



ESZTERHÁZY KÁROLY FŐISKOLA
MATEMATIKAI ÉS INFORMATIKAI INTÉZET

World of Tanks

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Tartalomjegyzék

1. A játékról	4
1.1. Pályák	4
1.2. Egyebek	13
1.2.1. Képlet	13
1.2.2. Hivatkozás	14
1.2.3. Programkód és tételszerű környezet	14
1.2.4. Advent	15
2 Tankok	16
2.1 Szövetséges tankok	16
2.1.1 Amerikai tankok	16
2.1.2 Kínai tankok	32
2.2 Német tankok	38
2.2.1 Nehéz tankok	38
2.2.2 Közepes tankok	39
2.2.3 Könnyű tankok	41
2.2.4 Páncélvadászok	42
2.2.5 Tüzérségi ütegek	44

Bevezetés

Ez egy bevezető rész a L^AT_EXbeadandó vizsgafeladatához. Feladatomban kénytelen vagyok keverni a magyar és angol irodalmat, mivel számos angol nyelvű leíráshoz még nincs megfelelő magyar fordítás, ezért a nem lefordított részeket angolul használom.

1. fejezet

A játékról

A World of Tanks egy 3D-s csapatalapú többjátékos „freemium” videojáték, amelyben az 1910-es és 1960-as évek közötti páncélozott harcjárművek harcait szimulálják. A játék PvP alapú, vagyis a játékosok egymással harcolnak benne. A kiadott változatban 140 amerikai, szovjet, német, brit, francia és kínai harcjármű kapott helyet, amelyeket könnyű, közepes és nehéz harckocsikra, páncélvadászokra és önjáró lövegekre osztottak fel. Nagy-Britannia és Japán járművei is fejlesztés alatt állnak, és a készítők ígérnek további európai nemzeteket is, köztük olasz, lengyel és svéd tankokat, valamint elképzelhető még magyar és román tankok hozzáadása is. Ezekkel együtt mintegy 500 tank lesz majd játszható. A járművek külsőre történelmileg hű másai a valódiaknak, de mivel a játék nem egy tankszimulátor, így bizonyos értékeket (például a páncélatütés fizikája) egyszerűsítettek és a játékbeli irányítást kiegyenlítették. A játékot 2011. április 12-én adták ki Európában és Észak-Amerikában.

1.1. Pályák

Ezen a részen mutatom be a játék pályáit, sajnos csak angol nyelven elérhető, és a fordítás sok időmet emésztene fel, ezért fordítatlanul közlöm őket.

I. Airfield

- 1) This map offers many great ambush spots, as well as possibilities for maneuvers and breakthroughs. A large airfield in the upper part of the map and a rocky highland in the center offer a major tactical challenge. Occupy the highland to get a perfect view of the surrounding terrain and dominate routes to the enemy base.

a) Camo: desert

b) Size: 1000*1000 m

II. El Halluf

- 1) A large valley filled with rocks, vegetation, and a small village surrounding a dried out river bed separate the two teams. The large hills on either side of the valley offer many firing positions, and very little cover in the valley will protect a large tank completely against all positions. Regardless of approach, attackers will face a long climb into the enemy's camp, and effective use of the cover en route is essential. The northern approach offers plentiful protection to attack either hill, but the southern approach makes up for lack of protection with shorter distances and better concealment.

a) Camo: desert

b) Size: 1000*1000 m

III. Erlenberg

- 1) A large river splits this map in half, with three bridges acting as choke points between the halves. A small town surrounds the center bridge, while the north and south bridges have fewer buildings providing cover. A large castle overlooks the west half of the map on a large hilltop, offering cover and supporting fire positions. Hills overlook the city in the east, with sufficient vegetation to provide some concealment for tanks.

a) Camo: winter

b) Size: 1000*1000 m

IV. Fisherman's Bay

- 1) The map is a combination of open spaces and irregular terrain. Meandering narrow streets of the seaport on the flank can be surprisingly advantageous. Sloping hills covered with bushes offer excellent ambush opportunities.

a) Camo: summer

b) Size: 1000×1000 m

V. Karelia

- 1) Swamps, rocks, and cliffs determine major avenues of approach on this map. This map, with sparse protection and no buildings, gives the combat advantage to artillery. Concentrate your attacks along the path of your main advance, while conducting delaying and defensive actions along the rest of your front lines.

a) Camo: summer

b) Size: 1000*1000 m

VI. Komarin

- 1) A more or less unique map in that the teams do not start near the flags, Komarin offers multiple tactical options. The teams start in the north and south, divided by rivers offering three routes. The rivers itself are mostly impassable. The middle bridge is also only accessible once a heavy tank clears the obstacles by driving over them or if someone clears them with HE ammo. The center route is a large, elevated, and wooded island connected by bridge to the south, and offers firing positions to nearly the entire map, but at the cost of being exposed if spotted. A small village on both the west and east side of the map offer attackers valuable cover en route to the flag, but leave any tank passing the village exposed to covered and concealed defenders once they leave the village.

a) Camo: summer

b) Size: 800*800 m

VII. Malinovka

- 1) Initial staging areas are separated by a wide open field, ideal for artillery and defensive operations. Make use of flanking maneuvers and natural defenses like woods, hills, and farmhouses, as these can be decisive. Another option is a well-coordinated high-speed combined arms attack across the field which could bring victory, but at the risk of a bloody loss. Colloquially also known as “Campinovka” for the tendency of most players to just sit behind cover on their side of the starting field and snipe each other.

a) Camo: summer

b) Size: 1000*1000 m

VIII. Murovanka

- 1) A small town dominates the center of the map, with a large forest providing concealment in the east and high ground to the west. The forest provides effective concealment, but lacks cover from fire; whereas the town has plentiful cover, but lacks concealment.

a) Camo: summer

b) Size: 800*800 m

IX. Prokhorovka

- 1) Generally open, but hilly, terrain around a vital railroad, with groups of trees providing shelter for tank destroyers. On the offensive, watch your own flanks while striking against the enemy flanks. Artillery has free reign,

with the only real hindrance being the train cars themselves, but the open terrain makes them very vulnerable to raids by light vehicles.

a) Camo: summer

b) Size: 1000*1000 m

X. Redshire

1) A rolling area, dominated by a couple of hills. The village of Redshire gives places to hide from hill to its northeast. Artillery will play a powerful role on this map.

a) Camo: summer

b) Size: 1000*1000 m

XI. Sand River

1) A mostly open map offering little concealment, but providing plentiful cover due to the large number of sand dunes. Three small villages provide temporary cover at best, but are easily destroyed, so they must be used cautiously. Each flag is well protected with a ridge offering defenders cover, concealment, and excellent firing positions. Plentiful cover allows an excellent arena for run and gun tactics while offering many routes for tanks to engage the enemy and make use of their mobility

a) Camo: desert

b) Size: 1000*1000 m

XII. Serene Coast

1) This coastal area is bounded by ocean and mountains. A railroad crosses the territory from north to south. Woody hills on the western flank are favorable for a swift attack. A straight road connecting the bases passes through a small town, which often becomes a contested piece of terrain. The bases are protected by the hills from direct attacks. However, the flanks of the bases are insecure and must be protected.

a) Camo: summer

b) Size: 1000*1000 m

XIII. South Coast

1) On this rugged-terrain map, make use of various battlefield tactics: flank or ambush the enemy, or attack straight ahead. Also use numerous hollows between the rocks for a busting attack with concentrated forces.

- a)* Camo: summer
- b)* Size: 1000*1000 m

XIV. Steppes

- 1) A seemingly endless open expanse of fields and hills, scattered through this farmland-esque map. Open fields, varying ditches, and small hills and rises litter this map, allowing for some prime spots to lay ambushes. Long, open fields are great for those who prefer long-distance combat, with little cover available to your target. Just remember; This works both ways.

- a)* Camo: summer
- b)* Size: 1000*1000 m

XV. Swamp

- 1) Flank routes offer great opportunities for surprise attacks and diversionary operations. A mire in the center is not only an obstacle, but also an important tactical location.

- a)* Camo: summer
- b)* Size: 1000*1000 m

XVI. Tundra

- 1) A mountain in the east offers the possibility of dominating from the high ground, while the central part of the map offers a wide range of tactical advantages. The swamp in the west may make it possible to spot the enemy rear area or mount a surprise attack.

- a)* Camo: summer
- b)* Size: 1000*1000 m

XVII. Westfield

- 1) A wonderfully lush area, Westfield features forests, fields, farmland, and multiple villages throughout the map. Included is a large war-damaged bridge crossing the eastern valley. Plentiful ridges give ambush positions along nearly every route, and large fields can leave a tank vulnerable when moving between positions.

- a)* Camo: summer
- b)* Size: 1000*1000 m

XVIII. Himmelsdorf

- 1) Literally translated as “sky village” from German, this labyrinth of streets and squares are a large hindrance for artillery and tank destroyers, but ideal for speedy breakthrough and bypass by medium and light vehicles. With the castle dominating the area, access roads running by the hill and along the railway lines to help you out of the impasse.

a) Camo: summer

b) Size: 700*700 m

XIX. Abbey

- 1) A large abbey and town fill the center of the map with three roads allowing passage from the north and south, and includes an elevated firing position in the abbey’s courtyard at the highest point on the hill. West of the town is an elongated hill with several positions allowing fire down into the town. Further west and past the hill, a valley offers significant protection against artillery fire. East of the town lies a curved cliff road which affords shielding from most tank and artillery fire, but forces attackers to travel in a single path.

a) Camo: summer

b) Size: 1000*1000 m

XX. Arctic Region

- 1) A large ice-and-snow covered area stretches through this map. Steep hills, rock encampments, twists and turns, and plenty of places to stay and wait will have you on your toes as you battle through this icy deathtrap. Ridge, hills, and lots of rocky outcrops give you many places to hide and ambush your enemy as they come about. Turns and twists could have you stuck if your not on your toes, so watch out.

a) Camo: winter

b) Size: 1000*1000 m

XXI. Cliff

- 1) Starting in the north and south, both teams are connected through a valley on the extreme west of the map. Large boulders offer cover south of the valley, and a small town provides cover to the north. The eastern portion of the map is elevated, with two large jutting hills providing cover from enemy fire. An overlooking position near the center of the map allows tanks to fire into the valley from above. Plentiful cover throughout the area allow

for multiple attack routes, with careful coordination and flanking playing a significant role.

