

Note 7



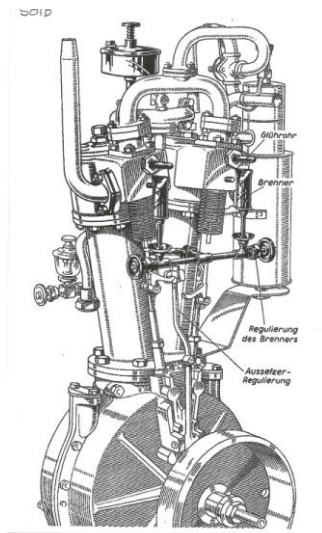
Power/Weight ratio, 1889 to 1998

The development of the 4-stroke petrol-fuelled piston engine is even more remarkable in the century or so from 1889 when Daimler produced the 1st unit specifically for an automobile, as shown below compared with the Daimler-Benz-financed Ilmor FO110G racing engine of 1998:-

<u>Date</u>	<u>1889</u>	<u>1998</u>	
Data sources	(518,637)	(559)	
Vehicle	Stahlrad Wagen	McLaren MP4/13	
Engine Designer	Wilhelm Maybach	Mario Illien	
Configuration	16 ⁰ V2	72 ⁰ V10	
Bore/Stroke mm	60/100 = 0.6	93.5/43.67 = 2.14	
Swept Volume cc	566	2,998	
Power HP	1.5	750	
Weight kg	60	105	
Power/Weight HP/kg	0.025	7.14	x 286!

While the 1998 engine was only intended for a life of about 3 hours (say, 400 km) before overhaul, it is doubtful if the 1889 design could have lasted much longer since its two narrow connecting-rods bore together on one very-skinny crankpin.

1889 Daimler



1998 Ilmor FO110G

