

# LOGISTICSBACKBONE

### THE NEW TG-MIL SERIES – MILITARISED TRUCK EXCELLENCE



TAKING RESPONSIBILITY IN A CHANGING WORLD



# **THE NEW TG-MIL SERIES** MILITARISED TRUCK EXCELLENCE

After years of development Rheinmetall MAN Military Vehicles is proud to present its militarised version of the latest Trucknology Generation, "TG-Mil" for short. The new range builds on the proven capabilities of the previous generation and sets new standards in safety, ergonomics and reliability. Due to its reinforced cabin structure the new TG-Mil complies with latest crash safety requirements. Thanks to various assistance systems, the new range offers soldiers and the civil environment safety and support in everyday vehicle use. In addition, the completely redesigned interior impresses with optimised ergonomics and a driver-focused design of the controls.

Despite the multitude of new functions, the new generation remains true to the characteristic qualities of its predecessors and stands for uncompromised militarised truck excellence. As a primary choice for logistics in both domestic and low-threat mission environments, the TG-Mil truck series embodies a true family of vehicles from two to four axles. Satisfied customers value the exceptional parts commonality within the TG-Mil family and the advantages of support via MAN's worldwide service network.

MAN's vast expertise in commercial truck development and manufacturing, current truck technology is complemented by flexible degrees of militarisation. Designed with attention to detail, the TG-Mil offers the best of both worlds.



# **NEXT GENERATION** PRODUCT INNOVATIONS



**New designed exterior:** The body in white structure has been reinforced with high strength materials in order to comply with the safety requirements of ECE 29-3. These optimizations reinforce the cabin structure in the event of a frontal crash and thus further increase occupant safety.



**New lighting concept:** The modernised headlight concept is completely revised and extended to include daytime running lights. These commercial design oriented head-lights offer users a robust and cost effective solution. The blackout and infrared light are now located below the steel bumper.

**New ADAS features:** The new EE-Architecture enables the truck the potential for a greater variety of advanced driving assistance systems. By issuing acoustic and visual warnings or by longitudinal vehicle interventions innovative driver assistance systems support the user in managing critical situations on the road.



**New designed interior:** Both the dashboard and the individual controls have been adapted and are now focused to the driver. This setup significantly reduces driver distraction, as well as increasing ergonomics and driver safety.

**Three stage blackout light:** The three-stage blackout light provides not only the visible blackout light, but also the infrared blackout light, which is visible only with special equipment, thus significantly increasing the stealth capability against enemy reconnaissance troops.

**Latest Euro military VI engine:** The military MAN engine designed to meet the Euro VI emission standard offers a reliable, economical and particularly powerful driving performance. High-torque performance characteristics combined with extremely economical fuel consumption are the hallmarks of this six-cylinder engine.

**Reinforced roof:** The reinforced structure allows two soldiers to stand and work on the roof and provides outstanding carrying capacity for additional equipment such as weapon mounts, ammunition, antennas or extra batteries. It comes standard with a round roof hatch, is prepared for a swivel mount and fulfils the latest crash safety requirements.

**Mission Mode:** The Mission Mode enables the driver to deactivate all actively transmitting vehicle functionalities including advanced driving assistance systems to reduce the cyber threat.









# **DRIVER ORIENTATION** ERGONOMIC WORKSPACE



# **DRIVER SUPPORT** ADVANCED DRIVING ASSISTANCE SYSTEMS



#### **Automatic Cruise Control**

Automatically controls the speed of the vehicle and its distance from vehicles ahead on the road. The desired speed is maintained without the need to use the accelerator. The truck brakes to a standstill and then re-accelerates if the stop is of short duration.



#### Lane Departure Warning

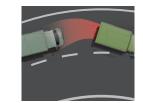
Assists the driver in maintaining the lane position from a driving speed of 60 km/h. In the event of unintentional contact with or driving over the lane marking, an acoustic warning is given so that the driver can immediately initiate a counter-reaction.



#### Emergency Brake Assist

Attention Guard

Warns the driver of impending collisions and brakes automatically in emergency situations with speeds above 15 km/h. If the driver fails to react to the warning signals, emergency braking is initiated in the event of danger.



