

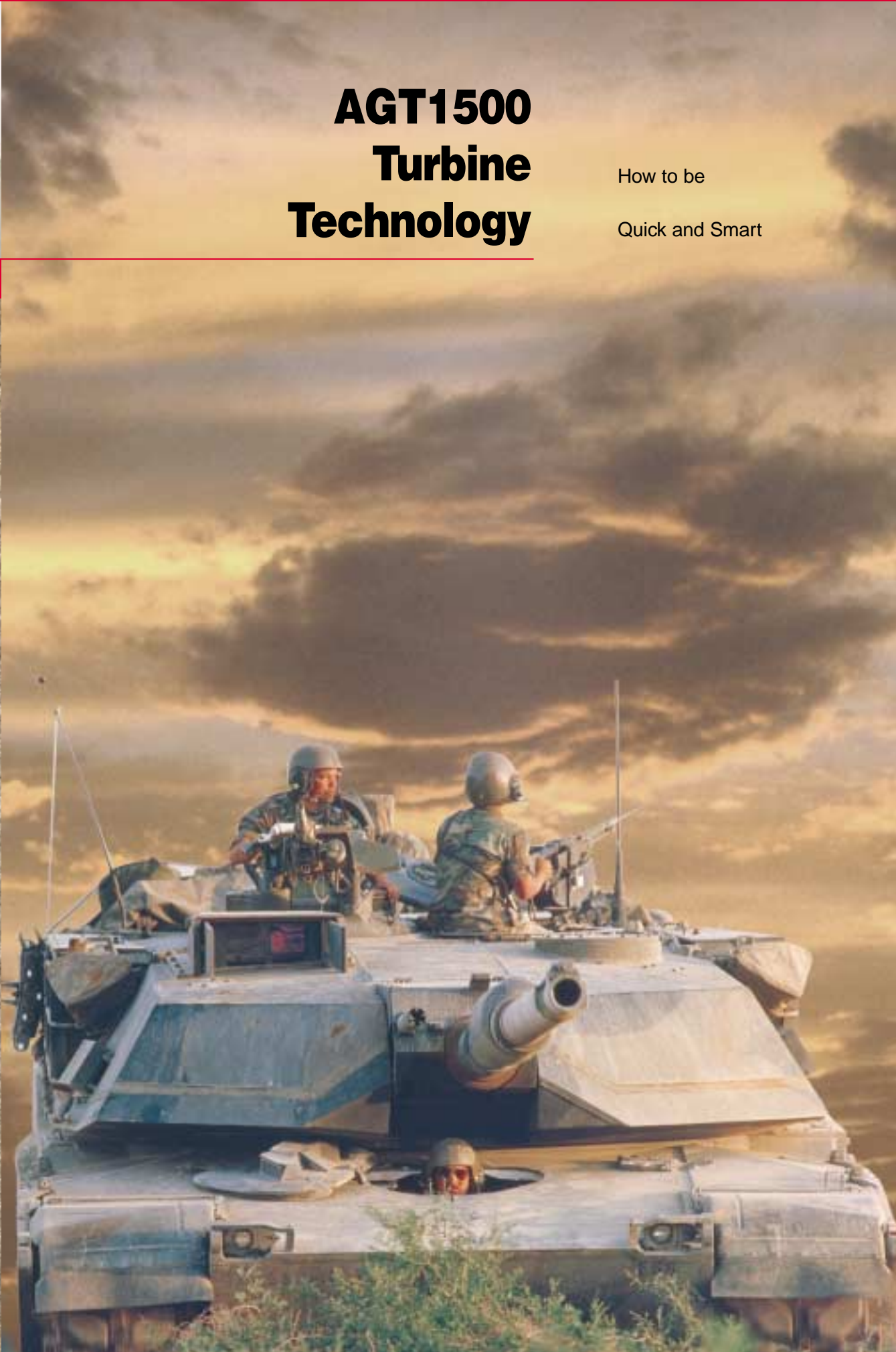


AGT1500 Turbine Technology

How to be

Quick and Smart

AEROSPACE



AGT1500

The M1A1 Battle Tank was a silent and unstoppable force in the Persian Gulf. Giving it the power, speed, quick acceleration and quiet operation was the AGT1500 turboshaft engine from Honeywell.

