# **Light Surface Terrain Vehicle, Type 42**

The Light Surface Terrain Vehicle, or LSTV for short, was designed in YE 42 as a smaller alternative to the Type 30 STV which was faster and more robust than the type 30 LUT.



# **About the LSTV**

The LSTV is intended for use in just about any situation, from reconnaissance to simple personnel transport, combat movements to light cargo transport, the LSTV is a flexible, multi-function, multi-role vehicle intended to keep soldiers moving in relative comfort, safety, and style. It was designed by Origin Industries.



#### **Key Features**

#### The LSTV is:

- 4 Wheel Drive or 6 wheel drive
- Fusion and battery powered
- Modular
- · Recovery winch
- Capable on or off road
- Regular and extended versions
- All versions fit in the Ke-T7 "Raccoon" Transport Shuttle without modifications

# **History**

In late YE 41, Origin Industries was approached by Shôshô Hibe Kanachi, the head of Star Army Reconnaissance, about creating a lightweight yet robust vehicle which had similar performance to the SAoY's STV at a much smaller size and with a bit more discretion in power sources and transport capability. What resulted was considerably smaller, with notably reduced capacity but almost identical capability on and off road, as well as a much easier vehicle to get into and out of.

In YE 42, the Star Army purchased one million LSTV from Origin<sup>1)</sup>:

- 500,000 LSTV Standard Form Star Army Cadet Blue with Type 38 Hinomaru
- 250,000 LSTV Long Wheelbase passenger form Star Army Cadet Blue with Type 38 Hinomaru
- 250,000 LSTV Long Wheelbase passenger form RIKUPAT paint with Black monochrome Type 38 Hinomaru

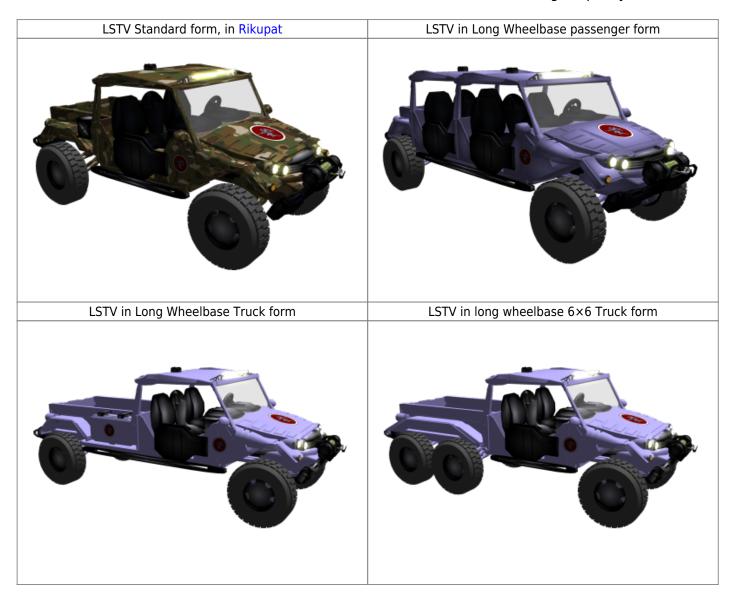
In YE 43, the Star Army purchased an additional million vehicles<sup>2)</sup>.

In YE 44.7, Star Army Logistics purchased an addition two million LSTVs<sup>3)</sup>.

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### **Appearance**

The LSTV looks like a combination between the Type 30 STV and a small civilian offroad vehicle. It has a sloped hood, double-barrel headlights, and an aggressive grille and front bumper, which has a heavy duty winch mounted to it. Thin pillars hold up a lightweight roof, and the sides are quite open, though both half and full doors are available for it. It sits atop for large, aggressive offroad wheels attached to the body with a sophisticated suspension system, and the back is rounded out with a small utilitarian bed. Inside there are three seats abreast, though the middle can be folded down to provide a console with some storage and two cupholders. An extended version is the same, and either adds a second passenger area behind the first with a reduced size cargo box behind, or an extended pickup box. Finally, there is a  $6 \times 6$  version of the extended wheelbase variant that has increased cargo capacity.



### **Statistical Information**

The LSTV was designed, and initially built by Origin Industries, and later manufactured under license by

Ketsurui Zaibatsu, as a multipurpose vehicle for use in the Kuvexian War.