a) Camo: summer

b) Size: 1000*1000 m

XXII. Dragon Ridge

1) A varied rugged landscape is marvelous for its fascinating grandeur. A lake, bamboo bushes and mountain ridges make this map peculiar and unique. The map offers several options for directions of attack, each of them being advantageous in its own way. As of patch 8.4 this map has been removed from random battles.

a) Camo: summer

b) Size: 1000*1000 m

XXIII. Ensk

1) A mixture of city outskirts and suburban areas with railroad tracks spanning and dividing this map. Plan your tactics to take advantage of defensive choke points and cover open areas with your vehicles. Artillery is great for deterring enemy breakthroughs, but remains almost defenseless when exposed to enemy vehicles attacking from cover.

a) Camo: summer

b) Size: 1000*1000 m

XXIV. Fjords

1) Huge mountains and narrow valleys offer great advantages in a battle. You can engage in a fire duel across the gulf or enter a close quarter battle at the nearest port town or flank and capture enemy base.

a) Camo: summer

b) Size: 1000*1000 m

XXV. Lakeville

1) An isolated mountain valley on one flank and city blocks on the other allow you to thrust close to the enemy. A large lake in the middle gives long-range weapons a clear field of fire.

a) Camo: summer

b) Size: 1000*1000 m

XXVI. Live Oaks

- 1) In the center of the map there is a large bog lake. A railway bridge and a fording side on the one flank allow to defend the area using scarce forces, and to concentrate main forces on the other flank.

a) Camo: summer

b) Size: 1000*1000 m

XXVII. Highway

- 1) The diverse landscape of this map makes it peculiar and complex, and also encourages a wide range of tactics. Multiple defilades are favorable for surprise attacks, while the city blocks are advantageous for close combat.

a) Camo: summer

b) Size: 1000*1000 m

XXVIII. Mines

- 1) A flat hilltop in the center of this map provides an excellent firing position, but the short drive from either starting position makes climbing the hill a dangerous endeavor. Nestled in the canyon northeast of the hill is the small village of Pagorki; offering a tempting route with plenty of cover, but one that is exposed if the enemy controls the hill. West of the hill, surrounded by shallow water, is a small island which offers good cover while providing a large fire zone. While the island is protected from the hill, it is, for the most part, vulnerable to flanking attacks or fire from multiple angles. The island cover is solid, but not particularly large.

a) Camo: summer

b) Size: 800*800 m

XXIX. Mountain Pass

- 1) A large map with many turns and rough ground. The bridge near the center features natural choke points on both sides, and provides a good sniping position against opponents in the north passes if held. There are small positions for artillery near the bases, though artillery may have difficulty due to the terrain.

a) Camo: summer

b) Size: 1000*1000 m

XXX. Pearl River

- 1) Rugged terrain is favorable for various battle tactics; ambushes, unexpected flanking maneuvers, and close encounters. Moving along the riverbed allows you to swiftly approach the enemy base and get into action. However, do not leave your rear undefended!

a) Camo: summer

b) Size: 1000*1000 m

XXXI. Port

- 1) The setting is an industrial area of a port city. Teams begin the battle surrounded by factory buildings, warehouses, and docks. An open space in the center of the map consists of a hilly, open area and railroad tracks. Train cars can provide cover during combat. The most direct route to the enemy base is along the two highway bridges above the railway tracks. Common tactics on this map might include ambush and firing from defilade positions. Surprise attacks to the enemy's rear can break a deadlock.

a) Camo: summer

b) Size: 1000*1000 m

XXXII. Province

- 1) Hills on the periphery of the map are covered with numerous houses and winding streets advantageous for surprise attacks. An open area between the bases is favorable for daring strikes. Except for clan wars, this map is only available to tiers 3 and below.

a) Camo: summer

b) Size: 600*600 m

XXXIII. Ruinberg

- 1) Concentric city streets, along with dense forests and bushes in the overgrown park allow for hidden maneuvers and redeployment of your troops. Although artillery fire is of limited use in the city, the debris provides effective cover for your troops.

a) Camo: summer

b) Size: 1000*1000 m

XXXIV. Sacred Valley

- 1) Frosty peaks and muted hues bring the landscape to life, wide roads and low buildings will not afford you cover for very long during the pitched battles fated to transpire here!

- a) Camo: winter
- b) Size: 1000*1000 m

XXXV. Severogorsk

- 1) The mountain trails on the sides allow snipers to lay waste to enemies in the town below. Only after campers from given side have been pushed back the offensive through the town can truly progress. Pay attention to scouts trying to sneak through frozen river bed or you're at risk of losing your SPGs that are fairly efficient at removing the campers from the trails.

- a) Camo: winter
- b) Size: 1000*1000 m

XXXVI. Siegfried Line

- 1) A wonderful map combining the best of both worlds. The west side is open fields with little cover, excellent for quick flanks around the side for those looking for an early victory. To the east, the town offers concealment and cover for those brave enough to enter its confines.

- a) Camo: summer
- b) Size: 1000*1000 m

XXXVII. Widepark

- 1) This map depicts an industrial city devastated by war. A railway embankment divides the map in two, making it possible to concentrate forces for an attack or counterattack.

- a) Camo: summer
- b) Size: 1000*1000 m

1.2. Egyebek

1.2.1. Képlet

A következő képletet írja le kiemelt számozott matematikai környezetben. A képlet-számra hivatkozzon. A tg operátorjelet a preambulumban definiálja.

$$\text{tg}: \mathbb{R} \setminus \left\{ (2k+1) \frac{\pi}{2} : k \in \mathbb{Z} \right\} \rightarrow \mathbb{R}, \quad \text{tg}(x) := \frac{\sin(x)}{\cos(x)} \quad (1.1)$$

Az (1.1) fenti egyenlet, a $\text{tg}(x)$ kiszámítására szolgál.

1.2.2. Hivatkozás

Hivatkozni kell a második fejezetre: A játékban lévő tankokról a 2. fejezetben esik szó, mely a 16. oldalon található.

Hivatkozok egy fiktív műre is: Az orosz tankokról a [1, 68. oldal] alján található egy összehasonlító táblázat.

1.2.3. Programkód és tételszerű környezet

1.1. Definíció (Fibonacci-számok). A Fibonacci-számok ¹ a matematikában az egyik legismertebb másodrendben rekurzív sorozat elemei. Az első két elem 0 és 1, a további elemeket az előző kettő összegeként kapjuk. Képletben:

$$F_n = \begin{cases} 0, & \text{ha } n = 0; \\ 1, & \text{ha } n = 1; \\ F_{n-1} + F_{n-2}, & \text{ha } n > 1. \end{cases}$$

A Fibonacci-számok végtelen, növekvő sorozatot alkotnak; ennek első néhány eleme 0, 1, 1, 2, 3, 5, 8, 13, 21, 34. Fibonacci-számok több nagy listája is szabadon letölthető az internetről.

Az alábbi programkód az 1.1 Fibonacci-számok rekurzív, illetve iteratív módon történő előállítására szolgál.

```
1  /**
2   * exponenciális futásidejű rekurzív eljárás.
3   * a Fibonacci-számok kiszámítására.
4   */
5  public int fibonacci(int n) {
6      if ( 0 == n || 1 == n ) {
7          return n;
8      } else {
9          return fibonacci(n-1) + fibonacci(n-2);
10     }
11 }
12
13 /**
14 * Lineáris futásidejű eljárás ciklussal
15 * a Fibonacci-számok kiszámítására.
16 */
17 public int fibonacci(int n) {
18     int F = 0;
19     int prev = 1;
20     int next;
21     for (int i = 0; i < n ; ++i) {
22         next = F + prev;
23         prev = F;
```

¹ Forrás: <http://hu.wikipedia.org/>

```
24     F = next;  
25 }  
26 return F;  
27 }
```

1.2.4. Advent

Adventre való tekintettel, itt egy adventi koszorú:



1.1. ábra. adventi koszorú

Az [1.1](#) ábrán nem található gyertya.

Chapter 2

Tankok

2.1 Szövetséges tankok

2.1.1 Amerikai tankok

Nehéz tankok

- T1 Heavy Tank ¹

Compared to its Soviet counterpart, the KV-1, most players do not consider the T1 a powerful heavy tank for its tier. Although it lacks the KV-1's extended armament options, the upgraded M1A1 cannon sports great penetration and rate of fire, taking the T1 Heavy's firepower up to par with the KV-1's 85mm. In addition, the T1 has a very powerful engine available as an upgrade, making the T1 a more mobile tank than its Soviet and British counterparts. It has good frontal armor and very thick turret armor. However, its long sides are very thinly protected, so keep your flanks hidden and expose only your front armor and turret to minimize incoming damage. Keep in mind that the T1 is best played as a medium tank with the speed of a heavy tank, and not as a real heavy like the KV-1.

- M6 ²

Coming out of the T1 Heavy Tank, you should feel right at home with the M6, as they look and play very similarly. It starts off with 3 rather underpowered 76mm cannons that can make short work of medium and light tanks of its tier but are inadequate for penetrating and damaging other heavy tanks and tank destroyers. The 90mm gun, however, is an excellent gun and is much more suited for the the M6. The M6 has good engine power and speed for a heavy of its tier,

¹ Forrás: http://wiki.worldoftanks.com/T1_Heavy_Tank

² Forrás <http://wiki.worldoftanks.com/M6>

which helps to make up for its lack of armor, even frontally, which isn't adequate for bouncing most shots. Its side armor is even worse, and is easy to hit with the tank's large size. This makes the M6 almost always limited to the second line, where it can pick off enemies and take cover behind larger tanks and terrain with its decent mobility. In all, the M6 is very similar to the T1 Heavy in both size and gameplay.

– T29

Development of this experimental heavy tank started in September 1944. The construction and trials of the prototypes continued until October 1947. However, the T29 did not enter mass production. Generally considered one of the best tanks of its tier, if not downright overpowered, the T29 is a solid combination of firepower, armor and mobility. Stock, it comes with the inefficient 76 mm M1A2 gun, but can immediately equip the powerful 90 mm M3 gun if it was researched previously from the M6, which will prove sufficient against most opponents it faces while the tank advances down the upgrade path. The 105 mm gun that you are able to mount later is very powerful and lethal, as it can penetrate almost any tank in its tier and still can penetrate some higher tier tanks and can pack quite a punch. The most notable feature of the T29 is its large and extremely well-armored turret, strong enough to bounce shots even from tier 9 tanks if faced frontally and with good angling. For this reason, the T29 performs exceptionally well when placed in a hull-down position. The frontal hull armor of the T29 is also quite robust if angled properly.

