

Professional Propulsion Systems

SYSTEM SPECIFICATIONS

ENGINE



Name:	4201
Manufacturer:	HIRTH ENGINES
Type:	2-cylinder, two stroke
Displacement:	183 cm³
Max. performance:	11 kW at 6500 RPM
Weight:	5.7 kg
RPM range:	1800–6500 RPM
Running direction:	Clockwise

PROPELLER



Name:	29x13.5 2B Q
Manufacturer:	Mejzlik
Diameter:	29 in
Pitch:	13.5 in
Mass:	285 g
Contact:	info@mejzlik.eu

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 or info@hirthengines.com

ID: **0111**



PERFORMANCE OF THE SYSTEM

Flight velocity

0 m/s

Rotational Speed [RPM]	Thrust [N]	Torque [Nm]	Mechanical Power [W]	Propulsion efficiency [%]
1000	9	0.36	37	0
1600	22	0.91	152	0
2200	43	1.72	395	0
2900	77	3.01	914	0
3500	113	4.44	1629	0
4100	158	6.16	2645	0
4800	220	8.73	4387	0
5400	283	11.23	6349	0
6100	367	14.96	9559	0

Flight velocity

10 m/s

Rotational Speed [RPM]	Thrust [N]	Torque [Nm]	Mechanical Power [W]	Propulsion efficiency [%]
1000	-3	-0.02	-2	—
1600	7	0.63	106	70
2200	25	1.61	370	68
2900	54	3.05	926	59
3500	87	4.60	1685	52
4100	128	6.47	2777	46
4800	186	9.09	4570	41
5400	245	11.78	6662	37
6100	326	15.52	9916	33

PERFORMANCE OF THE SYSTEM

Flight velocity

20 m/s

Rotational Speed [RPM]	Thrust [N]	Torque [Nm]	Mechanical Power [W]	Propulsion efficiency [%]
1000	-5	-0.26	-28	—
1600	-9	-0.02	-4	—
2200	-6	0.13	30	—
2900	18	1.67	508	72
3500	47	3.45	1263	74
4100	84	5.50	2361	71
4800	136	8.30	4170	65
5400	191	11.10	6278	61
6100	267	14.94	9542	56

Flight velocity

30 m/s

Rotational Speed [RPM]	Thrust [N]	Torque [Nm]	Mechanical Power [W]	Propulsion efficiency [%]
1000	-8	-0.79	-83	—
1600	-13	-0.56	-94	—
2200	-19	-0.20	-47	—
2900	-23	-0.41	-124	—
3500	-4	0.54	197	—
4100	27	2.72	1169	69
4800	74	5.81	2920	76
5400	123	8.82	4988	74
6100	193	12.86	8216	71

PERFORMANCE OF THE SYSTEM

Flight velocity

40 m/s

Rotational Speed [RPM]	Thrust [N]	Torque [Nm]	Mechanical Power [W]	Propulsion efficiency [%]
1000	-10	-1.50	-158	—
1600	-16	-1.33	-223	—
2200	-24	-1.09	-251	—
2900	-36	-0.78	-238	—
3500	-45	-1.27	-464	—
4100	-35	-1.17	-500	—
4800	1	1.33	671	8
5400	44	4.54	2568	69
6100	107	8.85	5651	76

