

China Navigation's Versatile 'C'/'K' Class (1955-1962)

by Howard Dick, Stephen Kentwell, Mike Carolin and Chris Coy

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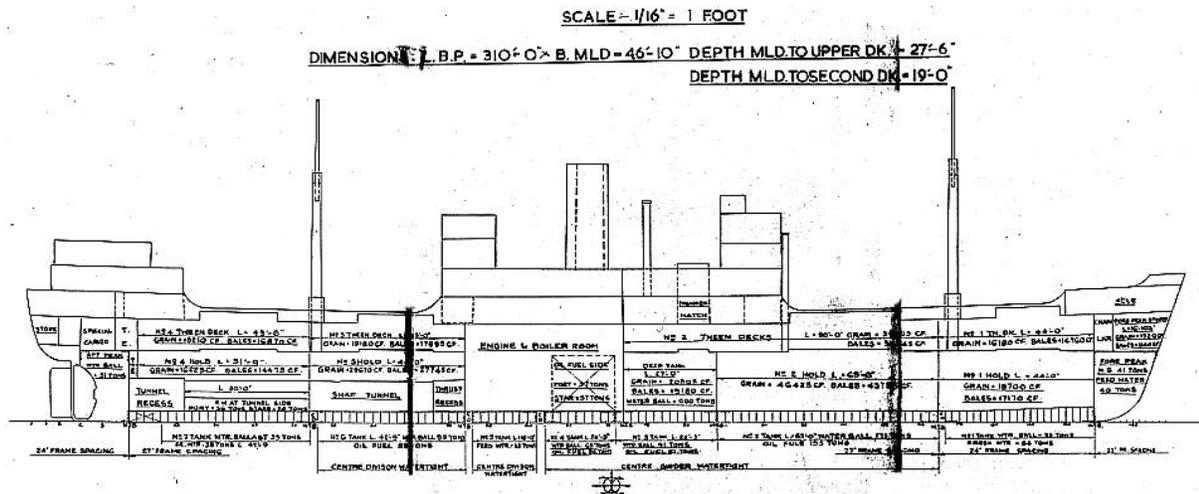
h.dick@unimelb.edu.au
skentwell@hotmail.com

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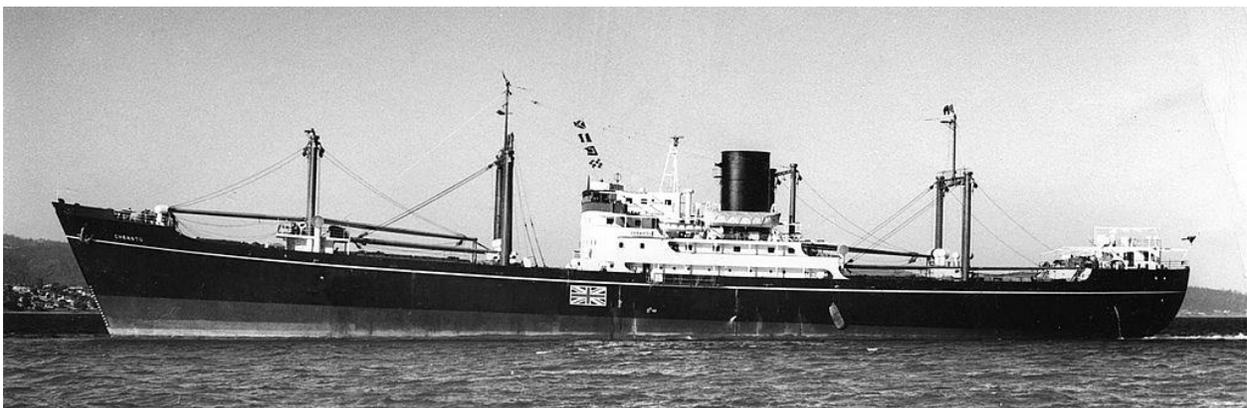
At the beginning of 1951, CNCo completed its immediate postwar re-tonnaging program with delivery of *Anshun* (January) from Taikoo, the freighter *Fengning* (February) from William Gray & Co. at West Hartlepool and the magnificent *Changchow* (also February) from Scotts of Greenock. Unfortunately, as explained in a separate article, *Changchow* and her sister *Chunking* (1950) were immediately redundant and had to be chartered out [separate article also accessed via 'Big 5' page on oldchinaships.com]. Notwithstanding those short-term charter earnings, their combined cost of £1.8 million was something of a millstone for CNCo in repositioning for a postwar world with a blockaded China, independent Indonesia and reviving Japan. Accordingly, in March 1952 both ships were sold to The Admiralty with forward delivery at the end of their French charters. With the prospect of those funds becoming available, CNCo could look to build another four to six ships, depending on their size and fit-out.

Without access to the CNCo's archived records, we do not know what options were explored for the next generation of ships and how they were evaluated, we only know the outcome. Most importantly, it was decided that the fleet already had enough passenger capacity with *Changsha* and *Taiyuan* in the Australia-Hong Kong-Japan line and *Anking* and *Anshun* in the Hong Kong-Straits line. The new ships would have nothing more than an Owner's cabin. It was also decided that they should have more cargo capacity than the modest 3,700 dwt or 5,300 tons (bale space of 40 cu. ft) of the recently completed 'F' class quintette, in fact the 6,500 cargo dwt would be almost double and or bale space of 8,000 tons would be 50% more. Funds would allow an initial program of four freighters to be built in two pairs, all to be constructed by the Swire Group's Taikoo Dockyard in Hong Kong. It was a good realignment. For each 9,000-dwt, 368-passenger liner, CNCo would be able to deploy two versatile freighters with a combined cargo capacity of 13,000 dwt tons.



FUNING (1950) capacity plan: a 4-hold layout with large deep tank and tweendeck fore and aft (original November 1955 by Taikoo Dockyard, courtesy Rob Jennings, John Swire & Sons).

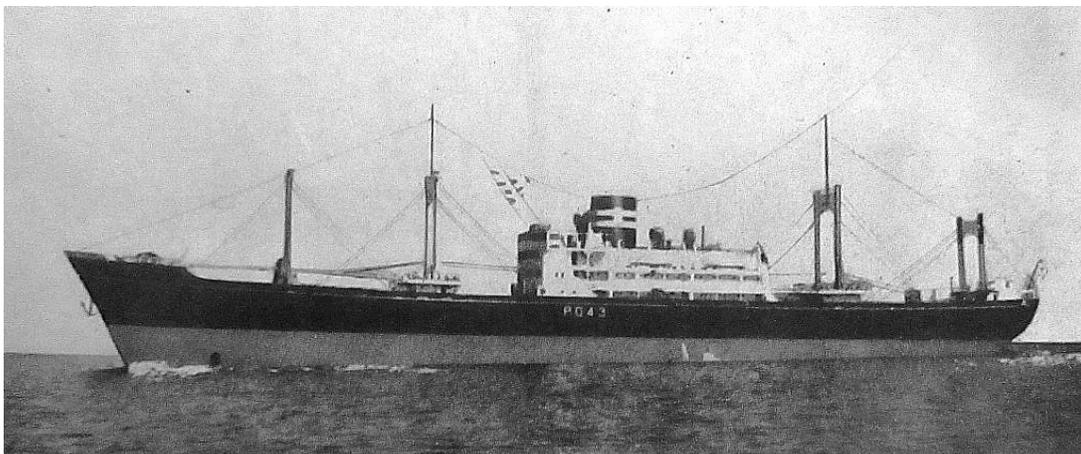
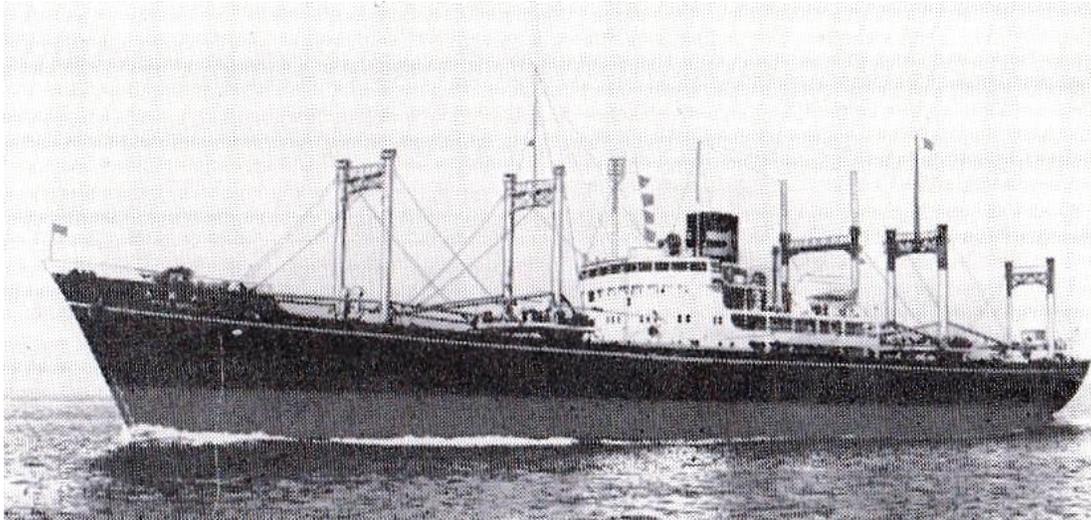
By 1953 attention had turned to the specifics of design. Again, we do not know how the design was conceived and evaluated but the profile was distinctive, unlike any other vessel in the CNCo fleet and in fact unique among British cargoliners of the 1950s.



CHENGTU (1955), second of the class, in profile and light-ship at Hobart, 26 July 1960 (K. Barr).

