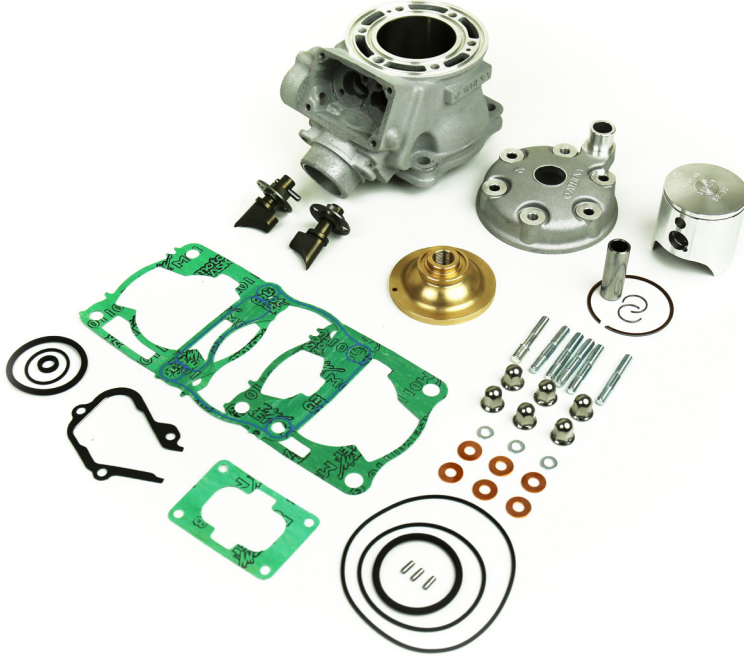


NEW PRODUCT

CYLINDER KIT Ø 53 MM 105,4 CC

YAMAHA YZ 85 2019/2021



PART NUMBER:
P400485100077

- INCLUDED IN THE KIT:**
- Cylinder
 - Piston Kit
 - Gasket Kit
 - Exhaust Valves Kit
 - Cylinder Head
 - Central Dome

Athena presents the new Big Bore Cylinder Kit developed for Yamaha YZ 85 2019/2021. The kit was entirely engineered by Athena R&D technicians to ensure not only an increase in displacement, but also a balanced power management, an extreme reliability and a technical improvement compared to the original cylinder kit. This kit contains a cylinder with modular head, which is refined in materials and structure, a forged piston to ensure maximum performance and resistance, and a gasket kit with three base gaskets in order to choose the most suitable thickness to fine-tune the squish.

All kit components have been developed to resist the highest temperature, pressure and stress, and they are perfectly replaceable to the OE ones.

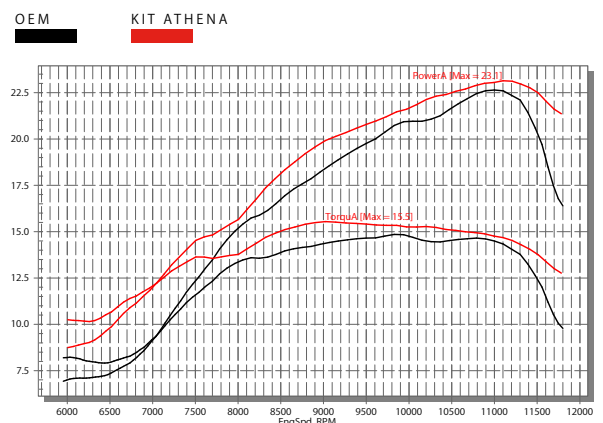
The cylinder kit was also tested on the track and on the dynamic and static bench to guarantee its performance and certify its quality even under extreme conditions.

Athena cylinder kit can be installed without any crankcase machining and without any other OE components replacement.

TECHNICAL DATA

	OEM	KIT ATHENA*
DISPLACEMENT	84,7 cm ³	105,4 cm ³
BORE	47,5 mm	53,0 mm
STROKE	47,8 mm	47,8 mm
COMPRESSION RATIO	14,9:1	14,8:1
POWER CURVE	22,6 HP 11.000 RPM	23,1 HP 11.100 RPM

* Data referred to a bike with a stock setting engine + Athena cylinder kit



TECHNICAL FEATURES

Designed and tested entirely in Italy, the Yamaha YZ 85 cylinder kit significantly improves engine performance and efficiency thanks to the detailed study and development of all its components. The technical refinements devised by Athena R&D department ensure both an increase in horsepower and in torque, even at low revs.

CYLINDER WITH 6 STUDS

Compared to Yamaha's, Athena cylinder ensures a **better clamping load distribution**. This improvement avoids leakage which could compromise engine performance and optimal run. The tightening has been improved by using **6 equally spaced hub studs**, while Yamaha original cylinder features only 4 studs.

Specific studies were also made for the **special stud on the exhaust side**: the result is optimal thermal dispersion and maximum cooling performance.

Furthermore, to guarantee superior resistance and smoothness, Athena **cylinder** is made of **aluminum alloy** with a **nickel-silicon coating** on the barrel.



MODULAR CYLINDER HEAD WITH CENTRAL BRONZE DOME

Athena cylinder head is unique on the market: made of aluminum alloy, a high-quality material with no internal porosity, it is modular in order to ensure **maximum flexibility in customization**.

The head has been re-engineered for the 6 studs, while the **central bronze dome** is machined from solid for better **thermal stability** even at high temperatures.

The dome also features a hole to install the **anti-rotation pin**, which eases the assembly of the spark plug and its proper installation.



DEDICATED POWER VALVE SYSTEM

To manage the increased displacement and to fully exploit the power surge, Athena has developed a specific power valve system for this big bore kit.

The design and materials used ensure **excellent power delivery even at low and medium revs**.

The valves are made of aluminum alloy and steel to withstand the high thermal and mechanical stresses to which they are continuously subjected.

