

The shape of ships to come

By A. C. HARDY, B.Sc., M.I.N.A., M. Inst. P., F.R.G.S.

Synopsis of a lecture delivered on Wednesday, 10th December 1952,
before the Académie de Marine.

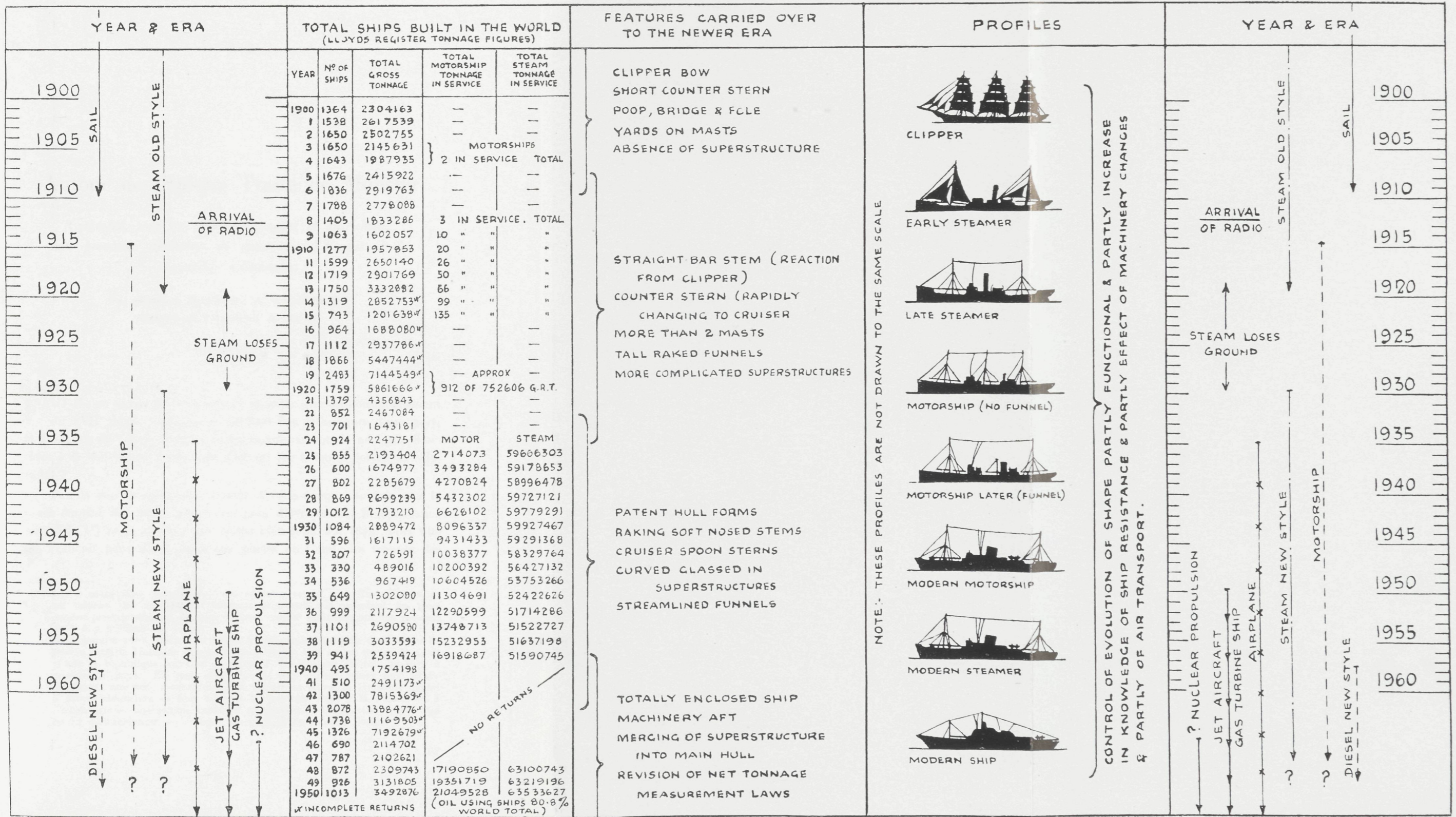
THE accompanying family tree and «streamlined» table is intended to trace evolutionary trends in Merchant ships from 1900 to 1950 and even to forecast them as far as 1960. Table I plots against the years the kinds of ships which have been in operation and the propulsion which has accompanied them. It also plots the various factors which have affected them, such as aeroplanes. We see against this the number and total gross tonnage of ships produced in any one given year over that period. This gives an indication of the very large blocks of tonnage produced every year which new developments have affected. It also indicates the arrival and gradual growth of a phenomenon which more than any other has changed the course of maritime history. That is the oil using motorship.

Another table indicates the various features of ships which have been carried over from one era to the other as shown in the left and right hand columns. In this way we can see that there have been virtually no cases in which characteristics have suddenly disappeared. There has been always a carry over period between one era and the next; each of the major changes had dovetailed in with the one preceding and the one following. A fourth column shows, by means of profiles, the changes discussed elsewhere in visual form and then a note draws attention to the fact that the control of evolution of ship

shape is partly functional and partly due to an increase in knowledge of ship resistance and partly to the effect of machinery changes and partly to air transport. Some of these changes are crystallised in the family tree.

This pocket lecture is not intended so much as an excursion into the future, as a 60-year review in which trends and tendencies are traced; changes which have moved us from the clipper ship to the modern smooth streamlined, air-conditioned unit, with a great degree of mechanism and a general tendency to eliminate the human factor as much as possible. In this connection, it is interesting also to trace the decrease in the number of « bodies » actually needed to operate the ship, with the increase in the number of machines used, a tendency which will become more marked as time goes on.

SIXTY YEARS OF SHIP EVOLUTION, 1900 - 1960



CONTROL OF EVOLUTION OF SHAPE PARTLY FUNCTIONAL & PARTLY INCREASE IN KNOWLEDGE OF SHIP RESISTANCE & PARTLY EFFECT OF MACHINERY CHANGES & PARTLY OF AIR TRANSPORT.

NOTE: THESE PROFILES ARE NOT DRAWN TO THE SAME SCALE

