LAMPIRAN

MV Amis Wisdom III

From : Maritec Admin [admin@maritec.com.sg]
Sent : Thursday, March 12, 2013 11:46 AM
To : amiswisdom@wisdomemarinelines.com
Cc : MFTP Reports
Subject : AMIS WISDOM III AW1505833 - MFO SPECS MET
Attachment : Vessel’s Info Form_New_Oct2012.doc

AMIS WISDOM III

To : PT WISDOME MARINE LINE
Attn To : Lin Hsin I

Report No : ML1505833
Date of Report : 12-Mar-2013
Vessel Name : Amis Wisdom III
IMO Number : 9056428
Sample Type : MFO
Bunker Port : OPL Singapore
Bunker Date : 07-Mar-2013
Supplier : Bunker House Petroleum PTE LTD
Supplying Barge : HAI SOON 32
Quantity : 460.445 kL
Bottle Type : Maritec HDPE
Seal Data : Maritec A1625451
Seal Condition : Seal Intact
Sent From : Singapore
AWB : Agent
Date Sent : 09-Mar-2013
Date Received : 11 Mar-2013

B.D.N Info

B.D.N Number	: 00744	
Specific Gravity	: 0.9798	
Density @ 15 Deg C	: 979.2	Kg/m3 (Converted)
Viscosity Redwood No. 1@ 100 Deg F	: 173.80	Secs
Flash Point	: 75	Deg C
Sulphur	: -	%
Water	: 0.05	%

PROTEST NOTE ISSUED : No

RESULT COMPARED TO ISO 8217:2005 RME 180 TABLE-2 SPECIFICATIONS.

		ISO SPECS		TEST	RESULT	
Density @ 15 Deg C	kg/m3	ISO	12185	975.5	991.0	Max
KV 50	mm2/s	ISO	3104	161.3	180.0	Max
KV 100	mm2/s	ISO	3104	20.6	25.0	Max
FlashPoint	Deg C	ISO	2719	>70	60	Max

PourPoint	Deg C	ISO	3016	<+9	30	Max
MCR	%m/m	ISO	10370	12	15	Max
Ash	%m/m	ISO	6245	0.03	0.10	Max
Water	%V/V	ISO	3733	0.1	0.5	Max
Sulphur (ISO 2005 Specs)	%m/m	ISO	8754	2.88	4.50	Max
Sulphur (MARPOL Annex VI)	%mass	ISO	8754	2.88	3.50	Max
Vanadium	mg/kg	IP	501	59	200	Max
TSP	%m/m	ISO	10307-2	0.01	0.10	Max
AL + SI (13 + 15)	mg/kg	IP	501	28	80	Max
Zinc	mg/kg	IP	501	2	15	Max
Phosphorus	mg/kg	IP	501	3	15	Max
Calcium	mg/kg	IP	501	8	30	Max

The sample result relate only to the item tested and have been compared according to the specifications listed in ISO 8217:2005 (E) Table-2 Specs under ISO-F RME 180 and THE SPECIFICATIONS ARE MET.

ADDITIONAL PARAMETERS (NON-ISO)

Al	mg/kg	IP 501	13
Si	mg/kg	IP 501	15
Sodium	mg/kg	IP 501	14
Iron	mg/kg	IP 501	12
Lead	mg/kg	IP 501	<1
Magnesium	mg/kg	IP 501	6
Nickel	mg/kg	IP 501	20
Potassium	mg/kg	IP 501	<1
API Gravity	-	IP 501	13.5
Net Specific Energy	MJ/kg	IP 501	40.44
CCAI (Ignition Quality)	-	IP 501	846

Glossary : KV50=Kinematic Viscosity @50 Deg C;
MCR = Micro Carbon Residue; TSP = Total Sediment Potential;
(A1+Si) = Aluminum+Silicon; CCAI = Calculated Carbon Aromaticity Index

OPERATIONAL ADVICE-

Min Transfer/Storage Temp	25	Deg C
Temp at Separator Inlet	98	Deg C
Temp for injection viscosity of 10 cSt	128	Deg C
Temp for injection viscosity of 13 cSt	117	Deg C
Temp for injection viscosity of 15 cSt	111	Deg C
Temp for injection viscosity of 18 cSt	105	Deg C

NOTE : We do not have details of your shipboard machinery and assume your vessel has conventional centrifuge(s). Please complete vessel technical information form which is attached and return to Maritec as soon as possible.

