K-1 Bulldog/Type 41 Main Battle Tank

The K-1 bulldog is a midweight Main Battle Tank designed by Osman Heavy Industries for sale to governments and private groups. A month or two into its production run, the tank was adopted by the Star Army of Yamatai to replace the aging Type 31 "Troll" Tank, and is used by them under the name "Type 41 Main Battle Tank".

About the K-1 Bulldog

The Bulldog is a Main Battle Tank or a "universal tank". This means that compared to earlier tank designs such as Yamatai's old W or BW series of tanks, it has the firepower and armor protection of a heavy tank, and mobility of a light tank all in a package with the weight of a medium tank.

Armed with a redesigned version of the 133mm main gun from the Cyclops Heavy Combat Mecha (Downsized to 110mm), a higher velocity version of the small gauss autocannon obtained from the Exodus Fleet's Minotaur, two coilcannons, as well as a set of mini missiles, the Bulldog is equipped to handle engagements at close, medium, long, or short-standoff range.

Key Features

The Bulldog has the following key features:

- 110mm main gun
- Heavy armor
- Great crew survivability

History

Unveiled in YE 41 to take advantage of the lack of a commercially available Main Battle Tank, the K-1 bulldog was developed by Osman Heavy Industries in cooperation with the Sky Guard, and later the Exodus Fleet. It began its development in YE 40, under the internal designation "133mm gun full tracked main battle tank (T-40)". This was understandably quickly supplanted by its nickname, the Bulldog. It underwent testing throughout YE 40, and problems were initially encountered when using the lower velocity 133mm main gun from the Cyclops Heavy Combat Mecha.

To combat this, the muzzle velocity was raised by using more efficient coils, and this allowed the lowering of the barrel length. Additionally, changes were made to the HEAAP shell design that the gun uses to allow for a more concentrated "density" of damaging plasma. This turned the adapted artillery weapon into an extremely effective anti-tank weapon, though it was still able to retain a part of its "splash" damage potential

Rivals

In the commercial tank market, the Bulldog is the first traditional MBT. However, if it is to have a rival, it would be the Hydra Variable Tank, developed by Section 6. However, the Hydra is not a traditional MBT like the bulldog and would suffer if used in the role that the Bulldog is intended for.

Appearance

The K-1 Bulldog is a fairly archetypal main battle tank; vaguely wedge-shaped, heavily sloped, and with armor on the sides. Often blocks of reactive armor are on the sides, front, and on the turret. At the rear of the tank, the relatively large troop and ammunition loading door can be seen.



Statistical Information

(Brief description about the stats)

- Organization: Buyers, Exodus Fleet, Star Army of Yamatai
- Type: Main Battle Tank
- Class: OH-K1
- Designer: Osman Heavy Industries
- Manufacturer: Osman Heavy Industries
- Production: Mass
- Price: 30,000 KS
- Crew: Optimal crew count is 3¹⁾, minimum crew count is 1²⁾
- Maximum Capacity: 3

- **Passenger Capacity:** 6 infantry riding inside the cargo/ammunition bay, 4 if they are wearing powered armor.
- Length: 7.5 Meters
- Width: 3.9 Meters
- Height: 2.5 Meters
- Mass: 55 metric tons

Speeds

- Maximum Ground speed: 100 km/h ³⁾ on favorable terrain/roads , 50 km/h ⁴⁾ on rough terrain
- Range: 500km before fuel refill
- Lifespan: 5 years maximum between full overhauls, 40 years serviceable lifespan

Damage Capacity

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

- Body: Tier 8, heavy armor.
- Shields: Tier 8, maximum of 3 barriers active simultaneously.

Interior

The first component of the Bulldog's interior is the armored capsule which contains the crew. Located just below and in front of the turret, it can be entered by going through the ammunition/troop bay and around the right of the autoloading mechanism. Inside the compartment are three stations, one for the tank commander, one for the gunner, and one for the driver. Each station is spacious, relatively speaking, and has enough room for the crew members to do some slight stretching.

The turret can be manned if necessary, and can be reached climbing up two steps located behind the crew capsule and entering the turret compartment. When manned, the turret can be loaded manually.

On one of the walls of the tank, nestled in the little bit of space between the ammunition/troop bay and the autoloader itself is a compartment for edibles and a water dispenser, which is linked to the tank's drinking water supply and is able to boil water for rations.

The very rear of the tank's interior is the ammunition/troop bay. Ammunition racks are generally loaded in here, and locked in place, creating a pseudo-hallway in which infantry or passengers can crouch or kneel and use integrated gripping points to stabilize themselves within the tank during travel.

Weapons Systems

The following section details the weapons systems of the Bulldog.

Main Weapon

The main weapon of the Bulldog is a 110mm Tank Cannon, which fires HEAAP shells.

- **Purpose:** Anti-Armor
- Damage: Tier 9 directly on point of impact, Tier 6 in a radius of 1.5 meters
- Maximum Range: 11.5 Kilometers
- Effective Range 6.5km
- Rate of Fire: 15 rpm
- Payload: 96 rounds, 40 in autoloader inside the turret ring

Secondary Weapons

The following are the secondary weapons mounted on the Bulldog.

Autocannon

Located on the back of the turret within the bussel is located a Desert Wind Autocannon. It has an extended ammunition reserve and holds up to 1000 rounds in the ready magazine.