#### Traction Control System

The system prevents the drive wheels from spinning when starting off or accelerating. This improves traction, especially on slippery surfaces such as ice, snow, loose gravel or wet cobblestones, and ensures driving stability.



The attention assistant detects signs of reduced driver attention at a speed of 60 km/h and above. Both visual and audible warnings help drivers to concentrate on the road ahead – reducing

the risk of accidents caused by lane departure.



#### Driver's airbag and seat-belt tensioner

Provides protection against the effects of excessive acceleration forces during a crash and avoiding a collision with the steering wheel. This feature is only available for vehicles without the reinforced roof.



# **BEYOND LOGISTICS** PROVEN STRENGTHS



**State of the art technology:** Latest safety features and innovations from commercial truck production can be integrated in the TG-Mil.



**Commonality:** In addition to the high levels of commonality across all axle/drive configurations, the TG-Mil also has a high level of parts commonality with RMMV's HX series of military trucks, the result being an effortless exchange of spare parts and tools, as well as a reduction in training requirements. Fleets combining TG-Mil and HX variants are already in established service with various NATO members and partners.



**Tailored levels of militarisation:** Customer-specific degrees of militarisation meet real-life requirements while complying with the most demanding of military and civilian standards. **Cost-efficiency:** Thanks to proven large-scale production techniques and exceptional MAN quality standards, the TG-Mil offers the highest productivity levels and lowest lifecycle costs for all types of logistic applications.

**Worldwide service network:** Thanks to the established worldwide network offered by the combination of MAN's commercial dealerships and Rheinmetall's defence foot-print, you can expect first class in-service support for your TG-Mil trucks virtually anywhere, including in operational environments.

**RMMV system house:** Leveraging our vast experience with military and militarised truck series, RMMV is capable of offering complete systems solutions, including integration of C4I and other complex components.





# HIGH MODULARITY ERGONOMIC OPERABILITY

The new cabin portfolio not only complies with the latest crash safety requirements but also offers state-of-the-art commercial comfort standards and ergonomic design while utilising easy-to-clean materials. Depending on customer needs and use cases, users can choose between three militarised cabins. In addition, the reinforced roof mounting provides outstanding carrying capacity for additional equipment such as weapon mounts, ammunition, antennas or extra batteries.



# **STATE OF THE ART** MILITARISED COMPONENTS

MAN Engine	<ul> <li>6-cylinder common rail diesel engine</li> <li>Based on tried and tested commercial MAN technology</li> <li>Qualified for military and low-grade fuel operation</li> <li>MAN D20: up to 440 HP (320 kW) / 2,100 Nm</li> <li>MAN D26: up to 540 HP (400 kW) / 2,500 Nm</li> <li>Euro 2 EGR, Euro 5 SCR, Euro 6 EGR / SCR engines</li> </ul>	<b>C</b>
MAN Axles	<ul> <li>MAN double reduction axles with planetary drive gear and mechanical differential locks</li> <li>Single or twin tyre configuration axle design</li> <li>9 t front steer-drive axle</li> <li>13 t rear drive axles (16 t optional)</li> </ul>	C. Starting
MAN Transfer Case	<ul> <li>MAN 2-speed transfer case</li> <li>Disengageable front-axle drive</li> <li>Options: permanent all-wheel drive / neutral position / disengageable power take-off</li> </ul>	
Gearbox Options	<ul> <li>16-speed manual: the most cost-effective solution</li> <li>12-speed automated: for reduced fuel consumption and driver fatigue, simplified driving for less experienced drivers, reduction in training effort</li> <li>6-speed fully-automatic: for smooth vehicle operation in tough terrain and maximum traction</li> </ul>	

# **TRUCK EXCELLENCE** MILITARY FEATURES

### 1 CABIN

- Central seat, which converts to a standing gunner's platform
- Individual weapon holder options
  Modular mounts for C4I and
- Modular mounts for C4I and other equipment