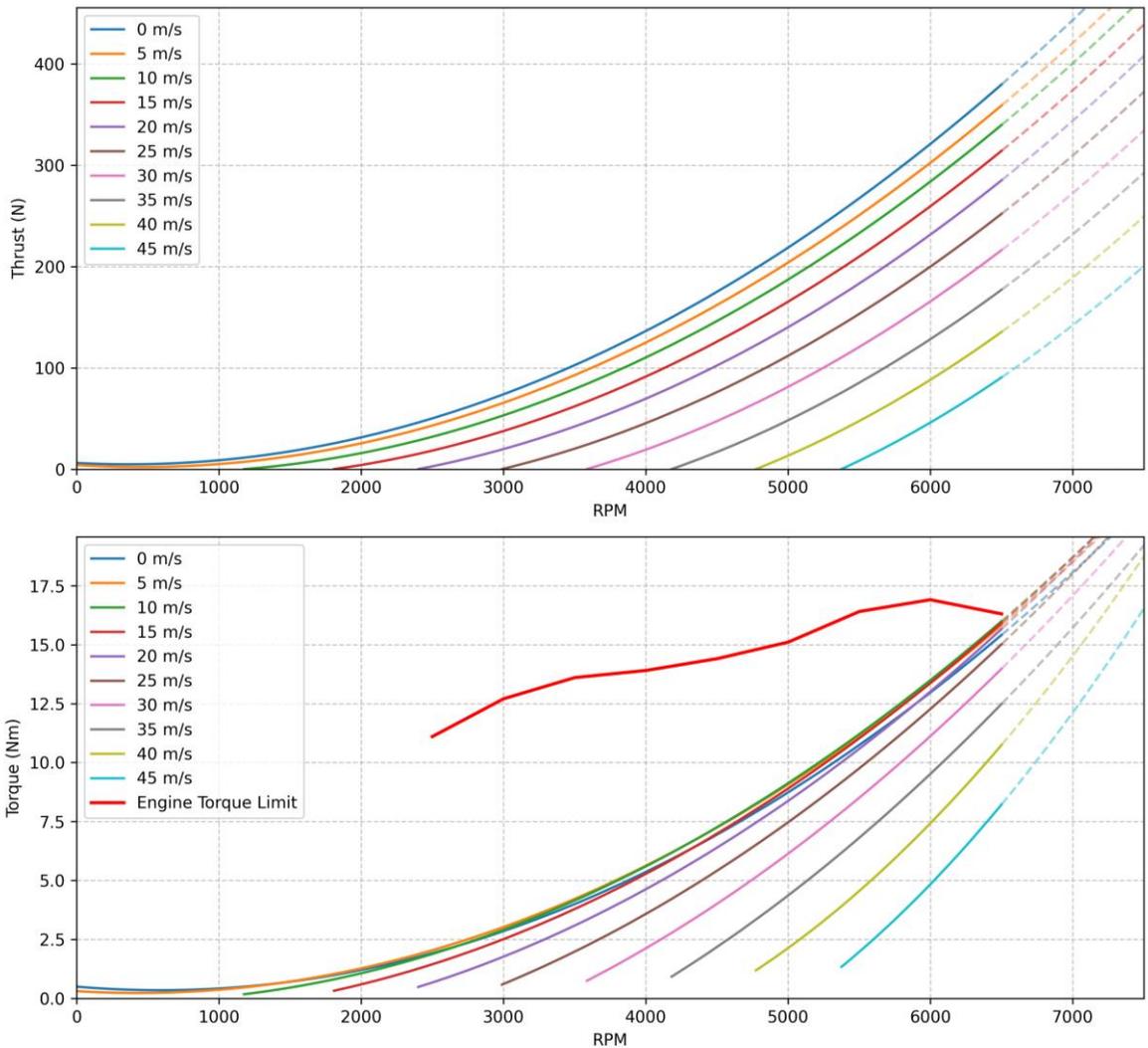
Flight velocity

50 m/s

Rotational Speed [RPM]	Thrust [N]	Torque [Nm]	Mechanical Power [W]	Propulsion efficiency [%]
1000	-13	-2.48	-260	—
1600	-20	-2.34	-392	—
2200	-28	-2.27	-522	—
2900	-42	-1.95	-594	—
3500	-56	-1.64	-600	—
4100	-71	-2.70	-1157	—
4800	-70	-2.80	-1409	—
5400	-42	-1.52	-858	—
6100	11	2.65	1694	31

PERFORMANCE OF THE SYSTEM

Hirth 4201 + Mejzlik 29x13.5 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 Mejzlik'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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