

## เอกสารอ้างอิง

1. Naderi, M., 2007, **Hot Stamping of Ultra High Strength Steels**, Doctoral Thesis, Department of Ferrous Metallurgy, RWTH Aachen University, Germany.
2. Macek, B., 2007, "Developing a Deep Drawn Hot Stamped Fuel Tank Guard", **Great Designs in Steel**, 7 March 2007
3. World Auto Steel., 2014, **Advanced High Strength Steel Application Guidelines Version 5.0**, [Online], Available: <http://www.worldautosteel.org/projects/ahss-guideline> [31 May 2014].
4. ThyssenKrupp Steel., 2008, **Crash safety with high strength steel**, [Online], Available: [www.thyssenkrupp.com/en/produkte/hochfester-stahl.html](http://www.thyssenkrupp.com/en/produkte/hochfester-stahl.html) [11 July 2013]
5. Karbasian, H. and Tekkaya, A., 2010 "A review on hot stamping", **Journal of material processing technology**, 210, pp. 2103-2118.
6. Norrbottentens Jaernverk AB, "**Manufacturing a hardened steel article**," Patent GB1490535, 1977.
7. Berglund, G., 2008, "The history of hardening of boron steel in northern Sweden", **International conference on hot sheet metal forming of high performance steel**, 1<sup>st</sup>, Kassel, Germany, pp. 175-177.
8. Wilsius, J., Hein, H. and Kefferstein, R., 2006, "Status and future trends of hot stamping of USIBOR 1500P", **Erlangener Workshop Warmblechumformung**, 1<sup>st</sup>, Germany, pp. 82-101.
9. Belanger, P., 2011, "The Future for Press Hardening in the Automotive Industry", **AP&T Seminar**, October, Detroit.

10. Neugebauer, R., Schieck, F., Polster, S., Mosel, A., Rautenstrauch, A., Schonherr, J. and Pierschel, N., 2012, "Press hardening – an innovative and challenging technology", **Archives of Civil and Mechanical Engineering**, 12, pp. 113–118.
11. ArcelorMitta, 2014, **Steels for hot stamping – Usibor®**, [Online], Available: <http://www.arcelormittal.com/saturnus/sheets/> [28 January 2014]
12. Lechler, J. and Merklein, M., 2008. "Hot stamping of ultra strength steels as a key technology for lightweight construction", **Materials Science and Technology**, Pittsburgh, Pennsylvania, pp. 1698–1709.
13. Hu, P., Ma, N., Liu, L. and Zhu, Y., 2013, **Theories, Methods and Numerical Technology of Sheet Metal Cold and Hot Forming**, Springer Series in Advanced Manufacturing, pp. 1-210.
14. Mori, K., Maki, S. and Tanaka, Y., 2005, "Warm and Hot Stamping of Ultra High Tensile Strength Steel Sheets Using Resistance Heating", **CIRP Annals - Manufacturing Technology**, 54(1), pp. 209-212.
15. Altan, T., 2007, **Hot-stamping boron-alloyed steels for automotive parts - Part II**, [Online], Available: <http://www.stampingjournal.com> [5 August 2014]
16. Salzgitter Flachstahl, 2007, **22MnB5 Edition: 07/07**, [Online], Available: <http://www.salzgitter-flachstahl.de> [5 May 2014].
17. ArcelorMitta, 2010, "Hot Stamping with USIBOR1500P®", **AP&T Advanced Hot Stamping Seminar**, Detroit, Michigan, USA, pp. 1-41.
18. Voestalpine, 2013, "Phs-ultraform® **The press-hardening steel benchmark**", [Online], Available: <http://www.voestalpine.com/steel> [16 May 2013].

19. ThyssenKrupp Steel, 2008, **Hot press hardening manganese-boron steel MBW<sup>®</sup>**, [Online], Available: <http://www.kiss.thyssenkrupp-steel.com/> [16 May 2013].
20. สถาบันเหล็กและเหล็กกล้าแห่งประเทศไทย, 2554, **มาตรฐานและสมบัติของเหล็กกล้าที่ใช้ในงานอุตสาหกรรม**, หน้า 1-235.
21. มนัส สติธิจินดา, 2543, **เหล็กกล้า**, กรุงเทพฯ : ว.ศ.ท., พิมพ์ครั้งที่ 5.
22. ปิยะมล ศรีธรรมรัตน์กุล, 2552, **การศึกษาอิทธิพลของโครเมียมและโบรอนต่อความสามารถในการชุบแข็งของเหล็กกล้าคาร์บอน S45C**, วิทยานิพนธ์ปริญญาวิศวกรรมศาสตรมหาบัณฑิต สาขาวิชาวิศวกรรมโลหการ คณะวิศวกรรมศาสตร์ มหาวิทยาลัยเทคโนโลยีพระจอมเกล้าธนบุรี.
23. Totten, G.E., 2006, **Steel Heat Treatment Handbook Metallurgy and Technologies**, 2<sup>nd</sup> edition, CRC Press, Florida, pp. 193-195, 218-413.
24. Total Material., 2007, **Boron in Steel: Part Two**, [Online], Available : <http://www.keytometals.com/> [7 Aug 2014].
25. Sivaraj, V., 1977, **Engineering Metallurgy**, VK Publishers, Bangalore, India, pp. 125.
26. Thelning, K. E., 1984, **Steel and its Heat Treatment**, 2<sup>nd</sup> ed., Butterworths, London, pp. 405 – 430.
27. Meyrick, G. and Wagoner, R.H., 2001, **Steel: Physical Metallurgy of Steel**, Class Notes and lecture material For MSE 651, pp. 79-87.
28. Deva, A., Saikat, K., Kumar, V., Deepa, M. and Jha, B., 2013, “Influence of Boron on the Hardenability of Unalloyed and Low Alloyed Steel”, **International Journal of Metallurgical Engineering**, 2(1), pp. 47-57.