– T32

Development of this tank started in February 1945. Four prototypes underwent trials from the spring of 1946 until the end of the year. Never saw mass production.

It has the perfect balance for an American heavy tank, combining a more heavily-armored turret with adequate hull armor, decent mobility, and a sleeker body. In its stock configuration, it mounts a very weak turret. Because it shares the gun, engine and radio modules with the T29, you only need experience points to research the suspension to mount these modules. As you gain more experience points, research and purchase the upgraded turret; it is more heavily-armored and has a smaller profile than the stock version. The tracks are still weak, but if you don't rush to get the T32 and train your T29 crew well, transferring them and their skills will help immensely. Consider using the repair kit for the gun, as it gets destroyed/damaged quite easily, especially when the enemy is shooting HE shells at your turret, but don't spare the kit if you are being tracked and are in a vulnerable position, or your engine goes out.

Compared to other tanks of its tier, the T32's main weakness is the gun. It lacks high penetrating power and durability, but it does have a good rate of fire. Be patient, aim well, and it will do its job.

– T34

In 1945 two prototypes of the T30 were armed with 120 mm guns and redesignated as the T34 Heavy Tank. The vehicle never entered mass production, nor saw service. The T34 was formerly a tier 9 researchable tank. It was replaced in that position by the M103 in patch 0.7.2. With its new setup, the T34 is now the hardest hitting tier 8 heavy tank, putting out even more damage than the IS-3 armed with the 122mm BL-9. However, to balance these abilities the T34's cannon was given an increase in aiming time and also given a RoF of 4. This makes it tricky to play, especially for players who were used to the T34's pre-patch 0.7.2 tier 9 stats with a high RoF and accuracy. Nevertheless, a seasoned T34 driver can out-gun the other tier 8 premiums with ease because of the T34's powerful cannon. The role of the T34 didn't change with the patch, so you should stick to the second line and provide firepower where your allies need it due to the weak hull. When able to, stay back and play defensively, attack cautiously; any tier 6 and above gun can easily penetrate your weak hull. The credit income of the T34 is similar to that of the KV-5. Playing a good match will earn the player plenty of credits.

– T57 Heavy Tank

A project of a heavy tank with an oscillating turret and automatic loading. Developed from 1951. Experimental turrets for 120 mm and 155 mm guns were manufactured by 1957. However, the project was deemed unsuccessful and the development was discontinued.

The T57 Heavy Tank is a tier X heavy tank in the American tech tree. Unlike the T110E5, the T57 is armed with a 4 round auto loader much like the AMX 50B. Apart from that, the T57's gun is nearly the same as the T110E5's one. The T57 is less mobile than the AMX 50B, however, it has better armor and a smaller profile. Its armor isn't as good as that of the T110E5, but it can bounce shots if angled correctly. The reload on this tank is really outstanding, only needing about 22 seconds to load the magazine and about a 2 second delay between shots, giving the gun amazing burst and DPM potential. Use the quick clip reload to your advantage and help your team deal massive damage to the enemy and this tank will be a force to be reckoned with.

– M103

The development started in 1948. In 1952 the order was placed for production of 300 vehicles to fight in the Korean War. The tank was designated as M103. It replaced the T34 as the tier 9 heavy in patch 0.7.2. The fully upgraded 120mm cannon is a fantastic gun, with great accuracy, and very high penetration. While it lacks alpha damage compared to the IS-8 or E-75, the gun's reload speed makes up for its lack of damage. The M103's oddly shaped hull and well-sloped turret can make this tank a bit tricky to fight, especially at long ranges; however, this tank suffers from having very weak sides and rear armor. When fighting this tank from the front, make sure you try and hit the lower armor plating as hitting the upper hull will most likely bounce. The speed and maneuverability of this tank are quite good, so it's able to keep up with the rest of the team and provide excellent fire support when needed, and is able to turn its frontal hull towards the enemy quickly to reduce damage taken from incoming fire.

- T110E5

The T110E5 is an American tier 10 heavy tank. Development started in the early 50s. Restrictions were placed on the vehicle sizing as the tank was supposed to pass through the narrow tunnels of the Bernese Alps. It never progressed beyond the blueprint stage. It replaced the T30 as the tier 10 heavy tank in patch 0.7.2. This tank has extremely high penetration and a decent reload time for its gun, but the reload time is slightly counterbalanced by its lower damage compared to its German and Russian counterparts.

Közepes tankok

- T2 Medium Tank

The T2 Medium Tank is an American tier 2 medium tank.

Experimental medium tank. Developed from 1930 to 1932. However, this model never saw mass production.

Big, tall, boxy and clunky, it looks like the lovechild of the T1 Cunningham and an industrial air conditioning unit. While it has less hull armor than the M2 Light Tank, it does have slightly more hit points. The main distinction of the T2 Medium is its ability to utilize the fun 37mm Browning Semiautomatic Gun, which uses the same mechanics as the French autoloaders. It can't take much damage, but it is a stepping stone to all of America's heavier vehicles. If nothing else, the slower speed, imposing size, and the new tank icon will give tankers a taste of what that branch of the tech tree has to offer.

The T2 Medium Tank leads to the M2 Medium Tank.

- M2 Medium Tank

The M2 Medium Tank is an American tier 3 medium tank.

The only American medium tank adopted in the interwar period, with a total of 146 vehicles in two variants manufactured from 1939 through 1941. The M2 MT never saw action.

It has the improved 37mm and a very powerful 75mm howitzer, which requires the M2M7 turret. At first, with the 37mm, the M2 can feel a bit handicapped fire-power wise. Once armed with the 75mm howitzer, it is a force to be reckoned with. This, coupled with its good mobility, makes the M2 a fun tank to play and the grind to M3 Lee should be quick and painless.

- M3 Lee

The M3 Lee is an American tier 4 medium tank.

Developed on the basis of the M2, with a total of 6,258 vehicles manufactured from June 1941 through December 1942. The vehicle saw combat in North Africa and the Philippines. The M3 Grant was supplied to Great Britain and the U.S.S.R. under Lend-Lease.

- M4 Sherman

The M4 Sherman is an American tier 5 medium tank.

The first production version of the Sherman, the most common American tank, with an amazing total of 49,234 vehicles manufactured. The Sherman first saw combat in North Africa.

This was the U.S. Army's legendary tank of WWII. In WoT, the M4 Sherman is considered a very well rounded tank. It has good mobility and speed, but lacks in armor. The most popular gun for this tank is the 105 mm M4. It offers great damage, but sacrifices penetration. However, at 53 penetration it is still a rare occurrence for this gun to tank out tanks such as the T-34 (with only 45mm of frontal and side armour) in just one shot, without HEAT. The other, less popular, gun is the 76 mm M1A1. This gun offers much better penetration and DPM, but cuts down severely on alpha damage.

- M7

The M7 is an American tier 5 medium tank.

Development of this tank started in the spring of 1941. The construction of experimental vehicles was launched in January 1942, after the first prototypes were completed. By January 1943 the prototypes passed trials, but the vehicle never saw mass production.

It is extremely fast and maneuverable, but has extremely thin armor and sub-par firepower. However, the lack of firepower is offset by a very high rate of fire, so proper use of the M7 will employ all of the tank's strengths: high rate of fire, speed, and mobility. If exposed to enemy fire, the M7 can be destroyed rather quickly, so caution must be taken when engaging the enemy. The M7 is an excellent tank to have in a wolf pack, letting the sturdier medium tanks take the shots while the M7 flanks, keeping the enemy tracked or inflicting steady damage to the target.

- M4A2E4 Sherman

The M4A2E4 Sherman is an American tier 5 premium medium tank.

Work on this experimental vehicle started in March 1943. Two prototypes were built by July. The vehicle passed trials, but was never mass-produced or used in action.

This tank was awarded to players who managed at least 1,000 battles during Beta testing. It is essentially a heavier variant of the M4 Sherman. It sports decent mobility and a relatively acceptable gun for its tier, which has no problems penetrating light and most medium tanks but will struggle to penetrate heavy tanks. It also has straight-angled hull armor instead of the egg-shaped hull that M4 Sherman has, potentially resulting in shells bouncing more frequently.

- M4A3E2 Sherman Jumbo

The M4A3E2 Sherman Jumbo is an American tier 6 medium tank.

This variant of the Sherman featured much heavier armor. The M4A3E2 was initially intended as an infantry support tank. However, some were re-equipped with the M1A1 gun and served as tank hunters.

Sloped and thicker armor gives this tank a chance to bounce more shells compared to other Shermans, but the Jumbo is slower and less maneuverable. It has armor rivaling the heaviest tanks around its tier, and even tanks above it like the T29 and Tiger tanks. In addition, it is also smaller than comparable heavy tanks, making it harder for artillery to hit you. It possesses a medium's firepower and health pool, combined with a heavy's armor and speed. As a result, you will be forced to try and play smart - keep flashing your frontal armor and gun mantlet, and fire your gun at weak spots in the enemy armor. Due to its thick armor and lack of maneuverability, the Jumbo tends to be more successful when played like a heavy than as a medium tank. Overall, the Jumbo is both very comfortable for beginners and very rewarding for veterans.

- M4A3E8 Sherman

The M4A3E8 Sherman is an American tier 6 medium tank.

Officially named the M4A3(76)W HVSS, but generally known as the Easy Eight. At the end of March 1945 a new suspension was designed for the M4 series, allowing greater mobility as well as heavier armor. The result was a highly effective medium tank.

The E8 Sherman is a quicker, slightly better armored version of the M4 Sherman. It also has an upgraded 76mm gun which has good penetration, an amazing rate of fire and decent accuracy. Considering all this, the M1A2 should not be overlooked on the upgrade path in comparison to the M1A1 as it really brings out the E8's strengths. However, despite the increased armor compared to the M4 Sherman, the E8 is still a very soft target and will be easily destroyed if it stays exposed to enemy fire. Finding a balance is a necessity and is excellent practice for the American mediums that are to follow, which all share a similar lack of armor. Its strongest point is its incredible mobility. It accelerates very quickly on all grounds, and loses little energy in turns which makes it an ideal flanking tank. Anyone who underestimates this gem will very soon become a smoking wreck.

– T20

The T20 is an American tier 7 medium tank.

Experimental medium tank. Developed and put through trials from May 1942 through February 1944. Never saw service.

Much like the M4A3E8 Sherman, the T20 lacks significant armor. Able to sneak around the battlefield, the T20 is an excellent support tank, able to switch between engagements in very short time. Its thin armor is a serious weakness, and caution must be taken to avoid enemy fire whenever possible. Pick different strategies to match differing opponents: flank heavy tanks, ambush and brawl mediums, track and destroy lights. Passive scouting is very viable when normal scouts are not available.