DENSITY
The fuel density is below the max. limit for all types of purifiers. Operate the centrifuges in series, e.g. purifier followed by a clarifier. Refer to the centrifuge maker’s nomogram. Select density

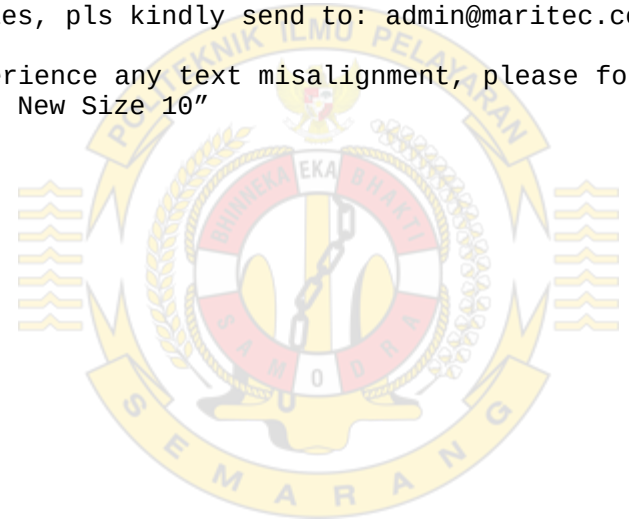
(test result density and not BDN density), fuel temperature at centrifuge inlet of 98 deg C and the minimum flow rate to cover the vessel’s speed. With density, fuel temperature and flow rate, the gravity disc that is one size smaller.

The test report shall not be reproduced except in full, without the written approval of the laboratory

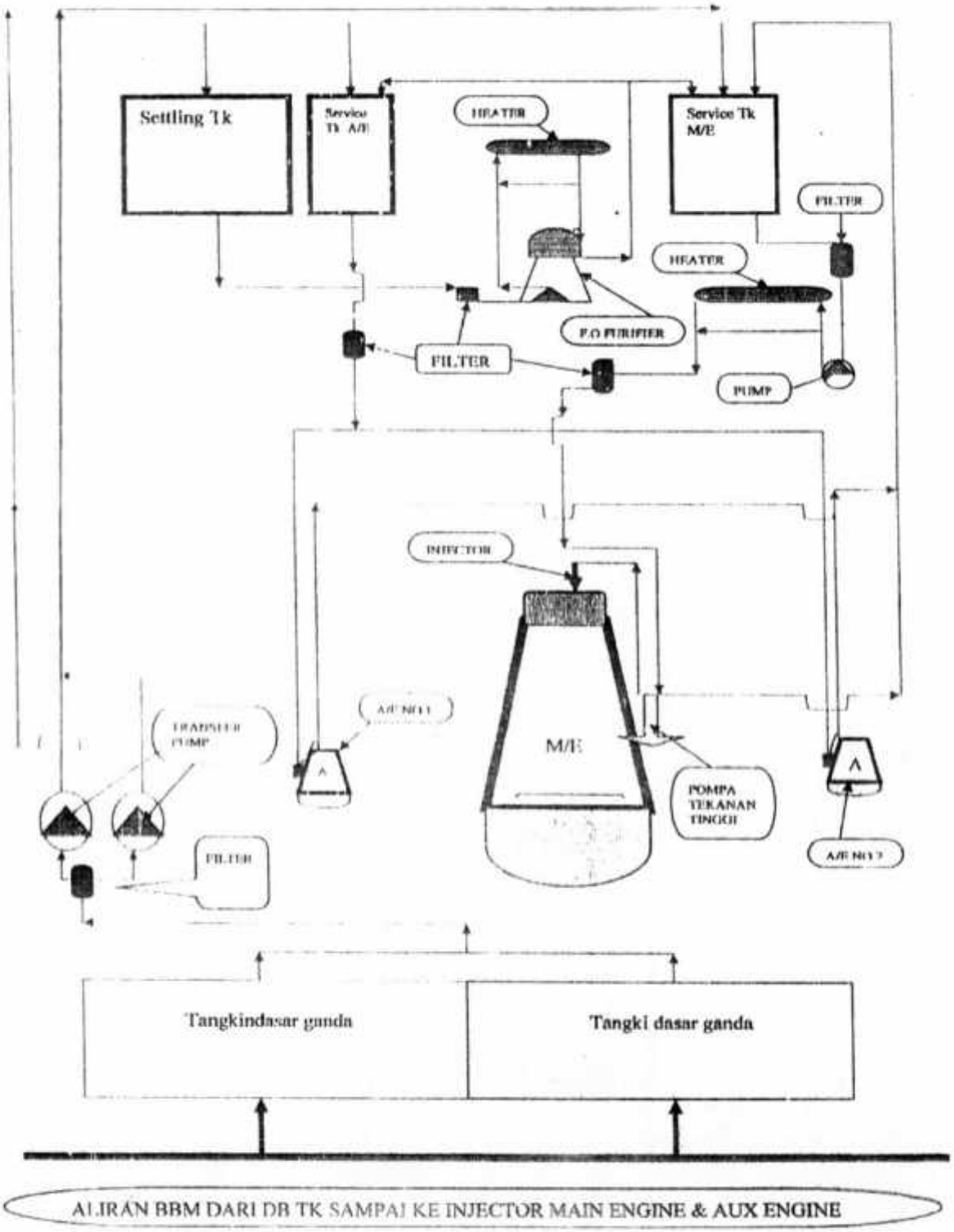
Thanks & Best Regards
Ms Gwee Ai Hwa / KS
Maritec Pte Ltd
192, Pandan Loop, #05-27, Singapore 128381
Tel : (65) 6271 8622 Fax : (65) 6271 9236
Website : www.maritec.com.sg

