

# RECOGNITION PICTORIAL MANUAL ON ARMORED VEHICLES

This manual supersedes FM 30-40, 9 January 1943, including C 1, 19 August 1943, FM 30-41, 27 May 1941, and FM 30-42, 3 October 1942.



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British armored vehicles.		
Russian armored vehicles.		
German armored vehicles.		
Italian armored vehicles.		
Japanese armored vehicles.		

# CHAPTER 1

## INTRODUCTION

### 1. PURPOSE AND SCOPE

This manual is designed as an aid for the uniform training of personnel in recognition of armored vehicles. It covers the methods to be used in training and the vehicles that at present are considered operational.

### 2. OBJECTIVE

The objective of training in the recognition of armored vehicles is to make each individual capable of recognizing *instantly* armored vehicles now in operation, and to be able to learn quickly to recognize any new vehicles that may be developed. The individual must be able to recognize such vehicles under varying conditions of terrain, weather, and light; when the vehicle, or observer, or both, are moving or stationary; and when the vehicle is viewed from the front, side, rear, top, or at varying angles.

### 3. RESPONSIBILITY OF UNIT COMMANDERS

It is the responsibility of unit commanders that each individual of his command be thoroughly trained in armored vehicle recognition. The subject cannot be delegated to a few short hours on the basic training program, but must be continuous throughout training and combat.

### 4. NECESSITY FOR RECOGNITION TRAINING

a. The first requirement in warfare is the ability to distinguish friend from foe. Before the outbreak of this war few realized the grave problems of recognition: Since then, mistakes in recognition, on the sea, on land, and in the air, have been too numerous to mention. Usually these mistakes are attended by the most serious consequences. It must be fully realized that the only way to obviate these occurrences is by demanding the highest general level of proficiency in recognition. This can only be attained by continual, concentrated study. It is not suggested that practice will make one absolutely perfect, but it will certainly go most of the way to reducing the chances of a man being a danger not only to himself, but to his comrades-in-arms.

b. Recognition does not begin and end with appearance. It is essential to distinguish between the appearance of friend and foe, *but this is seldom sufficient. It is also essential to recognize the exact type.* In the case of armored vehicles, this recognition gives knowledge of the vulnerable portions, approximate speed, probable armament, and if hostile, a reasonable deduction as to future actions.

c. What enables a person accurately and speedily to recognize a ship, a plane, or a tank? The process is no different from that of recognizing an automobile, a horse, a bird, or a friend. Ask yourself the question, "When I see a friend walking down the street, do I look at every feature of him and, having gone through a process of analysis,

## CHAPTER 2

### NOMENCLATURE AND RECOGNITION FEATURES

#### 8. TURRET

The turret is a dome-shaped or box-shaped structure on the top of the vehicle. It usually carries the main armament—machine guns, 37-mm gun, 75-mm gun, 105-mm gun, and various other calibers as explained in paragraph 10. Distinguishing features of the turret (figs. 1 and 2) are:

**a. Position on hull.** (1) Well forward as on the Russian medium tank T34.

(2) Just forward of center as on most U. S. tanks.

(3) Near the center as on the German PzKw III.

(4) Near the rear as on the German 6-wheeled armored car.

(5) One on one side of the hull as on the U. S. medium tank M3.

**b. Single or multiple turrets.** Most tanks have single turrets. However, there are some with multiple turrets. These may be—

(1) Side by side.

(2) One above the other.

(3) In line.

**c. Cupola.** This is a small, turretlike projection on top of the turret. It may have a machine gun projecting from it. See U. S. medium tank M3.

**d. Shape.** The shape of the turret may be—

(1) **Cylindrical.** See Japanese light armored car 2597.

(2) **Cone-shaped.** With top of cone cut off. See Japanese medium

tank 2597.

(3) **Pyramidal.** With top cut off. See Italian M14 tank.

(4) **A prism.** A figure having vertical sides. See British Cromwell tank.

(5) **Dome-shaped or globular.** See U. S. medium tank M4.

**e. Overhanging turrets and turret bulges.** Some turrets, as in the U. S. light tank M5A1, overhang at the back or sides forming a bulge, this bulge being used normally for the radio. There are various combinations of shapes. The flat-sided turrets ordinarily slope so as to present a poor angle of impact for projectiles. Some turrets have a very streamlined appearance as in the U. S. medium tank M4. Some turrets are egg-shaped, the larger axis being parallel to the principal weapon. Note the U. S. light tank M5.

**f. Radio antenna.** Note position of radio antenna on the U. S. light tank M5. Some other vehicles have the antenna on the turret, but do not depend entirely on this means of recognition.

#### 9. HULL

The characteristics to look for in the hull are:

**a. Box shaped,** with sides either vertical as on the U. S. half-tracks, or sloping.

**b. Streamlined,** as in the U. S. medium tank M4A1.

**c. Overhanging,** as in the U. S. light tank M5A1.

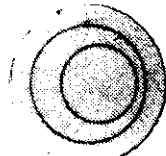
**d. Low or high silhouette.**



FIGURE 1. Position of turret on hull.



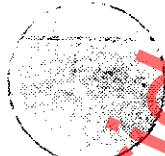
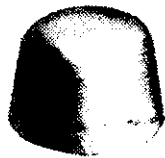
CYLINDRICAL



CONICAL



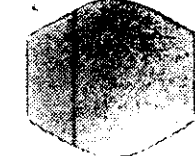
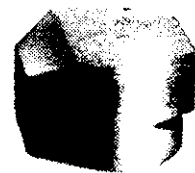
CONICAL  
(WITH CUTAWAY)



DOME SHAPE



PRISM



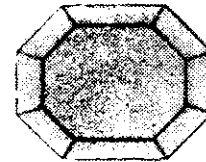
PRISM



PYRAMIDAL



DOME SHAPE  
(WITH TURRET BULGE)



DIAMOND SHAPE

FIGURE 2. Turret types.

## 10. ARMAMENT

The armament varies from machine guns to large cannon. In turreted vehicles the heaviest armament is normally in the turret. Look for the following:

- a. *Short barrel*, as on the U. S. 75-mm howitzer motor carriage M8.
- b. *Medium barrel*, as on the U. S. medium tank M4.
- c. *Long barrel*, as on the German Pz Kw VI. Note that some of the German tanks also have a muzzle brake, a large ringlike device on the end of the barrel.
- d. A cannon in a turret usually has a coaxial machine gun mounted with it.
- e. A machine gun may be mounted in the hull. See U. S. light tank M5A1 and medium tank M4.
- f. An anti-aircraft machine gun may be mounted on the turret, or it may be on a pedestal or other mount in turretless vehicles.
- g. Size of gun, that is, length and diameter of barrel.

## 11. TRACTION (fig. 3)

Many vehicles may be definitely recognized by the traction. However, do not make traction a standard means of recognition as wheels or tracks will often be obscured by grass or defilade. The following are recognition features:

- a. **Wheeled vehicles.** (1) Two, three, four, or more wheels on a side; that is, four-wheeled, six-wheeled, eight-wheeled, or even more.
- (2) Are wheels evenly or unevenly spaced? Most six-wheeled vehicles will have four wheels close together near the rear.
- (3) Are wheels large or small? Most will be large.

- b. **Part-track vehicles.** These may be half-track, three-quarter track, or track may be even larger. On some German vehicles the front wheels can be lifted and the vehicle run as a full-track vehicle. Note the following:

- (1) Front wheels.
- (2) Length of track as compared to length of vehicle.
- (3) Number and size of bogie wheels.

- c. **Full-track vehicles.** Note the following:

- (1) Number of bogie wheels.
- (2) Spacing of bogies and bogie wheels.
- (3) Are wheels mounted singly or in pairs?
- (4) Are wheels large or small?
- (5) Is part of traction covered by an armored skirt?

## 12. OTHER DISTINCTIVE FEATURES

The above paragraphs cover description of the various parts of the vehicle. Other features to note are—

- a. Size of vehicle.
- b. Height of silhouette.
- c. Position of radio antenna.
- d. National markings. *Do not depend on national markings. Captured tanks may be used against you or the enemy may use your own or Allied national markings.*
- e. When viewing a vehicle from above, note
  - (1) Position of turret.
  - (2) Length of gun.
  - (3) Shadows, which will often show more than direct view of the vehicles.

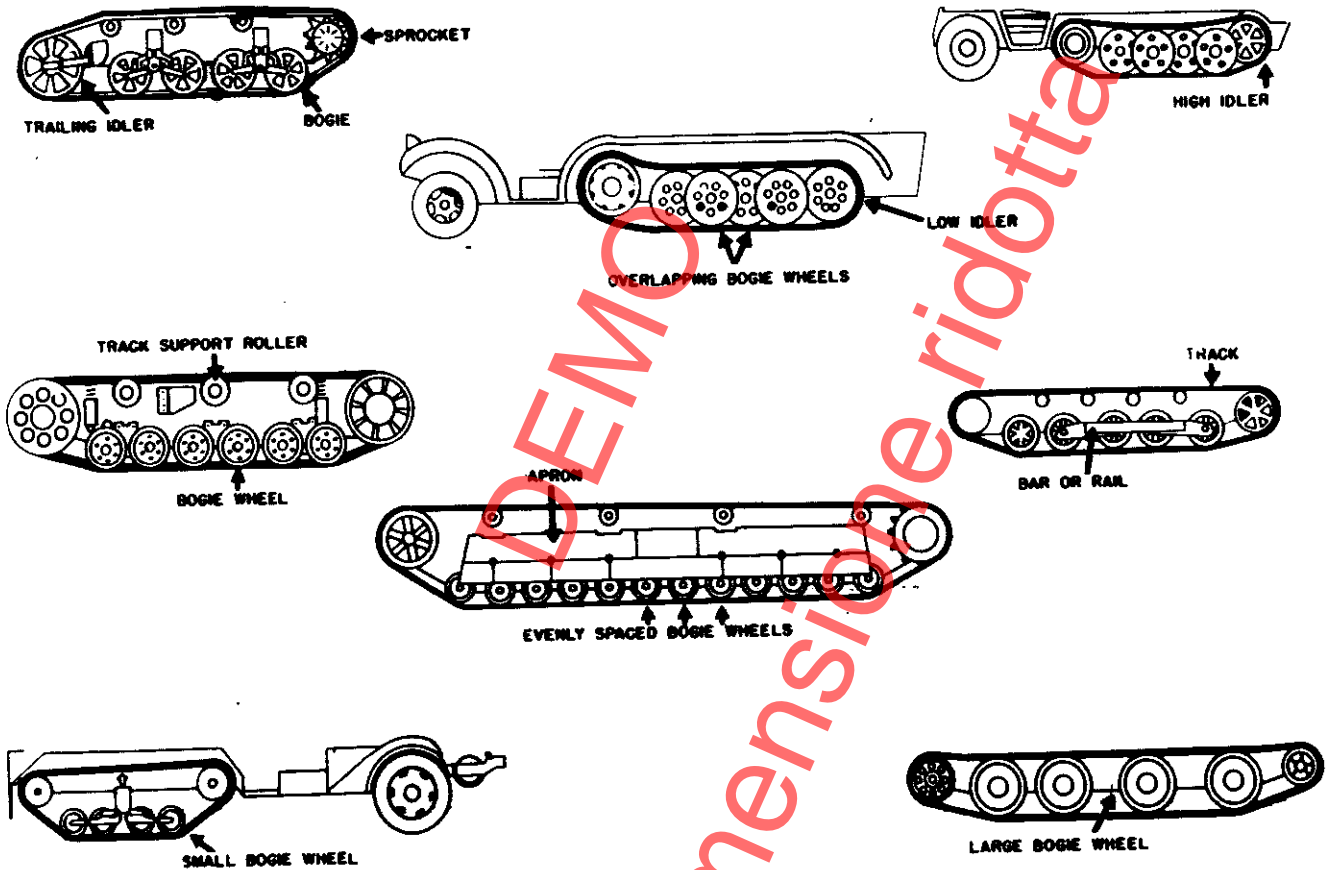


FIGURE 3. Nomenclature of traction.



