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FM 30-42

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WAR DEPARTMENT

BASIC FIELD MANUAL

MILITARY INTELLIGENCE

IDENTIFICATION OF FOREIGN ARMORED VEHICLES, GERMAN, JAPANESE, RUSSIAN, AND ITALIAN

October 3, 1942

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FM 30-42

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BY ORDER OF THE SECRETARY OF WAR:

G. C. MARSHALL,
Chief of Staff.

OFFICIAL:

J. A. ULIO,
Major General,
The Adjutant General.

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(For explanation of symbols, see FM 21–6.)

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RE[redacted]

FM 30–42

BASIC FIELD MANUAL

MILITARY INTELLIGENCE

IDENTIFICATION OF FOREIGN ARMORED VEHICLES GERMAN, JAPANESE, RUSSIAN, AND ITALIAN

(This manual supersedes FM 30–42, June 20, 1941.)

SECTION I

GENERAL

■ 1. PURPOSE.—The purpose of this manual is to serve as a guide in the identification of foreign armored vehicles. The material has been secured from many sources. It is the best available but may be incomplete and, in some respects, inaccurate.

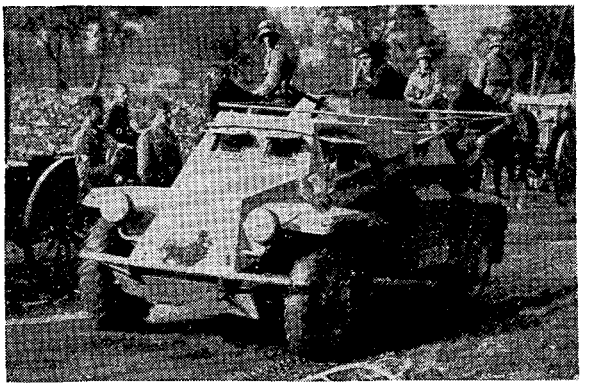
■ 2. SCOPE.—This manual, containing illustrations with explanatory data relative to foreign armored vehicles, German, Japanese, Russian, and Italian, is published for limited distribution. When illustrations are not given, blank spaces have been left so that they may be added when provided. The manual will be used for instruction of officers and men in the appearance and general characteristics of armored vehicles and will be safeguarded as prescribed in AR 380–5.

■ 3. METHOD OF IDENTIFICATION AND CLASSIFICATION OF ARMORED VEHICLES.—For method of identification and classification of foreign armored vehicles see FM 30–40.

Section II

ARMORED VEHICLES OF THE GERMAN ARMY

GERMAN ARMY

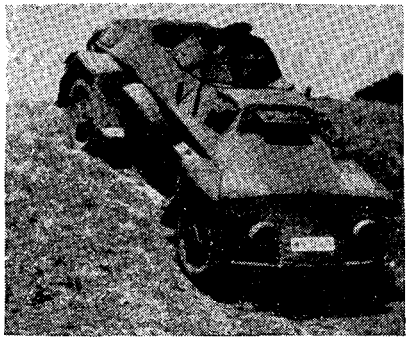


HORCH LEICHTER PANZERSPAHWAGEN (SD. KFZ. 222 4-WHEELED ARMOR CAR)

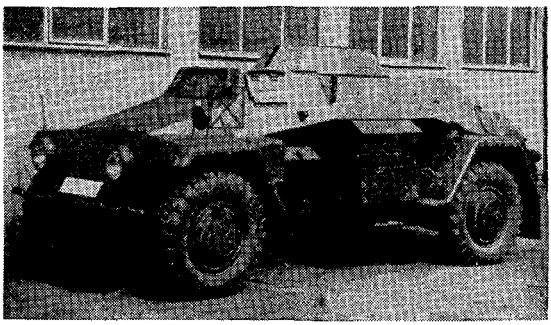
1. Crew: Three (gunner-commander, loader-W/T, operator and driver).
2. Armament: One 20-mm heavy machine gun and one 7.91-mm light machine gun coaxial in turret.
3. Ammunition: 100 rounds armor-piercing and 120 rounds high explosive for 20-mm heavy machine gun. Eight belts (probably 250 rounds each) for machine gun 34. Eight smoke candles, eight hand grenades, and red, white, and green signal cartridges.
4. Armor, thickness:
   Front—8-mm (.31 in.).
   Sides—8-mm (.31 in.).
   Top—8-mm (.31 in.).
   Visors—15-mm (.59 in.).
5. Turret: Open top to allow the 20-mm gun to be used as antiaircraft hand traverse.
6. Vision: Telescopic and antiaircraft sights.
7. Ventilation:
8. Communication: R/T transmitter and receiver of very small size and apparently limited range. (One source gives operational radius of set as about 4.4 miles.)
9. Dimension:
   Length—15 feet 7 inches.
   Width—6 feet 3½ inches.
   Height—5 feet 11½ inches to 7 feet 4½ inches.
10. Weight:
    Laden: 4.7 tons.
    Empty: 3.7 tons.
11. Motor:
    Type: V-8 auto union.
    Cooling system: water.
    Horsepower: 80.
12. Drive: Two- or four-wheel drive.
13. Speed:
    Maximum: 30 mph.
    Cruising: 25 mph.
14. Radius of action: 124 to 155 miles.
15. Gear speeds and ratios: Four forward and one reverse.
16. Turning radius:
17. Suspension, type: Normal automobile type.
18. Performance: Ground clearance: 7¾ inches.
19. Remarks: This is the standard German light armored car. The open top turret is protected by a grating. The Horch 4-wheeled light-armored car is produced in five models, all of which have the same chassis.
20. Crew:
    2-Sd. Kfz 221—Light machine gun in turret.
    3-Sd. Kfz 222—20-mm heavy machine gun and 7.91-mm light machine gun coaxially in turret.
    3-Sd. Kfz 223—Light machine gun in turret; railing type of radio aerial.
    4-Sd. Kfz 260—Wireless vehicles; have no turret and mount no machine guns.
    4-Sd. Kfz 261—Wireless vehicles; have no turret and mount no machine guns.

GERMAN ARMY

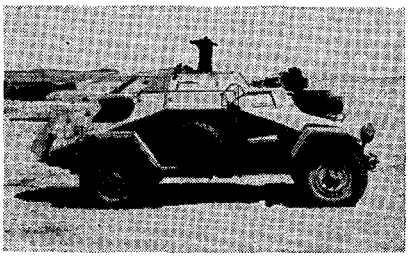
HORCH LEICHTER PANZERSPAHWAGEN SD KFZ 222–4 WHEEL ARMOR CAR



Top

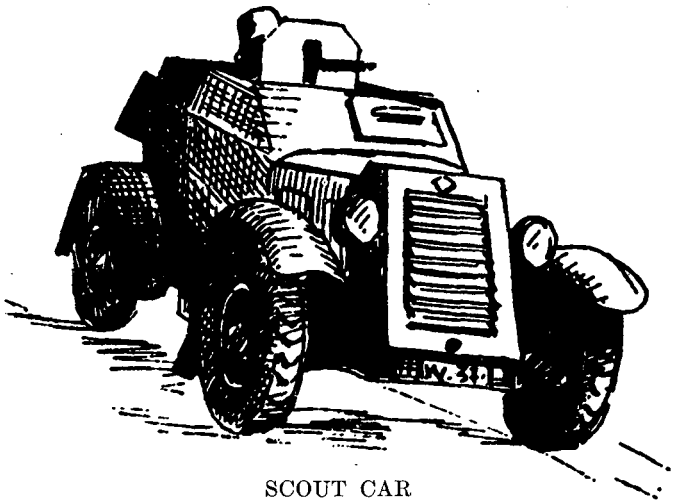


Rear View



Side

GERMAN
ARMY



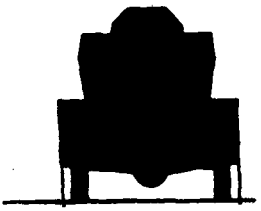
SCOUT CAR
LEICHTER PANZERSPAHWAGEN
(LIGHT ARMORED CAR)
MI

1. Crew: Two (driver and gunner) or three (if fitted with radio).
2. Armament: One light machine gun (mounted for ground or antiaircraft fire).
3. Ammunition:
4. Armor, thickness:
   Upper structure: Less than 0.39 inch.
   Front: 0.39 inch. Proof against armor-piercing small arms ammunition only in front.
   Sides: Less than 0.39 inch.
5. Turret: No.
6. Vision:
7. Ventilation:
8. Communication: Some cars of this type possess radio.
9. *Dimensions:*
   Length: 10 feet.
   Width: 5 feet 7 inches.
   Height: 5 feet 5 inches.
10. Weight: 1.77 tons (4 wheels).
11. Motor:
   Type:
   Cooling system:
   Horsepower:
   Horsepower per ton:
12. Drive:
13. Speed:
   Cross-country:
   Road: 50 miles per hour.
   Maximum:
14. Cruising radius, at _____ speed _____ miles.
15. Operating distance without refill:
16. Gear speeds and ratios:
17. Turning radius:
18. Suspension, type: Normal automobile type.
19. Performance:
   Ground clearance:
   Climbs _____° slopes.
   Negotiates vertical obstacle _____ high.
   Crosses trenches _____ wide.
   Fords streams _____ deep.
20. Remarks: This type is constructed for light scouting purposes. It possesses a completely open top. The machine gun is provided with a shield. Believed now to be an obsolescent type.

GERMAN
ARMY

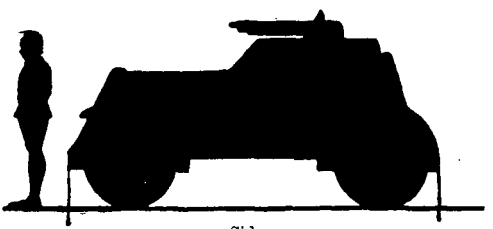
SCOUT CAR
LEICHTER PANZERSPAHWAGEN
(LIGHT ARMORED CAR)
MI

Top



Front

Rear



Side

GERMAN ARMY



SCOUT CAR
8 RAD PANZERSPAHWAGEN
(8-WHEEL HEAVY ARMORED CAR)

1. Crew: Apparently four (two drivers, one gunner, one commander-radio operator).

2. Armament: One 20-mm automatic gun and a 7.92 machine gun coaxially mounted in a flat mantlet.

3. Ammunition: 20-mm—18 magazines of 10 rounds each. 7.92-mm—15 magazines of 75 rounds each.

4. Armor, thickness:
   Upper structure:
   Front: 15-mm.
   Sides: 8-mm.
   Turret: Sides, 9-mm, front 15-mm, top 5-mm.

5. Turret: 360° hand traverse, gunners' and commanders' seats suspended from turret.

6. Vision: Four large doors and many observation slits are fitted. Slits are about 3/16 inch by 6 inches and are protected on the inside by laminated glass screens about ½ inch thick.

7. Ventilation:

8. Communication: Certain cars of this type possess radio.

9. Dimensions:
   Length: 21 feet.
   Width: 7 feet.
   Height: 7 feet 6 inches.

10. Weight: 9 to 10 tons (8 wheels).

11. Motor:
   Type: G. S.
   Cooling system: Water.
   Horsepower: 155.
   Horsepower per ton:

12. Drive:

13. Speed:
   Cross-country:
   Road: Maximum: 90 kph (55 mph).

14. Cruising radius, at _____ speed _____ miles.

15. Operating distance without refill: Vehicle has small tank of about 10-gallon capacity and main tank of about 30 gallons.

16. Gear speeds and ratios:

17. Turning radius:

18. Suspension, type: Normal automobile type. Eight wheel steering and driving is employed.

19. Performance:
   Ground clearance: 9 inches.
   Climbs _____ slopes.
   Negotiates vertical obstacle _____ high.
   Crosses trenches _____ wide.
   Fords streams _____ deep.

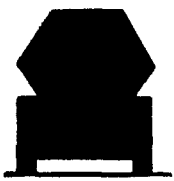
20. Remarks: This information was obtained from examination of a car built in 1937 with an engine manufactured in 1936. The 8-wheeled armored car is produced in three models, all having identical chassis: Sd Kfz 231 described above. Sd Kfz 232 Grill type aerial supported on turret and rear of car. Other characteristics the same as Sd Kfz 231. Sd Kfz 263 fixed turret; mounts no gun. Grill type aerial supported on turret center and rear of car. Other characteristics same as Sd Kfz 231.

GERMAN ARMY

SCOUT CAR
8 RAD PANZERSPAHWAGEN
(8-WHEEL HEAVY ARMORED CAR)

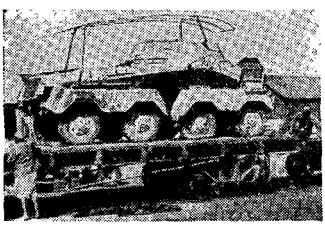


View

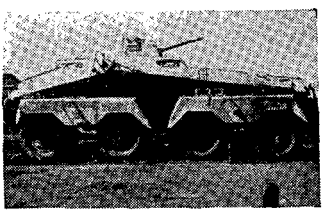


Front

Rear



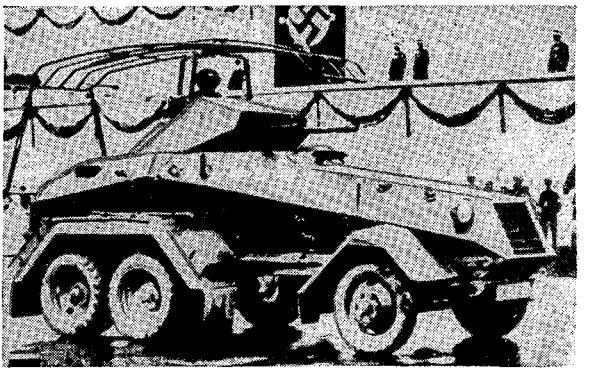
Sd Kfz 232



Sd Kfz 231

Side

GERMAN
ARMY



SCOUT CAR
SCHWERER PANZERSPAHWAGEN 36
(HEAVY ARMORED CAR TYPE 1936)

1. Crew: Four (two drivers, one gunner-commander, one gunner) (one driver acts as radio operator).

2. Armament: One 20-mm machine gun and two light machine guns (one may be used as antiaircraft).

3. Ammunition: 3,000 rounds for light machine guns and 200 rounds armor piercing or high explosive for 20-mm gun.

4. Armor, thickness:
   Upper structure: 0.39 inch.
   Front: 0.59 inch.
   Sides: 0.39 inch.
   Turret: 0.59 inch.

5. Turret: Yes.

6. Vision:

7. Ventilation:

8. Communication: Some cars of this type have radios with rigid frame aerial which reduces traverse of turret guns to 150° and blocks antiaircraft fire.

9. Dimensions:
   Length: 20 feet 5 inches.
   Width: 7 feet.
   Height: 7 feet 6 inches.

10. Weight: 6½ tons (6 wheels).

11. Motor:
   Type: V-8, 6 cylinders.
   Cooling system: Water.
   Horsepower: 100 hp.
   Horsepower per ton: 15.3 hp.

12. Drive: Six-wheel drive.

13. Speed:
   Maximum road: 45 mph.
   In reverse: 31 mph.
   Cruising: 25 mph.

14. Cruising radius: 168 to 216 miles.

15. Operating distance without refill: 180 miles.

16. Gear speeds and ratios: Six forward and six reverse.

17. Turning radius: 20 feet 4 inches.

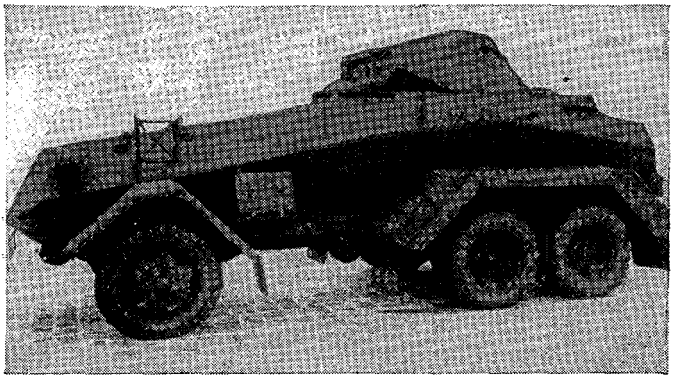
18. Performance: Maximum gradient, road 50 percent—sand 20 percent.

19. Suspension, type: Normal automobile type.

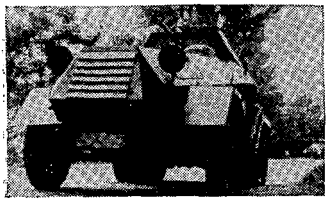
20. Remarks: This car carries a smoke-producing apparatus. Can be used as an armored command vehicle with the 20-mm gun replaced by two light machine guns.

GERMAN ARMY

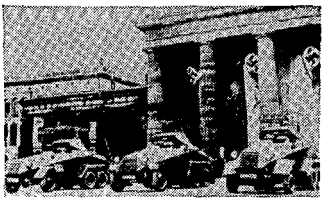
SCOUT CAR
SCHWERER PANZERSPAHWAGEN 36
(HEAVY ARMORED CAR TYPE 1936)



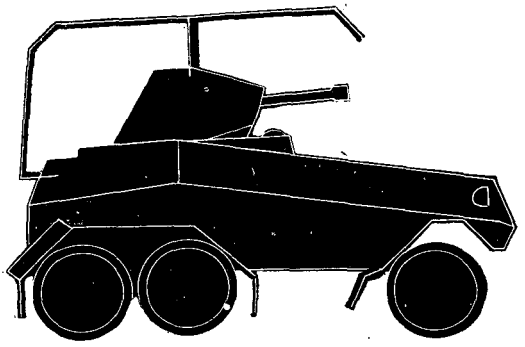
View



Front

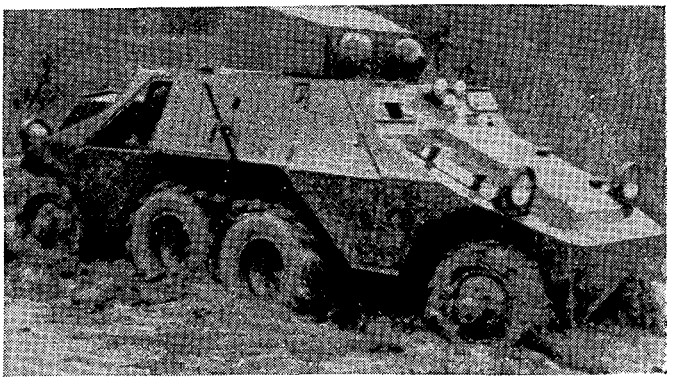


View



Side

GERMAN
ARMY



A. D. (AUSTRO-DAIMLER) G. Z.
AUSTRIAN ARMORED CAR

1. Crew: Seven to twelve.
2. Armament: One 20-mm, two light machine guns.
3. Ammunition:
4. Armor, thickness: 18-mm base.
   Upper structure:
   Front:
   Sides:
5. Turret: Yes, type unknown.
6. Vision:
7. Ventilation:
8. Communication:
9. Dimensions:
   Length: 19 feet 6 inches.
   Width: 7 feet 1 inch.
   Height: 9 feet 1 inch.
10. Weight: 11½ to 12 tons.
11. Motor:
   Type:
   Cooling system: Water.
   Horsepower: 150.
   Horsepower per ton: 12.5.
12. Drive: All wheels.
13. Speed:
   Cross-country:
   Road:
   Maximum: 50 mph.
14. Cruising radius, at _____ speed _____ miles.
15. Operating distance without refill: 186 miles.
16. Gear speeds and ratios: Can drive in reverse.
17. Turning radius:
18. Suspension, type:
19. Performance:
   Ground clearance: 1 foot.
   Climbs 35° slopes.
   Negotiates vertical obstacle _____ high.
   Crosses trenches _____ wide.
   Fords streams 3 feet 3 inches deep.
20. Remarks: Used mostly for local disturbances.

GERMAN
ARMY

ARMORED CAR
A. D. G. Z. AUSTRIAN

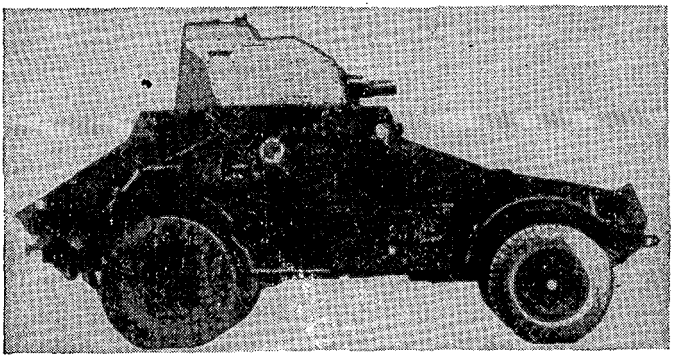
Top

Front

Rear

Side

GERMAN ARMY

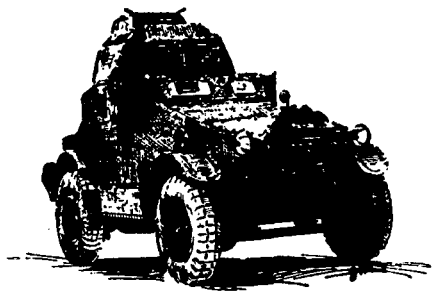


ARMORED CAR AMD PANCHARD-TOE FOUR-WHEELED (EX-FRENCH)

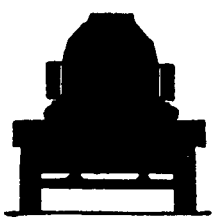
1. Crew: Four.
2. Armament: One 37-mm and one machine gun.
3. Ammunition:
4. Armor, thickness:
   Upper structure:
   Front:
   Sides:
5. Turret: One with cupola.
6. Vision:
7. Ventilation:
8. Communication:
9. Dimensions:
   Length: 17 feet 6 inches.
   Width: 6 feet 7 inches.
   Height: 8 feet 8 inches.
10. Weight: 6 to 7 tons.
11. Motor:
    Type: Petrol.
    Cooling system: Water.
    Horsepower: 86.
    Horsepower per ton: 12.3.
12. Drive:
13. Speed:
    Cross-country:
    Road:
    Maximum: 48 mph.
14. Cruising radius, at ..... speed 480 miles.
15. Operating distance without refill:
16. Gear speeds and ratios:
17. Turning radius:
18. Suspension, type:
19. Performance:
    Ground clearance:
    Climbs ..... slopes.
    Negotiates vertical obstacle high.
    Crosses trenches ..... wide.
    Fords streams ..... deep.
20. Remarks: Two unprotected water condensers on either side of vehicle. Four wheels.

FRENCH
ARMY

ARMORED CAR
AMD PANCHARD-TOE
FOUR-WHEELED



View



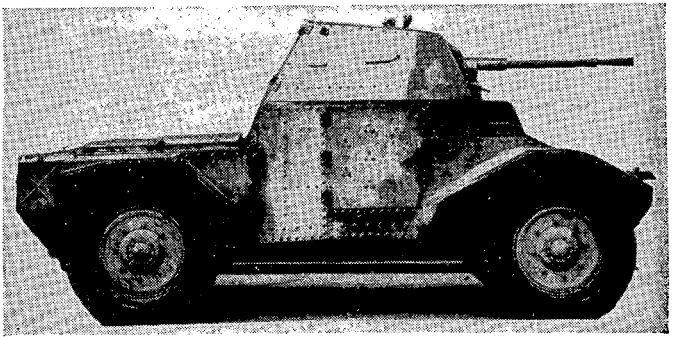
Front

Rear



Side

GERMAN ARMY

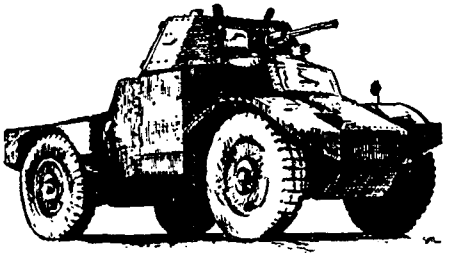


PANHARD 178 A. M. D. 35
FOUR-WHEELED ARMORED CAR
(EX-FRENCH)

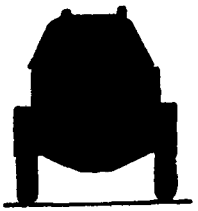
1. Crew: Four.
2. Armament: One 2.5-cm. Q. F. gun in turret and one machine gun.
3. Ammunition:
4. Armor, thickness:
   Upper structure: 13-mm (.51 in.).
   Front: 18-mm (.71 in.).
   Sides: 18-mm (.71 in.).
   Rolled plate bolted together.
5. Turret: One.
6. Vision: Two Gundlach type periscopes, 4 episcopes, bullet-proof glass blocks.
7. Ventilation:
8. Communication: R/T and internal voice tube.
9. Dimensions:
   Length: 15 feet 6 inches.
   Width: 6 feet 6 inches.
   Height: 7 feet 6 inches.
10. Weight: 8 tons.
11. Motor: At rear.
    Type: Petrol S. S., 4-cylinder.
    Cooling system: Water.
    Horsepower: 105.
    Horsepower per ton: 13.
12. Drive: Four-wheel.
13. Speed:
    Cross-country: 19 mph.
    Road, maximum: 50 mph.
    Cruising: 25 mph.
14. Cruising radius: 250 miles or 6 hours. Petrol carried, 30 gallons.
15. Operating distance without refill: 250.
16. Gear speeds and ratios: Five forward and a reverse.
17. Turning radius:
18. Suspension, type:
19. Performance: Ground clearance: 1 foot 2 inches.
20. Remarks: The dimensions of this vehicle are practically the same as those of the German armored car Sd Kfz 222 The protection is, however, greater. and the turret which is much higher, is covered. The Panhard armored car is being used by the Germans. It is considered a good vehicle, with no particularly vulnerable points.

GERMAN
ARMY

ARMORED CAR
AMD PANCHARD, 1935
FOUR-WHEELED
(EX-FRENCH)

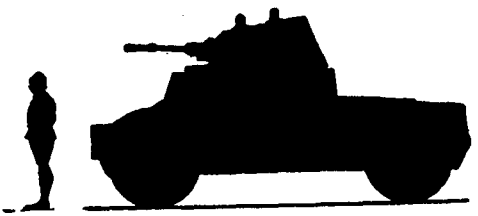


View



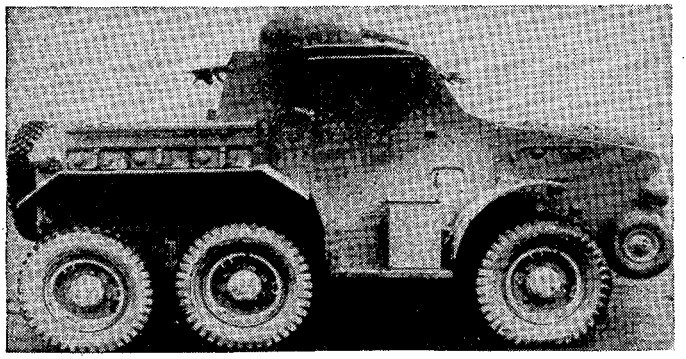
Front

Rear



Side

GERMAN
ARMY



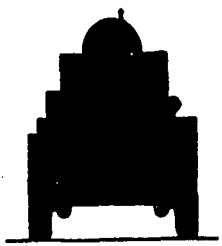
A. M. D. LAFFLY
SIX-WHEELED ARMORED CAR
(EX-FRENCH)

1. Crew: Four.
2. Armament: One 13.2-mm and one light machine gun.
3. Ammunition: 2,000 rounds 13.2-mm; 2,000 rounds for light machine gun.
4. Armor, thickness: Welded.
   Upper structure: 6-mm (.23 in.).
   Front: 16-mm (.62 in.) 2-ply.
   Sides: 8-mm (.31 in.).
5. Turret: Spherical.
6. Vision: Periscope.
7. Ventilation:
8. Communication:
9. Dimensions:
   Length:
   Width:
   Height:
10. Weight: 7.5 tons.
11. Motor:
   Type: Petrol.
   Cooling system: Water.
   Horsepower: 80.
   Horsepower per ton: 8.
12. Drive: Two-wheel drive.
13. Speed:
   Cross-country:
   Maximum on roads 37 mph.
14. Cruising radius, at 250 miles or 600 miles with extra petrol carried.
15. Operating distance without refill:
16. Gear speeds and ratios: Four forward and reverse.
17. Turning radius:
18. Suspension, type:
19. Performance:
   Ground clearance:
   Climbs _____ slopes.
   Negotiates vertical obstacle _____ high.
   Crosses trenches _____ wide.
   Fords streams _____ deep.
20. Remarks: Two small scaling wheels in front; can be driven in either direction.

