

List of Papers by A. M. Binnie

- ✓ 1. Temperature stresses and deflections in the fins and barrel of an air-cooled internal combustion engine. 1926 Phil. Mag. (7), 2, 449.
- ✓ 2. The influence of oxygen on corrosion fatigue. 1929 Aeronautical Research Committee R. & M. no. 1244, and Engineering 128, 190.
- ✓ 3. The flow under gravity of an incompressible and inviscid fluid through a constriction in a horizontal channel. 1937 Proc. Roy. Soc., A 159, 592. (With S.G. Hooker).
- ✓ 4. The radial and spiral flow of a compressible fluid. 1937 Phil. Mag. (7), 23, 597. (With S.G. Hooker).
- ✓ 5. The theory of the single-pass cross-flow heat interchanger. 1937 Proc. Camb. Phil. Soc. 33, 403. (With E.G.C. Poole).
- ✓ 6. The pressure distribution in a convergent-divergent steam nozzle. 1938 Proc. Inst. Mech. E. 138, 229. (With M.W. Woods).
- ✓ 7. The use of a vertical pipe as an overflow for a large tank. 1938 Proc. Roy. Soc., A 168, 219.
- ✓ 8. A possible form of high speed water channel. 1938 Aeronautical Research Committee R. & M. no. 1857.
- ✓ 9. The uniformity of the stream issuing from a Venturi flume. 1940 Aeronautical Research Committee R. & M. no. 1886.
- ✓ 10. An orifice method of producing a high velocity stream. 1940 Aeronautical Research Committee R. & M. no. 1887.

- ✓ 11. Laboratory experiments on bell-mouth spillways. 1941 J. Inst. Civ. Eng., 15, 197. (With R.K. Wright).
- ✓ 12. Waves in an open oscillating tank. 1941 Engineering 151, 224.
- ✓ 13. Liquid jets of annular cross-section. 1941 The Engineer 171, 236. (With H.B. Squire).
- ✓ 14. Axially symmetrical stress in a thick tube. 1941 Phil. Mag. (7), 32, 336.
- ✓ 15. A method of making stream lines momentarily visible. 1941 Proc. Camb. Phil. Soc., 37, 436. (With E.J. Bowen).
- ✓ 16. The turbulent spreading of a water jet. 1942 Engineering, 153, 503.
- ✓ 17. The lifting of the base of a large circular tank. 1942 J. Inst. Struct. Eng. 20, 100.
- ✓ 18. An electrical detector of condensation in high-velocity steam. 1942 Proc. Roy. Soc. A 181, 134. (With J.R. Green).
- ✓ 19. Oscillations in closed surge tanks. 1943 J. of App.Mech. 10, A-183.
- ✓ 20. Stresses in the diaphragms of diaphragm-pumps. 1944 Q. of App. Math. 2, 37.
- ✓ 21. Stresses due to internal hydrostatic pressure in thin-walled vessels of stream-line form. 1944 J. Roy. Aero. Soc. 48, 538. (With J.C. Ward).
- ✓ 22. Protective air vessels for rising pipe lines. 1945 Proc. Inst Mech. E. 153, 15.

- ✓ 23. A double refraction method of detecting turbulence in liquids. 1945 Proc. Phys. Soc. 57, 390.
- ✓ 24. The effect of obstructions on tidal estuaries. 1946 Engineering 161, 241.
- ✓ 25. Approximate methods in surge-tank calculations. 1946 Proc. Camb. Phil. Soc. 42, 156.
- ✓ 26. Stresses in streamline shells due to unsymmetrical loading. 1947 Aircraft Engineering 19, 125 and 162.
- ✓ 27. A study by a double-refraction method of the development of turbulence in a long circular tube. 1947 Proc. Roy. Soc. A 192, 32. (With J.S. Fowler).
- ✓ 28. Laboratory experiments on whirlpools. 1948 Proc. Roy. Soc. A 194, 398. (With G.A. Hookings).
- ✓ 29. The passage of a perfect liquid through a critical cross-section or 'throat'. 1949 Proc. Roy. Soc. A 197, 545.
- ✓ 30. The flow under gravity of a swirling liquid through an orifice-plate. 1949 Proc. Roy. Soc. A 199, 443. (With J.F. Davidson).
- ✓ 31. The application of boundary layer theory to swirling liquid flow through a nozzle. 1950 Quart. J. Mech. & App. Math. 3, 89. (With D.P. Harris).
- ✓ 32. Notes on gas flow through a nozzle. 1950 Proc. Camb. Phil. Soc. 46, 492.
- ✓ 33. The use of cascades at sharp elbows in water pipes. 1950 The Engineer 190, 232. (With D.P. Harris).

