



NEW ZEALAND AGRICULTURAL ENGINEERING INSTITUTE

LINCOLN COLLEGE

CANTERBURY

NEW ZEALAND

iblic TEST REPORT NO. 52

MAY 1972

HYDRAULIC PERFORMANCE OF TROUGH VALVES

T. D. Heiler, D. M. Lees,
Research Officer. Testing Officer.

ENTRANT: A. & T. Burt Ltd - Christchurch

MANUFACTURER: A. & T. Burt Ltd - Christchurch

SUMMARY:

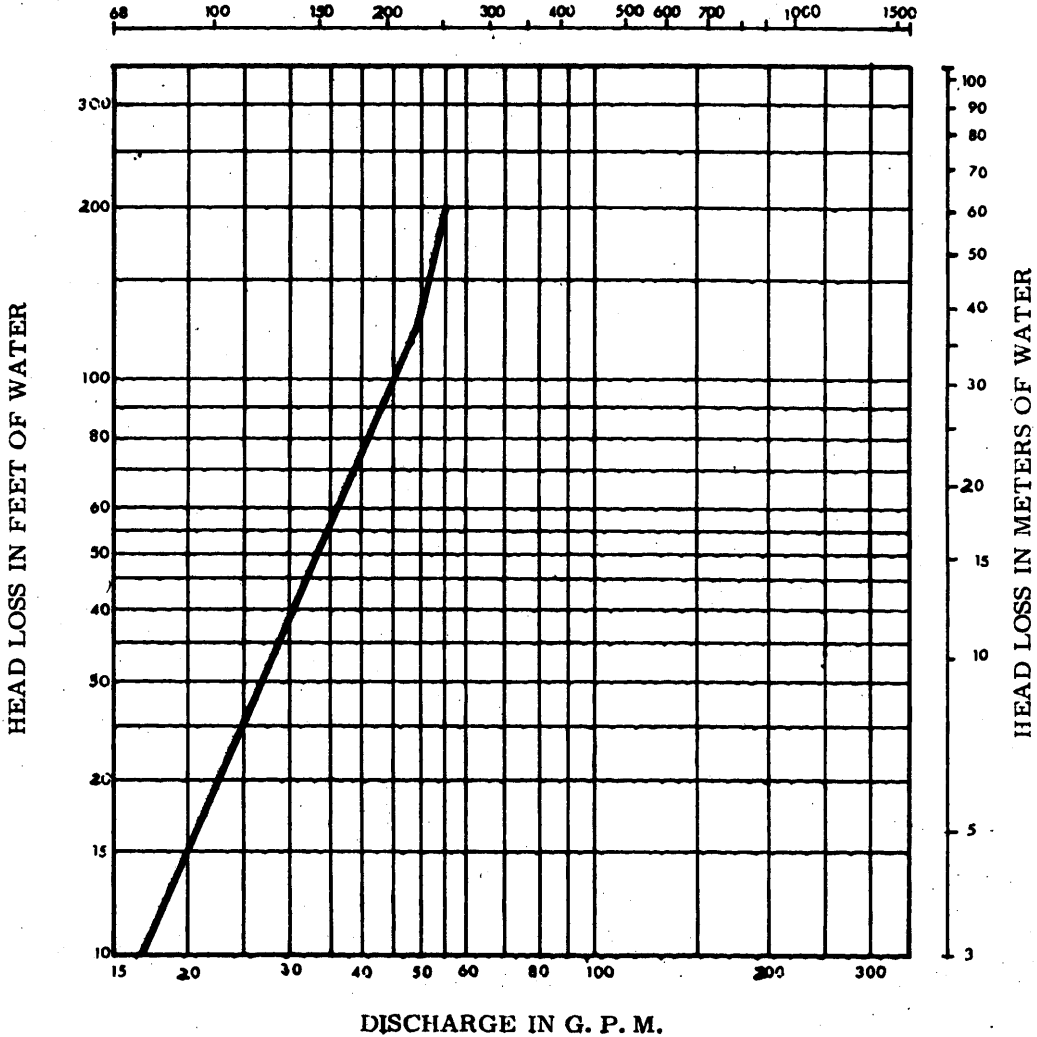
A full description of the test procedures and equipment is contained in Project Report P/2 (2nd Edn.) of the New Zealand Agricultural Engineering Institute issued in May 1971. Also contained in P/2 (2nd Edn.) are the individual performance graphs of a number of commercially available trough valves in New Zealand.