GERMAN
ARMY

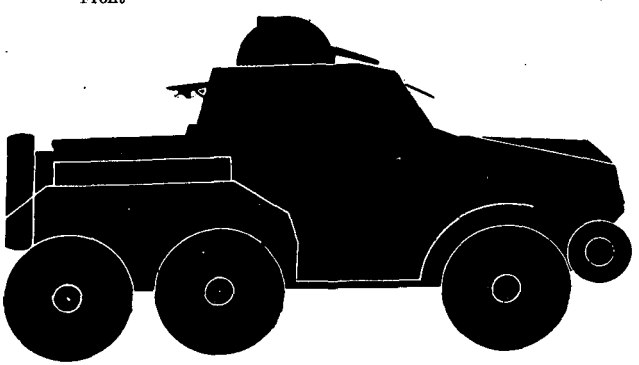
ARMORED CAR
SIX-WHEELED
AMD. LAFFLY
(EX-FRENCH)

Top



Front

Rear



Side

GERMAN ARMY

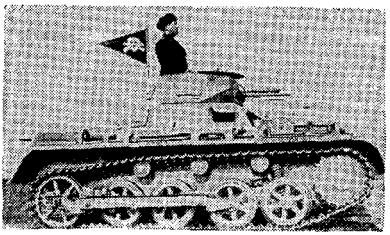


MARK I TANK, MODEL A
(PZ. KPFW. I (M. G.) (SD. KFZ 101) AUS. A.)
(FORMERLY THE MARK I KRUPP)

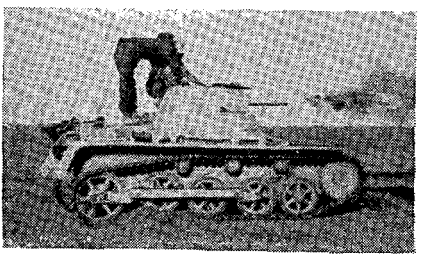
1. Crew: Two (driver and commander-gunner).
2. Armament: Two machine guns 13 coaxially mounted in a turret with telescopic and open sights.
3. Ammunition: 70 magazines for machine guns each containing 25 rounds.
4. Armor:
   Hull:
   Front .56 inch. Back .4 inch.
   Sides .4 inch. Top .4 inch.
   Turret:
   Front .56 inch. Back .4 inch.
   Sides .4 inch. Top .32 inch.
5. Turret: 360° hand traverse. Gunner in suspended seat. Turret floor does not revolve.
6. Vision. 7. Ventilation.
8. Communication: W/T receiver and [flags.
9. Dimensions:
   Length: 13 feet, 2 inches.
   Width: 6 feet, 9 inches.
   Height: 5 feet, 7 inches.
10. Weight:
    Unladen: 5 tons 1 cwt.
    In action: 5 tons 6 cwt.
11. Motor:
    Type: Krupp, Model M .305, horizontally opposed, 4-cylinder, 4-stroke.
    Fuel: Petrol.
    Cooling: By air from centrifugal fan, and by a large oil cooler.
    Horsepower: 60.
12. Drive: Engine, dri ve shaft, clutch gear box, bevel drive, steering clutch and brake, reduction drive, and front sprockets.
13. Speed: Maximum: 22 mph.
14. Cruising radius: 60 to 100 miles.
15. Operating distance without refill.
16. Gear speeds and ratios: Five forward, one reverse. 17. Turning radius.
18. Suspension: Five bogie wheels. Front bogie wheel is mounted on a pivot arm. Second and third bogie wheels are an articulated pair mounted on a hull stub axle. The fourth and rear bogie wheels are similarly mounted. The two hull stub axles are connected externally by a girder.
19. Performance:
    Ground clearance 12 inches.
    Climbs 27° slope.
    Negotiates 1 foot 4-inch step.
    Crosses trenches 4 feet, 7 inches.
    Fords streams 2 feet.
20. Remarks: This model was known previously as the Mk. I Krupp type. They are now considered obsolete. It is used as a training vehicle, perhaps for line of communication protection duties and in modified forms as mobile antitank guns and assault guns. The Mk. I chassis is reported to have been used to provide the mobile chassis for assault guns of 75-, 105-, and 155-mm calibers. Experiments have been made in the western desert, using a flame thrower in the Mk. I tank.

GERMAN
ARMY

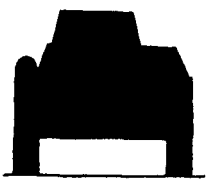
LIGHT TANK
K I-KRUPP



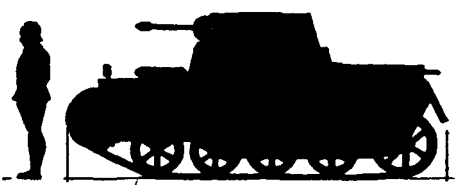
View



View

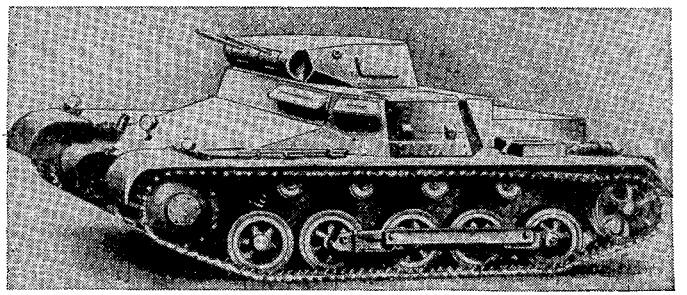


Front



Side

GERMAN ARMY



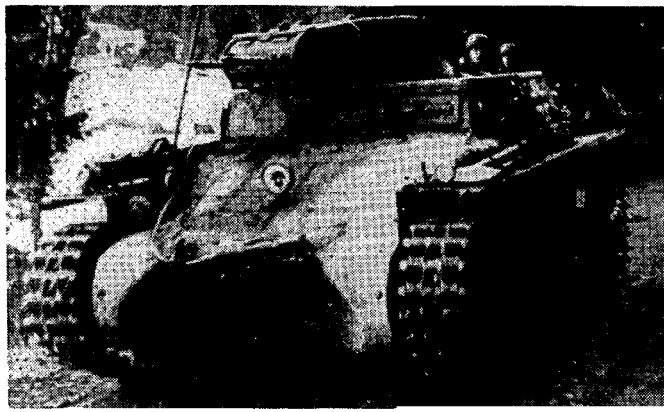
LIGHT TANK
PZ KW I (PANZER KRAFTWAGEN I) (MAYBACH TYPE)

1. Crew: Two (driver and commander-gunner).
2. Armament: Two machine guns 13 coaxially mounted in the turret with telescopic and open sights.
3. Ammunition: 70 magazines for machine guns, each containing 25 rounds.
4. Armor:
   Upper structure: .55 inch.
   Front: .55 inch.
   Sides: .4 inch.
5. Turret:
   Front: .55 inch.
   Sides: .4 inch.
   Back: .4 inch.
   Top: .4 inch.
6. Vision:
7. Ventilation:
8. Communication: W/T receiver and flags.
9. Dimensions:
   Length: 13 feet 6 inches.
   Width: 6 feet 9 inches.
   Height: 5 feet 7 inches.
10. Weight:
    Unladen: 5 tons 10 hundredweight.
    In action: 5 tons 12 hundredweight.
11. Motor:
    Type: Straight 6-cylinder, 4-stroke.
    Cooling system: Water.
    Horsepower: 100.
    Horsepower per ton:
12. Drive: Engine, driveshaft, clutch, gear box, bevel drive, steering clutch and brake, reduction drive, and front sprockets.
13. Speed:
    Cross-country:
    Road:
    Maximum: 23 mph.
14. Cruising radius, at ------ speed ------ miles.
15. Operating distance without refill: 95 miles.
16. Gear speeds and ratios: 5 forward and 1 reverse.
17. Turning radius:
18. Suspension: 5 bogie wheels. Has rear idler mounted on a cranked arm which provides the method of track adjustment.
19. Performance:
    Ground clearance: 1 foot.
    Climbs 27° slope.
    Negotiates vertical obstacle 1 foot 4 inches high.
    Crosses trenches 4 feet 7 inches wide.
    Fords streams 2 feet 0 inch deep.

20. Remarks: This tank has been utilized to provide the mobile chassis for antitank guns and assault guns. It is thought that this type of Mk. I tank has been used at least experimentally as a flame thrower in the same way as the Mk. I, model A.

GERMAN ARMY

LIGHT TANK
PZ KW I (PANZER KRAFTWAGEN I) (MAYBACH TYPE)

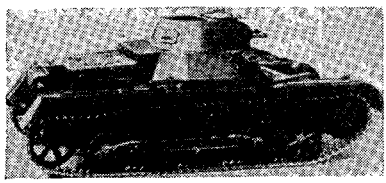


View



Front

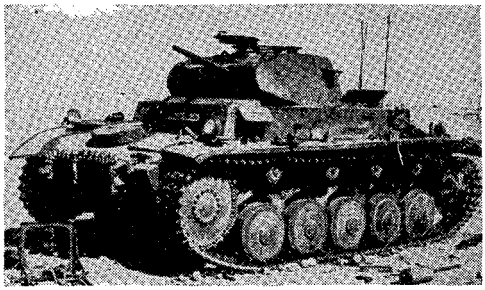
Rear





Side

GERMAN ARMY



LIGHT TANK
PZ KW II (PANZER KRAFTWAGEN II) (SD KFZ 121) (MAYBACH TYPE)

1. Crew: Three (driver, gunner, and radio operator).

2. Armament: One 20-mm (Kwk 30) automatic cannon and one machine gun 34 coaxially mounted.

3. Ammunition: 20-mm—18 magazines each holding 10 rounds of armor piercing, armor piercing incendiary, or high explosive machine gun 34—16 belts.

4. Armor:
   Upper structure: .59 inch.
   Front: .78 inch plus .78 inch on gun mounting.
   Sides: .70 inch.

5. Turret: 360° hand traverse.

6. Vision: Telescopic and open sights.

7. Ventilation:

8. Communication: W/T, R/T, and flags.

9. Dimensions:
   Length: 15 feet 9 inches.
   Width: 7 feet 6 inches.
   Height: 6 feet 6 inches.

10. Weight: In action, 9 tons 18 hundredweight.

11. Motor:
   Type: Straight 6-cylinder, 4-stroke.
   Cooling system: Water.
   Horsepower: 135.
   Horsepower per ton:

12. Drive: Engine, driveshaft, clutch, gear box, bevel drive, steering, and front sprockets.

13. Speed:
   Normal: 25 mph.
   Maximum: 35 mph.

14. Cruising radius, at ------ speed, ------ miles.

15. Operating distance without refill: 125 miles.

16. Gear speed sand ratios: Six forward.

17. Turning radius:

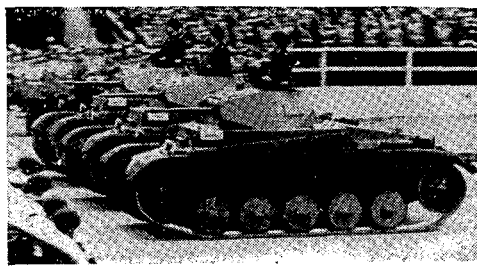
18. Suspension, type; Five large Christie type wheels each mounted on a bell crank lever and sprung by a quarter cliptic leaf spring. There is a rear idler and four return rollers. The earliest model of this tank had six small bogie wheels and a second type had four Christie type wheels.

19. Performance:
   Ground clearance: 13 inches.
   Climbs 27° slopes.
   Negotiates vertical obstacle 1 foot 5 inches high.
   Crosses trenches 4 feet 11 inches wide.
   Fords streams 2 feet 7 inches deep.

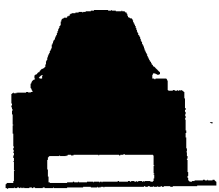
20. Remarks: This tank may be converted into a flame thrower.

GERMAN ARMY

LIGHT TANK
PZ KW II (PANZER KRAFTWAGEN II) (MAYBACH TYPE)



View



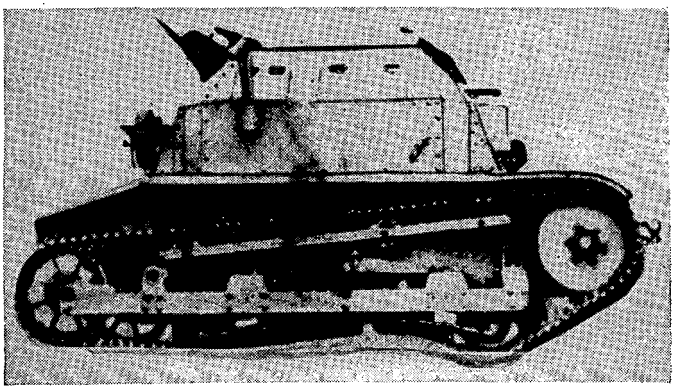
Front

Rear



Side

GERMAN
ARMY



LIGHT TANK
TK, TKF, OR TKS
(EX-POLISH)

1. Crew: Two (driver and gunner).
2. Armament: Two 7.9-mm Hotchkiss machine guns (1 spare).
3. Ammunition: 2,360 rounds.
4. Armor, thickness:
   Upper structure: 0.15 inch
   Front: to
   Sides: 0.39 inch.
5. Turret: None.
6. Vision: Periscope attachment.
7. Ventilation:
8. Communication: Flag.
9. Dimensions:
   Length: 8 feet 6 inches.
   Width: 6 feet.
   Height: 4 feet 6 inches.
10. Weight: 2.5 tons.
11. Motor:
   Type: 4-cylinder Ford or 6-cylinder Fiat.
   Cooling system: Water.
   Horsepower: 24, 4-cylinder Ford; 45, 6-cylinder Fiat.
   Horsepower per ton: 9.6 or 18, depending on motor installed.
12. Drive: Brake—front sprocket.
13. Speed:
   Cross-country: 25 miles per hour.
   Road: 31¼ miles per hour.
   Maximum:
14. Cruising radius, at ... speed ------ miles.
15. Operating distance without refill: 85 miles.
16. Gear speeds and ratios:
17. Turning radius:
18. Suspension, type: Two pairs of bogies, Carden-Lloyd.
19. Performance:
   Ground clearance: 1 foot.
   Climbs 45° slopes.
   Negotiates vertical obstacle 1 foot 4 inches high.
   Crosses trenches 5 feet wide.
   Fords streams 1 foot 8 inches deep.
20. Remarks: May be equipped with 20-mm machine guns and used as anti-tank machine-gun carriers. Poland had 750 of these tanks.

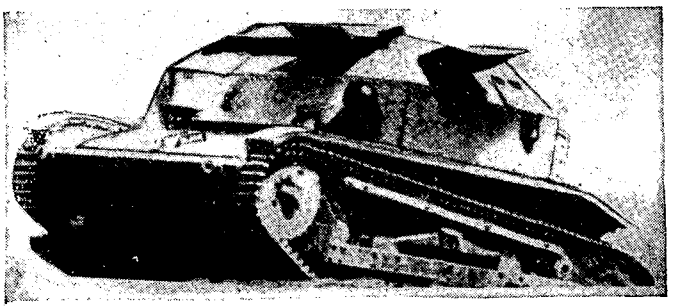
GERMAN
ARMY

LIGHT TANK
TK, TKF, OR TKS
(EX-POLISH)

Top

Front

Rear



Side

GERMAN ARMY

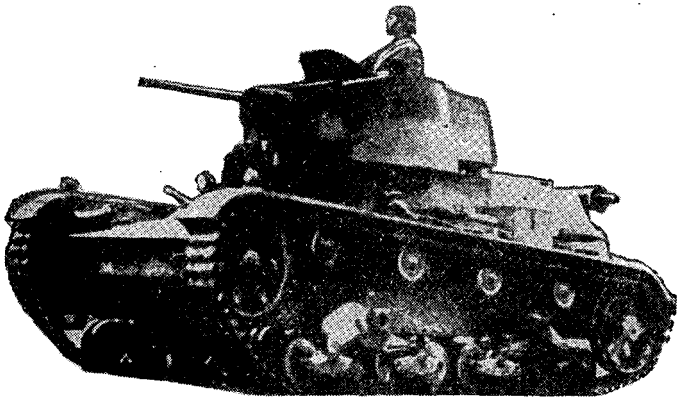


LIGHT TANK
7 TP
(EX-POLISH)

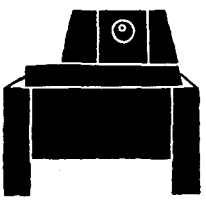
1. Crew: Three (driver, gunner, and commander-wireless operator).
2. Armament: One 37-mm Bofors; one light machine gun coaxially mounted.
3. Ammunition: 80 rounds for gun; 4,000 rounds for machine gun.
4. Armor, thickness: Thickest known 0.7 inch. May be increased to 0.8 inch to 1 inch.
   Upper structure:
   Front:
   Sides:
5. Turret: High turret with long-barreled gun in round mounting.
6. Vision:
7. Ventilation:
8. Communication: Radio.
9. Dimensions:
   Length: 15 feet.
   Width: 7 feet 11 inches.
   Height: 7 feet 2 inches.
10. Weight: 9.5 tons.
11. Motor:
    Type: 6-cylinder Diesel.
    Cooling system: Water.
    Horsepower: 100.
    Horsepower per ton: 10.6.
12. Drive: Front sprocket.
13. Speed:
    Cross-country:
    Road: 22 miles per hour.
    Maximum:
14. Cruising radius, at ------ speed ------ miles.
15. Operating distance without refill: 90 miles.
16. Gear speeds and ratios:
17. Turning radius:
18. Suspension, type: 8 small bogie wheels; high front driving sprocket; spoked rear idler wheel; four track support wheels.
19. Performance:
    Ground clearance: 1 foot 3 inches.
    Climbs 40° slopes.
    Negotiates vertical obstacles 2 feet 6 inches high.
    Crosses trenches 6 feet wide.
    Fords streams 3 feet deep.
20. Remarks:

GERMAN
ARMY

LIGHT TANK
7 TP
(EX-POLISH)

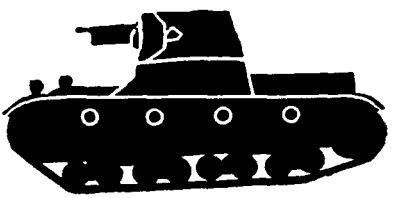


View



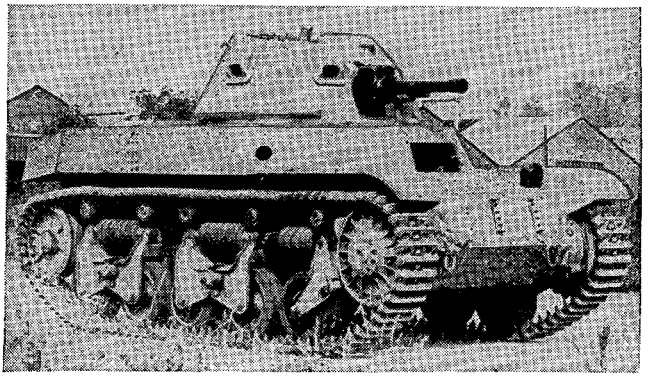
Front

Rear



Side

GERMAN
ARMY

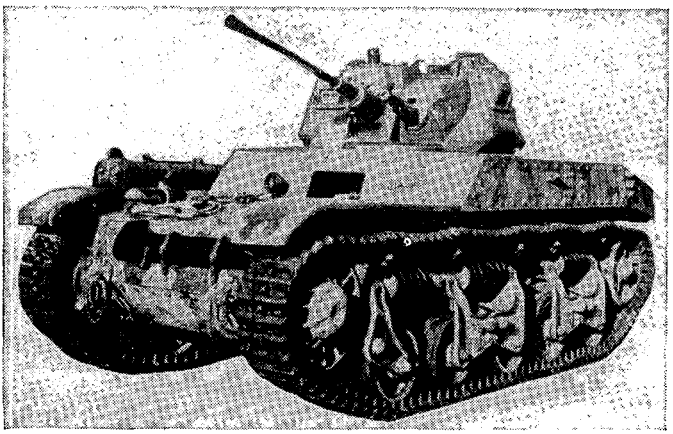


LIGHT TANK
AMC RENAULT, 1935
(EX-FRENCH)

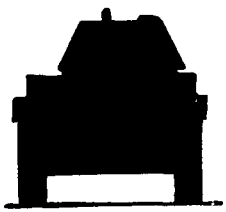
1. Crew: Two.
2. Armament: One 47-mm or one 37-mm or one 25-mm and one machine gun.
3. Ammunition: 108 rounds for gun; 2,100 rounds for machine gun.
4. Armor, thickness: 1 9/16 inches.
   Upper structure:
   Front:
   Sides:
5. Turret: Yes.
6. Vision: Periscope.
7. Ventilation:
8. Communication:
9. Dimensions:
   Length: 12 feet 10 inches.
   Width: 7 feet.
   Height: 7 feet 6 inches.
10. Weight: 14.5 tons.
11. Motor:
   Type: 4-cylinder.
   Cooling system: Water.
   Horsepower: 180.
   Horsepower per ton: 12.4.
12. Drive: Front sprocket.
13. Speed:
   Cross-country:
   Road:
   Maximum on roads: 25 mph.
14. Cruising radius, at 100 miles speed ------ miles.
15. Operating distance without refill: 100 miles.
16. Gear speeds and ratios: Four forward; one reverse.
17. Turning radius:
18. Suspension, type: Similar to Renault R1935.
19. Performance:
   Ground clearance: 1 foot 1 inch.
   Negotiates vertical obstacle 1 foot 8 inches high.
   Crosses trenches 7 feet 3 inches wide
   Fords streams 3 feet 4 inches deep.
20. Remarks: Similar to Renault R1935.

GERMAN
ARMY

LIGHT TANK
AMC RENAULT, 1935
(EX-FRENCH)

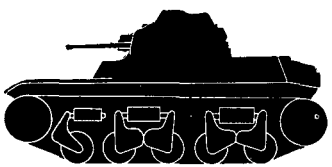


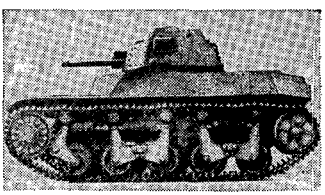
View



Front

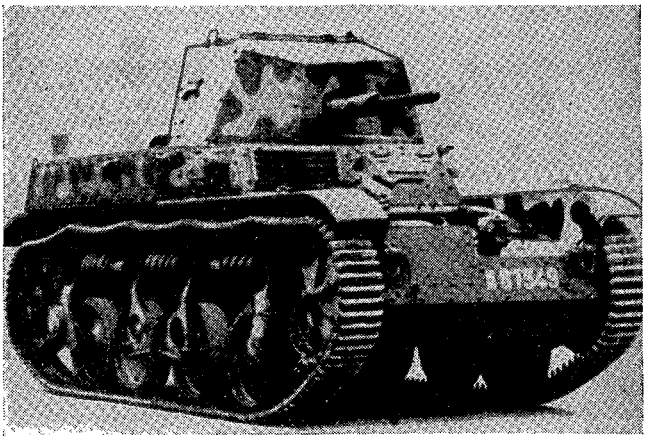
Rear





Side

GERMAN ARMY

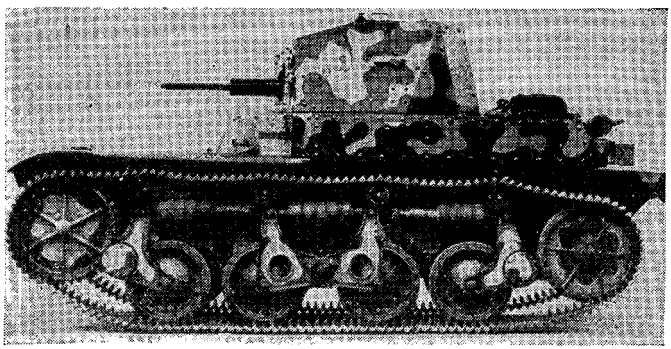


LIGHT TANK
RENAULT 1935, AMR
(EX-FRENCH)

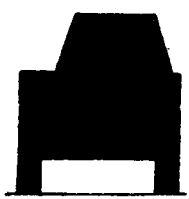
1. Crew: Two (one driver, one gunner).
2. Armament: One 13.2-mm or two light machine guns.
3. Ammunition: 220 rounds for heavy machine gun; 2,250 rounds for light machine guns.
4. Armor, thickness: 0.51-inch.
   Upper structure: 6-mm (.23 in.).
   Front: 13-mm (.51 in.).
   Sides: 13-mm (.51 in.).
5. Turret:
6. Vision: One periscope and five episcopes.
7. Ventilation:
8. Communication: Radio, flag, and lamp.
9. Dimensions:
   Length: 12 feet 6 inches.
   Width: 5 feet 3 inches.
   Height: 6 feet 6 inches.
10. Weight, 4½ to 5 tons.
11. Motor:
    Type: 4-cylinder.
    Cooling system: Water.
    Horsepower: 80.
    Horsepower per ton:
12. Drive: Front sprocket.
13. Speed:
    Cross-country:
    Road: 31 miles per hour.
    Maximum:
14. Radius of action: 125 miles.
15. Operating distance without refill:
16. Gear speeds and ratios:
17. Turning radius:
18. Suspension, type: Four bogie wheels; one bogie; two independent bogie wheels fore and aft.
19. Performance:
    Ground clearance: 1 foot 2 inches.
    Climbs 40° slopes.
    Negotiates vertical obstacle 1 foot 8 inches high.
    Crosses trenches 4 feet 3 inches wide.
    Fords streams 1 foot 8 inches deep.
20. Remarks: 200 were in existence.

