

### WEIGHT OF WATER IN BOILERS UNDER FULL-POWER CONDITIONS.

Trials to ascertain the difference in the weight of water in boilers when cold and the weight of water when running under full output, have been carried out in one T.B.D. of each of the Atlantic Fleet Flotillas. Instructions were given that the actual level in the gauge glass when the boiler was working at full output was to be suitably marked and that on conclusion of the run the burners were to be shut off and the boiler isolated until cold, no further feed being admitted. On cooling down, the boiler was to be opened up and the actual level of the water in the boiler on each side measured from the crown of the steam drum, back and front respectively. The mean vertical drop in water level thus ascertained was :—

	Ft.	ins.
T.B.D. No. 1 - - -	3	9
T.B.D. No. 2 - - -	4	0
T.B.D. No. 3 - - -	3	5
T.B.D. No. 4 - - -	3	3

The amount of water required to be pumped in to restore the level in cases No. 1 and 2 was 3·66 and 3·75 tons respectively, the total hot water content of the boiler to working level when standing being about 8 tons. This record was not taken in the other two cases.

Under the conditions obtaining the rate of burning was approximately 1·2 lbs. of fuel per square foot of heating surface.