## ARCHIVED REPORT

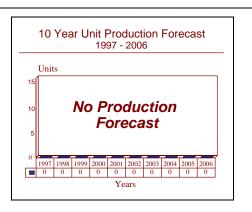
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# AMX 30 - Archived 1/97

#### **Outlook**

- Out of production but still in service in several nations
- Several modernization and retrofit programs in various stages of implementation
- This tank will be increasingly traded on the international market



#### **Orientation**

Description. A tank.

Sponsor. The development and domestic procurement of the AMX 30 was sponsored by the French Ministry of Defense, Délégation Générale pour l'Armement through the Direction des Armements Terrestres and the Direction Centrale du Matériel de l'Armee de Terre (French Army).

Contractors. This tank was developed by the Direction Technique des Armements Terrestres, Saint Cloud, France. The further development, marketing and serial production were last headed by Giat Industries/Mobilite Division, headquartered in Versailles, France. Compagnie Industrielle des Lasers, Engines Matra, Fives-Cail Babcock, Renault Vehicles Industriels, SOMA Minerva, Telecommunications Radioelectroniques et Telephoniques, and the then Thomson-CSF were the main subcontractors.

Licensee. Santa Barbara SA of Spain has a license to manufacture the AMX 30; this is presently dormant.

Status. As of early 1997, the production of the AMX 30 tank has been dormant and the tank is no longer marketed but the line remains available for new orders; the tank is in service in France and many other nations.

Total Produced. As of January 1, 1997, a total of 2,311 AMX 30 tanks had been manufactured by all sources.

Application. A tank for the projection of power as well as defensive operations. In terms of numbers, the AMX 30 is the primary offensive weapon of the French army with the emphasis on firepower, mobility, and protection, in that order.

Price Range. The latest production model, the AMX 30B2, had a unit price of \$2.4746 million in equivalent 1992 United States dollars. The AMX 30 not yet been traded on the open market.



#### **Technical Data**

Crew. Four: commander, gunner, loader, driver.

Armor. Conventional with a maximum thickness of 8.8 centimeters on the mantlet.

Dimensions. The following data includes the B2 version in parentheses.

	SI units	US units
Length	9.48 meters	31.10 feet
Width	3.1 meters	10.17 feet
Height	2.86 meters	9.38 feet

 Combat weight
 36 tonnes (37 tonnes)
 39.68 tons (40.79 tons)

 Fuel capacity
 970 (900) liters
 257.97 (239.36) gallons

Performance. The maximum speed and range figures are on a metalled road.

Maximum speed	65 kilometers per hour	40.36 miles per hour
Maximum range	550 (445) kilometers	341.55 (276.35) statute miles
Step	93 centimeters	3.05 feet
Trench	2.9 meters	9.51 feet
Slope	30%	30%
Gradient	60%	60%
Fording (with kit)	4.0 meters	13.12 feet

Engine. The engine used in this tank is a Hispano-Suiza HS110 12-cylinder, multifuel, liquid-cooled diesel manufactured by Renault Vehicles Industriels. This engine is rated at 536.9 kilowatts (720 horsepower) at 43.34 revolutions per second (2,600 revolutions per minute). The power-to-weight ratio for the AMX 30 is 14.92 kilowatts per tonne (18.15 horsepower per ton). For the B2 version, the engine is the HS110-2 rated at 521.99 kilowatts (700 horsepower) at 43.34 revolutions per second (2,600 revolutions per minute). The power-to-weight ratio is 14.11 kilowatts per tonne (17.16 horsepower per ton). The capacity of the cooling system is 100 liters (26.6 gallons). A 24 volt, 10.5 kilowatt generator is fitted along with eight 95 ampere-hour batteries.

Gearbox. The B2 version of the AMX 30 employs either the SOMA Minerva ENC 200 manually operated gearbox with five forward and five reverse gear ratios, or the 5 SD with five forward and five reverse gear ratios. A multidisc SESM Gravina centrifugal clutch is fitted, and hydrostatic steering is used.

Suspension and Running Gear. A torsion-bar-type suspension is used on this tank. Five dual tired roadwheels are fitted with the first, second, fourth, and fifth roadwheels mounted on bogies. The first and fifth roadwheels are fitted with shock dampers. Five return rollers support the inside of the track only.

Armament. The main armament of the AMX 30 is the Giat Industries model CN 105 F1 semiautomatic cannon of 105 millimeters caliber. This rifled cannon has an effective range of 3,000 meters. A total of 47 rounds can

be carried with 19 in the turret. Ammunition types are Armor Piercing Fin Stabilized Discarding Sabot, High Explosive, High Explosive Anti-Tank, White Phosphorous Smoke, High Explosive Armor Piercing and Illumination. The .56-caliber cannon has a maximum muzzle velocity with Armor Piercing Fin Stabilized Discarding Sabot ammunition of 1,525 meters per second (5,003.27 feet per second); the maximum firing rate is eight rounds per minute. A thermal sleeve and compressed-air fume extractor system are fitted. Secondary armament consists of a 20 millimeter F2 (M693) cannon for ground and air defense with 480 rounds available, and a 7.62 millimeter NF1 machine gun in a cupola mount with 2,070 rounds. Four eight-centimeter smoke grenade launchers are fitted and 14 hand grenades can be stowed internally.

