

AMX 32

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AMX 32: optimization of the 105 mm weapon system

formidable

- 105 mm gun firing **APFSDS ammunition**;
- 20 mm gun associated with the main armament;
- Automatic **fire control system**, mass produced;
- **Firing on the move** for the tank commander

agile

Its weight, deliberately medium, associated with an advanced auto-motive power pack, gives it excellent tactical and operational mobility.

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The employment of ultra-modern armour and its judicious distribution have provided the tank with an effective protection, without increasing its weight.



a formidable tank by its fire power

ARMAMENT

The various weapons on the AMX 32 make for optimum intervention in every engagement.

main armament

The AMX 32 is equipped with the 105 mm gun firing APFSDS ammunition.

- The 105 mm gun has been adopted by the French Army.
Hence it benefits from excellent logistic support.

additional armament

- against personnel in the open or poorly protected
- against light armoured vehicles
- for anti-aircraft defence
- for fast, effective response
- without drawing on the ammunition reserves of the main weapon.

The AMX 32 is fitted with:

a 20 mm gun

- interlocked with the main weapon,
- capable of superelevation for anti-aircraft defence
- 480 rounds including 230 ready for use in the ammunition chest

a 7.62 N machine gun

- 2150 rounds including 650 on one belt inserted ready on the weapon

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6 smoke pot launchers.



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a formidable tank by its effectiveness

APFSDS-AMMUNITION

GIAT can offer a very wide range of ammunition, and in particular the new APFSDS rounds. Its anti-tank effectiveness is formidable. This projectile pierces NATO heavy-tank targets at a distance of more than 5 000 m causing extensive damage behind the armour plate, and it provides the capability of attacking very inclined armour (no ricochet for angles of incidence exceeding 80°). An original system considerably increases its effectiveness against multiple armour plate and light armoured vehicles.



105 mm ammunition

	Mv
APFSDS ammunition (OFL)	1 525 m/s
Hollow-charge anti-tank ammunition (OCC)	1 000 m/s
High-explosive anti-personnel ammunition (OE)	700 m/s
Phosphorous incendiary smoke ammunition (OFUM)	700 m/s
Illuminating projectile ammunition	700 m/s

To this ammunition is associated practice ammunition with the same ballistic characteristics. The AMX 32 carries a total of 47 rounds including 19 in the turret.

a formidable tank by its firing accuracy

FIRE CONTROL SYSTEM

The AMX 32 is equipped with a high-performance, mass-produced, integrated fire control system which has been adopted by the French Army and has proved its reliability.

In the AMX 32 version, it is associated with a sight stabilization system allowing the tank commander to fire when the tank is on the move.

The fire control system consists essentially of the following:

for the tank commander:

The M 527 gyrostabilized panoramic day/night telescope with two magnifications, allowing:

- observation,
 - alignment of gun of unsheltered target,
 - transfer to the gunner,
- and emergency firing on the move, without corrections, at the effective combat range (which for the 105 OFL can attain 1 700 metres).

