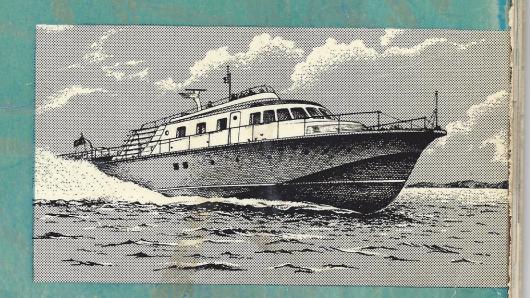
TUFNOL

FOR MARINE ENGINEERS



TUFNOL IN SMALL CRAFT

The sea is an unsympathetic taskmaster that will not suffer fools gladly. The discerning yachtsman has learned that it is false economy to use inferior equipment which may fail at a time when his ship is in danger. Absolute reliability, light weight and the minimum of maintenance are perhaps the most important requirements for marine fittings. That TUFNOL has proved its worth in these respects is evidenced by the fact that TUFNOL blocks and fittings are now to be found aboard every type of small craft, from dinghies to ocean racers, all over the world.

As TUFNOL is resistant to sea water corrosion and does not suffer cracking or distortion due to extremes of climate, no maintenance of blocks or fittings exposed to the weather is necessary. For those who prefer to make their own fittings, TUFNOL is available in the forms of sheet, rod, tube and other sections, which may be obtained through Tufnol Branch Offices.

Due to their lighter impact resistance, fabric grades Whale or Crow are usually chosen for the manufacture of marine components. When designing moving parts such as sheaves,



Machining wheel for 12 metre yacht "Sceptre".

it must be remembered that TUFNOL will absorb moisture and it is necessary to make allowances for the very slight swelling of the material.

The design and manufacture of yacht fittings is a specialized job, requiring practical know-ledge of both seagoing conditions and materials available.

Apart from some special yacht fittings fabricated or moulded at the TUFNOL Works, the majority of the wide range of blocks and components made from TUFNOL is produced by Messrs. M. S. Gibb Limited of Warsash, near Southampton, and Messrs. Lewman



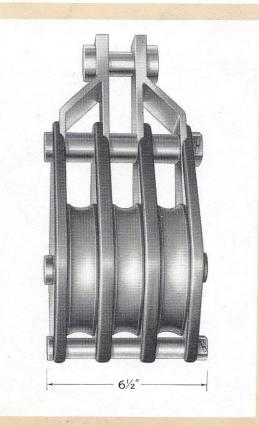
Marine Limited of Emsworth, Hants.

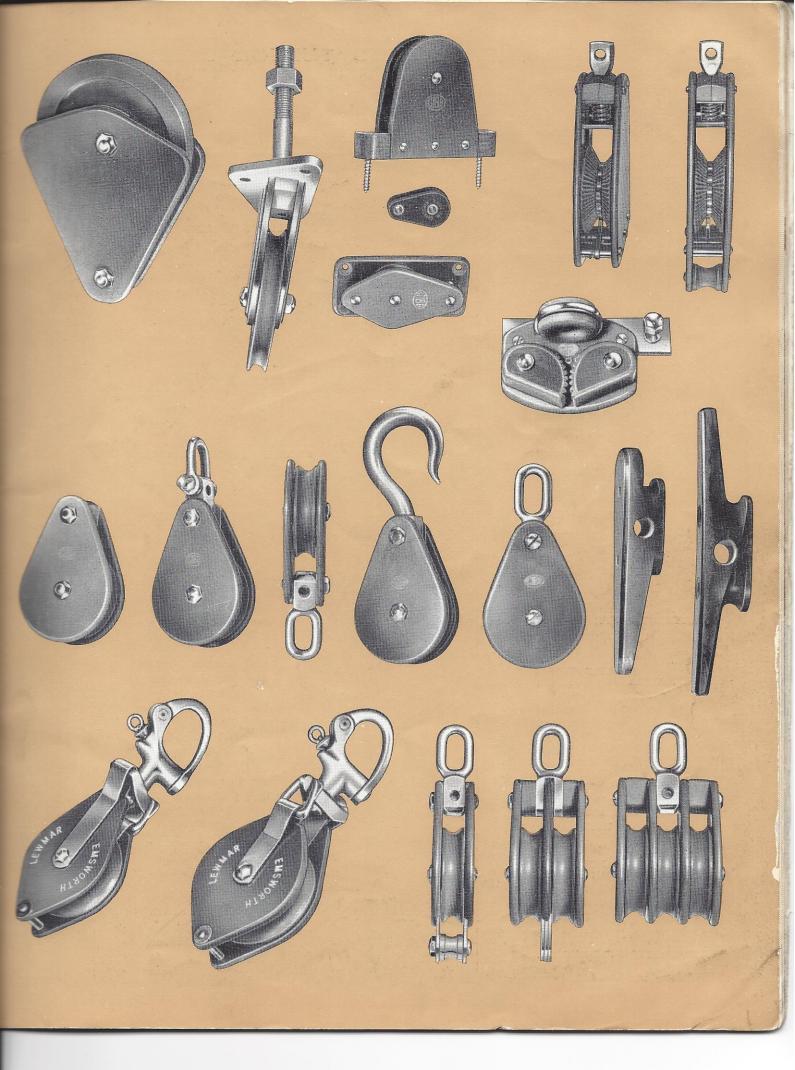
It is not intended to include a detailed catalogue of yacht fittings in this booklet, but rather to illustrate the uses and properties of TUFNOL in this sphere. Full information and expert advice are available from Messrs. M. S. Gibb Limited and Messrs. Lewmar Marine Limited.

