

DAFTAR PUSTAKA

- Abbaschian, R., & E. Reed-Hill, R. (2008). *Physical Metallurgy Principles* (4th ed.). Thomson.
- Andrea, G. (2023). Importance of Tribology Study and its Industrial Applications International Journal of Advancements in Technology Commentary Correspondence to. *Int J Adv Technol*, 14(6), 1000246–1000247. <https://doi.org/10.35248/0976-4860.23.14.246>
- Archard, J. F., & Hirst. W. (1956). The wear of metals under unlubricated conditions. *Proceedings of the Royal Society of London. Series A. Mathematical and Physical Sciences*, 236(1206), 397–410. <https://doi.org/10.1098/rspa.1956.0144>
- Armila, A. (2018). DENTINGAN PALU TEMPA PENGARAJIN PANDAI BESI SUNGAI PUAR MULAI SUNYI. *Rang Teknik Journal*, 1(2). <https://doi.org/10.31869/rtj.v1i2.761>
- Arnold, J. C., & Hutchings, I. M. (1989). Flux rate effects in the erosive wear of elastomers. *Journal of Materials Science*, 24(3), 833–839. <https://doi.org/10.1007/BF01148765>
- Ashby, M., & Jones, D. (2012). *Engineering Materials 1* (4th ed.). Elsevier. <https://doi.org/10.1016/C2009-0-64288-4>
- ASM International. (2006). *JIS-G4404-2006-alloy-tool-steel-EN*.
- Batchelor, A. W., Stachowiak, G. W., & Cameron, A. (1986). THE RELATIONSHIP BETWEEN OXIDE FILMS AND THE WEAR OF STEELS. In *Wear* (Vol. 113).
- Bhateja, A., Varma, A., Kashyap, A., & Singh, B. (2012). Study the Effect on the Hardness of three Sample Grades of Tool Steel i.e., and D3 after Heat Treatment Processes Such As Annealing, Normalizing, and Hardening & Tempering. In *The International Journal of Engineering And Science (IJES) ||Volume||* (Vol. 1, Issue 2). www.theijes.com
- Bhushan, B. (2013). *Principles and applications of tribology*. Wiley.
- Binudi, R., Bintang Adjiantoro Pusat Penelitian Metalurgi LIPI Gedung, dan, Puspipstek Serpong, K., & Selatan, T. (2014). *PENGARUH UNSUR Ni, Cr*

*DAN Mn TERHADAP SIFAT MEKANIK BAJA KEKUATAN TINGGI
BERBASIS LATERIT.*

- Blades, L., Hills, D., Nowell, D., Evans, K. E., & Smith, C. (2020). An exploration of debris types and their influence on wear rates in fretting. *Wear*, 450–451, 203252. <https://doi.org/10.1016/j.wear.2020.203252>
- Buckley, D. (1981). *Surface effects in adhesion, friction, wear, and lubrication*. Elsevier Scientific Pub. Co. ; Distributors for the U.S. and Canada, Elsevier North-Holland.
- Callister, W. D., & Rethwisch, D. G. (2009). *Materials science and engineering : an introduction*. John Wiley.
- Campbell, F. (2008). *Elements of Metallurgy and Engineering Alloys* (F. C. Campbell, Ed.). ASM International. <https://doi.org/10.31399/asm.tb.emea.9781627082518>
- Chen, C., Wang, J., Ge, Y., & Ma, L. (2022). Investigations on Microstructures and Properties of (Fe, Cr, W)7C3 Carbides by First Principles and Experiments. *Coatings*, 12(9). <https://doi.org/10.3390/coatings12091363>
- Chen, G. X., & Zhou, Z. R. (2001). Study on transition between fretting and reciprocating sliding wear. In *Wear* (Vol. 250).
- Davim, J. P. (2011). *Tribology for Engineers A practical guide* (J. P. Davim, Ed.). Woodhead Publishing.
- Davis, J. (2001). *Surface engineering: For corrosion and Wear resistance*. ASM International.
- Delius, M., Brendel, W., & Heine, G. (1988). A Mechanism of Gallstone Destruction by Extracorporeal Shock Waves. In *Naturwissenschaften* (Vol. 75, Issue 9). Springer-Verlag.
- Duarte, C. A. R., de Souza, F. J., & dos Santos, V. F. (2016). Mitigating elbow erosion with a vortex chamber. *Powder Technology*, 288, 6–25. <https://doi.org/10.1016/j.powtec.2015.10.032>
- Finnie, I. (1960). *EROSION OF SURFACES BY SOLID PARTICLES*.
- Finnie, I. (1966). *On the Ductile Behavior of Nominally Brittle Materials During Erosive Cutting*. <http://asme.org/terms>