- ✓ 34. The theory of waves travelling on the core in a swirling liquid. 1951 Proc. Roy. Soc. A 205, 530.
- ✓ 35. The effect of friction on surges in long pipe-lines. 1951 Quart. J. Mech. & App. Math. 4, 330.
- ✓ 36. Water hammer in a pumping main and its prevention. 1951 Proc. Inst. Mech. E. 165, 43. (With D.G. Thackrah).
- ✓ 37. The flow of water under a sluice-gate. 1952 Quart. J. Mech. & App. Math. 5, 395.
- ✓ 38. The stability of the surface of a cavitation bubble. 1953 Proc. Camb. Phil. Soc. 49, 151.
- ✓ 39. Self-excited oscillations in an open circular water tank. 1955 Phil. Mag. (7) 46, 327.
- ✓ 40. Experiments on the flow of water from a reservoir through an open horizontal channel. Part I, The production of a uniform stream. 1955 Proc. Roy. Soc. A 230, 225. (With P.O.A.L. Davies and J.C. Orkney).
- ✓ 41. Ditto. Part II, The formation of hydraulic jumps. 1955 Proc. Roy. Soc. A 230, 237. (With J.C. Orkney).
- ✓ 42. The mean velocity of discrete particles in turbulent flow in a pipe. 1955 Proc. Phys. Soc. B 68, 1095. (With G.K. Batchelor and O.M. Phillips). Reprinted in J. Inst. Water Engrs 10, 476.
- ✓ 43. The effect of viscosity upon the critical flow of a liquid through a constriction. 1955 Quart. J. Mech. & App. Math. 8, 394.

- ✓ 44. Tables of two functions required in certain attenuation problems. 1955 Quart. J. Mech. & App. Math. 8, 468.
(With J.C.P. Miller).
- ✓ 45. Experiments on the flow of swirling water through a pressure nozzle and an open trumpet. 1956 Proc. Roy. Soc. A 235, 78.
(With J.D. Teare).
- only ✓ 46. Experiments on the slow swirling flow of a viscous liquid through a tube. 1957 Quart. J. Mech. & App. Math. 10, 276.
- ✓ 47. Experiments on the onset of wave formation on a film of water flowing down a vertical plane. 1957 J. Fluid Mech. 2, 551.
- ✓ 48. The flow of swirling water through a convergent-divergent nozzle. 1957 J. Fluid Mech. 3, 261. (With G.A. Hookings and M.Y.M. Kamel).
- ✓ 49. The mean velocity of slightly buoyant and heavy particles in turbulent flow in a pipe. 1958 J. Fluid Mech. 4, 87.
(With O.M. Phillips).
- ✓ 50. Instability in a slightly inclined water channel. 1959 J. Fluid Mech. 5, 561.
- ✓ 51. Experiments on the flow of water in a tube at high rates of swirl. 1959 La Houille Blanche, 14, 348. (With M.Y.M. Kamel).
- ✓ 52. Self-induced waves in a conduit with corrugated walls. I. Experiments with water in an open horizontal channel with vertically corrugated sides. 1960 Proc. Roy. Soc. A 259, 18.
- ✓ 53. The flood protection of a standing-wave flume by means of a sluice-gate placed upstream. 1961 J. of Inst. of Water Engrs 15, 229.

- ✓ 54. Self-induced waves in a conduit with corrugated walls. II. Experiments with air in corrugated and finned tubes. 1961 Proc. Roy. Soc. 262, 179.
- ✓ 55. A note on the theory of the hydraulic jump in a parabolic channel. 1961 La Houille Blanche, 16, 870.
- ✓ 56. Experiments on the swirling flow of water in a vertical pipe and a bend. 1962 Proc. Roy. Soc. A 270, 452.
- ✓ 57. The vertical diffusivity and mean velocity of particles in a horizontal water pipe. 1963 J. Fluid Mech. 15, 35. (With B.J.S. Barnard).
- ✓ 58. A gasometer problem. 1963 Math. Gazette, 47, 118.
- ✓ 59. The dimensional analysis of drag experiments in a fluidised bed. 1963 Trans Inst. Chem. Engrs 41, 231.
- ✓ 60. A note on the supposed rise in sea level in the Wash. 1964 Geographical J. 130, 179.
- ✓ 61. Annular Borda flow. 1964 J. Fluid Mech. 19, 187.
- ✓ 62. Some experiments on the bath-tub vortex. 1964. J. Mech. Engg Science 6, 256.
- ✓ 63. Annular hydraulic jumps. 1964 Proc. Roy. Soc. A 282, 155. (With an appendix by E.H. Linfoot).
- ✓ 64. Solutions of the fish-line problem at intermediate velocities. 1965 Br. J. of Applied Physics, 16, 1755.
- ✓ 65. A note on Miles and Munk's harbour paradox. 1965 J. Mech. Engg. Sc. 7, 496.