The only close prototype is actually Japanese. In many key respects (except engines), the 'C' class quite closely matched *Osaka Maru* (December 1949) of Osaka Shosen Kaisha (OSK). This plain, functional but streamlined design was shared by two near-sisters built by the same yard for OSK affiliates, *Nagasaki Maru* (July 1950) and *Kobe Maru* (October 1950) and a fourth vessel, the only motorship of the group, *Mayaharu Maru* (October 1951) built for Shinnihon Kisen. OSK had wanted to build proper vessels for its overseas services, but the Occupation government under General MacArthur limited the size of ships Japan could then build to 5000 gross tons. *Osaka Maru* was therefore completed as an open shelter decker (4808 grt) but in January 1951 was converted to a closed shelter decker (6653 grt) when higher tonnages were allowed. This was still smaller than the later mainline ships but allowed for flexibility as trade developed. The ship re-opened OSK's services to South America (7/50), Africa (7/51) and

Australia and New Zealand (7/52) and continued on the latter run for a number of years during which time she would have been very visible to Swire personnel in Australian and New Zealand ports. *Mayaharu Maru* opened her owner's service to New York.



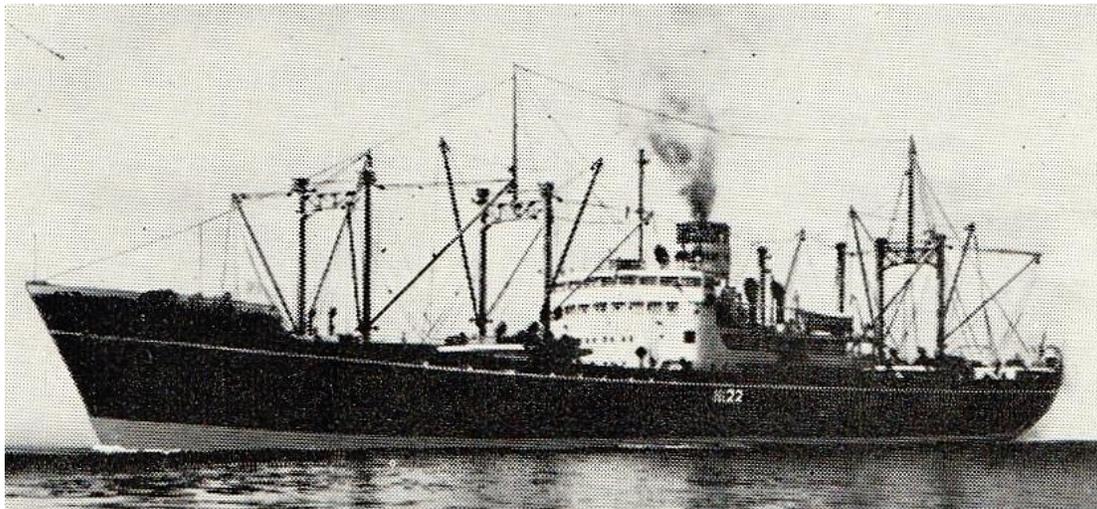
OSAKA MARU on trials and after an aft set of kingposts had been removed.

KOBE MARU was also built with kingposts right aft. (MOSK History).

Osaka Maru was the first Naka Nippon (Mitsubishi H.I.) ship built to both AB and NKK class, and intense consultation took place with ABS on construction and equipment as she was being built, with only first-grade materials. She was then used as a benchmark for the later, larger OSK ships that came from the same yard, as described in Tom Stevens' 'Scottish House'. The ABS surveyor Beckwith (phon.) was quoted as saying "in terms of design and construction she is outstanding and I am very happy to classify this as an ABS ship". She was built as a turbine steamer, was converted to diesel-power in 1959, and could carry 12 passengers.

With a very sharply raked bow and cruiser stern, *Osaka Maru* had an overall length of 440' but between perpendiculars was only 415', thus a bit longer than a 'C'-class (390') while breadth of 57' was also about the same (56'). Whereas *Osaka Maru* had six hatches plus a coaling hatch,

Nagasaki Maru, *Kobe Maru*, *Mayaharu Maru* were a simple 5-hold arrangement, as per the 'C'-class. Cargo gear was similar, 14 derricks in all cases, in *Osaka Maru* initially slung from 5 sets of kingposts, joined in samson-style and with Nos.1 and 4 also carrying masts. In the case of *Nagasaki Maru*, *Mayaharu Maru* and the 'C'-class, the aftermost kingposts were suppressed and relocated aft of the superstructure to provide double gear at No. 4 hatch. The 'C' class differed in having an island at the poop to provide accommodation for a larger Chinese crew. All round the *Osaka Maru* class cannot be regarded as an exact prototype but at the very least CNCo and Taikoo people must have looked closely at the ships as an inspiration for their new design.



NAGASAKI MARU's final configuration was the closest of the Japanese quartet to the CNCo ships in layout. Wrecked near Noumea in 1959 en route to Dunedin (MOSK History/SK coll.).

Construction

Four each of the 'C' and 'K' classes were built 'in-house' by the Swire owned Taikoo Dockyard & Engineering Co. in Hong Kong and delivered between 1955 and 1962, the slow delivery over seven years attributed by Charlotte Bleasdale to Swire's policy that CNCo should finance newbuildings out of retained earnings. The eight ships nevertheless constituted most of the yard's large-ship construction over that period. Although Chungking was Yard Bo. 415 and

Kweilin Yard No. 473, most of the other intervening vessels were an assortment of small craft from barges and lighters to launches, tugs and ferries. The notable exceptions were the 2000-grt freighter *Tarawera* (#429), delivered in August 1958 to the Union Steam Ship Company of New Zealand, and the 6,179-grt freighter *Halldis* (#478), delivered in April 1960 to the Norwegian firm Bruusgaard Kiosterud & Co. and of similar dimensions to the C/K class, but with engines aft. *Tarawera* and *Chefoo* ran trials opposite each other on the same day.

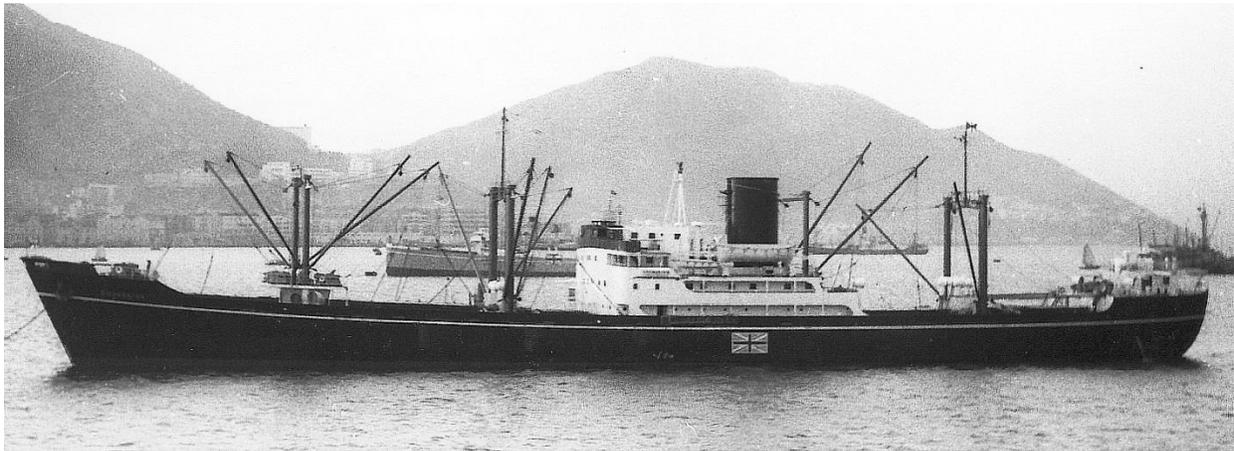
Hulls and dimensions were uniform for all the C/K class. Length overall was 422 ft (128.7m), breadth 56 ft. (17m) and draft 24 ft. (7.3m). Tonnages were almost the same at around 5,900 gross, 3,200 net and 6,800 dwt (6500 tons cargo dwt as a closed shelterdecker), which actually was a bit more than the 6,000 tons of the larger passenger/cargo liners *Changsha* and *Taiyuan*. However, *Chefoo* (1958) was completed as and remained an open shelterdecker of 5,530 dwt, while the deadweight of several other vessels was later marginally increased, in the case of *Chengtu* (1955) to 7,086 tons (the same as the ex-French *Tientsin* and *Tsingtao*).

The 'C'/'K'-class ships all had a raised foc'sle, a midship accommodation block, and a poop for crew accommodation with a white-painted hospital/sick bay on top. The ten European officers (Master, three Mates, Chief Engineer, four Engineers, and Radio Officer) were as usual amidships with the Master's cabin and Owner's suite for two passengers (used intermittently) being on the Boat Deck immediately beneath the bridge. Deck Officers (3) and Radio Officer were Starboard and Engineer Officers (4 plus Chief Engineer) Port-side on the Upper Deck with the shared lounge forward between the Chief Officer's and Chief Engineer's rooms. On the Main Deck, the officers' dining room was forward on the starboard side and the duty mess for engineers port-side aft of the galley, while cabins down both sides were occupied by stewards and cooks along with store rooms.

Chinese crew numbered 35, comprising Bosun, Cassab (assistant bosun), 3 quartermasters, 6 ABs, 2 OS, Sailor's Cook, Sailor's Boy, No. 1 Fireman, Donkeyman, 3 firemen and 6 greasers, Engineroom Cook, Engineroom Boy, Chief Steward, Chief Cook, No. 2 Cook, Pantryman and 3 stewards. All except stewards and cooks berthed aft in the poop, deck crew on the starboard side, firemen on the port, all 2-berth rooms except for the Bosun, No. 1 Fireman and Chief Steward. Because the deck crew were mostly fish-eaters from Amoy/Swatow, while the taller firemen from Tientsin were meat-eaters, each group had its own cook and galley, these being on either side of the forward part of the poop.

