



SPAIN

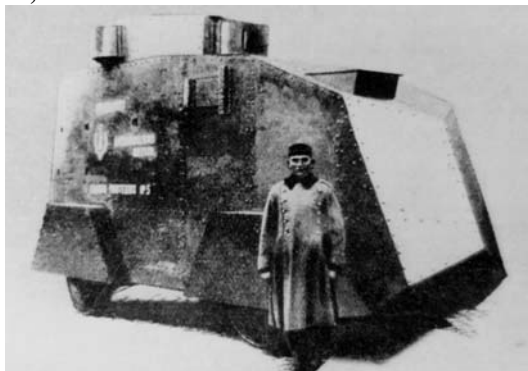


Background: Spain's powerful world empire of the 16th and 17th centuries ultimately yielded command of the seas to England. Subsequent failure to embrace the mercantile and industrial revolutions caused the country to fall behind Britain, France and Germany in economic and political power. Spain remained neutral in World Wars I, and II but suffered through a devastating civil war (1936-39). A peaceful transition to democracy following the death of dictator Francisco FRANCO in 1975, and rapid economic modernization (Spain joined the EU in 1986), have given Spain one of the most dynamic economies in Europe and made it a global champion of freedom. Continuing challenges include Basque Fatherland and Liberty (ETA) terrorism and relatively high unemployment.

Geography Spain. Location: Southwestern Europe, bordering the Bay of Biscay, Mediterranean Sea, North Atlantic Ocean, and Pyrenees Mountains, southwest of France. Area: total: 504,782 sq. km, note: there are 2 autonomous cities - Ceuta and Melilla - and 17 autonomous communities including the Balearic Islands and Canary Islands, and three small Spanish possessions off the coast of Morocco - Islas Chafarinas, Penon de Al-

hucemas, and Penon de Velez de la Gomera. Area - comparative: slightly more than twice the size of Oregon. Border countries: Andorra 63.7 km, France 623 km, Gibraltar 1.2 km, Portugal 1,214 km, Morocco (Ceuta) 6.3 km, Morocco (Melilla) 9.6 km. Coastline: 4,964 km. Climate: temperate; clear, hot summers in interior, more moderate and cloudy along coast; cloudy, cold winters in interior, partly cloudy and cool along coast. Terrain: large, flat to dissected plateau surrounded by rugged hills; Pyrenees in north. Natural resources: coal, lignite, iron ore, copper, lead, zinc, uranium, tungsten, mercury, pyrites, magnetite, fluorspar, gypsum, sepiolite, kaolin, potash, hydropower, arable land. Natural hazards: periodic droughts. Environment - current issues: pollution of the Mediterranean Sea from raw sewage and effluents from the offshore production of oil and gas; water quality and quantity nationwide; air pollution; deforestation; desertification. Geography - note: strategic location along approaches to Strait of Gibraltar. (CIA World Factbook 2006)

1921 Car, Armd, 4x2. Camion Protegido Latil, Series 1.



Above: Latil, Series 1 with turret. (Photo: Author's collection)

Remarks: The Latil armored car in Spanish ser-

vice used the Latil TAR tractor chassis as supplied from France along with a number of armored bodies designed and constructed in Spain. The first series ran from vehicle No 1 through No 14 and had versions of both front and rear engine designs with the last unit completed in November of 1923. After the campaign in Morocco in 1926 and 1927 most of the surviving vehicles from both the first and second series were stripped of their armor and returned to their original function of artillery tractors.

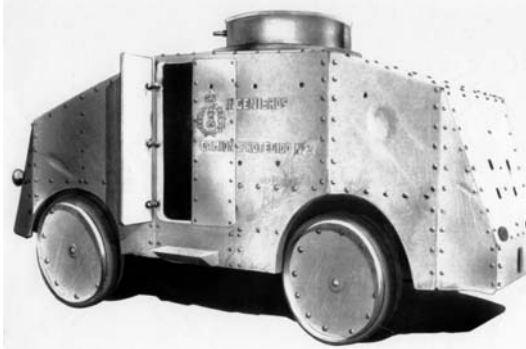
Vehicle Data: *Weight:* Loaded, 19,360 lbs. (8790 kg). *Length,* 227 in (5760 mm). *Width,* 71 in (1800 mm). *Height,* 114 in (2890 mm). *Drive,* 4x4. *Armor,* .2 in (5 mm). *Armament:* (1) 7mm Hotchkiss, Mod 1914. *Elevation & traverse manual.* *Capacity:* Fuel, 24 gals (90 liters) gasoline. *Crew/Passengers,* 2/7. *Engine:* (1) Latil 4-

cyl gasoline liquid cooled engine producing 45/50 hp. Location, rear (some front). *Transmission:* Manual with 5-fwd and 1-rev gear. *Suspension System:* Coil spring. Wheels steerable, front pair. No of wheels, 4. *Performance:* Speed/Land, 15.5 mph (25 km/h). Range, 53 mi (85 km). Step, 10 in (250 mm). *Usage:* Only used by the Spanish Army, most had been converted back to artillery tractors by the late 1920s. *Manufacturer:* Maestranzas del Ejército.

