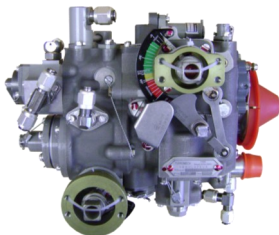


At EuroTec, our philosophy is to understand every operators' requirements, and support you with service that is both flexible and responsive to your needs. In line with this mission, we offer a broad range of engines and engine components on exchange, for rental, or repair. Our solutions are designed to help lower your direct operating costs and maintain your helicopter availability, safely and efficiently, while reducing risk to your organization.

Part Number	Alternate	Description	Exchange	Rental	Repair
0164248390		FUEL CONTROL UNIT	●	●	●
0164248670		FUEL CONTROL UNIT	●	●	●
0164248840		FUEL CONTROL UNIT	●	●	●
0164248850		FUEL CONTROL UNIT	●	●	●
0164448000		FUEL CONTROL UNIT	●	●	●
0164448080		FUEL CONTROL UNIT	●	●	●
0164448160	0164448430	FUEL CONTROL UNIT	●	●	●
0164448390	0164448430	FUEL CONTROL UNIT	●	●	●
0164448430		FUEL CONTROL UNIT	●	●	●
0164448620		FUEL CONTROL UNIT	●	●	●
0164548530	0164548530	FUEL CONTROL UNIT	●	●	●
0164548660		FUEL CONTROL UNIT	●	●	●
0164548720		FUEL CONTROL UNIT	●	●	●



FUEL CONTROL UNIT
0164548660

A fuel control unit acts as an intermediary between the operator's controls and the fuel valve. The operator has a power lever which only controls the engine's potential, not the actual fuel flow. It also functions as a computer to determine the amount of fuel needed to deliver the power requested by the operator.

0174025120	0174025020	PRESSURIZATION VALVE	●		●
0174078010	0174078030	STARTING DRAIN VALVE	●		●
0174078030	0174078010	STARTING DRAIN VALVE	●		●
0174126070	0174126090	DRAIN & OVERSPEED VALVE	●		●
0174126090	0174126070	DRAIN & OVERSPEED VALVE	●		●
0177555040		TACHOMETER BOX	●		●
0177555050		TACHOMETER BOX	●		●
0177555120		TACHOMETER BOX	●		●
0177555150		TACHOMETER BOX	●		●
0177555170	717755505A	TACHOMETER BOX	●		●
0177555260		TACHOMETER BOX	●		●

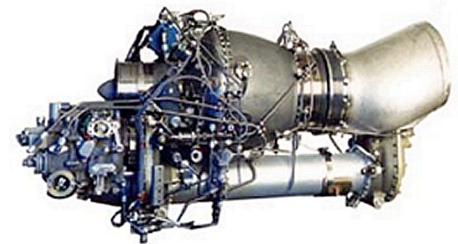
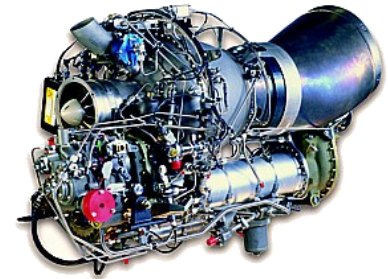
Turbomeca Parts

Part Number	Alternate	Description	Exchange	Rental	Repair
0292005060		ENGINE	•	•	•
0292005150		ENGINE	•	•	•
0292005220		ENGINE	•	•	•
0292005340		ENGINE	•	•	•
0292005410		ENGINE	•	•	•

Today, there are two basic variants in the Arriel family: Arriel 1 and Arriel 2. EuroTec specializes in providing support for both variants of turbine engines.

The Arriel 1 and 2 turboshaft engines feature a very simple design, with a reduced number of parts and only five modules for easy maintenance. The Arriel series engines have gained a solid reputation in the helicopter market based on its excellent handling characteristics and high level of reliability. The Arriel has long proven its reliability in a wide variety of demanding missions, including EMS, SAR, utility and offshore operations.

The Arriel 1 engine has a TBO (Time Between Overhaul) of 3,000 hours, which can be extended to "on condition" on Module 1 and to 6,000 hours on Modules 2 and 4.



0292105160	0292105210	OIL PUMP ASSY.	•		•
0292105200	0292105150	OIL PUMP ASSY.	•		•
0292105300	0292105210	OIL PUMP ASSY.	•		•
0292807580	0292808700	EXHAUST PIPE ASSY. ARRIEL 1B	•		•
0292808410	0292827110	HEAT SHIELD	•		•
0292808680	0292808410	HEAT SHIELD	•		•
0292808690	0292807730	EXHAUST PIPE ASSY. ARRIEL 1B	•		•
0292808700	0292807580	EXHAUST PIPE ASSY. ARRIEL 1B	•		•
0292808710		EXHAUST PIPE ASSY. ARRIEL 1D1	•		•
0292808880	0292827120	HEAT SHIELD	•		•
0292808900	0292808700	EXHAUST PIPE ASSY. ARRIEL 1B	•		•
0292817330		EXHAUST PIPE ASSY. ARRIEL 2B	•		•

The main function of the exhaust pipe is to complete the expansion phase and release the gases. The exhaust pipe is installed around the reduction gear at the end of the Module 04—Free Turbine.



