

COMMANDO



Combat proved multi mission armored vehicle

CADILLAC GAGE COMPANY



P.O. BOX 3806, DETROIT, MICH. 48205

A UNIT OF EX-CELL-O CORPORATION



wheeled, armored and amphibious

Eight years ago Cadillac Gage Company began the COMMANDO Program to develop a multi-purpose vehicle which would have greater mobility than had ever been achieved previously. Today, operational data on hundreds of COMMANDO Armored Cars in use throughout the world proclaim the program a success.

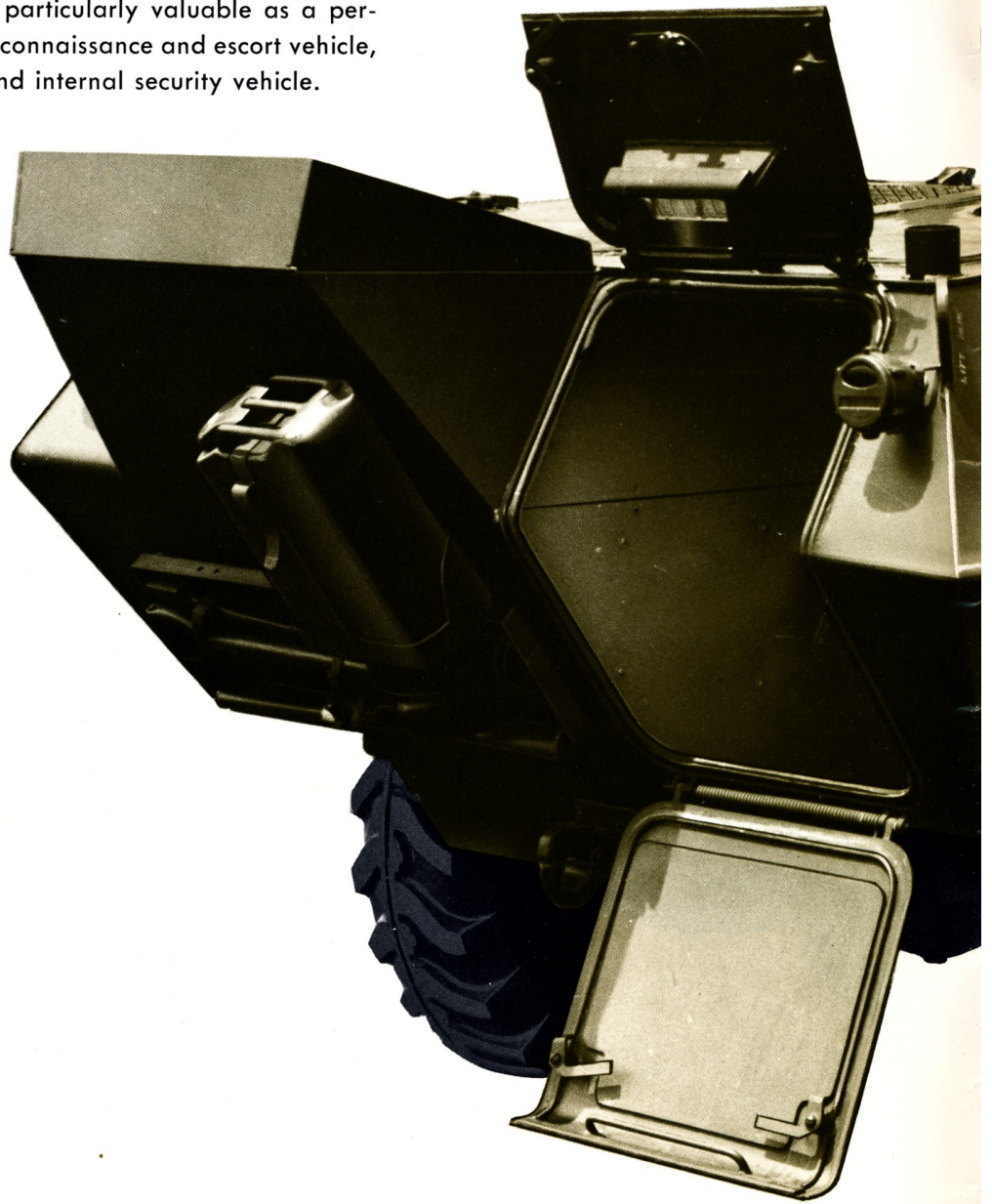
The COMMANDO is the most versatile vehicle ever built.



