

THE S.P.D.C. ABROAD

BY

COMMANDER M. J. GOULD, R.N.

There have been two articles published in earlier copies of the *Journal of Naval Engineering*, one by Captain W. F. Baily, Royal Navy, in Vol. 3, No. 4, on the early history of S.P.D.C.(U.K.), and another by Commander D.G. Thompson, Royal Navy, in Vol. 8, No. 3, on Admiralty Machinery Depots. As S.P.D.C.s abroad combine these two functions, it is perhaps time for a contribution from an S.P.D.C. abroad. This article is based on the organization in S.P.D.C., Singapore.

The following list of equipments and types of spares in the custody of S.P.D.C.s abroad will be dealt with in detail:—

- (a) Internal Combustion Engine Pool.
- (b) Admiralty Machinery Depot Section.
- (c) List 'C' and 'D' Submarine Spares.
- (d) S.P.D.C. Spares.

Internal Combustion Engine Pool

A pool of removable engines in the standard and interim standard range (A.F.O.1789/54 paragraph 12) is stocked to meet the requirements of the station. These are either in condition 'A' (new) or condition 'B' (overhauled) and are issued on demand to replace engines in condition 'C' (requiring overhaul). The condition 'C' engines, returned to S.P.D.C., are either passed into the local dockyard to be overhauled, inhibited and passed back to the pool in condition 'B', or are returned to the appropriate overhaul centre in the United Kingdom and these, subsequently, replace engines demanded from the pool.

Admiralty Machinery Depot Section

A variety of complete equipments is kept on A.M.D. charge in three separate ledgers, one for engineering, one for electrical and one for hull units. These units include such items as :—



STOWAGE BINS FOR I.C.E. SPARES, SEEN FROM THE OFFICE BLOCK

- (a) Propellers and shafts
- (b) Auxiliary turbine rotors, pinions and gear wheels
- (c) Main and auxiliary turbine blading
- (d) Complete spare units such as distiller pumps
- (e) Workshop equipment
- (f) Galley domestic machinery
- (g) Air conditioning machinery
- (h) Domestic refrigerators
- (i) Water coolers

These units are distributed to S.P.D.C.s abroad by the Admiralty to meet a world-wide distribution plan, and copies of the A.M.D. ledgers, for all 'foreign' S.P.D.C.s are kept by the Admiralty, amendments being reported monthly by those concerned. None of this equipment may be issued, without prior, or covering, Admiralty approval. The equipment is maintained by requisitioning the work on the local dockyard. Units that are returned beyond economical local repair are reported to E.-in-C. for disposal and are either despatched to U.K. for repair, or disposed of locally.

List 'C' and 'D' Submarine Spares (B.R.1988, Art.0704)

These are depot ship and Admiralty departmental spares (equivalent to A.M.D. equipment). When a submarine depot ship is on a foreign station, these would not normally be an S.P.D.C. commitment. However, the submarines in the Far East are based at Sydney and refit at Singapore, so, as a special case, this gear is kept here and the boats bring their outfits of List 'A.' and 'B' spares up to Singapore with them, when they come in for refit.

List 'C' spares are taken on charge and the stock held is reported every six months to E.-in-C., for transmission to F.O.S.M. The List 'D' spares are on A.M.D. ledger charge. List 'D' gear may not be issued without Admiralty approval. This equipment is maintained by requisition on the local dockyard.



GENERAL VIEW WITH THE OFFICE BLOCK ON THE RIGHT AND SECTION FOR SPARES
RETURNED FOR RECLAMATION IN THE FOREGROUND

S.P.D.C. Spares

These are spare parts for items for which the supply of spares has been accepted as an S.P.D.C.(U.K.) liability, as defined in A.F.O.248/56, which divides them into the following headings :—

- (a) I.C. engine spares.
- (b) Domestic refrigerators, water coolers and air conditioning machinery spares.
- (c) Steam and miscellaneous engineering spares.
- (d) Electrical spares (motor, generator and starter spares).
- (e) Hull spares.