29. Devletian, J.H. and Heine, R.W., 1974, "Effect of Boron Content on Carbon Steel Welds", **AWS Annual Welding Research Supplement**, 55, pp. 45-53.
30. แม่น อมรสิทธิ์ และ สมชัย อัครทิวา, 2545, **วัสดุวิศวกรรม**, สำนักพิมพ์แมคกรอ ฮิล, หน้า 322-327.
31. Bleck, W., 2010, **Materials Science of Steel**, Verlag Mainz, Aachen, pp. 134-159.
32. Marder, A.R. and Krauss, G., 1978, **Hardenability Concepts with Application to steel**, Metallurgical Society of AIME, pp. 238.
33. Bain, E.C. and Paxton, H.W., 1966, **Alloying Elements in Steel**, 2<sup>nd</sup> ed., American Society for Metal, pp. 37.
34. อุษณีย์ กิตติกำจร, 2554, **แผนภาพ TTT และ CCT (TTT and CCT diagram)**, [Online], Available: [http://personal.sut.ac.th/heattreatment/context/Chart\\_TTT\\_CCT.html](http://personal.sut.ac.th/heattreatment/context/Chart_TTT_CCT.html) [ 1 มิถุนายน 2557]
35. William, D., 2007, **Materials Science and Engineering: An Introduction**, 7<sup>th</sup> ed., John Wiley&Sons, pp. 311-357.
36. วารุณี เปรมานนท์ และพงษ์พันธ์ แก้วตาทิพย์, 2552, **งานขึ้นรูปโลหะ เล่มที่ 1 แม่พิมพ์โลหะแผ่น**, สมาคมเทคโนโลยี (ไทย-ญี่ปุ่น), หน้า 142-191.
37. Naganathan, A., 2010, **Hot Stamping of Manganese Boron Steel (Technology Review and Preliminary Finite Element Simulations)**, Master Thesis, Department of Mechanical Engineering, The Ohio State University, USA.

38. Hoffmann, H., So, H., Steinbeiss, H., 2007, "Design of hot stamping tools with cooling system", **CIRP Annals - Manufacturing Technology**, 56(1), pp. 269-273.
39. Casas, B., Latre, D., Rodriguez, N. and Valls, I., 2008, "Tailor made tool materials for the present and upcoming tooling solutions in hot sheet metal forming", **International Conference on Hot Sheet Metal Forming of High-Performance Steel**, 1<sup>st</sup>, Kassel, Germany, pp. 23-25.
40. White, F. M., 1999, **Fluid Mechanics**, 4<sup>th</sup> ed., McGraw-Hill, New York, pp. 375-378.
41. Miller, R.W., 1996, **Flow measurement engineering handbook**, 3<sup>rd</sup> ed., McGraw-Hill, New York
42. Eriksson, M., Oldenburg, M., Somani, M. and Karjalainen, L., 2002, "Testing and evaluation of material data for analysis of forming and hardening of boron steel components", **Modelling and Simulation in Materials Science and Engineering**, 10(3), pp. 277-294.
43. Bergman, G. and Oldenburg, M., 2004, "A finite element model for thermomechanical analysis of sheet metal forming", **International Journal for Numerical Methods in Engineering**, 59(9), pp. 1167-1186
44. Naderi, M., Durrenberger, L., Molinari, A. and Bleck, W., 2008, "Constitutive relationships for 22MnB5 boron steel deformed isothermally at high temperatures", **Materials Science and Engineering A**, 478, pp.130-139.
45. Merklein, M. and Lechler, J., 2008, "Determination of material and process characteristics for hot stamping processes of quenchable ultra high strength steel steels with respect to a FE-based process design", **SAE International Journal of Materials and Manufacturing**, 1(1), pp. 411-426.