- Finnie, I. (1995). Some reflections on the past and future of erosion. In *Wear* (Issue 10).
- Fischer, T. E., Zhu, Z., Kim, H., & Shin, D. S. (2000). Genesis and role of wear debris in sliding wear of ceramics. *Wear*, 245(1–2), 53–60. [https://doi.org/10.1016/S0043-1648\(00\)00465-8](https://doi.org/10.1016/S0043-1648(00)00465-8)
- Fried, J. (2014). *Polymer Science and Technology*. Prentice Hall.
- Fuadi, Z., & Rahmadiawan, D. (2023). *Tribologi Pelumasan: Pelumas Terbaru* (M. Muchamad, Ed.; Vol. 1). Syiah Kuala University Press.
- Gandy, D. (2007). *Carbon Steel Handbook* 世界碳钢手册. www.epri.com
- García, I., Drees, D., & Celis, J. P. (2001). Corrosion-wear of passivating materials in sliding contacts based on a concept of active wear track area. In *Wear* (Vol. 249).
- Garton, A., Stevenson, W. T. K., & Mclean, P. D. (1986). *The Stability of Polymers in Low Earth Orbit*.
- Gonzalez-Pociño, A., Alvarez-Antolin, F., & Asensio-Lozano, J. (2019). Erosive wear resistance regarding different destabilization heat treatments of austenite in high chromium white cast iron, alloyed with mo. *Metals*, 9(5). <https://doi.org/10.3390/met9050522>
- Gunawan, S. (2022). Efek Waktu Tahan Pack Carburizing Terhadap Kekerasan dan Keausan Nosel Imitasi Truk Barang. *Jurnal Penelitian Inovatif*, 1(2), 193–200. <https://doi.org/10.54082/jupin.44>
- G.W. Stachowiak, & A.W. Batchelor. (2005). *Engineering Tribology 3rd Edition*.
- Hamrock, B., Schmid, S., & Jacobson, B. (2004). *Fundamentals of Fluid Film Lubrication*. Marcel Dekker.
- Hao, G., Dong, X., Du, M., Li, Z., & Dou, Z. (2019). A comparative study of ductile and brittle materials due to single angular particle impact. *Wear*, 428–429, 258–271. <https://doi.org/10.1016/j.wear.2019.03.016>
- Hendra Purba, R. (2023). *Abrasive and erosive wear behavior of high chromium based multicomponent white cast irons*. <https://doi.org/10.15118/00010892>
- Hoyo, H., Tsuda, K., & Yabu, T. (1986). EROSION DAMAGE OF POLYMERIC MATERIAL BY SLURRY. In *Wear* (Vol. 112).