As new trough valves become available it is intended to publish Test Reports of this nature on their flow characteristics and sealing ability.

SELECTION CHART FOR TROUGH VALVES TESTED
 BASED ON HEAD LOSS AT VARIOUS FLOW
 RATES AND SEALING ABILITY
 AT PRESSURE

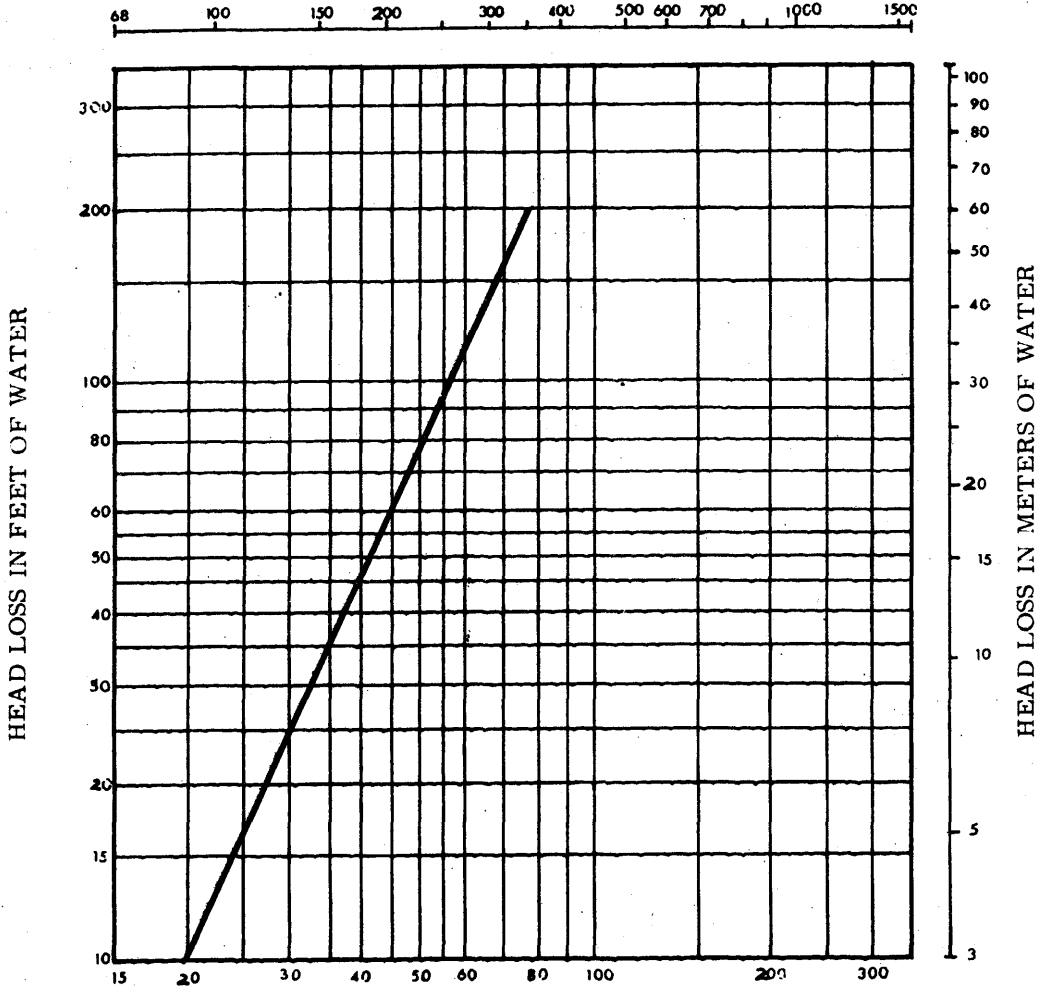
Test Mark	Maximum Shut Off Pressure (ft)	Flow through Valve (gpm)								Page
		20	30	40	50	100	150	200	250	
B1A	200	15	38	75	130					3
B2	370	10	25	45	77					4
B3	330			10	18	95				5
B4	550				12	63	170			6
B5	720					13	32	60	100	7

DISCHARGE IN L. P. M.



