

Références Bibliographiques

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Introduction :

- [1] D. Bitar. Planchers mixtes à poutrelles ajourées. GC'2005.
- [2] Eurocode 3 : Design of steel structures - Annexe N : Openings in webs. ENV 1993-1-1: 1992/A2. European Committee for Standardisation .
- [3] A.A. Toprac and B.R. Cooke. An experimental investigation of open-web beams. Welding Research Council Bulletin, New York. Series No .47, pages 1-10, 1959.
- [4] P. Halleux. Limit analysis of castellated steel beams. Acier-Stahl-Steel, 325, pages 133-144, 1967.
- [5] M.D. Altifillisch, B.R. Cooke and A.A. Toprac. An investigation of open web expanded beams. Welding Research Council Bulletin, Series No. 47. pages 77s-88s, 1957.
- [6] D. Bitar, P.O. Martin, Y. Galéa, T. Demarco. Poutres cellulaires acier et mixtes : Partie 1 Proposition d'un modèle pour la résistance des montants. CTICM n°1 , 2006.
- [7] A.N. Sherbourne. The plastic behavior of castellated bears. Proceeding 2nd Commonwealth Welding Conference Institutional of Welding, No. C2, pages 1-5, London,1966.
- [8] A. Bazile and J. Texier. Essais de poutres ajourées. Revue construction métallique CTICM N o.3, pages 12-25,1968.
- [9] D.A. Nethercot, D. Kerdal. Lateral-torsional buckling of castellated beams. The Structural Engineers, 60B(3), pages :53–61,1982.
- [10] T. Zirakian and H. Showkati. Distortional buckling of castellated beams. Journal of Constructional Steel Research ; vol. 62, pages 863–871, 2006.
- [11] M.U. Husain and W.G. Speirs. Experiments on castellated steel beams. Journal American Welding Society, Welding Research Supplement, 52:8 , pages : 329S-342S, 1973.
- [12] B.K. Dougherty. Castellated beams: A state of the art report. Journal of the South African Institution of Civil Engineers, Vol. 352, 2nd Quarter , pages : 12-20, 1993.
- [13] S. Demirdjian. Stability of castellated beam webs.M.Eng. Thesis. Department of Civil Engineering and Applied Mechanics. McGill University, 1999.
- [14] T. Okubo and D.A. Nethercot. Web post strength in castellated steel beams. Proceedings Institution of Civil Engineers, Part 2, Vol. 79 , , pages 533-557, 1985.
- [15] Lusas 13. Lusas manual. Finite element analysis Ltd. Version 13.5. UK. 2003.

- [16] ECSC RFS-CT-2005-00037 "Ouvertures de grandes dimensions dans les âmes pour l'intégration des équipements techniques dans les planchers mixtes". Fabrication des poutres cellulaires, 2006.

Chapitres:

- [1] BOWER. J.E. (1966a),
"Elastic stresses around holes in wide-flange beams",
Proceedings of American Society of Civil Engineering, Journal of the Structural Division, 92 (ST2), 85-101.
- [2] BOWER. J.E. (1967),
"Ultimate strength of wide-flange beams with rectangular holes",
United States Steel Corporation. Applied Research Laboratory Report 57.019-400.
- [3] CHAN. P.W. et REDWOOD. R.G. (1974),
"Stresses in beams with circular eccentric web holes",
Proceedings of American Society of Civil Engineering, Journal of the Structural Division, 100 (ST1), 231-248.
- [4] COOPER. P.B. , SNELL. R.R. et KNOSTMAN. H.D. (1977),
"Failure tests on beams with eccentric web holes",
Proceedings of American Society of Civil Engineering, Journal of the Structural Division, 103(ST9), 1731-1738.
- [5] DERESIEWICZ. H. (1968),
"Stresses in beams having holes of arbitrary shape",
Proceedings of American Society of Civil Engineering, Journal of the Engineering Mechanics Division, 94(EM5), 1183-1214.
- [6] DOUGHERTY. B.K. (1980),
"Elastic deformation of beams with web openings",
Proceedings of American Society of Civil Engineering, Journal of the Structural Division, 106(ST1), 301-312.
- [7] ENV 1993-1-1,
Eurocode 3calcul des structures en acier Annexe N : Âmes ajourées (projet préparé pour l'équipe chargé du projet, 1993)
- [8] GIBSON. J.E. et JENKINS. W.M.(1956),
"The stress distribution in a simply-supported beam with a circular hole",
Structural Engineer, 34(12), 443-449.