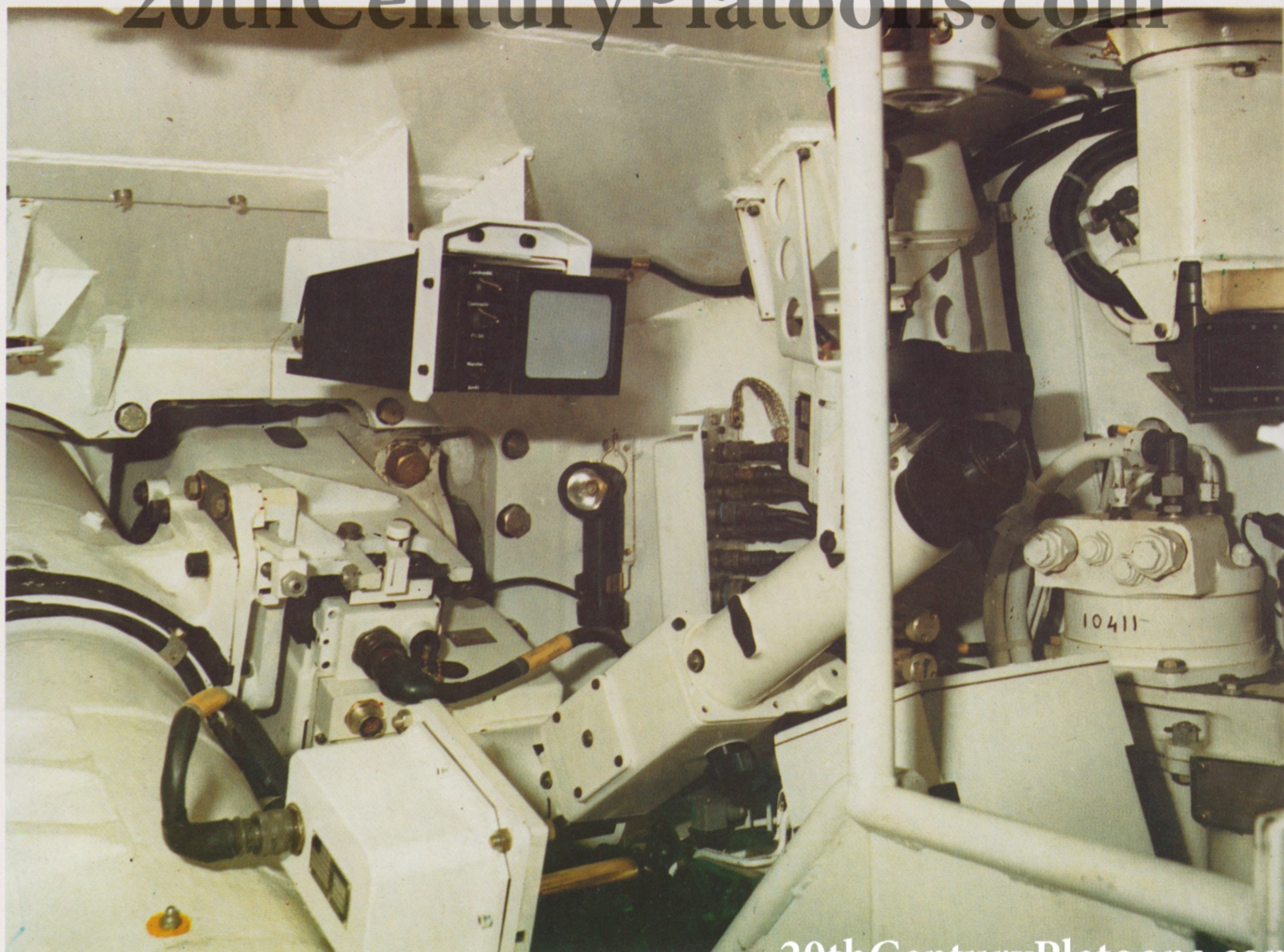
for the gunner:

The COTAC M 581 integrated telescope, allowing:

- laser rangefinding,
- tachometry,
- the working out and automatic input of corrections.