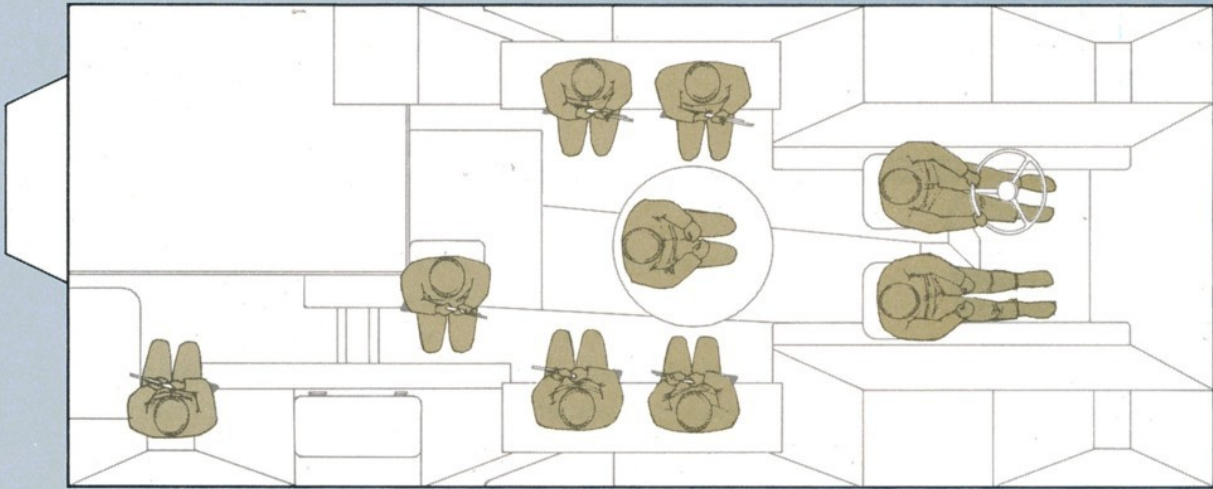


for specific combat missions

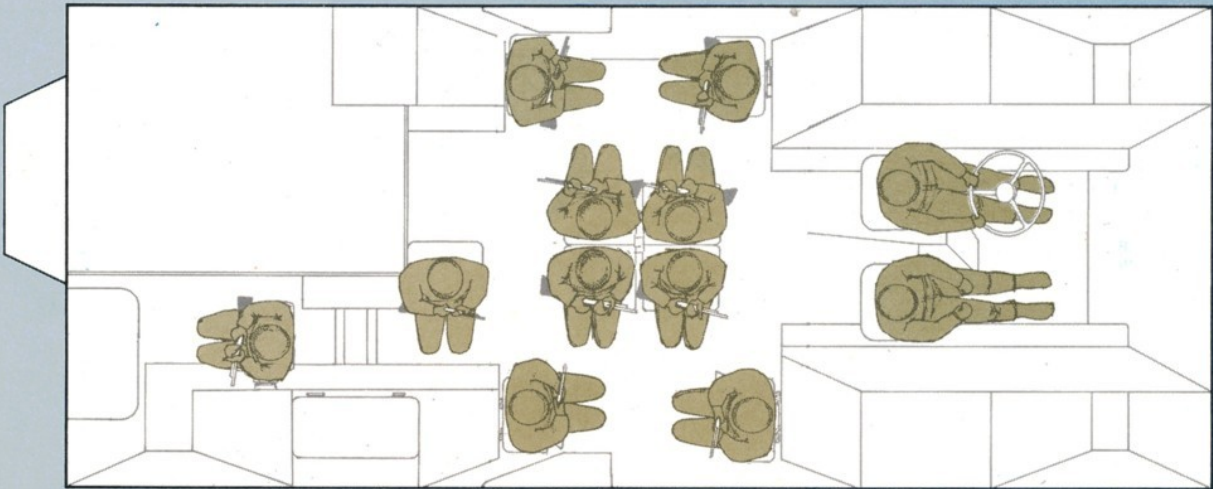
The COMMANDO performs many missions equally well. A specially constructed armor hull, three doors and three hatches, and a high degree of human engineering among other desirable features provide the characteristics necessary to make the COMMANDO particularly valuable as a personnel carrier, a reconnaissance and escort vehicle, or a riot control and internal security vehicle.







