

Overall historical view.

Spanish tank development was never too strong. In our timeframe, Spain was an unstable country, with multiple changes of government and various rebellions, uprisings and general disorder; stricken by poverty and a pale shadow of its former Empire. At the same time, there was an ongoing war with the Moroccans. Due to this war, those new "Armored vehicles" were very valuable, but as Spain's enemies didn't have any, there was no great pressure in acquiring cutting-edge AFV tech: any tank is an advantage when the enemy has none.

At this stage, in the 20s and the first half of the 30s, the Spanish Army operated FT-17s, Schindler CA-1s, and the first homegrown tank: The Trubia A4, a direct upgrade from the antiquated FT-17.

This all changed with the start of the Spanish Civil War. The expansionist powers in Europe saw it as a perfect testing ground for their mechanized armies, and sent great quantities of planes and AFVs. Italy and Germany supported the insurgents with the lackluster CV-33 and the adequate Pz. I A/B, along with 75 mm and 88 mm guns-the famous Flak88, which was used against tanks for the first time in Spain. On the other side, the URSS sent the capable T-26 and the superb BT-5 to the like-minded 2nd Spanish Republic, paid with the gold of the old Empire. The nationalist side was forced to conduct extensive field upgrades on the new vehicles; both the CV-33 and the Pz I were armed with the 20mm Breda guns, and a bounty was put on the T26s and BT-5 for their capture. On the Republican side, the northern industrial districts supplemented the soviet tank with the definitive version of the Trubia tank: the Trubia/Naval, the most well armored tank of the war. Some other developments took place, such as the CCI 1937 and the Barbastro Tank, but they were deemed not good enough for mass-production.

After the War, the dictatorship remained somewhat aligned with the Axis powers, and saw Spain's dire need of new AFV tech. Twenty Pz.IV H and ten Stug III G were bought from Germany, but they were not enough for the Army and its legions of decaying T-26 and Pz I. Because of this started the development of new indigenous Spanish tanks: the Verdeja series. Designed by Felix Verdeja, veteran artillery captain from the Civil War, they were intended to replace the aging T-26 and compared very favorably against it. They used parts from the T-26 and Pz. I when possible and comprised of two light tanks (I and II), one medium tank (III, blueprints only) and TD and SPG versions of the Verdeja I. Could have gone somewhere and were worthy machines, but the poor economic situation put them in permanent halt.

Then there was no new material, until the U.S.A had to discard its old equipment and Spain's dictatorship had become more aligned with the American government (Spain was a great base of operations for the US naval and air forces in the Cold War). The Army received first some M24 Chafee light tanks and M-47-48 Patton medium tanks, and later M41 Bulldog light tanks, all in large enough quantities to phase out the old tanks from the 30's and 40's. The Bulldog was especially well received as it was perfect for the African operations, and was subjected to interesting modifications, such as the M41E that gave it better turret and gun handling, along with a new diesel engine, and the M41/60 prototype, that armed the M41E with the amazing High Velocity 60 mm OTO gun. All Pattons were also upgraded to the "E" versions, and would be the backbone of Spain's armored forces till the coming of the AMX-30 and the M60 (Both

would go through similar modernization programs until the advent of the “Lince” project and the actual Leopard 2)

In World of Tanks:

We're talking about two branches of the EU tree which would go to Tier VII without too much hassle and the minimum copycats possible, and a glaring empty space in tier VIII. The regular tanks would be a mix of Lights and Mediums, being the lights punchy and the mediums agile. The spot at tier VIII is almost impossible to fill, as tanks are either too old or too modern and only the British-built FV-101 would be adequate powerwise, but the Tier IX could be filled with the Spanish modification of the M47 ("M47E2"). Tier X houses two interesting options, with the “Leox” and the “El Niño”, akin to the Leopard 1 style.

Highlights: Verdeja 1, M41/60

There is also room for a mini-branch of slower, well armored tanks up to tier IV and then linking with the Verdeja 3 of the main line at Tier V.

Highlight: Trubia mod. 36

The TD line is akin to the Waffenträger line in character: nimble, open vehicles with great viewrange and guns, that will explode if looked upon too hard. The TD line has a clear Tier X candidate but nothing at tiers VIII and IX, and it will need some serious investigation on obscure modifications, like the mentions I've read of a TD based on the M47, but it needs of someone with more contacts in the Army and lots of research time.