Test Mark: B1A
Maker: A. & T. Burt - Ch. Ch.
Description: $\frac{3}{4}$ " Wilkes Pattern Valve
Nominal Nozzle Dia: $\frac{3}{4}$ "
Max. Shut-Off Press (ft.): 200

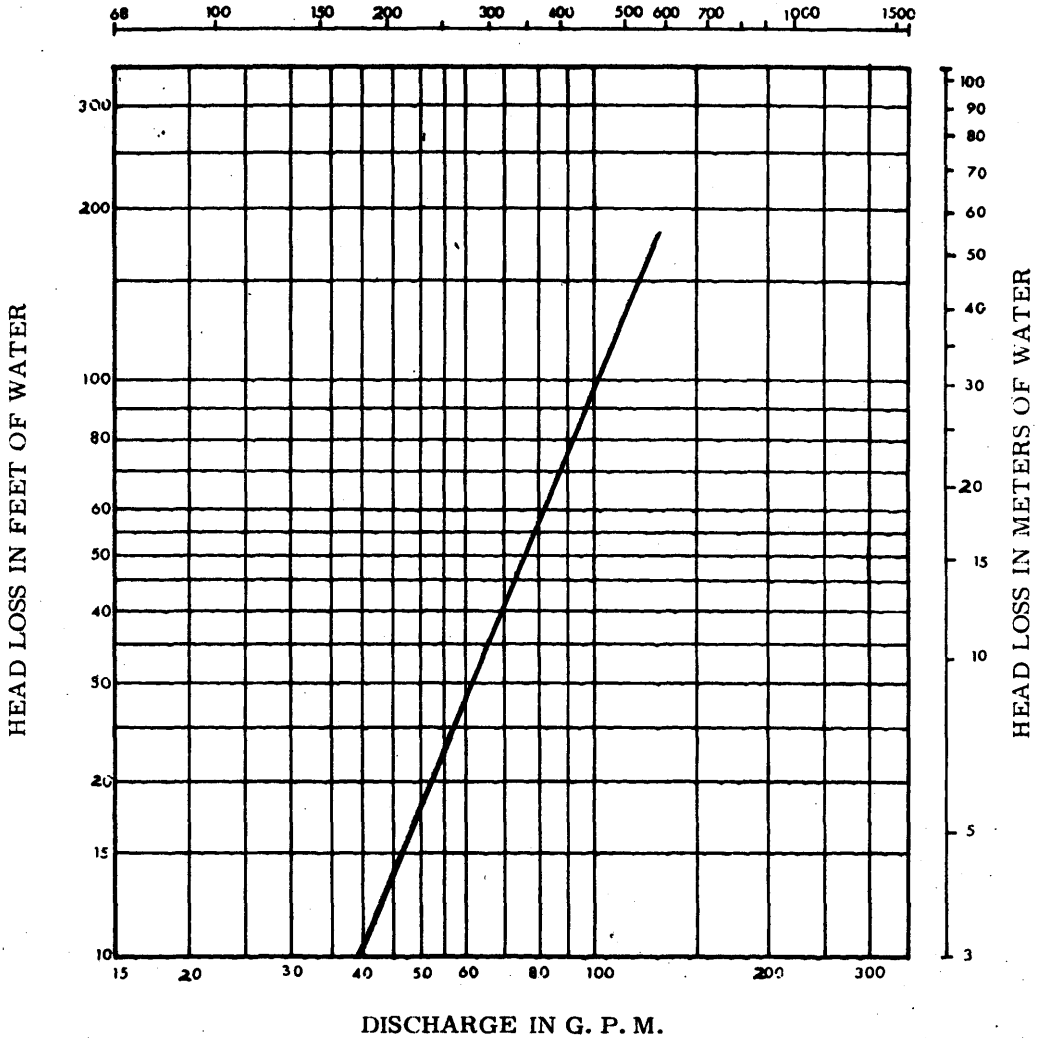
DISCHARGE IN L. P. M.



DISCHARGE IN G. P. M.

