



## MECAL TECHNICAL NOTE

### MTN 25-2

Issued by the *MECAL* Technical Committee

#### RIG INSPECTIONS

Reference: Sailing Vessels Section 25

Standard production GRP sailing yachts with alum. masts and SS rigging, operating in category 2.

Generally insurers are nervous of rigs that are more than about 10-12 years old. So inspections should be linked to the *age of the rig* rather than the *point in the code examination cycle* thus:

##### Initial, Midterms & Renewals

Rig less than 5 years old - rigger's inspection report or examiner to check mast and standing rigging from deck level, using binoculars for upper sections.

Rig over 5/under 10 years old - rigger's inspection report required, or bosun chair inspection by surveyor, if suitably experienced.

Rig over 10/under 15 years old - rigger's inspection report required, or mast unstepped and furling gear dismantled for inspection by surveyor, if suitably experienced. Complete renewal of standing rigging advised at this point. Renewal of wires in pairs over several years is acceptable.

Rig over 15 years old - complete renewal of standing rigging required.

##### Classic wood masts with galvanised steel rigging

Rigger's inspection report or bosun chair inspection by surveyor at initial and renewals.

Inspection from deck at mid-terms.

Mast to be unstepped and inspected by specialists at least every 10 years.

##### Cat 1/0 Large Yachts

Specialist rigger's report required at initial, mid-terms and renewals.

Mast to be unstepped and complete rig inspected by specialists at least every 10 years.

## Rod Rigging

For the generic cruiser/racer, most professional riggers recommend dye penetrant testing on the cold forged ends at around three years/25,000 miles and replacing at around six years or 45,000 miles (or re-heading if there has been enough stretch in the rods).

Boats built with a higher emphasis on cruising, with higher safety factors in rigging - and so running with less loading can have intervals extended, towards the mileage limit rather than the time limit.

All out racers are often built with a fairly high safety factor if they're ocean going (eg Volvo 60's), so could stick with the cruiser/racer schedule, though delicate inshore racers such as the current crop of TP52s should probably have these timings/mileages reduced by 50%

Inspection regime for code vessels:

Cat 2 inspection regime:

If starting from a new vessel

Dye penetrant testing by third year anniversary (not mid-term as this could be between 2 and 3 years), at latest by five year renewal

Rod replacement/reheading by second mid-term, at latest by second renewal

(longer limits for cruising boats)

Older vessels not to exceed 3 years between inspection / 6 years for replacement or 5/10 years for cruising vessels

Cat 1/0/ >15 Persons

If starting from a new vessel

Dye penetrant testing at third year inspection

Replacement/reheading by first inspection after five year renewal.

Older vessels not to exceed 3 years between inspection / 6 years for replacement or 5/10 years for well overbuilt cruising vessels

Tip cups should be replaced at the same time as rods or rod ends.

DP testing after serious grounding (for example necessitating keel support repair).

**Annual rigger's reports strongly recommended in all cases.**