– M26 Pershing

The M26 Pershing is an American tier 8 medium tank.

The Pershing was developed to fight heavy tanks, and was itself initially classified as heavy. After World War II it was re-classified as medium. A few saw combat in the closing phase of World War II.

Compared to other tier 8 medium tanks, Pershing armor is excellent and capable of bouncing low-tier guns. However, like all other medium tanks, it does not fare well on its own and will easily get destroyed if caught in the open by tank destroyers or heavy tanks. Therefore, it acts better as a mobile mid-range sniper

or as support for heavier tanks. After you get the upgraded engine, the Pershing becomes much faster and can plug holes in whichever areas are needed. Its top gun is effective in the supporting role, but will find itself outclassed when fighting most heavies from the front.

- T69

The T69 is an American tier 8 medium tank.

A medium tank with an oscillating turret and automatic loading. Developed on the basis of experimental medium tank T42 in mid-50s. The vehicle never entered mass production.

The T69 medium tank is similar to the French AMX 13 90. Although it is a bit slower, it has more armor and more firepower. This increases the chances of players bouncing rounds off of it, allowing some players to take on tier 9 mediums in this tank. However, it only holds 4 rounds in a magazine, meaning you have to pick your fights.

- M46 Patton

The M46 Patton is an American tier 9 medium tank.

Developed in 1948 and 1949, the M46 Patton was a modernized and improved version of the M26 Pershing. A total of 1,168 M46 tanks, in two basic variants, were manufactured between 1949 and 1951. Pattons saw wide use in the Korean War.

It is the evolution of the M26 Pershing. The Patton is slower compared to its tier 9 medium tank counterparts, but its maneuverability and powerful 105mm T5E1M2 gun make this tank a pretty hard target to kill. Even though this tank doesn't have enough armor to take direct hits without damage, sloped turret gives this tank much better chances of survival in dogfights than it might appear on paper. By wisely using the sloped turret in combination with its great gun depression and on-the-move accuracy, you can increase your chances of victory.

- M48A1 Patton

The M48A1 Patton is an American tier 10 medium tank. The most successful American medium tank in the immediate post-war period. Development started in 1950. In April 1953, the vehicle entered service. A total of 11703 vehicles of different variants were produced from 1952 through 1959.

Könnyű tankok

- T1 Cunningham

The T1 Cunningham is an American tier 1 light tank.

Prototypes were developed by James Cunningham, Son & Company (Rochester, NY) from 1927 through 1928. Various modifications of the vehicle were tested until 1934. However, the tank never saw mass production.

It has the second-weakest tier I armor; however, it has the best top speed of any tier I. Although it does not excel at bouncing shots, its high rate of fire guns are forces to be reckoned with for its tier.

- M2 Light Tank

The M2 Light Tank is an American tier 2 light tank.

Infantry support tank. A total of 696 vehicles were manufactured from 1935 through 1942. The tank saw combat with the U.S. Marines on Guadalcanal. It was withdrawn from service in 1942.

Shorter and smaller than its tier 2 cousin, the T2 Medium Tank, the M2 Light Tank has many of the same stats plus a much more powerful engine. The M2 is one of the fastest tier 2 tanks and is decently armored. It has a bit of difficulty in tight spaces, but in the open it is very fast. Its speed is best used to exploit the sluggishness of other low tier tanks.

- M3 Stuart

The M3 Stuart is an American tier 3 light tank.

The best-known light tank of World War II, with a total of 13,859 vehicles manufactured from 1941 through September 1943. The M3 Stuart was used in all theaters of war.

The tank has reasonable armor for its tier, and the upgraded 37mm gun is fast and accurate. However, when placed in higher-tier battles, it will face better armed and armored opposition. Speed and stealth are the keys to survival for light tanks; the M3 excels in both. Upgrade your suspension and engine and keep your movements unpredictable as you exploit the enemy's flanks, or race to a good hiding spot and help out your artillery and snipers by spotting the enemy as they advance. Avoid long drawn-out, stand-still shooting matches; the 37mm has a very high rate of fire so you can afford a few misses while shooting on the move.

- M24 Chaffee

The M24 Chaffee is an American tier 5 light tank.

The vehicle was intended as a replacement for the M3 Stuart. The M24 entered service in September 1943. They were produced at Massey-Harris and General Motors factories until July 1945, with a total of 4,731 vehicles manufactured.

The M24 Chaffee is considered a very good tank and is like a smaller and faster version of the M26 Pershing. It has one of the best guns for a tier 5 tank because of its high pen and decent damage ratio, packing even more of a punch than the M4A3E8's. Since patch 8.7 it is the last remaining tank of the three end-of-line light tanks yet to be rebalanced, re-tier or removed. In comparison, it is essentially a better than the T21 having slightly better overall stats, however the M24 Chaffee will see up to battle tier 10 matches more often than while the T21. It doesn't excel as a super speedy scout like its former Soviet counterpart, as it only reaches 56 kph, and its hull traverse is slower as well. However, it has the farthest view range among all tanks up to tier 6 and its gun can penetrate the sides of tier 8 and 9 heavy tanks. The armor on the Chaffee is thin, with only the gun mantle providing any protection at all, but that is expected with most light tanks. Overall, it is a very balanced tank and can be played like a very fast and low armored medium tank, and can take on the scouting role if there is no better tank to do so, but it is not recommended since the Chaffee has a large silhouette for a scout tank, making it easier to hit. It can also take out artillery easily with its high DPM, good accuracy, and maneuverability. It is best used for harassing and damaging enemy vehicles, and then moving behind cover, or sniping, especially in city maps or with maps with a lot of cover.

– T21

The T21 is an American tier 6 light tank.

A lightweight version of the T20 medium tank with the elongated M7 chassis. The vehicle was developed in the first half of 1943. Unlike the T20 tank, the T21 featured reduced armor and lightened armament. The vehicle never entered mass production nor saw service.

The T21 is a lighter variant of the T20 medium tank. As such, it is rather large for a light tank, but it has good maneuverability and a great view range, on top of having a good power to weight ratio. Unfortunately, it's hampered by its low top speed. Additionally, it uses the same gun as the M4 E8/E2, having rather low penetration in exchange for a high rate of fire and DPM.

– T71

The T71 is an American tier 7 light tank.

Experimental airborne light tank with an oscillating turret. Developed from 1950 through 1953 as a replacement for M41. The armament was deemed ineffective, and the development was discontinued. Only one wooden prototype was built.

Unlike its predecessor, the T21, this tank has an autoloader. Its play style is very similar to the french tanks of its tier, such as the AMX 13 75. It has weak armor, so don't get caught out in the open.

Páncélvadászok

– T18

The T18 is an American tier 2 tank destroyer.

Development of this self-propelled gun on the chassis of the M3 light tank started in October 1941. The first prototype passed trials in the spring of 1942, but the vehicle never saw mass production.

The T18 is a closed-type tank destroyer with thick frontal armor plating that makes it a tough nut to crack. Its armor gives it a good chance of survival, but it has low hit points if penetrated. It is also quite mobile and has excellent close-range firepower for its tier once armed with the 75mm howitzer. It functions reasonably well as a front line force. However, if one shoots the T18's gun directly, one has a decent chance of damaging the tank rather than having a ricochet. Circle strafing will more than often not work on this tank unless it is attacked from behind, due to its big gun arc. Just remember that you have poor view range and poor radio range.

– T82

The T82 is an American tier 3 tank destroyer.

Development of the T82 started in December 1943. The vehicle was put on trials in August 1944. It never saw mass production, nor entered service.

Compared with the T18, the T82 has good speed and excellent view range, but no armor. With this tank you have the choice of three guns: the deceptively excellent 57mm Gun M1 L/50, which is good for sniping with a high RoF and DPM. The 105mm is a howitzer with massive damage and a bit higher penetration than on 75mm with low accuracy and long reload time. T82 should be played from far still even with the howitzers, because you lack armor you are better off being in the secondary lines.

– T40

The T40 is an American tier 4 tank destroyer.

Experimental tank destroyer developed on the chassis of the M3 tank in the spring of 1942. The vehicle never entered mass production, nor saw service.

The T40 is basically a M3 Lee without its small turret and roof armor, but with better guns, camouflage values, and a more ideal placed gun mount. The Hetzer is a better brawler and ambush tank, while the SU-85B is a better sniper. However, the T40 is very versatile and easy to play. It can fight at any range as long as you know how to avoid getting hit. Its top gun is excellent for tier 4 and is arguably the best mid-ranged weapon of any tank at its tier.

– M8A1

The M8A1 is an American tier 4 tank destroyer.

The vehicle was intended as a self-propelled infantry support gun on the basis of the M5 tank. The M8A1 variant featured a modified turret and upgraded armament. From September 1943 through January 1944 a total of 1778 vehicles were manufactured.

Although the M8A1 has a slow turret traverse speed, it is relatively mobile, with good acceleration and an excellent top speed. It begins with a fun, but ineffective, howitzer. The M8A1's armor is thin, and can occasionally bounce shells from lower-tier tanks. However, shots that do not bounce will almost always penetrate. Use the M8A1's turret, and excellent accuracy of the 57 mm, to your advantage. Once the crew reaches 100% in Camouflage, the M8A1 is difficult to detect. Just remember, the M8A1 is not built for close combat. Assist allies by providing support when the enemy is distracted with a more intimidating target. By the time the enemy realizes you are assisting your ally, he will most likely be dead. Also, keep in mind that the M8A1's repair and ammunition costs are high, meaning you may lose credits after a bad battle. Although the 76 mm AT Gun M7 L/50 is a better money maker than the 57 mm, the 57 mm is superior due to its greater penetration and higher DPM.

– M10 Wolverine

The M10 Wolverine is an American tier 5 tank destroyer.

The most widely-produced American tank destroyer, with a total of 6,706 vehicles, in two basic variants, manufactured from September 1942 through January 1944. More than a third of all Wolverines were supplied to Allied nations under Lend-Lease.

The M10 Wolverine is poorly armored, but it more than compensates for this with a great gun, good maneuverability and speed, and a fully traversing turret. However, the turret does not turn very fast. The tank's size is too great to remain

camouflaged well, although the rotating turret allows you to keep the hull still so that Camouflage Nets and Binocular Telescopes don't reset. Always remember that despite the turret, this TD cannot be played as a medium tank as it is wholly inadequate for that role.

