the ventilation systems serving machinery and cargo spaces shall be tested at each regular inspection for certification and periodic inspection.

[CGFR 68–82, 33 FR 18890, Dec. 18, 1968, as amended by USCG–1999–4976, 65 FR 6501, Feb. 9, 2000]

§61.20–5 Drydock examination.

(a) When any vessel is drydocked, examination shall be made of the propeller, stern bushing, sea connection, and fastenings if deemed necessary by the marine inspector.

(b) Sea chests, sea valves, sea strainers, and valves for the emergency bilge suction shall be opened up for examination every 5 years at the time of drydocking.

[CGFR 68–82, 33 FR 18890, Dec. 18, 1968, as amended by CGD 84–024, 53 FR 32231, Aug. 24, 1988; CGD 95–028, 62 FR 51202, Sept. 30, 1997]

§61.20–15 Tailshaft examination.

The rules in §§61.20–15 through 61.20–23 apply only to vessels in ocean and coastwise service. Each examination, inspection and test prescribed by these sections must be conducted in the presence of a marine inspector.

[CGD 78–153, 45 FR 52388, Aug. 7, 1980]

§61.20–17 Examination intervals.

(a) A lubricant that demonstrates the corrosion inhibiting properties of oil when tested in accordance with ASTM D 665 (incorporated by reference, see §61.03–1) is considered to be equivalent to oil for the purposes of the tailshaft examination interval.

(b) Except as provided in paragraphs (c) through (f) of this section, each tailshaft on a vessel must be examined twice within any 5 year period. No more than 3 years may elapse between any 2 tailshaft examinations.

(c) Tailshafts on vessels fitted with multiple shafts must be examined once every 5 years.

(d) Tailshafts with inaccessible portions fabricated of materials resistant to corrosion by sea water, or fitted with a continuous liner or a sealing gland which prevents sea water from contacting the shaft, must be examined once every 5 years if they are constructed or fitted with a taper, keyway, and propeller designed in accordance with the American Bureau of Shipping standards to reduce stress concentrations or are fitted with a flanged propeller. Accessible portions of tailshafts must be examined visually during each drydock examination.

(e) Tailshafts with oil lubricated bearings, including bearings lubricated with a substance considered to be equivalent to oil under the provisions of paragraph (a) of this section need not be drawn for examination—

(1) If tailshaft bearing clearance readings are taken whenever the vessel undergoes a drydock examination or underwater survey;

(2) If the inboard seal assemblies are examined whenever the vessel undergoes a drydock examination or underwater survey;

(3) If an analysis of the tailshaft bearing lubricant is performed semi-annually in accordance with the lubrication system manufacturer's recommendations to determine bearing material content or the presence of other contaminants; and

(4) If—

(i) For tailshafts with a taper, the propeller is removed and the taper and the keyway (if fitted) are nondestructively tested at intervals not to exceed 5 years; or

(ii) For tailshafts with a propeller fitted to the shaft by means of a coupling flange, the propeller coupling bolts and flange radius are nondestructively tested whenever they are removed or made accessible in connection with overhaul or repairs.

(f) Tailshafts on mobile offshore drilling units are not subject to examination intervals under paragraphs (b) through (d) of this section if they are—

(1) Examined during each regularly scheduled drydocking; or

(2) Regularly examined in a manner acceptable to the Commandant (G-MOC).

[CGD 95–027, 61 FR 26001, May 23, 1996, as amended by CGD 96–041, 61 FR 50728, Sept. 27, 1996; 61 FR 52497, Oct. 7, 1996; USCG–1999–5151, 64 FR 67180, Dec. 1, 1999]

§61.20–18 Examination requirements.

(a) Each tailshaft must be drawn and visually inspected at each examination.

(b) On tailshafts with a taper, keyway, (if fitted) and propeller designed in accordance with American Bureau of Shipping standards to reduce stress concentrations, the forward ⅓ of the shaft's taper section must be nondestructively tested in addition to a visual inspection of the entire shaft.

(c) On tailshafts with a propeller fitted to the shaft by means of a coupling flange, the flange, the fillet at the propeller end, and each coupling bolt must be nondestructively tested in addition to a visual inspection of the entire shaft.

[CGD 84–024, 52 FR 39652, Oct. 23, 1987, as amended by CGD 84–024, 53 FR 32231, Aug. 24, 1988]

§ 61.20–21 Extension of examination interval.

The Commandant (G-MOC) may authorize extensions of the interval between tailshaft examinations.

[CGD 84–024, 52 FR 39652, Oct. 23, 1987, as amended by CGD 95–072, 60 FR 50463, Sept. 29, 1995; CGD 96–041, 61 FR 50728, Sept. 27, 1996]

§ 61.20–23 Tailshaft clearance; bearing weardown.

(a) Water lubricated bearings, other than rubber, must be rebushed as follows:

(1) Where the propelling machinery is located amidship, the after stern tube bearing must be rebushed when it is worn down to 6.4 mm (0.25 in) clearance for shafts of 229 mm (9 in) or less in diameter, 7.95 mm (0.3125 in) clearance for shafts exceeding 229 mm (9 in) but not exceeding 305 mm (12 in) in diameter, and 9.53 mm (0.375 in) clearance for shafts exceeding 305 mm (12 in) in diameter.

(2) Where the propelling machinery is located aft, the after stern tube bearing must be rebushed when weardown is 1.6 mm (.0625 in) less than the applicable clearance for propelling machinery located amidship.

(b) Water lubricated rubber bearings must be rebushed when any water groove is half the original depth.

(c) Oil lubricated bearings must be rebushed when deemed necessary by the Officer in Charge, Marine Inspection. The manufacturer's recommendation shall be considered in making this determination.

[CGD 78–153, 45 FR 52388, Aug. 7, 1980]

Subpart 61.30—Tests and Inspections of Fired Thermal Fluid Heaters

SOURCE: CGD 80–064, 49 FR 32193, Aug. 13, 1984, unless otherwise noted.

§ 61.30–1 Scope.

The term *thermal fluid heater* as used in this part includes any fired automatic auxiliary heating unit which uses a natural or synthetic fluid in the liquid phase as the heat exchange medium and whose operating temperature and pressure do not exceed 204 °C (400 °F) and 225 psig, respectively. Thermal fluid heaters having operating temperatures and pressures higher than 204 °C (400 °F) and 225 psig, respectively, are inspected under subpart 61.05—Tests and Inspections of Boilers.

§ 61.30–5 Preparation of thermal fluid heater for inspection and test.

For visual inspection, access plates and manholes shall be removed as required by the marine inspector and the heater and combustion chambers shall be thoroughly cooled and cleaned.

[CGD 80-064, 49 FR 32193, Aug. 13, 1984, as amended by CGD 95–027, 61 FR 26002, May 23, 1996]

§ 61.30–10 Hydrostatic test.

All new installations of thermal fluid heaters must be given a hydrostatic test of 1½ times the maximum allowable working pressure. The test must be conducted in the presence of a marine inspector. No subsequent hydrostatic tests are required unless, in the opinion of the Officer in Charge Marine Inspection, the condition of the heater warrants such a test. Where hydrostatic tests are required, an inspection is made of all accessible parts under pressure. The thermal fluid may be used as the hydrostatic test medium.

§ 61.30–15 Visual inspection.

Thermal fluid heaters are examined by a marine inspector at the inspection for certification, periodic inspection and when directed by the Officer in