- Organization: Origin Industries, Star Army of Yamatai
- Type: Multipurpose ground utility vehicle
- Class: Light Surface Terrain Vehicle
- Designer: Origin Motor Corporation
- Manufacturer: Origin Industries, Ketsurui Zaibatsu
- Production: Full mass production
- Price<sup>4)</sup>: 10,000 KS for standard variant. 12,000 KS for either truck or passenger long wheelbase variant. 13,000KS for 6×6 variant.
- Crew: 1
- Maximum Capacity: 3 for standard version, 6 for extended.
- Passenger Capacity: 2 for standard, 5 for extended.
- Length: 3.5 meters for standard, 4.5 meters for extended
- Width: 2 meters 5)
- Height: 2.2 meters 6 1.8 meters 7

#### Speeds, Range, and Capabilities

The LSTV is a fast, nimble vehicle which was designed for use in varied terrain, and can handle relatively large obstacles for its size. The LSTV is capable of manipulating its own suspense to increase or decrease its ground height, allowing for safety and security at various speeds and terrains.

- Ground speed: Limited at 200 km/hr on smooth surfaces, can easily travel 100kph over unpaved roads and mild terrain, recommended to drive slower the rougher the terrain.
- Ground Clearance: All variants have a minimum ground clearance of 35cm at the lowest point on the suspension<sup>8)</sup>, with a maximum ground clearance of 100cm at the highest point of the suspension at maximum lift<sup>9)</sup>.
  - Approach Angle: 75 degrees, 80 with Winch removed.
  - Departure Angle: 80 degrees
  - Maximum Breakover<sup>10)</sup>: 35 degrees
  - Maximum Breakover<sup>11)</sup>:30 degrees
- Range: The LSTV can run continuously for up to four weeks before its fuel cells must be replaced or refilled. <sup>12)</sup> The LSTV can also drive for up to 2,000 Kilometers on battery power alone.
- Lifespan: The LSTV is intended to last roughly a decade, but will last indefinitely if maintained properly.

#### **Damage Capacity**

See Damage Rating (Version 3) for an explanation of the damage system.

· Body: Tier Four

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The LSTV is constructed of numerous materials, mostly lightweight Durandium Alloy and Cerastic as well as a number of other materials used in the construction of its systems. Everything about the LSTV is designed to be as sturdy and durable as possible, however, the LSTV is NOT armored, and isn't designed to protect against much, although it may be able to stop small caliber pistol rounds and is protected from rock damage and abrasions.

The LSTV's tires are heavy duty offroad tires which have Durandium Alloy belting as well as Aramid liners to make it extremely difficult to get a flat through normal means. The rubber can self-heal from cuts, scrapes, and gashes, but any lost material cannot be recovered, and the tires will still eventually need replacement.

• In Star Army of Yamatai use, the tires are built with Yama-Dura belting and upgraded to Yarvex liners making them nearly impossible to puncture, as well as allowing the belting to self-heal, making the tires practically fix themselves after large cuts, bullet holes, and other damage they may take on the battlefield.

#### **Interior**

The LSTV can be entered from either side via an open doorway, one on each side for the standard, two on each side for the extended. These doorways can be covered by either a simple Cerastic half-door, or by a more sophisticated fully closing Durandium Alloy door with a retracting Durandium-T window.

### **Weapons Systems**

The LSTV does not have any weapons of its own, but has a hard-mount on the rollbar of the roof to allow a standing gunner in the bed to fire a multitude of available mounted weapons.

### **Onboard Systems Descriptions**

The LSTV contains a number of systems intended to keep it moving, safely, and at speed, in all sorts of terrain, both on and off road.

The Vehicle is extremely easy to drive, having a basic steering wheel with a single 'gas' pedal, a brake pedal, and two levers on the steering column. One of these levers is used to select between Forward, Neutral/Park, or reverse; and the other controls the turn signals, headlights, and windshield wipers. The dashboard contains a speedometer, generator output gauge, motor status display, and a battery life gauge. It has a small screen which has touch-screen controls for radio and video playback, tire pressure, suspension height, as well as being used as a diagnostics output and navigation system. There is a port on the dashboard with a small hook so that a hand-held radio can be attached, as well as wireless connectivity for communications devices.

The seats are covered in a sturdy, heat and water resistant faux leather type material that can withstand years of abuse. The seats are quite plush with some bolstering to the sides, and use three-point

harnesses to help contain is passengers. The Central seat is narrower than the outer two, and lacks their bolstering, but can be folded down to provide an armrest console with a small amount of storage and two cup holders.

#### **Power generation**

The LSTV uses a HONEY Burst fusion generator to provide power for the vehicle. This power generator can be used to directly power the systems, including the motors, lights, computers, and on board systems, as well as charging an on-board battery.