Fire Control. The COTAC (COnduite de Tir Automatique pour Citar) fire control system, also designated APX M581, consists of a Compagnie Industrielle des Lasers ALCATEL APX M550 neodymium yttriumaluminum garnet laser rangefinder integrated with the gunner's APX M544 telescopic x10 sight; the COTAC M401 ballistic computer supplied by Giat Industries; the M496 commander's periscope supplied by Engins Matra; the OB31/49 night sight provided by Telecommunications Radioelectroniques et Telephoniques; and the DIVT 13B low-light-level electro-optic nightviewing sight with two monitors at the gunner's and commander's position, supplied by Thomson-CSF. The commander's TOP 7 cupola is equipped with a SOPELEM Type M591-02 prism head; it is fitted with either the OB-49 monocular telescope or the M267 day

sight. The commander is also provided with a M208 optical telescope/rangefinder. A Fives-Cail Babcock PH-9-A infrared/white searchlight is mounted with the commander's 7.62 millimeter machine gun to the right of the prism head. SOPELEM also provides the

coaxially mounted PH-8B infrared/white searchlight. The driver is equipped with three periscopes, the center one of which can be replaced with an infrared TH 9478 unit from Thomson-CSF, or an OB-16A image intensification type from SOPELEM.

## Variants/Upgrades

Variants. The available variants of the AMX 30 include the AMX 30D armored recovery vehicle, AMX 30 Engin Blinde de Genie combat engineer tractor, the AMX 30MDR flail tank, the AMX 30 bridgelayer and the AMX 30 driver training tank. Also, the AMX 30 chassis is the vehicular basis of some of the Roland, and all of the Pluton and Shahine surface-to-air missile systems. It is also the basis of the AMX 30DCA and AMX 30 Sabre 30-millimeter anti-aircraft artillery systems.

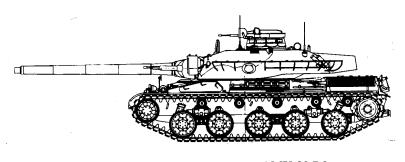
AMX 30S. This variant was designed especially for desert operations. The HS110 engine is downrated to 447.42 kilowatts (600 horsepower). The gearbox ratios are modified to limit the speed of the tank to reduce engine overheating; a modified SOPELEM M409 sight optimized for desert operation is fitted, as are sand filters and a higher-efficiency cooling system. Saudi Arabia operates the AMX 30S equivalent to AMX 30B2 fire-control standard.

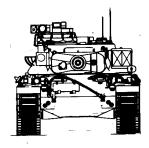
AMX 30D. Three primary roles have been assigned to this armored recovery vehicle: (1) the recovery of damaged and disabled vehicles, (2) field repairs, and (3) engineer work. The vehicle is manufactured by Atelier de Construction de Roanne, a component of Giat Industries. A hydraulically operated dozer blade is mounted at the front of the hull, and the right side of the hull is configured

with a crane which has a maximum lift of 16 tonnes (17.37 tons). The main winch has a maximum capacity of 36 tonnes (39.68 tons), while a secondary winch can handle a load of 3.5 tonnes (3.86 tons). The vehicle has a standard nuclear, biological and chemical countermeasures system and is fitted with a snorkel for prepared fording to a depth of four meters (13.12 feet). For more details please see the engineering vehicles tab in this book.

Engin Blindé du Génie. In 1979, Giat Industries began the development of an engin blindé du génie, or combat engineer tractor, for the French army. This vehicle, almost identical to the AMX 30D, replaced the AMX 13 combat engineer vehicle beginning in 1987. The latest automotive components of the AMX 30B2 are used in the AMX 30 EBG. For more details please see the engineering vehicles tab in this book.

The basic AMX 30 tank chassis is also employed as a carrier vehicle for the Shahine antiaircraft missile system, the Roland antiaircraft system, and the Pluton tactical nuclear missile. Further, a variant is in service in France as a self-propelled 155-millimeter howitzer (see the AU-F1 report in the Munitions and Ordnance book, a companion volume), as well as a version with twin 30-millimeter antiaircraft cannon.

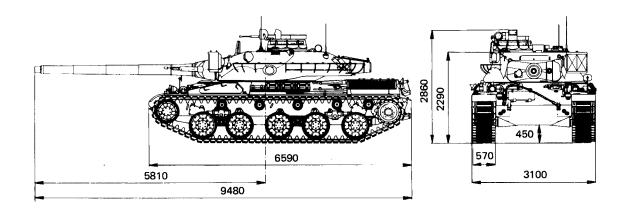




**AMX 30 B2** 

Source: GIAT

AMX 30, Page 4 Military Vehicles Forecast



### <u>AMX 30</u>

Source: Gait Industries