The prototype block illustrated was tested to destruction by the Admiralty. The test was discontinued when the load exceeded 30 tons, due to serious distortion of the shackle and pin of the test rig. Some distortion of the steel binding straps on the block had also occurred and on examination it was found that the stainless steel pin forming the eye of the block had been stressed to shearing point.

In spite of this, the TUFNOL cheeks were completely undamaged, the TUFNOL sheaves still rotated freely and were in excellent condition. Similar blocks have since undergone satisfactory tests in boat davits in one of H.M. ships.

TUFNOL Block manufactured by M. S. Gibb Ltd., to Admiralty pattern. Working load 2 tons, proof load $4\frac{1}{2}$ tons.





TUFNOL

PERRY BARR **BIRMINGHAM 22B**

Telephone No. Birchfields 4554

Although particularly suitable for service at sea, TUFNOL, with its unique combination of properties, can solve many material problems in other fields of engineering. Full information is available from any TUFNOL branch office or agency.

Branch Offices

LONDON

Ellison House, 11 Connaught Place, W.2 Ambassador 3121

BIRMINGHAM
Ellison House, 19 Highfield Road, Edgbaston, 15
Edgbaston 5371

MANCHESTER

Kent House, Spring Gardens, 2 Deansgate 5105 BRISTOL

6 Clare Street, 1 Bristol 23304-5

NEWCASTLE-UPON-TYNE

Exchange Buildings, Quayside, 1 Newcastle-upon-Tyne 29693 GLASGOW

Ellison House, Woodlands Terrace, C.3 Douglas 5243

EXPORT OFFICE
131 Victoria Street, London, S.W.1

Tate Gallery 9201

Overseas Agents

SOUTH AFRICA

George Ellison (S.A.), (Pty.) Ltd., Box 50, Crown Mines, Transvaal AUSTRALIA
R. E. Jeffries (Pty.) Ltd., Hotham Parade, Artarmon, Sydney, and at Melbourne and Brisbane
NEW ZEALAND

B. R. Homersham Ltd., P.O. Box 280, 126 Victoria Street, Christchurch, C.1, and at Auckland and Wellington

Wellington
GHANA
British & African Eng. Co. (Ghana) Ltd., Box 199,
Sekondi, and at Accra
FEDERATION OF NIGERIA
British & African Eng. Co. (Nigeria) Ltd., Bag 1084,
Apapa, Lagos, and at Enugu
KENYA AND ZANZIBAR
R. W. Ketchley & Co. Ltd., Box 5182, Mercury House,
Victoria Street, Nairobi, and at Tanga and Mombasa
UGANDA

UGANDA
R. W. Ketchley (Uganda) Ltd., Box 661, 2 Grant Street, Kampala ISRAEL

F. Pick, Box 1702, Haifa FEDERATION OF MALAYA & SOUTHERN

SIAM

Harper, Gilfillan & Co. Ltd., Box 247, Kuala Lumpur, and at Singapore

HONG KONG
Gordon Woodroffe & Co. (Far East) Ltd., Box 87, 318/322 Edinburgh House, Hong Kong
SOUTHERN INDIA AND CEYLON
Marshall, Sons & Co. (India) Ltd., Box 141, 9 Second

Marshall, Sons & Co. (India) Ltd., Box 141, 9 Second Line Beach, Madras PAKISTAN

F. & C. Osler (Pakistan) Ltd., Chartered Bank Chambers, McLeod Road, Karachi, and at Lahore HOLLAND

Technisch Unie, Box 1001, Keizersgracht 242-248,

Amsterdam C.

FINLAND
Harry Marcell, E.Esplanaadikatu 220, Helsinki
NORWAY

Th. Smith Christensen, Box 3085, Kristinelundvei 6, Oslo SWEDEN
Axel H. Carlsson, Norra Hamngatan 6, Gothenburg C. DENMARK

Hakon Gertsen, 4, Radhuspladsen, Copenhagen V. FRANCE

Getting-Jonas-Titan SA, 29 Bis Rue D'Astorg, Paris 8e

PORTUGAL

A. Black Ltd., 32 Rua de Bea Vista, Lisbon JAPAN

Dodwell & Co. Ltd., P.O. Box 297, Tokyo