

Références bibliographiques:

- [1] Buckingham E., *Analytical Mechanics of Gears*. McGraw-Hill, London, 1949, pp. 395-425.
- [2] Henriot G., *Traité théorique et pratique des engrenages 2*, 4th ed. Paris: Dunod, 1978, 607 p.
- [3] Höhn B. R., Michaelis K., and Völlmer T., “Thermal Rating of Gear Drives: Balance Between Power Loss and Heat Dissipation,” *American Gear Manufacturers Association Document*, vol. 96, p. 12, 1996.
- [4] Martins R., Seabra J., Brito A., Seyfert C., Luther R., and Igartua A., “Friction coefficient in FZG gears lubricated with industrial gear oils: Biodegradable ester vs. mineral oil,” *Tribology international*, vol. 39, pp. 512-521, 2006.
- [5] Chauvin M., “Etude de la lubrification des boîtes de vitesses : Contribution à l’optimisation de la lubrification par arbre percé,” Thèse : Université de Poitiers, 2004.
- [6] Hulin R., “Boîtes de vitesses. Le différentiel,” *Techniques de l’ingénieur*, vol. BM 5 664, 2004.
- [7] Play D. and Lovas L., “Synchronisation des boîtes de vitesses. Modélisation,” *Techniques de l’ingénieur*, vol. BM 5 669, 2005.
- [8] Hulin R., “Boîtes de vitesses,” *Techniques de l’ingénieur*, vol. B 5 660, 1989.
- [9] Ayel J., “Lubrifiants - Constitution,” *Techniques de l’ingénieur*, vol. BM 5 341, 1997.
- [10] Ayel J., “Lubrifiants - Additifs à action chimique,” *Techniques de l’ingénieur*, vol. BM 5 343, 2001.
- [11] Ayel J., “Lubrifiants - Additifs à action physique ou physiologique,” *Techniques de l’ingénieur*, vol. BM 5 344, 2002.

- [12] Miura T., "Functions of Additives (7): Antifoamers," *Japanese Journal of Tribology*, vol. 40, no. 4, pp. 339-345, 1995.
- [13] Ayel J., "Lubrifiants- Propriétés et caractéristiques," *Techniques de l'ingénieur*, BM5 340, 1996.
- [14] Iritani M., Aoki H., Suzuki K., and Morita Y., "Prediction Technique for the Lubricating Oil Temperature in Manual Transaxle," *SAE Transactions*, vol. 108, no. 4, pp. 337-345, 1999.
- [15] Roulet B., "Modélisation de l'évolution de la dissipation de puissance et du comportement thermique d'une boîte de vitesses manuelle," Thèse : Université PARIS VI, 1995.
- [16] Changenet C., "Modélisation du comportement thermique des transmissions par engrenages," Thèse : INSA Lyon, 2006.
- [17] Velez P. and Ville F., "An Analytical Approach to Tooth Friction Losses in Spur and Helical Gears-Influence of Profile Modifications," *Journal of Mechanical Design*, vol. 131, no. 10, 10 p., 2009.
- [18] Kuzmin N. F., "Coefficient of friction in heavily loaded contact," *Vestnik Mashinostroeniya*, vol. 34, pp. 18-26, 1954.
- [19] Misharin Y. A., "influence of the friction condition on the magnitude of the friction coefficient in the case of rollers with sliding," *Proc. Int. Conf. on gearing, Inst. Mech. Eng., London*, pp. 159-164, 1958.
- [20] O'Donoghue J. P. and Cameron A., "Friction and temperature in rolling sliding contacts," *ASLE Trans.*, vol. 9, pp. 186-194, 1966.
- [21] Kelley B. W. and Lemanski A. J., "Lubrication of involute gearing. Conf. On Lubrication and Wear Fundamentals and Application to Design," *Pro. Inst. Mech. Eng. London*, vol. 182, no. 3, pp. 173-184.