[A short note on CNCo catering arrangements by Chris Coy]. The Company paid the Chief Steward an amount in Hong Kong dollars per head per day for the crew and a higher amount for Officers. The Chief Steward then gave the Bosun and No. 1 Fireman the amount due for a month and each fed their men, supplementing it with any fish they caught and splitting any money left over amongst crew as they thought fit. The Chief Steward would feed his own stewards' department. The Chief Steward also purchased and sold duty-free beer and spirits and officers paid their monthly bar bill direct to him. The Master had an entertaining allowance that varied from ship to ship but was never written down, though a telex or letter might be received from the Marine Super/ Ship Manager if they thought it too high. The quality of the

Officers' Mess depended on the Master: if he was interested, the food would be the best afloat, if not it would be monotonous. Thus at about 0900 each day, the Chief Steward presented the Master with the menus for that day and the following day. Changes could be made, even a deck buffet for lunch, for example, on a fine day through the Whitsundays. All Chief Stewards made money, some more than others, depended on the ship, the run, and the Master].



First of the class, CHUNGKING (IV) at Hong Kong, no date (Tom Rayner/S. Kentwell).



CHUNGKING departing Risdon (Hobart) 19 April 1960 with bottom cargo of zinc ingots at commencement of a northbound voyage to Japan. Union Jack on side (Kingsley Barr).



Sister CHENGTU berthing at Hobart, 29 April 1959, showing wooden bridgework (K. Barr).

Cargo, the ships' sole rationale, was stowed in five holds (three forward, two aft). As might be expected, No. 2/3 hold was much the biggest, Nos 4 and 5 restricted by the shaft tunnel, thus *Chefoo's* nominal bale capacity (cu. feet) was No. 1 (37,230), No. 2 (123,200), No. 3 (34,360), No. 4 (83,490) and No. 5 (43,230), in total 321,930 cu. feet (8,040 cubic tons of 40') of which only 85,700 cu. ft was carried in the lower holds, the balance in the tweendecks, which helps the explain the ballast block added later at the foot of No. 1 hold. Most of the class, but not *Chefoo*, had a deeptank at No. 3. The biggest hatches were Nos 2 (40' x 20') and 4 (37'6" x 20' or 27'6" x 20' for the 'K's) scaling down to 27'6" x 18' (No. 5), 27' x 17' (No. 1) and 15 x 20' (No.3) with some other minor variations in length between the 'C's and 'K's. The MacGregor folding hatch covers were in two or four sections, depending on the length of the hatch. Cargo gear comprised seven sets of derricks fixed to four sets of kingposts (with crosstrees), of which Nos 2 and 4 carried signal masts in the 'C's, Nos 1 and 4 in the 'K's (except *Kweilin*, which had a tall signal mast abaft the bridge). Derrick SWLs varied within and between the two sub-classes. The first pair of *Chungking* and *Chefoo* had one 15-ton-SWL and one 10-ton at the big No. 2 hatch and two 10-ton at No. 4, elsewhere 5-ton SWL; for the next pair of *Chekiang* and *Chefoo* the 15-ton at No. 4 was downsized to another 10-ton and two 5-ton were reduced to 3-ton at the short No. 3; *Kwangtung* and *Kwangsi* were standardized as fourteen 10-ton, while *Kweichow* and *Kweilin* had only four 10-tonners and ten 5-tonners, the latter also having a 30-ton 'jumbo. Between bridge and funnel was a small stores/engine hatch with a 3-ton SWL derrick.



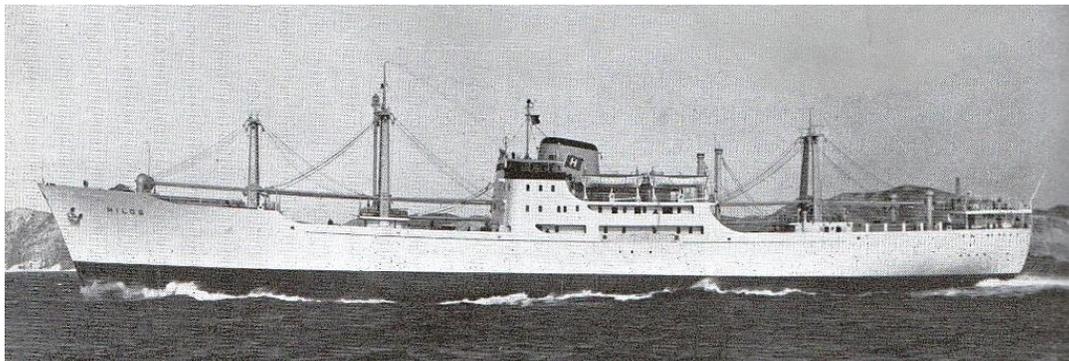
CHEFOO leaving Risdon, 24 February 1966, showing differing hatches sizes and housings (K. Barr).

The engine was a 4-cylinder 67LBD4 Taikoo-Doxford (670 x 2320mm) built under licence by Taikoo a single screw, for a designed service speed of 14-14½ knots at 115rpm but with nothing in reserve. Taikoo specs [see Wikiswire] cite 14.3 knots at a fuel consumption at sea of 14.8 tons per day. Typical speed for *Kweilin* was around 14 knots, up to 15 knots with a following current but dropping down to 12 knots against current and tide. It is a bit curious that the later 'K'-class were not given an extra knot of speed, given that *Changsha* and *Taiyuan*, also *Anking* and *Anshun*,

were 15-16 knotters, and by the 1960s were already a bit slow. Australia-Japan cross-trader Hillerstrom's *Delos* (1952) was already 16 knots, *Milos* (1956) and then *Samos* (1960) and *Tenos* (1961) were all 17-knot motorships, a speed matched from 1961 by CNCo's secondhand purchases *Tientsin* and *Tsingtao* (both 1955) and by other vessels in the trade.



DELOS of 1952 and the later MILOS had a similar layout to the 'C's (A.C. Green/SLV)

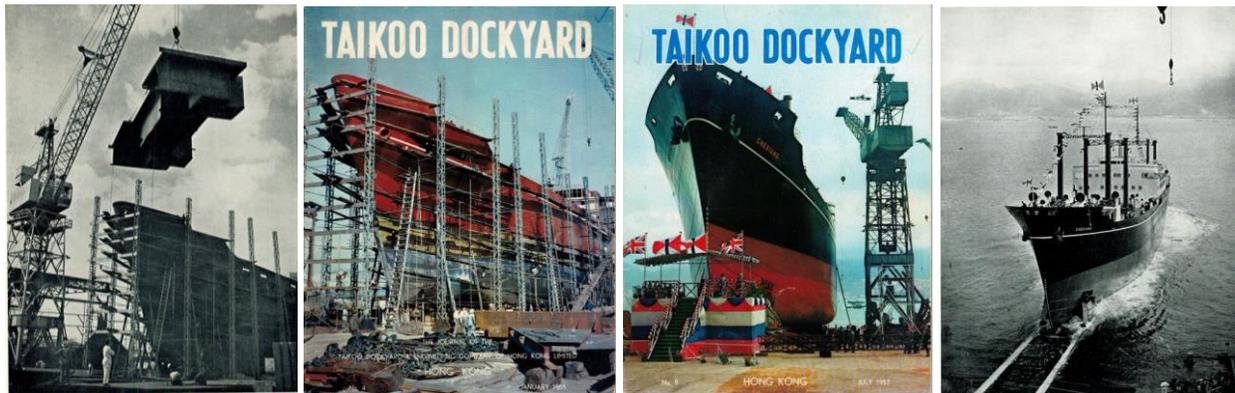


MILOS had a 6,600 bhp engine enabling a speed of 17 knots (Mitsui Tamano)

With a raked, fine-lined stem and cruiser-spoon stern, and CNCo's traditional vertical, well-proportioned black funnel set towards the aft end of the superstructure and upright masts, black hull with white line, golden-brown masts and derricks and red boot-topping, the C/K-class ships always looked striking. From 1967 the Swire/CNCo. flag was painted on the funnel.

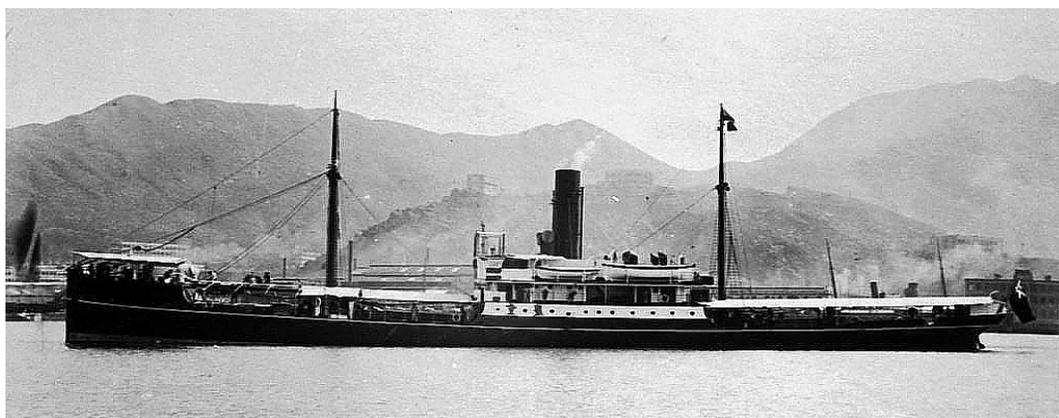
The first two ships in the new 'C' class were laid down in late 1953 into early 1954 on the slipways recently vacated by the Norwegian coasters *Henrik* (launched Sept. 1953) and *Hervar* (launched Nov. 1953). The 'Taikoo Gazette' of July 1954 showed the nearly completed frame of Yard No. 403 alongside the keel of No. 404. The same issue highlighted that the hulls were being built in 'prefabricated units' put together in welding grids at the head of each berth. A similar welding process was also being applied in construction of the Taikoo-Doxford engines. Yard No. 403 was launched as *Chungking* (IV) by Lady Grantham, wife of Sir Alexander Grantham, Governor of Hong Kong, on 7 December 1954 with delivery the following May. Yard

No. 404 was launched as *Chengtui* (II) on 1 September 1955 with delivery in December. *Chekiang* (II) followed in November 1957 and *Chefoo* (II) in August 1958.



