

VINDICATOR ARMORED PERSONAL CARRIER



Base Vehicle Specification

- 2006 Ford F-550 chassis platform
- Fully customized vehicle body
- 4X4
- 6.0 L PowerStroke Diesel.
- 325 HP @ 3300 RPM.
- 570 lb.-ft torque @ 2000 rpm.

1. Armor Conversion Modifications / Alterations

- OEM body replaced with fully re-designed and chassis-mounted body to defeat high-powered rifle fire as outlined in Appendix “A”
- Floor is fitted with blast protection to protect occupants against fragmentation from detonation of 2 DM-51 German ordnance hand grenades or equivalent light anti-personnel mines.
- Vehicle body is fully encapsulated to provide armor protection to occupants at all points.
- Armor consists of all welded ballistic grade steel construction.
- Specific materials and installation techniques are used which permit a significant reduction in cost to the client while maintaining structural integrity and ballistic resistance level, as well as optimizing center of gravity to provide extremely good maneuverability for a vehicle of this nature.
- The interior frame, constructed of ballistic grade steel, provides overlap and backup protection for the large-surface principal impact areas such as the doors and windows. It also reinforces the structural integrity of the support pillars and other areas that are crucial to maintaining vehicle safety in any circumstance, including rollover and ramming situations.
- Vehicle armoring has been constructed in such a way as to ensure that a projectile following a linear or angled path shall not enter the vehicle’s interior without contacting the armor material. In addition to this, the possibility of a projectile entering the vehicle’s interior due to a ricochet from the armor shall also be minimized.

Glass

- A combination of glass, polycarbonate and Mylar are bonded together using the latest technology, producing one of the finest transparent armors available while incorporating the following qualities:
 - Anti-spall shield protecting against shattering glass
 - Multiple impact protection (three shot).
 - Finest optical quality, Minimal distortion
 - Minimal delamination
 - Minimal discoloration from UV rays
- All exterior glass is shielded from larger projectiles such as rocks, bottles, grenades, etc. by steel mesh covers which can be removed by user for cleaning and/or glass replacement.

Doors

- Doors (2 front, 2 at sides and 2 at rear) are specifically designed to allow quick vehicle access while minimizing the amount of vehicle interior exposure when in use.
- All doors have a dual lock system to ensure that should one fail, the doors of the vehicle will remain closed in a combat situation.
- Vehicle doors have gun ports located directly below the view glass in order to allow fire to be returned from any seating position.
- Armor overlap at all doors to prevent penetration through door posts and pillars.
- Door pillars and hinges have all been designed specifically for this vehicle, thereby ensuring maximum strength and usability.
- All doors have weather stripping installed to prevent exterior climate from entering vehicle.

Electrical

- All electrical standard to this vehicle shall be tested and modified as necessary to protect against the armoring process.
- Any electrical devices not standard to the platform vehicle (interior lights, fans, sirens, etc.) have been installed and tested by quality control to ensure proper operation and installation.
- Wiring schematics for all installed devices are available through your sales associate.

Interior

- All original OEM interior panels and trim have been removed from this vehicle with the exception of the front dash and seats. These portions have been modified at factory to fit the new body style of the vehicle and have been left in place to assist with driver comfort and familiarity.
- All other interior components have been fitted in order to ensure maximum operational functionality is attained.

Seating

- Rear section of vehicle is equipped with 6 strategically-placed jump seats (1 at either side door, 2 at rear facing forward and 2 in center facing exterior side walls) which fold up when not in use to maximize interior working space.
- Original vehicle seats have been retained in front compartment in order to maximize driver comfort and vehicle familiarity. This ensures ease of driving by multiple personnel is attained.
- All seats have been equipped with racing harnesses to ensure maximum protection in the event of rollover or ramming, while still allowing ease of entry/egress.

Climate control

- Front cab of vehicle utilizes original Ford climate control system with factory A/C.
- Rear operational area of vehicle has independently controlled A/C and Heating unit installed at front portion of area which ensures the rear compartment remains comfortable, even in operational arenas with a high temperature variation to extreme levels of heat and cold.
- Two exhaust fans, which are controlled from a switch located in the driver compartment, have been mounted and vented in the rear of the vehicle in order to provide additional heat dissipation from inside, as well as easily remove any smoke and/or other airborne chemicals which may be present inside the operational area of the vehicle.