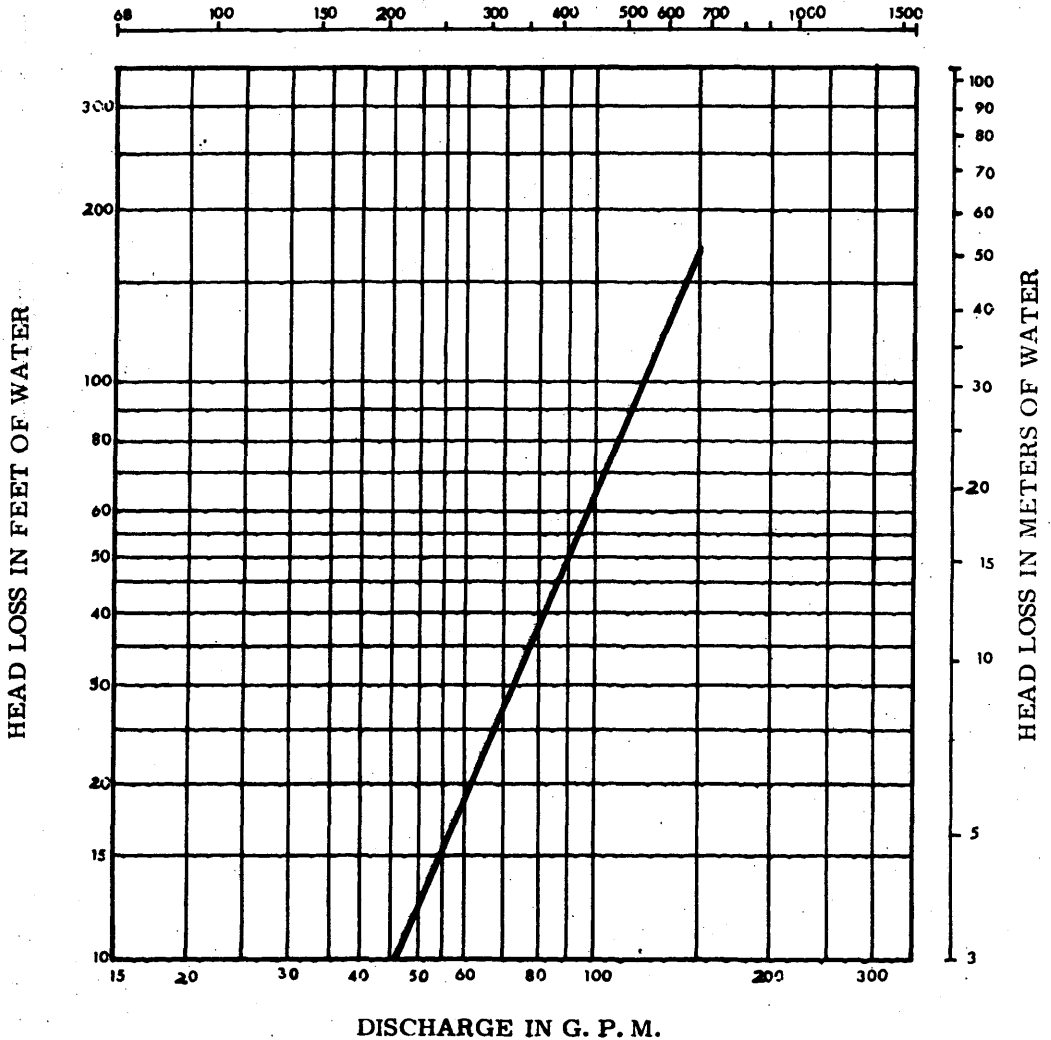
Test Mark: B2
Maker: A. & T. Burt - Ch. Ch.
Description: 1" Wilkes Pattern
Valve
Nominal Nozzle Dia.: 1"
Max. Shut-Off Press (ft.): 370

DISCHARGE IN L. P. M.