– T49

The T49 is an American tier 5 tank destroyer.

Development started in the spring of 1942. After undergoing trials, the decision was made to replace the 57 mm gun with a 75 mm gun. The new design passed trials in the fall of 1942 but never saw service.

The T49 is considered a very fun and overall good tank to play. Its best features are its guns, particularly the 76mm M1A1, along with its superior speed and acceleration. Stock, it is very weak and has low engine power, but once fully upgraded, it is a force to be reckoned with. It can maintain its 61 kph top speed quite easily over all terrain, and though the turret traverse is incredibly slow the tank excels at flanking and exposing weak sides and rear. Its gun can penetrate almost any armor it comes across when hitting weak spots, and by the time they've been hit you'll most likely have had time to run away. In higher tiers, it can even be used as a heavily armed scout. Like most turreted TDs, its armor is sloped but incredibly thin, so don't expect to bounce much. In fact, if you try to use it as a classic stationary sniper TD, you'll probably be destroyed without mercy. However, you will be very successful if you use this tank's superior speed and maneuverability to its best. A good example of this fact is that due to your high speed, you can "chase" enemy scouts, and get some damage done before the scout escapes.

– M36 Jackson

The M36 Jackson is an American tier 6 tank destroyer.

The most powerful American tank destroyer. The M36 was developed on the chassis of the M10A1 and M10, with a total of 2,324 vehicles manufactured from November 1943 through September 1945.

It is very similar to the M10 Wolverine, with increased armor values and the ability to mount the powerful 90 mm AT Gun M3. However, it cannot mount the 105 mm AT SPH M4 L23 that's available on the M10 Wolverine. Upgrading to the roofed turret is a good idea as the roof protects the crew from the extensive HE damage open top vehicles are vulnerable to. Even though it has a turret, remember that the M36 Jackson is a tank destroyer and not a medium tank. By keeping the hull still and only rotating the turret to fire, Camouflage Nets

and Binocular Telescopes won't reset, making it one of the more difficult tank destroyers to spot when used properly.

- Hellcat

The M18 Hellcat is an American tier 6 tank destroyer.

The development of the vehicle was started in 1942. In April 1943 the General Motors company produced the first prototypes. One of a few American tank destroyers manufactured on its original chassis, not on a chassis of a tank. The tank destroyer became the most high-speed armored vehicle of this type of World War II. A total of 2507 vehicles were produced from July 1943 through October 1944.

The M18 Hellcat is a unique tank destroyer with its top speed of 72kph – making it the fastest TD in the game (although historically it could go as fast as 92 kph). Armed with the high powered 90 mm AT Gun M3, the M18 Hellcat is a dangerous tank to fight. The Hellcat has negligible armor and an open turret so use your speed to avoid enemy fire or die quickly. The M18 Hellcat can scout and flank enemy positions to some degree but with the slow turret traverse speed, drivers will quickly learn it is not the best of roles. The Hellcat is very popular in tank companies along with the KV-1S. In tight situations the Hellcat can be used as a scout tank, although it is not highly recommended due to the traverse speed on both its hull and turret, and the paper-thin armor.

- T25 AT

The T25 AT is an American tier 7 tank destroyer.

The T25 was developed on the chassis of the T23 medium tank, but was never manufactured.

When stock, the 90 mm AT Gun M3 is adequate for its tier and the speed is able to get you where you need to go in short time. When fully upgraded, the T25 AT is a fantastic tank destroyer to play, being very fast, and armed with the 105 mm AT Gun T5E1, it can provide fire support wherever needed. The T25 AT's armor is a bit lacking, but angling its sloped frontal armor correctly can allow it to bounce several high tier guns. However, it is still recommended that you avoid firefights with higher tier tanks. One thing that is impressive on this tank destroyer is its deep gun depression, which can come in handy in certain situations.

Tüzérségi útegek

- T57

The T57 is an American tier 2 self-propelled gun.

Experimental SPG designed on the basis of the M3A3. The T57 was developed and tested in the fall of 1942, but was never mass-produced.

Possibly the most well-rounded artillery in tier 2. It has decent gun performance, mobility (though traverse is not very good), and top speed. It's the only one to have good armor.

– M7 Priest

The M7 Priest is an American tier 3 self-propelled gun.

Manufactured on the suspension of the M3 and M4 tanks from April 1942 through February 1945, with a total of 4,316 vehicles produced. The M7 Priest first saw combat at El Alamein.

The Priest has good reload time for an SPG, at the cost of being somewhat inaccurate and having poor splash damage - should it miss, it will not deal significant damage to close targets. Also, hitting high tier enemies with the regular HE shell will almost always ping them for a meager amount of damage, which can be frustrating at times. With the 8.6 update, it has changed from tier IV to III with the previously tier III M37 taking its place. Due to this, it is considered to many players as the most overpowered tier 3 artillery.

– M37

The M37 is an American tier 4 self-propelled gun.

Developed in 1945 on the basis of the M24, with a total of 150 vehicles manufactured. The tank was never used in combat during World War II, but it did see action during the Korean War.

While the hull is a conversion of the M24 Chaffee, unfortunately the extra weight means it retains little of the original vehicle's maneuverability. The initial acceleration and hull traverse rate are very poor and the suspension should be the first upgrade since it can't mount the upgraded gun without increasing the weight limit. Upgrading the gun will allow you to fire almost across the map (the increased range isn't listed on the in-game stats). Despite the vehicle's flaws, both 105mm guns hit very hard for their tier and allow the M37 to punch above its weight in heavier battles. Another important thing to note is the M37's extremely wide gun traverse arc of 52 degrees, which, along with the GW Panther, gives it the widest gun traverse arc in the game for an SPG without a traversable turret.

– M41

The M41 is an American tier 5 self-propelled gun.

Self-propelled gun developed on the basis of the M24, with 60 vehicles actually produced out of a total of 250 ordered. The M41 did not see action in World War II, but fought in the Korean War.

Designed as a replacement for the M7 Priest self-propelled howitzer, the M41 is a typical American self-propelled artillery piece, having a wide weapon traverse, good gun with good accuracy and a spectacularly poor hull traverse coupled with a high top speed

After its rebalance to tier V, the M41 will feel right at home in any match that it gets placed, as its 155mm howitzer is capable of dealing apocalyptic damage to any tank it gets to encounter and effective range that spans from one corner to a map to much of the other. However, mind that the shell travel time is slower than other Tier 5 SPGs. Players coming fresh from the M37 will never have to worry about poking higher-tier enemies for insignificant damage.

– M44

The M44 is an American tier 6 self-propelled gun.

A 155-mm SPG on the chassis of the M41 Walker Bulldog light tank. The M44 was withdrawn from mass production due to the development of improved SPGs of this class. According to different sources, 250-600 vehicles of this type were manufactured from 1953 through 1954.

– M12

The M12 is an American tier 7 self-propelled gun.

The M12 was developed by the Rock Island Arsenal on the chassis of the M3 Lee and mounted the 155mm M1 “Long Tom” gun. A total of 100 vehicles were manufactured. American soldiers dubbed the vehicle King Kong. The M12 fought well in battles on the Siegfried Line.

It is not all that different from the M41. The 155 mm Gun M1A1 does have a slightly higher rate of fire than the other tier 6 SPGs and has decent accuracy as well. As is par for the American SPGs it has a slow hull traverse speed, but a respectable top speed and acceleration.

– M40/M43

The M40/M43 is an American tier 8 self-propelled gun.

The M40 became the most powerful Allied SPG of WWII. The M40 fought in the battle for Cologne in 1945. Both the M40 and M43 were used during the Korean War.

The M40/M43 SPG was built on a widened and lengthened M4A3 medium tank chassis. The vehicle is designated as the M40 Gun Motor Carriage in a version that mounts the 155mm M1A1 “Long Tom” gun. The version that mounts the 8-inch (203mm) Howitzer is designated the M43 Howitzer Motor Carriage.

- M53/55

The M53/M55 is an American tier 9 self-propelled gun.

SPG on a modified chassis of the M47 medium tank. The prototype was produced in 1952, and in 1956 the SPG entered service in two variants: the M55 for the Army and the M53 for the Marines. A total of 30 vehicles of both types were manufactured.

- T92

The T92 is an American tier 10 self-propelled gun.

Development of the T92 started at the beginning of 1945. The vehicle was to share many components with the M26. A prototype underwent trials at Aberdeen Proving Ground, but the T92 never entered mass production.

The T92 is the hardest hitting artillery vehicle in the game, armed with a massive 240mm Howitzer. The damage and splash from this gun is enormous and can cripple any tank it hits, but you don’t need to actually hit your target with the amount of splash radius that this gun has. If HE manages to penetrate your target it will most likely be knocked out or very heavily damaged. Armor Piercing rounds are discouraged with this tank as the gun is very inaccurate, but if you manage to land one, it has the ability to one shot tier IX tanks and some Tier X tanks. It also has no gun depression whatsoever, which makes self-defense very hard. It retains the speed and maneuverability of the M40/M43 which can come in handy in some situations, especially relocation. The T92’s main gun currently has the single highest damage output in the game.

2.1.2 Kínai tankok

Nehéz tankok

- IS-2

The IS-2 is a Chinese tier 7 heavy tank.

Soviet IS-2 tanks were exported to China in the early 1950s and were used during the Korean War from 1950 through 1953. According to American reconnaissance data, at least four Chinese tank companies deployed in Korea had the IS-2 tanks, with five tanks in each company. The IS-2 tank was in service until the late

1950s. The production was discontinued due to a shortage of spare parts and the launch of the Type 59 project. A few IS-2 tanks were exported to Vietnam, where they fought in the final stage of the Indochina War of 1946-1954.

The IS-2 is a similar tank to its Soviet counterpart, the IS. The upgraded IS is basically the same model as the IS-2, so both tanks have a very similar play style.

– 110

The 110 is a Chinese tier 8 heavy tank.

From the mid-1940s to the 1950s, Soviet engineers attempted to modernize the IS-2 tank. The IS-2U variant, developed in November 1944, was conceived to have a reinforced frontal hull with a plate configuration resembling that of the IS-3. In the mid-1950s the design project was passed to China and became the basis of further Chinese tank development.

The 110 is basically a similar tank to its predecessor, the IS-2. However, it is much better armored. Its front armor, is very similar to the “pike nose” on the IS-3, giving it much better ricochet capabilities. Notable weaknesses include its long and vulnerable side armor, rather large and relatively thinly armored lower frontal plate.