EXHAUST PIPE
0292807580

Part Number	Alternate	Description	Exchange	Rental	Repair
0292827070	0292808880	HEAT SHIELD	•		•
0292827110	0292808410	HEAT SHIELD	•		•
0292827120	0292827110	HEAT SHIELD	•		•
0292860440		FUEL CONTROL UNIT	•	•	•
0292860550		FUEL CONTROL UNIT	•	•	•
0292860750		FUEL CONTROL UNIT	•	•	•
0292860960		FUEL CONTROL UNIT	•	•	•
0292861070		FUEL CONTROL UNIT	•	•	•
0292861190		FUEL CONTROL UNIT	•	•	•
0292868550		FUEL CONTROL UNIT	•	•	•
0292868620		HMU	•	•	•
0292868830		FUEL CONTROL UNIT	•	•	•
0292907550		FREE WHEEL SHAFT ASSY.	•		•
0292907680	0292807550	FREE WHEEL SHAFT ASSY.	•		•
0292958060		ADJUSTED DRAIN VALVE	•		•
0301017690		THERMOCOUPLE HARNESS	•		•
0301027570		CONTROL HARNESS	•		•
0301037070	0301057990	THERMOCOUPLE HARNESS	•		•
0301057880		CONTROL HARNESS	•		•
0301057900		CONTROL HARNESS	•		•
0301057990	0301058050	THERMOCOUPLE HARNESS	•		•



THERMOCOUPLE HARNESS
0301058050

The Thermocouple Harness is a device which measures the gas temperature at the gas generator outlet. It includes three thermocouples. The probes of each thermocouple are installed in the three bosses of the nozzle guide vane of the free turbine. Then the cables are assembled and held with clamps attached to the support gutter of the fire detectors. The thermocouples are connected by a helicopter harness to a receiver installed in the cockpit.

031987XXX		FUEL CONTROL UNIT	•	•	•
031992XXX		FUEL CONTROL UNIT	•	•	•
5351-6	9580113720	TORQUEMETER TRANSMITTER	•		•
717755505A	177555170	TACHOMETER BOX	•		•
9550147300	9550147560	IGNITION SOLENOID VALVE	•		•
9550147560	9550147300	IGNITION SOLENOID VALVE	•		•
9550151250	9560137030	BLEED VALVE	•		•
9550158250	9550164950	BLEED VALVE	•		•

Part Number	Alternate	Description	Exchange	Rental	Repair
9550158260	9550151250	BLEED VALVE	•		•
9550161210	9550164960	BLEED VALVE	•		•
9550164470	HE900	H.E. GENERATOR	•		•
9550164960	9550161210	BLEED VALVE	•		•
9550171720	9049310-1	H.E. GENERATOR	•		•
9550176020	HE901	H.E. GENERATOR	•		•
9550176240	9580113720	TORQUEMETER TRANSMITTER	•		•
9550178290	9550147560	IGNITION SOLENOID VALVE	•		•
9560119620	HE402-152B	H.E. GENERATOR	•		•
9560137030	9580113150	BLEED VALVE	•		•
9560145390	9550158260	BLEED VALVE	•		•



BLEED VALVE
9550164960

The bleed valve is used to prevent compressor surge by discharging to the outside a certain quantity of air taken at the outlet of the axial compressor. When the bleed valve is open the air discharge causes a flow increase through the axial compressor which moves the working line away from surge conditions.

9560161120	0292827110	HEAT SHIELD	•		•
9580111160	A822007-1	H.E. GENERATOR	•		•
9580111460	64550-005-1	TACHOMETER TRANSMITTER	•		•
9580113720	5351-6	TORQUEMETER TRANSMITTER	•		•
9580113800	9580111160	H.E. GENERATOR	•		•
9580113810	HE402C	H.E. GENERATOR	•		•
9580114960	HE402D	H.E. GENERATOR	•		•
9580115210	HE402F	H.E. GENERATOR	•		•

The H.E. Generator, also known as a High Energy Ignition Unit, transforms the input voltage into a high energy output. Typically the supply voltage is 10 to 30 VDC. The H.E. Generator transforms the supply voltage to more than 2,000 VDC on the output side.

The H.E. Generator produces the energy that is added to the fuel stream in the combustor, where air is mixed with fuel and ignited.



H.E. GENERATOR
9550177760

Part Number	Alternate	Description	Exchange	Rental	Repair
70BM011060		MODULE 1 ACCESSORY GEAR BOX	•	•	•
70BM011080		MODULE 1 ACCESSORY GEAR BOX	•	•	•
70BM011090		MODULE 1 ACCESSORY GEAR BOX	•	•	•
70BM012000		MODULE 1 ACCESSORY GEAR BOX	•	•	•
70BM012010		MODULE 1 ACCESSORY GEAR BOX	•	•	•
70BM015010		MODULE 1 ACCESSORY GEAR BOX	•	•	•
70BM015020		MODULE 1 ACCESSORY GEAR BOX	•	•	•
70BM015300		MODULE 1 ACCESSORY GEAR BOX	•	•	•
70BM015400		MODULE 1 ACCESSORY GEAR BOX	•	•	•
70BM015420		MODULE 1 ACCESSORY GEAR BOX	•	•	•

The Module 1 serves two functions. The first is that it houses the transmission shaft. The transmission shaft is responsible for transmitting the power forward. The second function of the Module One is that it drives the engine accessories. This is done by the accessory-gearbox.