- [9] GOTOH. K. (1975a),
"The stresses in wide-flange beams with web holes",
Theoretical and Applied Mechanics, 23, 223-242 (University of Tokyo Press).
- [10] GOTOH. K. (1975b),
"Stress analysis of castellated beams",
Transaction Japan Society Civil Engineers, 7, 37-38.
- [11] HELLER. Jr.S.R, BROCK. J.S. et BART. R. (1958),
"The stresses around a rectangular opening with rounded corners in a uniformly loaded plate", Proceeding 3rd US National Congress of Applied Mechanics, American Society of Mechanic Engineering. pp 357-368.
- [12] HELLER. Jr.S.R, BROCK. J.S. et BART. R. (1962),
"The stresses around a rectangular opening with rounded corners in a beam subjected to bending with shear", Proc. 4th US National Congress of Applied Mechanics. American Society of Mechanic Engineering Vol.1 pp 489-496.
- [13] HIRT M.A ,BEZ.R.(1994) ,
"Notions fondamentales et méthodes de dimensionnement",
Volume 10 ,construction métallique, polytechnique fédérale de Lausanne.
- [14] LUPIEN. R. et REDWOOD. R.G. (1978),
"Steel beams with web openings reinforced on one side",
Canada Journal Civil Engineering, 5(4), 451-461.
- [15] MANDEL.J.A. , BRENNAN.P.J. , WASIL.B.A. et ANTONI.C.M. (1971),
"Stress distribution in castellated beams",
Proceedings of American Society of Civil Engineering, Journal of the Structural Division, 97(ST7), 1947-1967.
- [16] McCUTCHEON. J.O, So, W.-C. et GERSOVITZ. B. (1963),
"A study of the effects of large circular openings in the webs of wide flange beams", Applied Mechanics Series N0.2. McGill University, Montreal.
- [17] OLANDER. H.C. (1953),
"A methode of calculating stresses in rigid frame corners",
Proceedings of American Society of Civil Engineering, Journal of the Structural Division, 79, Separate N0. 249, 1-21.
- [18] REDWOOD. R.G. (1971),
"Stresses in webs with circular openings",
Final Report to the Canadian Steel Industries Construction Council.

Research Project N° 695

- [19] REDWOOD R.G. et SHRIVASTAVA. S.C. (1980),
"Design recommendations for steel beams with web holes",
Canadian Journal Civil Engineering, 7(4), 642-650.
- [20] ROCKEY. K.C, ANDERSON. R.G. et CHEUNG. Y.K.(1969),
"The behavior of square shear web shaving a circular hole",
In Thin Walled Steel Structures. ed. K.C.Rockey et H.V.Hill, Crosby
Lockwood, London, pp148-172.
- [21] SAVIN. G.N. (1961),
"Stresses concentration around holes",
Pergamon Press. Oxford.
- [22] SEGNER. Jr.E.P. (1964),
"Reinforcement requirements for girder web openings",
Proceedings of American Society of Civil Engineering, Journal of the Structural
Division, 90(ST3), 147-164.
- [23] Silvio Hong Tiing Tai . (1999),
" Rapport interne, INSA de Rennes, juillet – août 1999"
- [24] UENOYA.M. et OHMURA. H. (1972),
"Finite element method for elastic plastic analysis of beams with holes",
Presented at Japan Society Civil Engineers. National Meeting. Fukuoka.
- [25] WANG. C.K.M. et THOMAS. W.H.(1955),
"Stresses in shear web contiguous to large holes",
Internal report. University of Colorado.