gunner station

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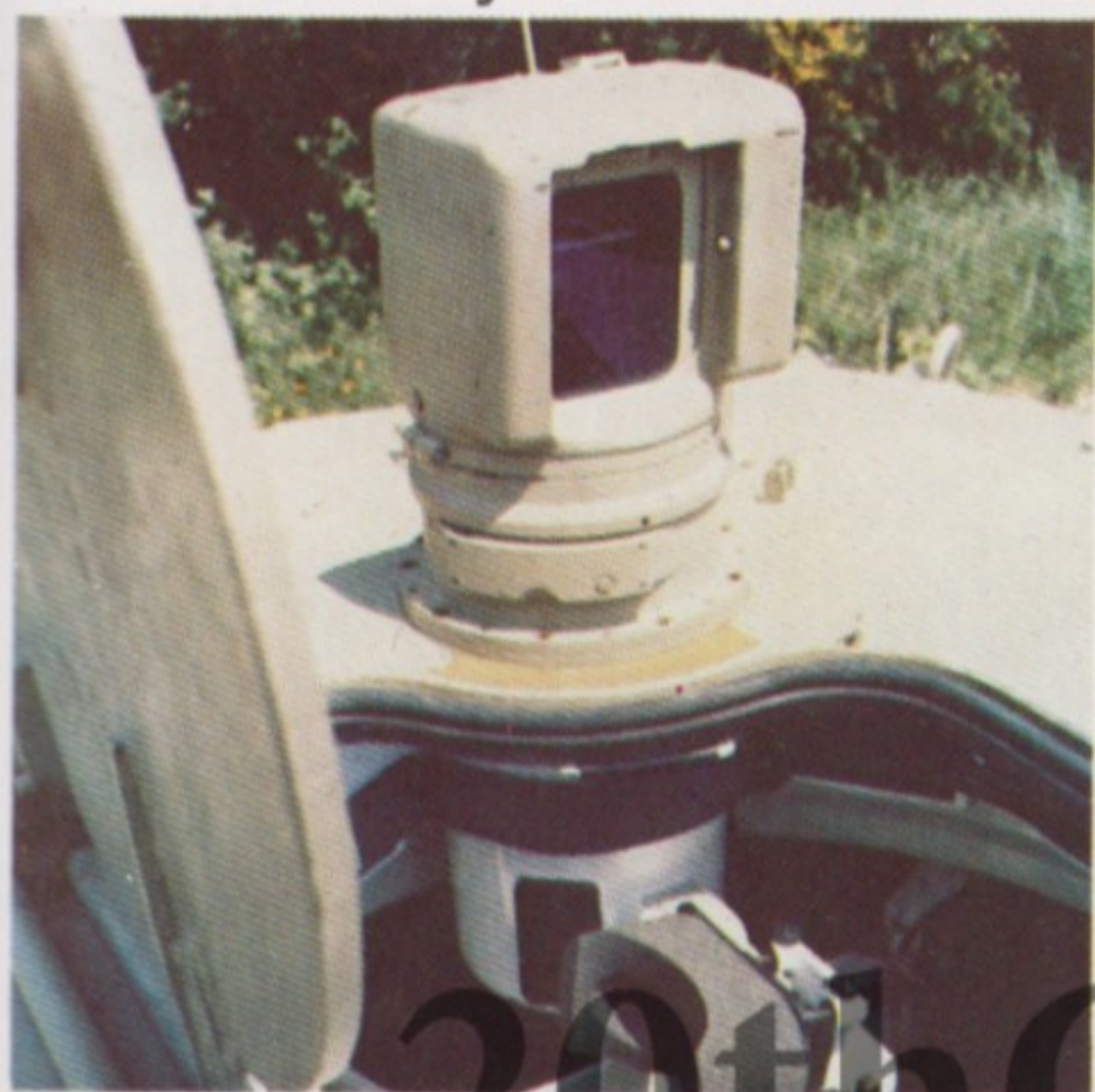


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Owing to the laser rangefinding feature, distance accuracy is such that the other parameters affecting firing accuracy become worthwhile taking into account:

- target elevation and traverse speed,
- slant,
- outside temperature
- wind (force and direction)
- altitude,
- ammunition,
- artillery characteristics.

- on fixed or moving target
- by day and night
- regardless of distance
- the firing sequence is reduced to a few seconds
- in 90 % of cases, a direct hit.



◀ tank commander telescope

tank commander station



an agile tank

MODERN ERGONOMICS

By its design and mechanical components, the AMX 32 is an easily driven tank, capable of moving fast and far.

a flexible tank

- Owing to its weight and size, the AMX 32 is endowed with considerable tactical and strategic mobility,
- It lends itself well to rail transport, without any restriction,
- It can ford water 2.20 m deep without any special equipment, and with a schnorkel is capable of crossing a depth of 4 m.

a responsive tank

GIAT offers various technical options for the mechanical components with a view to satisfying the requirements of user countries and utilization conditions.

