

Bulletin

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Australian Ship Safety Information

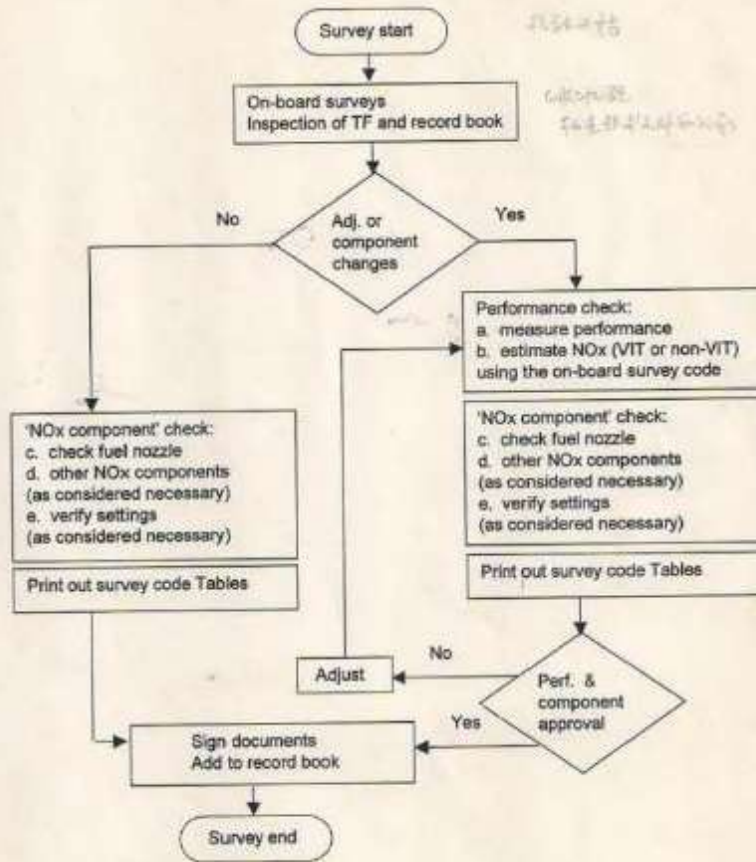
---NOx Parameter and Onboard verification procedure

The Maritime Authorities of Tokyo and Paris Memoranda of Understanding (MoU) on Port State Control will launch a joint Concentrated Inspection Campaign (CIC) on MARPOL Annex VI since September 01, 2018 to November 30, 2018. Port State Control Officers (PSCOs) will use a list of 11 questions to assure that equipment carried onboard complies with the relevant statutory certificates, the master and officers are qualified and familiar with operations and that equipment is properly maintained and functioning.

The content of CCS Australian Office, No. 031, 2014 Issue 012 (refer to attachment) "Inspection notice for NOx Technical File" don't be repeated here. There was a deficiency related to No. 7 question in CIC inspection list, as "Main Engine record book of engine parameters not maintain as per NOx onboard verification procedure on both approved NOx Technical File". Most of vessels are using parameter verification method, and this deficiency contraposed to the method. The record on this vessel only filled in with the parts affecting NOx emission when it is chagned, which most vessels had recorded it. The other parameters, which are set in NOx Onboard Verification Procedure, need to be recorded as part of parameter record book. There is a serious of EXCEL forms included in Onboard Verification Procedure within NOx Technical File. Inputting the running parameters of Main Engine, the NOx emission will be calculated and compared to the bed-test result automatically, if the value below the limit of bed-test result is acceptable. NOx Technical File onboard vessels is various, as well as Onboard Verification Procedure. Review NOx Technical File on very vessel and apply it carefully.

Refer to this vessel's Flow Chat of onboard verification (survey) and other parameters recorded as below, no explanation to them.

Fig. 1: Flow Chart for On-Board Survey



Please note that this form is only to be used for the 12K90MC-C engine group (built at Mitsui):
The engines have central cooling-water scavenging-air cooler system
Propeller Curve - E3

Mitsui K90MC-C(Mk6) NOx Group 1

Please fill in the white squares.

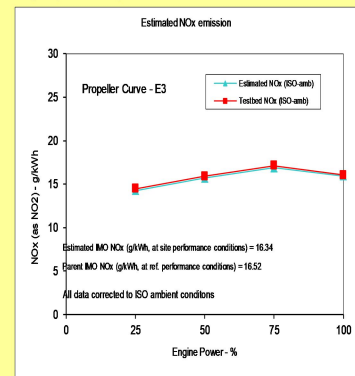
Engine Type	12K90MC-C
MCR	54720 kW at 104 r/min
Engine Number (from Tech. File)	4414
Vessel Name	

For engines with VIT a load point above the break point is needed for the survey.
As an example is stated 90%, however, this must be changed according to the actual chosen load point.