## NATIONAL INSIGNIA

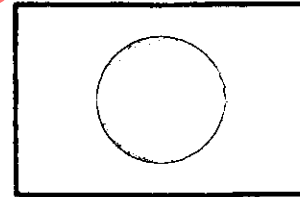
British and Italian vehicles usually have no national markings. Insignia shown for the other nations are usual but do not always appear.



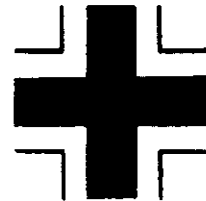
**U. S.**



**RUSSIAN**

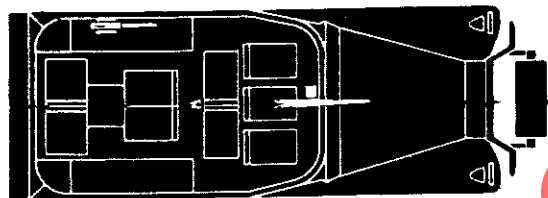


**JAPANESE**



**GERMAN**

DEMO  
dimensione ridotta



**CHARACTERISTICS:**

Turret: None.  
 Hull: Boxlike, with vertical sides and back; open top. Upper edges of hull sides slope down to rear from top of windshield. Removable glass windshield replaced in combat by armor plate which pivots about top of windshield

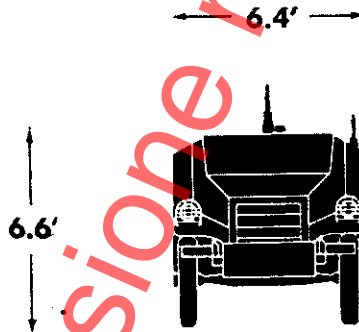
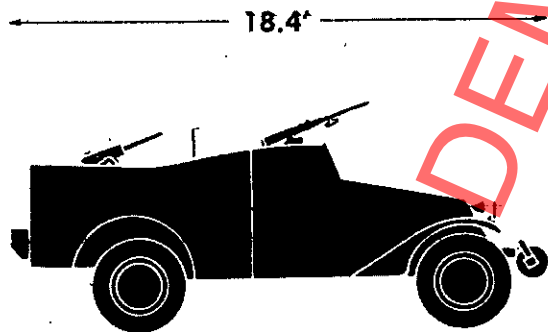
frame. Radiator covered by armor plate shutters. Vehicle equipped with front roller, often mounts fishpole radio antenna.

Armament: One caliber .50 machine gun and one or two caliber .30 machine guns, mounted on skate mounts which may be traversed 360° on a rail affixed to top inside edge of body.

Traction: Four large wheels, with four-wheel drive.

**INTEREST DATA:** Developed by the mechanized cavalry for use as a scout vehicle and also as a command vehicle. It was used extensively by U. S. Armored units during their early period of organization and training. The vehicle does not have the cross-country mobility of the half-track, and has been largely replaced by the latter vehicle, particularly in divisions and smaller units. It is now used principally in corps headquarters as a command vehicle.

NOVEMBER 1943  
 FROM DATA CURRENTLY AVAILABLE  
 WAR DEPARTMENT FM 30-40



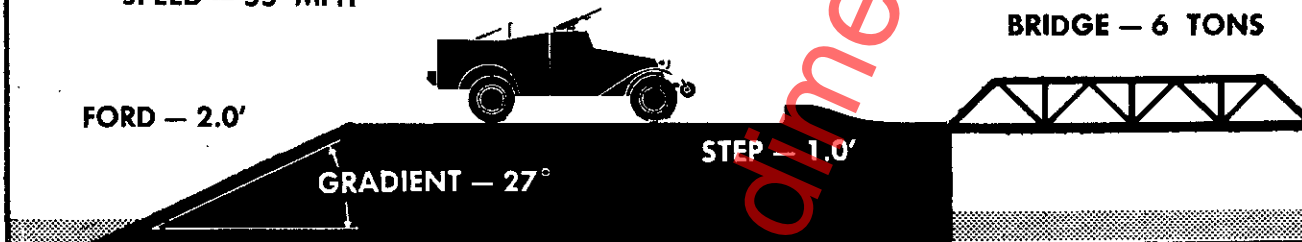
**SPEED — 55 MPH**

**BRIDGE — 6 TONS**

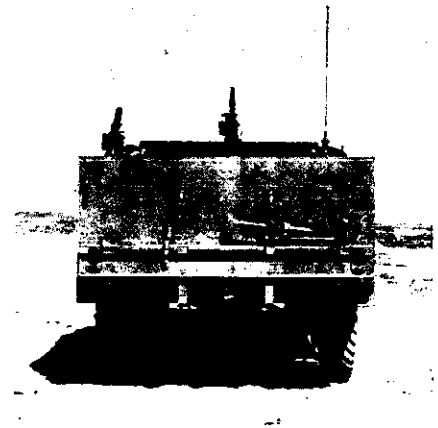
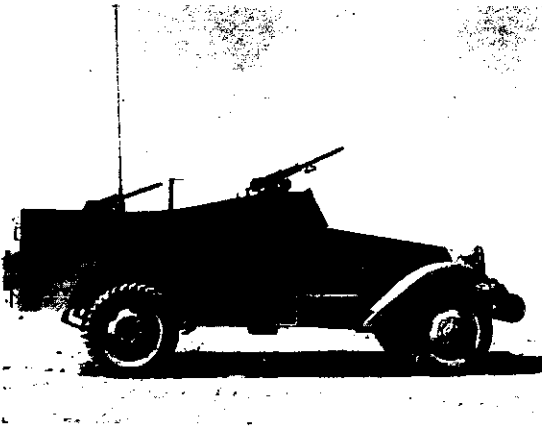
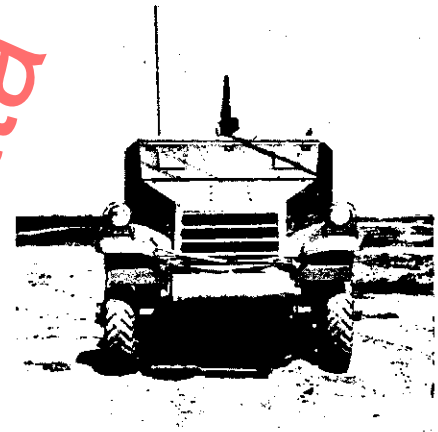
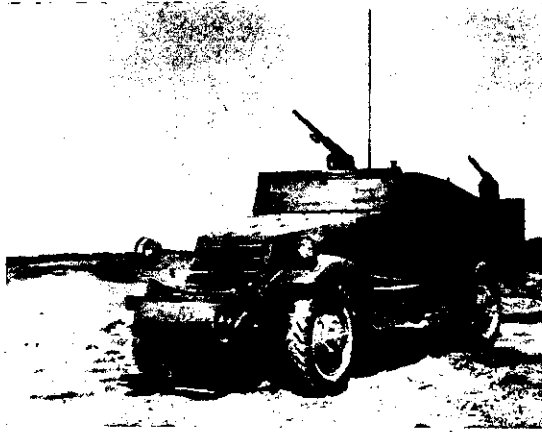
**FORD — 2.0'**

**GRADIENT — 27°**

**STEP — 1.0'**



# SCOUT CAR, M3A1



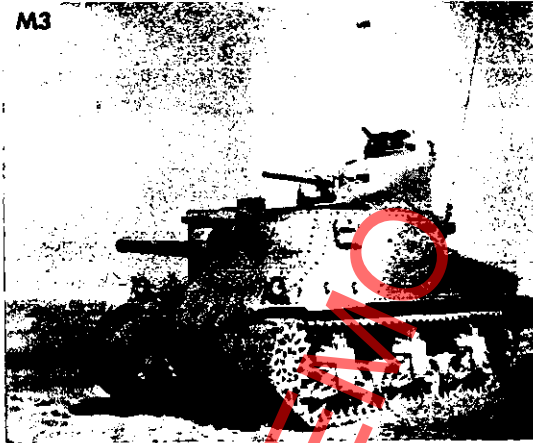
DEMO  
dimensione ridotta

# MEDIUM TANK, M3

M3A2



M3



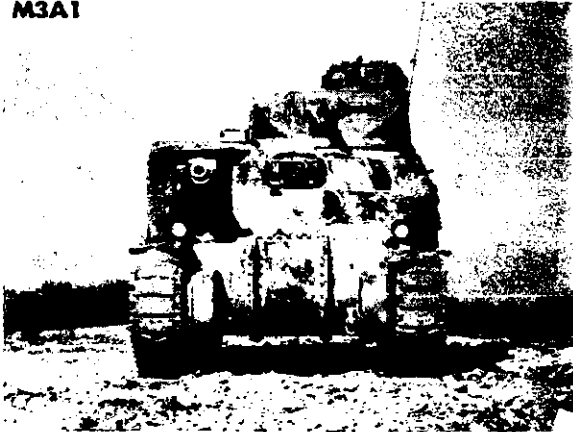
M3



M3A1



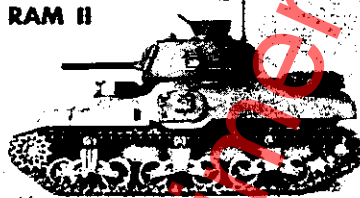
M3A1



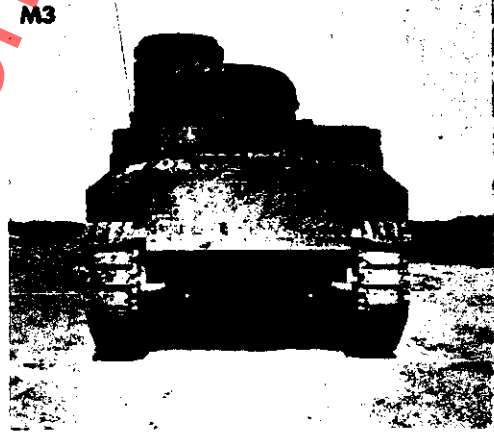
M3A1



RAM II

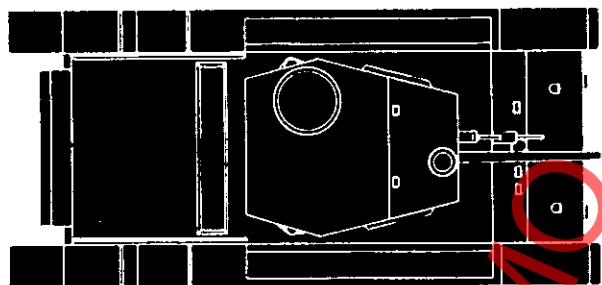


M3

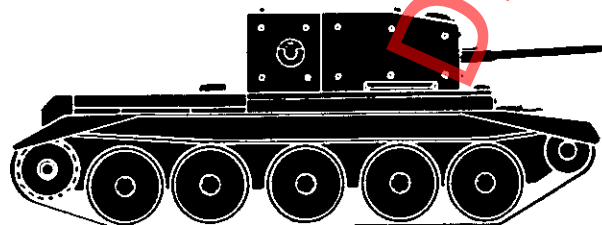


BRITISH

# CROMWELL TANK

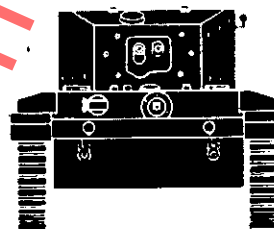


20.5'



7.7'

9.5'



## CHARACTERISTICS:

Turret: Very large, with six flat vertical faces; top slopes down slightly at front; set well forward of center.