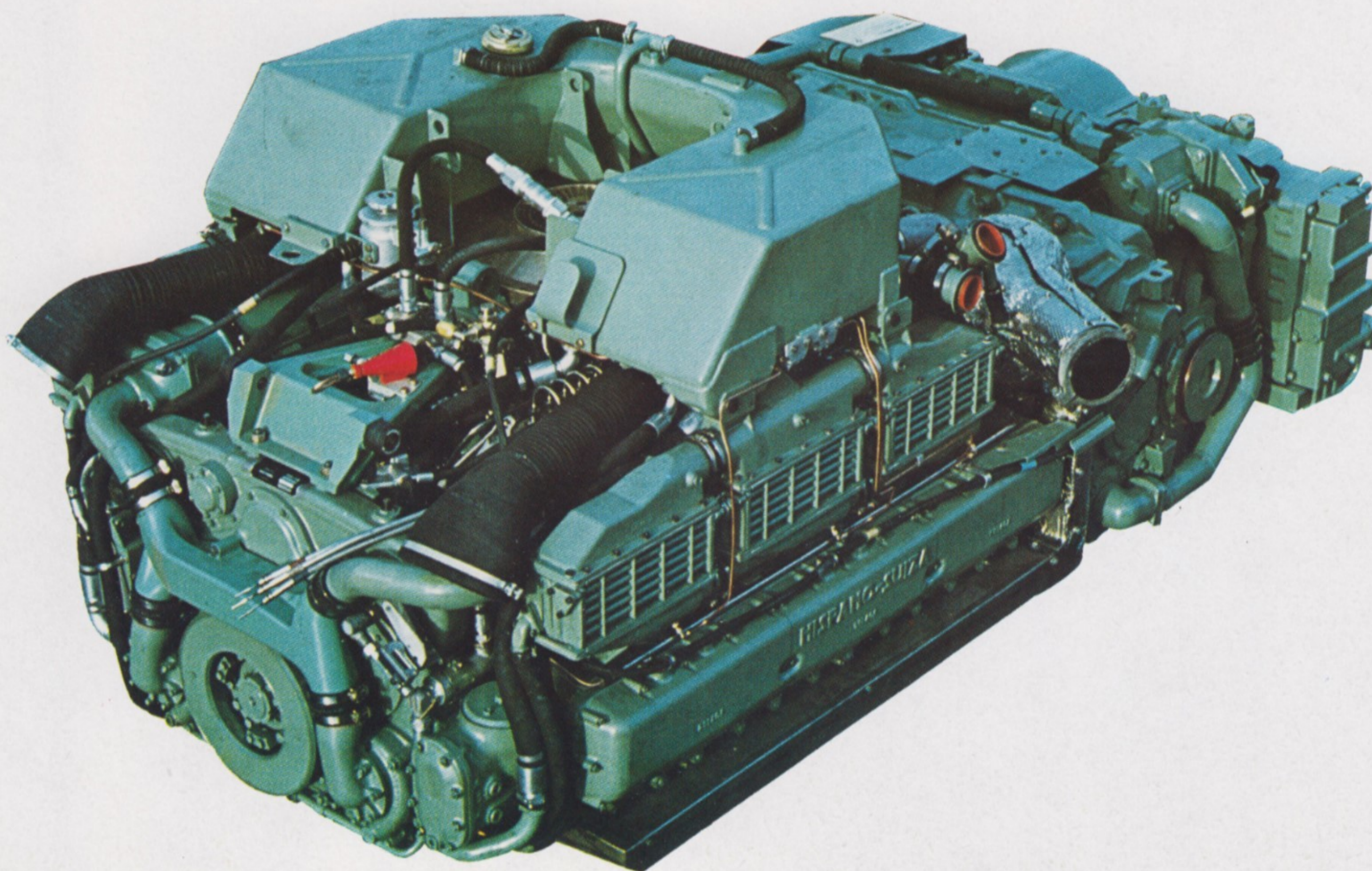