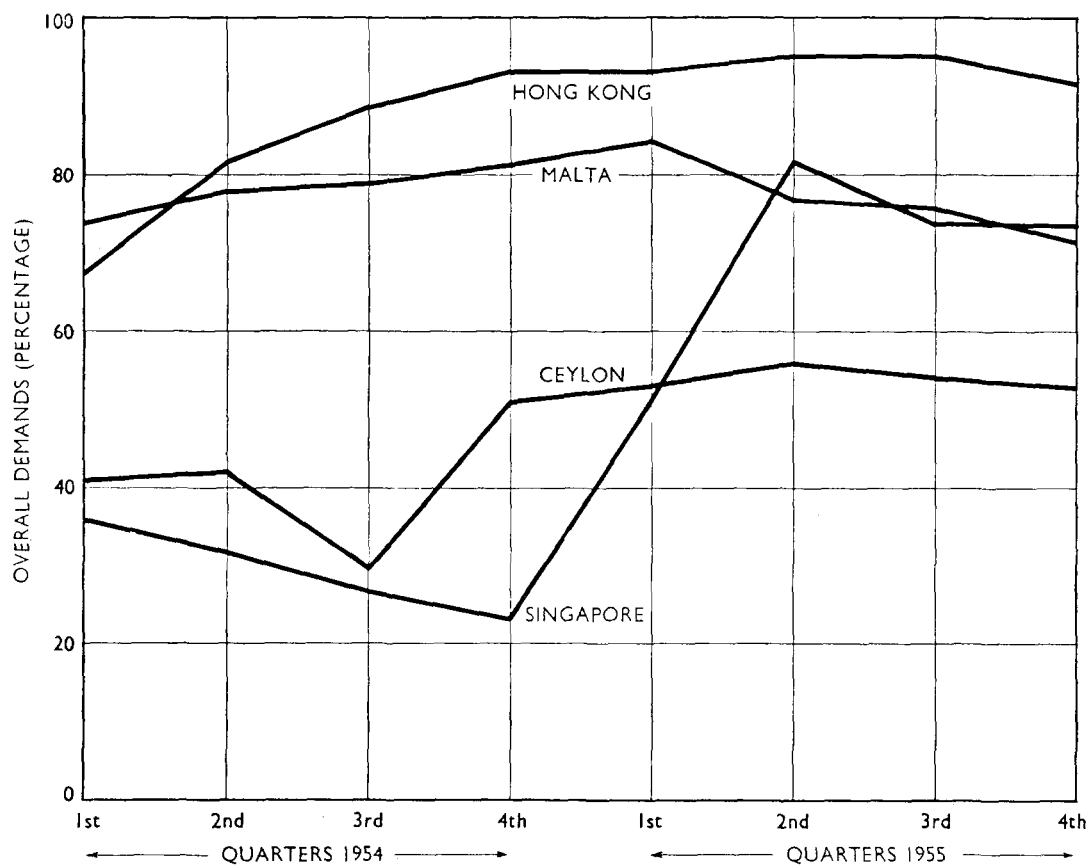
At this juncture, it may be worth stressing that S.P.D.C.s abroad may only keep stocks of spares for equipments that have been accepted as an S.P.D.C. (U.K.) liability. Spare parts for other equipments are obtained through S.P.D.C. from a ship's home dockyard, but, as this takes time, it is important that ships keep their stocks of onboard spares for these equipments up to their allowances, and demand to replace spares appropriated as soon as any items are used.

All the spare parts in this section are documented on Kardex, there being one card for each spare part in the range of spares for each equipment. On these cards are recorded the stocks of each item held and its location in the store, the issues, the re-order level to show when further stocks must be demanded, and the receipt of new stocks. All the spare parts in this section are either consumable or returnable, as defined by A.F.O.1888/54, Appendix III. Returnable items, which can be reclaimed by local dockyards or special repair facilities in U.K., are dealt with by S.P.D.C.s abroad after they have been returned on Form S.331.

Methods of Stowing Equipments and Spare Parts in S.P.D.C.s.

S.P.D.C., Singapore, is contained in what were the three north bays of No. 2 Transit Shed, alongside the Stores Basin, in the dockyard. A general idea of the arrangement is given in the illustrations.

All A.M.D. equipment, List 'D' submarine equipment and pool I.C. engines are stowed in a state of preservation, and, as far as possible, tropically packed in cases. All S.P.D.C. spares and submarine list 'C' spares are either stowed in bins, each item in its P.I.P-ed state or, if the items are too big for bin



OVERALL PERCENTAGE DEMANDS MET FROM STOCK. THE SLIGHT DROP IN 1955 IS PROBABLY DUE TO THE MOVEMENT OF SHIPS CONSEQUENT ON THE G.S.C. SCHEME, BEFORE THE REDEPLOYMENT OF SUPPORTING SPARES BECAME EFFECTIVE

stowage, in packing cases in what is known as bulk stowage. Therefore, all equipments and items of spare gear will have either a 'bin location' or a 'bulk location' shown in the appropriate ledger or Kardex.

Demands Met from Stock

The efficiency of an S.P.D.C. can be gauged by the percentage of demands on items, that are an S.P.D.C. commitment, which are met from stock. As 70 per cent of the demands received are for spare parts for I.C. engines, it is desirable to keep a full range of spares for all types of engines in use on the station, but this is not as practical as it sounds, as, for example, on the Far East station there are 44 different makes in use comprising 134 different types. A compromise must, therefore, be established on which makes of engines are to be catered for with a full range of spare parts. The graph gives comparative percentages of items met on demand from stock, which were an S.P.D.C. commitment, for the four S.P.D.C.s abroad up to the end of the first half of 1955. Potential customers will no doubt be encouraged to see that S.P.D.C., Singapore, is getting better.

Staff

S.P.D.C., Singapore, is run by a staff composed of Asian civilian industrials and non-industrials, naval ratings, a clerical officer and naval officers. The naval ratings are mostly from the Engineering Department, and considering that the junior ratings' training and career in the Service, before they are employed in an S.P.D.C. would not normally introduce them to the special

knowledge required for this work, they are usually very quick to grasp the principles. Even the most junior are employed in sections where they are more or less in complete charge, and this responsibility may stimulate them to do better work than they would when employed in their normal capacity as engineering mechanics.

CONCLUSIONS

This article tries to show that S.P.D.C.s abroad are veritable Ali Baba's caves and like Ali Baba's caves, those who wish to gain access to the treasures therein must know the 'Open Sesame'. If in doubt as to the correct procedure for obtaining equipment, the officers in the S.P.D.C.s know the answers, or most of them, and are only too willing to assist. Attempts to break open the cave will be thwarted, for these officers hold responsibility to the Engineer-in-Chief for the safe custody of all items and issue only to entitled demanders.