Highlights: Verdeja 75AT, M56 Scorpion.

On SPGs, there was only one homegrown example, the Verdeja 75/40, but it is not nearly enough to fill a whole branch as the others are American SPGs starting from the M37 and it would have no interest whatsoever. Could be a Premium tank, if nothing else.

On the vehicles specifications:

I've written this document as a way to get a general, condensed view of tank development in Spain, and because of that I'll not delve into the specific characteristic of most of the tanks, making mentions only here and there on the most outstanding features. I will only detail more closely the Verdeja tanks, as I feel they are the heart of the Spanish Tank branch.

Guns in Spain (AT&Howitzer)

Schindler CA-1 75mm howitzer

Nordenfelt 57 mm gun

Oerlikon de 20mm

Rheinmetall de 37/45 modelo 1933

45L/46 mm mod. 1932

45 mm L/44 Mark I modelo 1939

Breda de 47/32 mod. 35

Breda 20mm

Bofors de 37/45 mm

SA18 37 mm

Hotchkiss Puteuax de 25/72 mm S.A.I. mod. 1937

Placencia 60/45, 60/50

75/22 de montaña 1942

Cañón de infantería Ramirez Arellano 40mm [14 mm of penetration at 2k meters]

75/40 mm (Not AT) "de Tiro Rápido"(Fast Firing)

75/40 mm AT

88Flak 18

88L56

88Flak36

Pak 40 75/46

Schneider 70/16

Schneider 75/28

Schneider 105/11

Schneider 122/46

60 mm Odero-Terni-Orlando HVM gun. Could have an autoloading, 3 round burst version.

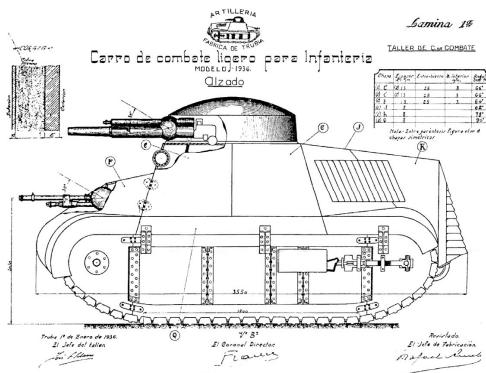
Spanish Civil War Era Tanks

Trubia serie A4(Tier I Light Tank)A 1926 vehicle, with decent armor for its tier, good 40 mm Arellano gun, capable of 32 kph, crewed by three. Used the German “Orion” suspension system.



Landesa(Alternate Tier I Light Tank)More of an armored tractor converted by Captain Landesa, with machineguns and no turret, but was enough to be useful in the Asturias Uprising. Very weak.

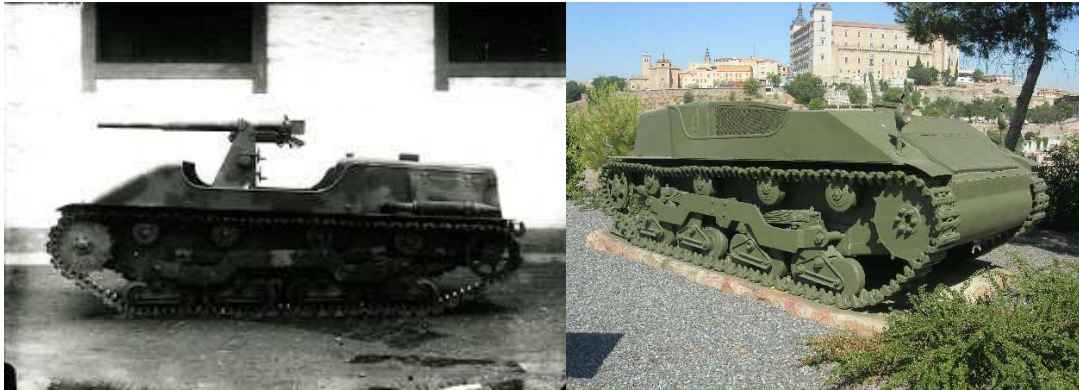
Trubia mod. 36/Naval(Tier II Light Tank)Amazing multilayered frontal armor- featuring 13mm of steel + 36mm of softer "entrehierro" layer + another 8mm of steel, between 12 and 35 built. Suspension was terrible, so the tank would be godawful at uneven surfaces, but was armed with a variety of guns: 7.7 water-cooled machineguns, the 40mm Arellano and the 45 mm Russian designed AT gun. Called “Tanque de Juguete”(Toy Tank) in the War due to its size.