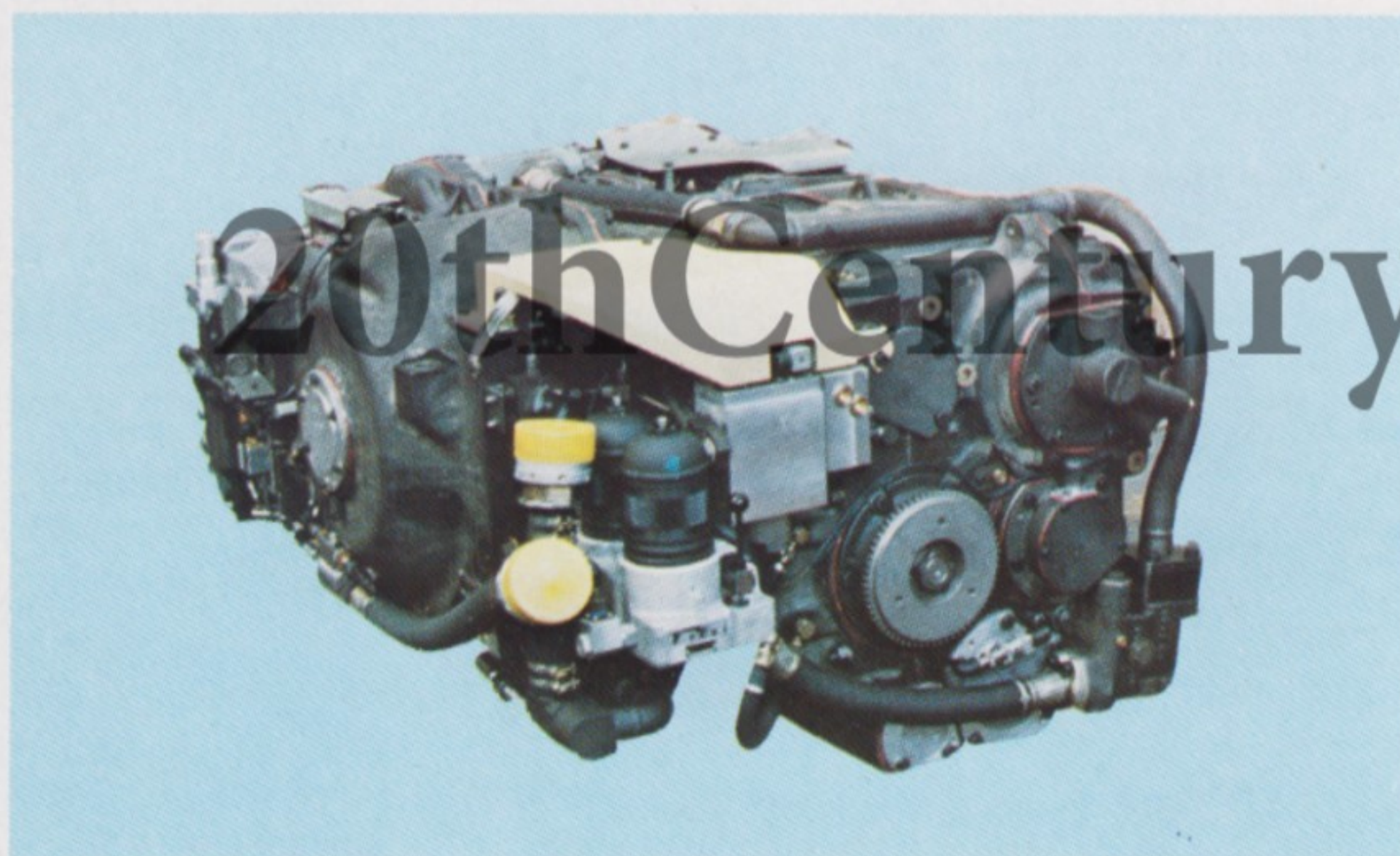
engine