– WZ-111 model 1-4

The WZ-111 model 1-4 is a Chinese tier 9 heavy tank.

Prototype of a heavy tank developed in the early 1960s. The 111 project was developed on the basis of the Soviet IS-3 and T-10 tanks. In 1964 development was discontinued in favor of new types of medium tanks.

– 113

The 113 is a Chinese tier 10 heavy tank.

Development on model 113 was started in 1963. The vehicle was conceived as an alternative to WZ-111 and used parts and components of medium tanks. However, the project was canceled due to the development of main battle tanks.

Közepes tankok

– Type T-34

The Type T-34 is a Chinese tier 5 medium tank.

Several hundred T-34-76 tanks were exported from the U.S.S.R. to China in the early 1950s. The usefulness of these tanks was extended by Chinese-designed upgrades, including a new engine and modernized suspension.

With less research options than its Russian counterpart the T-34, it may not offer any new elements to those who have driven the Russian tank previously, but for new players or players who haven't played the T-34, the Type T-34 will offer a versatile tank with a fast & accurate gun (a copy of the ZiS-4) fit for all roles, be either flanking, sniping and even brawling. Keep in mind that your 45mm armor, despite being well sloped, can still be penetrated often, so you should make up with maneuverability for fast paced tactics instead of a static role, especially when facing artillery fire.

- Type 58

The Type 58 is a Chinese tier 6 medium tank.

In the early 1950s the U.S.S.R exported a total of 1,800 T-34-76 and T-34-85 tanks to China. In 1954 the Chinese government made a decision to begin domestic production of the T-34-85 in 1958, with the new vehicle designated the Type 58. However, production was never initiated, and the Chinese army settled for modifications to the T-34s.

- T-34-1

The T-34-1 is a Chinese tier 7 medium tank.

In 1954 the Chinese government considered the possibility of launching production of the T-34-85 in China. At the same time, Chinese engineers proposed an alternative project: the T-34-1. While based on the T-34-85, the T-34-1's transmission compartment and suspension were to be rearranged, reducing overall weight and giving a lower hull. In 1954, several designs of the vehicle, with varying turrets and armament, were developed. However, a prototype was never built.

- T-34-2

The T-34-2 is a Chinese tier 8 medium tank.

The T-34-2 was not an upgraded modification of the Soviet T-34 tank, but was a totally different vehicle. Chinese engineers conceived the T-34-2 as an analog of the Soviet T-54. Later the U.S.S.R. passed the technology of T-54 production to China, and the T-34-2 project was discontinued.

The T-35-2 is often compared to the Type 59 as it has a similar design, speed, turret, and can even equip the same gun. However, once fully upgraded and equipped with the 122 mm, the playstyle of the T-34-2 is radically different than that of the Type 59. Unlike the Type, the T-34-2 has virtually no hull armor. It's prone to ammo rack damage, fires, getting killed due to a lack of gun depression, and missing shots with the 122 mm, and thus can be very unpleasant for players

that aren't familiar with it. However in the right hands, the T-34-2 can be an unexpected and extremely dangerous threat. The 122 mm can hit a tank for as much as 488 damage; the T-34-2 is literally an IS crossed with a medium, it has the same gun as the IS and the whopping firepower of an IS-3. Most players never expect the T-34-2 to possess such firepower and frequently underestimate it at the fatal cost of a third of their tank.

– WZ-120

The WZ-120 is a Chinese tier 9 medium tank.

Initially, the Type 59 tank was a copy of the Soviet medium T-54A tank. In later modifications the tank was upgraded. The Type 59 entered service in 1959. Between 6000 and 9500 vehicles of all variants were manufactured from 1958 through 1987.

The WZ-120 is very similar to its Soviet counterpart, the T-54 and it plays like the T-54 or the Type 59. While the WZ-120 may be similar to the T-54, but the T-54 has better hull armor. Final gun of WZ-120 has second best damage and penetration of tier IX medium tanks.

– 121

The 121 is a Chinese tier 10 medium tank.

Development began in 1962 on a new medium tank based on the Type 59. The new tank was expected to feature improvements in firepower and armor protection. However, the project was canceled shortly after. Some technical innovations were applied later, in the development of the Type 69 tank. All 121 tank prototypes were destroyed during Chinese nuclear weapon testing.

The 121 is a similar tank to its predecessor, the WZ-120, but with a major difference: its gun. It can mount a copy of the top gun mounted on the IS-4. With this gun, it has serious damage for a tier 10 medium tank and penetration to match it. However, this heavy weapon makes its acceleration and maneuverability less than stellar even for a medium tank. Still, this tank is very dangerous, due to its gun that's more appropriate on a tier X heavy tank.

Könnyű tankok

– Renault NC-31

The Renault NC-31 is a Chinese tier 1 light tank.

The Renault NC-31 is an upgraded and improved French version of the Renault FT. A total of 15 vehicles of this type were exported to China.

The Renault NC-31 is faster and more maneuverable than the Renault FT, while still having excellent weapons for its tier, such as an automatic 13.2mm machine gun or a 37mm gun, capable of hurting every tank that it sees, with the trade off of having a slightly longer aim time and not so great accuracy. It's a solid starter tank for new Chinese tree players.

- Vickers Mk. E Type B

The Vickers Mk. E Type B is a Chinese tier 2 light tank.

Developed in 1928 by J. V. Carden and V. Loyd. The tank never entered service in Great Britain. However, it was exported to other countries, including China. In 1937, twenty vehicles of this type fought against Japanese troops at Shanghai. Soviet Vickers-based T-26 tanks were also exported to China, and 82 vehicles of that type were deployed in South China and Burma in 1941-1942.

An imported Vickers tank from the British, the Mk. E has worse handling than its tier 2 counterparts of other nations, but it can equip excellent guns. It may be difficult to appreciate due the poor accuracy, yet the Vickers is deadly at close ranges where its gun can easily penetrate any tank it gets to face and cause destruction faster than the rest. When upgraded to the second turret, it technically becomes a T-26.

- Type 2597 Chi-Ha

The Type 2597 Chi-Ha is a Chinese tier 3 light tank.

The Type-97 Chi-Ha was developed by Japan from 1935 and as many as 2,880 vehicles were mass-produced by Mitsubishi and Hitachi through 1943. The Chi-Ha was the primary medium tank deployed by the Imperial Japanese Army from its July 1937 invasion of China through all of its Asia and Pacific campaigns until its surrender in August 1945. At the end of WWII, surviving Chi-Ha tanks in China, Indonesia, Thailand, and the Korean peninsula were seized and redeployed in local service. The Chi-Ha again saw action, between 1946 and 1950, with both PLA and Kuomintang forces in China's Civil War.

- M5A1 Stuart

The M5A1 Stuart is a Chinese tier 4 light tank.

The first tanks of the M5 series were produced in April 1942, and a new modification, the M5A1, was preferred over other variants. After the M24 Chaffee was developed, the M5A1 tanks were deemed obsolete and were exported to other countries, including China. A total of 100 tanks of this type were supplied to the Kuomintang. During the Civil War (1946-1949), many of these vehicles were captured by the PLA.

With handling and speed just like the American M5 Stuart, the only real difference is the gun this tank can equip. Instead of the 75mm howitzer, this tank gets a fast firing 47mm gun (the same one as on the Type 2597 Chi-Ha) with enhanced reload and aim time. The M5A1 is the first pure scout role on the Chinese tree, and due to that it gets high matchmaker placement, still, the M5A1 is capable of damaging most enemies from the sides or filling a scout role, be it spotting from hidden areas or by going deep into enemy lines, making it an excellent artillery hunter & info relay for your allies.

– 59-16

The 59-16 is a Chinese tier 6 light tank.

In 1957 a new light tank project was initiated by the Chinese government. Development of vehicle was completed in 1959. The new tank, weighing 16 tons, was equipped with a four-wheel torsion-bar suspension and a rear placement of the drive wheel, and mounted a 57mm gun (later upgraded to 76mm).

This tank weighs very little, and has weak armor to match, although its front is angled. Unfortunately, both its stock view range and speed are subpar for a light tank. This tank can mount an autoloader, although it has low penetration in exchange for more damage.

– WZ-131

The WZ-131 is a Chinese tier 7 light tank.

Development was started in 1957. The vehicle was a lightweight version of the Type 59 tank and was designed to fight in the mountainous and boggy terrain of South China. The first prototype was built in 1962. Later the vehicle underwent modernization.

The WZ-131 is a light tank, but should be played more like a medium tank. It has decent hull armor for a light tank, but its armor is still weak. The WZ-131 has a very similar play style to its successor.

– WZ-132

The WZ-132 is a Chinese tier 8 light tank.

The order for the WZ-132 tank was placed in 1964. The design was based on the WZ-131, but with the goal of enhancing firepower and armor protection. A few prototypes were built before the project was canceled in the late 1960s. All prototypes were destroyed during Chinese nuclear weapon testing.

Simply said, the WZ-132 has a very similar play style to its predecessor, the WZ-131. The differences are better firepower and speed, but still should be played more like a medium.

2.2 Német tankok

2.2.1 Nehéz tankok

- Pz.Kpfw. VI Tiger

The Pz.Kpfw. VI Tiger is a German tier 7 heavy tank.

Development of the Tiger I was started in 1937 by the Henschel company. Mass production began in 1942, with an eventual total of 1354 vehicles manufactured. The tank first saw combat in the fighting for Leningrad, and Tigers were at the forefront of battles from Tunisia to Kursk. Although production was discontinued in the summer of 1944, the Tiger I continued to see action until the end of the war.

This was the first German heavy tank in WWII and proved itself to be extremely formidable against the Allied forces, composed primarily of M4 Shermans and T-34s. In the game you'll face much higher tier opponents. This tank was designed as a sniper. Keep that in mind and make use of its great rate of fire and renowned German-engineered accuracy. Spot your enemy, avoid close combat, hit your target, relocate, and hit them again. Snipe the enemy and support your team.

- Pz.Kpfw. Tiger II

The Pz.Kpfw. Tiger II is a German tier 8 heavy tank.

Also known as the King or Royal Tiger. Produced from January 1944 through March 1945, with a total of 489 vehicles built.

One of the most feared tanks in the Second World War, it operates average in stock configuration. With proper positioning it is capable of bouncing shells off its sturdy sloped front armor, provided that you hide your lower front plate at all times as it is only 100mm thick, and sports a workable level of mobility. The Tiger II or the "Bengal Tiger" (in German "Königstiger"), more commonly known to the Allies as the "King Tiger", is an excellent sniper, with superior accuracy and great rate of fire.

