COMSCINST 3540.3K COG CODE N72 DATE 23 APR 97



DEPARTMENT OF THE NAVY

COMMANDER MILITARY SEALIFT COMMAND WASHINGTON NAVY YARD BLDG 210 901 M STREET SE WASHINGTON DC 20398-5540

> COMSCINST 3540.3K N72 23 April 1997

COMSC INSTRUCTION 3540.3K

Subj: LIMITATION OF LONGITUDINAL STRESSES IN T-AO 187 CLASS OILERS

- 1. <u>Purpose</u>. To establish limitation of shear force and bending moment (and resulting shear and bending stresses) due to hogging and sagging in the full load, part load or ballasted condition.
- 2. Cancellation. COMSCINST 3540.3J.
- 3. <u>Applicability</u>. This instruction is applicable to all Military Sealift Command (MSC) in-service, civil service manned, USNS T-AO 187 Class ships.
- 4. <u>Action</u>. Allowable shear force and bending moment values must not be exceeded in any full load, part load or ballasted condition or the safety of the ship will be jeopardized. COMSC considers the control of oiler loadings to be one of the most important factors contributing to the safety of the ships.
- a. All in port cargo loading or discharging and at sea cargo discharging and/or ballasting shall be accomplished in such a manner that the calculated shear force and bending moment shall not exceed the applicable allowable values as noted in the vessel's Loading Manual.
- b. When calculations show the shear force or bending moment to exceed the applicable allowable in port or at sea value, the liquid loading within the ship shall be redistributed to reduce the values below the maximum allowable values. Computerized calculations may be used in lieu of the longhand calculations, provided periodic checks are performed to verify computer results.

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SNDL T-100D (Masters, civil service manned oilers)