Combat readiness features

- Front bumper of the vehicle is equipped with a push bar for ramming obstacles. Additionally, the entire front of the vehicle is constructed of ballistic steel, ensuring the vehicle will maintain structural under moderate ramming conditions.
- Rear bumper of the vehicle is also heavy-duty and attached directly to frame which enables vehicle to withstand ramming by other vehicles and/or to clear a path while in reverse if required for escape purposes.
- Vehicle is equipped with a winch on the front end which will allow doors, barricades and other items to be safely removed from the vehicles path. This is especially useful in urban assault situations.
- Vehicle has full 360 degree visibility through view glasses and each glass has gunports located directly below. This ensures that the occupants can return fire from all sides of the vehicle while never having to leave the protective shell of the body armor.
- Vehicle sides are equipped with stand-on running boards and fenders, as well as full roof rails. This set-up allows for urban assault squads to make their entry to a target from a combat-ready position outside the vehicle. This is especially useful for SWAT teams and police applications.
- The vehicle is equipped with 7 run-flat tire devices (including roof-mounted spare) which ensures that the vehicle can continue to drive into or out of combat situations even when the tires have been deflated.

- There is a roof hatch on the center rear portion of the roof which allows occupants to provide cover and/or assault fire from a high-mount position. The roof hatch also has supporting plates attached to the roof which can be raised and secured, providing a box-like protective structure around the roof gunner.
- This hatch also allows personnel to remain above roof line, in a protective shell, during transport and convoy missions. Thus allowing 360degree visibility and increasing the chance of seeing assailants prior to their being close enough to attack.
- The front cabin is equipped with an electronic two-way communications system which allows communication between the occupants of the vehicle and those outside. This eliminates the need to open doors to communicate with those outside at checkpoints and other areas, and therefore, minimizes exposure of the interior of the vehicle to attack.

- Vehicle is also equipped with a multi-tonal siren/PA which can be used to confuse assailants through high-decibel sound. This makes assaulting the vehicle more difficult and allows the occupants a better opportunity to succeed in escaping from assailants.

Other Features

- Vehicle tire jack has been upgraded and is now within easy access directly between the front seats.
- Vehicle floor has been covered in steel plate grille in order to assist with traction inside, as well as catch flying debris such as expended shells during combat.
- Vehicle interior is equipped with large dome lights, individually controlled by switch. Lights are white, however, red lenses can be made available upon request.
- Suspension and braking systems reinforced or modified as necessary to compensate for additional weight.
- Stainless steel grille installed in tailpipe opening to prevent disabling of vehicle via insertion of foreign objects.
- All manuals and written information provided by vehicle manufacturer shall be included.

4. Ballistic Protection Level Details

*******Please refer to appendix “A”*******

The following charts represent the Ballistic protection levels on the vehicle described within this document other ballistic levels are available based on the end users need:

Opaque Armor: Armored passenger compartment roof and 4 sides (including firewall and front end) only. Floor of vehicle is armored to shield against fragmentation from 2 DM-51 German ordnance hand grenades or equivalent light anti-personnel mine.

<u>Weapon</u>	<u>Caliber</u>	<u>Ammunition</u>	<u>Velocity</u>
Rifle	7.62X51	M80 Nato Ball	2,750 fps
AK-47	7.62x39mm	M-1943	2,400 fps
Sub-machine-gun	9x19mm	LCJJ	1,400 fps
Tokorev	7.62x25mm	LCSJ	1,600 fps
Hand Gun	44 Magnum	LWC	1,443 fps

Transparent Armor:

<u>Weapon</u>	<u>Caliber</u>	<u>Ammunition</u>	<u>Velocity</u>
Rifle	7.62X51	M80 Nato Ball	2,750 fps
AK-47	7.62x39mm	M-1943	2,400 fps
Sub-machine-gun	9x19mm	LCJJ	1,400 fps
Tokorev	7.62x25mm	LCSJ	1,600 fps
Hand Gun	44 Magnum	LWC	1,443 fps