1921 Car, Armd, 4x2. Camion Protegido Nash-Quad Mod 1921

1921 Car, Armd, 4x2. Romeo.

1924 Car, Armd, 4x2. Camion Protegido Latil, Series 2.



Above: Latil, Series 2. (Drawing: Javier de Mazarrasa)

Remarks: The Latil armored car (Series 2) in Spanish service used the Latil TAR tractor chassis as supplied from France along with armored bodies designed and constructed in Spain. The first series ran from vehicle No. 1 through No. 14. The second series started construction in 1924 and included vehicles No. 28 through 22, and the No. 23 through 31 in 1925. After the campaign in Morocco in 1926 and 1927 most of the surviving vehicles were stripped of their armor and returned to their original function of artillery tractors.

Vehicle Data: Length (est), 227 in (5760 mm). Width (est), 71 in (1800 mm). Height (est), 114 in (2890 mm). Drive, 4x4. Armor, .2 in (5 mm). NBC Protection, individual. *Armament:* (1) LMG with manual traverse and elevation. *Capacity:* Fuel, gasoline. Crew/Passengers, 2/7. *Engine:* (1) 4-cyl Latil gasoline engine producing approximately 80 hp. Location, rear (some front). Cooling, liquid. *Transmission:* Manual with 4-fwd and 1-rev gear. *Suspension System:* Type, coil spring. Wheels Steerable, front pair. No of wheels, 4. *Performance:* Step, 10 in (250 mm). *Usage:* Only used by the Spanish Army,

not a particularly successful design. *Manufacturer:* Maestranzas del Ejército.

1932 Car, Armd, 4x2. Autometralodara Bilbao.

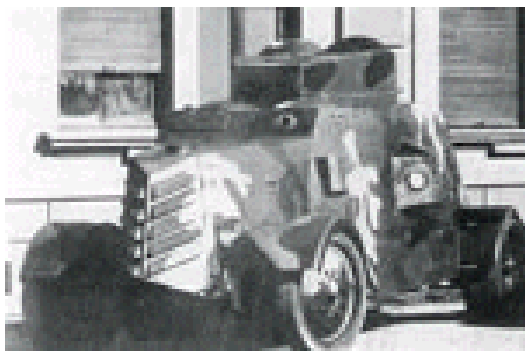


Above: Bilbao armored cars during the Spanish Civil War. (Photo: Author's collection)

Remarks: Number conflict, but between 30 and 50 cars were completed between 1932 and 1936. Based on a 1930 Dodge 4x2 truck chassis, the design was completed by engineers at the railway department of SECN in Bilbao, Spain. The actual body was attached to an iron frame, which had been welded to the frame. Armor was of .12 in (3mm) and the body included two doors (one on each side of the body) along with seven armored windows, (two in the front, four on the sides and one at the rear).

Physical Data: Weight loaded, 10,573 lbs (4800 kg). Length, 214 in (5440 mm). Width, 81.5 in (2070 mm). Height, 102 in (2600 mm). Ground Clearance, 8 in (210 mm). Wheel Base, 135 in (3430 mm). Wheel Tread (front), 59 in (1500 mm) and (rear) 62 in (1570 mm). Drive, 4x2. Armor, .12 in (3 mm). *Armament:* (1) Hotchkiss Mod 24, 7mm MMG. Elevation & traverse, manual. Fire Control, optical. Aux wpns, crew sidearms. *Capacity:* Fuel, gasoline. Crew 4-5. *Engine:* (1) Dodge, 6-cylinder, water-cooled gasoline engine producing 63 hp (47 kW). Location, front. *Transmission:* Manual with 4-fwd and 2-rev gears. Mfr, Chrysler. *Suspension System:* Leaf spring. Wheels Steerable, front pair. No of wheels, 4 (duals at the rear). Tire Size, 6x32. *Performance:* Speed, 31 mph (50 km/h). *Usage:* Originally used by the Spanish state security units (Guardia de Asaltos) and the Spanish Army (Grupo de auto ametaladoras - canon). During the Spanish Civil War both sides used captured and even re-captured cars. *Manufacturer:* SECN, Bilbao, Spain.

