









# Test Data for Flywheel Magnet Analysis

Test No.	Outboard Tested Year / Model	Initial Condition			Starting R.P.M.	Final Condition			Starting R.P.M.	NOTES
		Gauss (Left)	Gauss (Middle)	Gauss (Right)		Gauss (Left)	Gauss (Middle)	Gauss (Right)		
9	1941 Evinrude Speedy Four, 33 H.P.	Center: S110 Edge: S530	Center: Edge:	Center: N90 Edge: N490	150	Center: S140 Edge: S670	Center: Edge:	Center: N120 Edge: N490	110	 Massive, single steel magnet. Low flux. Very large 2-pole structure. Polarity of magnets was OPPOSITE of what we normally see.
10	1951-52 Johnson QD-13 Twin, 10 H.P.	Center: S310 Edge: S650	Center: Edge:	Center: N490 Edge: N850	190	Center: S320 Edge: S650	Center: Edge:	Center: N520 Edge: N910	160	 True modern-style magneto, with 3-pole armature and 2-pole magnet structure. Appear to be ALNICO magnets; only 10% improvement. SMALL magnet!
11	1924 Johnson Model "A" 2H.P. horizontally-opposed twin.	Center: S144 Edge: S534	Center: Edge:	Center: N101 Edge: N423	160	Center: S166 Edge: S669	Center: Edge:	Center: N140 Edge: N482	145	 VERY HEAVY 2-pole magnet structure. Almost no change in magnet strength, or in engine performance. LOW FLUX steel magnets.
12	1929 Evinrude Model "N" 2.5 H.P. horizontally-opposed "Sportwin"	Center: N320 Edge: S340	Center: N85 Edge: S102	Center: N376 Edge: S400	275	Center: N384 Edge: S383	Center: N104 Edge: S125	Center: N433 Edge: S451	216	 Very heavy 2-pole structure. Massive magnet ring, passive pole structure. STEEL, med.
13	1946 SeaKing "Midget" 1.1 H.P. Single	Center: N454 Edge: N680	Center: Edge:	Center: S477 Edge: S1356	210	Center: N585 Edge: N1635	Center: Edge:	Center: S615 Edge: S1615	133	 Tiny, "Scintilla-style" center magnet (Alnico? Why the "fade"?). Significant improvement.
14	1947 SeaKing "Midget" 1.1 H.P. Single	Center: N531 Edge: N1250	Center: Edge:	Center: S549 Edge: S1455	214	Center: N607 Edge: N1660	Center: Edge:	Center: S635 Edge: S1875	134	 Tiny, "Scintilla-style" center magnet (Alnico? Why the "fade"?). Significant improvement.
15	1956 Neptune Model AA1A 1.7 H.P. "Mighty Mite"	Center: S387 Edge: S1049	Center: Edge:	Center: N378 Edge: N1405	220	Center: S423 Edge: S1140	Center: Edge:	Center: N409 Edge: N1565	143	 True modern-style magneto, with 3-pole armature and 2-pole magnet structure. Appear to be ALNICO magnets; only 10% improvement. Tiny everything!!
16	1930 Johnson K50 Rotary-valve TWIN, 8 H.P.	Center: N142 Edge: N499	Center: Edge:	Center: S170 Edge: S490	330	Center: N176 Edge: N632	Center: Edge:	Center: S212 Edge: S615	152	 VERY HEAVY 2-pole magnet structure. Medium change in magnet strength, significantly better engine performance. Fairly weak steel magnet, good fix!