### **2** ELECTRICAL SYSTEM

- Fully integrated blackout lighting according to STANAG
- Night vision goggle compatible
- NATO inter-vehicle start and trailer sockets
   Mission Mode

### **3** EXTERIOR

- NATO shackles at front and rear
- Military trailer coupling (K4D/KA3)
- · Self-recovery winch option
- Potective grille for headlights and taillights



### **4** MILITARY ROOF

- Walk-on metal roof
- $\cdot\,$  Reinforced roof (incl. roof railing)
- $\cdot$  Circular roof hatch
- Customisable weapon and antenna mounting points

### **5** PAINTWORK

- Military paint finish according to STANAG
- $\cdot\,$  Enhanced corrosion protection

### 6 MOBILITY

- 750mm fording according to STANAG
- Engine qualified for F34 usage
- Tyres up to 14.00 R20
- **p**tional central or semi-automatic tyre inflation systems and run flat inserts

# TAILORED LEVELS OF MILITARISATION ATTENTION TO DETAIL



Protected headlights



Stowage



Militarised fuel tank



Cyclone / Air filter



Standing platform



Military trailer coupling



Spare wheel holder



Swivel type roof hatch



Twin tyres



Preparation for weapon holder



Double winch system



Central tyre inflation system



# **TG-MIL PORTFOLIO** VERSATILITY AT YOUR SERVICE

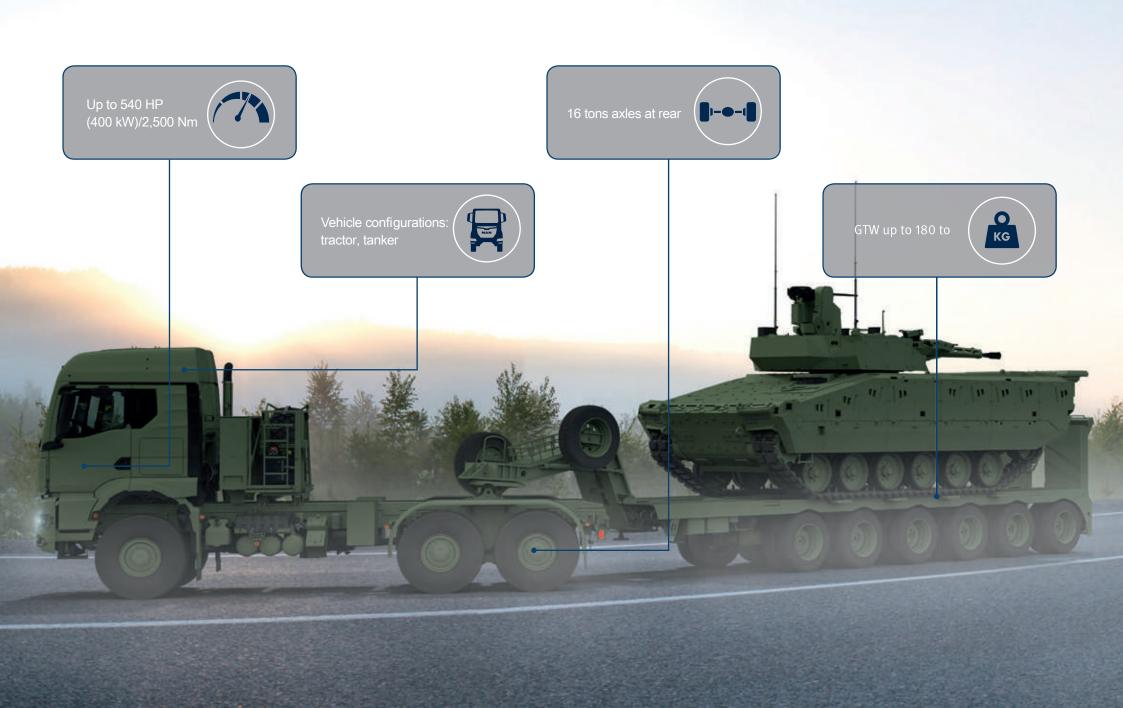
### **Off-road capability**

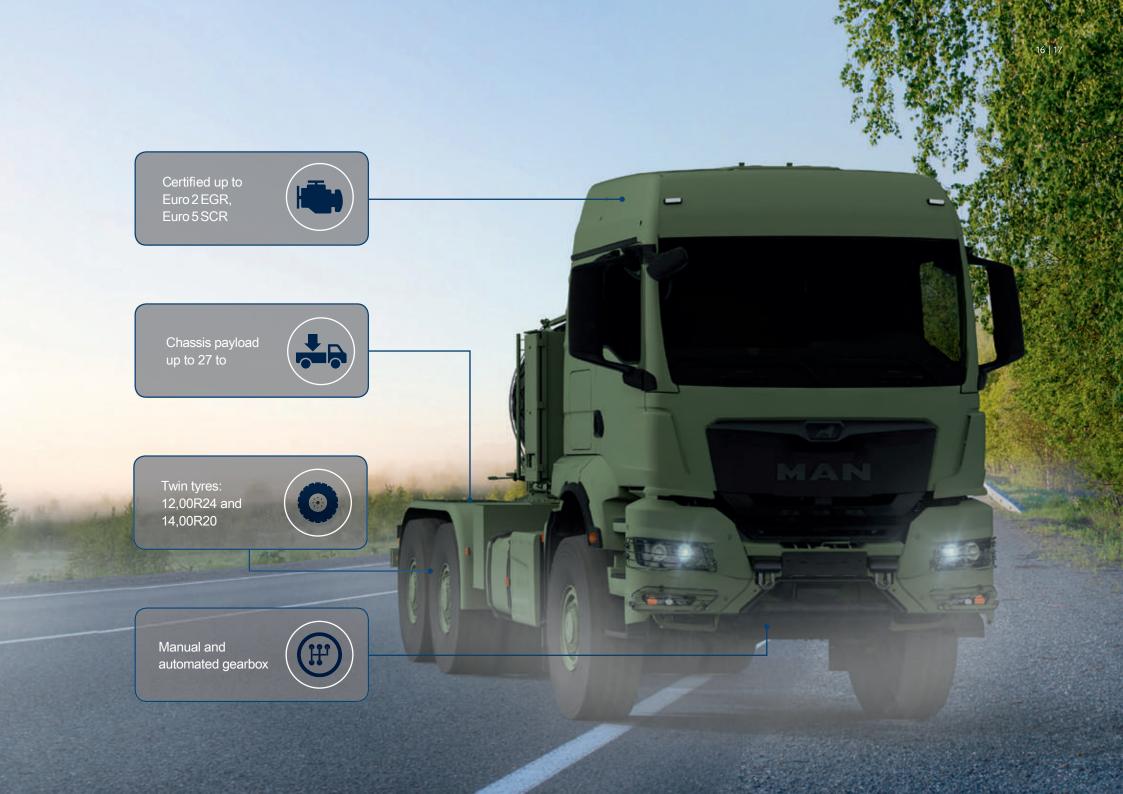
- Excellent driving comfort and safe handling for all vehicle load conditions both on- and off-road thanks to a load-friendly, low-torsion ladder frame
- Operating temperature range of -32°C to +49°C
