

# Professional Propulsion Systems

## SYSTEM SPECIFICATIONS

### ENGINE



Name:	<b>305 HS</b>
Manufacturer:	<b>ZANZOTTERA ENGINES</b>
Type:	<b>2-cylinder boxer</b>
Displacement:	<b>312 cm<sup>3</sup></b>
Max. performance:	<b>29.7 HP at 7000 RPM</b>
Weight:	<b>13 Kg</b>
Max RPM:	<b>7000 RPM</b>
Running direction:	<b>Clockwise</b>

### PROPELLER



Name:	<b>36x16 2B Q CW (Direction guide)</b>
Manufacturer:	<b>Mejzlik</b>
Diameter:	<b>36 in</b>
Pitch:	<b>16 in</b>
Mass:	<b>421 g</b>
Contact:	<a href="mailto:info@mejzlik.eu">info@mejzlik.eu</a>

### ANALYSIS



Need expert guidance on analyzing your flight performance?

Our team provides a comprehensive analysis of RPM calculations, motor and propeller efficiency, including customized propeller selection recommendations to ensure your system achieves maximum efficiency.

Please reach out to us at [info@mejzlik.eu](mailto:info@mejzlik.eu) or [idanbi@zanzotteraengines.com](mailto:idanbi@zanzotteraengines.com)

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# PERFORMANCE OF THE SYSTEM

Flight velocity

**0 m/s**

Rotational Speed [RPM]	Thrust [N]	Torque [Nm]	Mechanical Power [W]	Propulsion efficiency [%]
1000	20	1.02	<b>107</b>	<b>0</b>
1400	41	1.96	<b>287</b>	<b>0</b>
1900	76	3.65	<b>726</b>	<b>0</b>
2400	123	5.81	<b>1461</b>	<b>0</b>
2900	180	8.67	<b>2633</b>	<b>0</b>
3400	251	12.21	<b>4349</b>	<b>0</b>
3900	334	16.52	<b>6747</b>	<b>0</b>
4400	431	21.49	<b>9901</b>	<b>0</b>
4900	556	27.51	<b>14118</b>	<b>0</b>

Flight velocity

**10 m/s**

Rotational Speed [RPM]	Thrust [N]	Torque [Nm]	Mechanical Power [W]	Propulsion efficiency [%]
1000	1	0.3	<b>31</b>	<b>21</b>
1400	17	1.58	<b>231</b>	<b>74</b>
1900	48	3.58	<b>713</b>	<b>67</b>
2400	89	6.05	<b>1521</b>	<b>59</b>
2900	143	9.1	<b>2764</b>	<b>52</b>
3400	208	12.78	<b>4551</b>	<b>46</b>
3900	287	17.18	<b>7018</b>	<b>41</b>
4400	380	22.43	<b>10333</b>	<b>37</b>
4900	490	28.66	<b>14704</b>	<b>33</b>

# PERFORMANCE OF THE SYSTEM

Flight velocity

**20 m/s**

Rotational Speed [RPM]	Thrust [N]	Torque [Nm]	Mechanical Power [W]	Propulsion efficiency [%]
1000	-10	-0.3	<b>-31</b>	—
1400	-15	-0.26	<b>-38</b>	—
1900	0	0.7	<b>140</b>	<b>6</b>
2400	35	3.64	<b>914</b>	<b>77</b>
2900	82	7.17	<b>2177</b>	<b>76</b>
3400	142	11.23	<b>3998</b>	<b>71</b>
3900	214	15.95	<b>6514</b>	<b>66</b>
4400	301	21.44	<b>9880</b>	<b>61</b>
4900	404	27.87	<b>14298</b>	<b>56</b>

Flight velocity

**30 m/s**

Rotational Speed [RPM]	Thrust [N]	Torque [Nm]	Mechanical Power [W]	Propulsion efficiency [%]
1000	-13	-1.22	<b>-128</b>	—
1400	-20	-0.95	<b>-139</b>	—
1900	-32	-0.85	<b>-169</b>	—
2400	-27	-1.06	<b>-265</b>	—
2900	6	1.71	<b>519</b>	<b>37</b>
3400	57	6.28	<b>2237</b>	<b>77</b>
3900	122	11.52	<b>4707</b>	<b>78</b>
4400	201	17.44	<b>8037</b>	<b>75</b>
4900	296	24.2	<b>12418</b>	<b>71</b>

# PERFORMANCE OF THE SYSTEM

Flight velocity

**40 m/s**

Rotational Speed [RPM]	Thrust [N]	Torque [Nm]	Mechanical Power [W]	Propulsion efficiency [%]
1000	-18	-2.62	<b>-274</b>	—
1400	-25	-2.42	<b>-354</b>	—
1900	-38	-1.97	<b>-392</b>	—
2400	-55	-2.11	<b>-531</b>	—
2900	-60	-3.05	<b>-926</b>	—
3400	-37	-1.98	<b>-705</b>	—
3900	15	3.24	<b>1321</b>	<b>46</b>
4400	84	9.68	<b>4460</b>	<b>76</b>
4900	170	16.95	<b>8697</b>	<b>78</b>