For enquiries, pls kindly send to: admin@maritec.com.sg

If you experience any text misalignment, please format this report to “Courier New Size 10”



System Aliran Bahan Bakar



BUNKER HOUSE PETROLEUM PTE LTD

10 ANSON ROAD #20-15 INTERNATIONAL PLAZA SINGAPORE 079903
TEL: 6222-0337 FAX: 6222-5721
E-MAIL: bhppl@singnet.com.sg or sales@bunkerhse.com.sg
Company Reg. No. 199606769Z
LICENCE NO: 96199

BUNKER DELIVERY NOTE

BDN No: 10921

Port	SINGAPORE	Date	
Delivery Location	AEBB	Vessel's Name	AMIS DIODOM III
Bunker Tanker's Name	H/A SOON 32	IMO No.	9573866
SB No.	674-A	Gross Tonnage	34795
Alongside Vessel	13.04.11 / 2145 H/RS (Date/Time)	Owner/Operator	MASTER / OWNER
Commenced Pumping	13.04.11 / 2300 H/RS (Date/Time)	ETD	—
Completed Pumping	14.04.11 / 0040 H/RS (Date/Time)	Next Port	HIGHSEA

PRODUCT SUPPLIED

Fuel Characteristics		Quantity	
Product Name	MFO	Gross Observed Vol (Litres)	470745
Viscosity@40°C or 50°C, mm^2/s (ISO 3104)	380 CST	Gross Standard Vol (Litres)	465284
Density@15°C, kg/m^3 (ISO 3675 or ISO 12185)	0.9907	Quantity (Metric Tons)	460.445
Water Content % V/V (ISO 3733)	0.15	Barrels at 60°F	N/A
Flash Point °C (ISO 2719)	78	Volume Correction Factor (ASTM Table 54B)	0.9884
Sulphur Content, % m/m (ISO 14596 or ISO 8754)	3.00	Weight Conversion Factor (ASTM Table 56)	0.9896

SUPPLIER'S CONFIRMATION

We declare that the bunker fuel supplied conforms with Regulations 14(1) or (4) (a) and Regulation 18(1) of MARPOL 73/78 Annex VI.