1936 Car, Armd, 4x2. Carro Blindado de Combate Chevrolet Ferrol Imp.



1936 Car, Armd, 4x2. Camion Blindado 4x2. No 1 (Diamond T)

1936 Car, Armd, 4x2. Camion Blindado 4x2. No 2

1936 Car, Armd, 4x2. Camion Blindado 4x2. No 3

1936 Car, Armd, 4x2. Camion Blindado 4x2. No 7

1936 Car, Armd, 4x2. Camion Blindado 4x2. Vizcaya

1936 Car, Armd, 4x2. Camion Blindado 4x2. Vulcano

1936 Car, Armd, 4x2. Carro Blindado de Combate (Imp)

1936, Car, Armd, 4x2. Camion Blindado Durante

1936 Car, Armd, 6x6. BA-3.



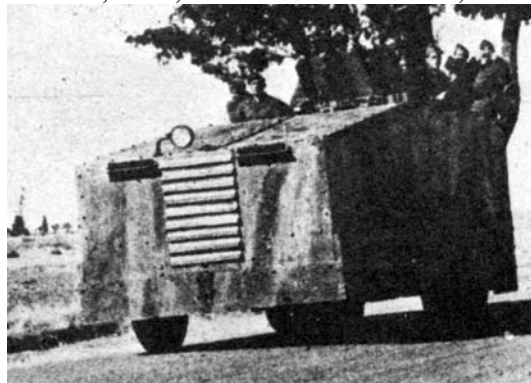
Above: One of three BA-3 armored cars delivered to Spain. (Photo: Author's collection)

Remarks: One of three BA-3 6x6 Armored Cars supplied from Russia to the Spanish Loyalist forces (see Russia for vehicle details).

1936 Car, Armored, 6x6. BA-6.

Remarks: Russia supplied three BA-3 and 37 BA-6 armored cars to Loyalist forces in Spain (see Russia for vehicle details).

1937 Car, Armd, 4x2. Camion Blindado 4x2, No 9.



(Photo: Author's collection)

Remarks: A one-off improvised armored car used by Republican forces during the Spanish Civil War. Besides personnel, the vehicle could also be used as a mortar carrier.

Vehicle Data: *Weight:* Loaded, 8,800 lbs (3995 kgs). *Length,* 180 in (4570 mm). *Width,* 85.5 in (2170 mm). *Height,* 83.5 in (2120 mm). *Ground Clearance,* 13.8 in (350 mm). *Wheel Base,* 118 in (2990 mm). *Drive,* 4x2. *Armor,* .5 in (12 mm). *Armament:* (1) 81mm Mortar, Elevation, manual. Traverse, manual 120°. *Fire Control,* optical. *Capacity:* Fuel, gasoline. Crew/Passengers, 2/10. *Engine:* (1) Thames-Fordson 8-cyl water-cooled gasoline engine producing 85 hp. *Location,* front. *Transmission:* Type, manual. *Speeds Fwd/Rev,* 4/1. *Suspension System:* Leaf spring. *Wheels Steerable,* front pair. *No of wheels,* 4. *Usage:* Used by Republican Forces during Spanish Civil War. *Manufacturer:* Improved vehicle based on a British Fordson Thames truck chassis.

1937 Car, Armd, 4x2. Camion Blindado 4x2, No 10.



Above: Camion Blindado No. 10. (Drawing: Javier de Mazarrasa)

Remarks: One of over a dozen improvised armored cars/trucks produced by Republican forces during the Spanish Civil War, researchers have generally accepted a numbering system of vehicles that were photographed and could later be identified with a location and date. The above vehicle is generally known as Camion Blindado

4x2 No. 10. The vehicle was evidently built in Barcelona.

Vehicle Data: *Weight:* Loaded, 5,066 lbs (2300 kg). *Length (est),* 221in (5624 mm). *Width (est),* 96 in (2432 mm). *Height (est),* 114 in (2888 mm). *Wheel Base,* 146 in (3724 mm). *Wheel Tread,* 63 in (1596 mm). *Drive,* 4x2. *Armor (est),* .3 in (8 mm). *Armament:* (1) Hotchkiss 8mm LMG. *Elevation & traverse,* manual. *Capacity:* Fuel, gasoline. *Ammo/Qty,* 8 mm (3-5,000 rds). *Crew/Passengers,* 2/7. *Engine:* (1) liquid cooled gasoline. *Location,* front. *Transmission:* Type, manual. *Suspension System:* Type, leaf spring. *Wheels Steerable,* front pair. *No of wheels,* 4 with duals at rear. *Performance:* *Step,* 10 in (250 mm). *Usage:* Only vehicle of this type was completed. *Manufacturer:* Republican forces, Barcelona, Spain.

1937 Car, Armd, 4x2. Camion Blindado 4x2. No 11

1937 Car, Armd, 4x2. Camion Blindado 4x2. No 13

1937 Car, Armd, 4x2. Camion Blindado 4x2, No 14.



Above: Camion Blindado No 14, one of at least two versions of this design. (Photo: Author's collection)

Remarks: At least two of these improvised armored cars were completed for Republican forces circa 1937/38.