- E-75

The E-75 is a German tier 9 heavy tank.

In 1945 the E-75 was conceived as a standard heavy tank of the Panzerwaffe to replace the Tiger II. It existed only in blueprints.

The first heavy tank in the Entwicklung series. It has very thick sloped armor, rivaling that of the ST-I, but with one great advantage; it doesn't have the frontal

viewport weakspot. Stock it is armed with the inadequate 8.8 cm KwK 43 L/71, but can also use the 10.5 cm KwK 46 L/68 from the Tiger II so make sure to research it before using the E-75, unless you want a terrible grind. Eventually, you will have access to the very powerful 12.8 cm KwK 44 L/55 that packs a sizable punch up close or afar. The E-75 can be used for multiple roles due to its immense armor and great weaponry. Of the tier 9 and 10 heavies the E-75 is one of the slowest, with only the Maus having a slower top end speed. The E-75 has sluggish turret and hull traverse speed, making it difficult to move around. While the E-75 is one of the easier tanks to flank, it is still harder to damage once flanked thanks to its relatively thick side armor. Traversing your hull along with your turret helps you keep up with enemies better if they get too close.

– E-100

The E-100 is a German tier 10 heavy tank.

In June 1943 the Adlerwerke company received an order for development of the E-100. However, in 1944 development of heavy tanks was discontinued. By the end of the war only the chassis was completed, which was later captured by the British Army.

The last tank of the Entwicklung series, the E-100 is more mobile than the Maus, but is less armored. It can also mount 15cm KwK 44 L/38 gun which gives the E-100 more alpha damage while having less penetration and a longer reload.

2.2.2 Közepes tankok

– Pz.Kpfw. III

The Pz.Kpfw. III is a German tier 4 medium tank.

Used the classic chassis starting with the Ausführung E. Produced from December 1938 to February 1943, a total of 4,958 tanks and 321 command vehicles were manufactured.

Despite being a medium tank, it can be considered one of the best scouts in the German tree, rivaling the Luchs. The Pz.Kpfw. III has slightly more maneuverability than the Luchs, potentially more firepower, thicker (but unsloped) armor, and gets placed in more matches against lower tier tanks. Of the guns the Pz.Kpfw. III has to choose from, the howitzer-like 7.5 cm KwK 37 L/24 will provide relatively high HE alpha damage and the 5 cm KwK 39 L/60 is a more accurate gun with higher penetration for better damage per minute. Both guns have their place on a fully upgraded Pz.Kpfw. III, it depends on player preference and playstyle. Its agility makes it very effective against other light and medium tanks, but its guns are almost useless against heavy tanks.

– Pz.Kpfw. IV

The Pz.Kpfw. IV is a German tier 5 medium tank.

Produced in greater numbers than any other tank of the Panzerwaffe. Manufactured from October 1937 through March 1945, with a total production of 8,519 tanks plus command vehicles. Beginning in May 1942 this tank was equipped with a long-barreled gun.

While not as fast as the Pz.Kpfw. III or the Pz.Kpfw. III/IV, the Pz.kpfw. IV is about as mobile as the M4 Sherman, as well as a better hp/weight ratio, and can use both the accurate 7,5 cm KwK 40 L/48 gun and the popular, hard hitting 10,5 cm KwK L/28 howitzer.

An interesting fact about this tank, the pre version 8.0 PZ IV (with the Schmalturn and L/70) was one of the very first tanks modeled in the game, along with the Tiger, T-34, and others.

– Pz.Kpfw. V Panther

The Pz.Kpfw. V Panther is a German tier 7 medium tank.

This famous tank was produced from January 1943 through April 1945, with a total of 5,796 vehicles built plus eight vehicles built on the F series chassis.

Upon reaching the Panther, you will quickly find that you must change your play style from a close-in brawler to a specialized sniper. At stock, the Panther is armed with the 7.5 cm KwK 42 L/70 which, although a bit low on damage, has sufficient penetration and accuracy for its tier. Its lack of firepower, added to the weak hull sides, make this tank an easy victim in firefights. Once the Panther is fully upgraded and sporting the long, accurate 7.5 cm KwK 45 L/100, it's best to use it as a sniping tank. While it has a low damage totals, and a fairly slow rate of fire for a 75mm gun, it can penetrate virtually all lower tier tanks from any range, as well as higher tier opponents with well aimed shots. The Panther shines as an excellent mobile-sniper, but should never see frontline combat, unless you like seeing your tank in flames.

– Panther II

The Panther II is a German tier 8 medium tank.

The vehicle was conceived in 1943. Two prototypes with the existing Panther I turrets were ordered in 1944. By 1945 only one of them had been built by the MAN company.

A step-up in the world from the Pz.Kpfw. V Panther, it is best to understand you are still in the same role. While being more powerful and maneuverable than the

Pz.Kpfw. V Panther, a M26 Pershing will definitely beat you in a close-quarters fight. Knowing this, it is best to take advantage of your long-range accuracy and stay just behind, or alongside, your team's heavies to avoid close-quarters combat. The Panther II has a higher profile than its counterparts, the M26 Pershing and the T-44, which means you are easier to spot, so position yourself on the battlefield very carefully. The Panther II is like a Pz.Kpfw. VI Tiger but one Tier higher and more mobile.

- E-50 Ausf. M

The E-50 Ausf. M is a German tier 10 medium tank.

The German Army demanded that the E-series tanks had transmissions positioned in the rear portion of the hull. However, the E-50 and E-75 tanks used the Tiger II engine-transmission compartment, which made rear placement of the transmission impossible. The E-50 Ausf. M tank was a redesign of the E-50 project with a rear placement of the transmission.

2.2.3 Könnyű tankok

- Leichttraktor

The Leichttraktor is a German tier 1 light tank.

Produced from 1930 to 1934. Four prototypes with different armament, crew, weight, and suspension features were manufactured.

The first German tank available to the player, the Leichttraktor starts with an underpowered 50hp engine and the 3.7 cm KwK 36 L/46.5, although this can be quickly upgraded. Adequate armor and performance characteristics make it a very good starting tank. The tank is nicknamed “LoLTraktor” and is the basis of a fan-made comic series.

- Pz.Kpfw. 35 (t)

The Pz.Kpfw. 35 (t) is a German tier 2 light tank.

Produced from 1935 through 1938 in Czechoslovakia. A total of 202 of these vehicles were appropriated by the Wehrmacht in 1938 and were used for three years.

In the game, the tank is one of the two light tank choices available to the player after the Leichttraktor. Unlike the Pz.Kpfw. II, this tank has the option of using either a cannon or an auto-cannon.

- Pz.Kpfw. III Ausf. A

The Pz.Kpfw. III Ausf. A is a German tier 3 light tank.

Produced in 1937, with a total of 10 vehicles manufactured. The project was canceled due to its weak suspension and inadequate armor.

- VK 16.02 Leopard

The VK 16.02 Leopard is a German tier 5 light tank.

Developed from March through October 1942. The plans were to launch mass production in April 1943, but the project was canceled before the first prototype was built.

The VK 16.02 Leopard is less maneuverable than the Pz.Kpfw. II Luchs, but it has more than twice as much effective armor, a top turret that works well for circling and a much longer signal range. Due to the unusually thick frontal armour and heavy weight, the Leopard can bounce a surprising number of shots and can also be used to ram other tanks and especially arty if there's not enough time to shoot them apart. In update 0.8.4, this tank, along with the Pz.Kpfw. II Luchs and the VK 28.01, has been moved up a tier and has been rebalanced. Due to the small turret size, it has better gun depression on the sides than the front and rear, meaning you should position the tank at an angle when on slopes.

2.2.4 Páncélvadászok

- Panzerjäger I

The Panzerjäger I is a German tier 2 tank destroyer.

From March 1940 through February 1941, a total of 202 PzKpfw I were converted into tank destroyers, the Panzerjäger I. This vehicle remained in service until the end of 1941.

It has low engine power, making it slow and unwieldy, although it has two powerful cannons: the 5 cm PaK 39 L/60, which packs a hard punch and has excellent penetration for its tier, and the lighter, faster firing and aiming 4.7cm L/43. Its low weight helps it rotate more quickly for faster target acquisition. Overall, this tank destroyer can be a fun learning curve as you adapt to the differences between a TD and a tank.

- Hetzer

The Hetzer is a German tier 4 tank destroyer.

A light, low-profile tank destroyer designed according to General Heinz Guderian's specifications. The Hetzer was produced from April 1944 to May 1945, with a total of 2,584 vehicles manufactured.

It is a very different tank from its predecessor, the Marder II. Initially, its poor speed and restricted arc of fire seem to be a downgrade from the long-range firepower of the Marder II; a point that provokes a lot of mixed opinions from players. It takes some time, and a few upgrades, to unlock some of the Hetzer's true potential and allow its excellent sloped armor, low profile, and powerful guns to come to the fore.

– StuG III

The StuG III is a German tier 5 tank destroyer.

Originally designed as an assault vehicle, this self-propelled gun was converted into a tank destroyer beginning with the F series. A total of 9,265 vehicles of this series and 1,211 of the StuH 42 were produced.

It is exceptionally maneuverable, being based on the Pz.Kpfw. III chassis, and can reach its top speed very quickly. While its stock cannon is powerful against equal-tier opponents, it is rendered useless against anything past tier 6. However, once upgraded with the 7.5 cm StuK 42 L/70, the StuG III can deal significant damage to higher-tier vehicles. It is easy to fall into the trap of thinking you're a medium tank with the StuG III's rapid acceleration and high maneuverability, but you will soon learn that you can not take hits like a medium tank. In fact, the StuG can easily die even to tier 3 opponents if they find a way to attack its sides. Even so, experienced players will enjoy running the "StuG life" in this powerful sniper.

– Jagdpanther

The Jagdpanther is a German tier 7 tank destroyer.

This tank destroyer was based on the Panther chassis. It was produced from January 1944 through March 1945, with a total of 392 vehicles manufactured.

The Jagdpanther, along with most lower tier German tank destroyers, boasts an accurate gun, high mobility, and decent armor. It has similar speed and the same armor of the Panther, and, with the hitting power of the 10,5cm Pak 45 L/52, is able to pose a threat to all tanks.

– Ferdinand

The Ferdinand is a German tier 8 tank destroyer.

Developed on the chassis of the failed Porsche Tiger, with a total of 90 vehicles produced in April and May 1943. They first saw combat in the Battle of Kursk (Operation Citadel).