For AS ABOVE
Company's Name and Stamp

Signature of Cargo Officer

H. PITAN Jimmy
Full Name in Block Letters

Bunker Tanker's Stamp

MASTER'S / CHIEF ENGINEER'S ACKNOWLEDGEMENT

We acknowledge receipt of the above product and confirm that the following samples were jointly taken by continuous drip sampler at the vessel's manifold, sealed and numbered:

	Seal no.	Counter Seal no. (if any)
Vessel	811701	148786
	811702 (MARPOL)	148787
Bunker Tanker	811703/4	148788
Surveyor	811705	148789
Others	NIL (To Specify)	NIL (To Specify)

Acknowledged by:

Signature of Master / Chief Engineer / Time

Full Name in Block Letters

Vessel's Stamp

REMARKS

NIL

Was a Note of Protest issued? Yes / No

CUSTOMER FEEDBACK

The following rating is our satisfaction level of the bunkering operation:

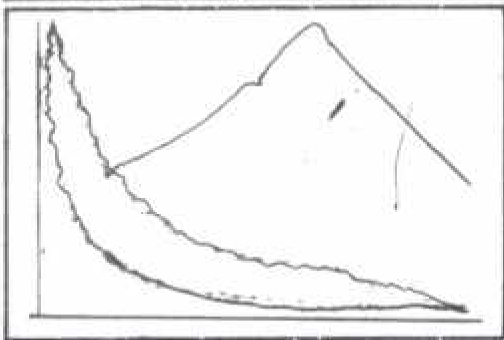
1 ..... 2 ..... 3 ..... 4 5

Very Unsatisfied — Very Satisfied

[redacted]

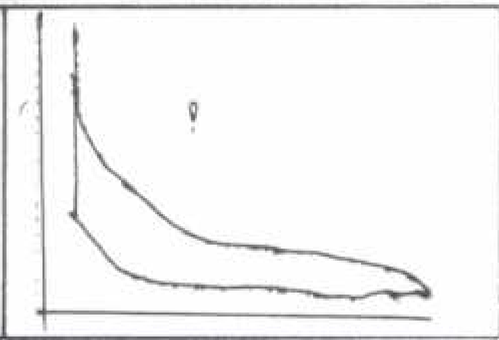
HAL YANG PERLU DIPERHATIKAN PADA SAAT MELAKUKAN PENGAMBILAN GAMBAR DIAGRAM INDIKATOR

- - - - - - - - correct diagram ——— measured diagram



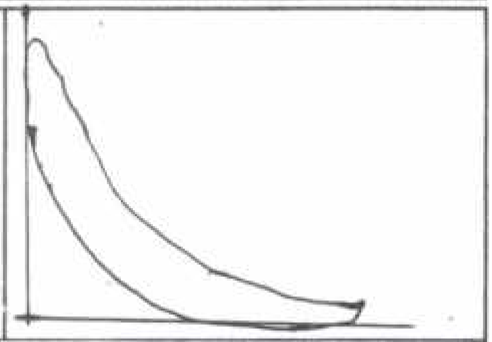
Gambar. 1

- Bergetar saat menarik tali penyorok.
  [illegible]
- Gambar diagram tidak berpengaruh.
  [illegible]



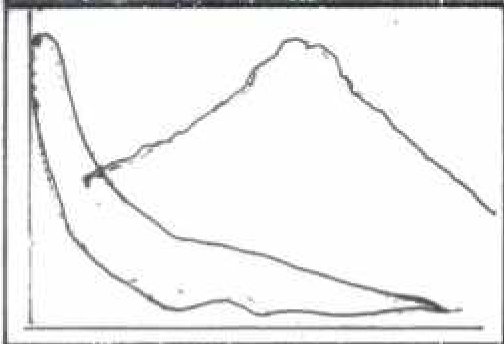
Gambar. 2

- Tali penarik terlalu panjang.
  Length of cord too long.
- Gambar pada posisi titik mati atas hilang
  T.D.C.-part missing.