Hull: Low and wide, with flat top; shallow vertical front face very near front; small sloping front deck.

## Armament:

One 6-pounder in turret.

One coaxial 7.92-mm machine gun.

One 7.92-mm machine gun in left front of hull.

Traction: Full track; five very large Christie type bogie wheels almost evenly spaced; large driving sprocket in rear; small, high-set idler in front.

INTEREST DATA: This is the most important British tank. It has a good fighting compartment, fairly low silhouette, and high speed. Several very similar models have been produced.

NOVEMBER 1943  
FROM DATA CURRENTLY AVAILABLE  
WAR DEPARTMENT FM 30-40

SPEED — 34 MPH

FORD — 4.0'

GRADIENT — ?

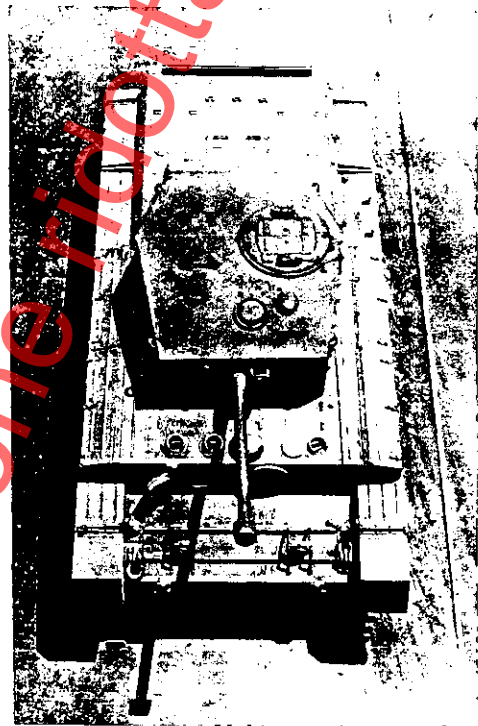
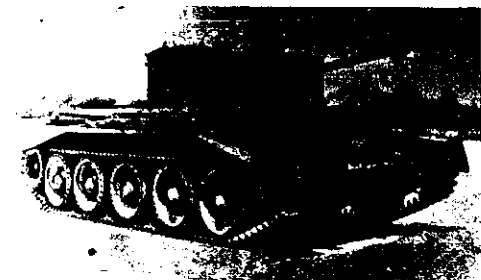
STEP — 3.0'

BRIDGE — 30 TONS

TRENCH — 7.8'

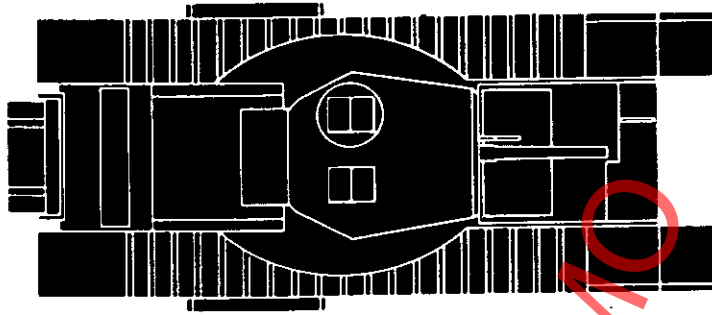


# CROMWELL TANK

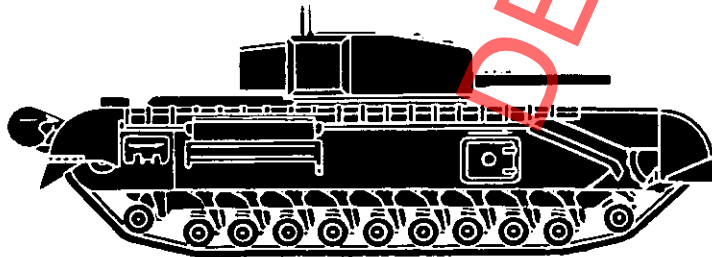


BRITISH

# CHURCHILL INFANTRY TANK



25.2'



### CHARACTERISTICS:

**Turret:** Shallow, but large and boxlike; flat top, cutaway slightly at front; rear and front are vertical plates; each side composed of two plates which join in flat V to form widest part of turret just behind center. Rectangular stowage bin affixed to rear.

**Hull:** Obscured by over-all track, which gives table-top effect; nose of

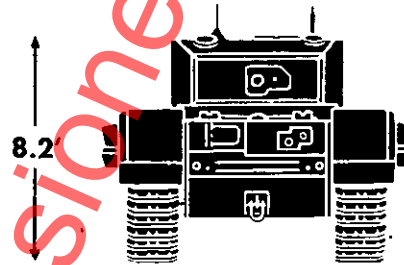
tank extends well beyond muzzle of main gun; driver and gunner cabs hidden by tracks from side view.

### Armament:

- One 6-pounder (latest model).
- One coaxial machine gun.
- One machine gun in left front of hull.

**Traction:** Full track; 11 small, independently sprung wheels, center 9 evenly spaced; half skirting, with prominent air louvres on rear; broad tracks with top level with top of hull; very high rear driving sprocket and front idler.

10.7'



8.2'

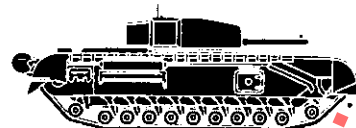
**INTEREST DATA:** This very large tank is the only known vehicle of any importance which has over-all tracks. There are several models. Some types mount a 2-pounder as the main armament. One 6-pounder model has a cast turret with all edges rounded. A close-support version mounts a 3-inch howitzer in place of the machine gun in the front of the hull.

NOVEMBER 1943  
FROM DATA CURRENTLY AVAILABLE  
WAR DEPARTMENT FM 30-40

SPEED — 17 MPH

FORD — 3.0'

GRADIENT — 30°



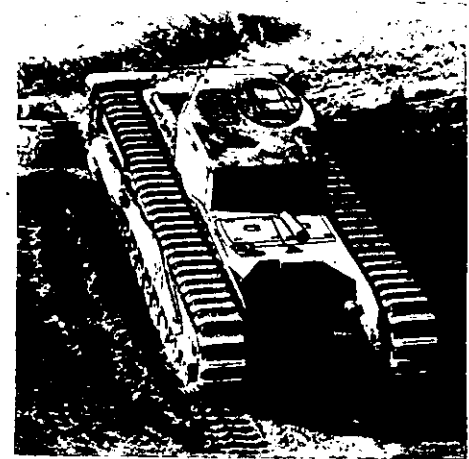
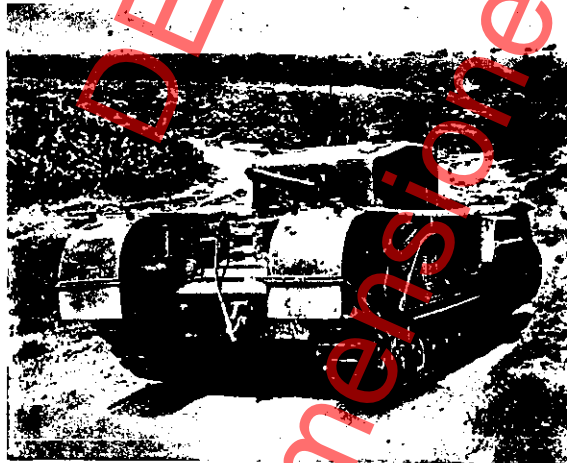
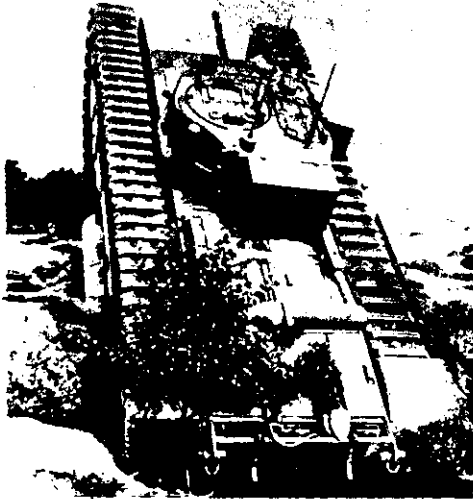
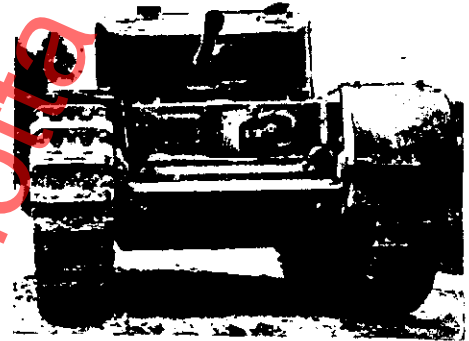
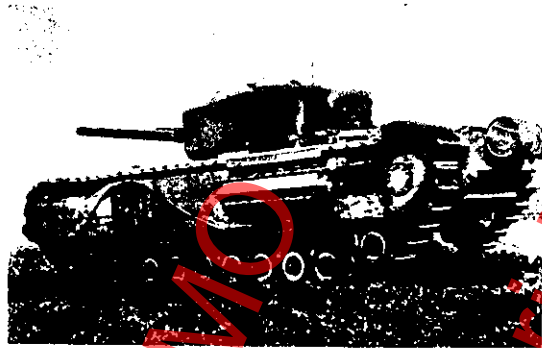
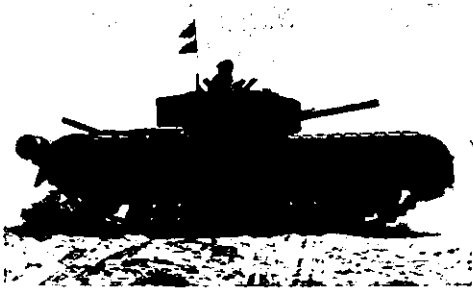
STEP — 4.0'

BRIDGE — 43 TONS

TRENCH — 12.0'

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dimensione ric

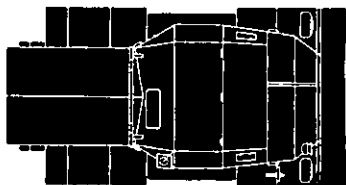
# CHURCHILL INFANTRY TANK





BRITISH

# LYNX ARMORED CAR



11.7'



### CHARACTERISTICS:

Turret: None.