46. Yanagida, A. and Azushima, A., 2009, "Evaluation of coefficients of friction in hot stamping by hot flat drawing test", **CIRP Annals - Manufacturing Technology**, 58, pp. 247–250.
47. Naderi, M., Ketabchi, M., Abbasi, M. and Bleck, W., 2011, "Analysis of microstructure and mechanical properties of different high strength carbon steels after hot stamping", **Journal of Materials Processing Technology**, 211, pp. 1117-1125.
48. Naderi, M., Ketabchi, M., Abbasi, M. and Bleck, W., 2011, "Analysis of microstructure and mechanical properties of different boron and non-boron alloyed steels after being hot stamped", **Procedia Engineering**, 10, pp. 460-465.
49. Cui, J., Lei, C., Xing, Z. and Li, C., 2012, "Microstructure distribution and mechanical properties prediction of boron alloy during hot forming using FE simulation", **Materials Science and Engineering A**, 535, pp. 241– 251.
50. Liu, H., Lei, C. and Xing, Z., 2013, "Cooling system of hot stamping of quenchable steel BR1500HS: optimization and manufacturing methods", **The International Journal of Advanced Manufacturing Technology**, 69, pp. 211–223
51. Meagher, D., 2012, **Chemical Instrumentation**, [Online], Available: <http://chemicalinstrumentation.weebly.com/graphite-furnace.html> [23 April 2014].
52. DIN 50114, 1981, **Zugversuch ohne Feindehnungsmessung an Blechen, Bändern oder Streifen mit einer Dicke unter 3 mm**, Germany.
53. Eller, T.K., Greve, L., Andres, M.T., Medricky, M., Hatscher, A., Meinders, V.T. and van den Boogaard, A.H., 2014, "Plasticity and fracture modeling of quench-hardenable boron steel with tailored properties", **Journal of Materials Processing Technology**, 214, pp. 1211–1227.

54. Bardelcik, A., Worswick, M.J., Winkler, S. and Wells, M.A., 2012, “A strain rate sensitive constitutive model for quenched boron steel with tailored properties”, **International Journal of Impact Engineering**, 50, pp. 49-46.
55. Bhadeshia, H.K.D.H., 2001, **Bainite in steels: Transformations, Microstructure and Properties**, 2<sup>nd</sup> ed., Institute of Materials, pp. 1-460.
56. Porter, D.A., and Easterling, K.E., 1992, **Phase Transformations in Metals and Alloys**, 2<sup>nd</sup> ed., Chapman & Hall, pp. 1-440.
57. Smith, W.F., 1993, **Structure and properties of engineering alloys**, 2<sup>nd</sup> ed., McGraw-Hill, pp. 1-630.
58. Bardelcik, A., Salisbury, C.P., Winkler, S., Wells, M.A. and Worswick, M.J., 2010, “Effect of cooling rate on the high strain rate properties of boron steel”, **International Journal of Impact Engineering**, 37, pp. 694-702.
59. Naylor, J.P., 1979, “Influence of the lath morphology on the yield stress and transition temperature of martensitic–bainitic steels”, **Metallurgical Transactions A, Physical Metallurgy and Materials Science**, 10(7), pp. 861–873.
60. Wang, C., Wang, M., Shi, J., Hui, W. and Dong, H., 2007, “Effect of microstructure refinement on the strength and toughness of low alloy martensitic steel”, **Journal of Materials Science and Technology**, 23(5), pp. 659–664.
61. Hollomon, J.H., 1945, “Tensile deformations”, **Transactions of the American Institute of Mining and Metallurgical Engineers**, 162, pp. 268–290.
62. Ludwik, P., 1909, **Elemente der technologischen Mechanik**, Springer Verlag Berlin.

63. Swift, M.W., 1952, “Plastic instability under plane stress”, **Journal of the Mechanics and Physics of Solids**, 1(1), pp.1-18.
64. Voce, E., 1948, “The relationship between stress and strain for homogeneous deformation”, **Journal of the Institute of Metals**, 74, pp. 537-562.
65. Oldenburg, M., Åkerström, P., Bergman, G. and Salomonsson, P., 2008, “Modelling of microstructure and material response in the press hardening process”, **International Deep Drawing Research Group Proceedings**, pp. 463–474.
66. Shapiro, A.B., 2009, “Finite Element Modeling of Hot Stamping”, **Steel research International**, 80(9), pp. 658–664.
67. Cui, J., Lei, C., Xing, Z., Li, C. and Ma, S., 2012, “Predictions of the Mechanical Properties and Microstructure Evolution of High Strength Steel in Hot Stamping”, **Journal of Materials Engineering and Performance**, 21, pp.2244–2254.
68. Bergman, T.L., Lavine, A.S., Incropera, F.P. and Dewitt D.P., 2011, **Fundamentals of Heat and Mass Transfer**, 7<sup>th</sup> ed., John Wiley & Sons Ltd. pp. 517-593.
69. Steinbeiss, H., So, H., Michelitsch, T. and Hoffmann, H., 2007, “Method for optimizing the cooling design of hot stamping tools”, **Production Engineering - Research and Development**, 1, pp.149–155.
70. Pitts, D. and Sissom, L., 1998, **Schaum's Outline of Theory and Problems of Heat Transfer**, 2nd ed., McGraw-Hill Companies, pp. 194-200.
71. Cengel, Y. and Boles, M., 2011, **Thermodynamics: An Engineering Approach, 7th Edition (SI Units)**, McGraw-Hill, New York.