GERMAN
ARMY

LIGHT TANK
RENAULT 1935, AMR
(EX-FRENCH)

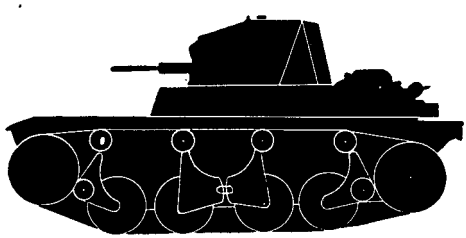


View



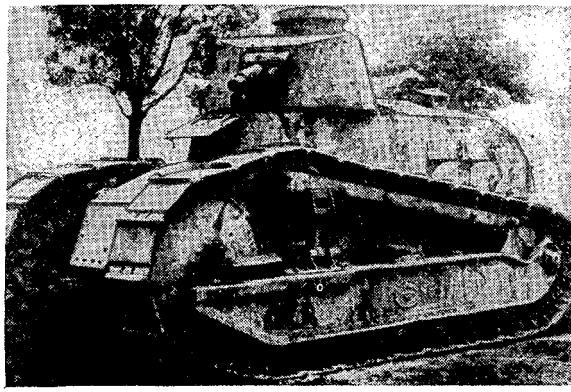
Front

Rear



Side

GERMAN
ARMY

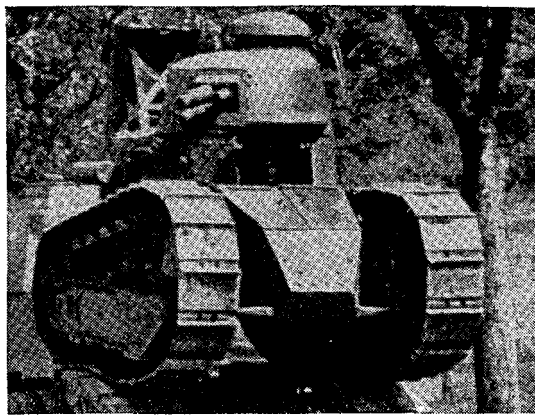


F. T. 17/18
HIGH TANK
(1918)
(EX-FRENCH)

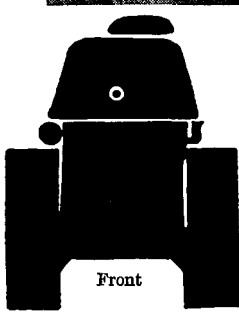
1. Crew: Two.
2. Armament: One 37-mm gun or one machine gun.
3. Ammunition.
4. Armor, thickness:
   Upper structure: 6-mm (.23 in.).
   Front: 22-mm (.86 in.).
   Sides.
5. Turret: 15- to 22-mm armor.
6. Vision: Eye slits.
7. Ventilation.
8. Communication.
9. Dimensions:
   Length: 13 feet 2 inches.
   Width: 5 feet 9 inches.
   Length with tail: 16 feet 2 inches.
   Height: 7 feet.
10. Weight: 6.7 tons.
11. Motor:
   Type.
   Cooling system: Water.
   Horsepower: 40.
   Horsepower per ton: 6 (may have been re-engined).
12. Drive: Front sprocket.
13. Speed:
   Cross-country.
   Road.
   Maximum: 5 mph.
14. Radius of action: 12 to 15 miles.
15. Operating distance without refill.
16. Gear speeds and ratios.
17. Turning radius.
18. Suspension, type.
19. Performance:
   Ground clearance: 1 foot 4 inches to 1 foot 6 inches.
   Climbs 45° slopes.
   Negotiates vertical obstacle 1 foot 8 inches.
   Crosses trenches 5 feet 11 inches.
   Fords streams _____ deep.
20. Remarks: Old World War type. Slow and noisy. Radius of action so limited that they must be transported to place of action. Upkeep limits use to 3 hours per day with 1 day's rest in 3 days.

GERMAN ARMY

LIGHT TANK
F. T.
(EX-FRENCH)



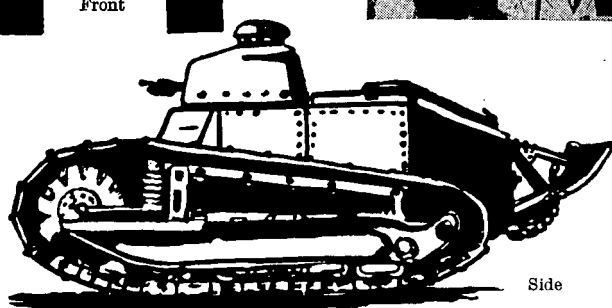
View



Front

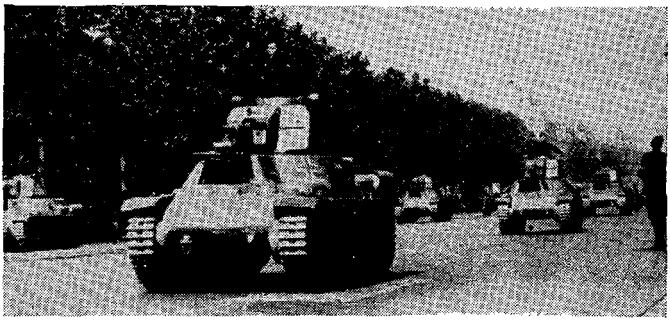
Rear





Side

GERMAN
ARMY

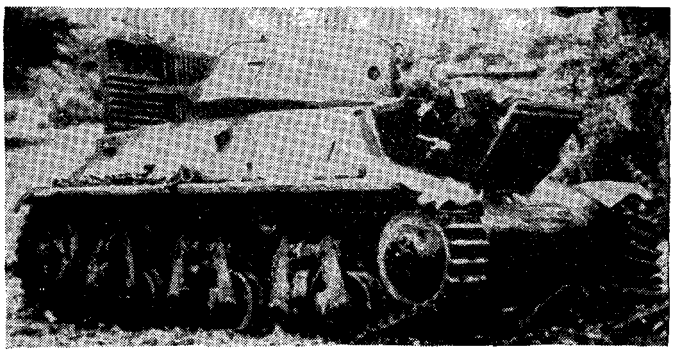


LIGHT TANK
HOTCHKISS H. 35 AND H. 39
(EX-FRENCH)

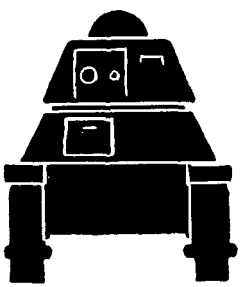
1. Crew: Two (one driver, one gunner).
2. Armament: One 37-mm gun; one light machine gun coaxially mounted.
3. Ammunition: 100 rounds for gun; 2,400 rounds for light machine gun.
4. Armor; thickness: 1½-inch cast steel.
   Upper structure:
   Front:
   Sides:
5. Turret:
6. Vision:
7. Ventilation:
8. Communication: Flag.
9. Dimensions:
   Length: 13 feet 8 inches.
   Width: 6 feet 1 inch.
   Height: 7 feet.
10. Weight: 12 tons.
11. Motor:
   Type: 6-cylinder.
   Cooling system: Water.
   Horsepower: 75 (H. 35).
   120 (H. 39).
12. Drive: Front sprocket.
13. Speed:
   Cross-country:
   Road:
   Maximum on roads: 17 mph (H. 35); 26 mph (H. 39).
14. Radius of action: 130 miles.
15. Operating distance without refill:
16. Gear speeds and ratios:
17. Turning radius:
18. Suspension, type: Six bogie wheels: three bogies, scissor articulation.
19. Performance:
   Ground clearance: 1 foot 3 inches.
   Climbs 40° slopes.
   Negotiates vertical obstacle 2 feet 7 inches high.
   Crosses trenches 4 feet 11 inches wide.
   Fords streams 2 feet 7 inches deep.
20. Remarks: The H. 39 is an improved model of the H. 35, the difference being larger engine, higher speed, and a long-barreled model of the 37-mm gun.

GERMAN
ARMY

LIGHT TANK
HOTCHKISS H.35 AND H.39
(EX-FRENCH)



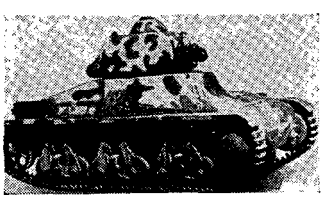
View

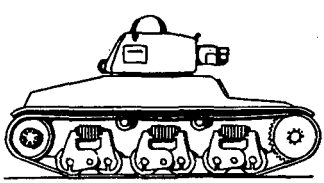


Front



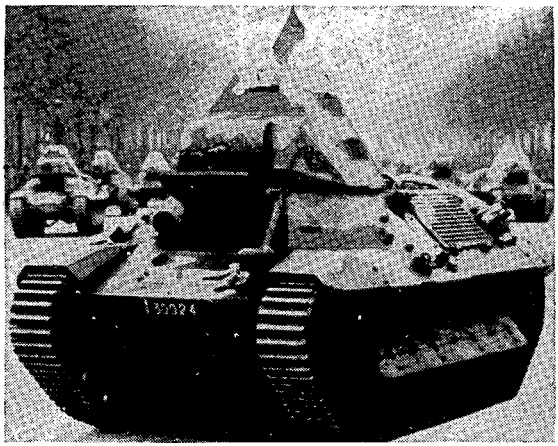
Rear





Side

GERMAN
ARMY

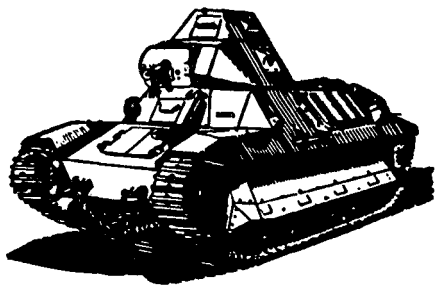


LIGHT TANK
F C M 1936
(EX-FRENCH)

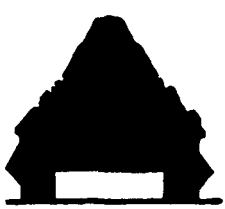
1. Crew: Two (one driver, one gunner).
2. Armament: One 37-mm gun; one light machine gun.
3. Ammunition: 100 rounds for gun; 2,400 rounds for light machine gun.
4. Armor, thickness: 1½-inch rolled steel plate.
   Upper structure: 20-mm (.78 in.).
   Front: 40-mm (1.57 in.).
   Sides: 40-mm (1.57 in.).
5. Turret:
6. Vision: Turret episcopes; B. D. glass protected slits.
7. Ventilation:
8. Communication: Flag.
9. Dimensions:
   Length: 14 feet 7 inches.
   Width: 7 feet.
   Height: 7 feet 2 inches.
10. Weight: 13 tons.
11. Motor:
   Type: 4-cylinder Diesel.
   Cooling system: Water.
   Horsepower: 100.
   Horsepower per ton:
12. Drive: Rear sprocket.
13. Speed:
   Cross-country: 9 mph.
   Road:
   Maximum on roads: 15 mph.
   Cruising: 12 mph.
14. Radius of action: 14 hours.
15. Operating distance without refill:
16. Gear speeds and ratios: Five forward, and reverse ratios from 0.95 to 0.706.
17. Turning radius:
18. Suspension, type: Nine bogie wheels; four pairs bogies; one independent adjustment bogie wheel, coil springs.
19. Performance:
   Ground clearance: 1 foot 3 inches.
   Climbs 40° slopes.
   Negotiates vertical obstacle 2 feet 11 inches high.
   Crosses trenches 5 feet 10 inches wide.
   Fords streams 2 feet 9 inches deep.
20. Remarks: 100 of these were known to exist. The suspension is completely protected by skirting.

GERMAN
ARMY

LIGHT TANK
F C M 1936
(EX-FRENCH)



View



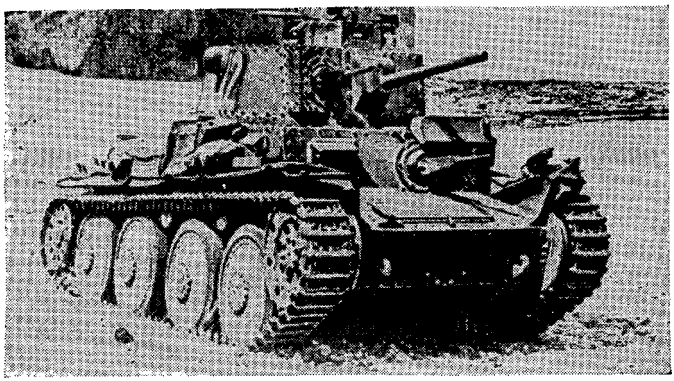
Front

Rear



Side

GERMAN ARMY



LIGHT TANK
L.T.H.
(EX-CZECH)

1. Crew: Three or four (driver, commander, two gunners).

2. Armament: One 47-mm gun and one 7.92-mm machine gun coaxial in turret. One 7.92-mm machine gun in hull.

3. Ammunition: 90 rounds for the 47-mm gun; 3,000 to 4,000 rounds for the machine guns.

4. Armor, thickness: Thickest now known being 1 inch; being raised to 2 inches.
Upper structure: .39 inch.
Front:
Sides: .59 inch.

5. Turret: Round, surmounted by round observation cupola on right-hand side.

6. Vision:

7. Ventilation:

8. Communication: Radio, flag, and lamp.

9. Dimensions:
Length: 15 feet 2 inches.
Width: 6 feet 9 inches.
Height: 7 feet 4 inches.

10. Weight: 8.5 tons (being raised to 12.5 tons).

11. Motor:
Type: 6-cylinder.
Cooling system: Water.
Horsepower: 140.
Horsepower per ton: 11.7 to 16.4.

12. Drive: Front sprocket.

13. Speed:
Cross-country:
Road: 26 mph.
Maximum: 35 mph.

14. Cruising radius, at ------ speed ------ miles.

15. Operating distance without refill: 125 miles.

16. Gear speeds and ratios:

17. Turning radius:

18. Suspension, type: Four large bogie wheels, three track support wheels, low rear idler wheel.

19. Performance:
Ground clearance: 1 foot 4 inches.
Climbs 40° to 45° slopes.
Negotiates vertical obstacle 2 feet 8 inches high.
Crosses trenches 6 feet 5 inches wide.
Fords streams 2 feet 11 inches to 3 feet 3 inches deep.

20. Remarks: A large number have been delivered to Germany. With increased armor may be used as an infantry tank.

GERMAN
ARMY

LIGHT TANK
TN HP
(EX-CZECH)

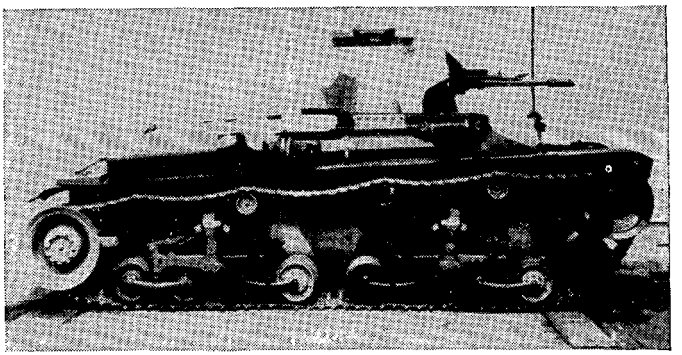
Rear

Top

Side

Front

GERMAN ARMY



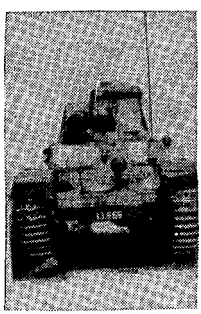
LIGHT TANK
LT 35 (S. II A.)
(EX-CZECH)

1. Crew: Three (driver, gunner, radio-operator-commander).
2. Armament: One 37-mm gun, two light machine guns (1 coaxially mounted, 1 on ball-mounting forward in hull).
3. Ammunition: 90 rounds for 37-mm gun; 3,000 rounds for machine guns.
4. Armor, thickness:
   Upper structure:
   Front: 1.10 inches.
   Sides: .94 inch.
5. Turret: Oblong face, cylindrical back; observation cupola on top left side; 37-mm gun and machine gun side by side in oblong face.
6. Vision:
7. Ventilation:
8. Communication: Radio and flag.
9. Dimensions:
   Length: 16 feet 2 inches.
   Width: 7 feet 6 inches.
   Height: 7 feet 10 inches.
10. Weight: 11.5 tons.
11. Motor:
   Type: 6-cylinder.
   Cooling system:
   Horsepower: 110.
   Horsepower per ton: 9.6.
12. Drive: Rear sprocket.
13. Speed:
   Cross-country:
   Road: 16 mph.
   Maximum: 22 mph.
14. Cruising radius, at ------ speed ------ miles.
15. Operating distance without refill: 70 miles.
16. Gear speeds and ratios:
17. Turning radius:
18. Suspension, type: Eight small bogie wheels. One independent; two bogies and twin bogie wheel on rocker with leaf springing. Four track-support wheels. Both idler wheel and rear driving sprocket have large outside rims which overlap the edge of the track.
19. Performance:
   Ground clearance:
   Climbs 40° slopes.
   Negotiates vertical obstacle 2 feet 7 inches high.
   Crosses trenches 6 feet 6 inches wide.
   Fords streams 2 feet 7 inches deep.
20. Remarks:

GERMAN
ARMY

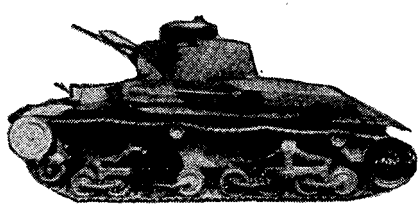
LIGHT TANK
LT 35 S. II A.
(EX-CZECH)

Top



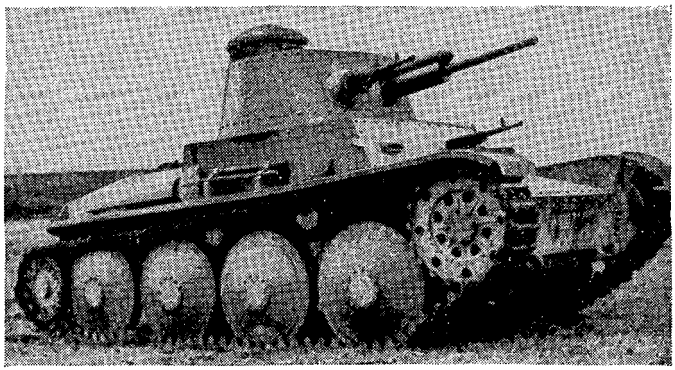
Front

Rear



Side

GERMAN ARMY



LIGHT TANK
T. N. H.
(EX-CZECH)

1. Crew: Three.
2. Armament: One 37-mm gun and one machine gun in turret; one machine gun in hull.
3. Ammunition: 2,700 rounds for machine guns; 90 rounds for 37-mm.
4. Armor, thickness:
   Upper structure: .39 inch.
   Front: .98 inch.
   Sides: .59 inch.
5. Turret: Similar to the L. T. H.
6. Vision:
7. Ventilation:
8. Communication: Radio, lamp, and flag.
9. Dimensions:
   Length: 14 feet 9 inches.
   Width: 6 feet 10 inches.
   Height: 7 feet 7 inches.
10. Weight: 7.8 tons.
11. Motor:
   Type:
   Cooling system: Water.
   Horsepower: 100.
   Horsepower per ton: 12.8.
12. Drive: Front sprocket.
13. Speed:
   Cross-country:
   Road:
   Maximum: 23 mph.
14. Cruising radius, at ------ speed ------ miles.
15. Operating distance without refill:
16. Gear speeds and ratios:
17. Turning radius:
18. Suspension, type: four large Christie type wheels, leaf springs, simi lar to the L. T. H.
19. Performance:
   Ground clearance: 1 foot 3 inches.
   Negotiates vertical obstacle 2 feet 7½ inches.
   Crosses trenches 7 feet wide.
   Fords streams 3 feet deep.
20. Remarks: It is reported that this tank can be transported in modified Ju 90 and Focke-Wulf 200 airplanes.

GERMAN
ARMY

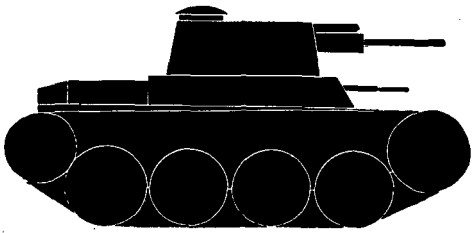
LIGHT TANK
T.N.H.
(EX-CZECH)



View

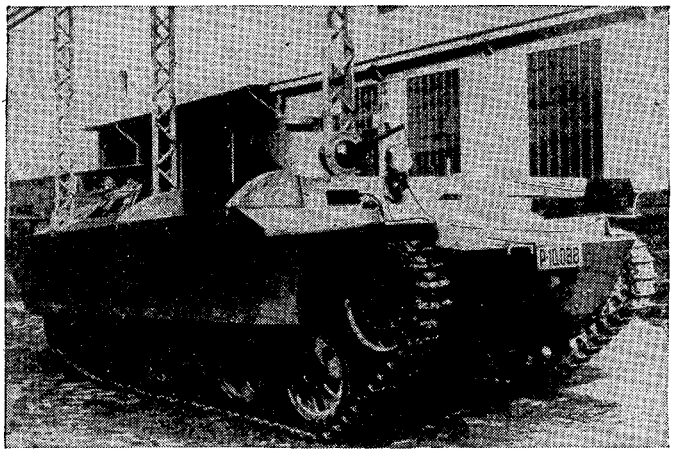
Front

Rear



Side

GERMAN ARMY



LIGHT AMPHIBIAN
F. IV H. E.
(EX-CZECH)

1. Crew: Three (gunner, driver, and commander).
2. Armament: One heavy machine gun in turret.
3. Ammunition: 4,000 rounds.
4. Armor, thickness: 12-mm, basis .472 inch.
   Upper structure:
   Front:
   Sides:
5. Turret: Small round turret with heavy machine gun on ball-mounting and round lookout cupola.
6. Vision: Bulletproof glass blocks and periscope.
7. Ventilation:
8. Communication: Radio, flag, and lamp.
9. Dimensions:
   Length: 16 feet 9 inches.
   Width: 8 feet 2 inches with floats.
   Height: 6 feet 11 inches.
10. Weight: 6.2 tons.
11. Motor:
   Type: 4-cylinder.
   Cooling system: Water.
   Horsepower: 120.
   Horsepower per ton: 19.4.
12. Drive: Front sprocket.
13. Speed:
   Cross-country:
   Road: 28 mph.
   Maximum:
      Land: 28 mph.
      In water: 3½ mph.
14. Cruising radius, at ------ speed ------ miles.
15. Operating distance without refill: 90 miles.
16. Gear speeds and ratios:
17. Turning radius:
18. Suspension, type: Four large bogie wheels. High front idler wheel. Float which comes down as far as the top of the bogie wheels. The vehicle has twin screws at the rear.
19. Performance:
   Ground clearance: 1 foot.
   Climbs 35° to 45° slopes.
   Negotiates vertical obstacle 2 feet 8 inches high.
   Crosses trenches 7 feet 1 inch wide.
   Fords streams ----- deep.
20. Remarks: One hundred of these known to exist. An improved model may have been produced.

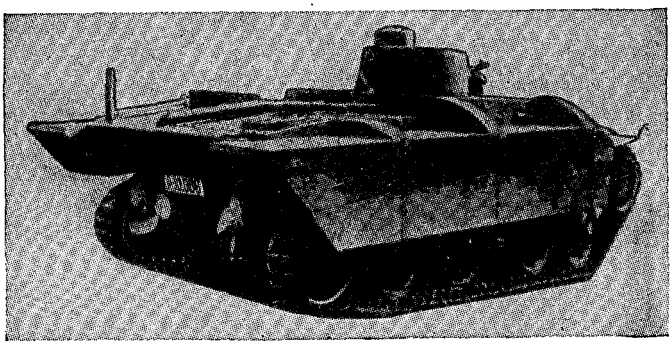
GERMAN
ARMY

LIGHT AMPHIBIAN
F 4 *HE*
(EX-CZECH)

Top

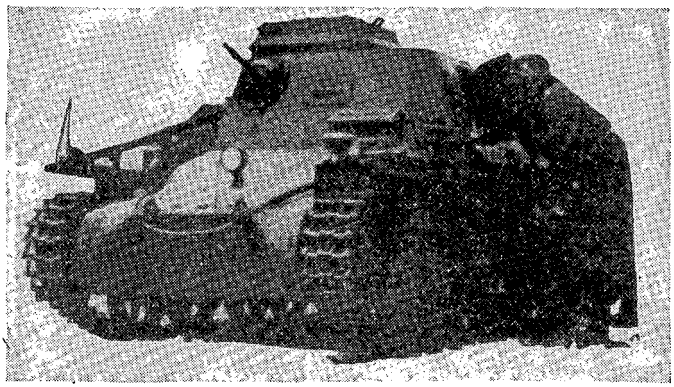
Front

Rear



Side

GERMAN ARMY



MARK I COMMANDERS TANK
(KL. PZ. BEF. WG. SD. KFZ 265)

1. Crew: Three (driver, commander, and gunner).
2. Armament: One machine gun.
3. Ammunition:
4. Armor, thickness: .55 inch.
   Upper structure:
   Front:
   Sides:
5. Turret: Square, fixed, with machine gun in ball mount, firing forward only.
6. Vision:
7. Ventilation:
8. Communication: W/T and R/T.
9. Dimensions:
   Length: 13 feet.
   Width: 6 feet 5 inches.
   Height: 6 feet 6 inches.
10. Weight:
    Unladen: 5 tons 6 cwt.
    In action: 5 tons 13 cwt.
11. Motor:
    Type: V-8.
    Cooling system: Air.
    Horsepower: 90 to 100.
    Horsepower per ton: 15.8.
12. Drive:
13. Speed:
    Cross-country:
    Road: 32 mph.
    Maximum:
14. Cruising radius:
    Road: 106 miles.
    Cross-country: 72 miles.
15. Operating distance without refill: 95 miles.
16. Gear speeds and ratios:
17. Turning radius:
18. Suspension, type: Five spoked bogie wheels, one independently sprung and the last four connected by an outside girder bearer. Rear idler wheels almost on the ground. Four track support wheels.
19. Performance:
    Ground clearance: 1 foot.
    Climbs 45° slopes.
    Negotiates vertical obstacle_____ high.
    Crosses trenches 4 feet 7 inches wide.
    Fords streams 2 feet deep.
20. Remarks: This chassis is that of a standard Mk. I model B tank, and on this is mounted a fixed square turret, with one machine gun in a ball mounting firing forward. The vehicle is used as a commander's armored office.

GERMAN
ARMY

LIGHT TANK
LIGHT COMMANDERS TANK
(KL. PZ. BEF. WG. SD. KFZ 265)

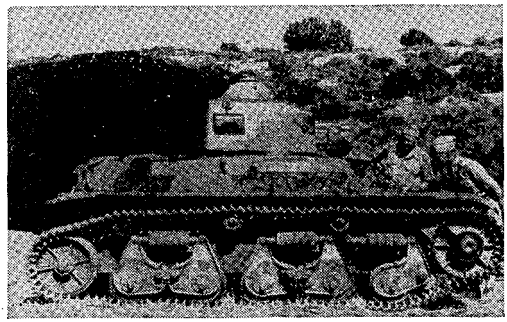
Top

Front

Rear

Side

GERMAN ARMY

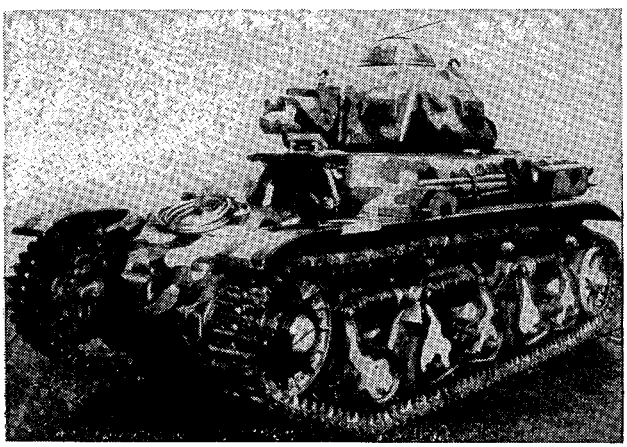


LIGHT TANK RENAULT R 1935 (EX-FRENCH)

1. Crew: Two (one driver, one gunner).
2. Armament: One 37-mm gun; one light machine gun coaxially mounted.
3. Ammunition: 100 rounds for gun; 2,400 rounds for light machine gun.
4. Armor, thickness: 1½ inch cast steel.
   Upper structure: 12-mm (.47 in.).
   Front: 40-mm (1.57 in.).
   Sides: 40-mm (1.57 in.).
5. Turret: Cast armor piercing steel.
6. Vision: Episcope forward and three bullet-proof glass blocks in turret.
7. Ventilation:
8. Communication: Radio and flag.
9. Dimensions:
   Length: 13 feet 2 inches.
   Width: 6 feet.
   Height: 7 feet 8 inches.
10. Weight: 11 tons.
11. Motor:
    Type: 4-cylinder.
    Cooling system: Water.
    Horsepower: 83.
    Horsepower per ton: 7.5.
12. Drive: Front sprocket.
13. Speed:
    Cross-country: 8 mph.
    Road: 12½ mph.
    Cruising: 10 mph.
14. Radius of action: 90 to 95 miles
15. Operating distance without refill:
16. Gear speeds and ratios: Four forward and reverse.
17. Turning radius:
18. Suspension, type: Five bogie wheels; two pairs bogies with scissor articulation, one independent bogie wheel.
19. Performance:
    Ground clearance: 1 foot 2 inches.
    Climbs 40° slopes.
    Negotiates vertical obstacle 2 feet 11 inches high.
    Crosses trenches 5 feet 3 inches wide.
    Fords streams 2 feet 7 inches deep.
20. Remarks: A large number were in existence. Tank may be fitted with a tail to improve trench-crossing performance. Can be easily mass produced. It has been reported that the Germans are replacing the turrets of about 400 captured French R 1935 tanks with a roofless armored box shield built in rectangular sections. The thickness of the armor is 25-mm in front, 20-mm at the sides, and 15-mm in the rear. The armament consists of a machine gun and one Skoda 47-mm antitank gun with a traverse of 50°.