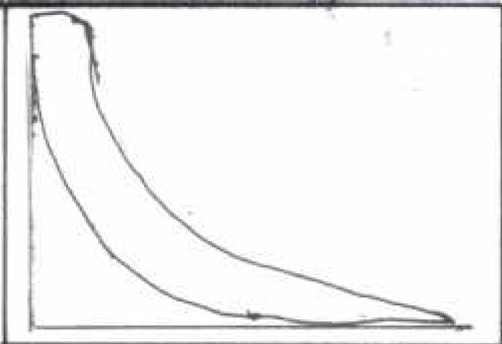
Gambar. 3

- Tali penarik terlalu pendek.
  Length of cord too short.
- Gambar pada posisi titik mati bawah hilang
  B.D.C.-part missing.



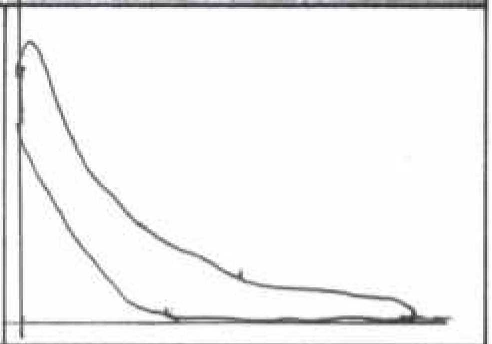
Gambar. 4

- Piston pada alat pengukur tidak lancar (terjadi pergesekan)
  Friction in indicator piston.
- Berpengaruh pada penggambaran diagram, kesalahan terlihat pada gambar adalah daerah diagram kerja membesar
  [illegible] this fault gives a too large working diagram area.



Gambar. 5

- Spring pada alat pengukur diagram indikator lemah
  Spring too weak.
- Piston pada indikator tidak bergerak lancar ketika berada pada posisi cylinder paling atas.
  Indicator piston strikes top end of cylinder.



Gambar. 6

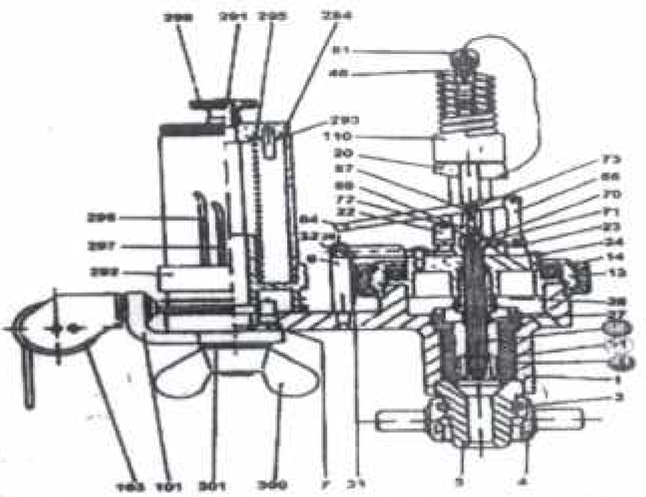
- Kran pada alat pengukur diagram indikator bocor.
  Indicator cock leaking.
- Garis atmosfir tidak tepat
  Atmospheric line untrue.

Perhatian !

Caution

Piston dan cylinder pada peralatan indikator harus dibersihkan dan diberi pelumas setiap selesai digunakan.

Piston and cylinder of indicator should be cleaned and lubricated after use.



1. drum carrier
3. wedge
4. connecting nut
5. connecting cone
6. limiting column
7. stop screw
13. clamping nut
14. ball race
20. spring support
22. font column
23. rear column
24. screw DIN 921
27. limiting sleeve
28. counter nut
31. set screw
32. stop screw
35. nut
41. cylinder ✓
51. piston with rod (98) ✓
64. recording lever
66. swing lever
67. coupling link
68. coupler link
70. cross head
71. socket head cap screw
72. link screw, long
73. link screw, short
81. cap screw
101. roller holder
103. rail
110. indicator spring
291. drum axle
292. paper drum cylinder
294. drum cover
295. drum spring
296. paper clamp, long
297. paper clamp, short
298. counter nut for drum
300. wing nut
301. washer for (300)

MENGETAHUI PERFORMANCE MESIN DARI GAMBAR DIAGRAM INDIKATOR

measured diagram

Analisa gambar 1 :

Penyemprotan bahan bakar sangat terlambat
Fuel injection too late.