- Holmes, D. R., & Pascoe, R. T. (1972). 859 Holmes and Pascoe: Strain/Oxidation Interactions in Steels and Model Alloys cu 0 CU20 StrainIOxidation Interactions in Steels and Model Alloys"). In *W. K. Appleby and R. F. Tylecote. Corr. Sci* (Vol. 243).
- Htun, M. S., Lwin, K. T., & Kyaw, S. T. (2008). Effect of Heat Treatment on Microstructures and Mechanical Properties of Spring Steel. In *Journal of Metals, Materials and Minerals* (Vol. 18, Issue 2). <https://www.researchgate.net/publication/237784423>
- Huq, M. J., Shimizu, K., Kusumoto, K., Purba, R. H., & Gaqi, Y. (2024). Erosive Wear Characteristics of High Cr Multi-Component White Cast Irons at Elevated Temperature. *International Journal of Metalcasting*. <https://doi.org/10.1007/s40962-024-01484-5>
- Hutchings, I., & Shipway, P. (2017). *Tribology: Friction and wear of Engineering Materials*. Butterworth-Heinemann, an imprint of Elsevier.
- I. Syafa'at. (2008). Tribologi, Daerah Pelumasan dan Keausan. *Momentum*, 4, 21–26.
- Jardine, A. K. S., & Tsang, A. H. C. (2005). *Maintenance, Replacement, and Reliability*. CRC Press. <https://doi.org/10.1201/9781420044614>
- John, M., Kuruveri, U. B., & Menezes, P. L. (2022). Laser Cladding-Based Surface Modification of Carbon Steel and High-Alloy Steel for Extreme Condition Applications. In *Coatings* (Vol. 12, Issue 10). MDPI. <https://doi.org/10.3390/coatings12101444>
- Johnson, R. (1968). *Weav-Elsevier Sequoia S.A., Lausanne-Printed in the Netherlands Short Communication*. [https://doi.org/https://doi.org/10.1016/0043-1648\(68\)90527-9](https://doi.org/https://doi.org/10.1016/0043-1648(68)90527-9)
- Karimi, A., & Avellan, F. (1986). COMPARISON OF EROSION MECHANISMS IN DIFFERENT TYPES OF CAVITATION. In *Wear* (Vol. 113).
- Kirk, A. M., Shipway, P. H., Sun, W., & Bennett, C. J. (2020). Debris development in fretting contacts – Debris particles and debris beds. *Tribology International*, 149, 105592. <https://doi.org/10.1016/j.triboint.2019.01.051>

- Koch, G. (2017). Cost of corrosion. In *Trends in Oil and Gas Corrosion Research and Technologies* (pp. 3–30). Elsevier. <https://doi.org/10.1016/B978-0-08-101105-8.00001-2>
- la Monaca, A., Murray, J. W., Liao, Z., Speidel, A., Robles-Linares, J. A., Axinte, D. A., Hardy, M. C., & Clare, A. T. (2021). Surface integrity in metal machining - Part II: Functional performance. In *International Journal of Machine Tools and Manufacture* (Vol. 164). Elsevier Ltd. <https://doi.org/10.1016/j.ijmachtools.2021.103718>
- Laporte, J., Perrinet, O., & Fouvry, S. (2015). Prediction of the electrical contact resistance endurance of silver-plated coatings subject to fretting wear, using a friction energy density approach. *Wear*, 330–331, 170–181. <https://doi.org/10.1016/j.wear.2014.12.006>
- Levy, A., & Man, Y.-F. (1986). SURFACE DEGRADATION OF DUCTILE METALS IN ELEVATED TEMPERATURE GAS-PARTICLE STREAMS. In *Wear* (Vol. 111).
- Luo, Y., Guo, H., Sun, X., Mao, M., & Guo, J. (2017). Effects of austenitizing conditions on the microstructure of AISI M42 high-speed steel. *Metals*, 7(1). <https://doi.org/10.3390/met7010027>
- Mahadeshwara, M. (2024). *Erosive wear*. About Tribology.
- Menezes, P., Nosonovsky, M., Ingole, S., Kailas, S., & Lovell, M. (2016). *Tribology for scientists and engineers: From basics to advanced concepts*. Springer.
- Mondal, S., & Goswami, S. S. (2024). Examining the critical aspects of gas turbine blade failures caused by erosion using computational models: A comprehensive review. *International Journal of AI for Materials and Design*, 1(3), 66. <https://doi.org/10.36922/ijamd.5188>
- Neilson, J. H., & Gilchrist, A. (1980). *Wear-Elsevier Sequoia S.A., Lausanne-Printed in the Netherlands III EROSION BY A STREAM OF SOLID PARTICLES*.
- Ningsih, E. K. (2016). Studi Eksperimen dan Analisa Keausan Journal Bearing Dry Contact Pada Rotary Valve Mesin Pembuat Pasta. *Jurnal Teknik ITS*, 5(1). <https://doi.org/10.12962/j23373539.v5i1.15207>

