

TEMPEST FUGIT...

BY JACK KÖPER

(Father of the 1,600-strong Dabchick Class)



Tempest, prototype of Jack Köper's Tempo class of "super-chicks" has been having a workout in the Cape. It provides sizzling performance for two without the need for a trapeze. It is a handsome and cheap-to-build version of one of the oldest small craft in existence, the scow. The American E Class scow, more than 30 ft. long, is still the fastest sailing craft afloat. In the bottom picture Tempest flies along at her fastest angle of attack . . .

ALTHOUGH you may not have read much about the new Tempo Class, activities are going on in several centres. Tempo No. 7, called *Tempest*, was launched in Hermanus and created extraordinary interest.

The boat not only proved to be fast in a breeze as was expected, she also showed the way in drifting conditions. The hull weight of 160 lb., her low-wetted surface area when heeled, her low wind resistance, stability and generous sail area make her fast to windward, as well as off the wind. She has, with her 5-ft. beam, enormous righting power and comparative dryness attracted a lot of attention.

Although allowed, *Tempest* has no side tanks, and her side decks are only 11½ in. (max. allowed). This makes for a large cockpit area of 8 ft. × 3 ft.; because this area is free to some extent, this can be varied.

The water does not hit the weatherside of the boat, all the water is underneath—clearly shown in the photographs.

A few splashes may reach the crew, when the boat with great speed hits an odd wave.

Water that does spray in from the leeward-end is sucked out through the self-balers as quickly as it comes in.

It is now suggested to have the side decks about 13 in. wide to minimise the possibility of water splashing into the cockpit in areas where water is rough at times.

At high speed the waves hit the underside of the boat hard, which necessitates stiffening the bottom to withstand the strain. This can be done in several ways. As suggested on the drawings, with longitudinal strips going right through from bow to stern, two strips on either side of about 1½ in. × 1 in.

If side tanks are used, the inner strip need not be made so wide, but a 2 in. × ½ in. strip the entire length of the boat would be enough. Another suggestion is an extra layer of 3/16 in. ply, glued on to the bottom of 8 ft. × 12 in. the length of the cockpit.

Now let me describe to those who only have seen pictures so far what *Tempo's* performance has shown us up to now.

She is not just an enlarged version of the Dabchick, she is a proper scow-type dinghy with a long cockpit, the stem is a proper scow-like bow. The topsides are only 8 in. at the deepest section but, unlike other dinghies, completely rounded to give her that very streamlined look. She has a beam of 5 ft., which gives her an initial stability found in few boats that truly belong to the fast racing classes.

To make her fast in light winds, she has to be heeled, about 15°; by doing so her wetted surface area is very small, her waterline length increases and she therefore is very fast, beating high into the wind and reaching fast off the wind.

In drifting conditions one will find that even on the run heeling her 10 to 15 degrees will improve her performance.

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TEMPEST FUGIT

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Sitting out does not produce blisters since no hard edges wear one's pants.

Although a trapeze has been designed for her, grown-ups will seldom find the use of the trapeze necessary. Yet when the total crew weight is less than 300 lb., the trapeze is most useful on the beat.

She is quite flat and squat-looking; at the transom she is 8½ in. deep by 3 ft. beam; at station 1 11 in.; at station 5 (the front bulk-head) the total depth is 16 in. There is a large amount of buoyancy designed under the decks, of which the foreward one is compulsory, according to the plans.

The fore deck has a downward and sideways curve; this gives a buoyancy area of over 20 cu. ft.; any tendency for her to dig her bows in has been minimised as much as possible.

Spectators crowding round the boat compared her with an E-type Jag.

For the builder ample scope is provided to work in dark and light coloured woods to add to her already attractive looks, and now a glass-fibre version of the *Tempo* is promised to be ready before the Cape season starts. Plans to introduce a woodgrain effect into the glass are contemplated in an attempt to combine the best of two worlds.

More details will be available for those wishing a hull in wood or glass.

We tried *Tempest* in Table Bay to see whether she had any tendency to dig her bow in, but she did nothing of the kind. Her sailplan was designed a foot further aft than on most other dinghies. Her bow section, wide and rounded, sheds the water that may come over. The small splash-board looks after the remainder.

A 30 square metre skipper who tried *Tempest* remarked that he had never sailed such a lively boat before. Having sailed scows in pre-war days, Sharpies afterwards, he feels that now the scow has returned, made of the latest materials and has become a faster, more attractive boat—"history turns a full circle".

Another venue was Sandvlei, a small lake with smooth water and plenty of wind. Absolutely ideal conditions for planing. Her speed was highly exhilarating; other venues were Zeekoevlei, False Bay and Saldanha.

Reports from other sources where Tempos are being sailed or built, come from Rhodesia, the Transvaal, Swaziland and the Cape. For many of us the winter season has started and boatbuilding with it. Several Tempos are under construction.

Tempest's bill of materials came to the following:

Local plywood	R23
Solid wood	R15
Glue	R2
Fittings	R40
Rope and wires	R18
Aluminium mast and boom	R16
Terylene sailcloth	R36
Centreboard, rudder, trapezebelt	R5

Total cost R155

Hereunder follows a suggestion how to make an aluminium mast and boom:

A mast 21 ft. × 2 in. tubing, type D74S from Alcan (Agents Alers Hankey), approx. 40 cents/ft. Boom, 8 ft. 6 in. × 2 in. as above. Channelling for track sold in 16 ft. length also from Alers Hankey, or United Africa Electric, approx. R1.50 a length. Pop-rivets, from Edwin Wilson, type AD501, 5/32 in., 150 at 99c. Riveters, several types, also from Wilson. Address for the Cape: Thibault House, Thibault House, 702, Cape Town. High-speed drills 5/32 in. for pre-drilling holes.

The track is pop-riveted on the tube by adapting riveter to fit into track. Rivets also have to be trimmed. Gap of track is later narrowed to hold bolt rope of mainsail. ■

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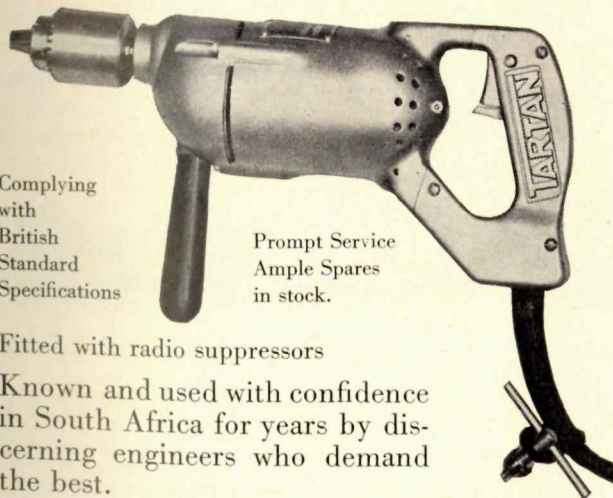
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