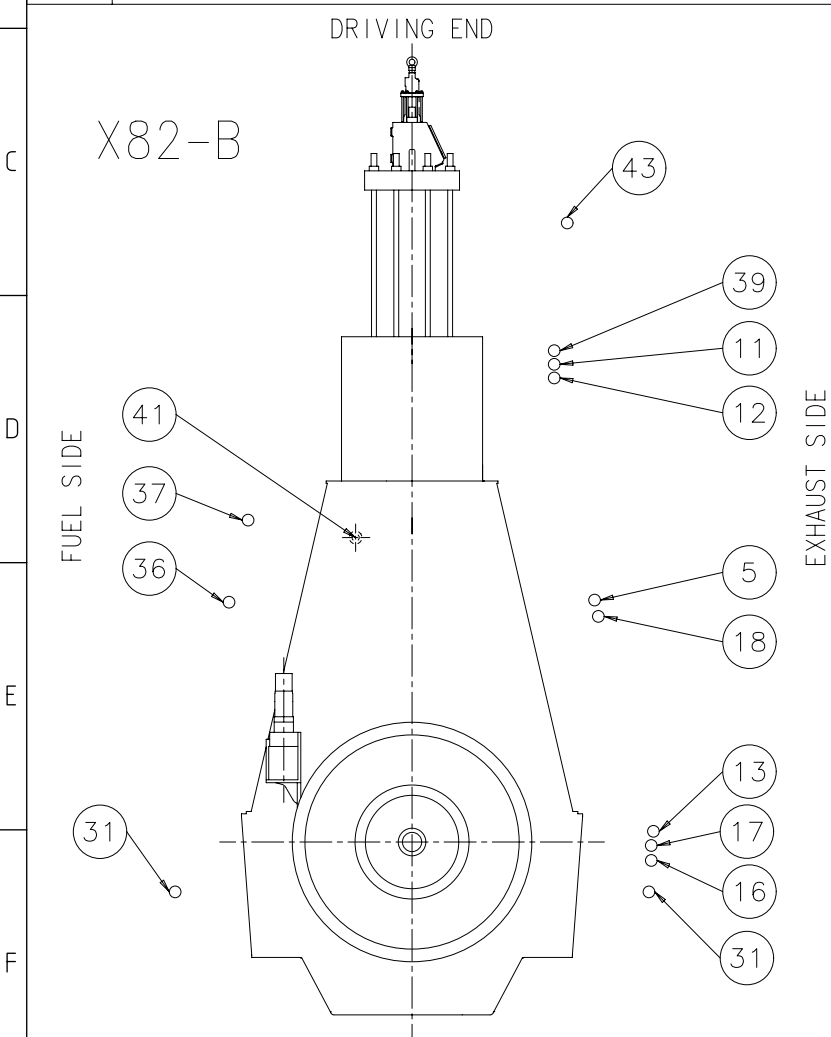




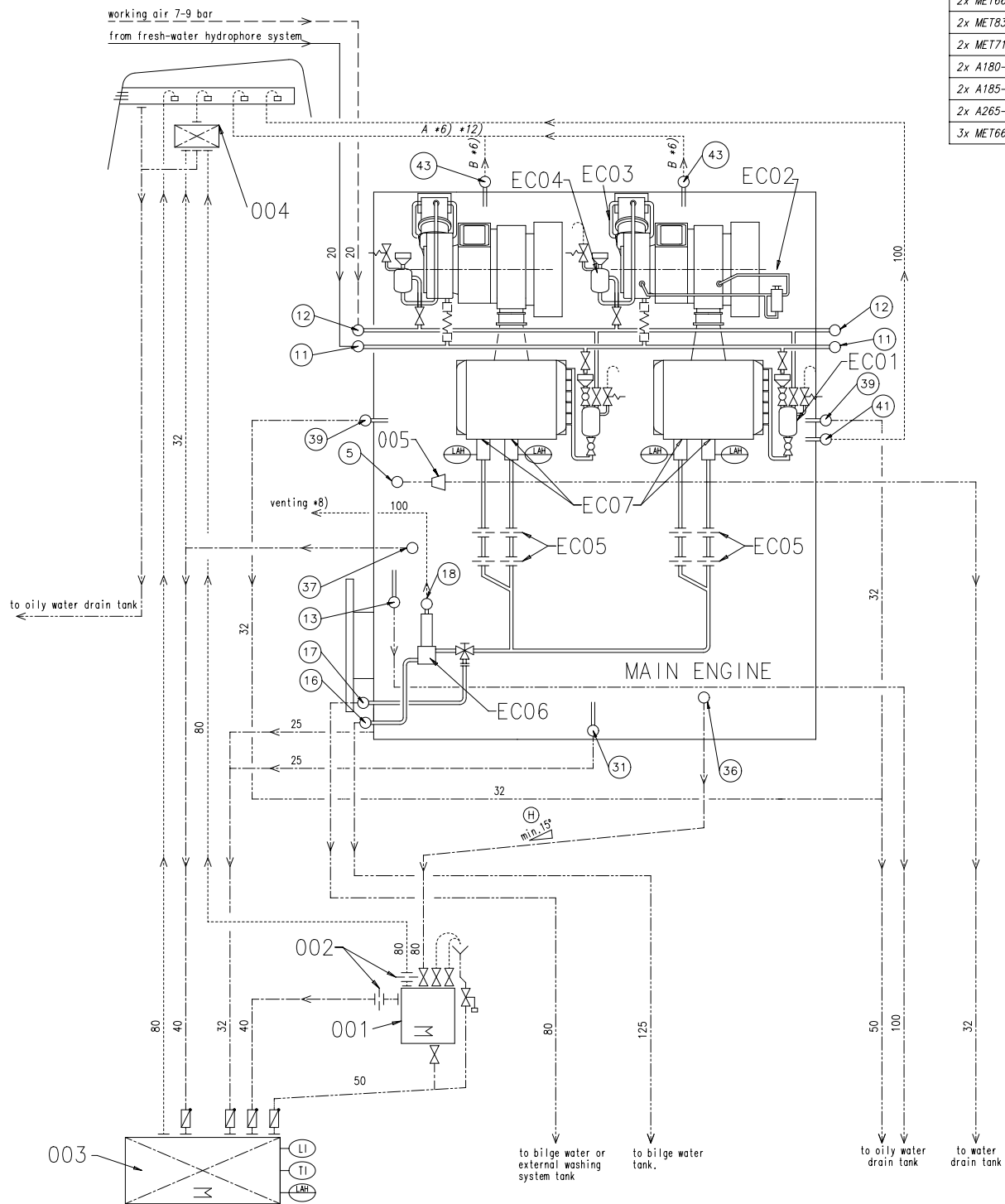
SPECIFICATION which must be met

A	<p>(37) OUTLET - Leakage oil gland box - Gravity flow to sludge tank or appropriate tank.</p> <p>(39) OUTLET - Leakage drain cylinder block - Gravity flow to oily water drain or appropriate tank.</p> <p>(41) OUTLET - Venting crankcase - Venting to funnel - Must not be connected to other venting pipes.</p>	<p>(5) OUTLET - Cylinder cooling water drain. - Gravity flow to cooling water drain tank or appropriate tank.</p> <p>(11) INLET - Washing water SAC - From fresh water hydrophore system, supply pressure: 2.5 bar</p>	A
B	<p>(43) OUTLET - Venting turbocharger - Venting to funnel - Minimum inclination according to TC suppliers specification - Must be not connected to other venting pipes.</p>	<p>(12) INLET - Air for cleaning plants TC and SAC - Working air, supply pressure: 7-9 bar</p> <p>(13) OUTLET - Oily water from scavenge air receiver - Gravity flow to oily water tank or appropriate tank.</p> <p>(16) OUTLET - SAC condensate water - Gravity flow to bilge water tank or appropriate tank.</p> <p>(17) OUTLET - Washing water from scavenge air coller. - Gravity flow to bilge water or chemical cleaning tank.</p>	B
C		<p>(18) OUTLET - SAC venting - Free flow outside of engine room</p> <p>(31) OUTLET - Various leakages - Gravity flow to sludge tank or appropriate tank.</p>	C
D		<p>(36) OUTLET - Dirty oil piston underside - Flow with SAC pressure to sludge oil trap or appropriate arrangement. - Min. inclination of drain pipe: 15°</p> <p>(H)</p>	D