Hull: Short, low; prominent, boxlike rear; angular superstructure resembling sqac turret set forward of center; long, rectangular box set across front of hull just above front wheels.

Armament: One caliber .303 Bren machine gun.

Traction: Four large wheels.

6.1'

6.4'



**INTEREST DATA:** This small vehicle is of Canadian design and construction. It is unique in appearance, differing considerably from any vehicle in use by other nations.

C 1. 7 DECEMBER 1943  
FROM DATA CURRENTLY AVAILABLE  
WAR DEPARTMENT FM 30-40

SPEED 60 MPH

FORD — 1.5'

GRADIENT 23°

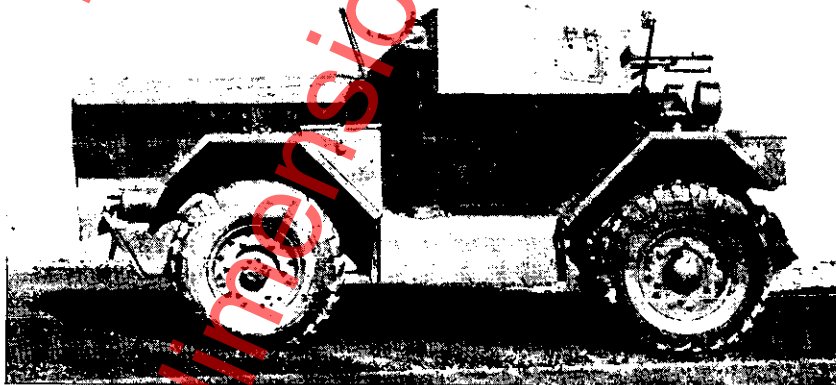
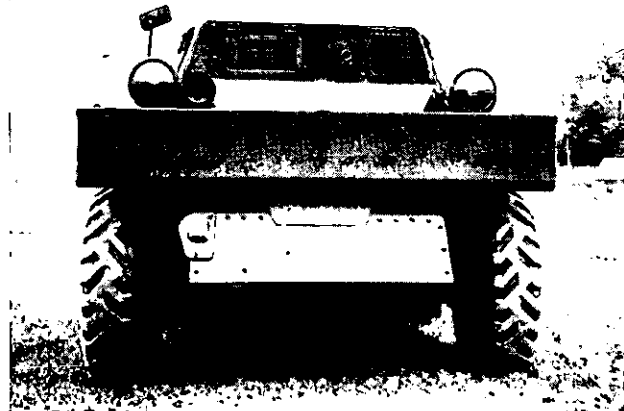
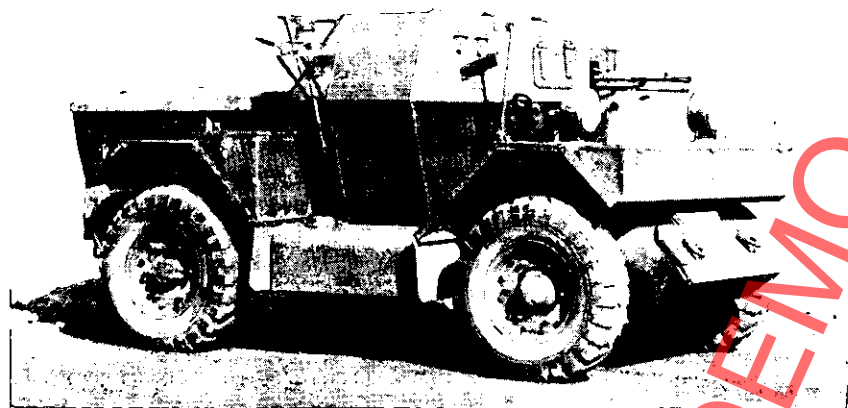


STEP — 0.9' EST.

BRIDGE — 5 TONS



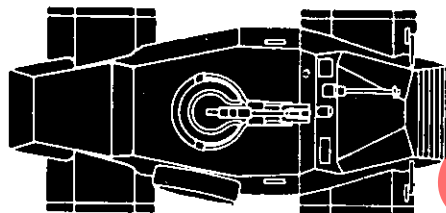
# LYNX ARMORED CAR



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dimensione ridotta

BRITISH

# OTTER ARMORED CAR



14.9'

### CHARACTERISTICS:

Turret: Very small, conical, with open top; set just to rear of center of hull superstructure.

Hull: Short, high, angular; superstructure has high, flat top which slopes down to rear; angular fenders over all wheels.

Armament: One caliber .303 Bren machine gun in turret.

One caliber .55 Boys antitank rifle in left front of hull.

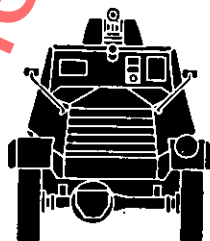
Traction: Four large wheels.

**INTEREST DATA:** This is a Canadian vehicle. Its high, short body gives it an appearance similar to that of several armored cars built in Britain, particularly the Humber armored car. The vehicle is equipped with a 4-inch smoke discharger in the front of the hull superstructure.

7.0'



7.9'



C 1, 7 DECEMBER 1943  
FROM DATA CURRENTLY AVAILABLE  
WAR DEPARTMENT FM 30-40

SPEED — 50 MPH

FORD — 2.0'



GRADIENT — 32°

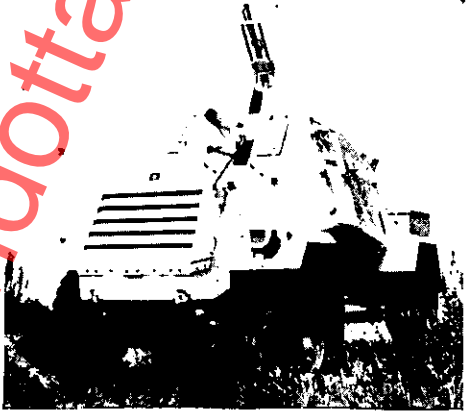
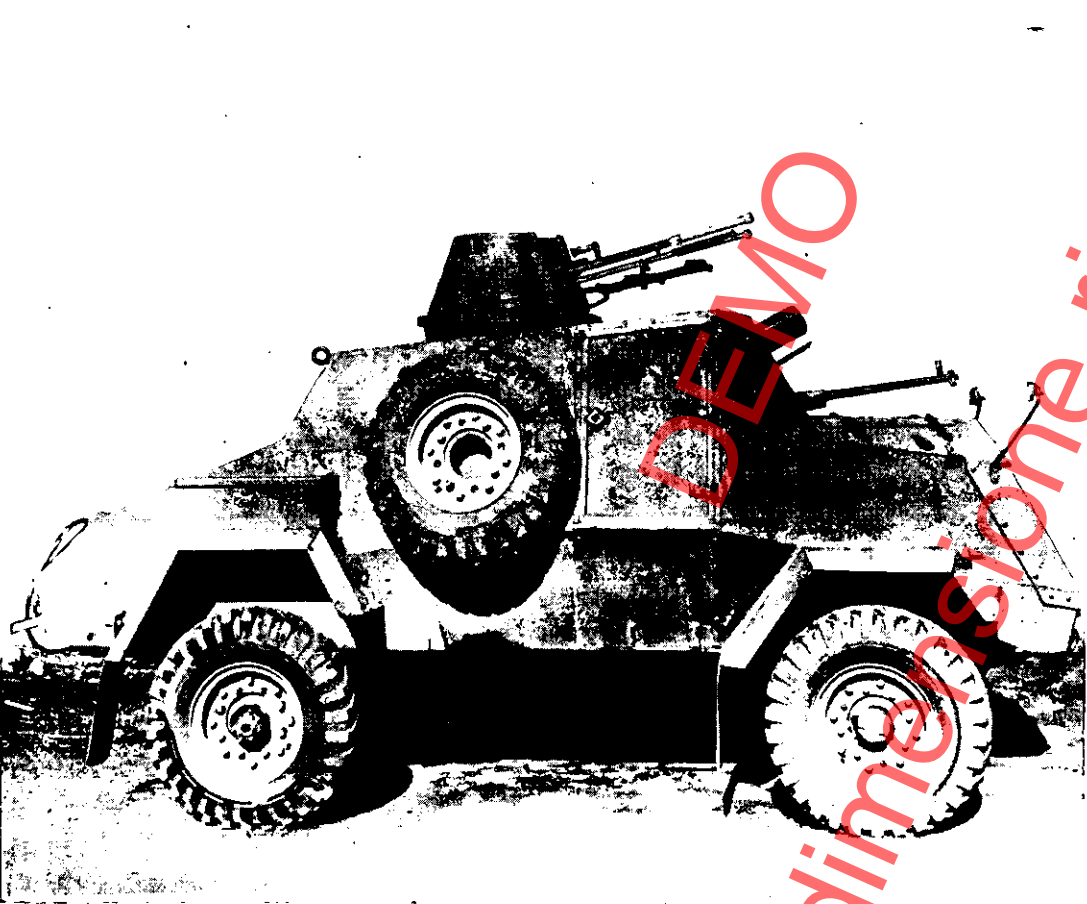
STEP — 1.0'

BRIDGE — 6 TONS



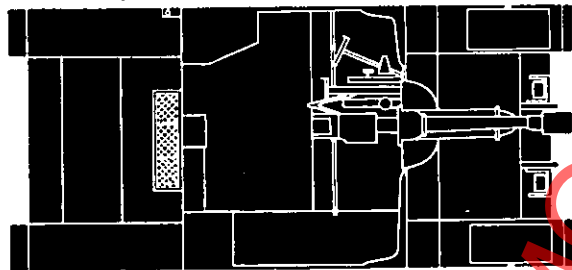
RESTRICTED

# OTTER ARMORED CAR

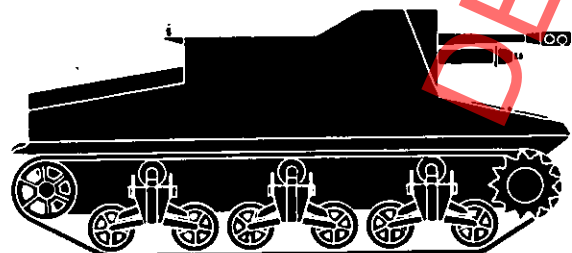


BRITISH

# SP 25 POUNDER



19.2'



## CHARACTERISTICS:

Turret: None.

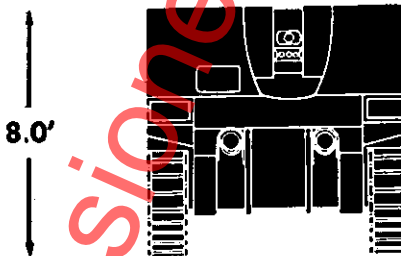
Hull: Long, with vertical sides and high square-cut, open-topped superstructure at center; front and rear decks slope down gradually.

Armament: One 25-pounder mounted in hull.