MODULE ONE
70BM011090

70BM021060		MODULE 2 AXIAL COMPRESSOR	•	•	•
70BM022010		MODULE 2 AXIAL COMPRESSOR	•	•	•
70BM025000		MODULE 2 AXIAL COMPRESSOR	•	•	•
70BM025020		MODULE 2 AXIAL COMPRESSOR	•	•	•

The Module 2—Compressor supplies the first stage of the compression to supercharge the centrifugal compressor. It is located at the front of the engine and is made up of several rotating and stationary components.



MODULE TWO
70BM025020

Part Number	Alternate	Description	Exchange	Rental	Repair
70BM031060		MODULE 3 GAS GENERATOR	•	•	•
70BM031070		MODULE 3 GAS GENERATOR	•	•	•
70BM031080		MODULE 3 GAS GENERATOR	•	•	•
70BM031090		MODULE 3 GAS GENERATOR	•	•	•
70BM032020		MODULE 3 GAS GENERATOR	•	•	•
70BM035010		MODULE 3 GAS GENERATOR	•	•	•
70BM035220		MODULE 3 GAS GENERATOR	•	•	•
70BM035250		MODULE 3 GAS GENERATOR	•	•	•
70BM035280		MODULE 3 GAS GENERATOR	•	•	•
70BM035400		MODULE 3 GAS GENERATOR	•	•	•
70BM035410		MODULE 3 GAS GENERATOR	•	•	•
70BM035420		MODULE 3 GAS GENERATOR	•	•	•

The Module 3 serves as the gas generator and supplies the energy necessary to drive the power turbine. This module ensures the compression of the air from the compressor module (Module 2). It also combusts the air and fuel mixture which causes the expansion of the gases.

It is comprised of three major areas. The centrifugal compressor which supplies the compressed air required for combustion, the combustion chamber where the air/fuel mixture is burned, and the gas generator turbine which extracts energy from the gas flow to drive the compressors and accessories.



MODULE THREE
70BM031090

70BM041020		MODULE 4 FREE TURBINE	•	•	•
70BM041030		MODULE 4 FREE TURBINE	•	•	•
70BM041040		MODULE 4 FREE TURBINE	•	•	•
70BM041720		MODULE 4 FREE TURBINE	•	•	•
70BM045210		MODULE 4 FREE TURBINE	•	•	•
70BM045400		MODULE 4 FREE TURBINE	•	•	•
70BM045410		MODULE 4 FREE TURBINE	•	•	•
70BM045420		MODULE 4 FREE TURBINE	•	•	•

The Module 4 is where the second phase of the expansion takes place. The gases from the gas generator flow through the nozzle guide vane. In the nozzle guide vane, the gas velocity increases because of the convergent passage. The gasses flow to the turbine blades resulting in the rotation of the wheel. Through the exhaust pipe, the gases flow overboard.



MODULE FOUR
70BM045410



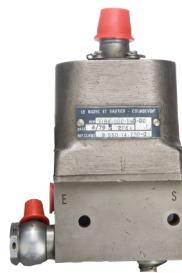
MODULE FIVE
70BM055030

The Module 5 is the part of the engine where the rotation speed is reduced due to the reduction gear. The energy flows through the driving pinion, which is directly driven by the free turbine, and travels to the intermediate pinion. The intermediate pinion drives the hydraulic torque meter. The intermediate pinion then drives the output pinion and the main power drive to the forward part of the engine.

Part Number	Alternate	Description	Exchange	Rental	Repair
70BM051010		MODULE 5 REDUCTION GEAR BOX	•	•	•
70BM051020		MODULE 5 REDUCTION GEAR BOX	•	•	•
70BM051050		MODULE 5 REDUCTION GEAR BOX	•	•	•
70BM052000		MODULE 5 REDUCTION GEAR BOX	•	•	•
70BM055010		MODULE 5 REDUCTION GEAR BOX	•	•	•
70BM055020		MODULE 5 REDUCTION GEAR BOX	•	•	•
70BM055030		MODULE 5 REDUCTION GEAR BOX	•	•	•
70BM055400		MODULE 5 REDUCTION GEAR BOX	•	•	•
70BM055420		MODULE 5 REDUCTION GEAR BOX	•	•	•
70BM055530		MODULE 5 REDUCTION GEAR BOX	•	•	•
70BMB01020		DECU	•	•	•
70EMF01160		ELECTRONIC CONTROL UNIT	•	•	•



TORQUEMETER TRANSMITTER
9550176240



IGNITION SOLENOID VALVE
9550178290



HEAT SHIELD
0292827110



TACHOMETER BOX
0177555170



OIL PUMP ASSEMBLY
0292105210