- Parabolic leaf springs with heavy-duty shock absorbers and anti-roll bars master uneven terrain
- A raised chassis configuration provides for exceptional ground clearance and torsional twist
- Large single tyres up to 14.00 R 20 on all axles deliver a better ride quality and offer higher chassis payloads
- Reduced ground pressure, improved traction and increased ground clearance result in improved mobility
- Semi-automatic and central tyre inflation systems are available to further enhance off-road mobility

### Military features

- Engine qualified for low grade/high sulfur fuels (F34)
- Military paint finish according to STANAG
- Central seat, which converts to gunner's platform
- 750mm fording without preparation according to STANAG
- Fully integrated blackout lighting according to STANAG
- NATO inter-vehicle slave start and trailer sockets
- NATO shackles at front and rear
- Military trailer coupling
- Protective grille for headlights and taillights
- Swivel-type roof hatch with reinforced steel roof, walkable
- Customised weapon mounts, up to 7.62mm
- Mission Mode
- Spare wheel holder behind the cabin







# **DESIGNED TO ENDURE** TESTING FOR DURABILITY



### Extensive endurance and off-road tests

Diligent MAN testing already sets the commercial TG trucks up for a long service life. For militarised TG trucks, additional trials are conducted on top of MAN's commercial baseline testing. The result; a life-cycle of up to 20 years or 300,000 km, whilst complying with EU homologation standards.