Vehicle Data: *Weight:* Loaded, 6,800 lbs (3087 kg). *Length,* 268 in (6800 mm). *Width,* 88.5 in (2250 mm). *Height,* 84.5 (2150 mm). *Wheel Base,* 164.5 in (4180 mm). *Armor,* .3-.5 in (8-12 mm). *NBC Protection,* n/a. *Armament:* (1) 8mm Hotchkiss HMG. *Elevation,* -10 to +25°. *Traverse,* manual 360°. *Capacity:* Fuel, gasoline. *Ammo/Qty,* 8 mm (5,000 rds). *Crew/Passengers,* 3/8. *Engine:* (1) front mounted Renault, 4-cyl, 65 hp liquid cooled gasoline. *Transmission:* Type, manual. *Speeds Fwd/Rev,* 4/1. *Suspension System:* Type, Leaf spring. *Wheels Steerable,* front pair. *No of wheels,* 4 (duals at rear). *Night Vision Devices:* n/a. *Performance:* *Speed/Land,* 38.5 mph (62 km/h). *Step,* 11.8 in (300 mm). *Usage:*

Used by Republican forces during Spanish Civil War. *Manufacturer:* Local construction.

1937 Car, Armd, 4x2. Camion Blindado 4x2. No 4

1937 Car, Armd, 4x2. Camion Blindado 4x2. No 8 (Modified)

1937 Car, Armd, 4x2. Camion Blindado, CNT-FAI

1937 Car, Armd, 4x2. Trk, Armd, Imp, 4x2

1937 Car, Armd, 4x2. Trk, Armd, Imp, 4x2. CNT

1937 Car, Armd, 4x2. Trk, Armd, Imp, 4x2. CNT-UGT

1937 Car, Armd, 4x2. Trk, Armd, Imp, 4x2. FAI-CNT

1937 Car, Armd, 6x4, Chevrolet Mod 1937



Above: Automilladora Chevrolet. This was a Spanish copy of the Russian BA-3 but on a Chevrolet chassis.

1955 Truck, Utility, 1/4-ton, 4x4, M38A1



Above: Spanish Army M38A1 during a parade in 1967. (Photo: Author's Collection)

Remarks: (see US for vehicle details).

1960 Truck, Utility, 1/4-Ton, 4x4, w/106mm RR, M38A1C.



Above: Spanish Marines during a parade in 1970. (Photo: Author's collection).

Remarks: (see US for vehicle details).

1976 Carr, Pers, Armd, 6x6. BMR-600.

20 vehicles were supplied to Peru.

1978 Veh, Recce, Pegaso VEC 3562 (6x6)

1980 Veh, Recce, BMU-2

1982 Carr, Pers, Armd, 4x4. BLR.

2001 Carr, Pers, Armd, 6x6. BMR-2.



Above: Upgraded BMR-2. (Photo: General Dynamics Santa Barbara Sistemas)

Remarks: In an effort to modernize the BMR-600 fleet, Santa Barbara Sistemas (SBS) was able to extend the useful life span of the series by at least 10 years. This upgrade included a 4th echelon overhaul. The vehicles received a new, smaller, engine with more horsepower output, installed a new wiring harness with quick disconnect sockets, new fuel feed and lines, new

brake system, additional steel armor plating, automatic fire detection/suppression system, new heating and air conditioning as well as a centralized vehicle NBC system for the crew.

Vehicle Data: *Weight:* Loaded, 33,921 lbs (15,400 kg). *Drive,* 6x6. *Armor,* Welded aluminum. *NBC Protection,* over-pressure. *Armament:* (1) .50 cal (12.7mm) HMG or other weapons as required. *Elevation,* manual. *Traverse,* manual. *Capacity:* Fuel, diesel 102 gals (385 liters). *Crew/Passengers,* 2/8. *Engine:* Scania, turbo-charged, 6-cyl diesel. *Location,* right front. *Cooling,* liquid. *Suspension System:* Type, independent coil with hydrostatic adjustment. *Wheels* Steerable, front and rear pairs. *No of wheels,* 6. *General Data:* Intercom, yes. *Night Vision Devices,* yes. *Performance:* Speed/Land, 59 mph (95 km/h). Range 622 mi (1000 km). *Fording Depth,* amphibious. *Usage:* Initial rebuilds and upgrades were for the Spanish Army. *Manufacturer:* General Dynamics Santa Barbara Sistemas, Spain.

2001 Car, Armd, 8x8. Centauro 105mm.

Italy delivered 14 Centauro tank destroyers to Spain in 2001 (see Italy for vehicle details).

2003 Carr, Pers, Armd, 8x8. Piranha III.



Above: Spanish Marine Piranha III. (Photo: Juan Lazaro)

Remarks: Spain purchased 18 vehicles for their Marines in 2003 of which two were delivered that year with the rest following (see Switzerland for vehicle details). Photo at left was taken in 2006.