Traction: Full track; six equally spaced bogie wheels suspended in pairs; three track support rollers; driving sprocket in front.

INTEREST DATA: This Canadian vehicle is equipped with a powerful gun, and has a large fighting compartment. The chassis is based on that of the American medium tanks.

8.9'

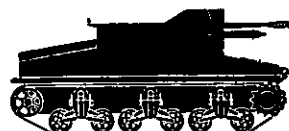


8.0'

C 1, 7 DECEMBER 1943  
FROM DATA CURRENTLY AVAILABLE  
WAR DEPARTMENT FM 30-40

SPEED — 25 MPH

FORD — 3.0'



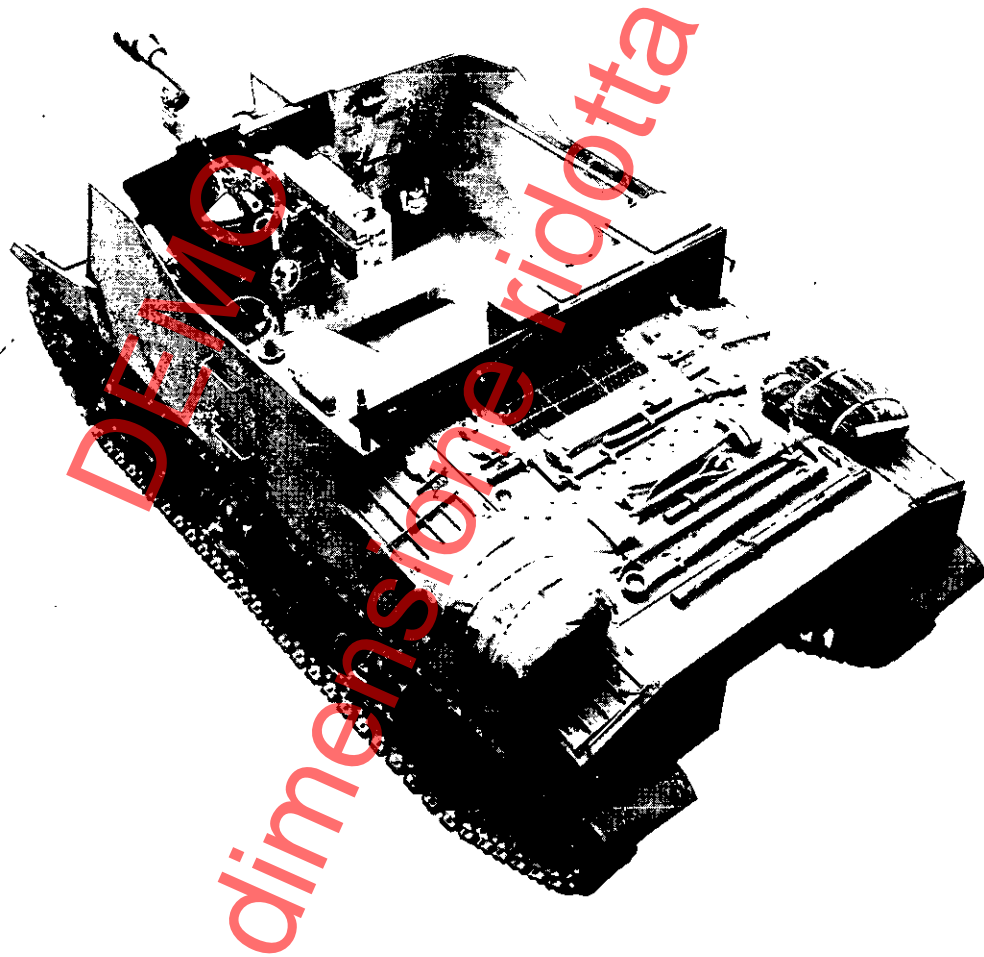
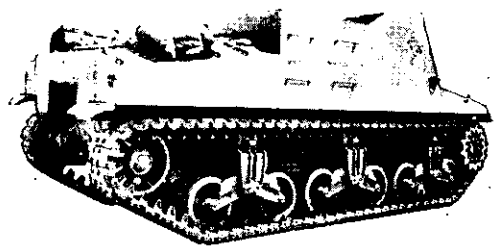
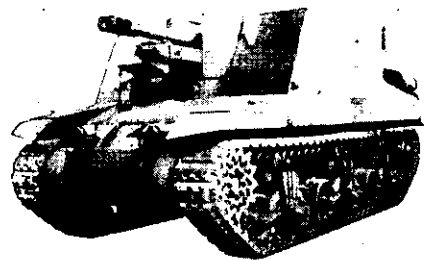
GRADIENT 35°

STEP — 2.0'

BRIDGE — 24 TONS

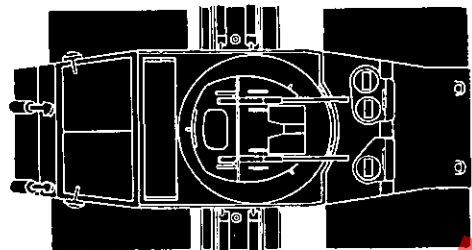
TRENCH — 7.4'

# SP 25 POUNDER

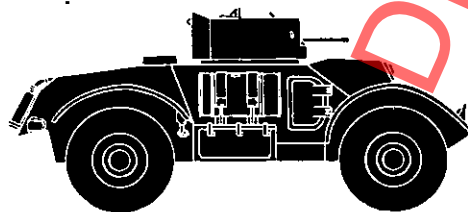


BRITISH

# ARMORED CAR T17E2



16.3'



7.5'

## CHARACTERISTICS:

**Turret:** Open-topped, roughly cylindrical, with inclined, slotted front face. Rear is raised at center, curves down to meet sides.

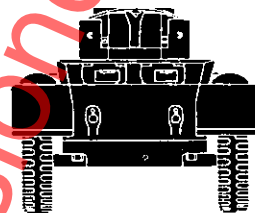
**Hull:** Prominent driver's cab, with flat top and steep front face. Rear deck slopes down gradually. Wide fenders cover each wheel. Large

jettison tanks mounted on each side at center.

**Armament:** Two caliber .50 machine guns in twin mount in turret.

**Traction:** Four large wheels, with four-wheel drive.

8.9'



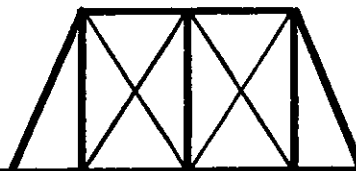
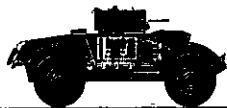
**INTEREST DATA:** This vehicle is a variation of the T17E1, or "Stagbound," an American-built British armored car. The T17E2 is an anti-aircraft vehicle. It differs appreciably from the basic car only in the turret. The new vehicle gives the gunner unusual protection, can deliver effective AA fire, and has good cross-country mobility.

SPEED — 50 MPH

FORD — 2.7'

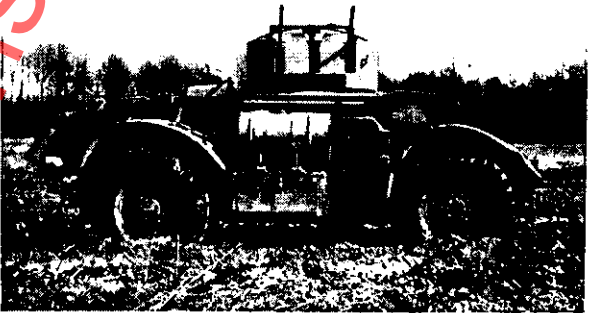
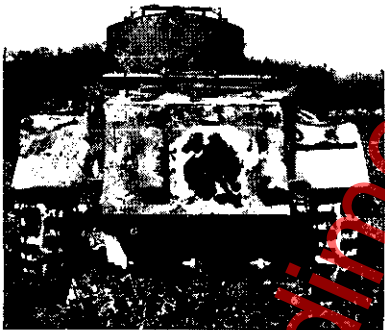
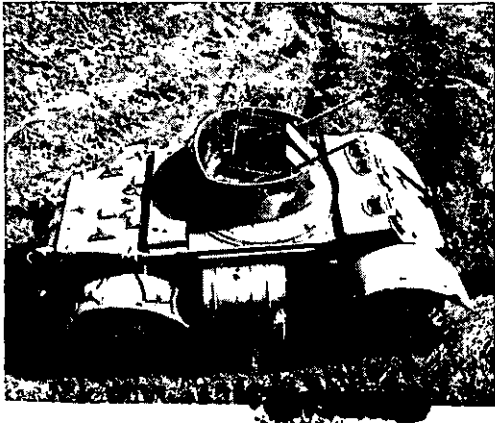
GRADIENT — 24°

STEP — 1.3' EST.



BRIDGE — 15 TONS

# ARMORED CAR T17E2

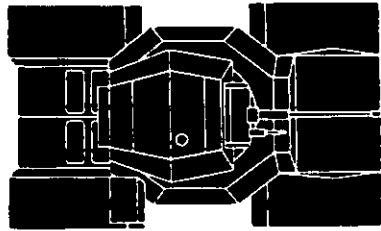


DEMO  
dimensione ridotta

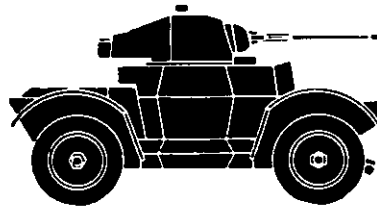


BRITISH

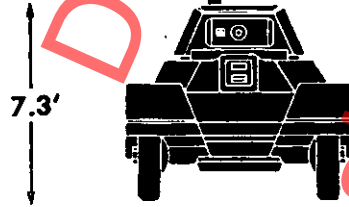
# DAIMLER ARMORED CAR



13.0'



8.0'



7.3'

## CHARACTERISTICS:

**Turret:** High in front, slopes down to rear bulge which houses radio; sloping sides and front; protruding gun mantlet.

**Hull:** Short, angular, pot-shaped body centrally underslung between large wheels; narrow nose; low ground clearance; wide, curved fenders.

**Armament:** One 2-pounder in turret. One coaxial 7.92-mm machine gun.

**Traction:** Four very large wheels.

**INTEREST DATA:** This is probably the most useful type of British armored car. Its appearance is so unique that it cannot easily be confused with vehicles of other countries. The car is equipped with smoke dischargers. It is very stable, and has good speed on roads. The vehicle can be steered from the rear for ease in rapidly reversing direction.

SPEED — 45 MPH

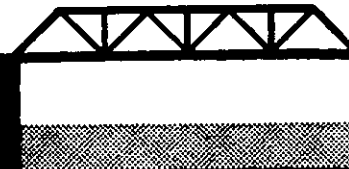
FORD — 3.0'



GRADIENT — 24°

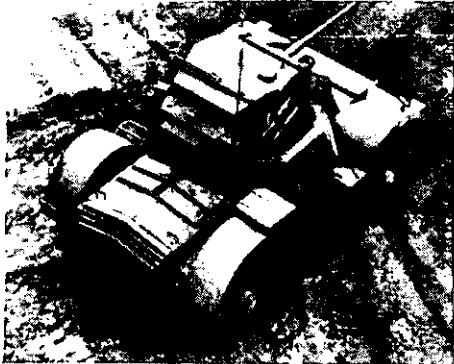
STEP — 1.2' EST.