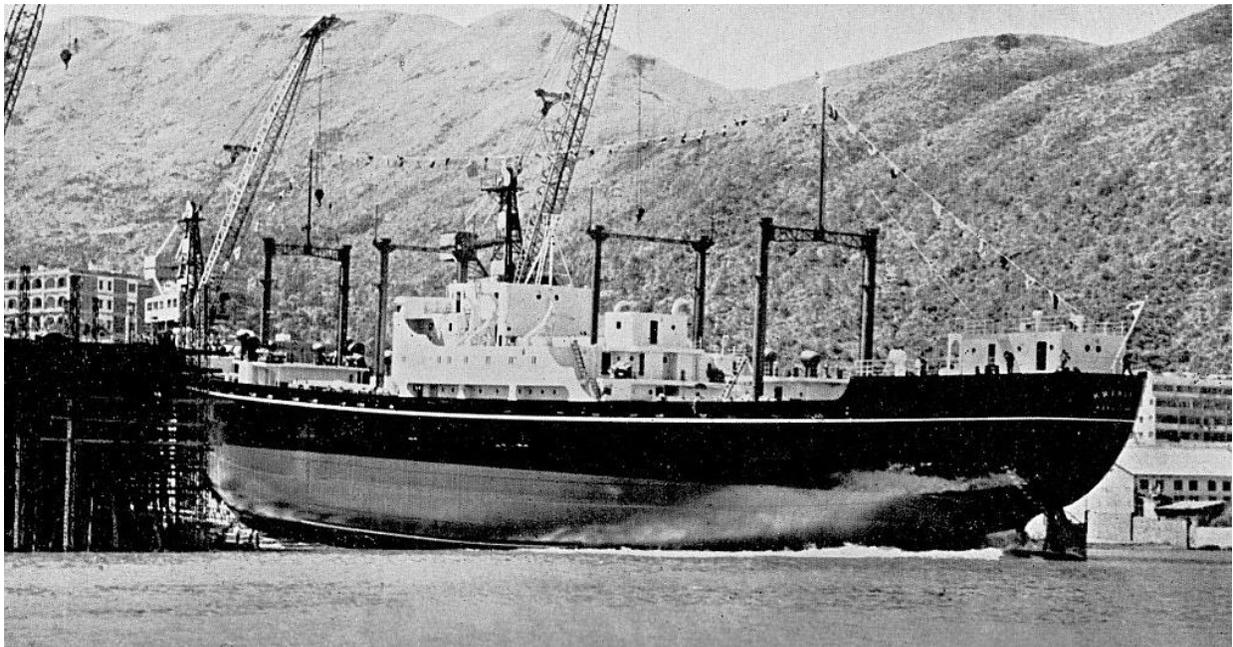
L-R: 1) CHUNGKING, lifting a prefabricated 18-ton mast housing; 2) CHUNGKING plated up on slipway (both *Taikoo Dockyard*, Jan. 1955); 3) CHEKIANG ready for launch and 4) launching on 17 April 1957 by Miss Gillian Swire (*Taikoo Dockyard*, July 1957).

The first three 'C' class repeated names of the 1914 'beancaker' quartette (c.2,200 grt), of which the fourth was the Taikoo-built *Chusan*. Because P&O's liner *Chusan* (1951) was the flagship in its UK-Far East line, the 1950s quartette was completed by *Chefoo*, whose namesake of 1876 had been Swire's (and shipbuilder Scott's) first purpose-built beancaker. It may be added that *Chungking* (II) (1914) had a very long life for although sold by CNCo in 1947, she served her new Hong Kong owners until typhoon damage took her to breakers at the end of 1964 after fifty years in service. Since CNCo's short-lived passenger liner *Chungking* (1950) was operating as the Royal Fleet Auxiliary *Retainer*, for the period 1955 to 1964 *Chungking* II, III and IV were all still in service. The original 1251-ton *Chung King* (1882) had the longest life of all, sold out of the CNCo fleet in 1905 but still trading on the China Coast in December 1941 as the Greek-flag *Ano Vathy*, then being seized by Japan as *Asei Maru* until bombed and sunk off Woosung in July 1945.



CHUNGKING (II) (1914), trading from 1947-64 as Sung Cheong's TAICHUNGSHAN (Wikiswire).

The 'K' class were delivered as *Kwangtung* (March 1959), *Kweichow* (August 1959), *Kwangsi* (March 1960) and *Kweilin* (1962). These also revived CNCo names: *Kwangtung* (1921-42), *Kueichow* (1905-36), *Kwangse* (1898-1921) and *Kweilin* (1891-1923).



KWANGSI launch, 5 Oct. 1959, masts and flags but no funnel (*Taikoo Dockyard*, Jan. 1960).

The Taikoo yard list identifies the later 3 'C's and the first 'K' as 'repeats' but there were some obvious variations in external appearance. Only the first pair of *Chungking* and *Chengtuo* had CNCo's traditional wooden bridgework. All the 'C's had an external alleyway outside the officers' cabins on the promenade deck (above the main deck), but on the 'K's this deck was plated to the ship's side, reflecting the fact that the officers' accommodation on the 'K's was air-conditioned. The 'K's also had shorter motorship funnels and the fore topmast on the forward crosstree. The last 'K', *Kweilin*, was easiest to identify as being the only one with Hallen bipod masts, while the rest had 'goalpost' derrick arrangements. The reason for this innovation is not known. Rival Hillerstoms had fitted bipods from *Delos* (1952) onwards and they certainly had a clean modern appearance. There may also have been the practical consideration that they allowed the radar scanner a clean sweep without shadowing from cargo gear and rigging (compare the 'C' and 'K'-class photos below noting *Kweilin's* scanner atop the tall signal mast).



CHEKIANG at Hobart, 18 Nov. 1966 (K. Barr).

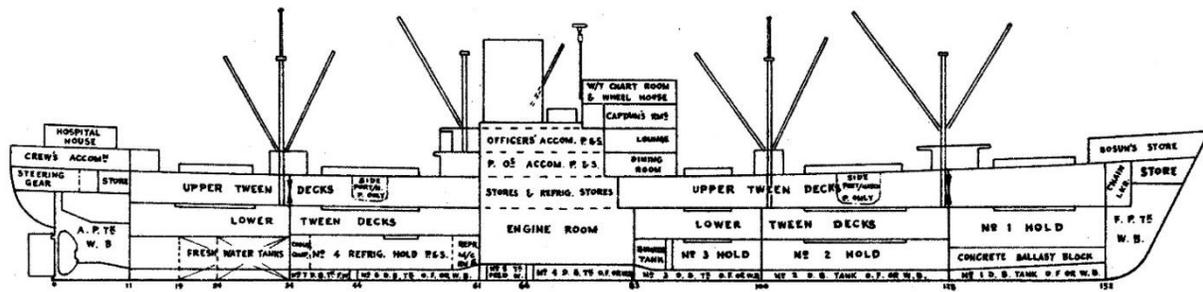


KWANGTUNG at Hobart, 12 Feb. 1962 (K. Barr).

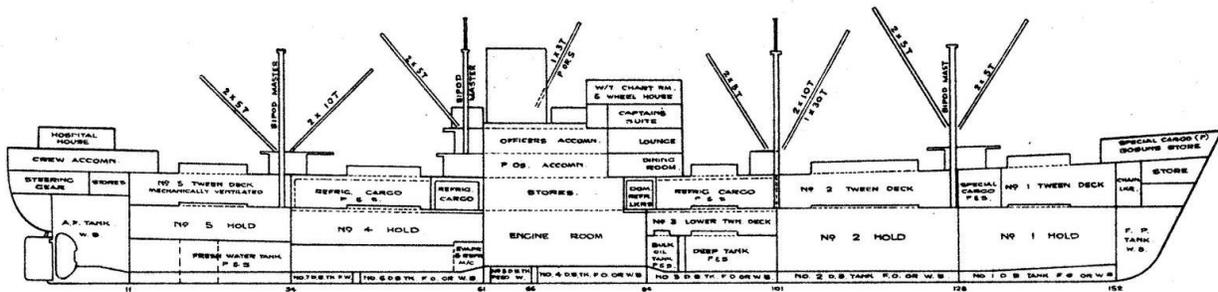


KWEILIN on trials, 9 January 1962 (*Taikoo Dockyard*, summer 1962).