1	001	107.425.369.500	SLUDGE OIL TRAP				107.425.369			0,001			
QTY	SEQ NO	Material ID	Material Name				Standard or Drawing		Basic Material Material Standard	Weight GR./NET			
Free space for lic.									Q-Code	Main Drw.			
									XXXXXX				
									Standard ISO; JIS				
Modif.	E	EAAD085091	21.05.2014	F	EAAD090104	13.09.2019	G	EAAD092791	27.10.2020	H	EAAD095177	02.11.2020	
	Number	Drawn date		Number	Drawn date		Number	Drawn date		Number	Drawn date		
			Product 6-9X82-B			LEAKAGE COLLECTION/WASHING SYS. SYSTEM DIAGRAM LEAKAGE COLLECTION/WASHING SYS.							
Units	mm kg	NX				Basic Material						Net Weight 0,001	
Made	02.07.2010 jba029 Baumann			Scale	-	Size	A3	Page	1/2	Material ID	107.380.197.500		
Chkd				Design Group									
Appd	15.11.2007 MPR002			9724	Drawing ID	107.380.197					Rev.	H	

SYSTEM PROPOSAL



Turbocharger type	A *13)	B *12)	Min. Inclination
2x MET60 MB11	100	80	>3°
2x MET66MA/B	100	80	>3°
2x MET83MA/B	125	100	>3°
2x MET71MA/B	100	80	>3°
2x A180-L	100	80	>5°
2x A185-L	125	80	>5°
2x A265-L	80	65	>5°
3x MET66 MB	125	80	>3°

Pos.	SYSTEM COMPONENTS *1)
001	Sludge oil trap (according to separate drawing)
002	Throttling disc (size shown on separate sludge oil trap drawing)
003	Sludge or appropriate tank
004	Air vent manifold
005	Transition piece (adaptor) *10)

Pos.	ENGINE CONNECTIONS *2)
⑤	OUTLET - Cylinder cooling water drain
⑪	INLET - Washing water SAC
⑫	INLET - Air for cleaning TC and SAC
⑬	OUTLET - Oily water from scavenge air receiver *14)
⑯	OUTLET - SAC condensate water *4) *14)
⑰	OUTLET - Washing water from scavenge air cooler
⑱	OUTLET - SAC venting *8)
⑳	OUTLET - Various leakages
㉑	OUTLET - Dirty oil piston underside
㉒	OUTLET - Leakage oil gland box
㉓	OUTLET - Leakage drain cylinder block
㉔	OUTLET - Venting crankcase
㉕	OUTLET - Venting turbocharger

Pos.	ENGINE COMPONENTS *3)
EC01	Scavenge air cooler washing plant
EC02	Turbocharger compressor wheel washing plant *5)
EC03	Turbocharger turbine washing plant *5)
EC04	Dry cleaning device *5)
EC05	Throttling disc
EC06	Venting Unit
EC07	Condensate drain unit *5)

Remarks

- Air vent and drain pipes must be fully functional at all inclination angles of the ship at which the engine must be operational.

*1) To be delivered by external suppliers and to be installed by the shipyard.

*2) Refer to the "Pipe Connection Plan" for the execution and location of the engine pipe connections.

*3) To be delivered by the engine manufacturer, i.e. already equipped on engine side.