GERMAN
ARMY

LIGHT TANK
RENAULT R 1935
(EX-FRENCH)



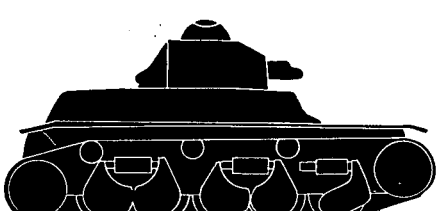
View



Front

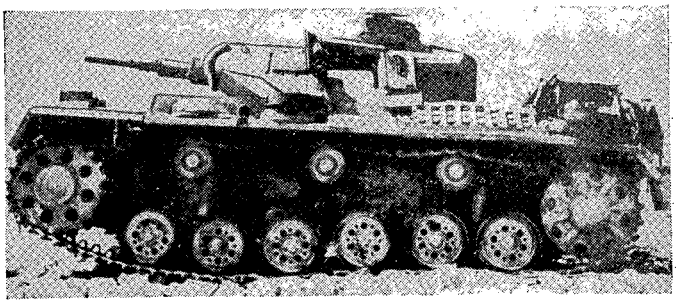


Rear View



Side

GERMAN ARMY



MEDIUM TANK
PZ KW III (PANZER KRAFTWAGEN III) (SD KFZ 141) (MAYBACH TYPE)

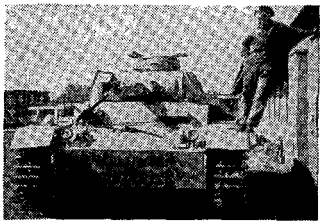
1. Crew: Five (driver, hull gunner and radio operator, commander, gunner, and a loader).
2. Armament: One 50-mm (Kwk) gun and 1 Spandau light machine gun, coaxially mounted in the hull, firing forward.
3. Ammunition: 100 rounds 50-mm including armor piercing high explosive, armor piercing 40 and high explosive 25 belts of machine-gun ammunition 75 rounds each.
4. Armor, thickness:
   Upper structure: 1.1-inch plus 1.1-inch extra plate.
   Front: 1.1 inch.
   Sides: 30-mm (1.1-inch).
5. Turret: 360° hand traverse. Turret floor does not rotate.
6. Vision: Turret guns are sighted by means of a telescopic sight or an open sight. The hull gun is sighted through a crank-shaped optical sight Kzf 2.
7. Ventilation: A ventilating fan is fitted into the roof of the turret.
8. Communication: W/T and R/T radio.
9. Dimensions:
   Length: 18 feet.
   Width: 9 feet 6 inches.
   Height: 8 feet 1 inch.
10. Weight: Unladen, 18 tons 10 hundredweight; in action: 19 tons 5 hundredweight.
11. Motor:
   Type: V-12, 4-stroke.
   Cooling system: Water.
   Horsepower: 265.
   Horsepower per ton: 12.
12. Drive: Engine, clutch, drive shaft, gearbox, bevel drive, steering, final reduction drive, front sprockets.
13. Speed: Maximum, 28 mph.
14. Cruising radius, at _____ speed _____ miles.
15. Operating distance without refill: 113 miles.
16. Gear speeds and ratios: Eight forward, two reverse.
17. Turning radius:
18. Suspension: The latest known type has six small bogie wheels sprung by torsim bars. The front and rear bogie wheels are fitted with hydraulic dampers. There are three return rollers and a rear idler.
19. Performance:
   Ground clearance: 15 inches.
   Negotiates vertical obstacle 1 foot 11 inches high.
   Crosses trenches _____ wide.
   Fords streams 2 feet 7 inches deep.
20. Remarks: The hull or chassis of this tank is used for the "Sturmeschutz" with 75-mm assault gun. This is the only Mk. 3 assault gun identified as yet but it is thought that 105-mm and 150-mm guns may also be mounted on the turretless chassis of Mk. 3 tanks. The commander tank Mk. 3 consists of a Mk. 3 tank of either the early or latest type with a fixed turret and a dummy gun. It has an aerial around the flat portion of the hull behind the turret.

GERMAN ARMY

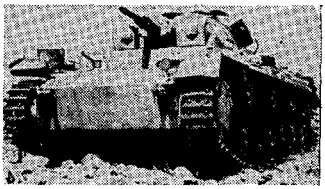
MEDIUM TANK
PZ KW III (PANZER KRAFTWAGEN III) (MAYBACH TYPE)



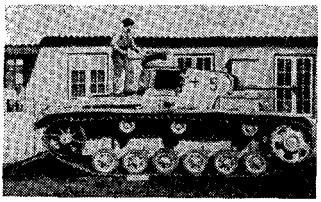
View

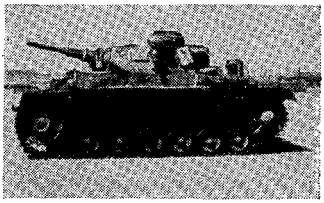


Front



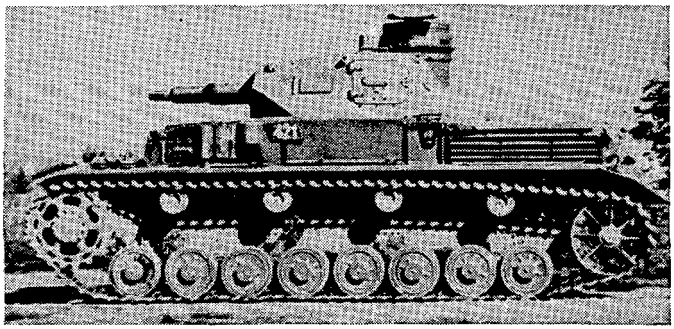
View





Side

GERMAN ARMY

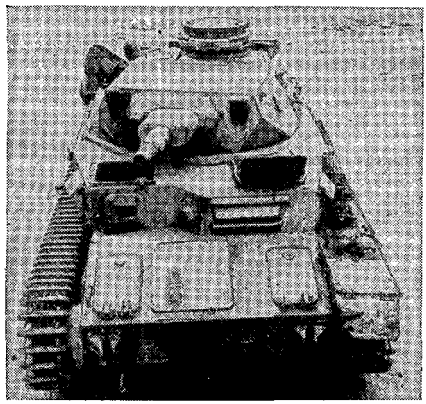


MEDIUM TANK
PZ KW IV (PANZER KRAFTWAGEN IV) (SD KFZ 161)

1. Crew: Five (driver, hull gunner and radio operator, commander, gunner, and loader).
2. Armament: One 75-mm gun; one machine gun coaxially mounted; one machine gun in ball mounting.
3. Ammunition: 75-mm—83 rounds armor piercing high explosive, high explosive and smoke; machine gun—27 belts each of 75 rounds.
4. Armor, thickness:
   Upper structure: .78 inch (20-mm).
   Front: 1.18 inches (30-mm) plus 30-mm extra plate in front of driver and hull gunners compartment.
   Sides: 20-mm plus 20-mm extra plate for hull superstructure and mid-part of hull.
5. Turret: Hand or power traverse from 2 cylinders DKW 9 h. p. petrol engine connected to a generator. Turret floor rotates.
6. Vision: Turret guns sighted by telescopic and open sights. Hull gun by crank-shaped optical sight KZF2.
7. Ventilation: Newer models have an electric fan fitted to turret roof. On older models ventilation was provided by a rectangular flap, hinged at its forward end and fitted to the roof of the turret.
8. Communication: W/T.
9. Dimensions:
   Length: 19 feet 6 inches.
   Width: 9 feet 4 inches.
   Height: 8 feet 9 inches.
10. Weight:
   Unladen: 19 tons.
   In action: 20 tons 1 hundredweight.
11. Motor:
   Type: V–12, 4-stroke.
   Cooling system: Water.
   Horsepower: 320.
   Horsepower per ton: 14.5.
12. Drive: Engine, drive shaft, clutch, gear box, bevel drive steering system, final drive, and front sprockets.
13. Speed:
   Cross-country: 14 mph.
   Road:
   Maximum: 22 mph.
14. Cruising radius: At 18 to 20 mph., about 90 to 100 miles.
15. Operating distance without refill: 100 miles.
16. Gear speeds and ratios: Top gear is a direct drive and the small bevel box integral with gear box has a ratio of approximately 1/1. The steering reduction gear gives an over-all reduction to 9.5/1.
17. Turning radius:
18. Suspension, type: Eight small bogie wheels. Mounted and sprung in pairs by quarter-elliptic springs. There is a rear idler and four return rollers.
19. Performance:
   Ground clearance: 16 inches.
   Climbs 27° slope.
   Negotiates vertical obstacle 2 feet high.
   Crosses trenches 7 feet wide.
   Fords streams 2 feet 7 inches deep.
20. Remarks: The horizontal engine louvres at each side of built-up hull at the rear is vulnerable.

GERMAN ARMY

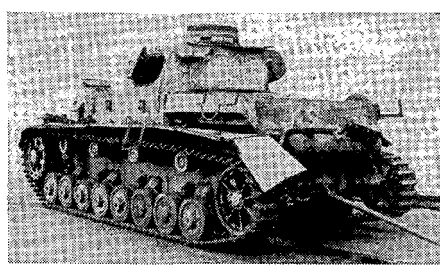
MEDIUM TANK
PZ KW IV (PANZER KRAFTWAGEN IV)



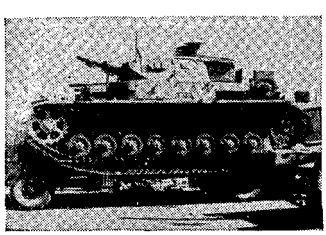
Top

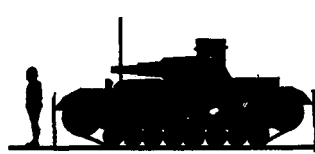


Front



Rear





Side

GERMAN ARMY

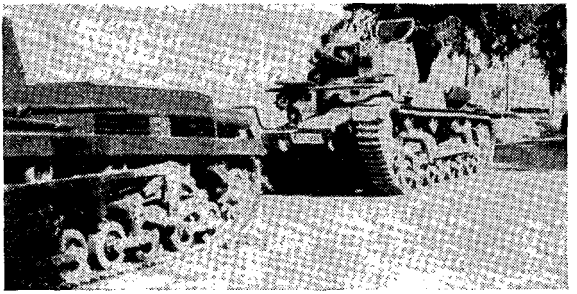


MEDIUM TANK C.K.D.V.8.H. (EX-CZECH)

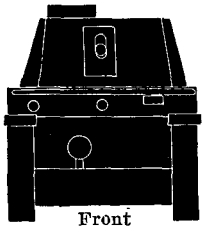
1. Crew: Three or four (driver, commander, one or two gunners).
2. Armament: One 47-mm gun and one machine gun coaxially mounted in turret; one machine gun in hull, fore.
3. Ammunition: 90 rounds for 47-mm gun; 3,000 rounds for small arms.
4. Armor, thickness:
   Upper structure: .78 inch.
   Front: 1.41 inches.
   Sides: 1.06 inches.
5. Turret: The turret is streamlined, tapering toward the rear, surmounted by cupola on left-hand side. Entrance to turret in hull to left behind turret.
6. Vision:
7. Ventilation:
8. Communication: Radio and lamp.
9. Dimensions:
   Length: 17 feet 6 inches.
   Width: 7 feet 6 inches.
   Height: 7 feet 8 inches.
10. Weight: 16.5 tons.
11. Motor:
    Type: V-8.
    Cooling system:
    Horsepower: 245.
    Horsepower per ton: 14.8.
12. Drive: Rear sprocket.
13. Speed:
    Cross-country:
    Road: 27 mph.
    Maximum:
14. Cruising radius, at ------ speed ------ miles.
15. Operating distance without refill: 96 miles.
16. Gear speeds and ratios:
17. Turning radius:
18. Suspension, type: Nine bogie wheels; independent bogie; four pairs of bogies each with elliptical leaf springing connected by outside bearer girder.
19. Performance:
    Ground clearance: 1 foot 6 inches.
    Climbs 41° slopes.
    Negotiates vertical obstacle 3 feet 3 inches high.
    Crosses trenches 7 feet 6 inches wide.
    Fords streams 3 feet 3 inches deep.
20. Remarks:

GERMAN
ARMY

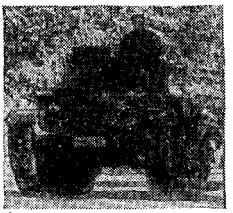
MEDIUM TANK
C. K. D. V. 8. H.
(EX-CZECH)



View

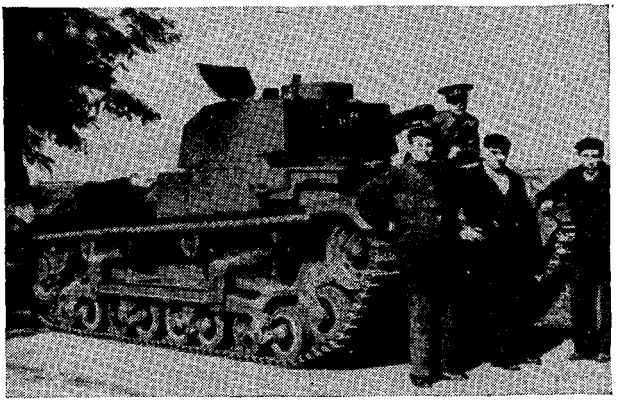


Front



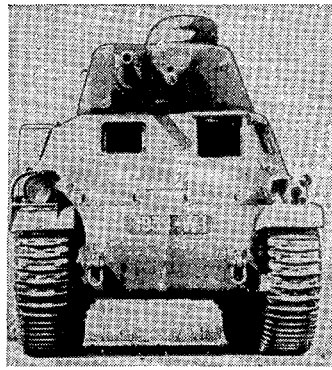


Rear



Side

GERMAN
ARMY

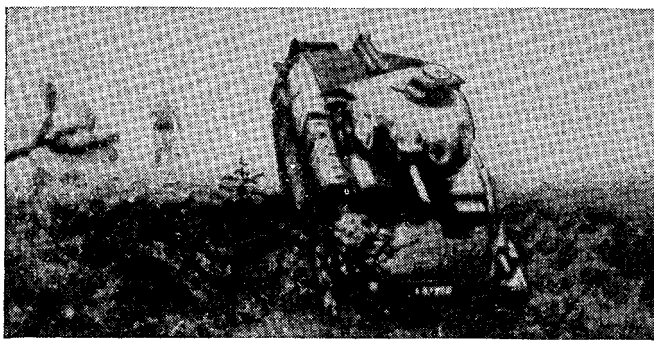


MEDIUM TANK
(FRENCH SOMUA S35 AND S40)

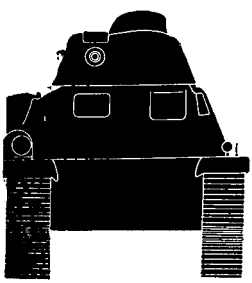
1. Crew: Three (driver, gunner, commander).
2. Armament: One 47-mm gun; one light machine gun.
3. Ammunition: 120 rounds for gun; 5,000 rounds for light machine gun.
4. Armor, thickness: 1½ inches.
   Upper structure: .59 inch.
   Front: 1.57 inches.
   Sides: 1.57 inches.
5. Turret: Placed well forward. Cast steel armor, built up type, bolted.
6. Vision: Periscope, turret episcope, and driver's lookout bulletproof glass blocks.
7. Ventilation:
8. Communication: Radio, flag.
9. Dimensions:
   Length: 17 feet 6 inches.
   Width: 6 feet 8 inches.
   Height: 8 feet 10 inches.
10. Weight: 18 tons.
11. Motor:
   Type: V-8.
   Cooling system: Water.
   Horsepower: 150.
   Horsepower per ton: 8.3.
12. Drive: Rear sprocket.
13. Speed:
   Cross-country: 11 mph.
   Road:
   Maximum: 29 mph.
14. Radius of action: 125 miles at cruising speed of 19 mph.
15. Operating distance without refill:
16. Gear speeds and ratios:
17. Turning radius:
18. Suspension, type; Nine bogie wheels; four bogies with leaf springing; one independent bogie wheel; protected by skirting.
19. Performance:
   Ground clearance: 1 foot 4 inches.
   Climbs 40° slopes.
   Negotiates vertical obstacle 2 feet 11 inches high.
   Crosses trenches 7 feet 10 inches wide.
   Fords streams 3 feet 3 inches deep.
20. Remarks: Considerable numbers were in existence.

GERMAN ARMY

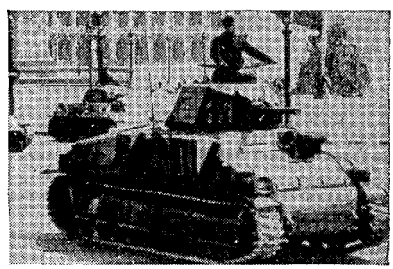
MEDIUM TANK (FRENCH SOMUA S35 AND S40)



Top

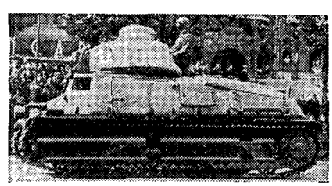


Front



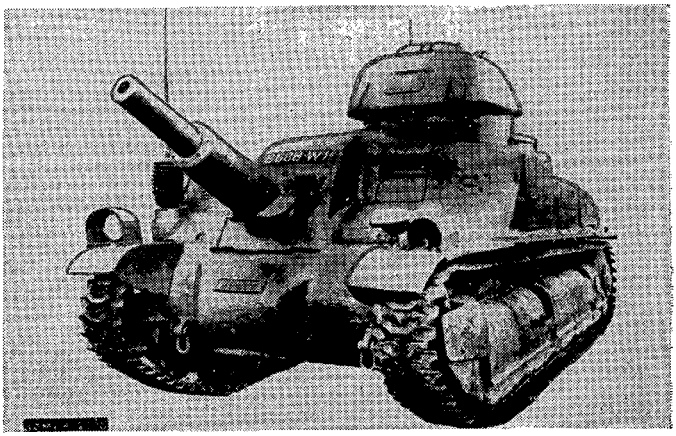
View





Side

GERMAN
ARMY



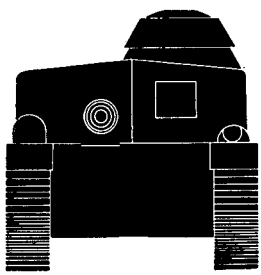
MEDIUM TANK
S AU 40 GUN TANK OR MOBILE ARTILLERY
(EX-FRENCH)

1. Crew: Three (four?) (driver, commander, gunner (loader?)).
2. Armanent: One 75-mm gun.
3. Ammunition:
4. Armor, thickness: 1½-inch.
   Upper structure:
   Front:
   Sides:
5. Turret:
6. Vision:
7. Ventilation:
8. Communication: Radio, flag.
9. Dimensions:
   Length: 19 feet 5 inches.
   Width: 6 feet 11 inches.
   Height: 8 feet 10 inches.
10. Weight: 21.5 tons.
11. Motor:
    Type: V–8.
    Cooling system: Water.
    Horsepower: 190.
    Horsepower per ton:
12. Drive: Rear sprocket.
13. Speed:
    Cross-country: 15 mph.
    Maximum on roads: 18 mph.
14. Radius of action: 140 miles.
15. Operating distance without refill:
16. Gear speeds and ratios:
17. Turning radius:
18. Suspension, type: Same as serial 8.
19. Performance:
    Ground clearance: 1 foot 4 inches.
    Climbs _____ ° slopes.
    Negotiates vertical obstacle 2 feet 11 inches high.
    Crosses trenches 7 feet 10 inches wide.
    Fords streams 3 feet 3 inches deep.
20. Remarks: Thirty-two were in existence. Long-barreled 75-mm gun was mounted in the hull. Was to be used as armored artillery.

GERMAN
ARMY

MEDIUM TANK
S AU 40 GUN TANK OR
MOBILE ARTILLERY
(EX-FRENCH)

Top

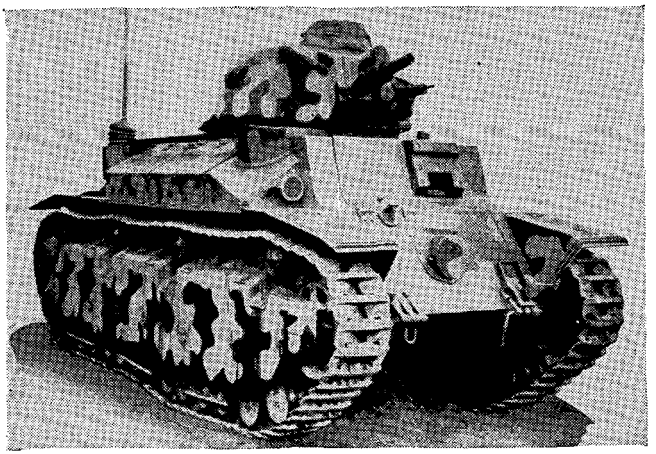


Front

Rear

Side

GERMAN
ARMY

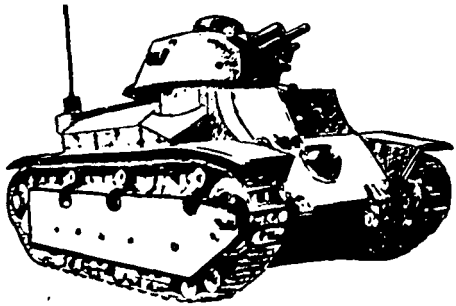


MEDIUM TANK
D–2
(EX-FRENCH)

1. Crew: Three (driver, commander-gunner, operator-loader).
2. Armament: One 47-mm gun; two light machine guns.
3. Ammunition: 110 rounds for gun; 5,000 rounds for light machine gun.
4. Armor, thickness: 1½-inch.
   Upper structure:
   Front:
   Sides:
5. Turret:
6. Vision:
7. Ventilation:
8. Communication: Radio, flag.
9. Dimensions:
   Length: 16 feet 7 inches.
   Width: 7 feet 2 inches.
   Height: 8 feet 9 inches.
10. Weight: 20 tons.
11. Motor:
    Type: 6-cylinder.
    Cooling system: Water.
    Horsepower: 150.
    Horsepower per ton:
12. Drive: Rear sprocket (?).
13. Speed:
    Cross-country:
    Road: 14 miles per hour.
    Maximum:
14. Radius of action: 90 to 95 miles.
15. Operating distance without refill:
16. Gear speeds and ratios:
17. Turning radius:
18. Suspension, type: Twelve small bogie wheels; six bogies with coil springing; suspension protected by skirting.
19. Performance:
    Ground clearance: 1 foot 4 inches.
    Climbs 45° slopes.
    Negotiates vertical obstacle 3 feet 3 inches high.
    Crosses trenches 7 feet 10 inches wide.
    Fords streams 3 feet 3 inches deep.
20. Remarks: Only a limited number of these vehicles were manufactured.

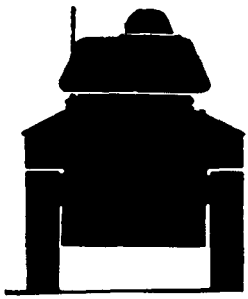
GERMAN
ARMY

MEDIUM TANK
D–2
(EX-FRENCH)



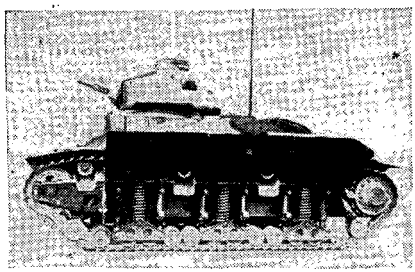
View





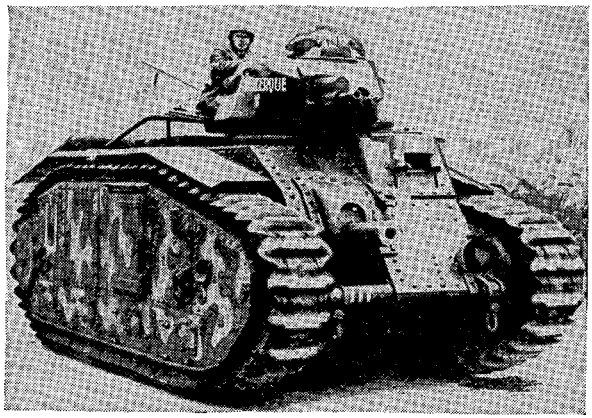
Front

Rear



Side

GERMAN
ARMY

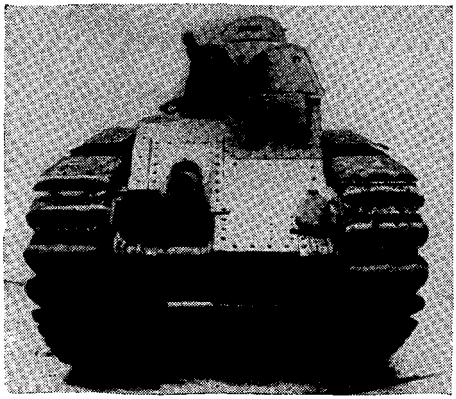


HEAVY TANK
CHAR B I
(EX-FRENCH)

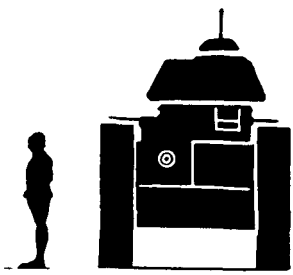
1. Crew: Four (driver, commander-gunner, wireless telegraph operator, loader-mechanic).
2. Armament: One, 76-mm gun; one 47-mm gun; two light machine guns.
3. Ammunition: 72 rounds for 75-mm gun; 70 rounds for 47-mm gun.
4. Armor, thickness: 2½-inch.
   Upper structure: 20-mm (.78 in.)
   Front: 60-mm (2.36 in.).
   Sides: 60-mm (2.36 in.).
5. Turret:
6. Vision:
7. Ventilation:
8. Communication: Radio, lamp, flag.
9. Dimensions:
   Length: 20 feet 8 inches.
   Width: 8 feet 2 inches.
   Height: 9 feet.
10. Weight: 31 tons.
11. Motor:
    Type: 6-cylinder.
    Cooling system: Water.
    Horsepower: 270.
    Horsepower per ton:
12. Drive: Rear sprocket.
13. Speed:
    Cross-country: 11 mph.
    Cruising: 15 mph.
    Maximum on roads: 17 mph.
14. Radius of action: 150 miles.
15. Operating distance without refill:
16. Gear speeds and ratios: five forward and reverse.
17. Turning radius:
18. Suspension, type: Sixteen small bogie wheels; three bogies or four wheels with leaf and coil springs; protected by skirting.
19. Performance:
    Ground clearance: 1 foot 7 inches.
    Climbs 40° slopes.
    Negotiates vertical obstacle 3 feet 10 inches high.
    Crosses trenches 9 feet wide.
    Fords streams 4 feet 10 inches deep.
20. Remarks: Considerable numbers were in existence. The armor was to be increased to 75-mm and engine to 350-horsepower at Renault. A report of July 1941 stated that the Germans were fitting a 450-horsepower engine and *mounting the 88-mm multipurpose gun* on this tank.