- HONEY Burst
- 4x Fusion bottles for Honey Burst
- High Volume super-capacitating battery system

#### **Drive and Suspension System**

The Light Surface Terrain Vehicle uses four wheel hub-motors which also double as a braking system. these modules are bolted to the suspension, with the wheels and tires themselves bolted to studs on the spinning part of the hub. Each hub motor is sealed against dust, moisture, chemicals, and electromagnetic pulses, and are virtually maintenance-free. The LSTV's tire pressure can be adjusted on the fly using small compressors built into the wheel hub motors that can either inflate or deflate as need commands.

The Suspension system is a simple yet sophisticated pushrod operated double-whishbone system that keeps the actual shock absorbers and springs located up within the body of the vehicle and free from debris or obstacles. The shock absorbers use magnetic ride adjustment to deliver smooth operation at any speed, and can even compress to lower the vehicle for transportation, or driving at high speed on paved surfaces.

### **Cargo Capacity**

The LSTV is not primarily a cargo vehicle, however, it can be used to carry small amounts of cargo and can tow a fairly hefty amount for its size.

The Standard LSTV has a 1 square meter cargo box at the rear which is about half a meter deep, and can easily hold up to 450KG of cargo, the total weight of cargo and passengers it can carry is 1,000KG.

The Extended Passenger LSTV has half as much cargo space, but has the same 1,000KG carrying capacity. The Extended Truck Variant has double the cargo space, but the same capacity.

The Extended  $6 \times 6$  variant of the LSTV has the same 2 square meter cargo box as the extended truck variant, and can carry a 2,000KG load in the bed. This variant is most suited for conversions to heavy

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load-carrying tasks such as tanker, recovery, and heavy load carrying.

Additionally, all versions of the LSTV can have a hitch attached which has a 400KG tongue weight, and the  $4\times4$  LSTV variants can tow up to 3,500KG, with the  $6\times6$  capable of towing 5,000KG

### **Standard Equipment**

The LSTV is primarily a passenger transport. It comes with a few simple provisions, including the following:

- Cerastic Half-doors 13)
- Type 42 Vehicle Recovery Winch
- Type 42 Road Safety Kit; Stored in glove box.
- Self-sealing tire inflator can<sup>14</sup>).

LSTV's destined for Star Army of Yamatai use also include the following:

- Type 45 Star Army Vehicle First Aid Kit
- Set of collapsible pioneering tools<sup>15)</sup>, stored underneath the hood.
- Set of Cerastic Traction Boards 16)

### **Optional Equipment**

The LSTV has multiple optional accessories that are available as upgrades. Most of these kits are different door styles or roof/covering options.

- Full doors<sup>17)</sup>: 500 KS per pair
- Extended bed cover<sup>18)</sup>: 1,000 KS
- Shelter-back(For extended wheelbase truck model only)): 1,500 KS
- Emergency siren for roof hardpoint: 250 KS
- cargo boxes<sup>19)</sup>: 200 KS each
- 750 liter liquid tank 20 1,500 KS

Shelterback with Emergency sirens	Extended Truck with Extended bed cover



#### **OOC Information**

The LSTV was created OOCly for the same reasons it was created ICly; to replace the STV and LUT. It is heavily inspired by the Polaris RZR, specifically the MRZR versions.

Kai created this article on 2020/02/18 17:53.

Artwork by Kai using DOGA

Approval Thread

Star Army Logistics		
<b>Supply Classificatio</b>	n Class C - VEHICLES AND POWER ARMO	ЭR
First Used	YE 42	
Last Review	YE 42	
Products & Items Database		
<b>Product Categories</b>	vehicles	
Product Name	Light Surface Terrain Vehicle	
Nomenclature	Ke-K6	
Manufacturer	Origin Industries, Ketsurui Zaibatsu	
Year Released	YE 42	
Price (KS)	10,000.00 KS	
1)		

https://stararmy.com/roleplay-forum/threads/origin-industries-purchase-requests.65509/

https://stararmy.com/roleplay-forum/threads/origin-industries-purchase-requests.65509/#post-421819

Origin produced copies for SAoY cost 5,000 KS to the SAoY, Ketsurui Zaibatsu produced versions cost 2K KS per unit plus materials cost, regardless of model

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#### both

6

Both, standard ride height

7)

suspension lowered for transport, both

8)

Next to the wheel, negligible impact on performance

9)

Centerline suspension mounts, very solid

10)

Short wheelbase and 6×6

11)

Long wheelbase

12

In typical use the fuel cells are replaced roughly once every six months

13)

pictured in all versions of the LSTV on the page, removable

14)

In case of a puncture too large for the on board tire pressure system to compensate for

15)

Shovel, pick, saw

16)

under hood

17)

Durandium Alloy with Transparent Durandium windows which can be rolled down via a hand-crank on the inside.

18)

for extended wheelbase truck model and 6×6 model

19)

for extended wheelbase truck model

20)

For 6×6 version only

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