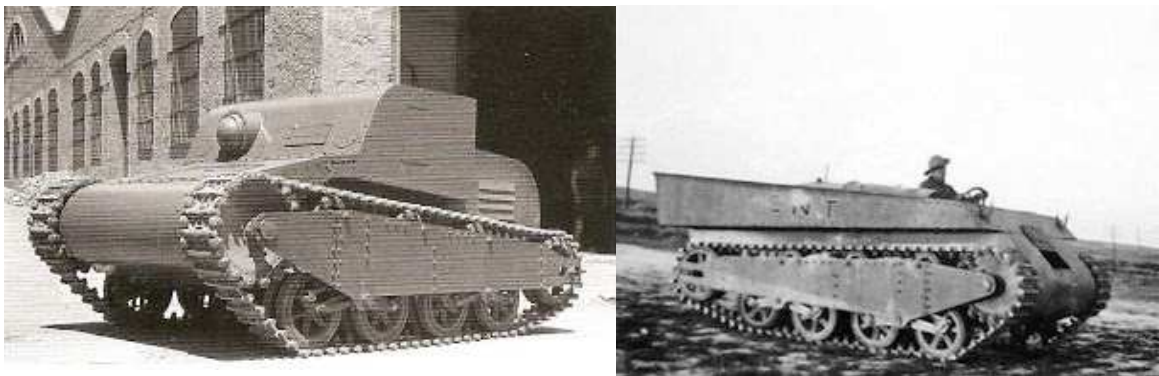
Carro de Combate de Infantería 1937(Tier II Light Tank) Minimal armor, vulnerable to small arms fire on its flat side. Good parameters in everything else, armed with a 20mm Breda. Pretty agile and speedy. One vehicle, suspension taken from an Italian prototype.



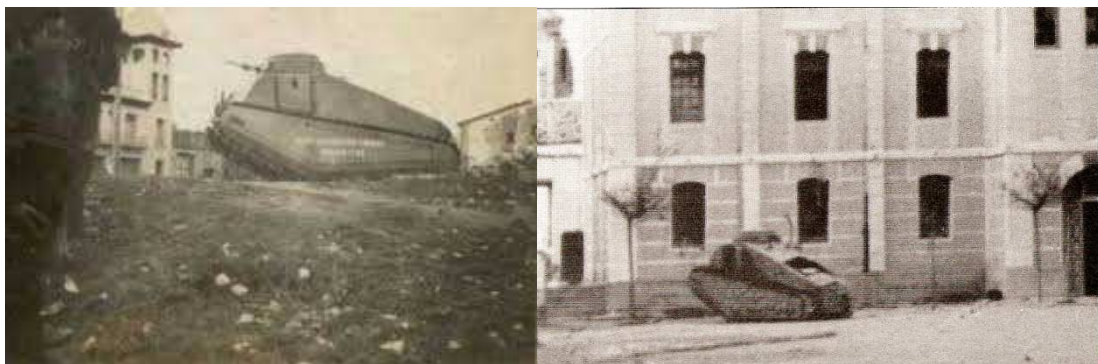
CCI 1937 Antitanque(Tier III TD)It is a T82-lite, agile and with a gun akin to the 2 pounder, the mayor difference is that the gun could be moved in 360°. One vehicle built from the Carro de Combate de Infantería hull, survives in the Museo de Infantería de Toledo as a towed gun carrier