GERMAN
ARMY

HEAVY TANK
CHAR B I
(EX-FRENCH)



View



Front



Rear



Side

GERMAN
ARMY

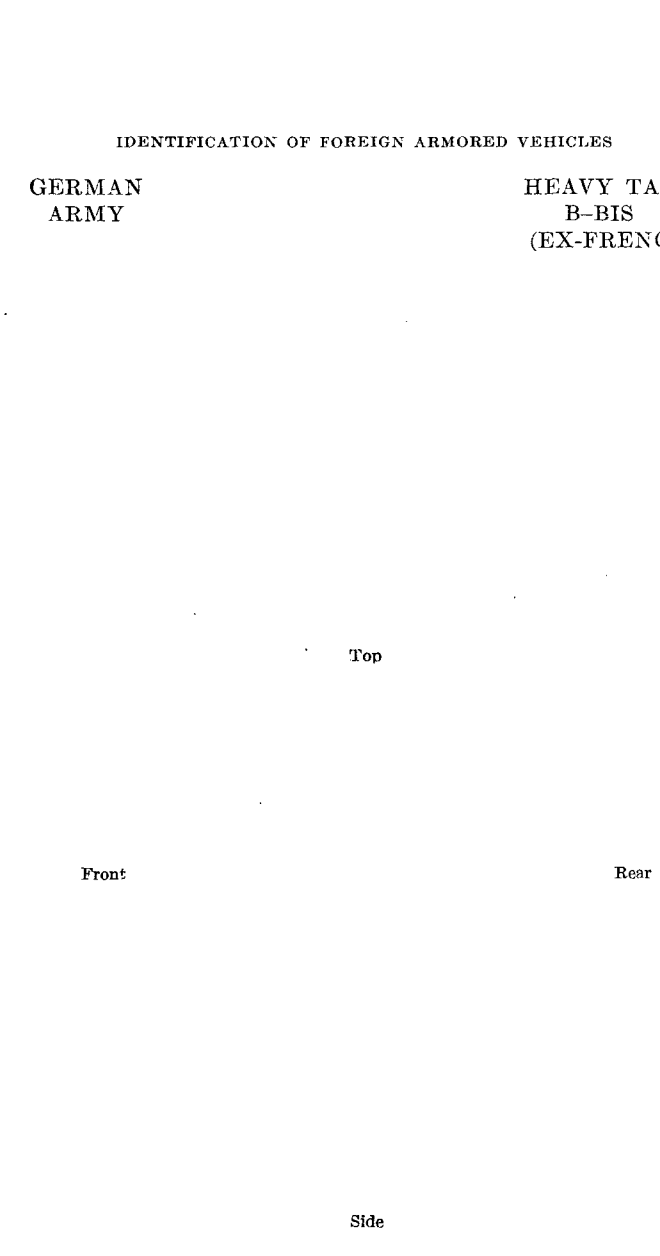


HEAVY TANK
B–BIS
(EX-FRENCH)

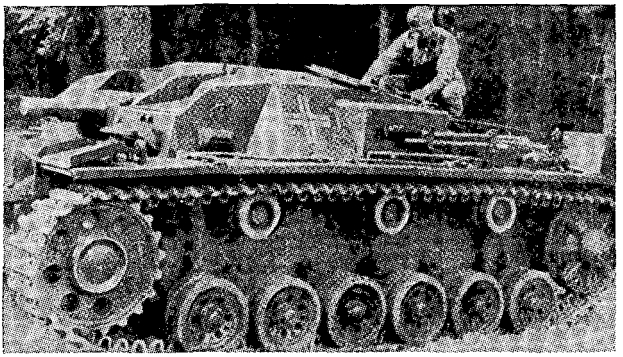
1. Crew: Four.
2. Armament: One 75-mm gun, one 47-mm gun, two machine guns.
3. Ammunition: 59 rounds for 75-mm gun; 60 rounds for 47-mm gun; 5,000 rounds for machine gun.
4. Armor, thickness: 2.75-mm.
   Upper structure:
   Front:
   Sides:
5. Turret: Yes.
6. Vision: One telescopic sight; one pair binoculars.
7. Ventilation:
8. Communication:
9. Dimensions:
   Length: 20 feet 9 inch.
   Width: 8 feet 2 inches.
   Height: 10 feet.
10. Weight: 33.3 tons.
11. Motor:
    Type: 6-cylinder.
    Cooling system:
    Horsepower: 300.
    Horsepower per ton:
12. Drive:
13. Speed:
    Cross-country:
    Road:
    Maximum: 18.6 miles per hour.
14. Cruising radius, at _____ speed _____ miles.
15. Operating distance without refill: 7 hours.
16. Gear speeds and ratios: 5 forward, 1 reverse.
17. Turning radius:
18. Suspension, type: Forged steel links.
19. Performance:
    Ground clearance:
    Climbs 42° slopes.
    Negotiates vertical obstacle 3 feet 6 inches high.
    Crosses trenches 9.02 feet wide.
    Fords streams _____ deep.
20. Remarks: Similar to Tank B except for armor, ammunition, and horsepower.

GERMAN
ARMY

HEAVY TANK
B–BIS
(EX-FRENCH)



GERMAN
ARMY



STURMGESCHUTZ
7.5-CM STURMEGESCHUTZ (ASSAULT GUN OR SELF-PROPELLED ARTILLERY)

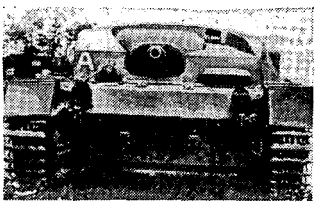
1. Crew: Four.
2. Armament: One 75-mm gun; one machine gun coaxially mounted; one machine gun in ball mounting.
3. Ammunition: High explosive, armor piercing, or smoke.
4. Armor, thickness:
   Upper structure: Turret 50-mm-30-mm (1.96–1.18 in.).
   Front: 50-mm (1.96 in.).
   Sides: 30-mm (1.18 in.).
5. Turret: Squat superstructure housing the gun. The gun compartment is roofed over but there is no rotating turret.
6. Vision:
7. Ventilation:
8. Communication:
9. Dimensions:
   Length: 16 feet 5 inches.
   Width: 7 feet 6 inches.
   Height: 7 feet 6 inches.
10. Weight: 18 tons; 16 tons metric.
11. Motor:
   Type:
   Cooling system:
   Horsepower: 300.
   Horsepower per ton: 16.7.
12. Drive: Front sprocket.
13. Speed:
   Cross-country:
   Road: 28 miles per hour.
   Maximum:
14. Cruising radius, at _____speed _____miles.
15. Operating distance without refill:
16. Gear speeds and ratios:
17. Turning radius:
18. Suspension, type:
   (1) Six small independent bogie wheels with heavy rubber tires.
   (2) Eight small bogie wheels.
   (3) Five large bogie wheels, Christie type; three track support wheels.
19. Performance:
   Ground clearance:
   Climbs_____° slopes.
   Negotiates vertical obstacle_____ high.
   Crosses trenches_____wide.
   Fords streams 2 feet 11 inches deep.
20. Remarks: This is standard German equipment.

GERMAN ARMY

STURMGESCHUTZ



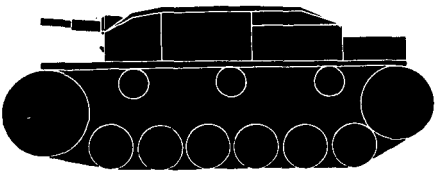
Top



Front

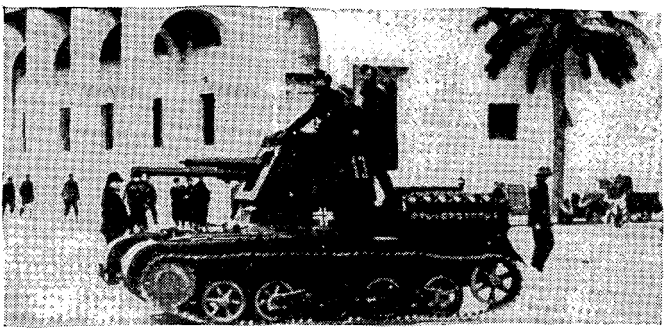


View



Side

GERMAN ARMY



47-MM ANTITANK GUN ON SELF-PROPELLED MOUNT

1. Crew: Three. (driver, loader-commander, and gun layer).
2. Armament: One 47-mm Skoda antitank gun.
3. Ammunition: 74 rounds armor piercing and armor piercing 40; 10 rounds high explosive (theoretical only; may vary in action).
4. Armor: The shield is made of 15-mm plates welded together.
5. Turret: Fixed three-sided shield. Gun has 30° traverse. Beside the opening in the shield the gun itself has a mantlet attached to it.
6. Vision: Unit magnification telescopic sight.
7. Ventilation:
8. Communication: Radio.
9. Dimensions:
   Length: 14 feet 2 inches.
   Width: 8 feet 7 inches.
   Height: 7 feet.
   Height of gun from ground: 5 feet 3 inches.
10. Weight: In action, 7 tons 10 hundredweight.
11. Motor.
   Type: V–8.
   Cooling system: Air.
   Horsepower: 90 to 100.
   Horsepower per ton: 12.
12. Drive: Front sprocket.
13. Speed:
   Cross-country: 9 miles per hour.
   Maximum road: 18 miles per hour.
14. Cruising radius:
   On roads: 106 miles.
   Cross-country; 80 miles.
15. Operating radius without refill: See 14.
16. Gear speeds and ratios:
17. Turning radius:
18. Suspension, type: Five-spoked bogie wheels, one independently sprung, and last four being connected by an outside girder bearer. Rear idler wheels almost on the ground. Four track-support wheels.
19. Performance:
   Ground clearance: 1 foot.
   Climbs 45° slopes.
   Negotiates vertical obstacle_____ high.
   Crosses trenches 4 feet 7 inches wide.
   Fords streams 2 feet deep.
20. Remarks: The chassis is that of a standard Mk. I, model B tank. On this is mounted a 47-mm Skoda antitank gun in a fixed three-sided shield which is open at the top and back.

GERMAN ARMY

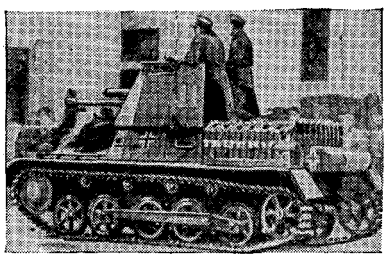
47-MM ANTITANK GUN SELF-PROPELLED MOUNT



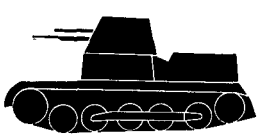
Top

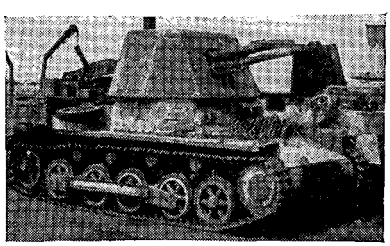


Rear



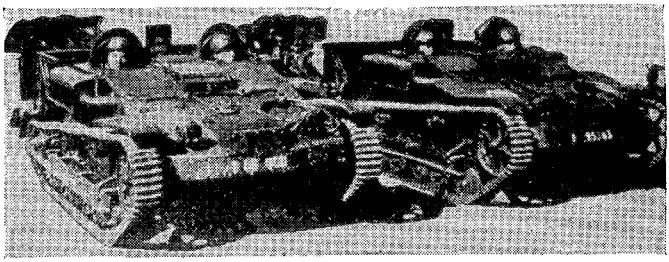
View





Side

GERMAN
ARMY

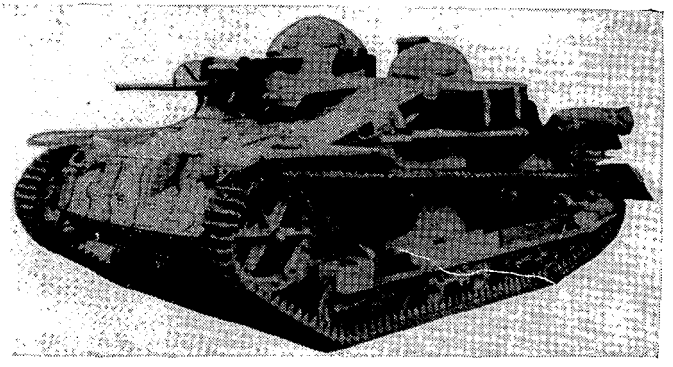


INFANTRY TRACTOR
RENAULT CHENILLETTE
(EX-FRENCH)

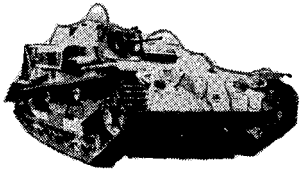
1. Crew: Two.
2. Armament: One Hotchkiss machine gun.
3. Ammunition:
4. Armor, thickness: 9-mm (.35 in.).
   Upper structure:
   Front:
   Sides:
5. Turret:
6. Vision:
7. Ventilation:
8. Communication:
9. Dimensions:
   Length: 9 feet 2 inches.
   Width: 5 feet 6 inches.
   Height: 4 feet 1 inch.
10. Weight: About 2½ tons, weight of trailer, 15 hundredweight. Load carried in tractor and trailer 2,000 pounds.
11. Motor:
    Type:
    Cooling system: Water.
    Horsepower: 48.
    Horsepower per ton:
12. Drive: Front sprocket.
13. Speed:
    Cross-country: 5 miles per hour.
    Road:
    Maximum: 18 miles per hour.
14. Cruising radius: 62 miles.
15. Operating distance without refill: 62 miles.
16. Gear speeds and ratios: Three speeds and reduction.
17. Turning radius:
18. Suspension, type:
19. Performance:
    Ground clearance:
    Climbs ..... ° slopes.
    Negotiates vertical obstacle ..... high.
    Crosses trenches 36 inches wide.
    Fords streams ..... deep.
20. Remarks: Provided with trailer and transport.

GERMAN
ARMY

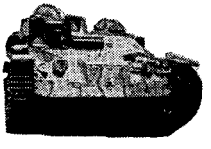
INFANTRY TRACTOR
RENAULT CHENILLETTE
(EX-FRENCH)



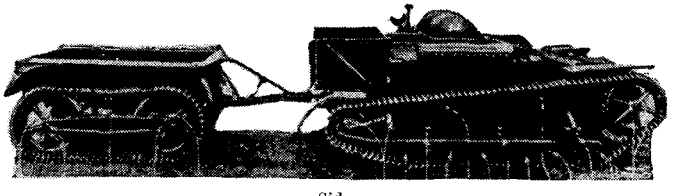
View



Front

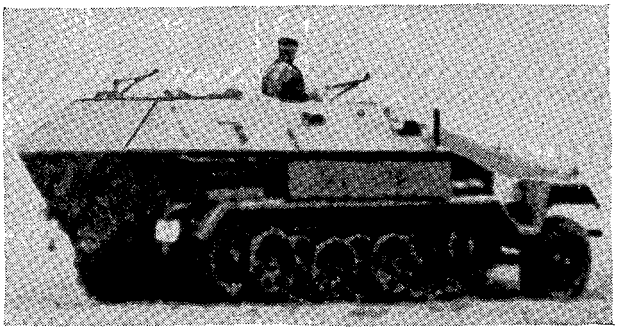


Rear



Side

GERMAN ARMY



PERSONNEL CARRIER

1. Crew: One driver, one assistant driver, 10 passengers.
2. Armament: Two pictures of this vehicle show different types of armament. One carries a machine gun 34 mounted at the front of body with a small shield, the gun elevating sufficiently for antiaircraft defense. The other has a weapon which is almost certainly the 20-mm super heavy machine gun; also mounted at the front of the body but fitted with a shield big enough to cover a man standing up in the carrier.
3. Ammunition: 44 boxes.
4. Armor, thickness: 0.1 inch.
   Upper structure: Very thin.
   Front:
   Sides:
5. Turret:
6. Vision:
7. Ventilation:
8. Communication:
9. Dimensions:
   Length:
   Width:
   Height:
10. Weight:
11. Motor:
    Type:
    Cooling system:
    Horsepower:
    Horsepower per ton:
12. Drive:
13. Speed:
    Cross-country:
    Road:
    Maximum:
14. Cruising radius, at _____ speed _____ miles.
15. Operating distance without refill:
16. Gear speeds and ratios:
17. Turning radius:
18. Suspension, type:
19. Performance:
    Ground clearance:
    Climbs _____ slopes.
    Negotiates vertical obstacle _____ high.
    Crosses trenches _____ wide.
    Fords streams _____ deep.
20. Remarks: Egress from these armored carriers is by a door in the back of the body.

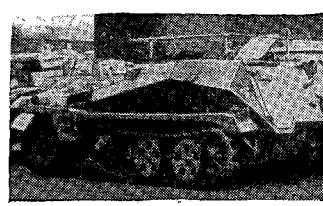
GERMAN ARMY

PERSONNEL CARRIER

(Personnel carrier; commanders' car; antitank gun tractor)

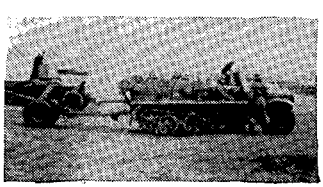


View

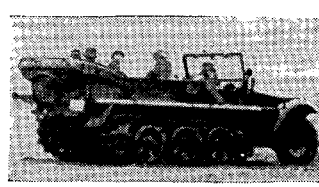


Front

Rear



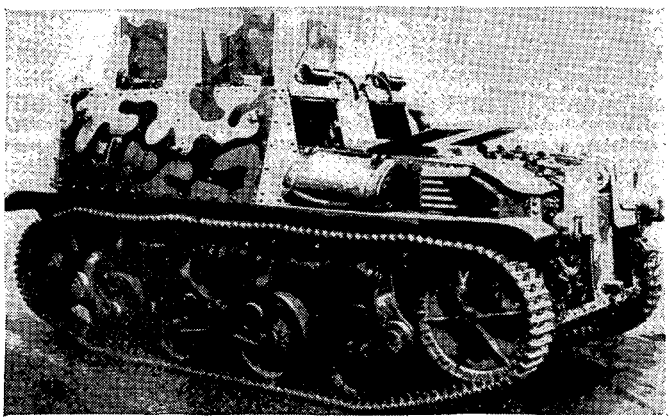
① As antitank tractor.



② Commanders' car.

Side

GERMAN
ARMY



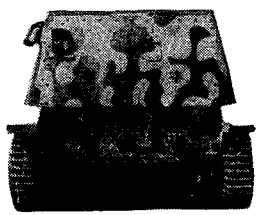
COMMANDERS' CAR
RENAULT
(EX-FRENCH)

1. Crew:
2. Armament:
3. Ammunition:
4. Armor, thickness:
   Upper structure:
   Front:
   Sides:
5. Turret:
6. Vision:
7. Ventilation:
8. Communication:
9. Dimensions:
   Length:
   Width:
   Height:
10. Weight:
11. Motor:
    Type:
    Cooling system:
    Horsepower:
    Horsepower per ton:
12. Drive:
13. Speed:
    Cross-country:
    Road:
    Maximum:
14. Cruising radius, at _____ speed _____ miles.
15. Operating distance without refill:
16. Gear speeds and ratios:
17. Turning radius:
18. Suspension, type:
19. Performance:
    Ground clearance:
    Climbs _____ ° slopes.
    Negotiates vertical obstacle _____ high.
    Crosses trenches _____ wide.
    Fords streams _____ deep.
20. Remarks:

GERMAN
ARMY

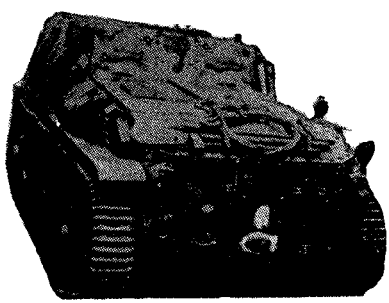
COMMANDERS' CAR
RENAULT
(EX-FRENCH)

Top



Front

Rear

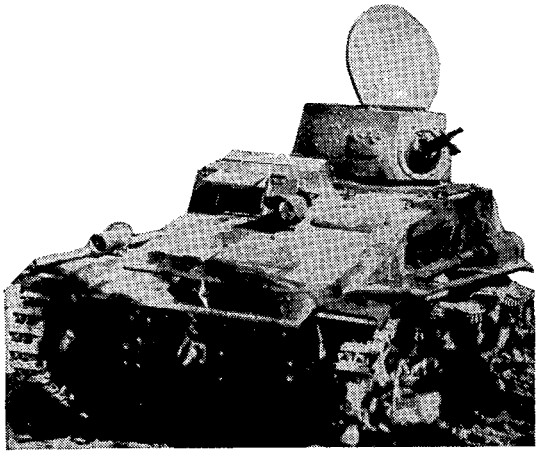


Side

Section III

ARMORED VEHICLES OF THE JAPANESE ARMY

JAPANESE
ARMY



TANKETTE, ISHIKAWAJIMA, M 2592 (1932)

1. Crew: Two (one driver and one gunner .
2. Armament: One machine gun in turret.
3. Ammunition:
4. Armor, thickness:
   Upper structure: 0.31 to 0.55 inch.
   Front:
   Sides:
5. Turret:
6. Vision:
7. Ventilation:
8. Communication: Flag.
9. Dimensions:
   Length: 10 feet 2 inches.
   Width: 5 feet 9 inches.
   Height: 5 feet 4 inches.
10. Weight: 3 tons.
11. Motor:
   Type: 4-cylinder.
   Cooling system: Air.
   Horsepower: 45.
   Horsepower per ton: 15.
12. Drive: Front sprocket.
13. Speed:
   Cross-country:
   Road:
   Maximum: 30 miles per hour.
14. Cruising radius, at ------ speed ------ miles.
15. Operating distance without refill:
16. Gear speeds and ratios:
17. Turning radius:
18. Suspension, type: four bogie wheels; two bogies Carden-Lloyd system.
19. Performance:
   Ground clearance: 1 foot 1 inch.
   Climbs 34° slopes.
   Negotiates vertical obstacle 2 feet high.
   Crosses trenches 4 feet 6 inches wide.
   Fords streams 2 feet 8 inches deep.
20. Remarks: Known as light-armored vehicle. Used with armored trailer for supply and intercommunication. Based on Carden-Lloyd.

JAPANESE
ARMY

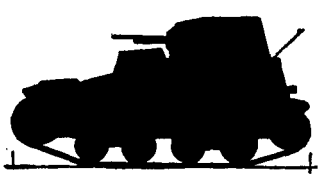
TANKETTE
ISHIKAWAJIMA
M 2592 (1932)

Top



Front

Rear





Side

JAPANESE
ARMY

TANKETTE, ISHIKAWAJIMA, M 2598 (1938)

1. Crew: Three (one driver, two gunners).
2. Armament: One machine gun in turret and one machine gun in hull fore.
3. Ammunition: 5,000 rounds small arms.
4. Armor, thickness: 0.55 inch.
   Upper structure:
   Front:
   Sides:
5. Turret:
6. Vision:
7. Ventilaton:
8. Communication:
9. Dimensions:
   Length: 10 feet 3 inches.
   Width: 5 feet 9 inches.
   Height: 5 feet 4 inches.
10. Weight: 3 tons.
11. Motor:
    Type:
    Cooling system: Water and air.
    Horsepower: 55.
    Horsepower per ton: 18.3.
12. Drive: Front sprocket.
13. Speed:
    Cross-country.
    Road:
    Maximum: 33 miles per hour.
14. Cruising radius, at _____ speed 61 miles.
15. Operating distance without refill.
16. Gear speeds and ratios:
17. Turning radius:
18. Suspension, type: Four bogie wheels; two bogies.
19. Performance:
    Ground clearance:
    Climbs 34° slopes.
    Negotiates vertical obstacle 2 feet 1 inch high.
    Crosses trenches 4 feet 9 inches wide.
    Fords streams 2 feet 9 inches deep.
20. Remarks: In use in Manchuria.

JAPANESE
ARMY

TANKETTE
ISHIKAWAJIMA
M 2598 (1938)

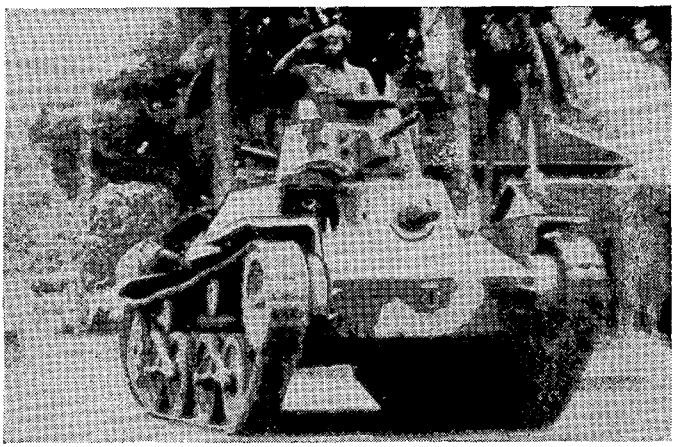
Top

Front

Rear

Side

JAPANESE ARMY



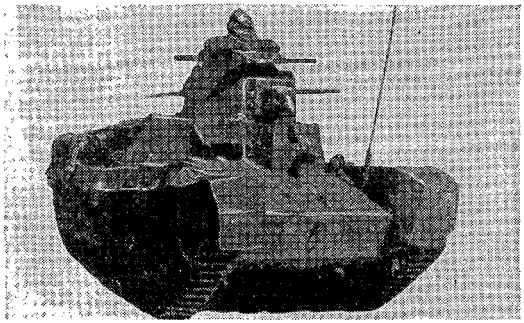
TANKETTE

M 2595 (1935)

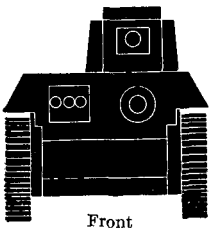
1. Crew: Three.
2. Armament: One 3.7-cm Hotchkiss; two Vickers machine guns (6.5-mm).
3. Ammunition: 120 rounds 3.7-cm; 1,350 rounds for machine guns.
4. Armor, thickness:
   Upper structure: 6.8- and 10-mm (.32 to .31 and .39 in.).
   Front: 12-mm (.47 in.).
   Sides: 10- to 12-mm (.39 to .47 in.).
5. Turret: All round traverse.
6. Vision:
7. Ventilation:
8. Communication: Flag.
9. Dimension:
   Length: 14 feet 6 inches.
   Width: 6 feet 11 inches.
   Height: 7 feet 2 inches.
10. Weight: 7 tons.
11. Motor:
   Type: Diesel 110 horsepower.
   Cooling: Unknown.
   Horsepower per ton: 15.7.
12. Drive: Front sprocket.
13. Speed:
   Cross-country:
   Road:
   Maximum: 22 miles per hour.
14. Cruising radius, at ------ speed ------ miles.
15. Operating distance without refill: 124 miles.
16. Gear speeds and ratios:
17. Turning radius:
18. Suspension, type: Four bogie wheels; two bogies.
19. Performance:
   Ground clearance: 1 foot 2½ inches.
   Climbs 40° slopes.
   Negotiates vertical obstacle 2 feet 8 inches high.
   Crosses trenches 6 feet 8 inches wide.
   Fords streams 3 feet 3 inches deep.
20. Remarks:

JAPANESE ARMY

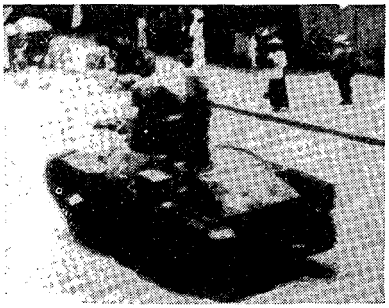
TANKETTE M 2595 (1935)



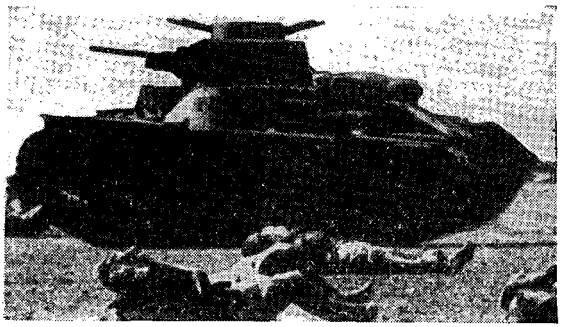
View



Front



Rear



Side

JAPANESE
ARMY

LIGHT TANK, M 2592 (1932)

1. Crew: Three (one driver, two gunners).
2. Armament: One machine gun in turret; one 13-mm machine gun in hull fore.
3. Ammunition:
4. Armor, thickness: 0.31 to 0.43 inch.
   Upper structure:
   Front:
   Sides:
5. Turret:
6. Vision:
7. Ventilation:
8. Communication: Flag.
9. Dimensions:
   Length: 12 feet 10 inches.
   Width: 5 feet 4 inches.
   Height: 6 feet 1 inch.
10. Weight: 5 tons.
11. Motor:
   Type: 6-cylinder Mitsubishi.
   Cooling system: Air.
   Horsepower: 85.
   Horsepower per ton: 17.
12. Drive: Front sprocket.
13. Speed:
   Cross-country.
   Road:
   Maximum: 28 miles per hour.
14. Cruising radius, at ------ speed ------ miles.
15. Operating distance without refill:
16. Gear speeds and ratios:
17. Turning radius:
18. Suspension, type: Six bogie wheels; three bogies.
19. Performance:
   Ground clearance: 1 foot.
   Climbs 34° slopes.
   Negotiates vertical obstacle 1 foot 8 inches high.
   Crosses trenches 4 feet 6 inches wide.
   Fords streams 2 feet 6 inches deep.
20. Remarks: Known as heavy armored vehicle.

