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Preliminary kinematic, dynamic and load calculations carried out by Inter Motor Group LLC, determined the main parameters of a promising new generation four-cylinder gasoline ICE for a 80 hp sports bike.



The calculation of the parameters of the ICE of the New Generation is connected with the assessment of the effectiveness of its use in conditions of active movement in urban conditions and on the highway and in sports competitions.

The purpose of the calculations is a preliminary assessment of the specific mass, overall, traction and fuel and economic indicators of the ICE of the New Generation installed on a sports motorcycle.

The calculation results will allow to evaluate its advantages in terms of minimum acceleration time and maximum speed of more than 200 km/h.

ICE for motorcycle	Type of engine and fuel	
	Petrol	Petrol
	NG ICE	Yamaha XJ6
Engine displacement, l	0.340	0.600
Rated power, h.p.	80	77.5
at a frequency of rotation, rpm	5150	10000
Maksim. torque, N•m	124	59.7
at a frequency of rotation, rpm	4000	8000
Fuel consumption, l/100 km	1.9	3.1