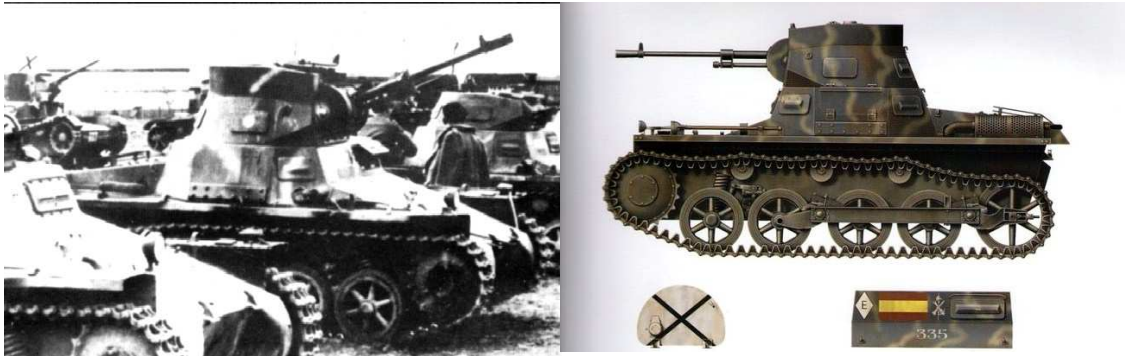
IGC Sadurní(Tier II TD)A homegrown turretless vehicle that used machineguns due to cost but was designed with cannons in mind; the struggles of the war made cannons rare and were not mounted on these machines. Could carry anything from 1936-39 and looks quite a bit like the Russian AT-2. There was also an artillery tractor version. Unknown quantity.



Barbastro Tank (Tier II Premium medium/heavy tank) This is a fun one. It is basically a tier II Tog in character, a bulky, awkward vehicle with a decent gun that people will comment on. It is an obvious premium if there is one Spanish Premium tank. There were two vehicles; the first one used a Breda 20mm and its evolution only machineguns. All-around armored with 13mm of steel good enough to stop all small arms fire.

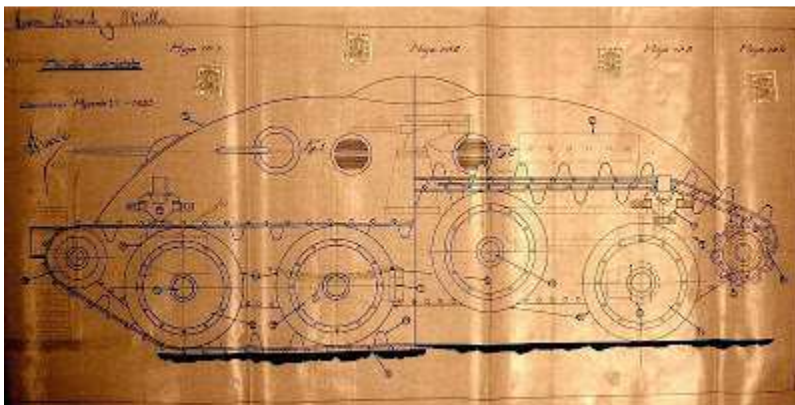


"Negrillo" modified Panzer I Ausf. A Breda (Tier II Light tank) Mostly ingame already, consisting of a regular Panzer I Ausf. A with added height on the turret that enabled it to mount the 20mm Breda italian gun, although it really is a Spanish tank, as Germany didn't like the variant at all and managed to paralyze this widespread modification. It had a big weakspot at the turret front, from where even rifle rounds could pass through and was thought as dangerous.



RT-1(Tier II Light Tank) A republican clone of the soviet T-26, no further information.

Benach M1935(Tier III Premium Light Tank) A really weird development based on the Christie suspension that looks like the lovechild of the AMX40 and the E-25, this one was built for speed as most of Christie's derivations. Only the suspension and general shape was designed, so the rest would be a labor of speculation and "what if". A fun piece of work, if nothing else.



PostWar homegrown developments.

Verdeja I (Tier III Light tank) A light tank designed just as the Civil War ended; this one was built around the concept of having a national tank that could improve over the T-26 in every way. Notable are its 75° gun elevation and the really low profile, along with Verdeja's track designed fitted with siderails for the wheels, so it would be much harder for the track to go off the wheel. Better suited for tier III due to it surpassing the T-26 in every way, as it was trialed against it to see if it really was a worthy replacement; nevertheless the prototype used the same 45 mm gun as the T-26 which was getting a bit obsolete for the times, and although the design team intention was of mounting bigger guns (especially, 75mm short-barreled ones), that wasn't done due to the halt of the project due to economic difficulties. In any case, there was a decent pool of howitzers in Spain after 1945 and it would be a matter of picking one or two of them along with another antitank lower caliber gun.