PERSONNEL ARRANGEMENT IN COMMANDO WITH REVOLVING TURRET



PERSONNEL ARRANGEMENT IN COMMANDO WITH NEW FIXED TURRET



fast troop carrier

As a troop carrier, the COMMANDO provides long-range, fast, reliable personnel transportation over all types of terrain. Its troop-carrying capacity allows movement of 12 combat-ready men in the new fixed turret COMMANDO and up to 9 men in the COMMANDO with the revolving turret . . . while insuring protection from small arms fire, shell fragments, grenades and anti-personnel mines.

Devastating firepower can be delivered from the main armament station and from troops within the vehicle utilizing individual gunports.

Combat personnel can be quickly deployed through six available exits for quick entry into action.



for reconnaissance and escort...

Road speeds of 62 mph and all-terrain mobility, combined with deadly firepower and quiet operation, enable the COMMANDO to perform all types of reconnaissance and escort missions.

Specially designed run-flat tires allow the COMMANDO to remain in action even if the tires are hit by enemy fire. At zero pressure, side-



wall strength alone supports the weight of the vehicle, assuring continuation of the mission.

The COMMANDO's powerful 10,000-pound line pull winch removes obstacles, permits self-recovery, and aids the evacuation of immobilized vehicles.



riot control and security

Experience has proved the COMMANDO Police Vehicle a forceful and psychological deterrent to civil disorder. The vehicle's speed and maneuverability permit rapid deployment against mob action, while its ballistic armor plate offers protection to the crew. A remotely controlled fire extinguisher and a special engine shield offer protection against firebombs.

To provide adequate head and shoulder room during sustained patrol missions, the COMMANDO police vehicle is fitted with a specially designed

fixed turret. Eight vertical gunports in the turret allow virtually any hand weapon to be fired—even at high angles.

Because of the COMMANDO'S amphibious capability and high-mobility characteristics, the vehicle can be used as a rescue vehicle during flood conditions or in other emergency situations. When equipped with a snow plow, the COMMANDO can be used to clear crucial highways when conventional equipment becomes inoperable.



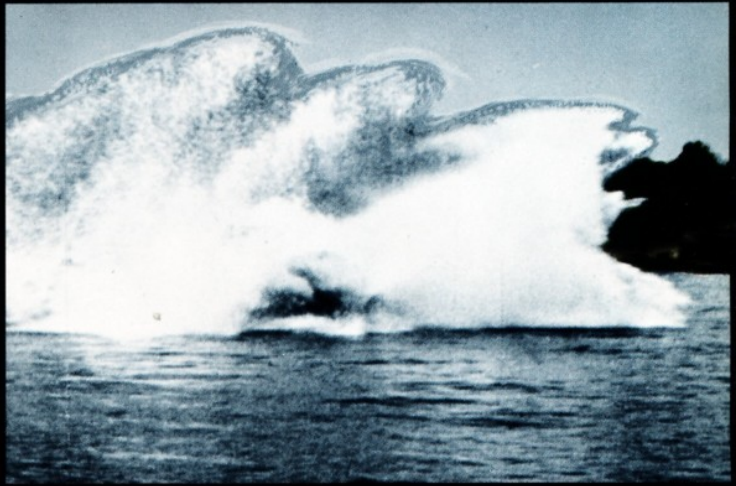




Successful execution of troop transport, convoy escort and reconnaissance missions demand the COMMANDO's off-road capability. Reserve power, 4-wheel drive, self-cleaning tires and low ground contact pressure guarantee maximum mobility to cross terrain normally passable only by highly specialized vehicles. Approach and departure angles of the hull allow high mobility through ditches and over hills. Full-control shock absorbers and leaf springs on each wheel, power steering, 4-wheel drive and locking differentials provide precise control and ease of handling.