JAPANESE
ARMY

LIGHT TANK
M 2592 (1932)

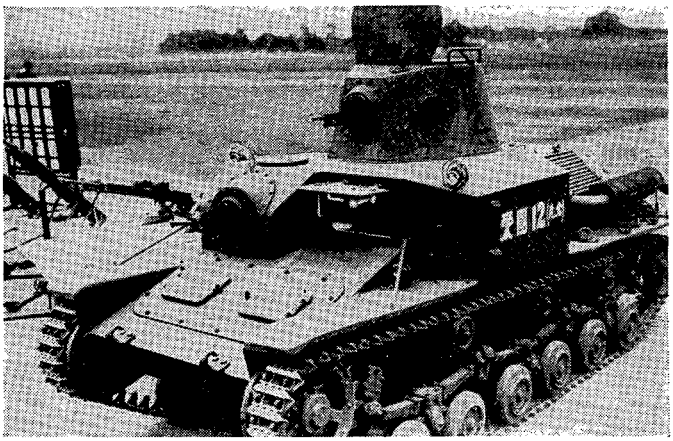
Top

Front

Rear

Side

JAPANESE ARMY

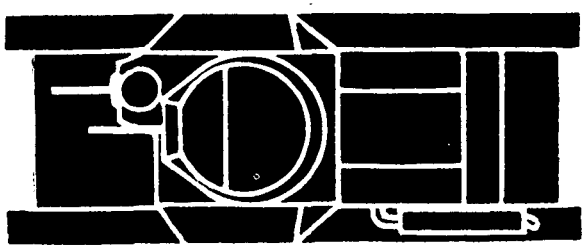


LIGHT TANK, M 2593 (1933)

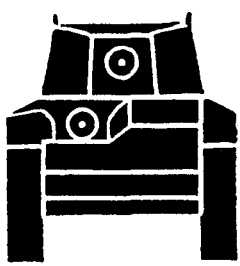
1. Crew: Three (one driver and two gunners).
2. Armament: One machine gun in turret, one machine gun in hull fore.
3. Ammunition:
4. Armor, thickness: 0.86 inch.
   Upper structure:
   Front:
   Sides:
5. Turret:
6. Vision:
7. Ventilation:
8. Communication: Flag.
9. Dimensions:
   Length: 14 feet 8 inches.
   Width: 5 feet 11 inches.
   Height: 6 feet.
10. Weight: 7 tons.
11. Motor:
    Type: 6-cylinder Mitsubishi.
    Cooling system: Air.
    Horsepower: 85.
    Horsepower per ton: 12.1.
12. Drive: Front sprocket.
13. Speed:
    Cross-country:
    Road:
    Maximum: 28 miles per hour.
14. Cruising radius, at ------ speed ------ miles.
15. Operating distance without refill:
16. Gear speeds and ratios:
17. Turning radius:
18. Suspension, type: Six bogie wheels; three bogies.
19. Performance:
    Ground clearance: 1 foot 3 inches.
    Climbs 42° slopes.
    Negotiates vertical obstacle 1 foot 8 inches high.
    Crosses trenches 5 feet 8 inches wide.
    Fords streams 2 feet 8 inches deep.
20. Remarks: Trials have been made with experimental amphibious model of this tank.

JAPANESE ARMY

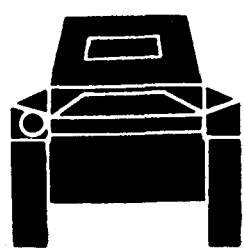
LIGHT TANK M 2593 (1933)



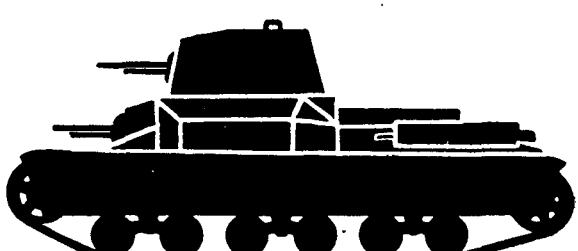
Top



Front



Rear



Side

JAPANESE
ARMY

LIGHT TANK, M 2599 (1939)

1. Crew: Three (one driver and two gunners).
2. Armament: One 37-mm gun and one machine gun.
3. *Ammunition:* 2,500 rounds small arms and 250 rounds.
4. Armor, thickness: 0.37 inch.
   Upper structure: 0.63-inch.
   Front:
   Sides:
5. Turret:
6. Vision:
7. *Ventilation:*
8. Communication:
9. Dimensions:
   Length: 16 feet 6 inches.
   Width: 5 feet 8 inches.
   Height: 7 feet 4 inches.
10. Weight: 7 tons.
11. Motor: 4-cylinder.
   Type: Diesel.
   Cooling system:
   Horsepower: 45.
   Horsepower per ton: 6.5.
12. Drive:
13. Speed:
   Cross-country:
   Road:
   Maximum: 12½ miles per hour.
14. Cruising radius, at _____ speed 110 miles.
15. Operating distance without refill:
16. Gear speeds and ratios:
17. Turning radius.
18. Suspension, type: Nine bogie wheels; four bogies; one independent bogie wheel.
19. Performance:
   Ground clearance:
   Climbs 38° slopes.
   Negotiates vertical obstacle _____ high.
   Crosses trenches 6 feet 4 inches wide.
   Fords streams 1 foot 8 inches deep.
20. Remarks:

JAPANESE
ARMY

LIGHT TANK
M 2599 (1939)

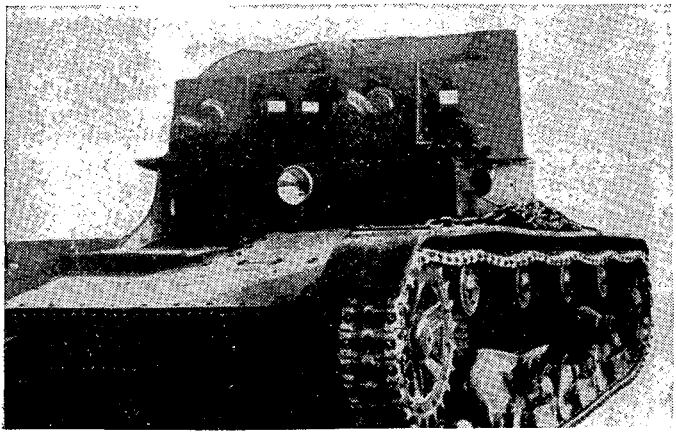
Top

Front

Rear

Side

JAPANESE ARMY



LIGHT TANK

(Copy of Vickers-Armstrong 6-ton alternative A (1936))

1. Crew: Three.
2. Armament: Two machine guns.
3. Ammunition: 6,000 rounds.
4. Armor, thickness:
   Upper structure: 13-mm (.51 in.).
   Front: 13- to 16-mm (.51 to .62 in.).
   Sides: 13- to 16-mm (.51 to .62 in.).
5. Turret: Double.
6. Vision:
7. Ventilation:
8. Communication:
9. Dimensions:
   Length: 16 feet 4 inches.
   Width: 8 feet.
   Height: 7 feet 2 inches.
10. Weight: 8.5 tons.
11. Motor:
    Type: Petrol 90 horsepower.
    Cooling system: Water.
    Horsepower: 90.
    Horsepower per ton: 10.5.
12. Drive: Front sprocket.
13. Speed:
    Cross-country:
    Road: 22 miles per hour.
    Maximum:
14. Cruising radius, at ____ speed ____ miles.
15. Operating distance without refill: 96 miles.
16. Gear speeds and ratios:
17. Turning radius:
18. Suspension, type: Leaf spring; pivoted bogies; rubber-tired rollers.
19. Performance:
    Ground clearance:
    Climbs 45° slopes.
    Negotiates vertical obstacle 2 feet 5 inches high.
    Crosses trenches 6 feet wide.
    Fords streams 3 feet deep.
20. Remarks: This type is also used for training.

JAPANESE
ARMY

LIGHT TANK
COPY OF VICKERS-ARMSTRONG 6-TON ALTERNATIVE A (1936)

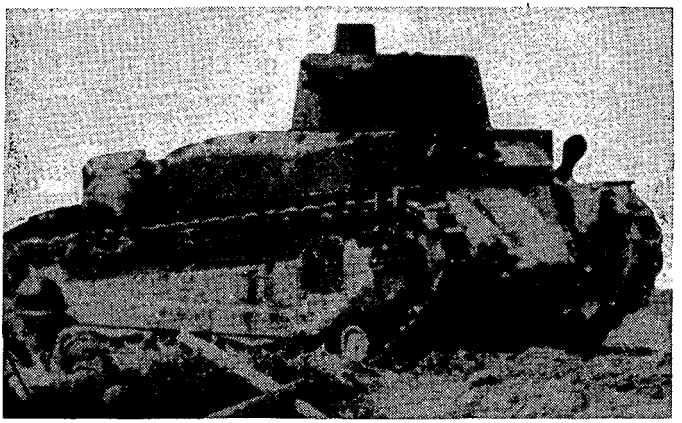
Top

Front

Rear

Side

JAPANESE
ARMY

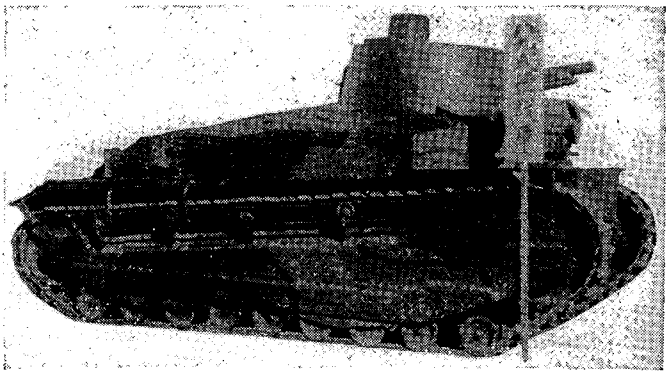


MEDIUM TANK, M 2589 (1929)

1. Crew: Five (one driver, one commander, and three gunners).
2. Armament: One 37-mm gun in turret, one machine gun (rear), one machine gun in hull fore.
3. Ammunition: 4,000 rounds small-arms and 200 rounds 37-mm.
4. Armor, thickness: 0.43 inch to 0.67 inch.
   Upper structure:
   Front:
   Sides:
5. Turret:
6. Vision:
7. Ventilation:
8. Communication: Flag.
9. Dimensions:
   Length: 17 feet 6 inches.
   Width: 8 feet 4 inches.
   Height: 8 feet 6 inches.
10. Weight: 11.5 tons.
11. Motor:
   Type: Mitsubishi.
   Cooling system: Air or water.
   Horsepower: 100.
   Horsepower per ton: 8.7.
12. Drive: Front sprocket.
13. Speed:
   Cross-country:
   Road:
   Maximum: 20 miles per hour.
14. Cruising radius, at _____ speed 150 miles.
15. Operating distance without refill:
16. Gear speeds and ratios:
17. Turning radius:
18. Suspension, type: Nine bogie wheels; four bogies; one independent bogie skirting.
19. Performance:
   Ground clearance: 1 foot 6 inches.
   Climbs 35° slopes.
   Negotiates vertical obstacle _____ high.
   Crosses trenches 8 feet 6 inches wide.
   Fords streams 3 feet deep.
20. Remarks: Based on Vickers Mk. C. Several variants of this type. 57-mm gun may be alternative to 37-mm.

JAPANESE
ARMY

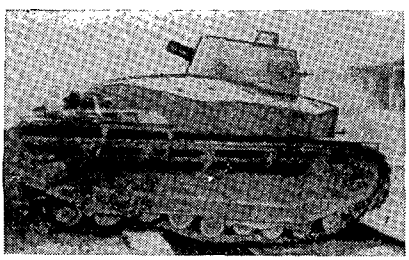
MEDIUM TANK
M 2589 (1929)



View

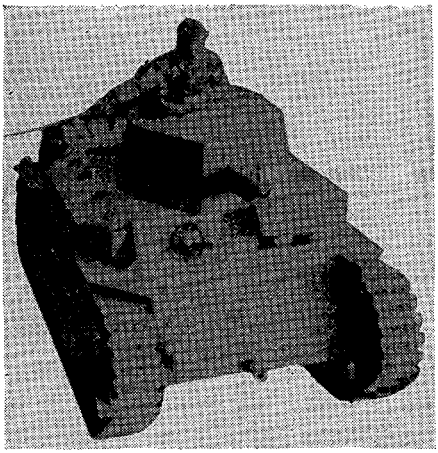
Front

Rear



Side

JAPANESE ARMY



MEDIUM TANK, M 2590 (1930) (OR 92–1932)

1. Crew: Five (one driver, one commander, and three gunners).
2. Armament: One gun, one machine gun in turret, and one machine gun in hull, fore.
3. Ammunition: 5,000 rounds small-arms and 300 rounds 37-mm.
4. Armor, thickness: 0.23 to 0.67 inch.
   Upper structure:
   Front:
   Sides:
5. Turret:
6. Vision:
7. Ventilation:
8. Communication:
9. Dimensions:
   Length: 17 feet 6 inches.
   Width: 8 feet 4 inches.
   Height: 8 feet 6 inches.
10. Weight: 11.31 tons.
11. Motor:
    Type: 6-cylinder Osaka Kikasi.
    Cooling system: Air.
    Horsepower: 120.
    Horsepower per ton: 10.6.
12. Drive:
13. Speed:
    Cross-country:
    Road:
    Maximum: 27 miles per hour.
14. Cruising radius, at ..... speed 147 miles.
15. Operating distance without refill:
16. Gear speeds and ratios:
17. Turning radius:
18. Suspension, type: Nine bogie wheels; four bogies; one independent bogie wheel; protective skirting.
19. Performance:
    Ground clearance:
    Climbs 38° slopes.
    Negotiates vertical obstacle ..... high.
    Crosses trenches ..... wide.
    Fords streams ..... deep.
20. Remarks: Used by naval landing party.

JAPANESE
ARMY

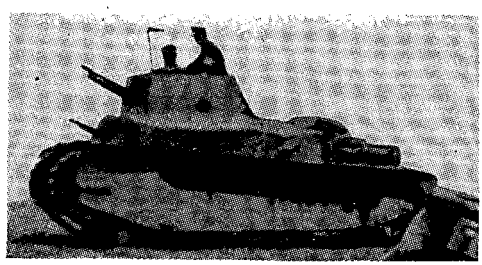
MEDIUM TANK
M 2590 (1930)
(OR 92–1932)

Top



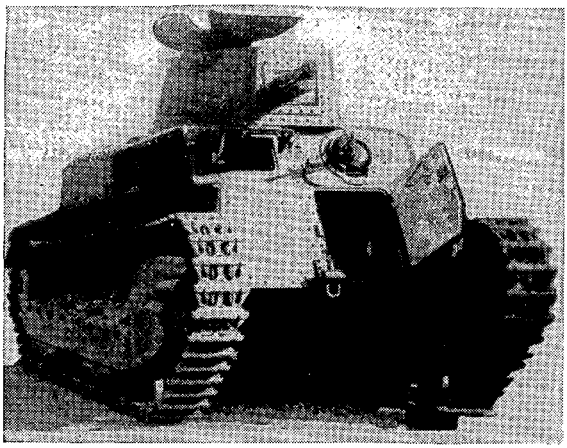
Front

Rear



Side

JAPANESE ARMY



MEDIUM TANK
M 2594 (1934)

1. Crew: Five.
2. Armament: One 3.7-cm or one 5.7-cm, one machine gun in turret one machine gun in hull. A bomb mortar is carried inside the tank.
3. Ammunition: 6,000 rounds small arms; 120 rounds 37-mm; 100 bombs.
4. Armor, thickness:
   Upper structure; 11-mm (.43 in.).
   Front:17-mm (.66 in.).
   Sides: 11-mm (.43 in.).
   (Also reported as 25-mm (1-inch) basis.)
5. Turret:
6. Vision:
7. Ventilation:
8. Communication:
9. Dimensions:
   Length: 20 feet 10 inches (with tail).
   Width: 8 feet 4 inches.
   Height: 8 feet 6 inches.
10. Weight: 14 tons.
11. Motor:
    Type: 6-cylinder Mitsubishi airplane.
    Cooling system: Air; louvre at rear.
    Horsepower: 160.
    Horsepower per ton: 11.4.
12. Drive: Front sprocket.
13. Speed:
    Cross-country:
    Road:
    Maximum: 28 miles per hour.
14. Cruising radius, at _____ speed 156 miles.
15. Operating distance without refill: 156 miles.
16. Gear speeds and ratios: Eight forward, two rear.
17. Turning radius:
18. Suspension, type: Eight bogie wheels; four bogies, one independent bogie wheel.
19. Performance:
    Ground clearance: 1 foot 6 inches.
    Climbs 46° slopes.
    Negotiates vertical obstacle 3 feet high.
    Crosses trenches 10 feet 6 inches wide.
    Fords streams 3 feet deep.
20. Remarks: Different models exist. Used by army and navy landing party. Army model may have only one gun in turret. Gun may be 47-mm.

JAPANESE
ARMY

MEDIUM TANK
M 2594 (1934)



Front

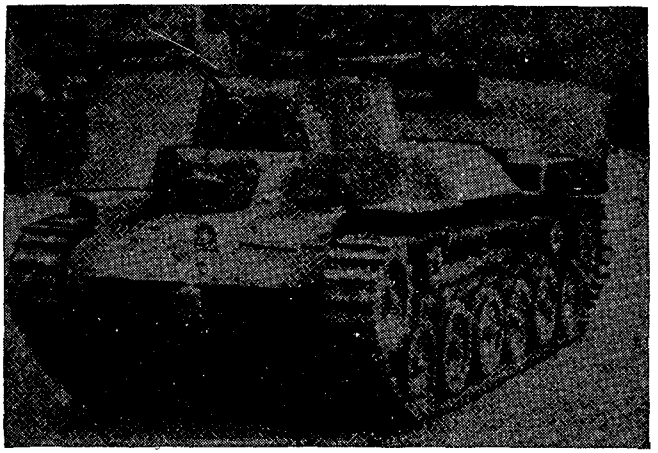


Top-rear



Side

JAPANESE ARMY



MEDIUM TANK M 95

1. Crew: Four.
2. Armament: Two machine guns, 7.7-mm; one gun, 47-mm.
3. Ammunition:
4. Armor, thickness:
   Upper structure: 0.58 inch.
   Front: 0.95 inch.
   Sides: 0.58 inch.
5. Turret: Single, 360° traverse.
6. Vision:
7. Ventilation:
8. Communication: Radio.
9. Dimensions:
   Length: 22.3 feet.
   Width: 8.2 feet.
   Height: 9.8 feet.
10. Weight: 14 to 15 tons.
11. Motor:
    Type:
    Cooling system: Water.
    Horsepower:
    Horsepower per ton:
12. Drive:
13. Speed:
    Cross-country: 6 to 9 miles per hour.
    Road: 25 to 28 miles per hour.
    Maximum:
14. Cruising radius, at ------ speed ------ miles.
15. Operating distance without refill:
16. Gear speeds and ratios:
17. Turning radius:
18. Suspension, type: Two-wheeled; three bogies; two track support wheels.
19. Performance:
    Ground clearance: 1.2 feet.
    Climbs 40° slopes.
    Negotiates vertical obstacle 3.28 feet high.
    Crosses trenches 9.5 feet wide.
    Fords streams 3.2 feet deep.
20. Remarks: Gun also reported as 70-mm.

JAPANESE
ARMY

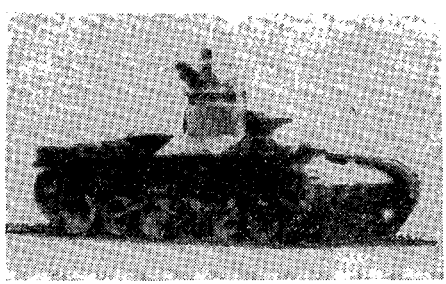
MEDIUM TANK
M 95

Top



Front

Rear



Side

JAPANESE
ARMY

MEDIUM TANK, AICHI, 2599 (1939)

1. Crew: Five (one driver, one commander, three gunners).
2. Armament: One 37-mm gun in turret; two machine guns in turret; one machine gun in hull fore.
3. Ammunition: 2,500 rounds small-arms; 250 rounds 37-mm.
4. Armor, thickness: 0.67 inch.
   Upper structure:
   Front:
   Sides:
5. Turret:
6. Vision:
7. Ventilation:
8. Communication:
9. Dimensions:
   Length: 18 feet 4 inches.
   Width: 8 feet 4 inches.
   Height: 9 feet 2 inches.
10. Weight: 12 tons.
11. Motor:
    Type: 6-cylinder Aichi.
    Cooling system: Water.
    Horsepower: 110.
    Horsepower per ton: 9.16.
12. Drive:
13. Speed:
    Cross-country:
    Road:
    Maximum: 25 miles per hour.
14. Cruising radius, at speed 160 miles.
15. Operating distance without refill:
16. Gear speeds and ratios:
17. Turning radius:
18. Suspension, type: Nine bogie wheels; four bogies; one independent bogie with skirting.
19. Performance:
    Ground clearance:
    Climbs 40° slopes.
    Negotiates vertical obstacle 2 feet 9 inches high.
    Crosses trenches 7 feet 11 inches wide.
    Fords streams 3 feet 3 inches deep.
20. Remarks:

JAPANESE
ARMY

MEDIUM TANK
AICHI
2599 (1939)

Top

Front

Rear

Side

JAPANESE
ARMY

HEAVY TANK, AICHI, 2596 (1936)

1. Crew: Ten (one driver, one commander, five gunners, two loaders, one wireless operator).
2. Armament: One 75-mm, one 35-mm gun in turret and two machine guns in hull fore.
3. Ammunition: 5,000 rounds small-arms and 500 rounds of high explosive.
4. Armor, thickness: 1.38 inches.
   Upper structure:
   Front:
   Sides:
5. Turret:
6. Vision:
7. Ventilation:
8. Communication:
9. Dimensions:
   Length: 31 feet.
   Width: 10 feet 8 inches.
   Height: 9 feet 2 inches.
10. Weight: 36 tons.
11. Motor:
    Type:
    Cooling system: Water.
    Horsepower: 350.
    Horsepower per ton: 9.72.
12. Drive: Front sprocket.
13. Speed:
    Cross-country:
    Road:
    Maximum: 36 miles per hour.
14. Cruising radius, at ------ speed 175 miles.
15. Operating distance without refill:
16. Gear speeds and ratios:
17. Turning radius:
18. Suspension, type: French scissor, three bogies of two wheels each.
19. Performance:
    Ground clearance:
    Climbs 40° slopes.
    Negotiates vertical obstacle 2 feet 9 inches high.
    Crosses trenches 15 feet wide.
    Fords streams 4 feet 2 inches deep.
20. Remarks: Modified form of Russian tank 32-5.

JAPANESE
ARMY

HEAVY TANK
AICHI
2596 (1936)

Top

Front

Rear

Side

JAPANESE
ARMY

HEAVY TANK, M 2597 (1937)

1. Crew: Six (one driver, one commander, and four gunners).
2. Armament: Two 37-mm guns in turret and two machine guns in hull, fore.
3. Ammunition: 2,000 rounds smallarms and 120 rounds 37-mm.
4. Armor, thickness: 1.38 inches.
   Upper structure:
   Front:
   Sides:
5. Turret:
6. Vision:
7. Ventilation:
8. Communication:
9. Dimensions:
   Length: 24 feet 5 inches.
   Width: 9 feet 10 inches.
   Height: 9 feet 6 inches.
10. Weight: 32 tons.
11. Motor:
    Type: 12-cylinder Mitsubishi.
    Cooling system: Water.
    Horsepower: 250.
    Horsepower per ton: 7.8.
12. Drive:
13. Speed:
    Cross-country:
    Road:
    Maximum: 28 miles per hour.
14. Cruising radius, at ------ speed 128 miles.
15. Operating distance without refill:
16. Gear speeds and ratios:
17. Turning radius:
18. Suspension, type:
19. Performance:
    Ground clearance:
    Climbs 45° slopes.
    Negotiates vertical obstacle 3 feet 6 inches high.
    Crosses trenches 7 feet wide.
    Fords streams 4 feet 2 inches deep.
20. Remarks: Used in Central China. Modified form of Russian T–28.

JAPANESE
ARMY

HEAVY TANK
M 2597 (1937)

Top

Front

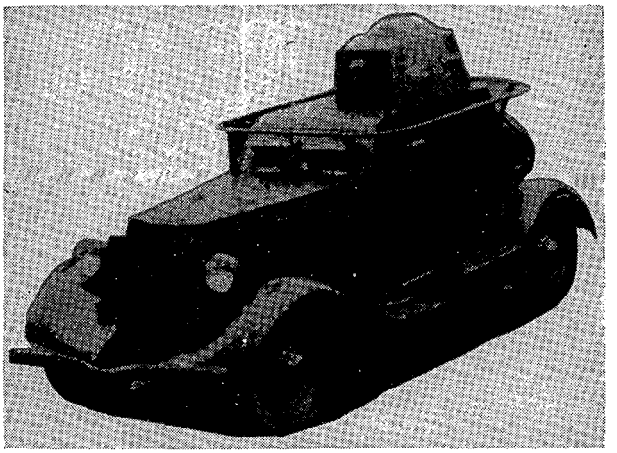
Rear

Side

SECTION IV

ARMORED VEHICLES OF THE RUSSIAN ARMY

RUSSIAN
ARMY



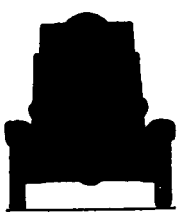
ARMORED CAR
BA BRONNIEFORD NO. 7
4-WHEELED

1. Crew: Three.
2. Armament: One machine gun in turret; one machine pistol.
3. Ammunition:
4. Armor, thickness:
   Upper structure: 0.35 inch.
   Front: 0.393 inch.
   Sides: 0.393 inch.
5. Turret: One.
6. Vision:
7. Ventilation:
8. Communication:
9. Dimensions:
   Length: 12 feet 2 inches.
   Width: 5 feet 7 inches.
   Height: 6 feet 4 inches.
10. Weight:
11. Motor:
   Type: Ford.
   Cooling system: Water.
   Horsepower: 50.
   Horsepower per ton: 15.6.
12. Drive:
13. Speed:
   Cross-country: None.
   Road: 43.4 to 46.5 miles per hour.
   Maximum: 46.5 miles per hour.
14. Cruising radius, at road speed 160 miles.
15. Operating distance without refill:
16. Gear speeds and ratios:
17. Turning radius:
18. Suspension, type: Automobile.
19. Performance:
   Ground clearance: 8.5 inches.
   Climbs _____° slopes.
   Negotiates vertical obstacle _____ high.
   Crosses trenches _____ wide.
   Fords streams _____ deep.
20. Remarks: Without turret and machine gun this car weighs 2.1 tons and has a maximum speed of 53 miles per hour. Apparently modernized since silhouette was made.