Specifications

Length 4,498 m

Width 2,152 m

Height 1,572 m

Weight: 6,5 t

Crew: 3

Armor: 7–25 mm

Primary weapon: 45 mm L/44 Mark I model 1939

Secondary weapons: 2 Dreyse machineguns 7.92 mm MG-13

Engine: Ford V-8, 85 h.p.; later upgraded to the Ford Lincoln-Zephyr of 120 h.p.

Hp/Ton: 13,08 CV/ton

Max speed: 44 km/h

Operating range: 220 km



Verdeja II(Tier IV Light tank)Further evolution of the Verdeja 1 tank, improving upon it in almost every way possible. Its armor was thickened to uniform 40 mm at the front, the chassis was a bit bigger and heavier, with a more powerful engine to compensate. Its maximum top speed improved a bit, but the most noticeable change is moving the turret to the front and the engine block to the back. The tank was built upon learning from the WW2; shows German influence in the turret shape and Russian influence in the shape of the hull. There was the clear intention of mounting 75 mm howitzers and bigger guns than the old 45 mm from the T-26, although it was mounted on the prototype due to availability. One hundred units were ordered but the poor state of the economy made it impossible. Was revisited in 1950 as there was no substitute for the decaying T-26, although shortly after Spain received American vehicles and the Verdeja was mothballed. The prototype survives in the Museo de Infantería de Toledo(*Toledo's Infantry Museum*).

Specifications

Crew: 4

Weight: 10,9 Tons.

Armor: 19 - 40 mm

Measurements: 5,12 x 2,26 x 2,74 m

Engine: Ford Lincoln V-12, gasoline, air-cooled and 110 Hp(Upgraded later to more beefy engines)

Tracks and suspension: *As in model I*

Max speed: 46 km/h

Operating range: 220 km

Weaponry: *As model I*

Carried ammo: 136 shells and 4.000 machinegun cartridges.

Guns:

45 mm 1932

75mm howitzer(Montaña 22 1942?)

60mm Placencia L45



Verdeja III(Tier V Medium tank)Existing only in blueprints, unknown location nowadays, it is a project of 1942-43 based on the idea of a heavier version of the Verdeja , rumored to having been more heavily Russian influenced than the Verdeja nº 2, as it was designed after the jump to fame of the T-34. Mr. Verdeja abandoned the idea after seeing that the model 2 wouldn't be produced due to economic troubles, defeated. This tank would need of someone in the Army to search for the blueprints, otherwise it would be an extrapolation from the Verdeja II.

Due to the turrets Mr. Verdeja designed, it is unlikely to have more than a 75 mm gun despite great availability of 88 mm guns in Spain. Also, it would be overkill on a Tier V Medium Tank

Speculated specifications.

Crew: 4

Weight: Around 20-25 Tons.

Armor: 65 to 15 mm (60-70 at the front with a moderate slope, 40 at the side, flat, 15 at the rear)

Measurements: 6 x 2,4 x 3 m

Engine: Need to investigate available engines (Ford engines tends to be the chosen for Verdejas)

Max speed: 40 km/h

Operating range: 220 km

Tracks and suspension: *As in models I and II*

Guns:

75mm howitzer (Montaña 22 1942?)

75/40 AT

Pak 40 75/46

60mm Placencia L45

60mm Placencia L50

105mm howitzer

Verdeja 75 AT(Tier IV TD)The “cazacarros”(TD) version of the Verdeja I, using the 75/40 AT gun, and with the possibility of a longer 75mm, due to one photo taken during one of the trials where it didn't mount the 75/40 but something else. Some people debate it is a 105 mm gun, in my personal opinion it is just a longer 75mm as a 105 non-howitzer gun is just too big for the vehicle. 105mm Verdeja could be a Tier VI premium, nothing else.



