



OTT SOLUTIONS (PTY) LTD
A SANMVA owned company

Ratel 20 SLEP

(Service Life Extension Plan)



Standard specifications may be change without prior notification.



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Mobility and Performance Specifications:

- **NEW MOTS Engine:** Cummins ISB6.7 - 6 Cylinder (Military of the Shelf), 360 HP (270kW) @1400rpm, Max Torque 1100 Nm, governed speed @ 2600 rpm.

Improvement of **More Power (205 vs 270 kW)**

Improvement of **Fuel efficiency (25%)**



- **NEW Transmission:** Allison SP3000 6 Speed Automatic
- **NEW Transfer case** ADGM – single speed transfer case
- Drive configuration: 6 X 6
- Suspension front/rear: Original OEM
- **NEW CTIS:** Mavtek automatic integrated via tyre valves
- **NEW Tyres:** 14R20 Michelin XZL with RFI (spare wheel included)
- **NEW Cooling system** Larger core radiator and
- **NEW CAC** integrated Charge Air Cooler
- GVM: 18 ton
- Maximum speed: 110 km/h (governed)
- Max gradient: 60 %
- Static side slope: 30 %
- Trench crossing 1100 mm
- Vertical step: 600 mm
- Turning circle: 15.9 m

- Fording: 1200 mm
- Fuel tank capacity: 430 litres
- **NEW** Range: old >1000 km at average speed of 100km/h
New > 1250 km (estimated)

Dimensions:

- Length: 7210 mm
- Height: 2940 mm to Commander hatch
3350 mm to Commander sight
- Wheel base: 2800 mm & 1400 mm
- Width: 2730 mm (excluding mirrors)
- Approach angle: 46 °
- Departure angle: 45 °
- Ground clearance: 320 mm
- Wheel track: 2100 mm

Crew comfort and seating:

- Seating capacity: Driver, Commander, Gunner + 7 dismounts - 10 total
- **NEW** Seating type: Individual folding seats with 4-point safety belts in the rear and original OEM seats in turret and for Driver
- Drinking water: Original 2 x 50 l stainless steel tanks
- Doors and roof hatch: 2 x original side gull wing doors, 1x rear door on the right rear of the vehicle. Drivers + 5x dismount hatches
- **NEW** Up graded Pneumatics and Braking system
- **NEW** Internal hull insulation

Protection Specifications:

- Landmine protection: No change same as original OEM spec
- IED Protection: Improved by use of Applique A o A, spec to be confirmed
- **NEW** Ballistic protection: Original frontal protection 12,7 x 108 AP, & B6 from sides, now via UHHA (Ultra High Hardness Armour) applique A o A Certified STANAG 4569, L2 (7,62 x 39 API)
- Hand grenade: Certified 2 x DM51 hand grenades anywhere below the vehicle
- Run flat Inserts: Yes
- **NEW** Fire Suppression: Manually activated in engine compartment and automatic flash detection within the crew compartment. Additional manual handheld fire extinguishers are provided inside and outside the vehicle.



Firepower:

Turret: Mk 1 Ratel 20 upgraded to include:

NEW Fully stabilized Independent Commanders sight, Display and Joystick control

NEW Day camera & Zoom

NEW Thermal Camera

NEW Laser Range Finder

NEW Improved seating Ergonomics, footrests

Original Denel GI-2 20mm Auto cannon dual feed chutes

20 x139mm Ammunition (AP, HE & Prac)

7,62 co-ax Browning machine gun

NEW Integrated Ballistic computer

NEW Gunner's Sight slaved to main weapon, Display and dual hand "Bullhorn" control

NEW day/ night gunner's sight with integrated Laser Range Finder

NEW Partially stabilized electric assist gun drives (elevation and azimuth)

NEW Hunter – Killer capability

NEW Integrated video boresight for all weapons



- Gun ports: One in each dismount location, 4 per side.
- Rifle racks: Secure weapon storage for rifles, and ammunition

Variants:

Currently Ratel SLEP is a standard Ratel 20 variant upgraded as an advanced technology demonstrator, the SLEP process is equally applicable to all existing variants, namely:

- Ratel 90
- Ratel 60
- Ratel ZT3
- Ratel 81
- Ratel Command (20 & 12,7mm)

Equipment:

- Navigation system: **NEW** Etion Create - Cheetah Tactical Navigation system, Including INS and GPS sensors.
- BMS system **NEW** GC2T Chaka C2 system, compatible with existing SANDF Command Ratels, currently utilizing existing B46 VHF radios (upgradable to next Gen Digital data radios)
- External lights: **NEW** High power LED flood light on remote operated motorised mount on turret roof.
- Driver's Thermal system **NEW** Drivers Night driving (ATRI TINDS) Thermal system
- Smoke Launcher **NEW** M-Tek smoke controller and tubes
- Tow Bar **NEW** ADGM "A- Frame" tow bar
- Spare wheel handling **NEW** ADGM Tyre handling crane