With over 24 million operating miles worldwide, the AGT1500 has become the heartbeat of the Abrams family of battle tanks. Its compact design, cold-starting, instant power, multifuel capabilities and stealthy operation are just part of what makes this engine the world standard for tank durability and survivability.

Specifications

	English Units	Metric Units
Normal Power	1,500 shp	1,120 kW
Torque @ 3,000 rpm	2,750 lb-ft	3,754 Nm
Output Speed		
Output Shaft Speed at Normal Power		
Nominal 100% rpm	3,000	
Shaft Rotation (Facing Shaft)	Counterclockwise	
Total Dry Weight	2,500 lbs	1,134 kg
Dimensions		
Length	66.5≤	1.629 m
Width	39.0≤	.991 m
Height	31.8≤	.807 m
Mass Polar Moments of Inertia		
Power Turbine Rotor	0.104 ft-lb-sec ²	0.141 kgm ²
Gas Producer Rotor	0.055 ft-lb-sec ²	0.074 kgm ²
Gas Flow Parameters		
Pressure Ratio, Nominal	14.0	
Mass Flow, Nominal	11.80 lb/sec	5.36 kg/sec
Exhaust Temperature	930°F	499°C
Fuels and Lubricants		
Fuel Types	Diesel, Jet Fuel, Gasoline, Marine Diesel	
Oil Type	Synthetic	

Rating Conditions

Atmospheric Pressure, Sea Level	14.7 psia (1.013 bar)
Engine Inlet Air Temperature	87°F (29°C)
Inlet Pressure Loss	None
Exhaust Pressure Loss	None
Output Shaft Speed	3,000 rpm
Liquid Fuel Lower Heating Value (LHV)	18,400 Btu/lb (10,224 kcal/kg)

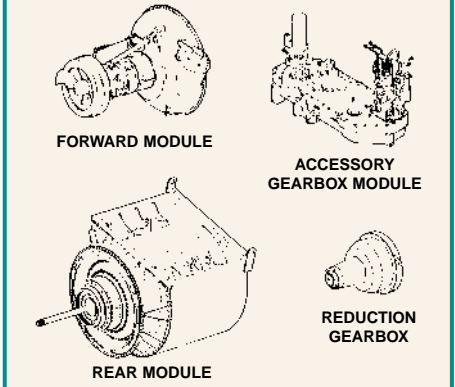
Efficient technology to keep you moving

Thanks to its simple modular design, operational readiness for the AGT1500 engine is outstanding. Unlike a diesel, which has to be serviced as a whole engine, the AGT1500 can easily be separated and serviced in the field, keeping more vehicles operating.

With the AGT1500's Digital Electronic Control Unit (DECU), you get operational diagnostic capability which results in 30% less maintenance time and 20% lower idle fuel consumption.

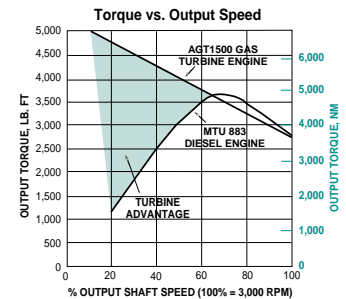
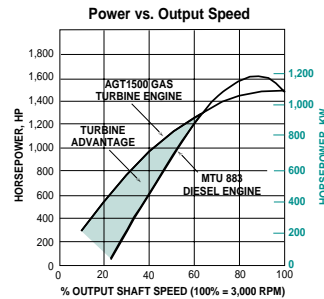
Contrast these features with a diesel engine which is noisy, smoky, requires a cooling system (space and power loss), a heater, a warm up period, and has more moving parts to wear out. Quite simply, there's no comparison.

AGT1500 MODULAR DESIGN



Improving the proven

Honeywell's ongoing development and modernization programs for the AGT1500 turboshaft engine are paving the way toward 21st century reliability. Our defined concepts will decrease operating temperature while select component durability will double through our Improved Durability Program. Further durability improvements are being obtained by the Partnership to Reduce Operating and Support Engines (PROSE) costs program. This is a teaming arrangement between TACOM, ANAD and Honeywell whose ultimate goal is to reduce the engine costs.



Honeywell

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