BRIDGE — 9 TONS



RESTRICTED

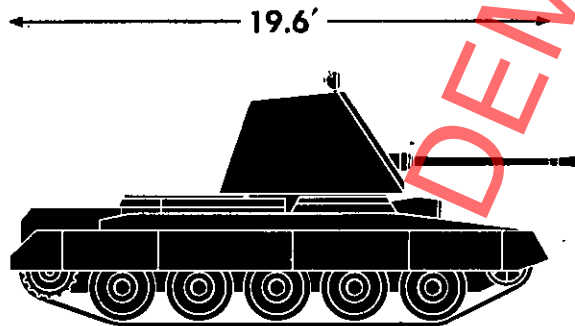
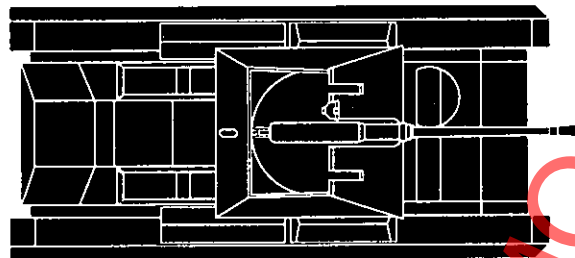
# DAIMLER ARMORED CAR



DEMO  
dimensione ridotta

BRITISH

# CRUSADER AA MK I



## CHARACTERISTICS:

Turret: Very high; open top; box-like; tapered; sits near front; 40-mm gun protrudes from a deep U-shaped cut in the front; smaller cuts on either side of the gun for vision purposes.

Hull: Flat top; rectangular; sloping sides; overhanging sand shields.

Armament: One 40-mm AA gun.  
Traction: Full track; five large evenly spaced bogie wheels; rear driving sprocket; high front idler.

## INTEREST DATA:

This is designed primarily as a self-propelled anti-aircraft weapon. It is mounted on the old "Crusader" tank chassis from which it derives its name. There is no gun mantlet. The 40-mm gun protrudes from a deep U-shaped cut in the turret front. Forward turret vision is provided by rectangular cuts on either side of the gun. The weapon may be employed for anti-tank and other purposes.

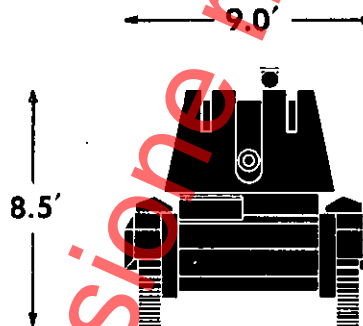
C 4, FEBRUARY 1945  
FROM DATA CURRENTLY AVAILABLE  
WAR DEPARTMENT FM 30-40

SPEED—27 MPH

FORD—3.2'

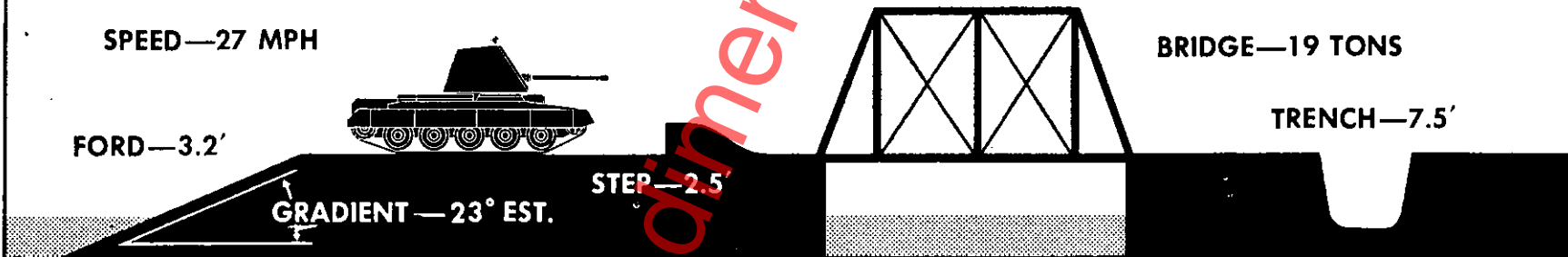
GRADIENT—23° EST.

STEP—2.5'



BRIDGE—19 TONS

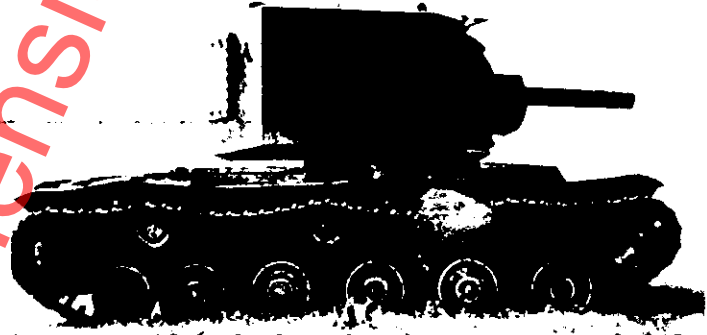
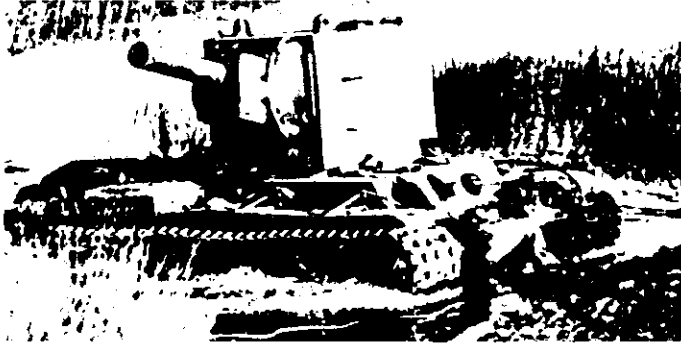
TRENCH—7.5'



# CRUSADER AA MK I

DEMO  
dimensione ridotta

# HEAVY TANK, KV II



DEMO  
dimensione ridotta

# GERMAN ARMORED VEHICLES

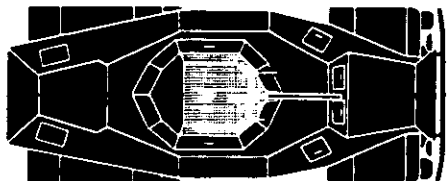


DEMO

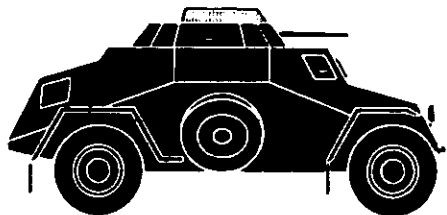
dimensione ridotta

GERMAN 

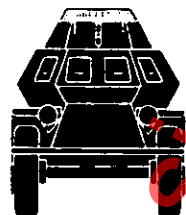
# 4-WHEELED ARMORED CAR



15.6'



7.4'



6.3'

## CHARACTERISTICS:

Turret: Low, pyramidal; open top, protected by wire grid on some models; centered on hull.

Hull: High, flat top; slopes down abruptly and irregularly in front and rear. Lower parts of sides undercut upper faces, which are inclined in at top. Arrangement of hatches differs depending on model.

Armament: One 20-mm super-heavy machine gun in turret.

Traction: Four large wheels.

**INTEREST DATA:** This is one of the older German vehicles. It is the only important German 4-wheeled armored car. The basic model shown is the Sd Kfz 222; a very similar model, with lighter armament and no grid over the turret, is designated the Sd Kfz 221. The vehicle is equipped for steering on either two or four wheels; also either two or four wheels can be powered. Other only slightly different vehicles are designated Sd Kfz 223, 260, and 261.

NOVEMBER 1943  
FROM DATA CURRENTLY AVAILABLE  
WAR DEPARTMENT FM 30-40

SPEED — 30 MPH

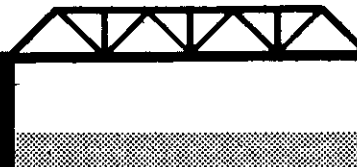
FORD — ?



GRADIENT — ?

STEP — 0.9' EST.

BRIDGE — 5 TONS



# 4-WHEELED ARMORED CAR

SDKFZ 221



SDKFZ 221



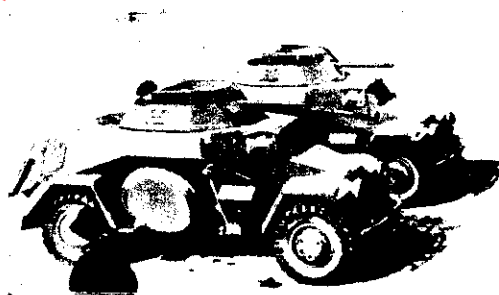
SDKFZ 222



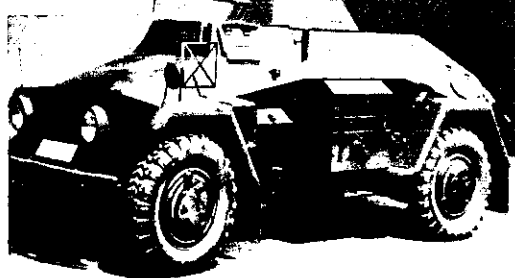
SDKFZ 222



SDKFZ 222



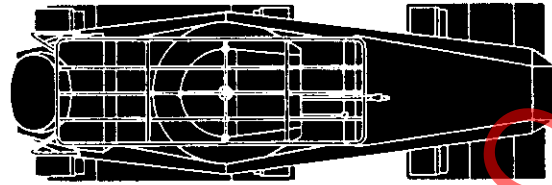
SDKFZ 221



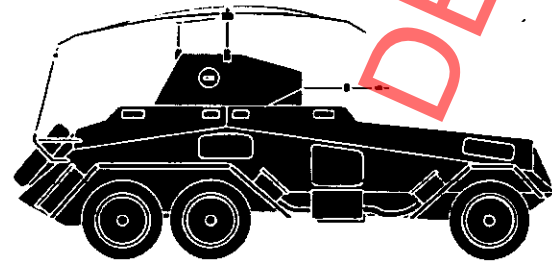


GERMAN 

# 6-WHEELED ARMORED CAR



18.3'



## CHARACTERISTICS:

**Turret:** Small, roughly conical, with flat, undercut front face; set to rear of center of hull.

**Hull:** Long and narrow, with high-set, flat-topped superstructure at center; sloping rear deck, tapering to narrow, angular tail; long, gradually

sloping front deck. Sides made of inclined flat plates, with lower plates undercutting upper faces.

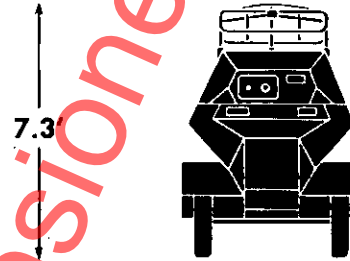
## Armament:

One 20-mm heavy machine gun in turret.

One coaxial light machine gun.