all-terrain mobility





A watertight hull and fully waterproof ignition system allow amphibious operation without special preparation. A self-propelled speed of more than 3 mph is possible in water even when fully combat loaded. Excellent maneuverability is achieved by use of the front-wheel drive which provides a power input to the front wheels for responsive steering. Exceptionally high access speeds into water are possible because of the COMMANDO's unusually high freeboard. While in the water, fire-power can be sustained by troops in the vehicle through individual gunports located above the water line.

fully amphibious

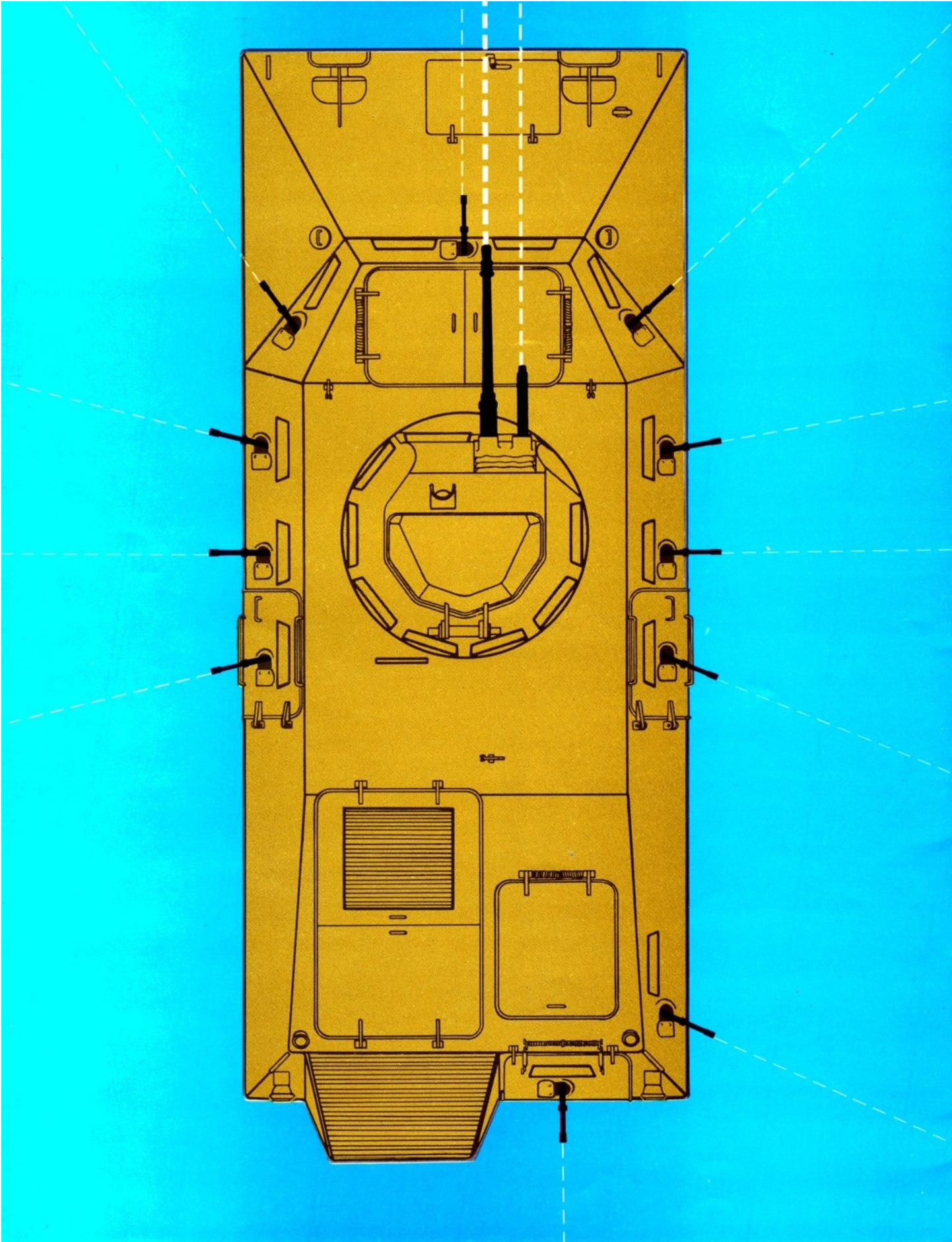


At Aberdeen Proving Ground the COMMANDO negotiated the 36-inch vertical wall obstacle, a feat no other vehicle except the M-60 Tank has ever accomplished. Reserve power, high ground clearance and a completely enclosed drive train allows exceptional mobility over stumps, fallen trees and other natural obstacles that would normally stop most vehicles. This demonstrated high performance makes the COMMANDO particularly valuable for remote area conflict.