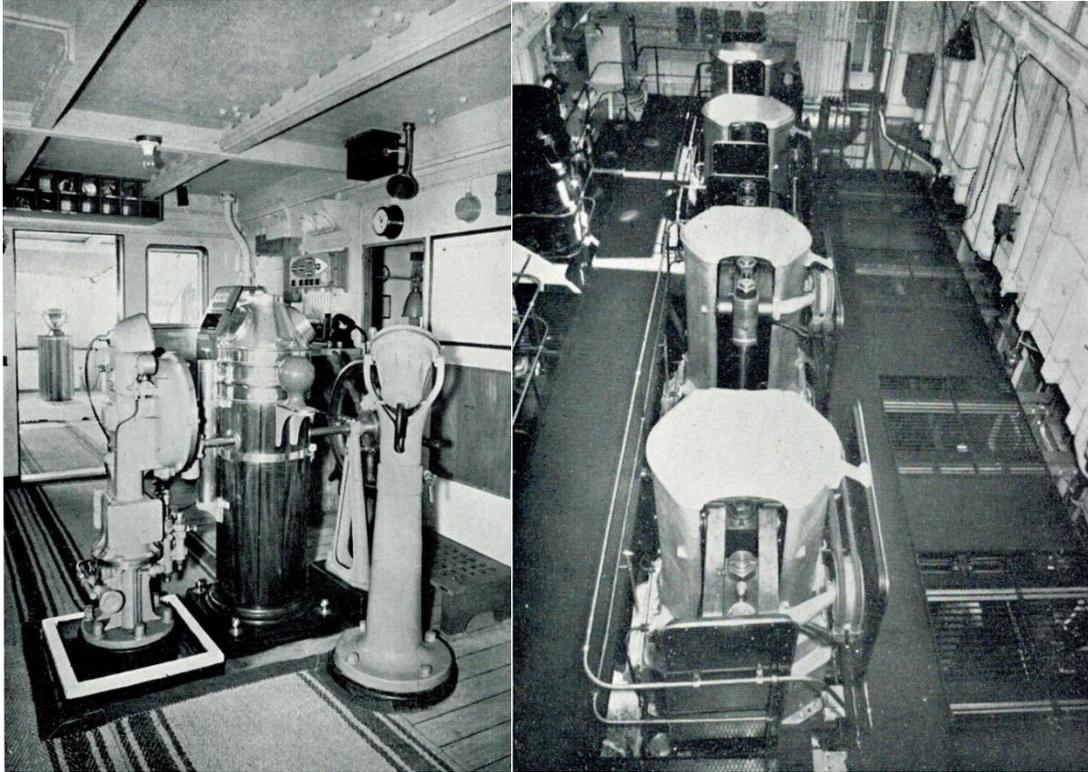
Below deck there were more significant variations. Having been built for the Japan-Hong Kong-Indonesia trade, the first pair of *Chungking* and *Chengtuo* (both 1955) had only two cargo decks, that is tweendeck and lower hold, with a very large deeptank for latex or vegetable oil in the short No. 3 lower hold but no refrigerated space. *Chekiang* (1957) and *Chefoo* (1958) had a lower tweendeck between Nos 2 and 3 and 3 and 4 holds, a bunker tank but no deeptank at No. 3, and refrigerated space awkwardly placed at the bottom of No. 4 lower hold. Built with an eye to the Australian export trade, *Kwangtung* and *Kweichow* (both 1959) reverted to a simpler and more practical arrangement with a single tweendeck at Nos 1 to No. 5 holds with 24,200 cu. ft of refrigerated space in No. 4 tween and ventilated space in No. 5 tween, while No. 3 lower hold had the bunker tank squeezed a bit further aft and two very large deeptanks (34,000 cu.ft. liquid) intended for molasses, vegetable oils or latex. *Kwangsi* (1960) had the same layout except for a lower tweendeck in No. 2 hold. Finally, *Kweilin* (1960) had a lower tweendeck only in No. 3 hold, reducing the deeptank space in the lower hold to 20,800 cu. ft, and refrigerated space in the upper No. 3 tweendeck as well but slightly less across both spaces (23,400 cu. ft).



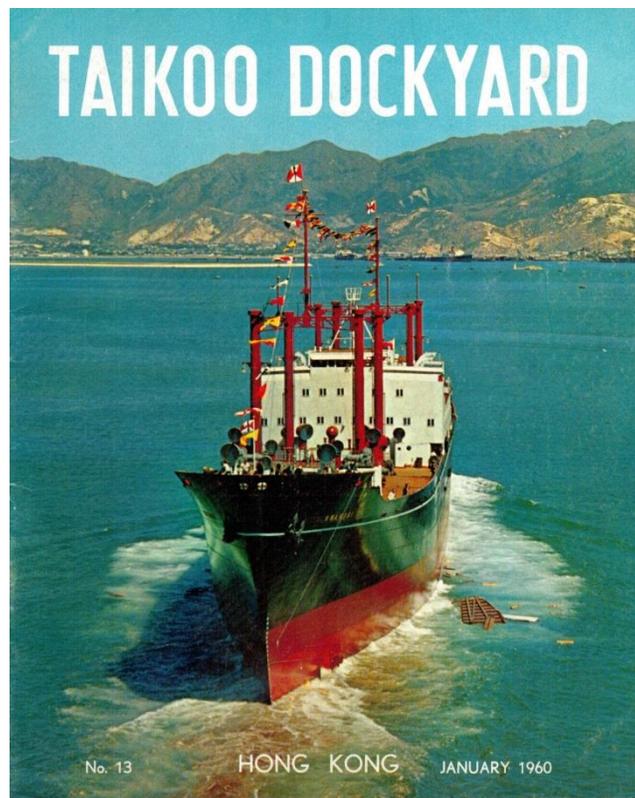
CHEKIANG/CHEFOO GA plan showing upper and lower tweendecks (at Nos 2-3, 4-5 holds), concrete ballast at No. 1, refrigeration in No. 4 lower hold (Wikiswire).



KWEILIN GA plan (without signal mast), similar to CHEKIANG/CHEFOO but no ballast block at No. 1, single tweendeck (except at No.3), large deeptank at No. 3, refrigerated space at Nos 3 and 4 tweens and ventilation at no. 5 tween. Signal mast at No. 3 kingposts. KWANGSI was very similar but lower tween at No. 2 (not 3) and signal mast as CHEFOO/CHEKIANG (Wikiswire).



CHEFOO, compact bridge and main engine (*Taikoo Dockyard*, January 1959).



KWANGSI launch, 5 October 1959 (*Taikoo Dockyard*, Jan. 1960)

In service

Although the 'C' class ships were much seen in Australian ports, in fact they were not built for the Australia-HK-Japan line but rather to take over the freight role that had been intended for *Chungking* and *Changchow*, that is from Japan, Shanghai and Hong Kong to Singapore and Indonesian ports. In the interim, that role had been filled by the 'F' class supplemented by the prewar China Coasters. *Chungking* arrived in Singapore on her maiden voyage 1 June 1955, *Chengtou* in January 1956. *Chekiang* arrived just over two years later in March 1958. By this time the situation in Indonesia had become volatile. In December 1957 Dutch assets had been seized throughout Indonesia and Dutch nationals were required to leave by the end of 1958. Then in March a secessionist rebellion broke out across the Archipelago and led within a month to armed conflict and merchant ships being sunk in various locations.

In light of the economic and political disruption in Indonesia, combined with war risk, in August CNCo suspended calls at Indonesian ports by the new 'C'-class and extended the Japan-China-Bangkok-Straits line from Singapore through to Western Australia (Fremantle) in a joint service with Blue Funnel Line, which since 1890 had maintained a regular passenger-cargo line between Singapore and Fremantle [separate article accessed via 'SEA' page on oldchinaships.com]. CNCo initially contributed the 'C' class *Chekiang* and the new *Chefoo* while Blue Funnel contributed the elderly 6273-grt *Asphalion* (1924). Then from mid-1959 the new *Kwangtung* released *Chekiang* for the South Pacific line (see below) while Blue Funnel substituted the somewhat larger 7797-grt *Sarpedon* (ex *Glenlochy*, ex *Ajax*, 1931) for *Asphalion*, which in June was delivered to breakers in Hong Kong.



KWANGTUNG arriving at Risdon in 1962-63 (Noel Brown/R. Cox)

From October 1958, *Chengtou* and *Chungking* with the new *Chekiang* were switched to the Japan-Hong Kong-Papua New Guinea line. This line had been inaugurated in early 1956 as a monthly service by the 'F' class *Fengning* (1951) and *Funing* (1950) that had been displaced by the two new 'C'-class from the Indonesia line. It was a bold pioneering initiative by CNCo

because the Pacific Islands, all still under colonial rule, were small economies and there was as yet little trade with Japan and Hong Kong. Nevertheless, since 1952 CNCo had operated a regular line from Sydney to Papua New Guinea and the Solomons. Japan and Hong Kong could supply cheaper consumer goods than tariff-protected Australia. With two knots extra service speed, the 'C'-class allowed the South Pacific Line to be extended eastwards to Suva, Samoa and, on inducement, to Noumea. The challenge was that the Islands offered little return cargo except for copra, and most of that was shipped to Australia or Europe. However, there was nickel ore from New Caledonia to Japan. The elegant solution was to place the ships on an Australian-Oriental Line berth northbound from Australian ports direct to Japan [separate article accessed via 'Overseas' page on oldchinaships.com]. Since the signing in July 1957 of the Agreement on trade between Australia and Japan, exports had flourished and more capacity was needed, especially for wool. A 'C' class could carry 6,500 tons of northbound cargo per month, much more than an old China Coaster, and their tweendecks, though not designed for that purpose, proved to be ideal for stowing wool, which complemented a bottom cargo of ore. The smaller *Fengning* and *Funing* then reverted to the Japan-China-Indonesia line. This deployment would be stable until the mid-1960s. Thus within just a few months CNCo had broadened its reach from Western Australia to the mid-Pacific, consolidated its position in the burgeoning Australia-Japan trade, reduced its exposure to volatile Southeast Asia and, at the same time, lessened the direct competition with longtime aggressive rival Royal Inter-ocean Lines. This strategic repositioning would literally pay dividends.

Delivery of the almost identical 'K'-class quartette between 1959 and 1962 gave CNCo much more flexibility in the allocation of tonnage. On delivery in March 1959, *Kwangtung* replaced *Chekiang* to run alongside *Chefoo* in the WA service while *Kweichow* (1959) and *Kwangsi* (1960) initially supplemented the Japan-Australia service. In February 1960 *Kwangtung* made an exploratory call at Auckland, then from early 1962, when released by delivery of *Kweilin*, began a regular monthly service with *Kweichow* from Hong Kong to the four main New Zealand ports, backloading to Hong Kong from Townsville with raw sugar and molasses.

Delivered in January 1962 as the last of the 'K' series, *Kweilin* replaced *Kwangtung* in the Japan-WA service while in March *Chefoo* released *Kwangsi* for the New Zealand trade. On *Kweilin's* maiden arrival in Singapore, 'Straits Times' (22/1/62) reported that she brought 19,000 cases of Chinese oranges and 5,000 packages of cauliflowers from Keelung for the celebration of Chinese New Year. It also reported that Capt. A. Watson had transferred from *Kwangtung* to become *Kweilin's* commissioning master. Blue Funnel's elderly *Sarpedon* took its last northbound sailing from Fremantle in mid-1962 and CNCo then took over then one-third Blue Funnel share and became outright owners of the line, which for a year or so was maintained by just the two ships *Chefoo* and *Kweilin*. The virtue of having eight almost identical ships was that they could be swapped around according to seasonal variation in cargo, docking schedules, and expansion of the fleet and network.



