

## **APC Specifications**

### **1 SPECIFICATIONS**

1.1 The APCs shall be sourced in a manner that complies with the guidance outlined in the attached PKO Procurement Restrictions.

1.2 The vehicles shall meet the following specifications:

1.2.1 The vehicles shall be an armored personnel carrier truck, 2023 model year or later, with no more than 100 miles on the odometer when inspected by the COR or GTM at the time of handover to the recipient nation.

1.2.2 The vehicle shall be equipped with a V-shaped hull design.

1.2.3 The vehicle curb weight shall not exceed 30,000 pounds.

1.2.4 The vehicle shall be all-wheel drive (4x4).

1.2.5 The vehicle shall be equipped with driver and passenger doors.

1.2.6 The vehicle shall be equipped with a minimum of two windows in the rear passenger compartment, excluding rear window.

1.3 Weapon Mounts:

1.3.1 The vehicle shall be equipped with a ring and bearing-type weapon mount on the front area of the roof. The mount shall accommodate continuous 360 degrees of rotation, be compatible with machine guns up to 12.7 mm (50 caliber), and be safely operable by the passengers while the vehicle is in motion.

1.3.2 The weapon mount shall be 360 degrees shielded with STANAG 4569 Level 2 ballistic protection.

1.3.3 The weapon mount shall be provided with a rigid and removable overhead sun and rain protection roof/cover that does not impede gunner visibility or ability to use the machine gun. This sun/rain roof shall be able to be stored within or on the vehicle when not in use.

1.3.4 The weapon mount shall prevent machine gun fire into the cargo space.

1.3.5 The vehicle shall be equipped with an additional light machine gun (7.62 mm) mount located on the rear area of the roof. The light machine gun mount shall be front-shielded with STANAG 4569 Level 2 ballistic protection on the rear area of the roof.

1.3.6 Both weapon mounts shall be accessible via the roof, which shall be equipped with a self-draining weather-tight quick-access hatch.

- 1.3.7 The vehicle hatch shall not interfere with the driver's operation of the vehicle and shall securely lock in-place when opened or closed.
- 1.3.8 The vehicle shall be equipped with a foot platform for each weapon mount.
- 1.3.9 The vehicle shall be equipped with seating for a driver, front passenger, eight or more additional passengers in the rear.
- 1.3.10 All seats shall be equipped with seat belts with a four-point harness.

## 2 EQUIPMENT

- 2.1 The vehicle shall include all standard equipment for the model proposed.
- 2.2 The vehicle shall be equipped with a universal VHF radio mount accessible to the driver and front passenger.
- 2.3 The vehicle shall be equipped with two front and two rear tow eyes.
- 2.4 The vehicle shall be equipped with a lockable toolbox(es) and/or secured stowage compartment(s) of sufficient volume to store all manufacturer's standard equipment and accessories, as well as the additional items specified below. All locks for the toolbox(es) and/or compartment(s) shall be identically-keyed. Three keys shall be provided for each vehicle.
- 2.5 The vehicle shall be equipped with the standard tools required for basic operation and field maintenance training (i.e., wrench and socket set, screwdrivers, adjustable wrench, pliers, and hammer, at a minimum).
- 2.6 The vehicle shall be equipped with tire changing tools and a lifting jack that has a minimum capacity of half the vehicle's gross vehicle weight (GVW).
- 2.7 The vehicle shall be equipped with a standard roadside first aid kit that includes scissors, medical tape, assorted bandages, mini flashlight, and tourniquet, at minimum, as well as three hazard warning triangles.
- 2.8 The vehicle shall be provided with a tire inflating hose of sufficient length to inflate all tires on the vehicle. The hose shall include quick-connect fittings on both ends. Tire inflations shall be powered by a vehicle-compressed air system that includes a chuck and pressure gauge.
- 2.9 The vehicle shall be equipped with at least one minimum 4.4 pound (2 kg) capacity ABC-type fire extinguisher, located in the cab.
- 2.10 The vehicle engine shall be covered with heavy duty skid plate(s).
- 2.11 The vehicle shall be fitted with a commercial heavy duty front bumper winch compatible to a vehicle of this size and weight.

## 3 VEHICLE LANGUAGE REQUIREMENTS

- 3.1 All instruction diagrams and warning labels shall be in English and French, or in universal symbols, and be permanently affixed to the vehicle in the proper locations.
- 3.2 The vehicle's fuel filler cap – or the area near the filler cap – shall be clearly labeled in English and French, or in universal symbols, with the type of fuel compatible with the vehicle.
- 3.3 Hardcopy and electronic copies of all parts, schematics, maintenance checks, and services manuals shall be provided for each vehicle in English and French.

#### 4 RATINGS

- 4.1 The vehicle rating shall be the manufacturer's published rating at the time of offer.
- 4.2 All individual components, including the engine, transmission, driveline, axles, suspension, and tires, shall be rated at least 15 percent above the GVW.

