

Erratum

J. F. Gieras, “Permanent Magnet Motor Technology”, third edition

Taylor & Francis - CRC-Press, 2010, ISBN 978-1-4200-6440-7

Page	Error	Should be
50	4 th line below eqn (2.14) ...in Section 8.8.5.	...in Section 8.10.5
132	Last bullet: “the stray load losses”	“the additional losses”
132	Eqn (4.21) $\Delta P_{str} \approx 0.01P_{out}$	$\Delta P_{ad} \approx 0.01P_{out}$
164	Table 4.6	Remove “height” from the top left corner
179	Eqn (5.28): $k_{aq}=k_{fd}/k_f$	$k_{aq}=k_{fq}/k_f$
188	Upper part of Fig 5.9	Better quality printing is necessary
200	3 rd line below eqn (5.63): (Fig. 5.11)	(Fig. 5.13)
201	Eqn (5.66): $C_V=2k_{ocf}k_{fd}(1+\varepsilon)/\pi^2\xi$	$C_V=2k_{ocf}k_f k_{fd}(1+\varepsilon)/\pi^2\xi$, see also page 215
203	Eqn (2.80): $\Psi_f = L_{fd}I_f$	$\Psi_f = L_{ad}i_{ad} + (L_{ad} + L_{lf})I_f + L_{ad}i_D$ where L_{lf} is the leakage inductance of the fictitious field excitation winding
204	2 nd paragraph “...where L_{fd} is the maximum...”	“...where $L_{fd} = L_{ad} + L_{lf}$ is the maximum...”
218	1 st equation below Fig. 5.20: t_{sI}	Should be t_I , see Appendix A, eqn (A.27)
218	2 nd equation from the bottom: Missing frequency f in equation for X_{ad}	9.338 Ohm instead of 9.10 Ohm
218	Last equation for X_{sq}	Should be $X_{aq}=\dots$
218	$(0.966/1.041)9.10=9.81$	$(1.041/0.966)9.10=9.81$
219	Latex error: (aa-slotoval)	(\ref{aa-slotoval}) Eqn. (A.16) has been labeled as \ref{aa-slotoval}.
219	Equation for λ_{Is}	Remove “8” at the end of the 1st line. In the second line, second term should be 0.7/2.2 instead of 0.7/0.2. More accurate calculations give $\lambda_{Is} = 1.941$ and $k_t = 0.976$

219	Equation for $\lambda_{le} := 0.4885$	= 0.4907
281	Fig. 6.37 Caption: "...electric motor for..."	"...electric motors for..."
283	Fig. 6.40 Caption "...Toyota Prius electric motor:..."	"...Toyota Prius 2004 electric motor:..."
326	"Counterrotating", "counterrotation"	"Contra-rotating", "contra rotation"
327	Fig. 7.20 Caption, 1st and 2nd paragraphs: "counter-rotating"	"contra-rotating" (3 times)
403	Eqn (9.1) $\frac{P_{out}}{\pi D_{in}^2 L_i} =$	$\frac{P_{out}}{\pi^2 D_{in}^2 L_i} =$
427	1st equation $D_{in} = \sqrt[3]{\frac{\varepsilon P_{out}}{0,75\pi k_{wl} n_s A_m \eta \cosh \phi}}$	$D_{in} = \sqrt[3]{\frac{\varepsilon P_{out}}{0,75\pi^2 k_{wl} n_s A_m \eta \cos \phi}}$
427	1st equation, 2nd line denominator "0.75π 0.96"	$0.75\pi^2 \times 0.96$
526	2nd and 3rd paragraph, eqns (14.9), (14.10) and (14.11) "MTBF"	"MTBF"
527	Table 14.1, top right corner and 3rd line from the bottom of the page: "MTBF"	"MTBF"
531	Equation for dynamic viscosity of air $\rho = -2.1664 \times 10^{-11} 100^2 + 4.7336 \times 10^{-8} 100$ $+ 2 \times 10^{-5} = 0.2452 \times 10^{-6} Pa s$	$\mu_{dyn} = -2.1664 \times 10^{-11} 100^2 + 4.7336 \times 10^{-8} 100$ $+ 2 \times 10^{-5} = 0.2452 \times 10^{-6} Pa s$ See eqn (B.39).
561	Fig A.2d	missing h_{11}
562	Errors in eqn (A.17): $\pi/6 + \pi/(16\pi) + h_{24}/b_{24} \cong 0.623 + h_{24}/b_{24}$	$\pi/6 + 5/(16\pi) + h_{14}/b_{14} \cong 0.623 + h_{14}/b_{14}$
561	Eqn (A.13) "+ + 2h ₁₃ /(b ₁₁ +b ₁₄)" (double "+" sign)	"+ 2h ₁₃ /(b ₁₁ +b ₁₄)"
570	Eqn (B.25) : $\Delta P_{sl} =$	$\Delta P_{PM} =$

Comment: Pages 219 and 562. In eqn (A.19) the ratio l_{le}/L_i has been omitted because it appears in eq (A.30) on page 564. The end winding leakage permeance λ_{le} on page 219 contains l_{le}/L_i , because in calculation of X_l on the top of this page this ration has been removed.

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