powerful







devastating firepower from eleven gun ports and turret

twin 30

Machine Gun installation—.30 Cal. Twin Browning M-37 machine guns are fired by an electrically operated fire control system which incorporates

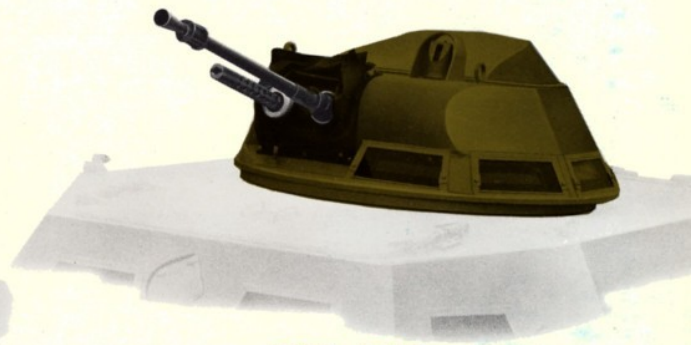


independent gun selection. Turret ammunition supply—1000 ready rounds.



twin 30 nato

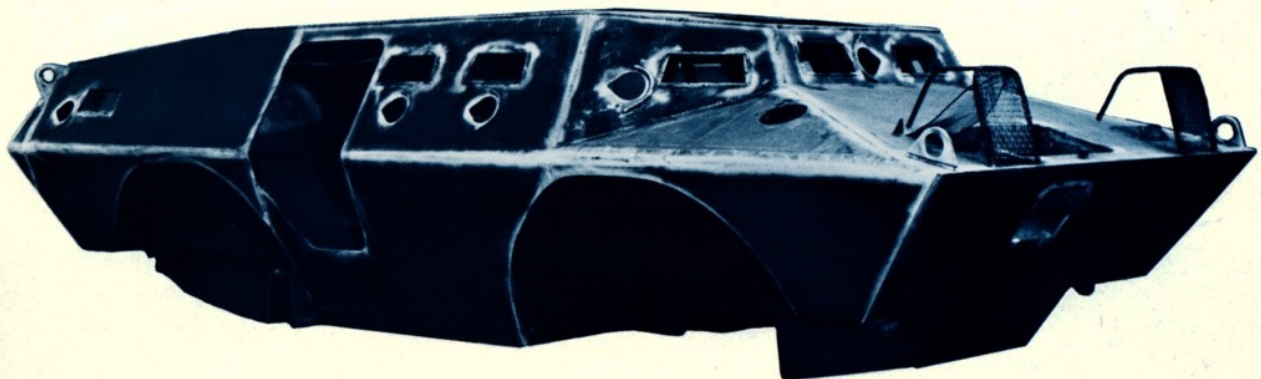
Gun installation—Twin Rheinmetall MG-42 Cal. 7.62 NATO. Mechanical fire system, allowing gun selection. Turret ammunition supply — 1000 ready rounds.



30-50

Heavy Machine Gun installation — One Browning M-37 Cal. 30, One Browning M-2 Cal. 50. Fire control system is electrically operated with gun selection. Turret ammunition supply—200 ready rounds of cal. 50; 500 ready rounds of cal. 30.

unitized armor plate construction offers troop protection



The unitized hull is constructed of welded, high hardness ballistic plate which offers protection against small arms fire, grenades, and anti-

personnel mines. All exposed surfaces are angled for maximum ricochet and the drive train is completely enclosed by the hull.

modular options

Open-top hull design with modular adaptations gives the Commando maximum versatility for specific tactical missions. These special adaptations are easily installed and can readily be interchanged in the field with a minimum of equipment.



