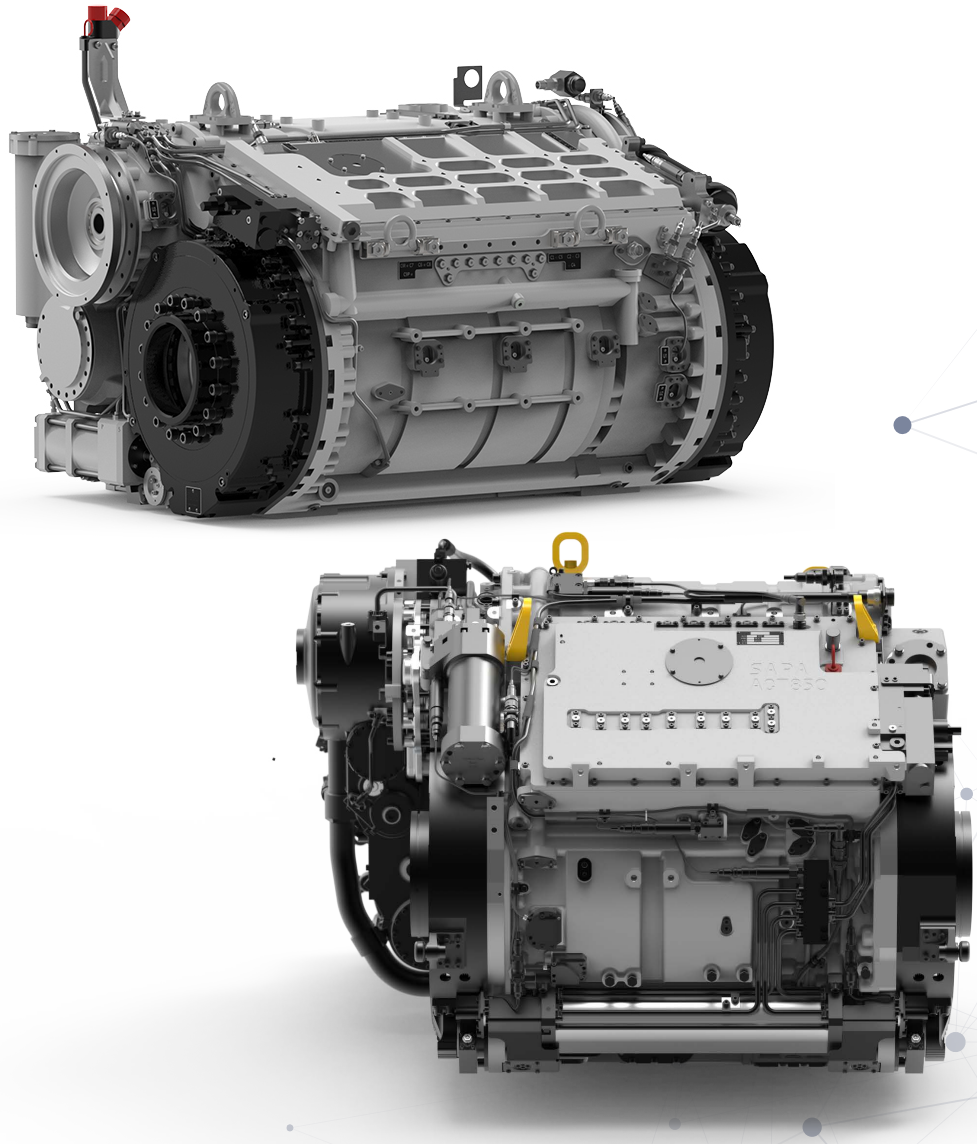
SAPA Transmission

Tracked Vehicle Transmissions



Mobility through efficiency

SAPA has introduced advanced mobility technology for combat vehicles that significantly depart from traditional and legacy transmission systems.

This new technology enhances mobility at all levels, which is a crucial element for optimizing protection and firepower in combat scenarios. SAPA believes that modern combat tactics and operations require new mobility technology that improves maneuverability across all formations and advances strategic position and effectiveness in combat systems fightability. Mobility plays a significant role in determining the sustainability and evolution of vehicles, ultimately improving the growth potential of the formation.

SAPA's advanced transmission technology delivers a native open and modular architecture with integrated drive, steer, and brake-by-wire capabilities. These capabilities boost power efficiency and offer distinct benefits such as flexibility, and improved performance, fuel economy, and heat management. When combined with the open architecture of the system, SAPA's network of sensors for data collection and processing leverages the evolution of digital tools (for predictive maintenance and sustainability) (to better deliver cutting-edge capabilities to the warfighter).

SAPA's technology is currently used in NATO tracked and wheeled vehicles and has been successfully tested and integrated in a variety of platforms for the US military and leading American OEMs.

Advantages

PROPULSION EFFICIENCY	✓ 32 gears/20:1 spread	✓ Heat rejection/90%	✓ Fuel consumption
STEERING EFFICIENCY	✓ Seamless mechanical	✓ Vehicle agility	✓ Fuel consumption
DRIVE BY WIRE	✓ Optionally manned	✓ Autonomous drive	✓ Mission data
HYBRID	✓ Performance	✓ Parallel Electric	✓ Silent mobility
MOST COMPACT	✓ Highest power density	✓ Integration of technologies	✓ Reduced vehicle size
FLEXIBILITY	✓ Power pack components	✓ Vehicle weight	✓ Vehicle upgrade
COMMONALITY	✓ Parts	✓ Software	✓ Operational, maintenance

Rating & specification

Technical characteristics

Model	SG 35T	ACT 850	ACT 1075
Max. engine power (hp/kW)	850/625	1000/750	1500/1120
Max. vehicle weight (ton)	45	50	75
Number of gears	32	32	32
Ratio Spread			
Forward range	20:1 to 1:1	20:1 to 0.83:1	33:1 to 1:1
Reverse range	35:1 to 1.75:1	24:1 to 1:1	33:1 to 1:1

Physical description

Model	SG 35T	ACT 850	ACT 1075
Width (mm)	1170	938	1300
Length (mm)	1200	873	901
Height (mm)	903	850	800
Dry weight (kg)	1800	1400	1995
Powerpack configuration	T	T.U	T.U

Power take off provision

Model	SG 35T	ACT 850	ACT 1075
Drive	Engine	Engine	Engine
Mounting position	Right side	Right side	2xRight side (A,B) 1x Left side (C)
Power rating (hp)	134	400	(A) 400 (B,C) 1500

Key benefits

Torque converter eliminated

Efficiency higher than 90% in any condition

Drive, steer and brake by wire

Commonality across multiple platforms

Modular Open System Architecture

Diagnosis and autodiagnosis