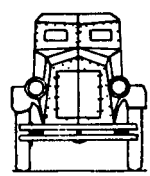
RUSSIAN
ARMY

ARMORED CAR
BA BRONNIEFORD NO. 7
4-WHEELED

Top



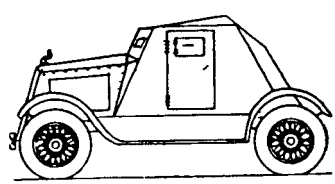
Front



Front—Alternate

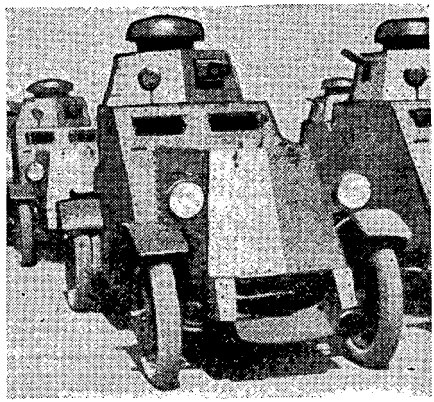


Side



Side—Alternate

RUSSIAN ARMY

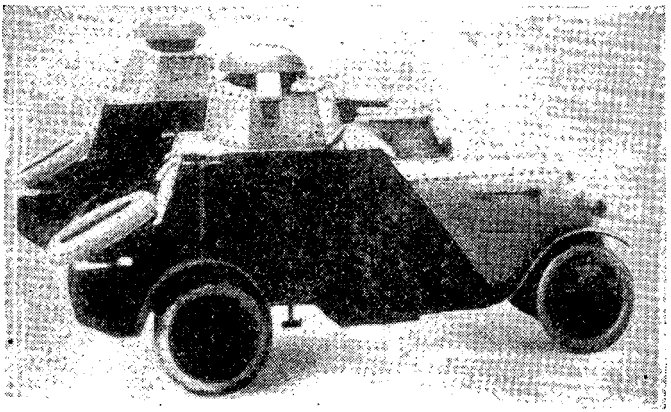


ARMORED CAR
BA 27
4-WHEELED

1. Crew: Four:
2. Armament: One 37-mm gun, and one 7.62-mm machine gun in revolving turret.
3. Ammunition:
4. Armor, thickness: 0.24 to 0.51 inch.
   Upper structure:
   Front:
   Sides:
5. Turret: One revolving.
6. Vision:
7. Ventilation:
8. Communication: Radio in some cars.
9. Dimensions:
   Length: 14 feet 9 inches.
   Width: 5 feet 11 inches.
   Height: 8 feet 1 inch.
10. Weight: 4.5 tons.
11. Motor:
    Type:
    Cooling system: Water.
    Horsepower: 40.
    Horsepower per ton: 8.9.
12. Drive:
13. Speed:
    Cross-country: None.
    Road:
    Maximum: 43 miles per hour.
14. Cruising radius at road speed 125 to 190 miles.
15. Operating distance without refill:
16. Gear speeds and ratios:
17. Turning radius:
18. Suspension, type: Automobile.
19. Performance:
    Ground clearance 10.4 inches.
    Climbs _____ ° slopes.
    Negotiates vertical obstacle _____ high.
    Crosses trenches _____ wide.
    Fords streams 19.7 inches deep.
20. Remarks: Obsolescent type which is being gradually replaced with more modern types. Not used in Finnish War so far as known.

RUSSIAN
ARMY

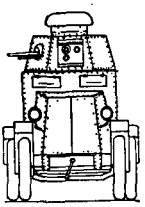
ARMORED CAR
BA 27
4-WHEELED



Top



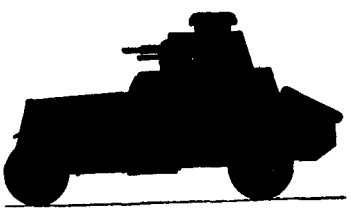
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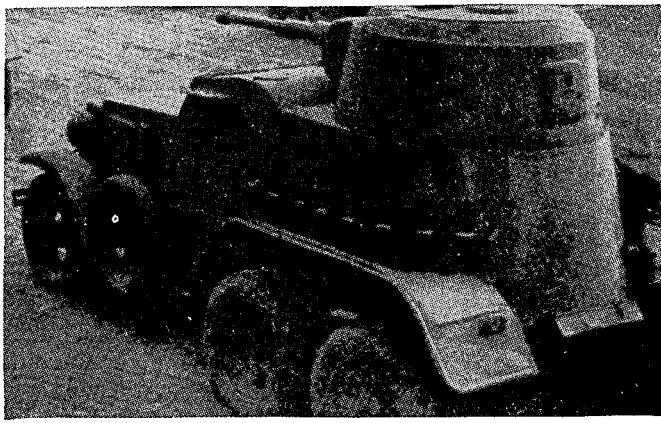
Front

Rear



Side

RUSSIAN
ARMY

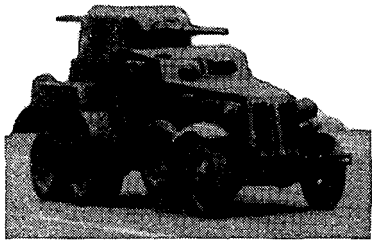


ARMORED CAR
BRONNIEFORD, 3-AXLED, 6-WHEELED

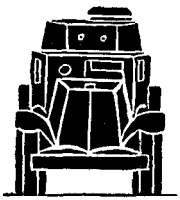
1. Crew: Four.
2. Armament: One 37-mm gun and one machine gun in turret; one machine gun beside driver.
3. Ammunition:
4. Armor, thickness:
   Upper structure: Averages 0.43 to 0.55 inch.
   Front:
   Sides:
5. Turret:
6. Vision:
7. Ventilation:
8. Communication:
9. Dimensions:
   Length: 16 feet 2 inches.
   Width: 6 feet 3 inches.
   Height: 8 feet.
10. Weight: 7 tons.
11. Motor:
    Type: Ford (?).
    Cooling system:
    Horsepower: 85.
    Horsepower per ton: 12.1.
12. Drive:
13. Speed:
    Cross-country: Unknown; believed fair.
    Road:
    Maximum: 43 miles per hour.
14. Cruising radius, at road (?) speed 150 miles.
15. Operating distance without refill.
16. Gear speeds and ratios:
17. Turning radius:
18. Suspension, type:
19. Performance:
    Ground clearance: 10.4 inches.
    Climbs _____° slopes.
    Negotiates vertical obstacle _____ high.
    Crosses trenches _____ wide.
    Fords streams _____ deep.
20. Remarks: Six wheels with pneumatic tires; four rear wheels have dual tires and can be fitted with tracks. Modeled on British Lancaster.

RUSSIAN
ARMY

ARMORED CAR
BRONNIEFORD, 3-AXLED, 6-WHEELED

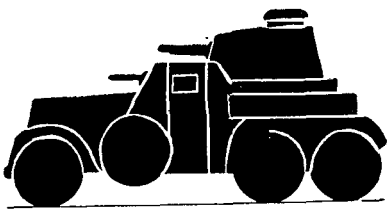


Top



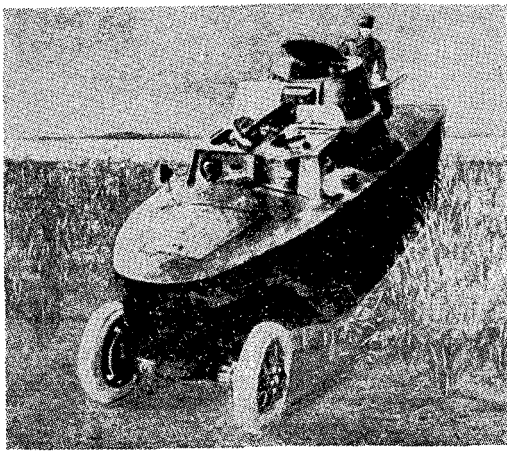
Front

Rear



Side

RUSSIAN ARMY



ARMORED CAR
BA FORD AMPHIBIAN
6-WHEELED

1. Crew: Four.
2. Armament: One 37-mm gun and two 7.62-mm machine guns.
3. Ammunition:
4. Armor, thickness: 0.43 to 0.55 inch.
   Upper structure:
   Front:
   Sides:
5. Turret: One revolving 270° traverse turret in rear; two rigid front turrets.
6. Vision:
7. Ventilation:
8. Communications:
9. Dimensions:
   Length: 17 feet 3 inches.
   Width: 6 feet 9 inches.
   Height: 7 feet 9 inches.
10. Weight: 9 tons.
11. Motor:
    Type: Ford (?).
    Cooling system: Water.
    Horsepower: 85.
    Horsepower per ton: 9.4.
12. Drive:
13. Speed:
    Cross-country:
    Road:
    Maximum: 40 miles per hour.
14. Cruising radius, at road (?) speed 125 to 190 miles.
15. Operating distance without refill:
16. Gear speeds and ratios:
17. Turning radius:
18. Suspension, type: Automobile.
19. Performance:
    Ground clearance: 10 inches.
    Climbs _____° slopes.
    Negotiates vertical obstacle _____ high.
    Crosses trenches _____ wide.
    Fords streams _____ deep. Amphibian.
20. Remarks: Six cut-out disk wheels with pneumatic tires. Drive: both rear axles. Photographs do not correspond to silhouettes.

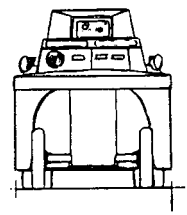
RUSSIAN
ARMY

ARMORED CAR
BA FORD AMPHIBIAN
6-WHEELED

Top



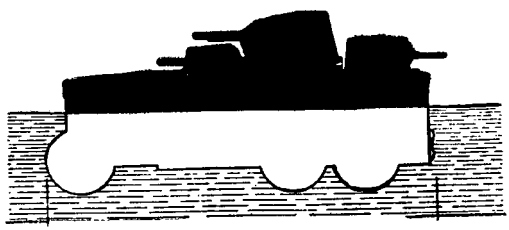
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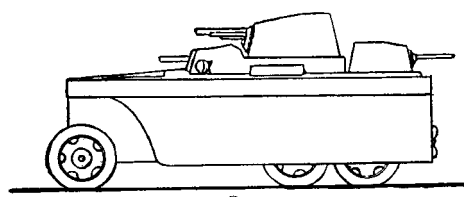
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Front

Rear



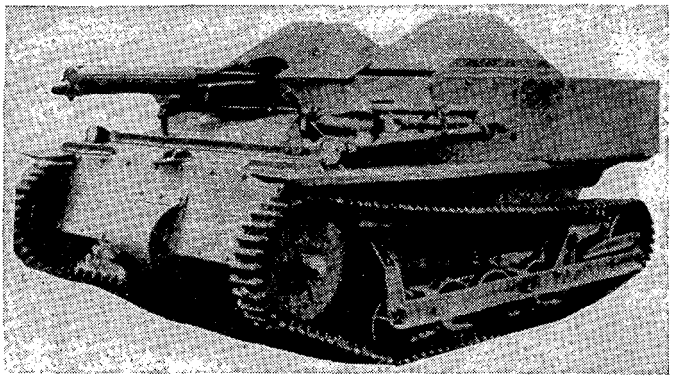
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Side

RUSSIAN ARMY

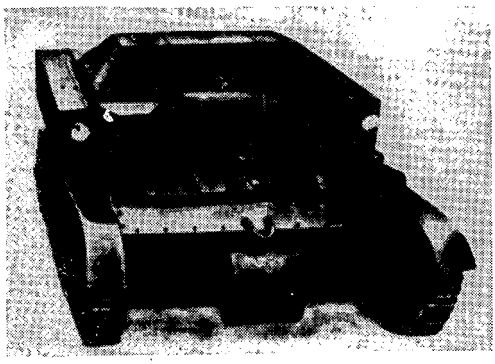


LIGHT TANK T–27

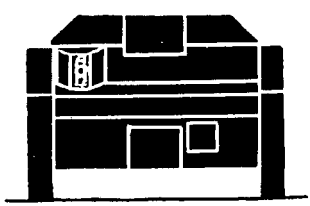
1. Crew: Two (driver and gunner).
2. Armament: One light machine gun.
3. Ammunition: 3,000 rounds.
4. Armor, thickness: 0.275 inch.
   Upper structure:
   Front:
   Sides:
5. Turret: One.
6. Vision:
7. Ventilation:
8. Communication: Flag.
9. Dimensions:
   Length: 8 feet 2 inches.
   Width: 5 feet 8 inches.
   Height: 4 feet 8 inches.
10. Weight: 2 tons.
11. Motor:
    Type: 4-cylinder Ford or Chevrolet.
    Cooling system: Water.
    Horsepower: 40.
    Horsepower per ton:
12. Drive: Front sprocket.
13. Speed:
    Cross-country: 7 miles per hour.
    Road: 10 to 15 miles per hour.
    Maximum: 26 miles per hour.
14. Cruising radius, at ------ speed 78 miles.
15. Operating distance without refill:
16. Gear speeds and ratios:
17. Turning radius:
18. Suspension, type: Four small bogie wheels, Carden-Lloyd system.
19. Performance:
    Ground clearance: 12 inches.
    Climbs 45° slopes.
    Negotiates vertical obstacle 1 foot 6 inches high.
    Crosses trenches 3 feet 6 inches wide.
    Fords streams 1 foot 6 inches deep.
20. Remarks: A large number in existence. Being replaced by T–37. Is an ordinary Carden-Lloyd made in Russia.

RUSSIAN
ARMY

LIGHT TANK
T–27

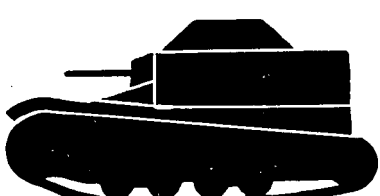


Top



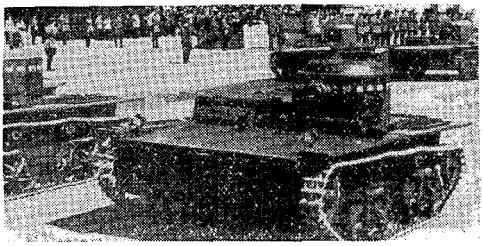
Front

Rear



Side

RUSSIAN
ARMY



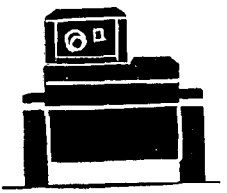
LIGHT TANK
T–37, VICKERS, CARDEN-LLOYD

1. Crew: Two (driver and gunner).
2. Armament: One 7.62-mm machine gun or two 7.62-mm machine guns.
3. Ammunition: 3,000 rounds.
4. Armor, thickness:
   Upper structure: 0.275 inch.
   Front:
   Sides: 0.315 inch (T–37 and T–38 said to have 0.258- to 0.394-inch).
5. Turret: One.
6. Vision:
7. Ventilation:
8. Communication: Flag.
9. Dimensions:
   Length: 13 feet 1 inch.
   Width: 6 feet 6 inches.
   Height: 6 feet.
10. Weight: 3 tons.
11. Motor:
   Type: Meadow VI or Ford V.
   Cooling system:
   Horsepower: 56.
   Horsepower per ton: 11.2 (?) to 18.
12. Drive: Front sprocket.
13. Speed:
   Cross-country:
   Road: 29.7 miles per hour.
   Maximum: 32 miles per hour.
   In water: 6.2 miles per hour.
14. Cruising radius, at road (?) speed 62 miles.
15. Operating distance without refill:
16. Gear speeds and ratios:
17. Turning radius:
18. Suspension, type: Four bogie wheels; two bogie scissors; articulation coil springs. Two track support wheels.
19. Performance:
   Ground clearance: 10½ inches.
   Climbs 45° slopes (15° bank out of water).
   Negotiates vertical obstacle 1 foot 7 inches high.
   Crosses trenches 4 feet wide.
   Fords streams ..... deep.
20. Remarks: Single screw in water. A large number of these tanks are in existence. They were originally Vickers amphibian light tanks.

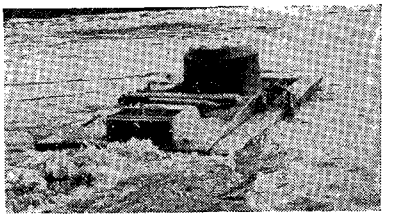
RUSSIAN ARMY

LIGHT TANK T-37, VICKERS, CARDEN-LLOYD

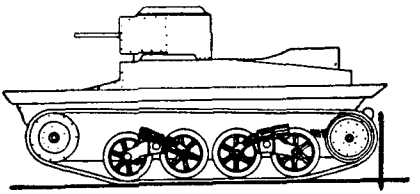
Top



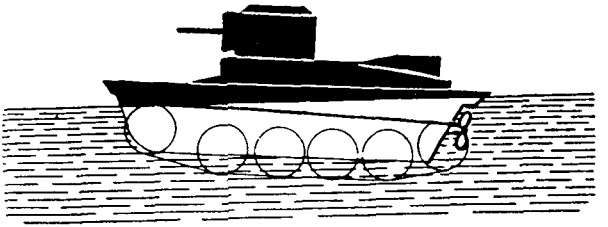
Front



Rear



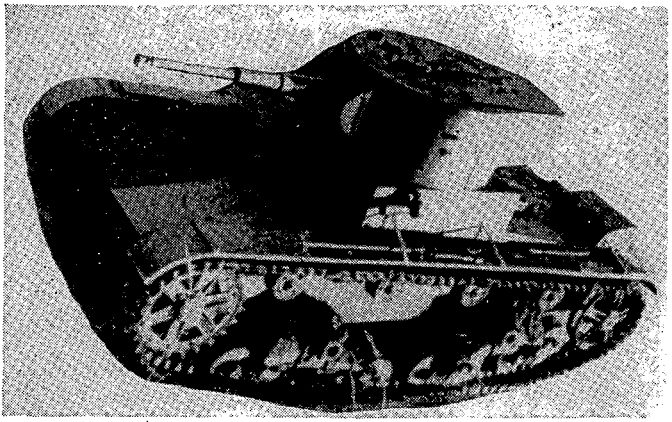
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Side

RUSSIAN ARMY

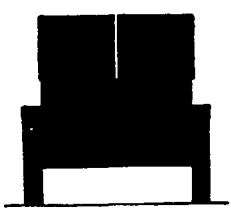


LIGHT TANK
T–26 A AND T-26 B VICKERS MA/30 AND MA/31

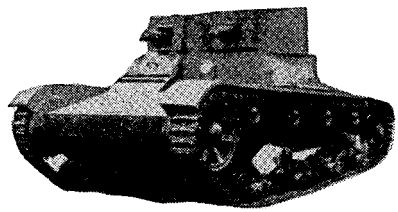
1. Crew: Three (driver, gunner, commander-wireless operator).
2. Armament: Type A, two light machine guns; type B, one 37-mm or 47-mm gun; one light machine gun coaxially mounted; one antiaircraft light machine gun.
3. Ammunition: A, 6,000 rounds for machine guns. B, 4,000 rounds for machine guns, and 50 rounds for gun.
4. Armor, thickness:
   Upper structure: A, 0.19 inch; B, 0.23 inch.
   Front: A, 0.31 inch; B, 0.39 inch.
   Sides: A, 0.51 inch; B, 0.55 inch.
5. Turret: A, two: B, one.
6. Vision:
7. Ventilation:
8. Communication: Radio on leading tanks.
9. Dimensions:
   Length: 16 feet 4 inches.
   Width: 8 feet.
   Height: 7 feet 2 inches.
10. Weight: 8½ tons.
11. Motor:
   Type: Armstrong-Siddeley IV (Russian make).
   Cooling system:
   Horsepower: 90.
   Horsepower per ton: 12.6 or 10.4.
12. Drive: Front sprocket.
13. Speed:
   Cross-country: 10 to 12 miles per hour.
   Road: 12 miles per hour.
   Maximum: 22 miles per hour.
14. Cruising radius, at road (?) speed 100 miles.
15. Operating distance without refill:
16. Gear speeds and ratios:
17. Turning radius:
18. Suspension, type: Eight small bogie wheels; two bogies with left spring; four track support wheels.
19. Performance:
   Ground clearance: 1 foot 3 inches.
   Climbs 40° slopes.
   Negotiates vertical obstacle 2 feet 5 inches high.
   Crosses trenches 5 feet 9 inches wide.
   Fords streams 3 feet deep.
20. Remarks: T–26A sometimes has one 7.63-mm and one 12.7-mm machine gun instead of two 7.63-mm machine guns. Russian version of Vickers 6-ton. In some cases has been made a flame thrower. Large numbers exist. Being replaced by BT M/ABC.

RUSSIAN
ARMY

LIGHT TANK
T–26 A AND T–26 B
VICKERS MA/30 AND MA/31

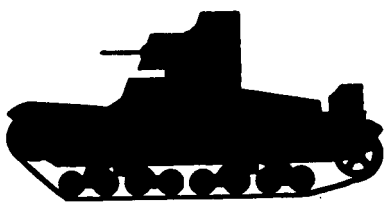


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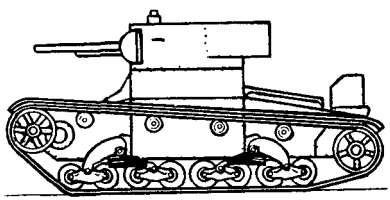


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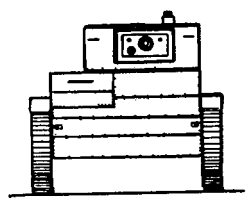
Front



Side
Type A

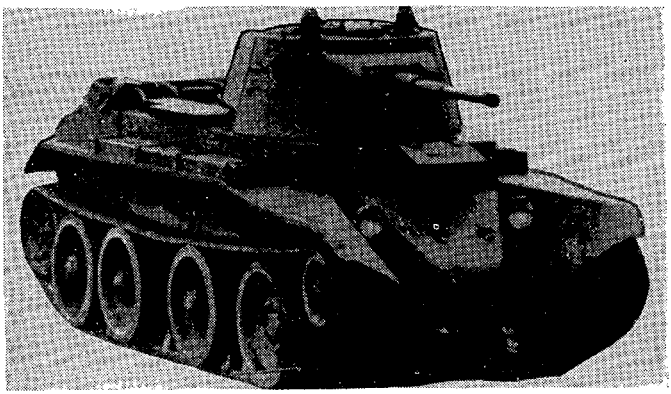


Side
Type B



Front

RUSSIAN
ARMY



LIGHT TANK
BT (CHRISTIE) M/31
(BT–M/A; BT–M/B; BT–M/C; BT–M/D)

1. Crew: Three (driver, gunner, commander).

2. Armament: (1) One or two machine guns and one 45-mm gun. (2) One machine gun and one 76-mm gun. The BT–M/D is reported to have one short 76-mm gun and two machine guns.

3. Ammunition: 92 rounds for 37- or 45-mm; 2,700 rounds for machine guns.

4. Armor, thickness: 0.79 inch.
   Upper structure: 0.23 inch to 0.27 inch.
   Front: 0.5 inch to 0.624 inch.
   Sides: 0.39 inch.

5. Turret: One.

6. Vision:

7. Ventilation:

8. Communication: Radio.

9. Dimensions:
   Length: 18 feet 7 inches to 19 feet 2 inches.
   Width: 6 feet 10 inches to 7 feet 2 inches.
   Height: 7 feet 8 inches.

10. Weight: 10 to 11 tons.

11. Motor:
    Type: M34 or Hispano or Liberty; V–12.
    Cooling system: Water.
    Horsepower: 350 to 500.
    Horsepower per ton: 31.8 to 50.0.

12. Drive: Christie system; wheel drive.

13. Speed:
    Cross-country: 37 miles per hour.
    Road: 15 to 25 miles per hour.
    Maximum: 37 with tracks; 69 on wheels.

14. Cruising radius, at road speed 150 miles on track; 250 miles on wheels.

15. Operating distance without refill:

16. Gear speeds and ratios:

17. Turning radius:

18. Suspension, type: Four large wheels. Christie knee action springing.

19. Performance:
    Ground clearance: 1 foot 1 inch.
    Climbs 40° slopes.
    Negotiates vertical obstacle 2 feet 6 inches high.
    Crosses trenches 6 feet 2 inches to 6 feet 10 inches wide.
    Fords streams 39 inches deep.

20. Remarks: Original Christie tank. Large numbers are in existence.

RUSSIAN ARMY

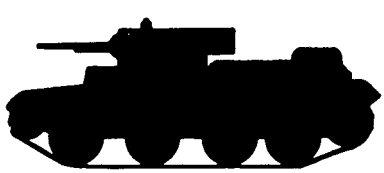
LIGHT TANK
BT (CHRISTIE) M/31
(BT–M/A; BT–M/B; BT–M/C; BT–M/D)

Top



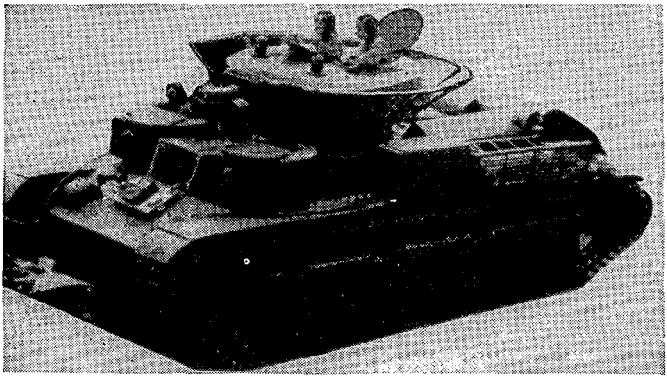
Front

Rear



Side

RUSSIAN
ARMY

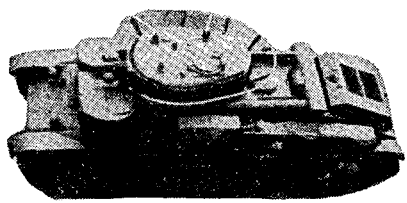


MEDIUM TANK
T–28 (M–I)
VICKERS-ARMSTRONG/29

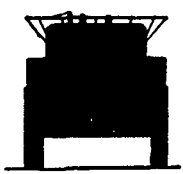
1. Crew: Seven (driver, commander, four gunners, radio operator).
2. Armament: One 76-mm gun; four 7.62 machine guns (one antiaircraft gun).
3. Ammunition: 85 rounds for 76-mm; 4,000 rounds for machine guns.
4. Armor, thickness:
   Upper structure: 0.39 inch.
   Front: 0.98 inch.
   Sides: 1.37 inches.
5. Turret: One large; two small.
6. Vision:
7. Ventilation:
8. Communication: Radio.
9. Dimensions:
   Length: 23 feet 8 inches to 24 feet 3 inches.
   Width: 9 feet 0 inches to 9 feet 6 inches.
   Height: 8 feet 7 inches to 9 feet 10 inches.
10. Weight: 25 to 33 tons.
11. Motor:
    Type: 12-cylinder Hispano, 750 horsepower; M12 USA aero-engine 450 horsepower; Armstrong-Siddeley, XII/V.
    Cooling system:
    Horsepower: 450 to 750.
    Horsepower per ton: 18 to 22.8.
12. Drive: Rear sprocket.
13. Speed:
    Cross-country: 6 to 10 miles per hour.
    Road: 18 to 23 miles per hour.
    Maximum: 27.9 miles per hour.
14. Crusing radius, at road (?) speed 60 to 125 miles.
15. Operating distance without refill:
16. Gear speeds and ratios:
17. Turning radius:
18. Suspension, type: Ten small bogie wheels; four bogies; two independent bogie wheels protected by mild steel skirting; four track support wheels.
19. Performance:
    Ground clearance: 1 foot 6 inches.
    Climbs 45° slopes.
    Negotiates vertical obstacle 31 inches high.
    Crosses trenches 7 feet wide.
    Fords streams 3 feet 6 inches to 4 feet deep.
20. Remarks: A copy of the 16-ton British Vickers-Armstrong. Some models may have the Soviet M–34 motor.