"Carro de Combate 15t"(Tier III Medium Tank) -50 mm gun, 50 mm of armor, Duck Slow with 100 h.p., drawn in the Army's Magazine of 1944, supposed to have similar armor layout to the Russian T-34, no further specifications. I imagine it alike to the BT-SV in looks, but sluggish and better armed)

"Carro de Combate 20t"(Tier IV Medium Tank) -75 mm gun, 50 mm of armor, drawn in the Army's Magazine of 1944, supposed to be similar to the Russian T-34, no further specifications. I imagine some sort of T-34 with worse weaponry and bad mobility-a pocket heavy tank)

Foreign tanks and modifications until M60

Panzer IV Ausf. H(Tier V Medium Tank)No ongoing modifications; rumors are there was some talk and intentions about upgunning the Panzer IV(Even more) after the 2nd WW but nothing clear came of that, 20 vehicles. A nice tank for linking with other branches.



StuG III TD Modifications

Stug III Ausf. G(Tier IV TD)This is the version armed with the same gun as the PzIV Ausf. H; the 75 mm L/48; ten were received from Germany and some of them went to become the "Batería de Asalto" prototypes I'll detail shortly.



Batería de Asalto 88L56(Tier V TD) An upgunning of the Stug Ausf G that discarded the closed superstructure for an open one and housed three different guns in its prototypes. One mounted the ubiquitous 88L56 we all know, produced in the Trubia factories. The others were more focused as Assault Guns("Batería de Asalto") and went for shorter barreled 105 and 122 mm guns. As the hull became open-topped, it would be more vulnerable than the regular StuG, and it is likely to have a bigger profile due to the gun shield. Could carry the 88Flak18 as another gun option, and the German 75mm as stock. Only one vehicle was modified

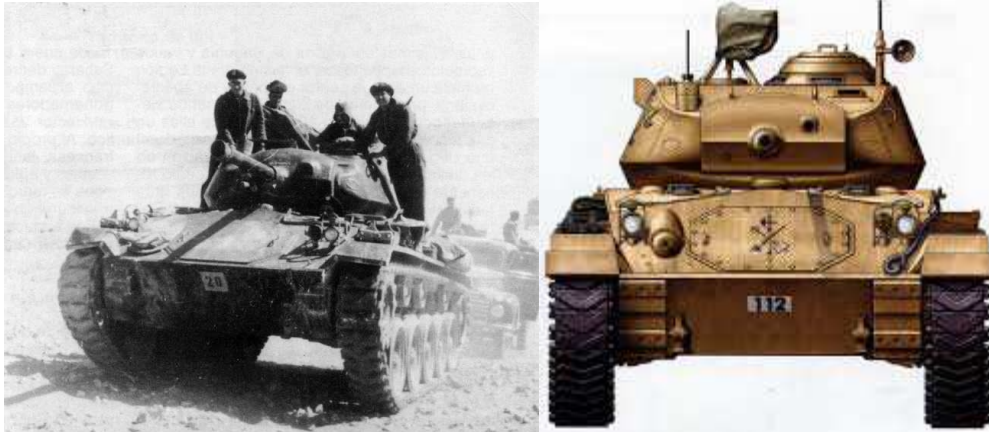
Batería de Asalto 122L46 | 105L26(Tier VI TD)Already mentioned in its 88L56 version, this iteration of the Batería de Asalto concept mounted artillery-level weaponry of much bigger caliber. The 122L46 gun could be pretty beefy, enough for tier VI coupled with mobility and low profile. 105L26 as stock gun. One vehicle was modified for the 105 and another for the 122 gun.

M-56 Scorpion(Tier VII TD)An extremely nimble and fast vehicle, with great gun depression and traverse, no armor at all and bad aiming time or reload time, as the vehicle suffered because of recoil from its 90 mm gun. The Spanish Navy found that the recoil from the gun, coupled with the light chassis made the M-56 go back up to five meters after shooting.

There were also 76 mm version which were more well-rounded, if a bit underpowered for its time.



M24 Chafee(Tier V Light Tank) Could work as common ground with Sudamerican nations(the Chilean variant being especially powerful and fit for Tier VI), not enough meat to be alone in the Spanish branch as it received no further modifications. Saw service in Sahara and was a well liked vehicle by Spanish tankers.