KWEILIN at Wellington, 29 September 1973. Bipod masts with a jumbo at No. 2, no topmasts but a very tall radar and signal mast abaft the bridge (Keith Wood/C. Howell).

In the mid-1960s there was a big reshuffle. The steamers *Fengtien*, *Funing* and *Fengning* were sold in 1964 and replaced in the Japan-Bangkok-Hong Kong line by *Chengtuo*, *Chungking* and *Chekiang*, which in turn were replaced in the Japan-Pacific Islands-Japan rotation by the secondhand cargoliner acquisitions *Yochow*, *Yunnan* and *Ninghai*, of which only the last still loaded northbound from East Australian ports. *Kwangtung* was renamed *Norman* and placed on charter to Crusader Shipping to run alongside *Kweichow*, *Kwangsi* and the recently purchased *Nanchang* (ex *Telemachus*, 1943) in the New Zealand-Japan trade. The other two ships, *Chefoo* and *Kweilin*, carried on the West Australian line, which by 1965 had morphed into a clockwise Japan-PNG-WA-Southeast Asia -Hong Kong-Taiwan-Japan service. In the last years of conventional liner shipping, it was an impressive fleet and network.

Notwithstanding published schedules, CNCo usually advertised 'other ports on inducement', which meant that voyages were often more complicated and 'exotic'. For example, in the six months from April to October 1965, *Kweilin* (Chris Coy 1st Mate) completed two roundtrips in the anti-clockwise WA service as follows: Brisbane (25 April), Sydney, Melbourne, Geelong, Launceston, Bunbury, Fremantle, Point Samson, Port Swettenham, Singapore, Bangkok, Hong Kong, Kobe, Nagoya, Shimizu, Yokohama, Hong Kong, Singapore, Darwin, Point Samson, Fremantle, Singapore, Port Swettenham, Songkhla, Pattani, Narathiwat, Bangkok, Hong Kong, Shanghai, Hakata, Yokohama, Shimizu, Kobe, Yokkaichi, Nagoya, Yokohama, Port Moresby, Brisbane (27 Oct.), then coastwise Sydney, Melbourne, Launceston, Burnie, Adelaide (to 12 Nov.) en route to Fremantle. Over another six months from March to September 1967 in two roundtrips Melbourne-Melbourne, *Kweilin* (Mike Carolin 2nd Mate) called at the following ports: Melbourne, Burnie, Bunbury, Fremantle, Singapore, Bangkok, Manila, Hong Kong, Keelung, Moji, Osaka, Kobe, Nagoya, Yokohama, Lae, Port Moresby, Burnie, Melbourne, Port Pirie,

Fremantle, Singapore, Bangkok, Manila, Hong Kong, Keelung, Osaka, Kobe, Nagoya, Yokohama, Lae, Port Moresby, Risdon, Hobart, Bell Bay, Burnie and Melbourne.

Kweilin's round-voyage itinerary of around twenty ports was a challenge of careful stowage and ingenuity for prompt discharge. Cargoes were anything and everything. Southbound from Japan it was mainly general cargo, but on one occasion there was a near full load of sawn timber from Singapore to Darwin, loaded in just four days but taking 17 days to discharge in Darwin in perfect August weather during the annual Rodeo. Scrap was often bottom cargo out of Fremantle for Hong Kong or Japan. The inducement call at Point Samson (WA) was for bagged blue asbestos to Japan, loaded by a lot of transients in shorts and bare feet from the derelict town of Onslow. From Bangkok to Japan was latex in the deeptank, plus baled rubber from the anchorages of Songkhla, Pattani and Narathiwat on Thailand's long southern peninsula. None of the cargo, northbound or southbound, needed the 'jumbo' derrick, which was just a fixture.

There was also livestock. Sheep were loaded in Fremantle for Singapore, 300 in the forward well, 300 aft on a foot or so of straw bedding. The Third Mate, who came from a sheep property on the Canterbury plains, went into the pens every morning and pushed the weaker ones to the feed, so not one animal was lost. Water buffalo were shipped in Bangkok for Hong Kong. Because the Master and Chief Officer were paid a generous bonus per head loaded for this valuable but difficult cargo, there was an incentive to take on a few extra. After one enterprising Chief Officer had accommodated four buffaloes on top of the poop housing of an old 'F'-class, wrecking the aft steering pedestal in the course of the voyage, CNCo sent around a circular stating the maximum numbers to be loaded on each class of ship, but the bonus remained. If a buffalo died during the voyage, the ears and tail had to be cut off as confirmation before disposing of it over the side – one revived on hitting the water and set off purposefully towards Hainan. On one voyage *Kweilin* carried forty wild brumbies from Fremantle in the care of two stockmen consigned to Bangkok for a farm producing anti-snakebite serum for the troops in Vietnam. Fortunately, the stalls had been solidly made out of jarrah and were not broken by being kicked about. Forty wild brumbies on the loose would have been a wild on-board party.

Nevertheless, in mid-1968 the WA line was suspended in 1968, leaving the trade to Knutsen's 'Bakke' ships. The chartered *Cervia* was relinquished, *Kweilin* was switched to the New Zealand trade, and *Chefoo* was moved to the Japan-Bangkok line to replace *Chungking*, oldest of the 'C'-class, which was then sold. For the first time in many years CNCo had no regular service to and from Singapore and the Straits, which was quite remarkable in view of early postwar optimism as to the prospects of the China-Straits trade. Nevertheless, it proved to be only a temporary absence. In mid-1973 *Kwangtung* commenced a bi-monthly service from Singapore to which was then known as Indonesian West Irian (now West Papua), Papua New Guinea and Pacific Islands. This would grow into a more frequent connection through eastern Indonesia and in time also include Darwin.

From 1969 three of the remaining C/K-class were given a new configuration and role. In mid-1967 Swire's New Guinea Australia Line (NGAL) had commissioned *Papuan Chief* (ex *Bahia*, 1953), which Taikoo Dockyard had converted to sideport loading, as a first step in unitisation of the trade. Gunport doors allowed cargo pallets to be delivered to the tweendeck by forklift and then be manoeuvred by forklift within the tweendeck. Through quicker port turnaround, *Papuan Chief* was able to reduce the roundtrip time between Sydney and PNG from 28 days to 17/18 but at a speed of only 12 knots. A year later CNC's larger and faster *Tsingtao* was similarly converted and brought into service as *Island Chief*, achieving a record 15-day roundtrip. However, as explained by Martin Speyer in the NGAL history 'In Coral Seas', *Island Chief's* layout proved less than satisfactory, so in February 1969 Taikoo Dockyard took the double-tweendecker *Chekiang* in hand to be recommissioned two months later as *Coral Chief* on charter to NGAL. This conversion was much more satisfactory, so exactly a year later her exact sister *Chefoo* was converted to *Island Chief* (II), then in June 1971 *Kwangsi* was recommissioned as *New Guinea Chief*. This trio worked together until mid-1977, when the 320-teu containerhips *Papuan Chief* (II) and *Coral Chief* (II) were delivered in Japan to commence a fully containerized service.

According to Captain Chris Coy, who was Master of *New Guinea Chief* from 1973 to 1977, the side ports were fitted at Nos 2 and 4 hatches along with sliding fire doors in the bulkheads to allow forklift movement along the full length of the forward and after tween decks. In *New Guinea Chief* ex *Kwangsi*, however, the tween was only at No. 2 hold but with access at the aft end to freezer doors leading into a big freezer locker in No. 3 hatch space. Palletised cargo was carried in the other holds but No. 1 was reserved for break-bulk cargo.

The forklifts were low-profile, gas-powered units specially built by Clarks in Sydney with three-stage extendable masts that allowed the forklift in the lower tween to insert its tynes into a pallet on the upper tween 'slab', then drop and position it in the lower tween (or vice-versa). These forklifts travelled with the ship – in small ports like Samarai they were sometimes lifted onto the wharf to speed cargo-handling.



Sideport loading on CORAL/ISLAND CHIEF, door raised, secured and extended at No. 4 hatch, cargo platform into upper tweendeck (*In Coral Seas* from Swire Group).

The hydraulically operated cargo doors were hinged on the coaming side and rotated 90 degrees so that the deck section stowed vertically against the hatch coaming and was secured by hooks to the deck and coaming while the door itself could be stowed parallel or raised at 90 degrees as shade/weather protection (as above). The tweendeck 'slabs' (covers) could be raised in one or both sections as required for deck-to-deck working. There were no cargo lifts to the lower holds, which were still worked with the ship's union-purchase gear once the hatch squares had been cleared. A further adjustment with *Coral Chief* ex *Chekiang* and *Island Chief* (II) ex *Chefoo* was the insertion of a 'concrete ballast block' at the foot of No. 1 hold, presumably to better trim the ship when southbound in partly laden condition.

On all three ships the sideports were fitted on the Port side, which meant that the ships always had to berth Port-side to the wharf. This was not a problem in Port Moresby, Rabaul or Lae but required careful ship-handling in some of the smaller ports. At Samarai, the tide had to be running in the right direction, at Kavieng it was necessary to swing on an anchor whilst tucking the stern in to clear the surrounding reefs. Berthing at Wewak also used an anchor but it was best to berth port-side-to anyway due to the swell that ran along the berth in the NW monsoon.



NEW GUINEA CHIEF ex KWANGSI light-ship ex PNG approaching the berth at Sydney, sideports open at Nos 2 and 4, top flush against coamings, side-door lowered, loading platform not yet run out (John Mathieson/NAA).

