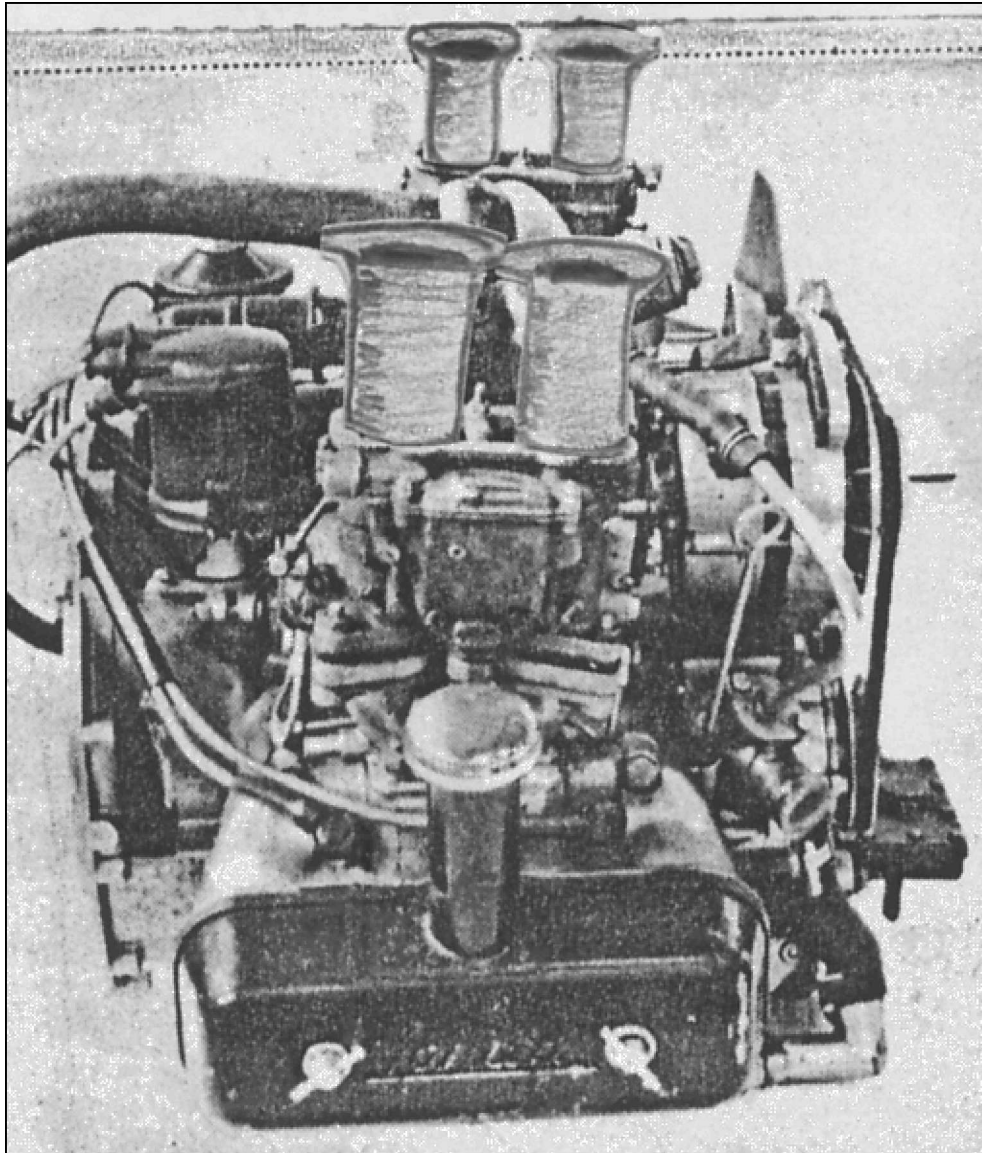


# LANCIA FLAVIA "HF RACING TEAM"

## ***Engines tuned by Almo Bosato***

Historical data from test room sheets and notes from engine logbooks.



- **1961 – Type 815.00 engine** - Developed in the “Tourism group 2” category of Annex J, this unit was used on the Flavia Berlina in the 1962 season by Frescobaldi. In November, bench testing began on the original version of the engine, which ended, after two evolutions, in December, with the more powerful version.  
**A. 83 mm x C. 71 mm = 1,537 cc 1 Solex c32 dcrc 10, 2:1, Power 91.5 hp at 6,500 rpm, Torque 12.07 kgm at 5,000 rpm.**
- **1962 – Type 815.100 engine** – In October Bosato began the development and tuning of this engine, in the “Tourism group 2” category. This unit was mounted for the first time on the “Pininfarina coupés”. At the end of November the version for the “1963 Monte Carlo Rally” was approved.