machine gun



pod



cupola



mortar

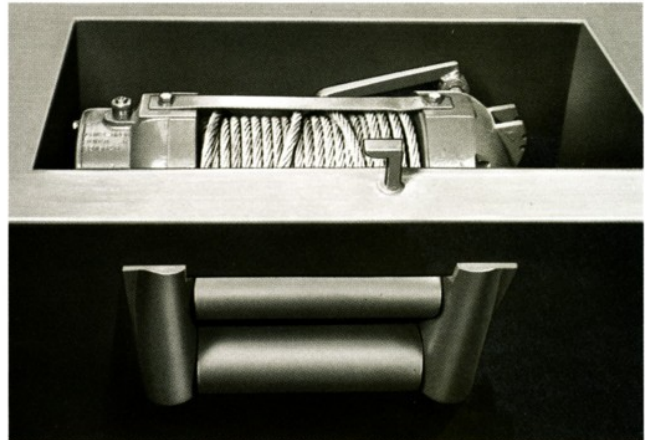


standard design features

Unique 12-ply, steel-reinforced run-flat tires were specially developed by Cadillac Gage in conjunction with Mansfield Tire and Rubber. These tires are a self-recovery feature that allows up to 50 miles of effective operation after puncture by gunfire.



A hydraulically operated winch with a 10,000-pound line pull is mounted in the front of the COMMANDO, another self-recovery feature which prevents loss of the vehicle by immobilization.

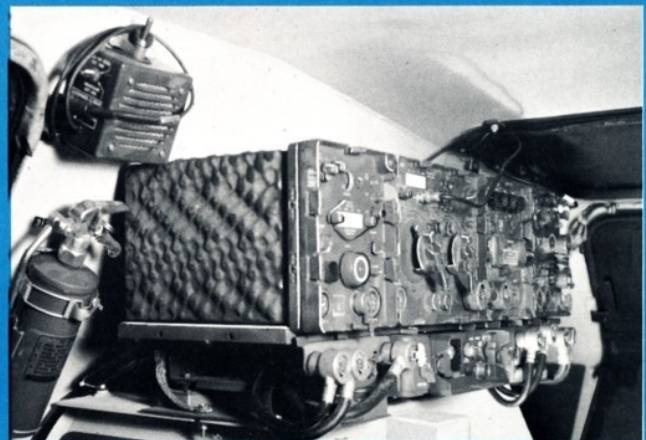


Utilizing twelve vision blocks located at strategic positions in the vehicle hull, and eight additional blocks in the gun turret, a 360 degree field of view is achieved, while offering complete ballistic protection for crew members.



communications equipment

A wide variety of current intercom and radio communication equipment suitable for vehicular installation, can be installed in the COMMANDO. Previous installations have included: United States Army: AN/PRC-8, -9, 10A or AN/PRC-25 (GRC-125); AN/VRC-8, -9, -10; AN/GRC-8, -9; AN/VRC-15; AN/VRC-34; AN/GRC-5; British Army: C-12.



modern plant with specialized



assembly facilities



The large modern Cadillac Gage Company plant shown above was designed and equipped exclusively for engineering and production of the COMMANDO armored vehicle. Closely coordinated operation with the nearby main Cadillac Gage plant provides the ready availability of service group facilities.

Specialized assembly procedures performed by experienced technicians, and rigid Cadillac Gage and U.S. Government quality control procedures administered through monitored production check points, help maintain a high level of vehicle reliability. In addition, cross-country and amphibious field testing of each vehicle before shipment insures the combat readiness of the rugged and powerful COMMANDO armored cars.



