



Rolls-Royce

Gem turboshaft

Power for the Lynx and A129 Mangusta



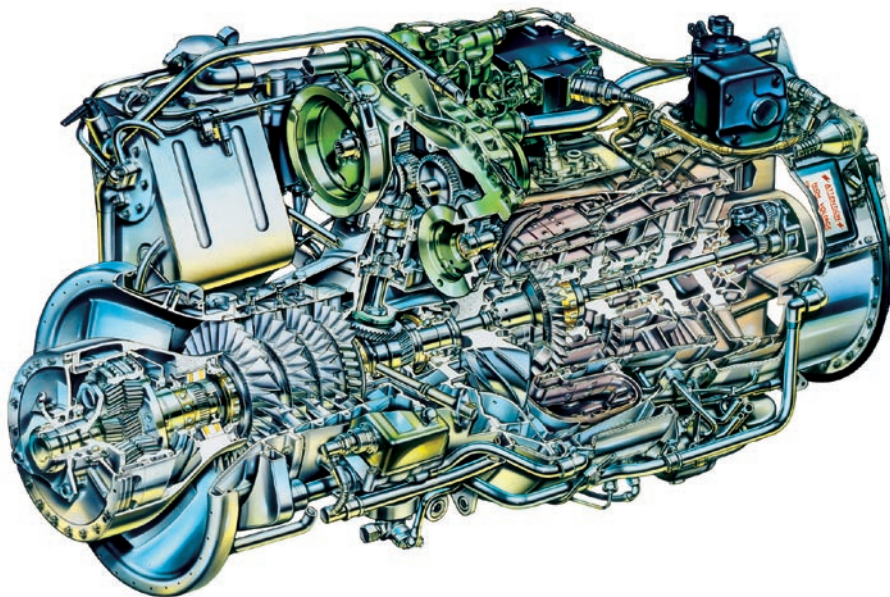
Gem turboshaft

Power for the Lynx and A129 Mangusta

The Gem was developed for the UK and French governments to power the AgustaWestland Lynx helicopter family.

In production since 1976, the Gem series of engines has become highly successful and has been proven in service during peacetime and combat operations. The latest Gem 42 turboshaft is a fully marinised engine with improved reliability and power retention. The engine's unique two-shaft gas generator gives extremely rapid response with no need for complex variable-geometry blades.

- **Gem-powered helicopters are operated by 11 military customers in 10 nations**
- **The latest Gem 42 application - the Lynx Mk88A - entered service with the German Navy in 2000**
- **Over 1,100 Gem engines have been produced**
- **A Gem 60-powered Lynx holds the absolute world speed record for helicopters of 249.1 mph**



intelligent innovation

The Gem 42 / AgustaWestland Lynx combination has set the standard for shipborne naval helicopters, with recent orders from South Korea, Portugal, Brazil and Germany. In 2001 the Gem celebrated the double milestone of 25 years of service and 3 million flight hours, 1 million of which have been logged by the Gem 42.

A further development, the Gem 1004, has been developed to power the AgustaWestland A129 Mangusta attack helicopter. Featuring a direct-drive system and updated emergency power ratings, the Gem 1004 provides the power margins needed to match the agility and manoeuvrability of the A129.



Engine Specification

Engine	Gem 42
Power shp (kW)	1,000 (745.7)
Pressure ratio	12
Length in (m)	43.4 (1.09)
Diameter (in)	23.5 (0.59)
Basic weight lb (Kg)	414 (187)
Compressor	4LP, 1CFHP2HP, 2PT
Turbine	1HP, 1LP, 2PT
Applications	AgustaWestland Lynx AgustaWestland A129 Mangusta



Rolls-Royce

© Rolls-Royce plc 2009

The information in this document is the property of Rolls-Royce plc and may not be copied, or communicated to a third party, or used, for any purpose other than that for which it is supplied without the express written consent of Rolls-Royce plc.

Whilst this information is given in good faith based upon the latest information available to Rolls-Royce plc, no warranty or representation is given concerning such information, which must not be taken as establishing any contractual or other commitment binding upon Rolls-Royce plc or any of its subsidiary or associated companies.

VCOMB 0936 June 2009 / Printed on 75% recycled material
Images © 2009 AgustaWestland

Rolls-Royce plc
PO Box 3, Filton,
Bristol, BS34 7QE England
Tel: +44 (0) 117 979 1234
Fax: +44 (0) 117 979 7575

PO Box 420, Indianapolis,
Indiana, 46206-0420 USA
Tel: + 1 317 230 2000
Fax: + 1 317 230 5100