M41 Modifications

About the modifications: Those are projects from the seventies and even from 1982, but as they were upgrades of a Korean War era chassis and Spain was still playing catch-up in technology I think they could have a place in the game

-M41E(Tier VI Light Tank) Uses the 76 mm gun and enjoys enhanced mobility over the regular M41. It received a new diesel engine of 450 h.p., diverse more modern equipment on the turret, such new rangefinders, and a driving camera useful for better control of the tank.



-M41/60(Tier VII Light Tank) This tank encompasses all the modifications from the M41E and adds a very interesting 60 mm High Velocity OTO gun of Israeli manufacture along with skirts, engine upgrades, an automated fire extinguishing system and a computer-aided aiming system(that one obviously out of WoT techframe) . The gun was designed with anti-armor capabilities in mind, instead of the more usual infantry support tied to bigger calibers and high explosive shells, although it also had ammunition of that type and could be used as infantry support in a pinch. Only the prototype existed.



FV-101 Scorpion(Tier VIII Light Tank) A vehicle produced in 1972-which means that I've got my doubts that it will fit WoT timeframe-designed as an amphibious tank, capable of 80 km/h while carrying a selection of 30 mm, 76 mm or 90 mm guns, and lightened by the use of aluminum armor, it would be a perfect tank power-wise for the tier VIII gap.



M47 Modifications

About the modifications: As with the M41, those are projects from the seventies and even from 1982, but as they were upgrades of a Korean War era chassis and Spain was still playing catch-up in technology I think they could have a place in the game

-M47E1/E2(Tier IX Medium)The first update(E1) to the trusty M47 removed the hull machinegun, swapped the gasoline engine for a diesel one(AVDS-1790-2A), changed the suspension(CD-850-6A) and added a set of improved optics for all crewmen; the second update(E2) upgraded the 90 mm gun to the Rheinmetall 105 mm or the M68 105 mm and added further improved optics for nighttime combat.

As an addendum, the M47 E1 version would be the only tank barely capable of filling the Tier VIII gap in the tree, using the 90mm as its top gun. But it would only be a half-assed solution, as the M26 is at the same tier and the M46 is one tier higher (!)



M48 Modifications

-M48A5E1/E2(Tier X Medium) Received the same modifications the M47 had; same diesel engine, same suspension, L7 derivative 105 mm gun, and improved optics both for normal and low-light situations. Fully upgraded both tanks were functionally the same.

M-series Modifications

Obús SB 155/39 ATP-(Tier IX- X TD/SPG) A 38 tons project on the hull of the M47 or M48, it carried a 155/39 howitzer in a fully rotating turret at high speeds, being its top 80 km/h, thanks to its 912 h.p. engine. Armor was reduced just so it was enough to “withstand 20 mm gunshots”, but it never entered production. It was a late project, bordering the 80's, that tech-wise could fit the game.

The more similar vehicle in World of Tanks would be the T30, if you shaved most of its armor off and made it a rocket sled.



AMX30 Modifications

-**AMX30E** (Tier X Medium) The first mass-produced tank in Spain since the Trubia, the AMX30E took the French design as it was at first in 1970, but soon the EM1 and EM2 versions had to be designed and produced: the transmission was subpar and the engine was also nothing to write home about, and were replaced by the German ZF LSG-3000 transmission and the MTU 833 Ka-501 engine.

The main concerns with this one is that it is too new, and that is silly to put an upgraded version of another Tier X due to wonky balance.



-Prototipo 001 "**El Niño**"(Tier X Medium) A very interesting piece of equipment with one prototype built by Talbot; it is an AMX-30 with its faulty transmission and engine replaced with those of a M47/48. In order to make room for this the tank had to be prolonged thirty centimeters on the engine deck. Later the USA-based company Teledyne would base its AMX-30 upgrade on "El Niño". The prototype is available to the public in the Museum of El Goloso, Madrid.



-**"LEOX" Prototype**[Tier X Medium)Supposed to be some sort of hybrid between the Leopard 1 and the AMX30, where the Leopard hull gets an AMX30 turret, which was the most faultless part of that tank. Same concerns as with the AMX30E. One vehicle, there is only the hull left, and it was used as a training vehicle for drivers.



Sources:

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WoT EU Forum Spanish tree discussion thread-user “Martillo”