The three 'Chiefs' operated somewhat different rotations out of Sydney via Brisbane (northbound). *New Guinea Chief* called at the range of Lae, Madang, Wewak, Rabaul and Kavieng, then back to Sydney. The round trip took between 18 and 24 days depending on whether the voyage extended to Wewak or Kavieng or sometimes Samarai. Return cargo had improved after the withdrawal of the Burns Philp ships and included bagged copra, sawn timber, coffee, personal effects, return 10-pallet bundles of 'empties' and, in the case of *New Guinea Chief*, coconut oil from Rabaul in the deeptank. Chris Coy attests that side-door cargo-handling proved to be very efficient with overall cargo rates as good as the first gantry 'Chiefs' and with more flexibility.



ISLAND CHIEF (II) ex CHEFOO (1958) entering Sydney Harbour, 26 August 1977, near end of CNCo/NGAL service (Rex Cox).

Later lives

First of the class to be sold out of the Swire fleet was the oldest, *Chungking*, in August 1968, then *Kwangtung*, *Kweichow* and *Kweilin* all in January 1974. The last survivor in the original configuration, *Chengtou*, was not sold until mid-1977, after 22 years in service, followed by the three 'Chiefs' in fairly quick succession. All provided some years of further service to their new owners, mostly under the Singaporean or Panamanian flags.

New Guinea Chief ex *Kwangsi* had a brief swansong in Swire service. On 15 July 1977 she arrived at Mitsubishi Dockyard, Kobe, for docking, which also involved a name change to *Bangkok Star* and reflagging to Singapore under a Swire subsidiary. On recommissioning, she took on CNCo's first Filipino crew, except for the CNCo Master (Chris Coy) and the Chief Engineer, who had to train up the rest of the complement. Coy effectively doubled as Chief Mate until another CNCo officer was brought on board. The first three roundtrips were about monthly from Kobe, Nagoya and Yokohama to Bangkok with general and cars southbound, backloading rubber, tinned food and full loads of freezer cargo. The next voyage extended southbound to Singapore, where on 5 November *Bangkok Star* relieved *Kwangtung* in the bi-monthly line to Port Moresby, Noumea and South Pacific ports.



BANGKOK STAR ex KWANGSI, CNCo under Singapore flag, Filipino crew (B. Browne/M. Dippy-NAA)

In February 1978 *Bangkok Star/Kwangsi/New Guinea Chief* and *Chefoo/Island Chief* were both sold to the Straits Steamship group to upgrade its weekly service between Singapore and East Malaysia (Sabah), specifically to Labuan, Kota Kinabalu, Sandakan and Tawau (on the border with Indonesia). The former traded as *Straits Star* until 1985, the latter as *Straits Hope* until 1992, by then 32 years old. Apart from the colours, there was no outward change in their profile or configuration. The latter was probably the last of the two quartettes but there is a slight element of doubt because the Vietnamese-flag *Song Gianh* ex *Chungking* (1955) was deleted from Lloyd's Register in 1992, fate unknown, after no report had been received for ten years.



STRAITS STAR (L) in Straits colours, STRAITS HOPE (R) still in CNCo colours at Singapore, 3 March 1978, prior to entering regular service to/from Sabah (Chris Gee)



STRAITS STAR ex NEW GUINEA CHIEF ex KWANGSI at Singapore, 1 March 1978, freshly painted in Straits Steamship colours (Chris Gee).



STRAITS HOPE ex ISLAND CHIEF ex CHEFOO at Singapore, 11 March 1979 (SK coll.).



STRAITS HOPE ex ISLAND CHIEF ex CHEFOO at Singapore, 27 May 1990,
externally unchanged eleven years after disposal (Chris Gee).

During all these changes the 'C's and 'K's sailed on; serving on whichever route they were assigned to, for an average of about 20 years each with CNCo but, being well built and well maintained, they gave a number of years of further service to other Far Eastern ship owners. Most were scrapped about 1983-84, victims of changing technology, especially containerisation. In the late 1960s Swire /CNCo, like a lot of ship owners worldwide, had to choose which way cargo handling reform was going. Swire initially chose 'unitization', in the belief that many of their ports their ports of call, as in Papua/New Guinea, would not be able to handle 20-foot containers. As history shows, containerization swamped the world, and by 1975 nearly all large shipping companies were either carrying containers or being forced to do so. Swire became a partial containership owner (of *Arafura* and *Ariake*) as a founding constituent of the Australia Japan Container Line in 1970 and purchased its first fully owned containership in 1973. The Papua New Guinea trade was containerized in 1977 with the new Miho class.

In retrospect, the eight ships of the 'C' and 'K' classes were good, well built and well maintained 1950s general cargo freighters. They marked a decisive break from the early postwar China Coaster-type ('S' and 'F' classes) and may be regarded as the most efficient and profitable of CNCo's newbuildings between the end of World War II and the first Miho class of containerships delivered in 1977. As with the likely Japanese prototype *Osaka Maru*, they dispensed with frills and proved to be very practical workhorses across the Swire network from Japan and Hong Kong to Southeast Asia, Eastern and Western Australia, the Pacific Islands and New Zealand. The fact that they were interchangeable made scheduling much more straightforward and of course simplified maintenance and crewing as well. In their final decade, three of the eight ships proved the worth of unitization in the transitional stage before full containerization.

The significance of the C/K class is best seen by comparison with the newbuilding policies of rival lines. Jardine's Indo-China S.N. Company never standardized a postwar type: *Eastern Queen* (1950), *Eastern Star* (1951) and *Eastern Argosy* (1956) were all one-offs, though the first and last had the same hull form and engines, while the other cargoliners were all secondhand tonnage except for the 4-hatch *Eastern Rover* (1961) and *Eastern Ranger* (1962), which were modernized China Coasters, notwithstanding that deadweight and speed were much the same as the C/K ships. E&A Line relied on secondhand tonnage apart from *Arafura* (1954). Hillerstrom's smaller Australia West Pacific Line ordered ships in pairs of increasing size and speed: *Aros* and *Citos* (1948), *Delos* (1952) and *Milos* (1956), *Samos* (1960) and *Tenos* (1961). Dutch-flag Royal Interocean Lines, having the largest fleet, most extensive network and best access to capital, were able to build and innovate continuously. In short, between the mid-1950s and the transformation of the 1970s, CNCo's eight C/K ships were a cost-effective way for the company to move into a new era and consolidate its liner shipping business as well as streamlining and modernizing Taikoo's postwar shipbuilding operation. Charlotte Bleasdale's *Pictorial History* (1872-2012) refers to them as the 'vital workhorses'.

Further detail on the ships, including specifications, incidents and photos can be found at www.wikiswire.com.

Sources

Dick & Kentwell, *Beancaker to Boxboat* (NAA, 1988), Charlotte Bleasdale, *The China Navigation Company: A Pictorial History, 1872-2012* (Swire, 2012), M. Speyer & M. Carolin, *In Coral Seas: The History of the New Guinea Australia Line* (NAA, 2004), Taikoo Dockyard yard list, *Taikoo Dockyard* (magazine), *Taikoo Gazette*, *Straits Times*, www.wikiswire.com. We are grateful to Charlotte Bleasdale, Rob Jennings, Rex Cox, Malcolm Cranfield, Chris Howell, Trevor Jones, Bill Schell, Iain Steverson and Russell Priest (Nautical Association of Australia) for their generous advice and assistance with photos.

Ship List

CHUNGKING (1955-68) 5832 (6830)/55-5 (422.1 x 56.0', M4cy Doxford/14½k)

Built by Taikoo D.Y. & E. Co. Ltd, Hong Kong (#403) and 7/12/54 launched by Lady Grantham for CNCo, London. 8/68 sold to Fortunewind Maritime Ltd (Continental Nav. & Ent. Ltd), Hong Kong r. FORTUNE GLORY but chartered back to CNCo. 1970 sold to Eastern Glory Ent. Co. Ltd (Phoenix Ent. Co. Ltd), Hong Kong. 1971 sold to Hongkong South Seas Shg Co. Ltd (Guan Guan Shg Co. (Pte) Ltd, Singapore), Hong Kong r. KIM SENG. 17/8/71 blown ashore on Peng Chau, Hong Kong by typhoon 'Rose', 24/8 refloated. 1975 reg. t/f to Somalia. 1977 sold to Vietnam Ocean Shg Co., Haiphong r. SONG GIANH. 1977 sold t/f to Vietnam Coastal Shg Co. 1992 RLR.



CHUNGKING at Hong Kong in later years (Wikiswire).



CHUNGKING as Guan Guan's KIM SENG August 1971, ashore at Peng Chau after typhoon 'Rose' (coll. H. Dick).

CHENGTU (1955-77) 5832 (6830)/55-12 (422.1 x 56.0', M4cy Doxford/14½k)
Built by Taikoo D.Y. & E. Co. Ltd, Hong Kong (#404) for CNCo, London. 12/75 t/f to Taikoo Nav. Co. Ltd.
7/77 sold to Opal Nav. Co. S.A. (Chan Hoo Ho, Singapore), Panama r. MUSI. 8/6/79 arrived at Kaohsiung
for demolition by Lung Ching Steel Enterprises Co. Ltd], 15/6 work began.



Panama-flag MUSI ex CHENGTU in Malacca Strait, c.1979. Red funnel (Peter Foxley/W. Schell).

CHEKIANG (1957-69) 5904 (6830)/57-11 6830)/55-12 (422.3 x 56.0', M4cy Doxford/14½k)
Built by Taikoo D.Y. & E. Co. Ltd, Hong Kong (#415) and launched 17/4/57 by Miss Gillian Swire for CNCo, London. 2/69 arrived at Taikoo DY for conversion to sideport loading, 4/69 recomm. as CORAL CHIEF for charter to NGAL. 6/77 r. CORAL CHIEF I. 8/77 sold to Pacific International Lines (Pte) Ltd, Singapore r. KOTA BUANA. 17-30/3/83 loaded Singapore for Red Sea ports, then 17/6 delivered at Bombay for breaking up by Vajinath Melaram, 8/83 work began.