- Padhy, M. K., & Saini, R. P. (2008). A review on silt erosion in hydro turbines. In *Renewable and Sustainable Energy Reviews* (Vol. 12, Issue 7, pp. 1974–1987). <https://doi.org/10.1016/j.rser.2007.01.025>
- Paravicini Bagliani, E., Santofimia, M. J., Zhao, L., Sietsma, J., & Anelli, E. (2013). Microstructure, tensile and toughness properties after quenching and partitioning treatments of a medium-carbon steel. *Materials Science and Engineering: A*, 559, 486–495. <https://doi.org/10.1016/j.msea.2012.08.130>
- Popov, V. L. (2018). Is Tribology Approaching Its Golden Age? Grand Challenges in Engineering Education and Tribological Research. *Frontiers in Mechanical Engineering*, 4. <https://doi.org/10.3389/fmech.2018.00016>
- Pujiyulianto, E. (2018). PENGARUH CARBON TERHADAP STRUKTUR MIKRO DAN SIFAT MEKANIK BAJA MANGAN AUSTENITIK. *Metal Indonesia*, 40(1), 19. <https://doi.org/10.32423/jmi.2018.v40.19-25>
- Purba, R. H., Shimizu, K., Kusumoto, K., Todaka, T., Shirai, M., Hara, H., & Ito, J. (2021). Erosive wear characteristics of high-chromium based multi-component white cast irons. *Tribology International*, 159. <https://doi.org/10.1016/j.triboint.2021.106982>
- Ren, J., Kumkale, V. Y., Hou, H., Kadam, V. S., Jagtap, C. V., Lokhande, P. E., Pathan, H. M., Pereira, A., Lei, H., & Liu, T. X. (2025). A review of high-entropy materials with their unique applications. *Advanced Composites and Hybrid Materials*, 8(2), 195. <https://doi.org/10.1007/s42114-025-01275-4>
- Rengstorff, G. W. P., Miyoshi, K., & Buckley, D. H. (1986). Interaction of sulfuric acid corrosion and mechanical wear of iron. *ASLE Transactions*, 29(1), 43–51. <https://doi.org/10.1080/05698198608981658>
- Rigney, D. A. (2000). *Transfer, mixing and associated chemical and mechanical processes during the sliding of ductile materials*.
- Saefuloh, I., Zahrawani, A., Adjiantoro, B., & Diterima, N. (2018). Pengaruh Proses Quenching Dan Tempering Terhadap Sifat Mekanik Dan Struktur Mikro Baja Karbon Rendah Dengan Paduan Laterit INFORMASI ARTIKEL ABSTRAK: Vol. IV (Issue 1). <http://jurnal.untirta.ac.id/index.php/jwl>
- Santofimia, M. J., Zhao, L., & Sietsma, J. (2009). Microstructural evolution of a low-carbon steel during application of quenching and partitioning heat

- treatments after partial austenitization. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, 40(1), 46–57.
<https://doi.org/10.1007/s11661-008-9701-4>
- Saputra, I., Ariyanto, N. P., & Febri, M. (2020). Pengaruh Temperatur Tempering Terhadap Pembentukan Struktur Mikro Dan Kekerasan Baja Skd 11 Untuk Tool Steel. In *Jurnal Teknologi dan Riset Terapan (JATRA)* (Vol. 2, Issue 1).
<http://jurnal.polibatam.ac.id/index.php/JATRA>,
<https://jurnal.polibatam.ac.id/index.php/JATRA>
- Sasada, T., & Oike, M. (1984). THE EFFECT OF ABRASIVE GRAIN SIZE ON THE TRANSITION BETWEEN ABRASIVE AND ADHESIVE WEAR*. In *Wear*.
- Setiawan, H., & Khoeron, S. (2024). PENGARUH HEAT TREATMENT PADA KEKERASAN MATERIAL BAJA SKD 11. *Jurnal CRANKSHAFT*, 7(4).
- Shimizu, K., Purba, R. H., Kusumoto, K., Yaer, X., Ito, J., Kasuga, H., & Gaqi, Y. (2019). Microstructural evaluation and high-temperature erosion characteristics of high chromium cast irons. *Wear*, 426–427, 420–427.
<https://doi.org/10.1016/j.wear.2019.01.043>
- Smith, W., & Hashemi, J. (2014). *Foundations of Materials Science and Engineering 6th edition*. McGraw Hill LLC.
- Soda, N., Kimura, Y., & Tanaka, A. (1975). *Wear*, 35 (1975) 331-343 0 Elsevier Sequoia S.A., Lausanne-Printed in the Netherlands WEAR OF SOME F.C.C. METALS DURING UNLUBRICATED SLIDING PART II: EFFECTS OF NORMAL LOAD, SLIDING VELOCITY AND ATMOSPHERIC PRESSURE ON WEAR FRAGMENTS.
- Souza, S. da S. de, Moreira, P. S., & Faria, G. L. de. (2020). Austenitizing Temperature and Cooling Rate Effects on the Martensiteic Transformation in a Microalloyed-Steel. *Materials Research*, 23(1).
<https://doi.org/10.1590/1980-5373-mr-2019-0570>
- Stachowiak, G. (2006). *Wear : Materials, Mechanisms and Practice*. John Wiley & Sons.
- Stachowiak, G., & Batchelor, A. (2013). *Engineering tribology 4th edition*. Butterworth-Heinemann.