Load at/above break point (%): *	Load (%)				
	100	100	75	50	25
Date:	2018-08-19	2018-08-19			
Ambient temp / Compressor inlet temp *	deg.C	20	20.2		
Ambient pressure *	mbar	1004	1005		
Relative humidity of intake air	%	80	86		
Scavenge air temperature *	deg.C	46	41		
Scavenging air cooler water inlet temp.*	deg.C	30	30		
Scavenge air pressure	bar	2.7	1.85		
Turbine back pressure * 1)	mmWC	406	245		
Pmax *	bar	138.5	125.5		
Pcomp	bar	120.6	93.8		
ISO ambient and site perf. NOx estimate	g/kWh	15.93	16.88	15.71	14.27
					E3-cycle NOx
					16.34

*) The items marked by * are required in order to calculate the NOx.

1) The reference values will be used as default if no turbine back pressure is entered



Enlarge graph

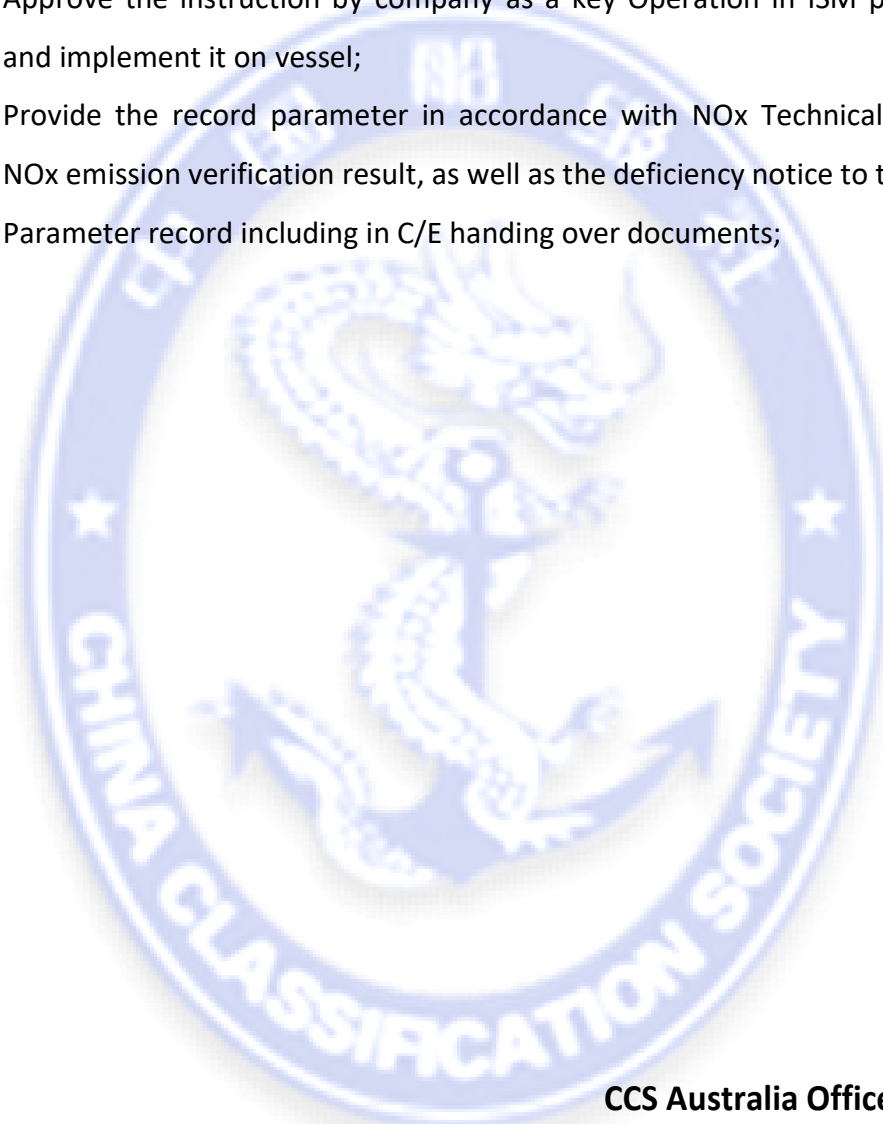
Component and

Print verification data

Notice: the person capable to verify NOx emission result is listed in Onboard Verification Procedure.

Suggestions for correction of the deficiency are:

- 1) Hand out notice of the deficiency to the fleet. Established instruction to record of engine parameter according to approved NOx Technical File and Onboard Verification Procedure on each vessel;
- 2) Approve the instruction by company as a key Operation in ISM procedure and implement it on vessel;
- 3) Provide the record parameter in accordance with NOx Technical File and NOx emission verification result, as well as the deficiency notice to the fleet;
- 4) Parameter record including in C/E handing over documents;



CCS Australia Office
August 31, 2018

Announcement :

1. Intention is to assist and ensure owners to understand and well prepared, ensuring all updated requirements from AMSA can be met
2. For more information, please visit AMSA website at www.amsa.gov.au and CCS website at www.ccs.org.cn
3. The information contained does not and cannot supersede any AMSA or related governing parties requirements as well