressure, excessive heating of engine, etc.

Repair by EME Workshops

- To facilitate workshop level repairs and maintenance, a CD provides technical literature covering illustrated parts list, maintenance manual, User's Handbook (bilingual, in Hindi and English), workshop repair manual and technical manual (bilingual, in Hindi and English)

SMTs & STEs

- List of all SMTs and STEs needed for repair in workshop, duty priced

MRLs

- List of spares/assemblies needed for repairs in workshop, duty priced; list of proprietary spares & assemblies with particulars of OEMs

Training

- Scope for training of drivers and mechanics in batches



Standardization

- Conforms to environmental specifications as per GSPS 138, as applicable to relevant sub-system, for operations in the plains, deserts and mountains/high altitude areas
- Assemblies, sub-assemblies, components, parts and materials conform to Joint Services Specifications (JSS) and System International (SI)

Carrying forward a legacy

Since 1958, Tata Motors - a leading company of the Tata Group - has proudly provided over 100,000 vehicles to military and paramilitary forces of various countries around the world. The LPTA 2038 6x6 is one of the star offerings of the company for the modern military.

Renowned corporate house

Tata Motors, established in 1945, is one of the leading companies of the prestigious Tata Group. With revenues of US\$ 7.2 billion in 2006-07, it is India's largest automobile company and the world's second largest heavy bus manufacturing company. It is also the world's fifth largest medium and heavy commercial vehicle manufacturing company. Today, Tata Motors has a significant presence in Asia, Europe, Africa and Latin America, with over 4 million vehicles running on Indian and foreign roads - making it a truly international automobile manufacturing company.



The Tata Group Synergy In Defence

A wide range of products and services from other Tata Group companies adds a significant dimension to Tata Motors defence vehicles, as indicated below:

■ **Armour Solutions**

- Tata Motors Limited, Tata Advanced Materials Limited

■ **Perimeter Security**

- NELCO

■ **Solar Energy Solutions**

- Tata BP Solar

■ **Strategic Electronics**

- Tata Power SED

■ **Decision Assist**

- Tata Power SED, Tata Consultancy Services, Tata Infotech, GMC

■ **Network Centric Warfare**

- Tata Consultancy Services, Tata Power SED, Tata Infotech, VSNL

■ **Logistics & Support**

- Tata Consultancy Services, Tata Infotech





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For more information, please call our Toll-free number 1800 22 5870 or visit our website: www.tatamotors.com
You can also contact our Sales Office: 26th Floor, Centre 1, World Trade Centre, Guffe Parade, Mumbai 400 006, INDIA
Tel: +91 22 6656 1800/1824/1874; Fax: +91 22 6638 0408; Email: defencesolutions@tatamotors.com

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