

OSSA THE NEXT GENERATION

OSSA's rebirth has been made possible by the efforts of a team led by Jordi Cuxart, President of OSSA Factory who is the project's champion and an investor; Joan Gurt the General Manager and driving force behind the project; Alejandro Laplaza, the Finance Manager and also an investor and Joan Roma, the Engine Division Manager and the person who brought them all together with an extraordinary vision for the future. Josep Serra "Xiu" is the engineer and soul of the new TR 280i, the project manager and designer of the prototype. His career is notable for his work at Gas Gas as development manager for an innovative and light trials engine and his collaboration through Xiu Research and Development SL on various projects with Rieju, Dunax, and Scorpa and on Tramontana, an exclusive high-performance sport motor-cycle.



We present the OSSA TR 280i

OSSA have developed a trials bike based on a new highly innovative concept. They have basically worked on redistributing the various parts of the bike logically in terms of the weight distribution and other conditioning factors such as some of the parts' running temperatures. One of these aspects is locating the filter box in a very high easily-accessible position. Parts such as the fuel tank, air filter box and radiator have been positioned with the needs of a trials bike in mind. This has been done rationally with common sense and a clear objective: to make the new OSSA TR 280i a benchmark for this speciality, just as the first MAR – Mike Andrews Replica – was in 1972. "Having the air filter at the bottom of a trials bike with the fuel tank high up or located next to the exhaust are concepts that does not make common sense from our point of view," says Xiu, the project manager. So OSSA's engineers approached the design of the new OSSA TR 280i by putting the various parts of a trial motorcycle on the table and taking a blank sheet to design and redistribute them based on their needs. The fact that the new TR 280i has an electronic-injection system has enabled

its engineers to redistribute various parts without being constrained by the position of the traditional carburettor. "Sometimes the injection system has been put in the same place as the carburettor would have gone with the fuel tank at the top of the bike without considering the option of finding a new position for it. The OSSA Factory let me start from scratch and that was a determining factor in taking on this project," said Xiu.

Engine

Our work in finding the ideal location and set-up for the various parts has resulted in a very small engine with a tilted back reversed cylinder. The intention is to allow the injection system and filter box to be located at the top of the TR 280i. We at OSSA think it is perfectly valid to take the same logical approach to trial bikes as other manufacturers do to specialities such as motocross and enduro. The new two-stroke engine is very compact with a single piece crankcase. The gear change extends out of the right-hand side and the crankshaft is opposite it on the left. Since the housing acts as the chassis, as it is the toughest part of the lot, it has been possible to make a compact block. This simplifies the possibility of access to gear

ratios. Another important aspect is that it is cheaper to maintain since it is really straightforward to work on the engine. It can be considered a conventional engine in terms of geometry or thermodynamics but we have managed to design a highly compact unit. It is one of the smallest engines around. The 3-litre fuel tank has been positioned where the radiator has traditionally gone on trial bikes in order to improve the weight distribution. The OSSA Factory team thinks that the lighter a trials bike is the greater the need for the centre of gravity to be shifted forward. Placing the radiator behind the fuel tank and filter box prevents the radiator from getting covered in mud which happens so often in trials with the resulting problems with the engine not being able to run at the right temperature. A stationary motorcycle needs to be able to dissipate the heat from the engine and have a fan fitted on it like on the TR 280i. So although a motor-cycle used in a different speciality would need fresh air channelling a trial bike does not. Since the fuel tank protects the radiator the new TR 280i can run at a constant temperature without being held back by a dirty radiator. Also by inverting the cylinder we have been able to fit the inlet practically vertically behind the fuel tank so the air comes in through the filter at