Widely known in real life as “Elefant”, it is a slow but powerful Tank destroyer, reasonably well-protected for its class, the Ferdinand can be an intimidating opponent and can utilize its armor to engage enemies more closely than most tank destroyers. The Ferdinand’s mantlet is extremely strong, but not invincible, and the rather big target silhouette means that you will have a lot harder time hiding than in the Jagdpanther. However, upgraded with the 12.8 cm PaK 44 L/55, you pack quite a lot more punch than the Jagdpanther, and will be able to terrorize tanks and support pretty much every tier heavy tanks from distant positions. The Ferdinand should not be taken lightly as an opponent.

Many players compare this tank with its twin, the Jagdpanther II as it carries the same guns and has (almost) the same reload time, but the Ferdinand puts emphasis on its better armor allowing it to bounce hits more often, while being slower than the Jagdpanther II, it makes up with the very good gun traverse and gun depression, requiring to move very little when readjusting the aim against an enemy.

- Jagdtiger

The Jagdtiger is a German tier 9 tank destroyer.

Developed from the fall of 1943 through the spring of 1944. Mass-produced from July 1944 until the end of the war, with a total of almost 80 vehicles manufactured. They fought primarily on the Western Front.

The undisputed “King” of German tank destroyers before the 7.5 update, and by some still considered to be better than the Jagdpanzer E-100, the Jagdtiger offers thick frontal armor and a selection two heavy guns capable of dealing massive damage to any target. Due to its high weight, it is slow and unwieldy. It has a propensity to catch on fire and despite the thick gun mantlet the gun is also quite prone to being knocked out. If de-tracked, or attacked from the rear or sides, it will die easily and quickly . Do not approach this tank from the front even if you have a gun with sufficient penetration; it will probably be the last thing you see before becoming a smoking wreck. This tank destroyer is best played with one or two mediums acting in support role, defending its sides and rear. It has large weak spots, as with most German tanks, on the lower glacis plate. There are several places with guaranteed penetration, but those are yours to find. Either way, drive or attack this tank destroyer with caution.

2.2.5 Tüzérségi útegek

- Sturmpanzer I Bison

The Sturmpanzer I Bison is a German tier 3 self-propelled gun.

This SPG was equipped with a gun that could fire from the armored enclosure or be removed to fire from a regular gun carriage. In February 1940 a total of 38 PzKpfw I were converted to the Sturmpanzer I model.

– Grille

The Grille is a German tier 5 self-propelled gun.

Manufactured on the Pz.Kpfw. 38(t) chassis from 1943 through 1944, with several interruptions in production and a total of 282 vehicles completed.

An SPG with high damage potential, intended to hit a target hard. Many tank Companies will often seek this SPG to complement their firepower due its impressive damage output.

The Grille has weak armor, is rather sluggish, and the stock gun only has a short range, but once upgraded to the 15 cm sFH 13 L/17 gun, it gains a lot of firepower with the benefit of having an increased HE damage that can destroy or easily cripple any tank that it fires at.

Many players tend to keep the Grille in their garage even after upgrading to the Hummel, since it's often required in medium tank companies.

– Hummel

The Hummel is a German tier 6 self-propelled gun.

Produced from 1943 through 1944, with a total of more than 650 vehicles manufactured. They first saw combat in the Battle of Kursk (Operation Citadel).

Built on the Pz.Kpfw. III/IV chassis, the Hummel is a very well-rounded piece of artillery. The second gun can take down or seriously damage any heavy tank. This, combined with a good accuracy, makes it one of the best T6 SPGs. It can also be played in “tank destroyer mode” (direct fire) when needed. However, because of its height and low gun depression, going into a short range gunfight is not advisable, since you're likely to just overshoot anything in front of you.

– G.W. Panther

The G.W. Panther is a German tier 7 self-propelled gun.

Developed by the Krupp company in 1943 and 1944. A scale model of the SPG was built, but no full-size prototypes were ever produced.

It is a good artillery for its tier, with the widest (along with the M37) gun traverse arc of any artillery thanks to its limited turret rotation - making it easy to move to new targets without having to move the hull of your tank. The GW Panther starts with the Hummel's gun, but gets a more accurate and powerful gun once

researched. The GW Panther cannot excel in the role of a tank destroyer, as the Hummel did due to its size and lack of gun depression, but it can do the job in an emergency. The GW Panther is highly maneuverable for a tier 7 SPG, which allows easy relocation in the event of detection. It is nicknamed “Dracula”, due to its Dracula cape-like armor on the rear and side of its gun.

```

1  using System;
2  using System.Collections.Generic;
3  using System.Linq;
4  using System.Text;
5
6  namespace RPC_Test_Fv
7  {
8      public interface IFeladat
9      {
10         bool login(string usr, string passwd);
11         int feltolt(int money);
12         int lekerdez();
13         void utal(string toUsr, int money);
14         List<string> utalasok();
15     }
16 }
17 /*-----*/
18
19
20 using System;
21 using System.Collections.Generic;
22 using System.Linq;
23 using System.Text;
24 using RPC_Test_Fv;
25 using System.Runtime.Remoting;
26 using System.Runtime.Remoting.Channels;
27 using System.Runtime.Remoting.Channels.Tcp;
28
29 namespace RPC_Test
30 {
31     class Kliens
32     {
33
34         static void Main(string[] args)
35         {
36             IFeladat feladat = (IFeladat)Activator.GetObject(
37                 typeof(IFeladat), "tcp://localhost:8080/fel");
38
39             bool login;
40
41             do
42             {
43                 Console.Write("Felhasználónév: ");
44                 string usr = Console.ReadLine();
45                 Console.Write("Jelszó: ");
46                 string passwd = Console.ReadLine();
47
48                 login = feladat.login(usr, passwd);
49
50                 if (login == true)
51                 {
52                     Console.WriteLine("Sikeres bejelentkezés.");
53                 }
54                 else
55                 {
56                     Console.WriteLine("Sikertelen bejelentkezés.");
57                 }
58             } while (!login);

```

```

59
60     string cmd;
61     string[] ss;
62     bool vege = false;
63     int money;
64
65     while (!vege)
66     {
67         Console.Write("Mit csináljak? ");
68         cmd = Console.ReadLine();
69         ss = cmd.Split( );
70
71         try
72         {
73             switch (ss[0].ToUpper())
74             {
75                 case "FELTOLT":
76                     Console.Write("Mennyivel töltöd fel a számlád? ");
77                     money = int.Parse(Console.ReadLine());
78                     feladat.feltolt(money);
79                     Console.WriteLine();
80                     Console.WriteLine();
81                     break;
82
83                 case "LEKERDEZ":
84                     Console.Write(feladat.lekerdez() + " Ft van a számládon.");
85                     ;
86                     Console.WriteLine();
87                     Console.WriteLine();
88                     break;
89
90                 case "UTAL":
91                     Console.Write("Kinek utalsz? ");
92                     string nev = Console.ReadLine();
93                     Console.Write("Mennyit? ");
94                     money = int.Parse(Console.ReadLine());
95                     feladat.utal(nev, money);
96                     Console.WriteLine();
97                     Console.WriteLine();
98                     break;
99
100                 case "UTALASLEKERDEZ":
101                     List<string> l = feladat.utalasok();
102
103                     foreach (string x in l)
104                     {
105                         Console.WriteLine(x);
106                     }
107                     Console.WriteLine();
108                     break;
109
110                 case "HELP":
111                     Console.ForegroundColor = ConsoleColor.Green;
112                     Console.WriteLine("FELTOLT: ennyi pénzt adsz hozzá a számládhoz");
113                     Console.WriteLine("LEKERDEZ: ennyi pénz van a számládon");
114                     Console.WriteLine("UTAL: ennyi pénzt utalsz át egy másik számlára");

```



```

114         Console.WriteLine("UTALASLEKERDEZ: nekik utaltál át " + "
115             x " + " összeget");
116         Console.WriteLine("HELP");
117         Console.ForegroundColor = ConsoleColor.White;
118         Console.WriteLine();
119         break;
120     case "BYE":
121         vege = true;
122         break;
123
124     default:
125         break;
126     }
127 }
128 catch (Exception ex)
129 {
130     Console.WriteLine(ex);
131 }
132 }
133 }
134 }
135 }
136 /*-----*/
137
138
139 using System;
140 using System.Collections.Generic;
141 using System.Linq;
142 using System.Text;
143 using RPC_Test_Fv;
144 using System.Runtime.Remoting;
145 using System.Runtime.Remoting.Channels;
146 using System.Runtime.Remoting.Channels.Tcp;
147
148 namespace RPC_Test_Szerver
149 {
150     class Szerver : MarshalByRefObject, RPC_Test_Fv.IFeladat
151     {
152         int osszeg;
153         List<string> usrList = new List<string>() { "Máté,1234,500000", "Tamás
154             ,123,600000" };
155         List<string> atutalasokList = new List<string>();
156         string most;
157         string[] ss;
158
159         public bool login(string nev, string jelszo)
160         {
161             foreach (string felhasznalok in usrList)
162             {
163                 ss = felhasznalok.Split( , );
164                 if (ss[0] == nev && ss[1] == jelszo)
165                 {
166                     most = ss[0];
167                     osszeg = Convert.ToInt32(ss[2]);
168                     return true;
169                 }
170             }
171             return false;

```

```

171     }
172
173     public int feltolt(int money)
174     {
175         osszeg += money;
176         return osszeg;
177     }
178
179     public int lekerdez()
180     {
181         return osszeg;
182     }
183
184     public void utal(string neki, int money)
185     {
186         osszeg -= money;
187         atutalasokList.Add(most + " " + neki + " " + money);
188     }
189
190     public List<string> utalasok()
191     {
192         List<string> atutalasok = new List<string>();
193
194         foreach (string usrs in atutalasokList)
195         {
196             ss = usrs.Split(' ');
197             if (ss[0] == most)
198             {
199                 atutalasok.Add(usrs);
200             }
201         }
202
203         return atutalasok;
204     }
205
206     static void Main(string[] args)
207     {
208         Szerver client = new Szerver();
209         TcpChannel chan = new TcpChannel(8080);
210         ChannelServices.RegisterChannel(chan, false);
211         RemotingConfiguration.RegisterWellKnownServiceType(
212             typeof(Szerver), "fel", WellKnownObjectMode.Singleton);
213         Console.WriteLine("A szerver elindult.");
214         Console.ReadLine();
215     }
216 }
217

```

Irodalomjegyzék

- [1] KOVÁCS JÁNOS: Páncélosok , Líceum Kiadó, Eger, 2005.