*4) The amount of condensate water drained off after the SAC depends on the relative air humidity and the scavenge air temperature before and after the SAC. Under extreme ambient conditions a maximum condensate quantity of up to 0.16 kg/kWh may be produced.

*5) One unit per turbocharger.

*6) In relation to turbocharger type, see table on the left side.

*8) Free flow venting outside of engine room.

*10) Installed as required (check with the Pipe Connection Plan).

*12) Vent pipe diameter as per turbocharger requirements.

*13) Vent pipe diameter of common collection pipe.

*14) Drain connection 13 and 16 are with air flow from scavenging system. It is recommended to connect these drains to different tanks. The tanks must be designed with sufficiently sized vents to avoid excessive pressure in the tanks. The drain amount depends on the ambient conditions.

- Washing water pipes
- - - Dirty oil drain pipes
- Pipes on engine
- Pipe connections
- - - Compressed air pipes
- - - Air vent pipes
- - - Water drain pipes

WINGD WINDWARD GAS & DIESEL		Product 6-9X82-B		LEAKAGE COLLECTION/WASHING SYS. SYSTEM DIAGRAM LEAKAGE COLLECTION/WASHING SYS.	
Units	mm kg	NX	Basic Material	Scale	1:1
Size	A1	Page	2/2	Material ID	107.380.197.500
Net Weight	0,001				
SURFACE PROTECTION SEE GROUP 0344 TOLERANCING PRINCIPLE ISO8015 GENERAL TOLERANCES ACCORDING TO ISO2768-mS		Made 02.07.2010 jba029 Baumann		Design Group 9724	
Appd 15.11.2007 MPR002		Drawing 107.380.197		Rev. H	

MIDS - WinGD X82-B – Leakage Collection and Washing System

TRACK CHANGES

DATE	SUBJECT	DESCRIPTION
2017-02-23	DRAWING SET	First web upload
2017-08-23	107.425.369	Sludge oil trap drg - new revision
2018-10-04	107.425.369	Sludge oil trap drg - new revision
2019-09-18	107.388.834 107.380.197	Main and system drg – new revision
2020-11-25	107.380.197	System drg – new revision

DISCLAIMER

© Copyright by Winterthur Gas & Diesel Ltd.

All rights reserved. No part of this document may be reproduced or copied in any form or by any means (electronic, mechanical, graphic, photocopying, recording, taping or other information retrieval systems) without the prior written permission of the copyright owner.

THIS PUBLICATION IS DESIGNED TO PROVIDE AN ACCURATE AND AUTHORITATIVE INFORMATION WITH REGARD TO THE SUBJECT-MATTER COVERED AS WAS AVAILABLE AT THE TIME OF PRINTING. HOWEVER, THE PUBLICATION DEALS WITH COMPLICATED TECHNICAL MATTERS SUITED ONLY FOR SPECIALISTS IN THE AREA, AND THE DESIGN OF THE SUBJECT-PRODUCTS IS SUBJECT TO REGULAR IMPROVEMENTS, MODIFICATIONS AND CHANGES. CONSEQUENTLY, THE PUBLISHER AND COPYRIGHT OWNER OF THIS PUBLICATION CAN NOT ACCEPT ANY RESPONSIBILITY OR LIABILITY FOR ANY EVENTUAL ERRORS OR OMISSIONS IN THIS BOOKLET OR FOR DISCREPANCIES ARISING FROM THE FEATURES OF ANY ACTUAL ITEM IN THE RESPECTIVE PRODUCT BEING DIFFERENT FROM THOSE SHOWN IN THIS PUBLICATION. THE PUBLISHER AND COPYRIGHT OWNER SHALL UNDER NO CIRCUMSTANCES BE HELD LIABLE FOR ANY FINANCIAL CONSEQUENTIAL DAMAGES OR OTHER LOSS, OR ANY OTHER DAMAGE OR INJURY, SUFFERED BY ANY PARTY MAKING USE OF THIS PUBLICATION OR THE INFORMATION CONTAINED HEREIN.