- SteelJIS(.com). (2018, March 16). *SKD-11 Chemical information, Mechanical properties*. <http://www.tool-die-steels.com/>
- Suchánek, J., Kuklík, V., & Zdravecká, E. (2009). Influence of microstructure on erosion resistance of steels. *Wear*, 267(11), 2092–2099. <https://doi.org/10.1016/j.wear.2009.08.004>
- Sukarno, N. A., Azis, A., Vebriyadi, H., & Sampurno, C. B. K. (2024). Pengaruh Variasi Suhu Terhadap Sifat Kekerasan Baja Aisi 1045 Pada Proses Heat Treatment Dengan Media Pendingin Oli. *Perwira Journal of Science & Engineering*, 4(2), 78–80. <https://doi.org/10.54199/pjse.v4i2.320>
- Sulardjaka, S., Nugroho, S., & Wacono, D. D. (2015). PENGARUH PERSENTASE BERAT SERBUK SiC TERHADAP KEKERASAN DAN KEKUATAN BENDING KOMPOSIT DENGAN Matrik AISiTiB YANG DIPERKUAT SERBUK SiC. *ROTASI*, 17(3), 156. <https://doi.org/10.14710/rotasi.17.3.156-161>
- Swain, M. V. (1975). Short Communication Microscopic observations of abrasive wear of polycrystalline alumina. In *Wear* (Vol. 35). Elsevier Sequoia S.A.
- Tomlinson, W. J., & Talks, M. G. (1989). CAVITATION EROSION OF LASER SURFACE MELTED PHOSPHORIC GREY IRONS. In *Wear* (Vol. 129).
- Trent, E. M. (1977). *METAL CUTTING*.
- Wang, H. song, Kang, J., Dou, W. xue, Zhang, Y. xiang, Yuan, G., Cao, G. ming, Misra, R. D. K., & Wang, G. dong. (2017). Microstructure and mechanical properties of hot-rolled and heat-treated TRIP steel with direct quenching process. *Materials Science and Engineering: A*, 702, 350–359. <https://doi.org/10.1016/j.msea.2017.07.039>
- Wilson, J. E., Stott, F. H., & Wood, G. C. (1980). DEVELOPMENT OF WEAR-PROTECTIVE OXIDES AND THEIR INFLUENCE ON SLIDING FRICTION. *Proceedings of The Royal Society of London, Series A: Mathematical and Physical Sciences*, 369(1739), 557–574. <https://doi.org/10.1098/rspa.1980.0016>
- Yoshino, M., Mishima, Y., Toda, Y., Kushima, H., Sawada, K., & Kimura, K. (2008). Influence of normalizing heat treatment on precipitation behaviour in

modified 9Cr-1Mo steel. *Materials at High Temperatures*, 25(3), 149–158.
<https://doi.org/10.3184/096034008X356349>

Yust, C. S., & Crouse, R. S. (1978). Short Communication Melting at particle impact sites during erosion of ceramics*. In *Wear* (Vol. 51).

Zum Gahr, K. H. (1987). *Microstructure and Wear of Materials* (Vol. 10). Elsevier Science Publisher B.V.