Extensive testing at U. S. Army proving grounds and world-wide tests on all types of terrain—including the desert sands of the Middle East, the jungle rain forests of Africa and Viet Nam, and the mountainous regions of Europe—have resulted in sales to the United States and several foreign governments. Customer field reports from many parts of the world attest to the COMMANDO'S excellent performance under all conditions of climate and terrain. Additional purchases by present users are a tribute to its performance, mobility, and reliability.

tested, approved and used worldwide



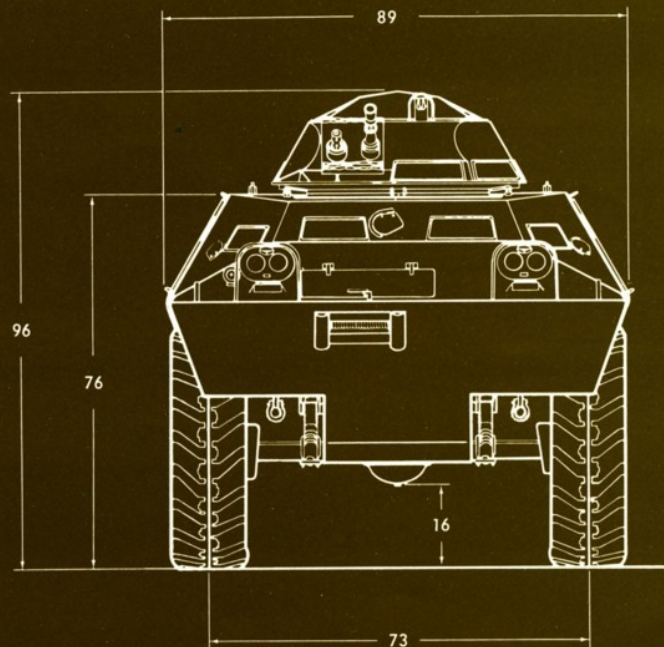


features

- compact arrangement, accommodation has been made for up to 12 men while exterior dimensions have been held comparable to other vehicles restricted to 4 or 6 men.
- low maintenance through simplicity of design and construction with parts which are easily supported as standard U. S. Army "in system" components.
- versatile firepower with numerous armament options to defend against fire from ground troops, light armored vehicles and air attacks.
- lightweight, air transportable, and can be carried by helicopter.
- completely enclosed hull with high 24 inch ground clearance.
- specially developed high hardness, lightweight armor which provides protection against small arms fire, grenade, and anti-personnel mines.
- all around visibility through use of 20 replaceable direct view vision blocks.
- only vehicle with large size "run-flat" combat tires, with self-cleaning tread.
- cooling system capable of 115° F ambient temperature operation.
- capable of negotiating 24 inch vertical wall and climbing 60% grades.
- 2000 lb. normal payload capacity.
- amphibious without any preparation.

configuration

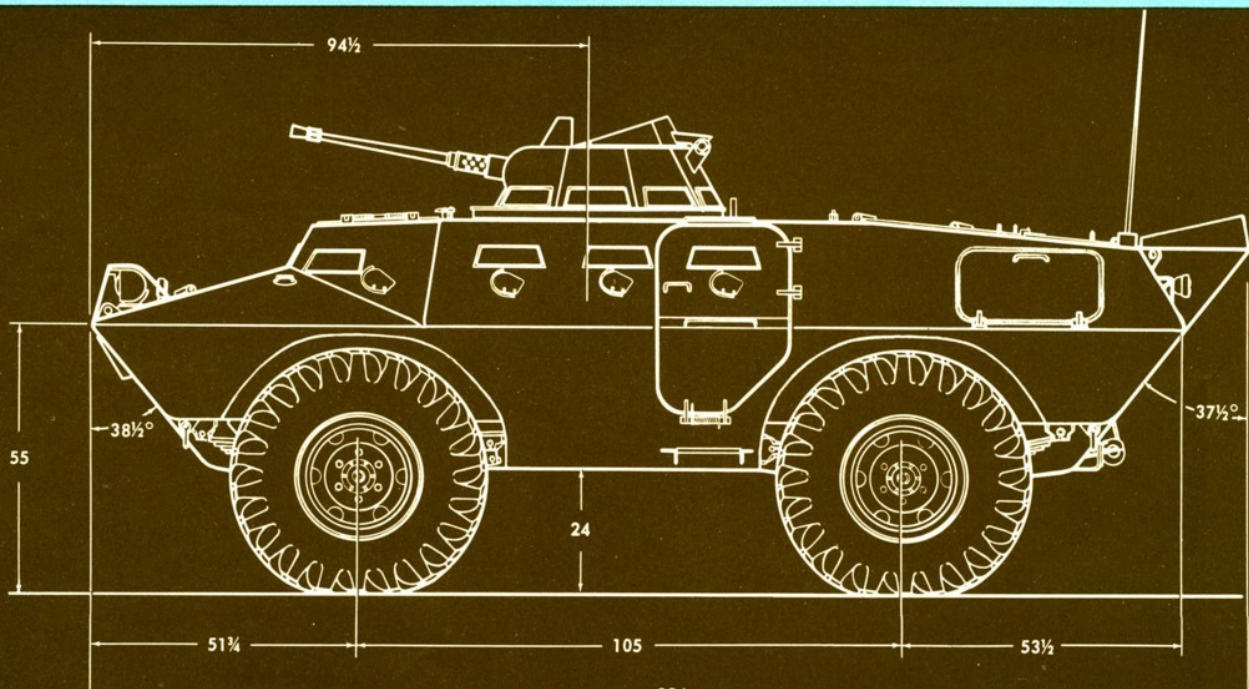
The COMMANDO hull embodies sound engineering and functional design. High angles of approach and departure allow exceptional mobility over land, while clean undercarriage design eliminates drag allowing movement through swampy terrain, and contributes to high maneuverability and speed in water.