- HS 110-2 engine, very similar to the one used on the AMX 30
 - multifuel possibility
 - direct supercharging
 - power: 700 HPIt is particularly well suited to hot climates.

- HS 110-2SR engine
 - diesel
 - cooled supercharging
 - power: 800 HP.

gearbox

- ENC 200 box
 - gear box with torque converter having a lock-up
 - 5 gears and a reverser controlled electrically
 - hydrostatic steering with a steering wheel giving a continuous variation of the line of turn.



a safe tank

COMPOSITE ARMOUR PLATE

ballistic protection

Particular attention has been paid to providing the AMX 32 crew with the best possible protection against battlefield attack.

The combination armour plate of various hardness and composite materials, and calculated design choices in respect of armour plate thicknesses and angles of intersection have made it possible to solve what could be considered as paradoxical, namely the weight/protection ratio.

The front of the tank and its bow-end sides have been the subject of in depth studies and attentive design so as to achieve a degree of protection worthy of a main battle tank.

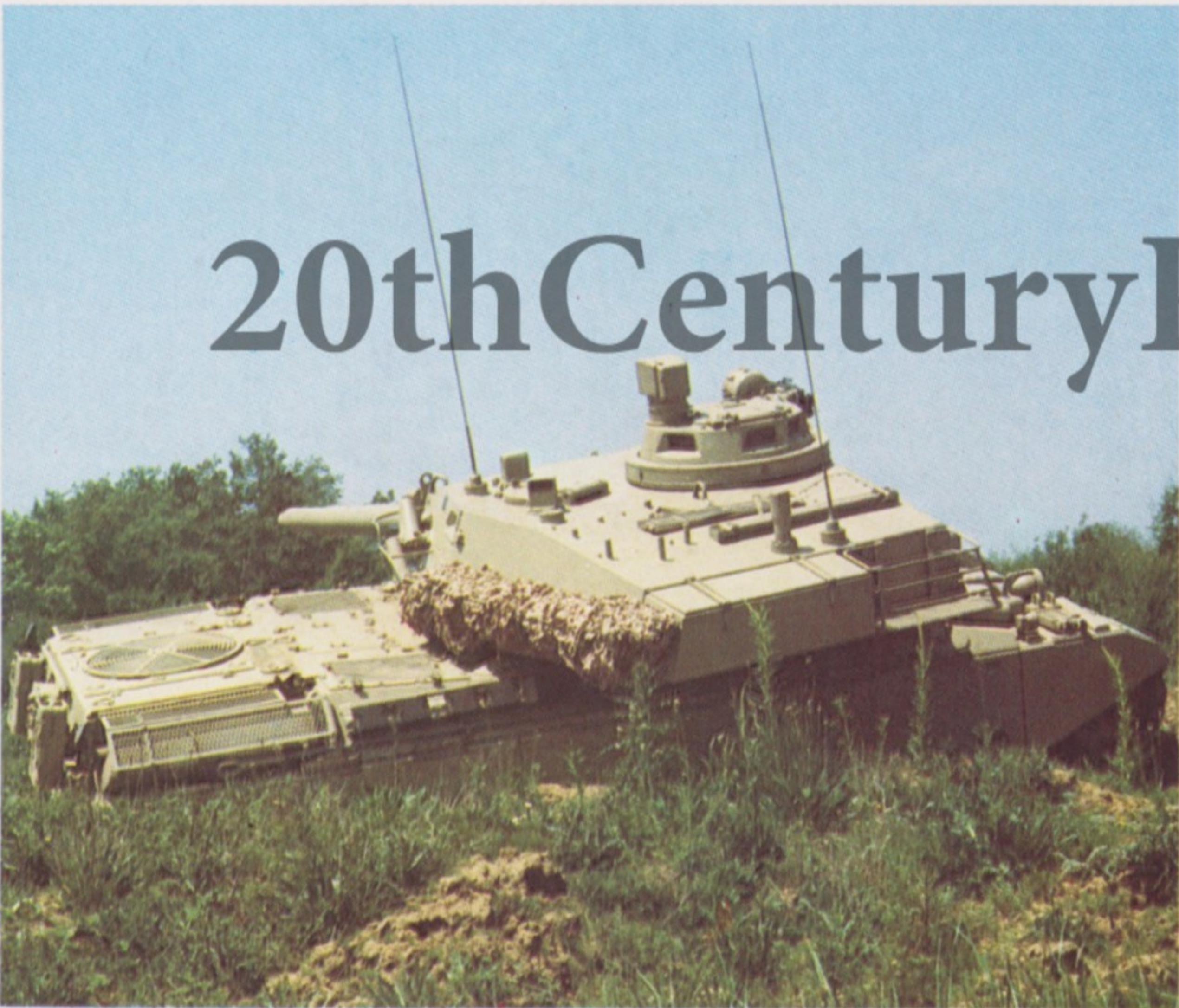
NBC protection

The tank is delivered with all the equipment for nuclear, bacteriological and chemical protection. The system has been very well designed and maintenance is simplified considerably owing to the fact that filters can be easily replaced (from the outside).

In the hot weather version, NBC protection can be replaced by a very effective air-conditioning system.

optional equipment

- air conditioning
- fire-fighting system
- smoke generators through the exhaust unit
- connector-type tracks (basic equipment) or metal tracks.