- Tekanan penyemprotan bahanbakar sangat terlambat.
  Fuel pressure too low.
- Katup bahan baker tidak sempurna.
  Defective fuel valve (s)
- Katup isap pada pompa bahan baker tidak sempurna atau pergerakan bahan baker tidak sempurna.
  Defective fuel pump suction valve or shock absorber
- Terkecuali bahan baker kotor (pembakaran tidak sempurna).
  Exceptionally poor fuel (bad ignition properties)
- Bahan bakar yang di pompa terlalu sedikit (volume).
  Fuel pump lead too little.
  (see also the text)

Analisa gambar 2 : (Normal)

Penyemprotan bahan bakar terlalu cepat.
Fuel injection too early.

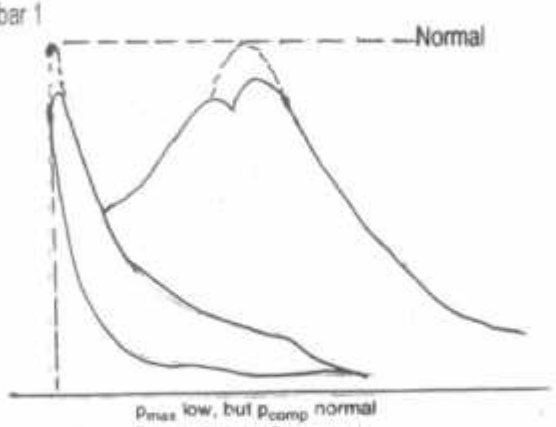
- Urutan waktu penyemprotan tidak tepat.
  VIT index wrong.
- Bahan bakar yang di pompa terlalu banyak (volume).
  Fuel pump lead too large.

Analisa gambar 3 : (Normal)

Kebocoran, volume cylinder membesar, atau kotor.
Leakages, increased cylinder, volume, or fouling.

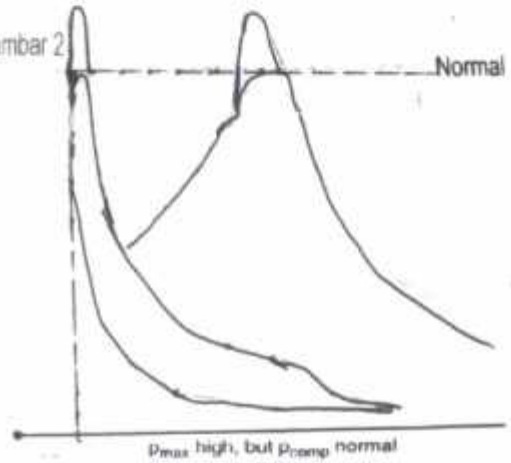
- Piston ring tidak dapat menahan udara.
  Piston ring blow-by.
- Dudukan klep buang bocor.
  Exhaust valve seat leakage.
- Piston crown terbakar.
  Piston crown burnt.
- Tekanan udara bilas rendah, system pembuangan dan, atau system udara kotor.
  Low scavenge pressure, fouling of exhaust and/ or air system.

Gambar 1



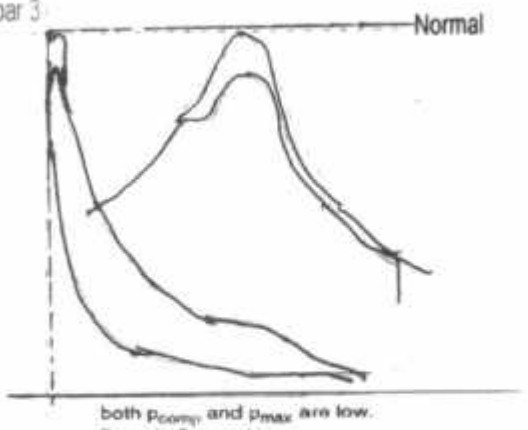
p_{max} low, but p_{comp} normal
Pmax rendah, tetapi Pcomp normal