specifications

| | |
|-------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| MISSION | Personnel carrier, convoy escort vehicle, reconnaissance car, riot control, patrol and police vehicle. |
| CREW | Up to 12 men |
| ARMAMENT | Turret—Twin cal. .30 machine guns or one cal. .50 and one cal. .30. Ammo. supply per gun— 200 rounds of cal. .50 500 rounds of cal. .30 Stowage concealed under troop seats up to 9,000 rounds of cal. .30. Traverse (continuous)360° Elevation 59° Depression -14° Elevation-Manual Traverse Mechanism— Handwheel Hull—Eleven gun ports will accept most hand-carried weapons. |
| ARMOR | Special Ballistic Plate to defeat cal. .30 ball ammunition at zero obliquity. |
| TIRES | Special "run flat" combat 14:00 x 20, 12 ply, ground-contact pressure (hard surface)21.0 psi |
| PERFORMANCE | |
| LAND | Top speed on land (governed) . . 62 mph Grade 60% (30% side slope) Turning radius 28 Ft. Max. Vert. Obstacle 24 inches |
| AMPHIBIOUS | Top speed in water 3.0-3.4 mph Turning radius 29 Ft. Freeboard 18 inches |
| WEIGHT | Empty 13,500 lbs. Approx. Payload 2,000 lbs. Approx. Max. Combat (G.V.W.)16,250 lbs. |

| | |
|-----------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| DIMENSIONS | Wheelbase 105" Tread 73.5" Overall length 224" Overall width 89" Height over turret 96" Height over hull 76" Ground clearance (under hull) 24" (under differential) 16" Angle approach 55° and Departure 53° |
| FUEL TANKS | (2) @ 40 gal. each. |
| OPERATING RANGE | On Road 425-600 Cross Country 250-425 |
| ENGINE | Chrysler 361, waterproof (similar to M113 APC) Brake horsepower 191 |
| CLUTCH | 13" single plate. |
| POWERTRAIN | Manual five-speed, synchronized transmission 7.24:1 low ratio Transfer box . . 1.32:1 ratio single speed In-out clutch for front axle drive. |
| ELECTRICAL | Waterproof 24 volt, with radio suppression. |
| AXLES | M-34 truck axles, (modified) 6.722:1 ratio equipped with locking differentials. |
| WINCH | Hydraulic drive. 10,000-pound line-pull, nominal. |
| BRAKES | Metallic lining, 15" dia. x 3" wide front and rear with vacuum brake booster. |
| STEERING | Variable ratio power steering. |
| SUSPENSION | Leaf springs with full control shock absorbers at each wheel. Aeon type jounce stops. |



Cadillac Gage Company was organized in 1941 and operates five plants — located in Michigan, California and West Germany. These plants are engaged in research, development, engineering and manufacturing in the ordnance and aero-space fields. The company has continuously developed and supplied "ordnance equipment" to the U. S. Government and prime contractors since 1952.

As a subsidiary of Ex-Cell-O Corporation, Cadillac Gage has available the extensive facilities and capital of a large manufacturer combined with the flexibility of a smaller organization.

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