SUMMARY OF TECHNICAL CHARACTERISTICS

crew

- 4 men
- 1 tank commander
- 1 gunner
- 1 loader
- 1 driver

dimensions and weights

length of hull	6,59 m
overall length (105 mm gun)	9.45 m
width : hull to side pre-armour	3.24 m
ground clearance (in running order)	0.45 m
overall height (sight stabilized)	2.96 m
height to turret roof	2.29 m
weight in running order (excluding ammunition and crew)	37 t
weight in combat order (including ammunition and crew)	39 t approx.
ground preassure	0.90 bar

mobility

maximum road speed	65 km/h
average road speed	50 km/h
average cross-country speed	45 km/h
combat range (NATO) (20% road, 40% cross country, 40% idle) ..	18 hours

agility

grade	60 %
slant	30 %
straight-edged ditch, max.	2.90 m
vertical straight-edged obstacle	0.90 m
fording, with no preparation	1.20 m
fording, with preparation but without schnorkel	2.20 m
fording, with preparation and schnorkel ..	4.00 m

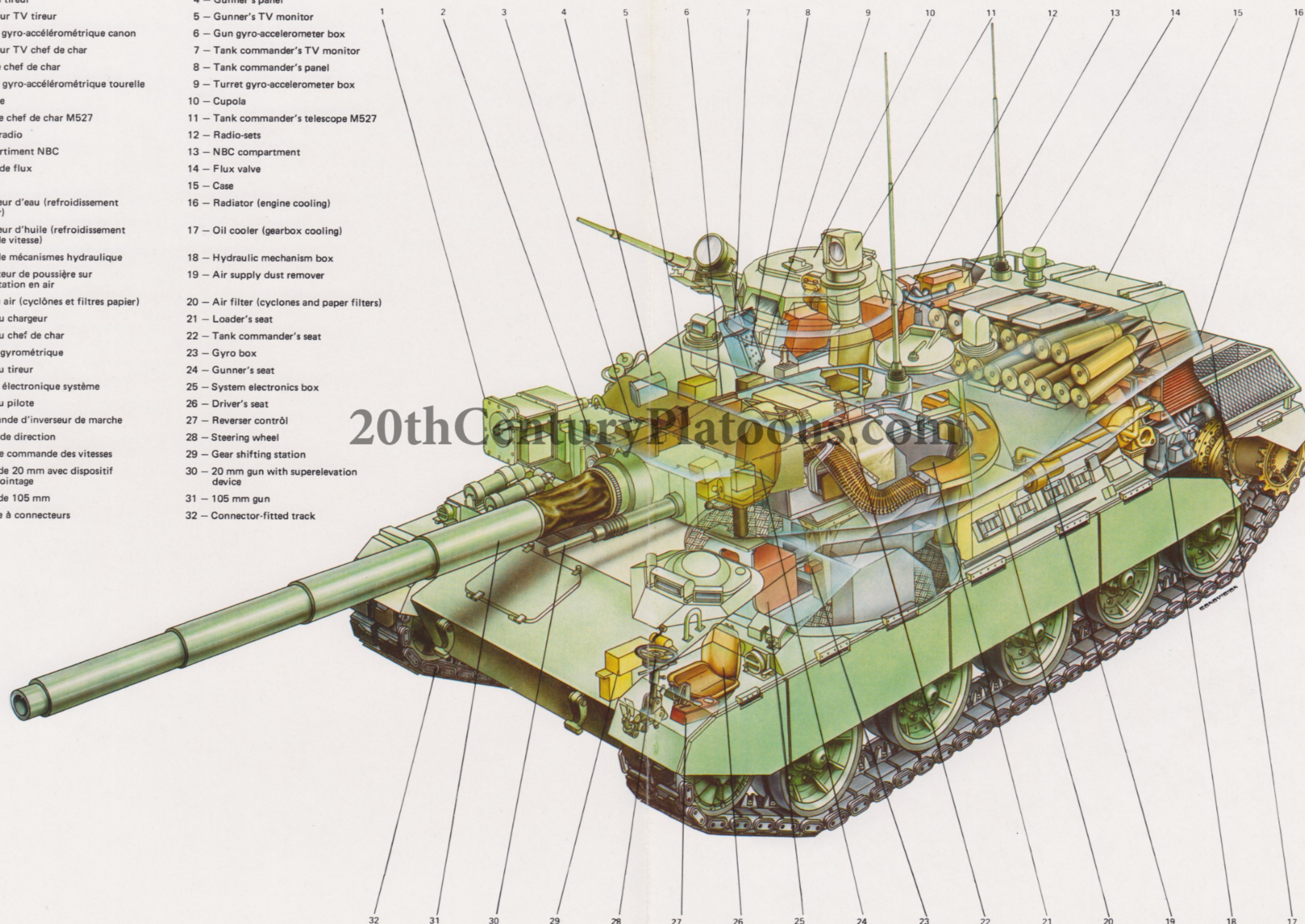
armament

- **one 105 mm gun**
firing conventional and APFSDS ammunition.
quantity carried : 47 rounds including 19 in the turret.
- **one 20 mm automatic gun**
ammunition carried : 480 rounds including 230 rounds in weapon chest.
- **one 7.62 mm machine gun mounted on the observation cabin**
ammunition carried : 2150 rounds including 650 engaged on weapon.
- **interlocking of weapon systems with gun commander's sight**
- optical equipment - fire control system - day/night**
 - gyrostabilized, panoramic tank commander telescope with dual magnification (observation and fire).
 - observation cabin with 8 wide-angle anti-glare periscopes.
 - laser rangefinder telescope for gunner integrated COTAC fire control system.
 - light intensification equipment for driving, observation and firing ; low light level TV monitors for use by tank commander and gunner.

AMX 32

- 1 – Caméra de TV DI VT 13
- 2 – Capteur de site