**A. 83mm x C. 71mm = 1,537 cc, 2 Solex 35 PII DC, rc 10, 2:1, Power 114 hp at 6,500 g/l, Torque 14, 62 kgm at 5,000 g/l.**

- **1963 – Type 815.100 Evoluzione engine** – In the first quarter of the current year, it was further developed for the participation of the “HF” team in the new European Touring Car Championship (ETCC), and in other races including the “VII Gran Premio Internacional de Turismo” in Argentina. The cars were either “Pininfarina coupés” or “Zagato sports”. The main modifications concerned: Mondial pistons, carburetor boring for 40 mm butterflies, lightened flywheel/clutch assembly and new profile camshafts.  
**A. 83 mm x C. 71 mm = 1,537 cc 2 Solex 35/40 PII dcrc10.7:1, Power 121 hp at 6,500 rpm, Torque 14.83 kgm at 5,000 rpm.**
- **1963 – Type 815.300 engine** – On October 15, 1963, the first engine of the new Flavia Coupé 1.800 was bench-tested in its original configuration to study its performance and provide a basis for development. The homologation fiche for the coupé and sports car immediately included some exceptions, such as the single fuel system with new Weber 40 DCNLs, a complete 1.500 group II exhaust system, and other accessories, to preserve its competitiveness for future international competition. This homologation, however, came into force after January 1964, so it could not be applied to the 1964 Monte Carlo Rally; the team was thus forced to race with a less powerful setup than the previous year, specifically using a single twin-choke Solex carburetor.  
**A. 88 mm x C. 74 mm = 1,800 cc 1 Solex C32 PAIA 8 dc RC.9: 1, Power 100 hp at 5,500 g/l, Torque 15, 5 kgm at 3,250 g/l.**
- **1964 – Type 815.300 Evoluzione and 815.500 engines** – These are engines derived from the aforementioned homologation, intended primarily for participation in international rallies with the coupé, and in the ETCC with the sports car. The development includes new cams, a higher compression ratio, larger valves and the complete lightening of the alternating masses.  
**A. 88 mm x C. 74 mm = 1,800 cc 2 Weber 40 DCNL dc with 42 mm throttle bodies, RC 10.77:1, Power 135 hp at 6,000 rpm, Torque 18.3 kgm at 4,000 rpm.**
- **1964 – Type 815.500 engine, prototype 2,000 “Targa Florio”** – Engine developed from February 1964 to be mounted on the prototype driven by Cella and Trautmann. Overheating during the race led to the car's retirement, after having nevertheless set the best lap time in its class: 45 minutes. Consider that at the time, Gurney's Cobra lapped in 42 minutes.  
**A. 88 mm x C. 80 mm = 1,946 cc 2 Weber 40 DCNL dc, rc 10.6 :1, Power 145 hp at 6,000 rpm, Torque 19.29 kgm at 4,000 rpm.**
- **1964 – Engine type 815.500 prototype 2,000 “Tour de Corse”** – Evolution engine for use of the prototype in the Tour de Corse.  
**A. 88.6 mm x C. 80 mm = 1,973 cc 2 Weber 40 DCNL with 42 mm throttle valves, rc 10.29: 1, Power 145 hp at 6,000 rpm, Torque 19.9 kgm at 4,000 rpm.**
- **1965 – Engine type 815.500 Evolution 1** – Evolution specifically for track use on sports cars. The modifications include new cams, new valves and seats, free exhaust with exit under the driver's door and different tolerances for the internal components.  
**A. 88 mm x C. 74 mm = 1,800 cc 2 Weber 40 DCNL with 42 mm throttle bodies, rc 10.47: 1, Power 148 hp at 7,000 rpm, Torque 17.81 kgm at 5,000 rpm.**
- **1966 – Type 815.500 engine, prototype 2,000 “Rally dei fiori”** – Engine derived from the 1964 Zagato prototype but with the updates of the previous year's type 1,800 track car. By far the most powerful engine developed by Bosato for the Flavia. Following a breakage, it was necessary to reinforce the primary shaft of the gearbox that received the engine's torque. Used on Trautmann's sports car for the Rally dei fiori. **A 88.6 mm x C. 80 mm = 1,973 cc 2 Weber 46 IDA, rc 11.7: 1, Power 167 hp at 7,000 rpm, Torque 20.35 kgm at 5,000 rpm.** The partnership between Bosato and the “HF Squadra Corse” ended at the end of 1964 following the tragic accident during the 24 Hours of SPA, which killed Frescobaldi, a driver and close friend of Almo Bosato. A collaboration with the newly formed factory team continued exclusively on a motorsports level until 1966.