#### 5 ENGINE

- 5.1 The vehicle shall be equipped with a diesel engine capable of performing as specified herein on high sulfur content diesel fuel (5,000 ppm or 0.5 percent).
- 5.2 The vehicle shall not be equipped with emission control devices, such as an exhaust gas recirculation (EGR) valve, diesel particulate filter (DPF), diesel oxidation catalyst (DOC), or selective catalytic reduction catalyst (SCR).
- 5.3 If emission control devices cited in paragraph 5.2 are removed from the vehicle after the vehicle has been manufactured, then the Contractor shall provide supporting documentation from the OEM that describes in detail all such modifications made to the vehicle in order to meet required specifications.
- 5.4 The vehicle manufacturer shall also verify and approve all modifications and/or alterations made to the vehicle which allow it to operate on high sulfur content diesel fuel (5,000 ppm or 0.5 percent).
- 5.5 The Contractor shall provide a maintenance or service schedule for each vehicle while operating on high sulfur content diesel fuel (5,000 ppm or 0.5 percent), and also incorporate these schedules into each vehicle manual.
- 5.6 The engine shall be equipped with a cooling and air filtration system designed for dusty, desert environments with temperatures of +120°F (+49°C).

#### 6 CHASSIS/DRIVELINE

- 6.1 The rear axle shall be equipped with a locking or limited slip differential.

#### 7 TRANSMISSION

- 7.1 The vehicle shall be equipped with an automatic transmission.
- 7.2 The vehicle shall be equipped with a transfer case.

#### 8 STEERING

8.1 The vehicle shall be left-hand drive (LHD).

## 9 BRAKE SYSTEM

9.1 The vehicle shall be equipped with air or air over hydraulic brakes.

9.2 The vehicle shall be equipped with an engine exhaust brake.

## 10 WHEEL ASSEMBLY (TIRE AND WHEEL)

10.1 The vehicle shall be equipped with run-flat, off-road, and heavy-duty tires in a single rear-wheel design that are able to transit rocky and sandy desert conditions and support the vehicle at least 15 percent above GVW.

10.2 The tires shall have reinforced side walls designed to minimize punctures from jagged rocks and terrain.

10.3 The vehicle shall be equipped with one full-size spare wheel assembly and tire with holder.

10.4 Each vehicle shall be equipped with the necessary tools to facilitate the loading and unloading of the spare tire (e.g. davit, winch, or equivalent).

10.5 All tires shall be of the same size, load rating, and tread design.

10.6 All wheels shall be interchangeable, including the spare wheel assemblies.

## 11 TOWING PROVISIONS

11.1 The vehicle shall be equipped with a rear pintle that is compatible with trailer drawbar eye dimensions of 2.375 to 3.0 inches (60.3 mm to 76.2 mm) loop inner diameter (I.D.) and 1.25 inches to 1.62 inches (31.8 mm to 41.1 mm) loop cross-section diameter.

11.2 Vehicle shall be equipped with a towing bar, in addition to the tow eyes.

## 12 ELECTRICAL SYSTEM

12.1 The vehicle shall be equipped with the manufacturer's highest-rated available alternator and heaviest-duty dual batteries.

12.2 The vehicle shall be equipped with a battery master disconnect switch.

## 13 COLOR

13.1 The exterior color of the vehicle shall be DESERT TAN.

## 14 VEHICLE PROTECTION

14.1 Vehicle shall be equipped with 360-degree horizontal protection meeting the B7 standard.

14.2 Vehicle shall be equipped with at least B6 protection on the roof.

- 14.3 Vehicle shall be equipped with blast protection meeting STANAG 4569 Levels 4a (mine explosion pressure activated under any wheel or track location) and 4b (mine explosion under center).
- 14.4 The vehicle passenger compartment shall be located within ballistic and blast armor-protected areas.
- 14.5 The vehicle's critical systems (i.e., engine, fuel tank, etc.) shall be equipped with as much blast and/or ballistic protection as possible, considering crew safety.
- 14.6 The vehicle shall be equipped with transparent glass armor and anti-spall shielding (to protect occupants from shattering glass) for all windows (including the windshield).
- 14.7 All vehicle windows shall be equipped with anti-UV filming to reduce solar loading.
- 14.8 The vehicle shall be equipped with all applicable warning labels, vehicle identification, safety and warning labels, data plates, passenger limits, glass warning labels, and transparent glass armor cleaning procedures in French and English. All items shall be easily visible or accessible to the vehicle operator.
- 14.9 The Offeror shall provide, as attachments to its proposal, copies of all applicable welding and welder certifications, as well as standards utilized for all vehicles at the time of proposal submission.

## 15 VEHICLE PERFORMANCE

- 15.1 The vehicle shall be capable of water fording to a minimum depth of 35 inches (0.89 meters)
- 15.2 The vehicle shall be able to ascend a 60 percent grade.
- 15.3 The vehicle shall be able to operate on a 30 percent side slope.
- 15.4 The vehicle shall be able to ascend and descend a 20 inch (0.5 meter) vertical step.
- 15.5 The fuel tank shall be sized for a vehicle range of at least 800 kilometers at 75 kph.
- 15.6 Vehicle shall be capable of a sustained (minimum three hours) top speed of at least 100 kph on paved roads.

## 16 CORROSION PROTECTION

- 16.1 Note: The vehicle shall be transported overseas in an exposed salt atmosphere. Proper corrosion protection is mandatory in the manufacturing of the vehicle. The below requirements are a minimum solution to prevent corrosion.
- 16.2 Post-top coating:

- 16.3 The vehicle, after the application of the topcoat, shall be sprayed with a corrosion protective coating (CPC) to protect from rain and salt spray intrusion during overseas shipping.
- 16.4 The vehicle shall be equipped with CPC even if it will be shipped in an appropriately sized and securable shipping container.
- 16.5 The vehicle may also be shipped without the CPC if the Offeror can satisfactorily demonstrate a shipping method that protects from rain and saltwater corrosion.