### Easy maintenance

Similar to the HX product family of military trucks, the TG-Mil is designed with maintainability in mind. A tiltable cabin, easy access to engine, transmission, radiator, aircleaner, hydraulic tank and other vital parts makes servicing the trucks easy even under operational conditions.



### Functionality and simplicity

All components are engineered for maximum robustness to increase availability and to ensure high on-road and offroad performance even in worst conditions.

#### 100-percent performance

The TG-Mil series is able to fulfil demanding requirements throughout their lifetime. Customers know they can rely on vehicles that meet exceptional design, testing and quality control standards resulting in life-long high availability.

### More than cabin and chassis

Leveraging Rheinmetall's vast expertise and product portfolio in active and passive protection, simulation, sensors and systems, RMMV delivers a complete truck system to the market.

#### Production

Vienna, Austria, is home to RMMV's Centre of Excellence for militarised trucks. It is here where controlled production cycles and flexible processes give birth to our vehicles. Full in-house militarisation ensures the highest quality during the production process.











# **TAILOR-MADE** OFFSET & SERVICE SOLUTIONS

### System integration

Facility capabilities range from building chassis, integrating C4I and protection systems and bodies, down to application of military paints, wax and camouflage patterns. RMMV has a a well-established production network with certified long-term partners. From superstructures to mission kits and additional systems, the customer has a single point of contact.

### Fleet management services

Tailor-made services improve cost-effectiveness and efficiency allowing you to concentrate on core tasks. From managing servicing and overhaul programs, conducting logistics analysis to improve spares stock management and fleet availability and managing technical upgrades, we are ready to support customers to optimise the support of their fleets.

### Localisation

Shifting certain activities to your country depending on local capabilities and customer needs is feasible with RMMV's global production network. High quality is sustained by an integrated manufacturing, quality control and delivery process.

### Through life support

RMMV works as a partner for our customers to provide comprehensive through life support to support the vehicle capabilities from acquisition to disposal. We develop with our customers service networks, utilising existing OEM networks wherever available, to ensure that cost effective logistic solutions such as supply of spare parts, maintenance and engineering upgrades are available through the full product life cycle.









# **AT A GLANCE** TG-MIL KEY CHARACTERISTICS

1. Operational temperature range:	+49°C to -32°C (A1 to C1)	
2. Gradient:	Up to 60%	
3. Side slope:	Up to 32%	
4. Range:	>800 km	
5. Speed:	90 km/h, optional: 100 km/h	
6. Fording depth:	750 mm according to STANAG; 850 mm according to EN1846	
7. EMC:	ECE R10	
8. Emissions compliance:	Up to Euro 6e	
9. Engine:	Cab chassis up to 510 PS (380 kW); Tractor: up to 540 PS (400 kW)	
10. Transmission:	Manual, automated or fully automatic options	
11. Transfer case:	2-speed plus neutral	
12.Fuel:	Diesel EN590 or F34 with up to 3,000 ppm Sulphur content	
13. Suspension:	Parabolic leaf spring	
14. Tyres:	Single tyre options including: 14.00R 20, 395/85R 20 or 525/65R 20.5*	
15. Tyre Inflation:	Semi-automatic or central tyre inflation system	
16. Wheelbase:	Multiple options available	
17. Vehicle power:	24V up to 2 x 225 Ah (4 x 12V 100 Ah military batteries optional)	
18. Alternator:	Up to 120 Amp	
19. Winch:	Optional	
20. GVW:	Up to 41 t	
21. GTW:	Up to 180 t	







\*Twin tyre options available

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