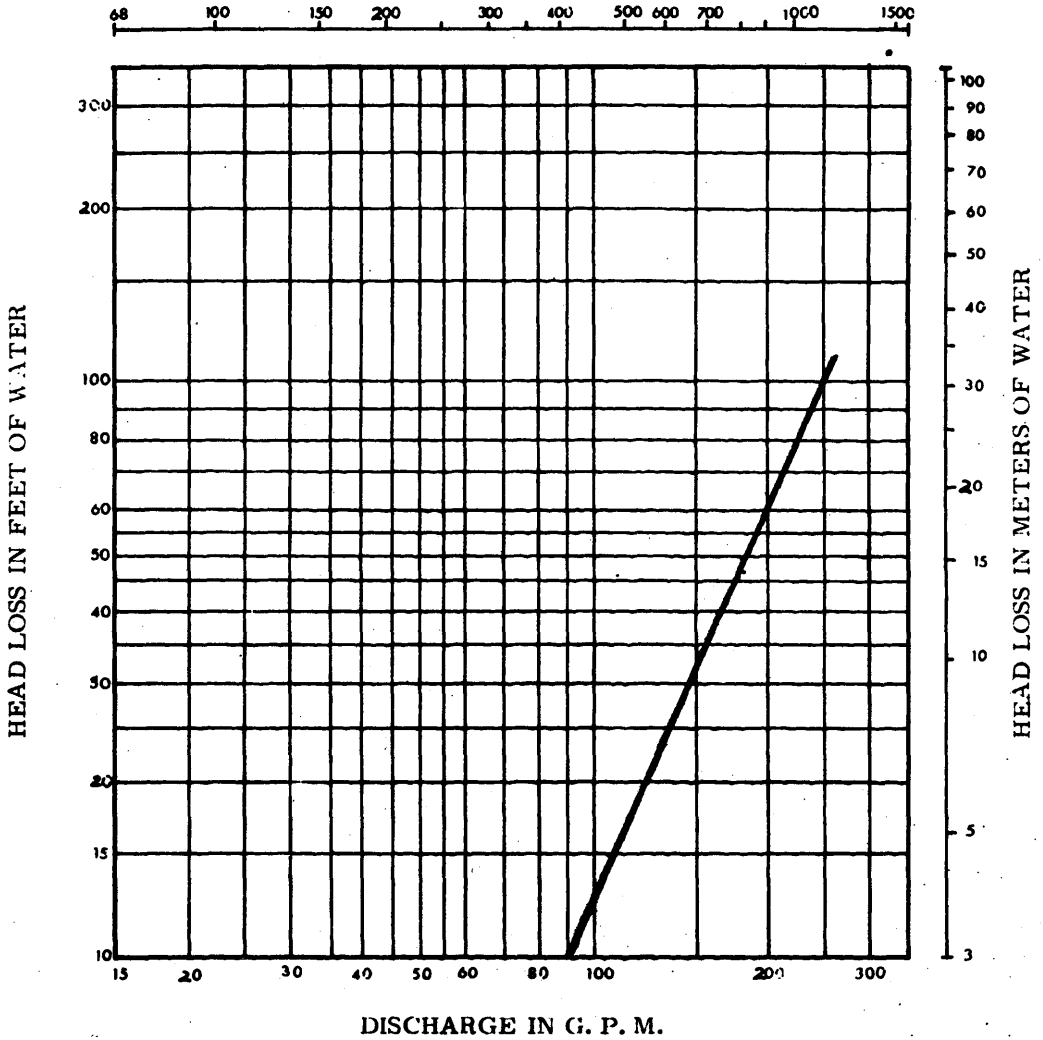
Test Mark: B3
Maker: A. & T. Burt - Ch. Ch.
Description: $1\frac{1}{4}$ " Wilkes Pattern
Valve
Nominal Nozzle Dia.: $1\frac{1}{4}$ "
Max. Shut-Off Press (ft.): 330

DISCHARGE IN L. P. M.



Test Mark: B4
Maker: A. & T. Burt - Ch. Ch.
Description: 1½" Wilkes Pattern Valve
Nominal Nozzle Dia.: 1½"
Max. Shut-Off Press (ft.): 550

DISCHARGE IN L. P. M.



Test Mark: B5
Maker: A. & T. Burt - Ch. Ch.
Description: 2" Wilkes Pattern Valve
Nominal Nozzle Dia.: 2"
Max. Shut-Off Press (ft.): 720