- [22] Benedict G. H. and Kelley B. W., "Instantaneous coefficients of gear tooth friction,"
Tribology Transactions, vol. 4, pp. 59-70, 1961.
- [23] Diab Y., "Analyse des pertes de puissance dans les transmissions par engrenages à grande vitesse. Applications aux réducteurs industriels et aux machines textiles,"
Thèse : INSA Lyon, 2005.
- [24] Johnson K. L. et Tevaarwerk J. L., "Shear behavior of elastohydrodynamic oil films",
Proc. R. Soc. Lond., series A, vol. 356, no. 1685, pp 215-236, 1977.
- [25] Harris T. A., *Rolling Bearing Analysis*, 3^e edition. New York: Wiley, 1991, p. 1013 p.
- [26] *General catalogue SKF n°6000 EN*. Göteborg, Sweden Aktiebolaget SKF , 2005, p. 1129.
- [27] *General catalogue SKF n°4000 F*. Göteborg, Sweden Aktiebolaget SKF , 1989, p. 976.
- [28] Changenet C., Leprince G., Ville F., and Vexlex P., "A note on flow regimes and churning loss modelling," in *ASME PTG Conference*, Washington, 2011.
- [29] Changenet C., Leprince G., Ville F., and Vexlex P., "A note on flow regimes and churning loss modelling," *Journal of Mechanical Design*, 2011 (sous presse).
- [30] Daily J. W. and Nece R. E., "Chamber dimension effects on induced flow and frictional resistance of enclosed rotating disk," *Journal of Basic Engineering*, vol. 82, no. 1, pp. 217-232, 1960.
- [31] Mann R. W. and Marston C. H., "Friction drag on bladed disks in housings as a function of Reynolds number, axial and radial clearance and blade aspect ratio and solidity," *Journal of Basic Engineering*, vol. 83, no. 4, pp. 719-723, 1961.
- [32] Soo S. L. and Princeton N. J., "Laminar flow over an enclosed rotating disk," *Transactions of the ASME*, vol. 80, pp. 287-296, 1958.

- [33] Terekhov A. S., "Hydraulic Losses in Gearboxes with Oil Immersion," *Vestnik Mashinostroeniya*, vol. 55, no. 5, pp. 13-17, 1975.
- [34] Boness R. J., "Churning Losses of Discs and Gears Running Partially Submerged in Oil," in *Proc. of the ASME International Power Transmission and Gearing Conference (PTG1989-Chicago)*, 1989, vol. 1, pp. 355-359.
- [35] Stavitskiy V., Nosko P., Fil P., Karpov A., et Velychko N., "Load-independent power losses of gear systems: a review," *TEKA Kom. Mot. i Energ. Roln.*, vol. 10, pp. 205-213, 2010.
- [36] Seetharaman S. et Kahraman A., "Load-Independent Spin Power Losses of a Spur Gear Pair: Model Formulation," *Journal of Tribology*, vol. 131, 2009.
- [37] Seetharaman S., Kahraman A., Moorhead M. D., and Petry-Johnson T. T., "Oil Churning Power Losses of a Gear Pair: Experiments and Model Validation," *Journal of Tribology*, vol. 131, 2009.
- [38] Terekhov A. S., Shpitko G., and Gulezov S., "Thermal calculation of transmission assemblies," in *4ème Congrès Mondial des Engrenages et des Transmissions de Puissance*, 1999, pp. 2247-2257.
- [39] Lauster E. and Boos M., "Zum Wärmehaushalt Mechanischer Schaltgetriebe für Nutzfahrzeuge," *VDI Berichte*, vol. 55, pp. 45-55, 1983.
- [40] Luke P. and Olver A. V., "A study of churning losses in dip-lubricated spur," *Proceedings Institution of Mechanical Engineers*, vol. 213, pp. 337-346, 1999.
- [41] Blok H., "Transmission de chaleur par projection centrifuge d'huile," *Société d'Etudes de l'Industrie de l'Engrenage*, vol. 59, pp. 14-23, 1970.
- [42] Van Heijningen G. J. J. et Blok H., "Continuous as Against Intermittent Fling-Off Cooling of Gear Teeth," *Journal of Lubrication Technology*, pp. 529-538, 1974.

[43] Höhn B. R., Michaelis K., et Otto H. P., “Influence of immersion depth of dip lubricated gears on power loss, bulk temperature and scuffing load carrying capacity,”

International Journal Mechanics and Materials in Design, vol. 4, pp. 145-156, 2008.