- 3 – Lunette tireur M581
- 4 – Pupitre tireur
- 5 – Moniteur TV tireur
- 6 – Boîtier gyro-accélérométrique canon
- 7 – Moniteur TV chef de char
- 8 – Pupitre chef de char
- 9 – Boîtier gyro-accélérométrique tourelle
- 10 – Kiosque
- 11 – Lunette chef de char M527
- 12 – Postes radio
- 13 – Compartiment NBC
- 14 – Vanne de flux
- 15 – Coffre
- 16 – Radiateur d'eau (refroidissement moteur)
- 17 – Radiateur d'huile (refroidissement boîte de vitesse)
- 18 – Boîte de mécanismes hydraulique
- 19 – Extracteur de poussière sur alimentation en air
- 20 – Filtre à air (cyclones et filtres papier)
- 21 – Siège du chargeur
- 22 – Siège du chef de char
- 23 – Boîtier gyrométrique
- 24 – Siège du tireur
- 25 – Coffret électronique système
- 26 – Siège du pilote
- 27 – Commande d'inverseur de marche
- 28 – Volant de direction
- 29 – Poste de commande des vitesses
- 30 – Canon de 20 mm avec dispositif de surpointage
- 31 – Canon de 105 mm
- 32 – Chenille à connecteurs

- 1 – TV camera DI VT 13
- 2 – Elevation sensor
- 3 – Gunner's telescope M581
- 4 – Gunner's panel
- 5 – Gunner's TV monitor
- 6 – Gun gyro-accelerometer box
- 7 – Tank commander's TV monitor
- 8 – Tank commander's panel
- 9 – Turret gyro-accelerometer box
- 10 – Cupola
- 11 – Tank commander's telescope M527
- 12 – Radio-sets
- 13 – NBC compartment
- 14 – Flux valve
- 15 – Case
- 16 – Radiator (engine cooling)
- 17 – Oil cooler (gearbox cooling)
- 18 – Hydraulic mechanism box
- 19 – Air supply dust remover
- 20 – Air filter (cyclones and paper filters)
- 21 – Loader's seat
- 22 – Tank commander's seat
- 23 – Gyro box
- 24 – Gunner's seat
- 25 – System electronics box
- 26 – Driver's seat
- 27 – Reverser control
- 28 – Steering wheel
- 29 – Gear shifting station
- 30 – 20 mm gun with superelevation device
- 31 – 105 mm gun
- 32 – Connector-fitted track



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