CORAL CHIEF ex CHEKIANG in 1973 (KW coll., Chris Howell)



KOTA BUANA ex CHEKIANG at Singapore (R. Priest/NAA)

CHEFOO (1958-70) 5904 (6810)/58-8 (422.3 x 56.0', M4cy Doxford/14½k)
Built by Taikoo D.Y. & E. Co. Ltd, Hong Kong (#416) and del. 12/8/58 for CNCo, London. 1970 conv. by Taikoo DY to sideport loading r. ISLAND CHIEF, 8/4 sailed HK and 5/70 on charter to NGAL. 12/77 last NGAL voyage. 2/78 sold to Straits Shg (Pte) Ltd, Singapore r. STRAITS HOPE and 3/78 in service Singapore-Kota Kinabalu-Sandakan. 3/87 class withdrawn. 7/92 completed service, sold to Victorian Shipping Ltd for re-sale to Indian shipbreakers. c.23/8/92 sailed Singapore in tow of *Shalom I* for Alang, where arrived 16/10/92 for demolition.



STRAITS HOPE at Keppel Dock, Singapore, 15 April 1985, evident collision repairs at bow (John Nunn).



STRAITS HOPE in Singapore's Eastern Anchorage awaiting tow to breakers with HMAS YARRA alongside, Honduran-flag tug SHALOM I on port side, 2 March 1992 (Chris Gee).

KWANGTUNG (1959-65, 1966-79) 5957 (6500)/59-3 (422.1 x 56.0', M4cy Doxford/14½k)
Built by Taikoo D.Y. & E. Co. Ltd, Hong Kong (#428) and 13/10/58 launched by Lady Black for CNCo, London. 3/65 chartered to Crusader Shg Co. Ltd for NZ-Japan trade r. NORMAN. 3/66 reverted to CNCo r. KWANGTUNG. 7/77 t/f to TNC, Hong Kong. 1/79 sold to Gordon Nav. Co. S.A. (Johnson Co. (Asia) Ltd, Hong Kong), Panama r. CALIFORNIA. 12/5/83 sailed Belawan for Poro Island (Cebu) [last reported movement in LSI]. 1983 t/f to Juniper Shg Co. S.A., Panama r. WAYFUL. LCI 9/84 rep. sold to breakers', subsequently identified as at Shanghai.



KWANGTUNG at Otago (Chris Howell).



NORMAN ex KWANGTUNG at Otago (Chris Howell)



CALIFORNIA ex KWANTUNG at Singapore (Chris Howell).

KWEICHOW (1959-66, 1968-74) 5957 (6500)/59-8 (422.1 x 56.0', M4cy Doxford/14½k)
Built by Taikoo D.Y. & E. Co. Ltd, Hong Kong (#435) and launched 6/1/59 by Mrs W.C.G. Knowles for CNCo, London. 12/66 chartered to Crusader Shg Co. Ltd for NZ-Japan trade r. NORMAN. 5/68 reverted to CNCo r. KWEICHOW. 1/74 sold to Cia de Nav. Orient Victory S.A. (Phoenix Enterprises Co.), Mogadishu r. ORIENT VICTORY. 1976 t/f to Phoenix Ent. Co. Ltd (Chan Hoon Ho, Singapore), Panama r. FORTUNE VICTORY. 1982 t/f to Cia de Nav. Orient Victoria S.A., Panama. c.2/5/84 arrived at Shanghai for breaking up.



KWEICHOW at Bluff, April 1964 (Chris Howell).



KWEICHOW in the New Zealand-Japan trade as NORMAN (Chris Howell)



Panama-flag FORTUNE VICTORY ex KWEICHOW at Singapore. Same principal and funnel as MUSI ex CHENGTU (coll. S. Kentwell).

KWANGSI (1960-70) 5957 (6500)/60-3 (422.1 x 56.0', M4cy Doxford/14½k)
Built by Taikoo D.Y. & E. Co. Ltd, Hong Kong (#437) and launched 5/10/59 by Mrs M.S. Cummings for CNCo, London. 16/5/69 grounded outside Keelung, 22/5 refloated and for repair by Taikoo DY at Hong Kong. 31/3/71 arrived at Taikoo DY for conversion to sideport loading for Australia-PNG trade, 6/70 recomm. as NEW GUINEA CHIEF for charter to NGAL. 7/77 docked at Kobe and t/f to Hallsbury Shg Ltd, Singapore r. BANGKOK STAR. 2/78 sold to Straits Shg (Pte) Ltd, Singapore r. STRAITS STAR and 3/78 in service Singapore-Kota Kinabalu-Sandakan. 2/12/85 demolition began at Jurong, Singapore by National Shipbreakers (Pte) Ltd.



KWANGSI at Otago (Chris Howell).



NEW GUINEA CHIEF at Brisbane (GWR Dave/Shipspotting).



STRAITS STAR at Singapore (Bob Scott/Shipspotting).

KWEILIN (1962-70) 5902 (6500)/62-1 (422.1 x 56.0', M4cy Doxford/14½k)
Built by Taikoo D.Y. & E. Co. Ltd, Hong Kong (#473) and launched 12/9/61 by Mrs J.K. Swire for CNCo, London, 9/1/62 trials. 1/74 sold to Rogers & Co. Ltd, Port Louis (Mauritius) r. ROGERS TRADER and chartered to Unicorn Lines, Durban for South Africa-Indian Ocean Islands trade. 4/82 sold to Pacific International Lines (Pte) Ltd, Singapore r. KOTA BERJAYA. 14/2/86 arrived at Gadani beach for breaking up by Jilani Corp., 15/2 work began.



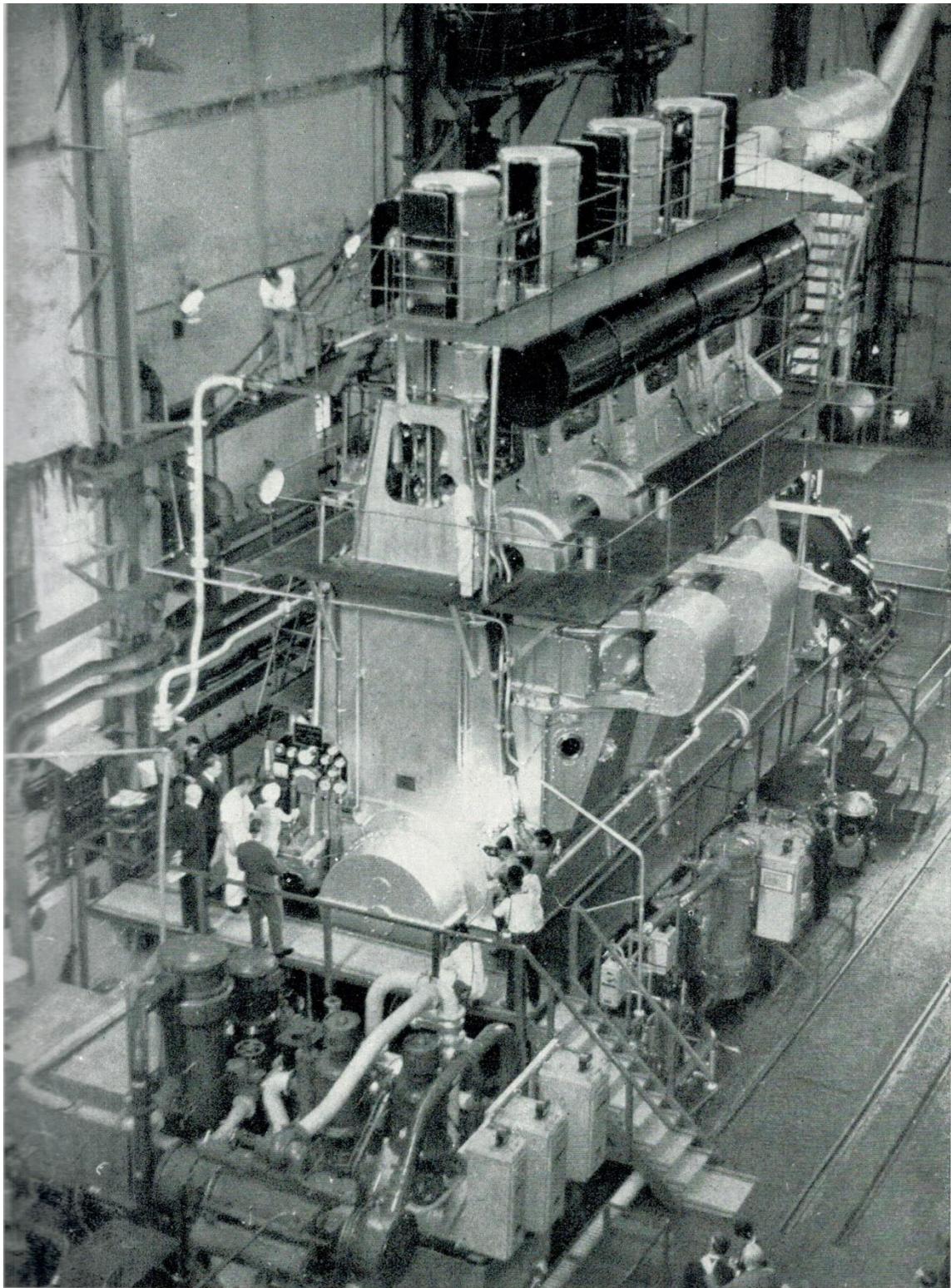
Mauritius-flag ROGERS TRADER ex KWEILIN arriving Durban early morning, winter 1974, on Unicorn Lines charter, still with Swire masts and hull band (Trevor Jones).



ROGERS TRADER arriving Durban, 20 January 1981, with Rogers & Co. funnel (Trevor Jones).



KOTA BERJAYA ex KWEILIN at Singapore, early 1983, makeshift 'PIL' lettering on funnel (Ian Shiffman).



KWEILIN's 4-cyl. Taikoo-Doxford main engine on the test bed (*Taikoo Dockyard*, Summer 1962)