**Traction:** Six wheels; two in front, well forward, four in rear, set close together, double tired.

6.1'



7.3'

**INTEREST DATA:** The body of this vehicle is very similar to that of the German 8-wheeled armored car. The four rear wheels are powered, and the vehicle may be driven in either direction. Two versions of this vehicle are designated Sd Kfz 231 and 263.

NOVEMBER 1943  
FROM DATA CURRENTLY AVAILABLE  
WAR DEPARTMENT FM 30-40

SPEED — 50 MPH

FORD — ?



BRIDGE — 7 TONS

GRADIENT — ?

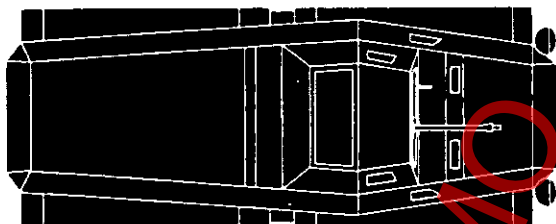
STEP — 0.9' EST.

# 6-WHEELED ARMORED CAR

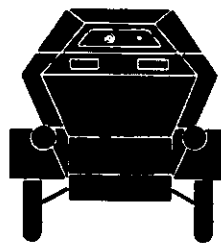
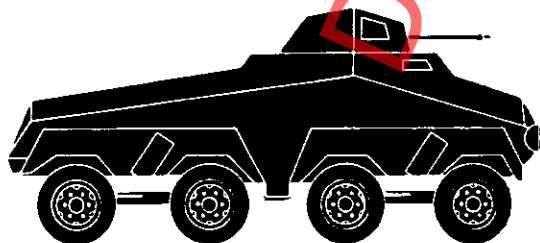


GERMAN 

# 8-WHEELED ARMORED CAR



19.0'



7.3'

8.0'

## CHARACTERISTICS:

Turret: Small, pyramidal, with top sloping to front and rear; set forward of center of hull.

Hull: Long and narrow, with high-set, flat-topped superstructure at center; sloping front deck, tapering to narrow, angular nose; long, gradually sloping rear deck; sides

made of inclined flat plates, with lower plates undercutting upper faces; high, flat-topped fenders over each pair of wheels.

## Armament:

One 20-mm heavy machine gun in turret.

One coaxial 7.92-mm machine gun.

Traction: Four evenly spaced wheels on each side; all wheels powered.

**INTEREST DATA:** The most important German armored car and may be seen in large numbers. Armament and radio antennas vary. Crew may be four or five men. Has good performance, and a very quiet engine. All wheels are suspended semi-independently, and all steer. May be driven at full speed in either direction; complete controls provided in each end. Two versions are designated Sd Kfz 231 and 263 (same as 6-wheeled car). Another model is equipped as an assault gun; the turret is removed and a short-barreled 75-mm gun mounted in the forward face of the hull.

NOVEMBER 1943  
FROM DATA CURRENTLY AVAILABLE  
WAR DEPARTMENT FM 30-40

SPEED — 55 MPH

FORD — 3.3'



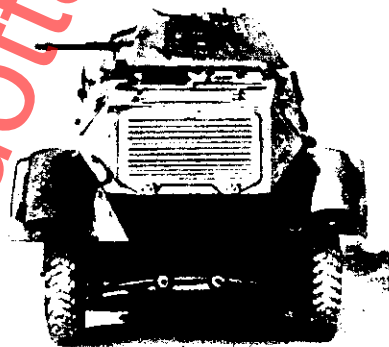
BRIDGE — 9 TONS

TRENCH — 5.0'

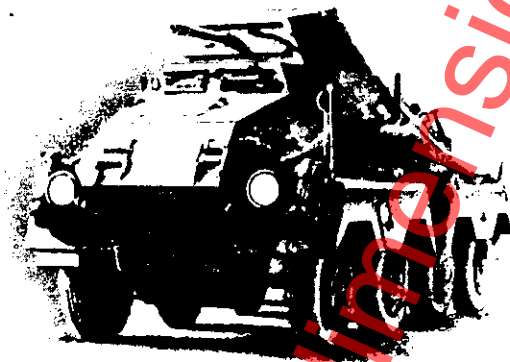
GRADIENT — ?

STEP — 1.6'

# 8-WHEELED ARMORED CAR



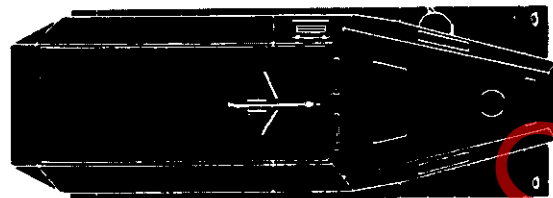
ASSAULT GUN



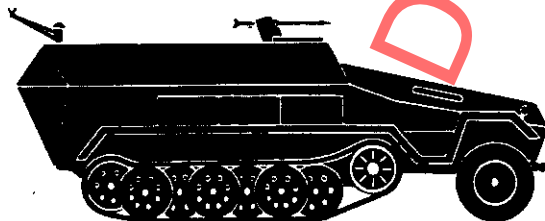
DEMO  
dimensione ridotta

GERMAN 

# ARMORED HALF-TRACK VEHICLES



18.7'



## CHARACTERISTICS:

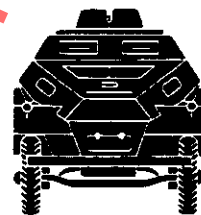
Turret: None.

Hull: Low, with open top. Constructed of flat, inclined plates; upper plates slope in at top, lower faces incline in at bottom. Hood slopes down gradually, tapers almost to point. Long fender extends full length of vehicle.

Armament: One light machine gun in V-shaped shield at front. 90° traverse.

Traction: Two wheels in front, not powered; large semitrack in rear, with six large, overlapping bogie wheels; large driving sprocket at front of track, idler at rear.

6.8'



6.0'

**INTEREST DATA:** The two basic German armored half-track vehicles are the Sd Kfz 250 and 251. The two chassis are almost identical with the two smallest unarmored half-tracks. The 251 is a 3-ton (towing capacity) vehicle and is the one for which silhouettes and data are given. The 250 (1-ton towing capacity) is smaller and has only four bogie wheels. These cars, with slight changes in the hull, have many uses as command and radio vehicles, carriers for machine-gun and mortar sections, light AT and AA vehicles, observation cars, and ammunition carriers. They are reliable, provide protection against small-arms fire, and have good cross-country mobility.

NOVEMBER 1943  
FROM DATA CURRENTLY AVAILABLE  
WAR DEPARTMENT FM 30-40

SPEED — 30 MPH EST.

FORD — 1.6'

GRADIENT — 24°



STEP — 0.9' EST.



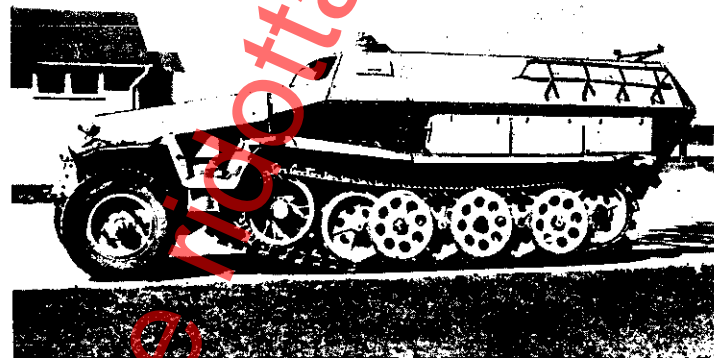
BRIDGE — 10 TONS

# ARMORED HALF-TRACK VEHICLES

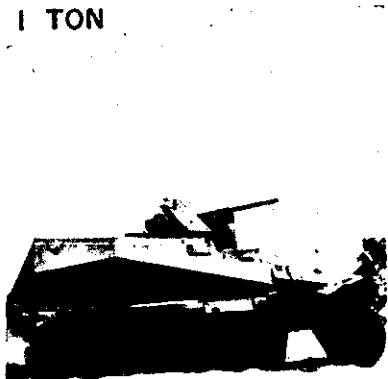
3 TON



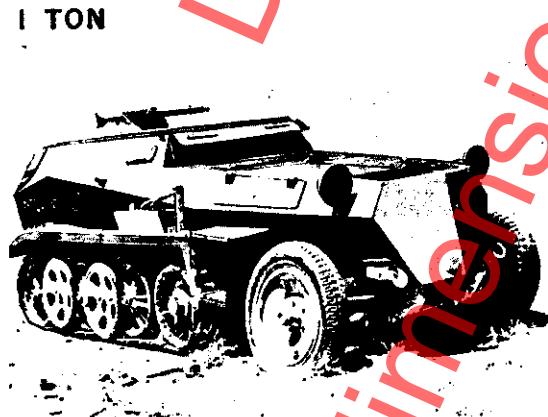
3 TON



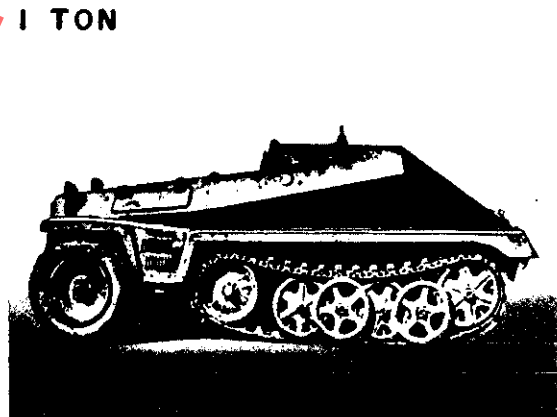
1 TON



1 TON

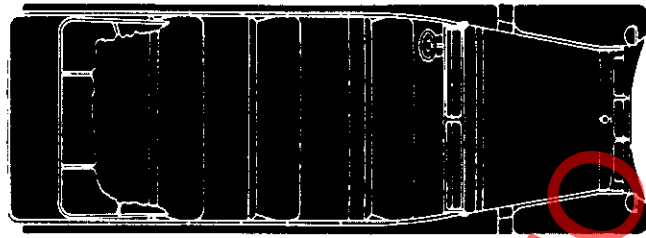


1 TON

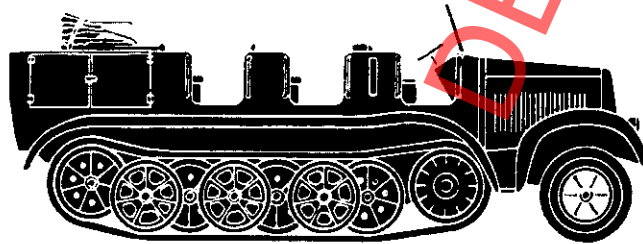


GERMAN 

# HALF-TRACK VEHICLES



22.3'



## CHARACTERISTICS:

Turret: None.

Hull: Short angular nose, open top; vertical sides, square-cut rear; long fenders extend over track suspensions.

Armament: None.

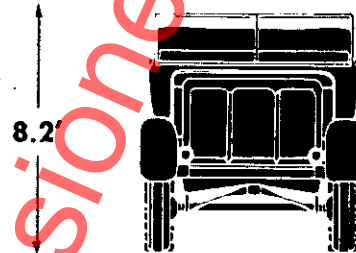
Traction: Two wheels in front, not powered. Semitrack in rear, with

six large overlapping bogie wheels, independently sprung. Large driving sprocket in front, idler in rear. (The 1-ton vehicle has only four bogie wheels).