RUSSIAN
ARMY

MEDIUM TANK
T–28 (M–I)
VICKERS-ARMSTRONG/29

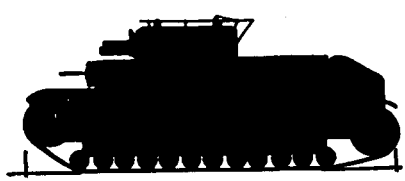


Top



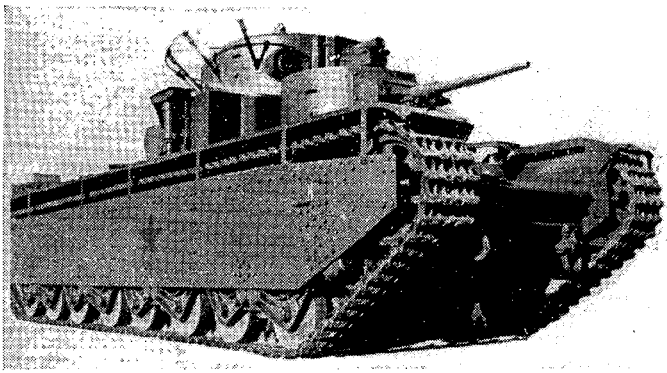
Front

Rear



Side

RUSSIAN ARMY

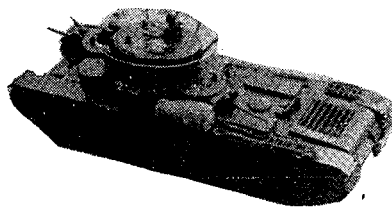


HEAVY TANK
T–32 AND T–35 (M–II)
VICKERS

1. Crew: Ten or twelve.
2. Armament: One 76-mm gun; two 37-mm or 45-mm guns; 2 to 3 machine guns. One report states that the "Vickers-Independent M/I and II" has an armament of one 76-mm gun, two 37- or 45-mm guns, and five to six machine guns.
3. Ammunition:
4. Armor, thickness: 1.73 inches.
   Upper structure: 0.98 inch.
   Front. 1.37 inch.
   Sides: 0.98 inch.
5. Turret: Four.
6. Vision:
7. Ventilation:
8. Communication: Radio.
9. Dimensions:
   Length: 30 feet 6 inches.
   Width: 10 feet 6 inches.
   Height: 9 feet.
10. Weight: 33 to 35 tons.
11. Motor:
    Type: Armstrong-Siddeley XII/V.
    Cooling system:
    Horsepower: 500 to 750.
    Horsepower per ton: 14.2 to 22.7.
12. Drive: Rear sprocket.
13. Speed:
    Cross-country:
    Road: 7 miles per hour.
    Maximum: 16 to 20 miles per hour.
14. Cruising radius, at road (?) speed 180 miles.
15. Operating distance without refill:
16. Gear speeds and ratios:
17. Turning radius:
18. Suspension, type: Eight bogie wheels independently sprung; four track support wheels.
19. Performance:
    Ground clearance:
    Climbs 40° slopes.
    Negotiates vertical obstacle 3 feet 11 inches high.
    Crosses trenches 15 feet 1 inch wide.
    Fords streams 3 feet 11 inches deep.
20. Remarks: Considerable numbers are in existence. Silhouettes from old model.

RUSSIAN
ARMY

HEAVY TANK
T–32 AND T–35 (M–II)
VICKERS



Top



Front

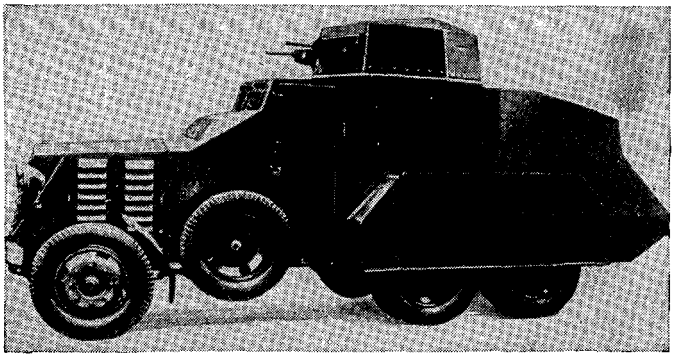
Rear



Side

SECTION V

ARMORED VEHICLES OF THE ITALIAN ARMY

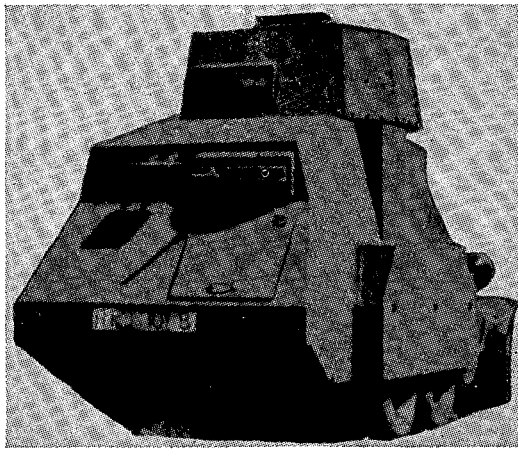


ARMORED CAR
FIAT-ANSALDO 611

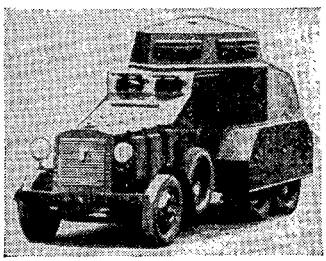
1. Crew: Four.
2. Armament: Two machine guns in turret; one machine gun in rear.
3. Ammunition:
4. Armor, thickness: 10-mm basis (.39 in.).
   Upper structure:
   Front:
   Sides:
5. Turret:
6. Vision:
7. Ventilation:
8. Communication:
9. Dimensions:
   Length: 18 feet 4 inches.
   Width: 6 feet 6 inches.
   Height: 8 feet 5 inches.
10. Weight: 5.5 to 6 tons.
11. Motor:
   Type: 6-cylinder.
   Cooling system: Water.
   Horsepower: 46.
   Horsepower per ton: 8.
12. Drive:
13. Speed:
   Cross-country:
   Road:
   Maximum: 30 miles per hour.
14. Cruising radius, at _____ speed 200 miles.
15. Operating distance without refill:
16. Gear speeds and ratios: Four forward and four reverse.
17. Turning radius: 13 feet.
18. Suspension, type: Semielliptic and transversed.
19. Performance:
   Ground clearance:
   Climbs _____° slopes.
   Negotiates vertical obstacle _____ high.
   Crosses trenches _____ wide.
   Fords streams _____ deep.
20. Remarks:

ITALIAN ARMY

ARMORED CAR FIAT-ANSALDO 611

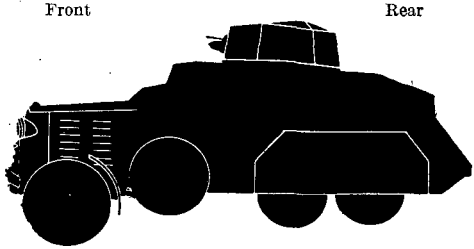


View



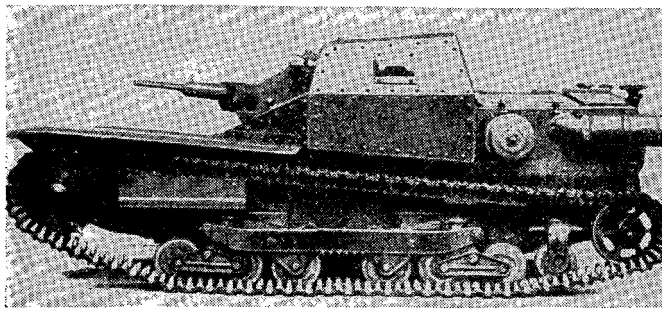
Front

Rear



Side

ITALIAN ARMY

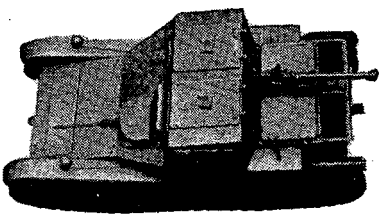


LIGHT TANK
FIAT-ANSALDO
CV 3/33–35

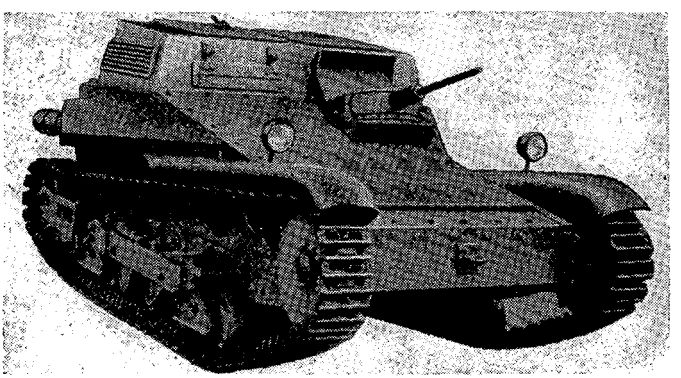
1. Crew: Two.
2. Armament: Two machine guns or one machine gun and flame thrower; (inflammable liquid carried in trailer): or sometimes one 20-mm heavy machine gun.
3. Ammunition: 3,200 rounds for machine guns. (2,400 rounds when fitted with flame thrower.)
4. Armor, thickness: 0.31 to 0.62 inch.
   Upper structure:
   Front:
   Sides:
5. Turret: None.
6. Vision:
7. Ventilation:
8. Communication: Flag (sometimes radio).
9. Dimensions:
   Length: 10 feet 6 inches.
   Width: 4 feet 7 inches.
   Height: 4 feet 2 inches.
10. Weight: 3.5 tons.
11. Motor: Gasoline engine.
    Type: 4-cylinder.
    Cooling system: Water.
    Horsepower: 42.
    Horsepower per ton: 13.3
12. Drive: Front sprocket.
13. Speed: Four speeds.
    Cross-country:
    Road:
    Maximum: 26 miles per hour.
14. Cruising radius, at speed 55 to 60 miles.
15. Operating distance without refill:
16. Gear speeds and ratios: eight forward and two reverse.
17. Turning radius: 6 feet 7 inches.
18. Suspension, type: Seven bogie wheels; two bogies connected by girder bearer; one independent bogie wheel at rear, leaf springing.
19. Performance:
    Ground clearance: Nine inches.
    Climbs 45° slopes.
    Negotiates vertical obstacle 2 feet high.
    Crosses trenches 4 feet 9 inches wide.
    Fords streams 2 feet 2 inches deep.
20. Remarks: 0.31-inch armor on earlier model, 0.62-inch armor on later model. Standard Italian tank. Large number in existence. Designed from Carden-Lloyd. May be used as bridge carrier which enables them to cross 16½-foot obstacles. Flame thrower has effective range of 110 yards.

ITALIAN
ARMY

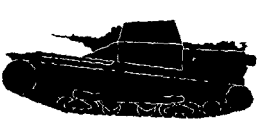
LIGHT TANK
FIAT–ANSALDO
CV 3/33–35

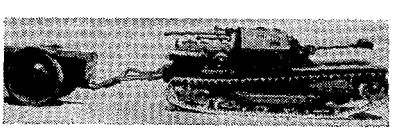


Top



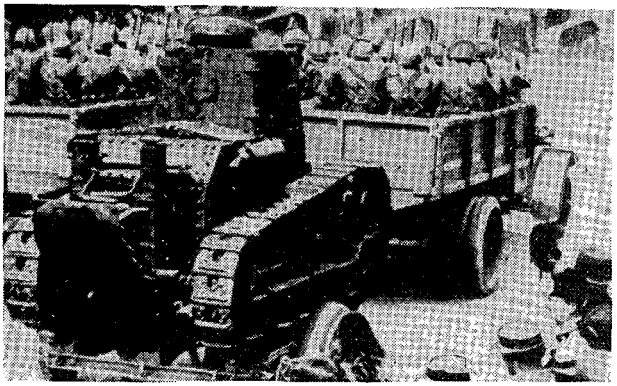
Front





Side View

ITALIAN ARMY

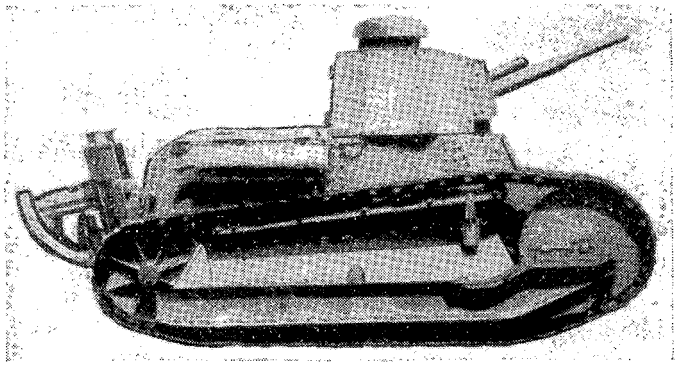


LIGHT TANK
FIAT-ANSALDO
L 21/30

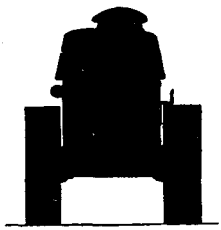
1. Crew: Two.
2. Armament: One 37-mm gun; one light machine gun or two light machine guns coaxially mounted.
3. Ammunition: 60 rounds for gun.
4. Armor, thickness: 0.71 inch.
   Upperstructure:
   Front:
   Sides:
5. Turret: One with 360° traverse.
6. Vision:
7. Ventilation:
8. Communication: Flag, radio for commander's car.
9. Dimensions:
   Length: 12 feet 3 inches (14 feet 1 inch with tail).
   Width: 5 feet 6 inches.
   Height: 7 feet 3 inches.
10. Weight: 5.8 tons.
11. Motor: Gasoline engine.
    Type: Fiat.
    Cooling system: Water.
    Horsepower: 60.
    Horsepower per ton:
12. Drive: Rear sprocket.
13. Speed.
    Cross-country:
    Road: 13 miles per hour.
    Maximum:
14. Cruising radius, at speed 43 miles or 5 hours.
15. Operating distance without refill:
16. Gear speeds and ratios: three forward, one reverse.
17. Turning radius:
18. Suspension, type: Four bogie wheels obscured by large girder bearer very large spoked; front idling wheel.
19. Performance:
    Ground clearance: 1 foot 6 inches.
    Climbs 41° slopes.
    Negotiates vertical obstacle 2 feet high.
    Crosses trenches 4 feet 11 inches wide.
    Fords streams 2 feet 11 inches deep
20. Remarks: Obsolescent. A considerable number of these tanks may be in existence. Are carried on trailers.

ITALIAN
ARMY

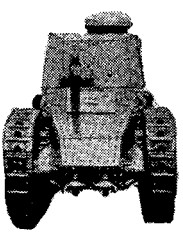
LIGHT TANK
FIAT-ANSALDO
L 21/30



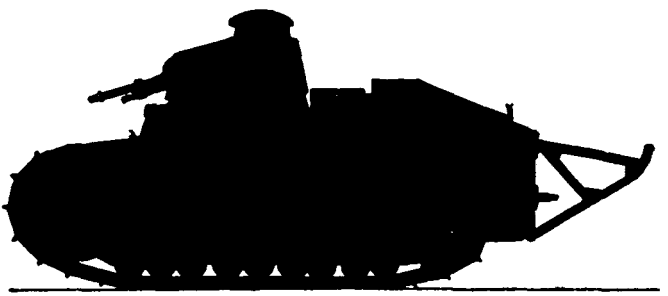
View



Front

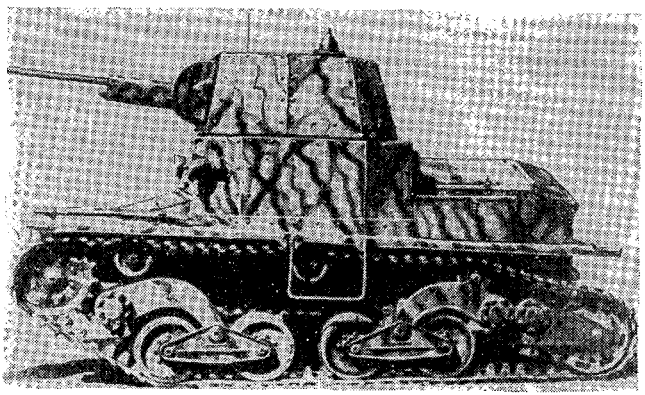


Rear



Side

ITALIAN ARMY

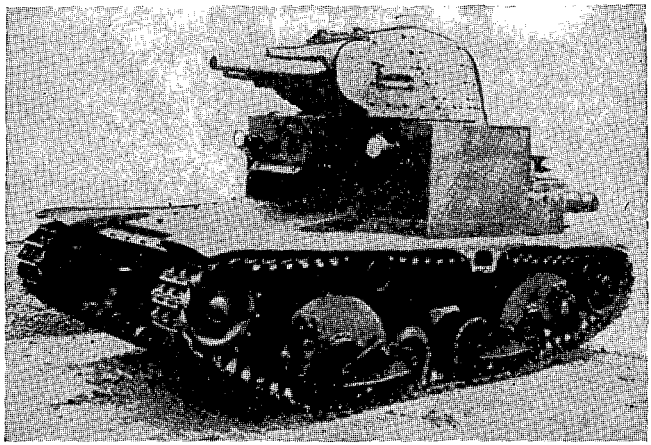


LIGHT TANK
FIAT-ANSALDO
L 6/40

1. Crew: Two.
2. Armament: One 20-mm Breda heavy machine gun and one 8-mm Breda 38 machine gun coaxially mounted in turret.
3. Ammunition: 400 rounds for 20-mm gun. 1,500 rounds for 8-mm machine gun.
4. Armor: 25-mm basis (.98 in.).
   Upper structure:
   Front:
   Sides:
5. Turret: All round traverse.
6. Vision:
7. Ventilation:
8. Communication: Radio transmitter.
9. Dimensions:
   Length: 12 feet 5 inches.
   Width: 6 feet 5 inches.
   Height: 6 feet 5 inches.
10. Weight: 6.4 tons.
11. Motor: Petrol engine.
    Type: 4-cylinder.
    Cooling system: Water.
    Horsepower: 70.
    Horsepower per ton: 10.9.
12. Drive: Front sprocket.
13. Speed:
    Cross-country: 9 miles per hour.
    Road: 13 miles per hour.
    Maximum: 22 miles per hour.
14. Cruising radius at speed 60 miles.
15. Operating distance without refill:
16. Gear speeds and ratios:
17. Turning radius:
18. Suspension, type: Five bogie wheels; one independent fixed bogie at rear; leaf springing and rocker.
19. Performance:
    Ground clearance: 1 foot 1 inch.
    Climbs 40° slopes.
    Negotiates vertical obstacle 2 feet 11 inches high.
    Cross trenches 4 feet 3 inches wide.
    Fords streams 2 feet 11 inches deep.
20. Remarks: Modern type of Italian light tank. May be used extensively.

ITALIAN
ARMY

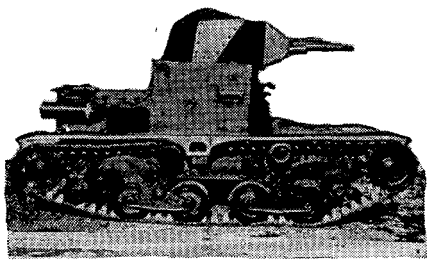
LIGHT TANK
FIAT-ANSALDO
L 6/40



View

Front

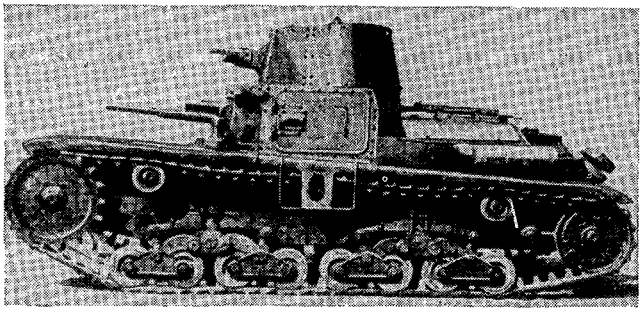
Rear





Side

ITALIAN ARMY

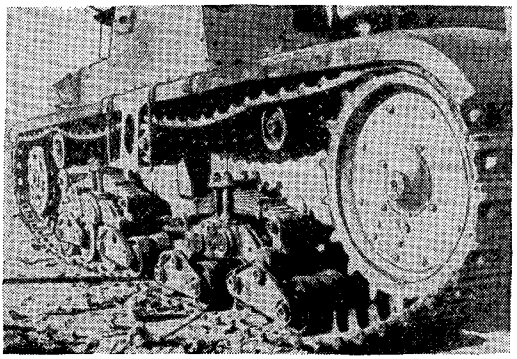


MEDIUM TANK
CARRO D'ASSALTO
(M.11/39)

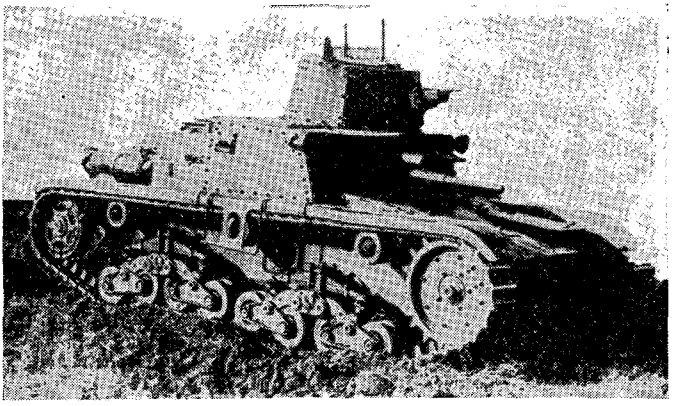
1. Crew: Three (driver, gunner, and commander).
2. Armament: One 37-mm gun in hull and two 8-mm machine guns in turret.
3. Ammunition: 84 rounds for 37/40 gun and 2,880 rounds for machine guns.
4. Armor, Thickness:
   - Upper structure: 10-mm (.4 in.).
   - Front: 30-mm (1.25 in.).
   - Sides: 15-mm (.6 in.).
5. Turret: All round traverse hand operated.
6. Vision: Revolving periscope.
7. Ventilation:
8. Communication: Flag.
9. Dimensions:
   - Length: 15 feet 6 inches.
   - Width: 7 feet 2-inches.
   - Height: 7 feet.
10. Weight: 11 tons.
11. Motor:
    - Type: Diesel.
    - Cooling system: Water.
    - Horsepower: 105
    - Horsepower per ton: 9.5.
12. Drive: Front sprocket.
13. Speed:
    - Cross-country: 18 mph.
    - Roads: 20 mph.
14. Cruising radius: 125 miles or 10 hours on roads. Petrol capacity: 40 gallons.
15. Operating distance without refill: 125 miles.
16. Gear speeds and ratio: six forward, one reverse.
17. Turning radius:
18. Suspension: four pair coupled bogies; rubber-covered wheels; three return rollers.
19. Performance:
    - Ground clearance: 1 foot 2 inches.
    - Climbs 40° to 45° slopes.
    - Negotiates vertical obstacle 2 feet 7½ inches high.
    - Crosses trenches 6 feet 7 inches wide.
    - Fords streams 3 feet 3½ inches deep.
20. Remarks: This tank has proved unsatisfactory and is being replaced by the M13/40. The 37/40 gun mounted in the full reduces its effectiveness.

ITALIAN
ARMY

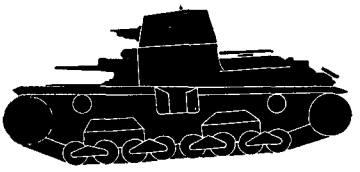
MEDIUM TANK
CARRO D'ASSALTO
(M.11/39)



View



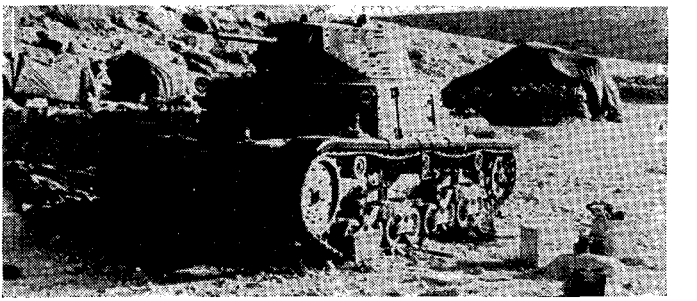
View



Front

Side

ITALIAN ARMY



MEDIUM TANK M–13/40

1. Crew: Four.
2. Armanent: One 47-mm gun in turret. Two machine guns mounted coaxially in rotor on right-hand sponson.
3. Ammunition: 104 rounds for gun; 3,048 rounds for machine guns.
4. Armor, thickness:
   Upper structure: 14-mm (.55 in.).
   Front: 30 to 40-mm (1.25 to 1.6 in.).
   Sides: 25-mm (1 in.).
5. Turret: Power (hydraulically).
6. Vision: Two periscopes independently revolving in turret roof with 360° vision. "Iposcopio" a special optical system whereby the driver can see when closed down.
7. Ventilation:
8. Communication: W/T or R/T.
9. Dimensions:
   Length: 16 feet 1 inch.
   Width: 7 feet 3 inches.
   Height: 7 feet 9 inches.
10. Weight: 13 tons.
11. Motor:
   Type: Diesel.
   Cooling system: Water.
   Horsepower: 105.
   Horsepower per ton: 8.
12. Drive: Front sprocket.
13. Speed:
   Cross-country: 8 mph.
   Cruising: 16 mph.
   Maximum: 19 mph.
14. Cruising radius: 125 miles. Petrol capacity 40 gallons.
15. Operating distance without refill: 125 miles.
16. Gear speeds and ratios: four forward, one reverse. Epicyclic.
17. Turning radius:
18. Suspension, type: Two double articulated bogies, each group independently sprung; three return rollers. Bogie and return rollers are rubber-tired.
19. Performance:
   Ground clearance: 1 foot 4 inches.
   Climbs 40° slopes.
   Negotiates vertical obstacle 2 feet 7½ inches high.
   Crosses trenches 6 feet 10½ inches wide.
   Fords streams 3 feet 3 inches deep.
20. Remarks: This is the latest type yet (1941) encountered.

ITALIAN
ARMY

MEDIUM TANK
M--13/40



View

Front

Rear

Side

ITALIAN
ARMY

MEDIUM TANK
FIAT 36

1. Crew: Six or eight.
2. Armament: One 37-mm or 47-mm gun; three 8-mm machine guns.
3. Ammunition:
4. Armor, thickness:
   Upper structure:
   Front:
   Sides:
5. Turret:
6. Vision:
7. Ventilation:
8. Communication:
9. Dimensions:
   Length:
   Width:
   Height:
10. Weight: 20 to 25 tons.
11. Motor:
   Type:
   Cooling system:
   Horsepower:
   Horsepower per ton:
12. Drive:
13. Speed:
   Cross-country:
   Road:
   Maximum: 22 miles per hour.
14. Cruising radius, at _____ speed _____ miles.
15. Operating distance without refill:
16. Gear speeds and ratios:
17. Turning radius:
18. Suspension, type:
19. Performance:
   Ground clearance:
   Climbs _____ ° slopes.
   Negotiates vertical obstacle 3 feet 7 inches high.
   Crosses trenches 9 feet 10 inches wide.
   Fords streams 2 feet 6 inches deep.
20. Remarks:

ITALIAN
ARMY

MEDIUM TANK
FIAT 36

Top

Front

Rear

Side