• Stats:

- Damage: Dependant on ammunition
- **Capacity:** 1000 25mm Autocannon rounds loaded, more in reserve.
- Effective Range 3000 meters
- Maximum Range: 6000 meters
- Rate of Fire: 525 RPM

Other secondary weapons

- One Hardsell Coilcannon, mounted coaxially on the turret: Tier 6
- One Hardsell Coilcannon, in a remote weapons station on the commander's cupola: Tier 6
- Two mini missile launchers, one on either side of the tank: Tier 6
- Six pulse lasers, designed to swat down incoming missiles and infantry which the other weapons are unable to target safely: Tier 2

Onboard Systems Descriptions

The following are descriptions of the Bulldog's systems.

Armor

The Bulldog's main armor is a layered composite, essentially an armored sandwich, composed of Durandium Alloy laced with ADNR, a layer of spall liner, a layer of Osmanium, another layer of Durandium Alloy/ADNR, and finally a second layer of spall liner. Additionally, ceramics are incorporated in the design of the composite but it is not publicly known how, so as to keep the overall design of the composite secret and proprietary.

Though this armor only 2 feet (609mm) thick, its uses an internally sloped design where the armor is layered with small gaps of air in between, at an angle that best slopes the armor for maximum thickness, which gives it a relative frontal thickness of 1780mm.

To compensate for relatively armor on the side skirting armor as well as on the turret, they are internally sloped to make them more resistant to penetration, in addition to having explosive reactive armor applied there as well as to the front hull of the tank.

Power

A small fusion reactor powers the Bulldog, enabling it to power systems such as life support, sensors and computers, and its propulsion. Fuel can be refilled by a small Hyperspace Fuel Generator.

Propulsion

Like many tanks, the Bulldog is propelled by its tracks. The tracks of the Bulldog are mounted with modern suspension that allows the tracks to be adjusted for various terrain or to allow the tank to "lean" towards one side or a corner, allowing it to make better use of cover or minimize its profile.

Sensors/computers

The targeting and computer systems of the Bulldog are formidable, but nothing unheard of on the modern battlefield. It can track targets at long ranges, stabilize its gun to fire while on the move, share data with allies, use mission planning software while in the field, and it has a large suite of sensors integrated with its fire control system. However, like is the case with most ground vehicles, many of its sensors are limited to its line of sight or the surrounding area.

Several sets of optical sensors provide coverage all around the tank, though they must be traversed within their viewing arcs, as they cannot provide simultaneous 360-degree coverage.

The tank's computer is compatible with the PANTHEON system once the appropriate software is installed, though to improve up and downlink speeds and to better facilitate communication and data sharing with other SAoY units, a Compact Integrated Electronics System (CIES) system is usually installed to supplement the main computer.

Life Support

The Bulldog's life support is robust and includes what might even be considered luxuries, such as air conditioning. However, its primary purpose is not comfort, but protection. The life support system is designed to be able to seal the tank up in the event of Chemical, Biological, Radiological or Nuclear attacks. The internal life support can supply clean air to the crew for 36 hours from internal reserves, after which point the tank's two Liquid Ally cans can be set to help process the air in addition to their functionality as repair helpers.

Shields

In order to ensure survivability on the modern battlefield, a shielding system is a must. However because the Bulldog was designed to work in conjunction with infantry, a continuously operated shield would not work as it would endanger any of said infantry who got too close to the tank.

To solve this problem, cues were taken from the Nepleslian VSP system. A dedicated computer core is tasked with scanning for incoming rockets, rounds, or lasers. When it detects an attack, the moment before the attack would hit a shield barrier is projected to intercept it. This is both safer for infantry working with the Bulldog and more energy efficient.

Defensive/safety features

The Bulldog includes several other features which are designed to defend the tank or keep the crew safe in various ways. The first of these is the smoke dispensing system, which is composed of several sets of smoke grenade launchers. The smoke in these grenades is designed to block visual contact or infrared sensors, and to scramble radars with specially designed chaff.

On the crew safety side of things, there are several Fire Extinguisher [] systems inside the tank to put out fires caused by penetration of its armor, and in case of ammunition cookoff there are blowout panels to prevent crew injury.

Cargo Capacity

The extra space in the tank can be used for storage of various things, such as supplies or infantry.

Standard Equipment

Along with the drinking water supply, the Bulldog carries enough rations for a 48-hour deployment without resupply for all of its crewmen in its edibles compartment, though this duration can be extended with some rationing. In addition to that, it has a weaponry rack to hold rifles and sidearms for the crew members, and an ammunition compartment holding ammunition for the crewmen's weapons.

In terms of aid and safety, the tank carries a medical kit that can be used to treat most mild injuries in

the field, as well as detachable Fire Extinguisher []s.

OOC Notes

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5-year review discussion:

https://stararmy.com/roleplay-forum/threads/should-the-star-army-keep-using-the-k-1-bulldog-type-41-m ain-battle-tank.71393/

Products & Items Database		
Product Categories	vehicles	
Product Name	K1 Bulldog	
Nomenclature	ОН-К1	
Manufacturer	Osman Heavy Industries	
Year Released	YE 41	
Price (KS)	30 ,000.00 KS	
Mass (kg)	55,000 kg	
Star Army Logistics		
Supply Classification Class C - VEHICLES AND POWER ARMOR		
First Used	YE 41	
1)	•	
Commander, driver, and gunner		

2)

Commander, assisted by automated systems 3)

62 MPH

4)

31 MPH

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