**INTEREST DATA:** The Germans have developed many semitracked vehicles, all having the same basic design. The elaborate rear running gear is characteristic. At least six different sizes of vehicles exist. They are rated on towing ability as 1- and 3-ton light, 5- and 8-ton medium, and 12- and 18-ton heavy. They vary in length from 15.5 feet (1-ton) to 27 feet (18-ton). Data and silhouettes are for the 8-ton. All are used as personnel carriers, but have many additional uses. Light vehicles may mount 20-mm AA-AT guns, or be used as gas detector, decontaminating, or smoke vehicles. Medium vehicles may mount 37-mm or 76.2-mm guns, or quadruple 20-mm guns; they may also tow guns up to 88-mm. Large vehicles may tow very large guns and other heavy loads.

NOVEMBER 1943  
FROM DATA CURRENTLY AVAILABLE  
WAR DEPARTMENT FM 30-40

7.8'

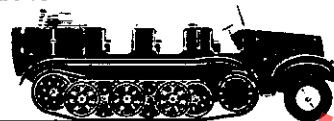


8.2'

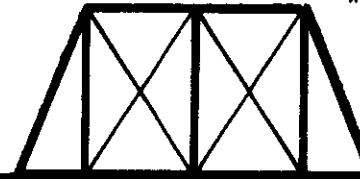
SPEED — 30 MPH EST.

FORD — 1.6'

GRADIENT — 24°



STEP — 1.0' EST.



BRIDGE — 13 TONS

# **ITALIAN ARMORED VEHICLES**

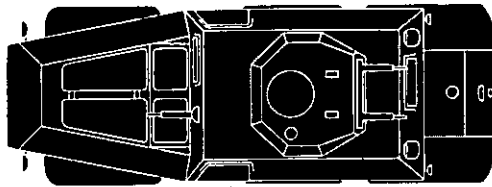
**DEMO**

*dimensione ridotta*



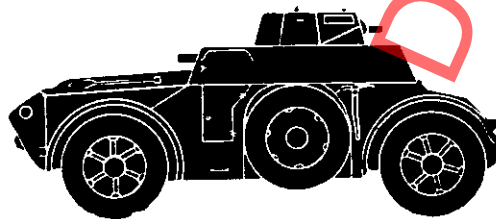
ITALIAN

# 4-WHEELED ARMORED CAR

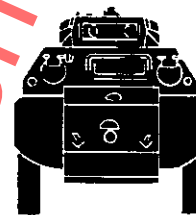


17.3'

6.3'



7.7'



## CHARACTERISTICS:

**Turret:** Low, pyramidal; undercut at front corners; set well forward of center of hull. Some late models have same turret as L6 tank.

**Hull:** Long, with high, flat-topped superstructure forward of center. Protruding nose set low between front wheels. Rear deck slopes gradually to angular, overhanging tail. Construction is of riveted flat plates throughout.

## Armament:

Two 8-mm machine guns in twin mount in turret.

One 8-mm machine gun in rear of superstructure.

If fitted with L6 tank turret armament is:

One 20-mm machine gun in turret.

One coaxial 8-mm machine gun.

One 8-mm machine gun in rear of superstructure.

**Traction:** Four wheels, drive and steering on each pair.

**INTEREST DATA:** The Italians call this vehicle the "Autoblinda." Over rough ground, the spare wheels which extend below the hull can take a load and rotate on their axles, thus preventing "bellying." The vehicle can be driven in either direction; maximum speeds vary greatly in the two directions, being 49 miles per hour forward and 24 miles per hour to the rear.

NOVEMBER 1943  
FROM DATA CURRENTLY AVAILABLE  
WAR DEPARTMENT FM 30-40

SPEED — 49 MPH

BRIDGE — 8 TONS

FORD — ?

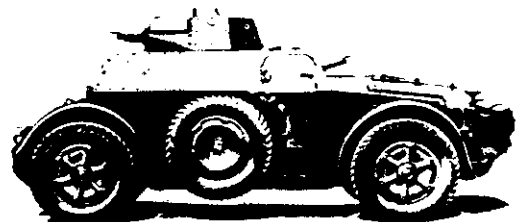
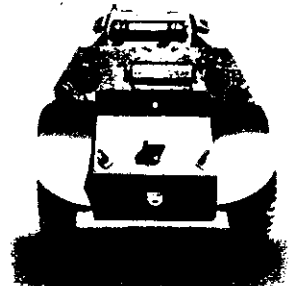
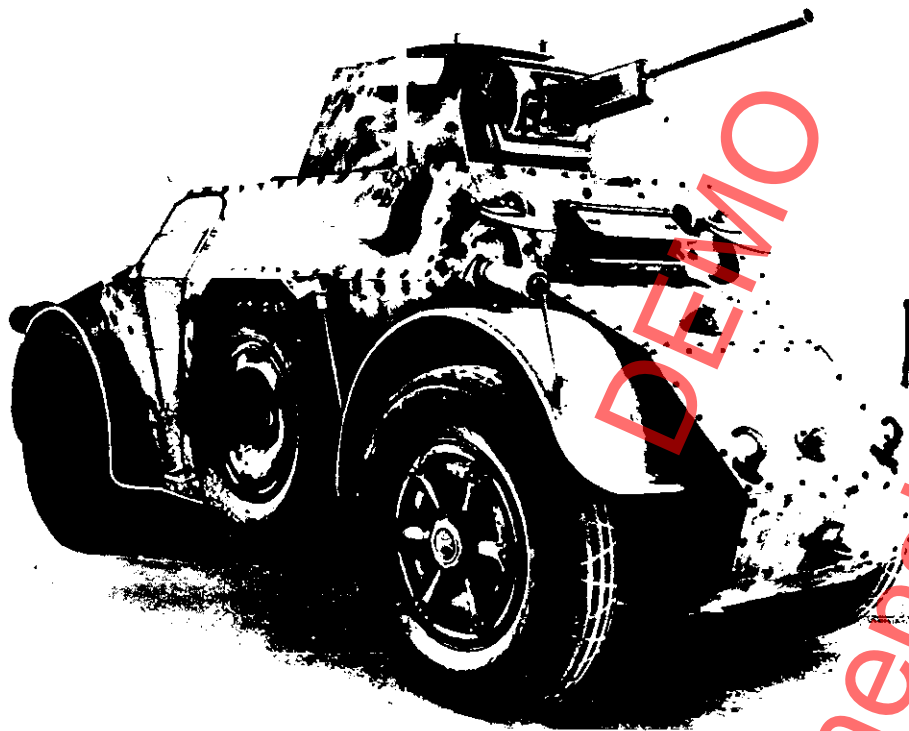


GRADIENT — ?

STEP — 1.1' EST.

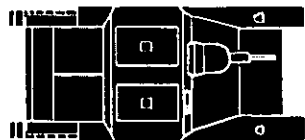
RESTRICTED

# 4-WHEELED ARMORED CAR



ITALIAN

# L3 TANK



10.3'

4.6'



4.2'



### CHARACTERISTICS:

Turret: None, but boxlike superstructure resembles turret  
Hull: Very low. Fully inclosed superstructure mounted at center; has flat faces, sides nearly vertical, top sloping down slightly to front. Rear deck level. Front below superstructure composed of two plates; upper one inclined and mounting gun mantlet on left; lower plate nearly horizontal, extends forward to front axle.

### Armament:

Two 8-mm machine guns in twin mount or  
One 20-mm heavy machine gun.

Traction: Full track; seven small bogie wheels unevenly spaced; two bogies, of three wheels each, connected by girder; one independently sprung bogie wheel at rear; large driving sprocket set high in front.

**INTEREST DATA:** This tank has fair performance but is very lightly armed and armored. Traverse of the machine guns is quite limited. This tank can be used as a bridge carrier and as a flame thrower. In the latter case it tows a trailer of supplementary equipment.

NOVEMBER 1943  
FROM DATA CURRENTLY AVAILABLE  
WAR DEPARTMENT FM 30-40

SPEED — 25 MPH

BRIDGE — 4 TONS

TRENCH — 4.8'

FORD — 2.3'

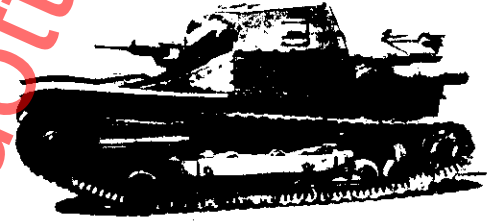
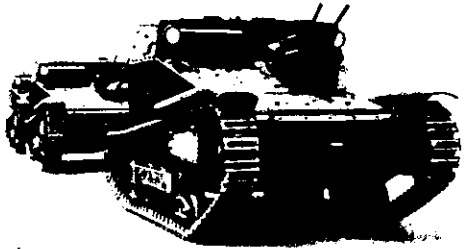


STEP — 2.0'

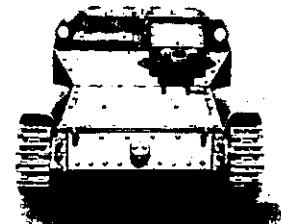
GRADIENT — ?

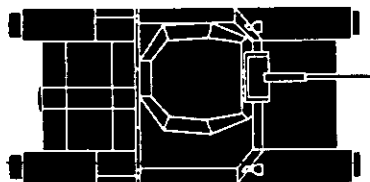
RESTRICTED

# L3 TANK



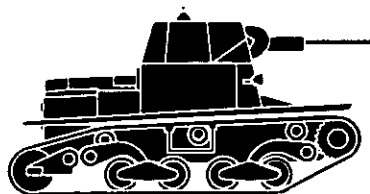
## FLAME THROWER



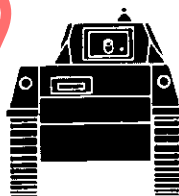


12.6'

6.1'



6.8'



**CHARACTERISTICS:**

**Turret:** Pyramidal; front face is wide, undercut at corners; set forward of center, offset to left; protruding gun mantlet.

**Hull:** Boxlike superstructure at center; high, level rear deck; low, sloping front deck.

**Armament:**

One 20-mm heavy machine gun in turret.

One coaxial 8-mm machine gun.

**Traction:** Full track; four bogie wheels, suspended in two bogies slung on cantilever arms which pivot at front and rear, respectively; driving sprocket in front, trailing idler in rear; three return rollers.

**INTEREST DATA:** This is a lightly armed and armored tank, and is not a good fighting vehicle. This chassis is also used for a self-propelled gun carriage which is used principally in reconnaissance groups. The latter vehicle has no turret and mounts a 47-mm gun in the left side of the vertical front plate.

NOVEMBER 1943  
FROM DATA CURRENTLY AVAILABLE  
WAR DEPARTMENT FM 30-40

SPEED — 25 MPH

FORD — 3.0'

GRADIENT — ?



STEP — 2.0' EST.

BRIDGE — 7 TONS

TRENCH — 4.3'

RESTRICTED

# L6 TANK