- ✓ 66. The mean velocity of nylon spheres transported in a horizontal water pipe. 1966 Br J. of Applied Physics 17, 945. (With T.-C. Kuo).
- ✓ 67. Self-induced waves in open channels. 1966 J. Mech Engg. Sc. 8, 243.
- ✓ 68. Self-induced waves in a moving open channel. 1966 J. of Hydraulic Research 4, 1. (With E.E. Williams).
- ✓ 69. Some experiments on ship models held in a small open water-channel with slotted walls. 1966 Trans Roy Inst. Nav. Arch. 108, 421. (With P.L. Betts).
- ✓ 70. A contribution to the theory of striations on a nappe of water. 1967 J. of Hydraulic Research 5, 119.
- ✓ 71. Flooding of the Hundred Foot Washes, River Great Ouse. 1967, J. Inst. Water Engrs 21, 432.
- ✓ 72. The theory of artificial seiches. 1968 J. of Hydraulic Research 6, 107.
- ✓ 73. The flow of swirling water down a vertical and an inclined tube. 1968, Proc. Roy. Soc. A 304, 387. (With A.W. Shaw).
- ✓ 74. Van Rossum's investigation into the viscous lifting of liquids. 1969 Applied Scientific Research 20, 268.
- ✓ 75. Air entrainment by flowing water under reduced atmospheric pressure. 1969 J. of Hydraulic Research 7, 279. (With G.P. Sims)
- ✓ 76. A comparison of ship-model tests in a slotted-wall channel and in a towing tank. 1970 Trans. Roy. Inst. Nav. Architects 112, 101. (With T.M.G. Cloughley).
- ✓ 77. A suggested test of Miles' inviscid shear flow theory. 1970 J. of Physics D, 3, L17.
- ✓ 78. Air generated waves on a moving membrane. 1970 J. of Mech. Engg. Sc. 12, 231.

- ✓ 79. The lengths of stationary waves on flowing water. 1971 J. of Hydraulic Research 9, 35. (With T.M.G. Cloughley).
- ✓ 80. The irrotational theory of annular solitary waves. 1971 J. of Hydraulic Research 9, 153.
- ✓ 81. Hugoniot's method applied to stratified flow through a constriction. 1972 J. Mech. Eng. Sc. 14, 72.
- ✓ 82. The stability of a falling sheet of water. 1972 Proc. Roy. Soc. A326, 149.
- ✓ 83. Annular hydraulic jumps in a horizontal tube. 1973 Proc. Roy. Soc. 332, 269.
- ✓ 84. The theory of flexible dams inflated by water pressure. 1973 J. of Hydraulic Research 11, 61, and 307.
- ✓ 85. The theory of the vortex drop. 1974 J. Mech. Eng. Sc. 16, 56.
- ✓ 86. Resonating waterfalls. 1974 Proc. Roy. Soc. A339, 435. (With an appendix by D.F. Mayers).
- ✓ 87. A method of improving the uniformity of the stream in an open water-channel. 1974 J. of Hydraulic Research 12, 299. (With B.M. Sumer).
- ✓ 88. Laboratory experiments on the flow of water over a downward step. 1975 Int. J. of Mech. Sc. 17, 583.
- 89. Suppression of waves in slotted-walled channel. 1976 Am. Soc. Civil Engineers, J. of Hydraulics Div. vol. 102, no. HY3, p.397.
- ✓ 90. The effect of humidity on the 'swing' of cricket balls. 1976 Int. J. Mech. Sc. 18, 497.
- ✓ 91. Boundary-layer development in an open water-channel. 1977 J. of Hydraulic Research 15, 205
- ✓ 92. Waves in front of long-based weirs. 1978 J. of Hydraulic Research 16, 297.
- ✓ 93. The instability of flow under a sluice-gate. 1979 Proc. Roy. Soc. A367, 311.
- ✓ 94. A theory of simple water curtains 1979 J. Mech. Eng. Soc. 21, 213.