Gambar 2



p_{max} high, but p_{comp} normal
Pmax tinggi, tetapi Pcomp normal

Gambar 3



both p_{comp} and p_{max} are low.
Pcomp dan Pmax rendah

Perhatian :

Lakukan perbaikan sesuai analisa diatas bila diagram indikator yang diamati sama dengan gambar

We Shipmanagement and Maritime Consult Co., Ltd

惠航船舶管理股份有限公司

Bunkering Plan & Meeting Record
加油計畫表及會議記錄

Ship Name MV. AMIS WISDOM 3 **Port** LANSHAN **Date** 08 – 02 - 2013

Bunkering Plan (加油計畫表)

Sequence of Filling 加油順序	Tank's Name 油艙名	Tank Capacity 油艙容量 M³	Oil level before filling 加油前液位 (M)	Planned filling Q'Ty 加油量 (M3)	Oil Level after filling 加油後液位 (M)	% of Fuel in Tank after Filling 加油後油艙存油/容量之百分比(%)	Tank Fuel QTY after filling 加油後油艙存油量 (M3)
			ULLAGE				
1	Tank No.1 Port	371.58m3	- m	318.76m3	0.80m	85.0%	315.84mt
2	Tank No.1 STBD	371.58m3	- m	318.76m3	0.81m	85.0%	315.84mt
3	Tank No.2 Port	371.18m3	- m	259.82m3	1.16m	70.0%	250.0mt
4	Tank No.2 STBD	371.18m3	- m	259.82m3	1.17m	70.0%	250.0mt
5	Tank No.3 Port	523.71m3	8.57m	418.96m3	2.38m	80.0%	135.0mt
6	Tank No.3 STBD	362.45m3	8.63m	289.96m3	3.11m	80.0%	133.0mt
7	FO Settl & Serv Tk		16.3 + 16.2	32.5m3			30.29mt
							1432.18mt
8	MDO Tank 1 STBD	106.90m3	1.41m	SG: 0.8697	7.72m3	16.74%	5.84mt
9	DO Setl & Serv Tk	7.5 + 8.15	7.5 + 7.15		14.65m3	-	12.86mt
10	MGO Tank 2 STBD	86.95m3	2.75m	SG: 0.8566	24.01m3	26.44%	20.56mt
							39.26mt

NOTE:(注意事項)

1) Vessel's pre-loading plan should be prepared in advance by 3/E in accordance with C/E's instruction 三管事先按輪機長指示填妥加油前計劃。
2) Be aware of oil spill penalties. 認識罰款條例。
3) Personnel involved and their responsibilities. 參與加油人員及其職責
4) Be familiar with communication of standard hand 熟悉標準手勢及英文用語之 Signals & English phrases 連絡
5) Be familiar with duties of the point of transfer watch and rover watch 加油時甲板當班須知。
6) Be familiar with emergency shutdown procedure of Bunkering in case of necessity. 熟悉緊急停止加油步驟。
7) Study the items in the checklist for safety bunkering. 研讀安全加油檢查表之各項內容。

All fuel bunker tanks sounding records before and after BUNKERING

TANK NAME	Before bunker		After Bunker	
	Sounding read	Capacity (m3)	Sounding read	Capacity (m3)
MFO				
Tank No.1 Port	0.02 m	- m3	3.20 m	315.84mt
Tank No.1 STBD	0.02 m	- m3	3.19 m	315.84mt
Tank No.2 Port	0.01 m	- m3	2.72 m	250.0mt
Tank No.2 STBD	0.02 m	- m3	2.79 m	250.0mt
Tank No.3 Port	3.74 m	80.0m3	4.85 m	135.0mt
Tank No.3 STBD	3.70 m	73.8m3	5.12 m	133.0mt
MDO Tank No.1 STBD	1.41 m	106.90m3	1.41 m	5.84m3
MGO Tank No.2 STBD	2.75 m	86.95m3	2.75 m	20.56m3

Bunkering Plan Prepared by 3/E SAW MU

Bunkering Plan Approved by C/E ROBIN SIMORANGKIR