



**Innovative Power Transmission**

# ESM 350



**Modern Powerpacks  
for T-72/T-90 tanks  
new production and  
upgrade programs**

# Powerpack ESM350 for T-72 / T-90 and derivatives new production and upgrade programs up to 850 kW

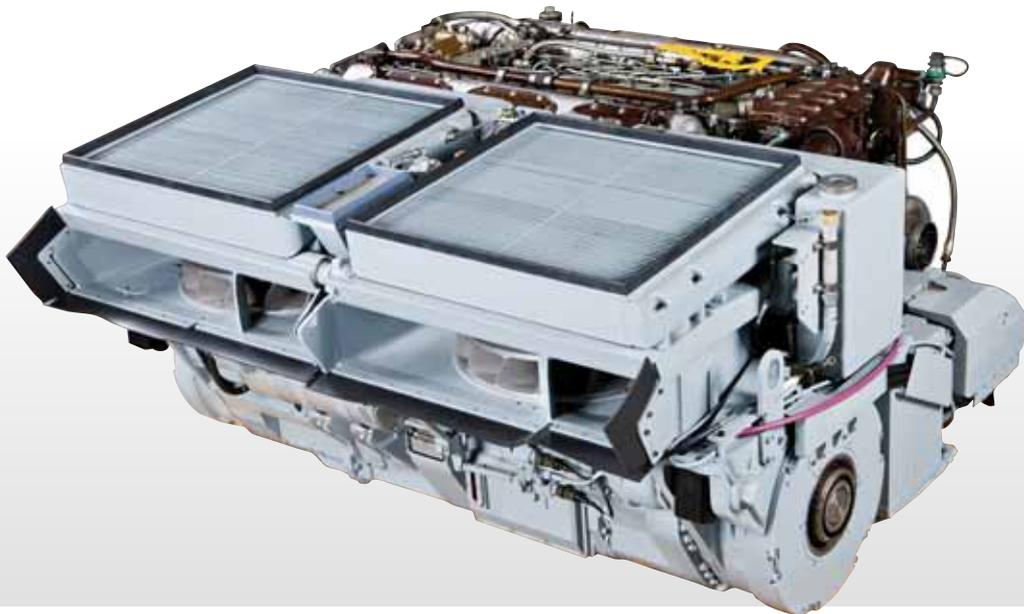


## Superior mobility by the addition of an automatic powershift transmission and increased engine power(up to 1200hp)

- Top speed of 70km/h and 23 km/h reverse, start-up on 60% slope for a 50 tons vehicle
- Increased vehicle speeds even with inexperienced drivers, especially in difficult terrain
- More intelligent use of engine power and elimination of driver error thanks to the electronic transmission control
- Increased operating range, reduced fuel consumption, reduced heat emissions and cooling needs

## Enhanced operation in hot climatic conditions due to the high performance cooling system

- Drastically increased cooling air flow compared to conventional design
- Automatically and permanently optimized fan speed adapted to cooling needs to minimize power losses
- Increased engine lifetime due to a more stable engine coolant temperature
- Availability of full engine power even in extreme hot conditions
- Option to switch off the cooling fans for special operations such as fording



## Transmission characteristics

- Fully automatic power shifting - 8 speed forward - 3 speed reverse with manual override
- Mechanical emergency gear shift system allowing vehicle drive without power supply
- Infinitely variable hydrostatic steering system actuated by a steering wheel
- Pivot on the spot feature
- Integrated multi-disk service and parking brake
- PTO for existing vehicle power units such as dynamo-starter, air compressor etc...
- PTO for fan drive with full digital speed control
- 200kW PTO available for special applications
- Engine tow-start capability
- BITE and extended diagnostic plug for quick and easy failure analysis
- Electronic control unit with CAN bus



# Various engine options including French, Italian, Polish or Russian diesels up to 1200hp



## Complete vehicle integration work realized by SESM

- Easy integration process
- No changes to hull, only minor internal modifications
- No affect on the gun depression angle
- Improved mine protection, no more maintenance hatches necessary below vehicle

## Improved vehicle availability due to the powerpack concept

- Integration of engine, transmission and cooling system in one single and very compact block
- Better reliability of the components compared to conventional equipment
- Exchange of the PP for maintenance purposes in less than one hour, even in field conditions
- Vehicle downtime in case of repair limited to one hour compared to several days with the existing vehicles



## Advantages for fleet availability, logistics and total operating cost

- Better fleet availability resulting from high equipment reliability and quick PP exchange capability
- Simplified maintenance and spare parts logistics
- Focus on handling complete PPs for front line logistics instead of thousands of individual spare-parts and separate repair jobs
- Standardisation of powerpacks across various vehicles types like T-72, T-90 and their derivatives (AEV, ARV or AVLB)



## One standard powerpack for all your vehicles (MBT, ARV, AEV, AVLB)

- Suitable for MBTs T-72, T-90, T-91, PT-91, TR-125, M-84, etc ...  
ARVs BREM, WZT-3, etc...  
AEVs MID, IMR, etc...  
AVLBs BLT-T72, PMC-90, MTU-72, MTU-90, etc...
- In serial production for PT91-M Poland/Malaysia, WZT-4, MID-M and PMC-Leguan



**Superior mobility especially in hot and difficult conditions, excellent fleet availability, improved combat effectiveness with limited financial investment**



**SESM, your partner for mobility upgrade programs**



SESM 

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