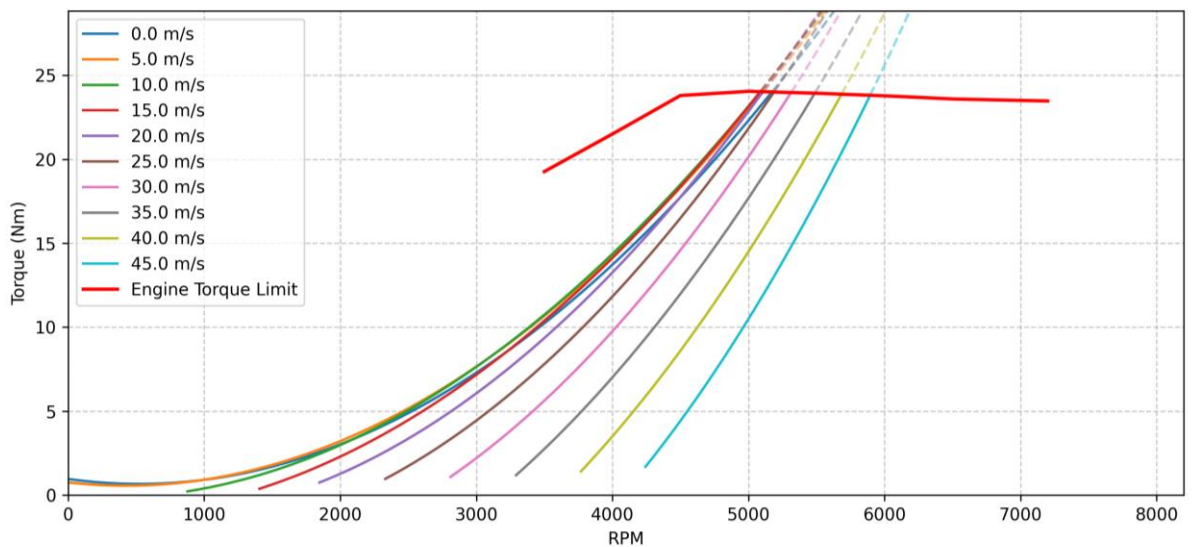
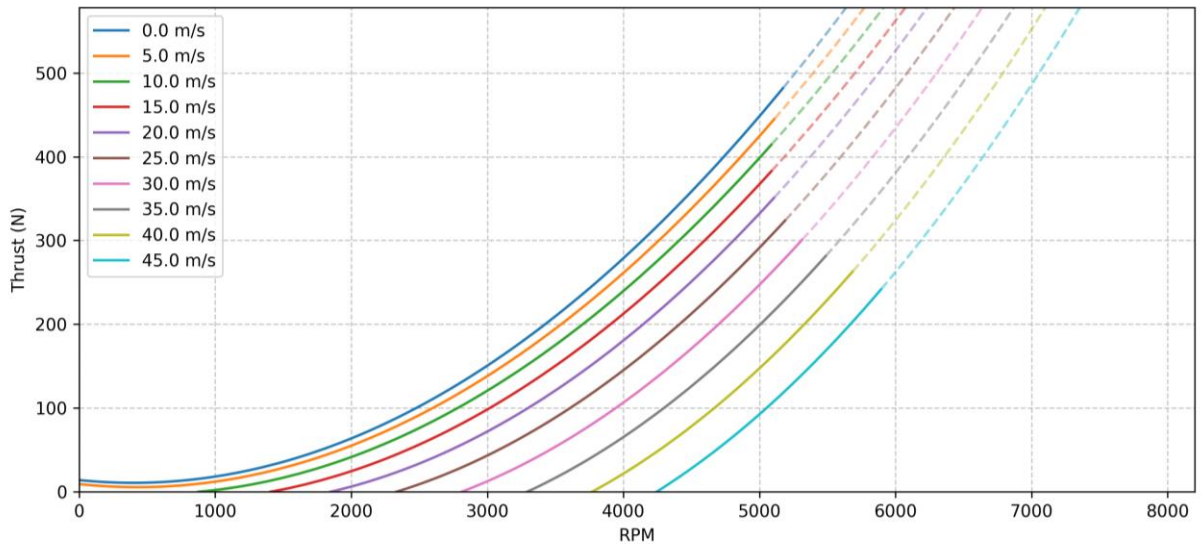
Flight velocity

**50 m/s**

Rotational Speed [RPM]	Thrust [N]	Torque [Nm]	Mechanical Power [W]	Propulsion efficiency [%]
1000	-23	-4.42	<b>-463</b>	—
1400	-31	-4.18	<b>-613</b>	—
1900	-45	-3.88	<b>-773</b>	—
2400	-62	-3.45	<b>-867</b>	—
2900	-85	-3.92	<b>-1192</b>	—
3400	-101	-6.01	<b>-2140</b>	—
3900	-90	-6.85	<b>-2796</b>	—
4400	-44	-1.87	<b>-864</b>	—
4900	29	5.53	<b>2837</b>	<b>50</b>

# PERFORMANCE OF THE SYSTEM

## 305HS + Mejlík 36x16 2B Q Performance in flight



### NOTE



Data presented in this product sheet are a combination of measurements of engine performance (RPM, torque), which is complemented with propeller data, simulated in Mejlík's proprietary simulation software. The greyed out values are above engine limit.

Data is valid for 0m ISA. Propeller performance simulation accuracy can diverge at higher tip speeds (above 0.7 Mach). Propeller is structurally safe to operate below Mach 1 tip speed.

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