

**Available executions**

Execution No.	Material ID	Number of Turbocharger
001	PTAA037457	1

SURFACE PROTECTION SEE GROUP 0344  
TOLERANCING PRINCIPLE ISO8015

**NOTE**

The above executions can be configured using the Engine Configurator. Detailed guidance for the executions is provided within the Marine Installation Manual (MIM). If a specific execution of interest is not shown in the above table, then it may still be under development or not available. For further information or in case of a project-specific request, WinGD must be contacted directly.

This publication is designed to provide accurate and authoritative information with regard to the subject-matter covered as it 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 cannot accept any responsibility or liability for any eventual errors or omissions in this document 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.

Prod.	X62DF-2.1									
Change History										
	-	sna102				new Design				
	Rev.	Creator	Approver	Approval Date	Change ID	Change Synopsis	Activity Code	E	C	



LEAKAGE COLLECTION/WASHING SYS.  
MIDS master drawing

separate BOM available

Dimension

Scale	-		NX	Units [mm] [kg]	Basic Material	Net Weight	0.001		
Copyright Winterthur Gas & Diesel Ltd. All rights reserved. By taking possession of the drawing the recipient recognizes and honours these rights. Neither the whole nor any part of this drawing may be used in any way for construction, fabrication, marketing or any other purpose nor copied in any way nor made accessible to third parties without the previous written consent of Winterthur Gas & Diesel Ltd.				Main Design	Design Group	9724	Q-Code XXXXX	Standard	WDS
				Qty per	A4	Item ID	PTAA026089	Drawing Page/s	1/1

SEQ NO	QTY	Item ID	Item Name	Dimension	Standard-ID	Basic Material	Net Weight
001	1	PTAA037102	LEAKAGE COLLECTION/WASHING SYS.				0.001

--	--	--	--	--	--	--	--

Prod.	5,6,7,8 X62DF-2.1						
Change History							
	-	sde101	mhu019	29.06.2022	CNAA002055	Main Design/Drawing Introduced	- -
Rev.	Creator	Approver	Approval Date	Change ID	Change Synopsis	Approved	Activity Code E C

	<h1>LEAKAGE COLLECTION/WASHING SYS.</h1> <h2>iCER off-engine</h2>
--	---

<b>Bill Of Material</b>		Dimension		iCER off-engine			
Copyright Winterthur Gas & Diesel Ltd. All rights reserved. By taking possession of the document the recipient recognizes and honours these rights. Neither the whole nor any part of this document may be used in any way for construction, fabrication, marketing or any other purpose nor copied in any way nor made accessible to third parties without the previous written consent of Winterthur Gas & Diesel Ltd.	Units	[m] [kg]	Basic Material			Net Weight	0.001
	Main Design	Yes	Design Group	9724	Q-Code	XXXXX	Standard WDS
	Qty per	Engine	A4	Item ID	<b>PTAA037457</b>		BOM Page/s

SEQ NO	QTY	Item ID	Item Name	Dimension	Standard-ID	Basic Material	Net Weight
001	1	107.425.369.500	SLUDGE OIL TRAP				0.001

--	--	--	--	--	--	--	--

Prod.	X62DF-2.1								
Change History	B	dki021	mhu019	19.12.2022	CNAA002848	Drawing Updated		4	3
	A	rth101	mhu019	22.11.2022	CNAA002751	Drawing Updated		4	3
	-	sde101	mhu019	29.06.2022	CNAA002055	new Design		-	-
	Rev.	Creator	Approver	Approval Date	Change ID	Change Synopsis	Approved	Activity Code	E

	<h1>LEAKAGE COLLECTION/WASHING SYS.</h1> <h2>iCER off-engine</h2>
--	---

<b>Bill Of Material</b>			Dimension				iCER off-engine	
Copyright <b>Winterthur Gas &amp; Diesel Ltd.</b> All rights reserved. By taking possession of the document the recipient recognizes and honours these rights. Neither the whole nor any part of this document may be used in any way for construction, fabrication, marketing or any other purpose nor copied in any way nor made accessible to third parties without the previous written consent of <b>Winterthur Gas &amp; Diesel Ltd.</b>		Units	[m] [kg]	Basic Material			Net Weight	0.001
Main Design		Design Group		9724	Q-Code	XXXXX	Standard	WDS
Qty per		A4	Item ID	<b>PTAA037102</b>			BOM Page/s	01/01

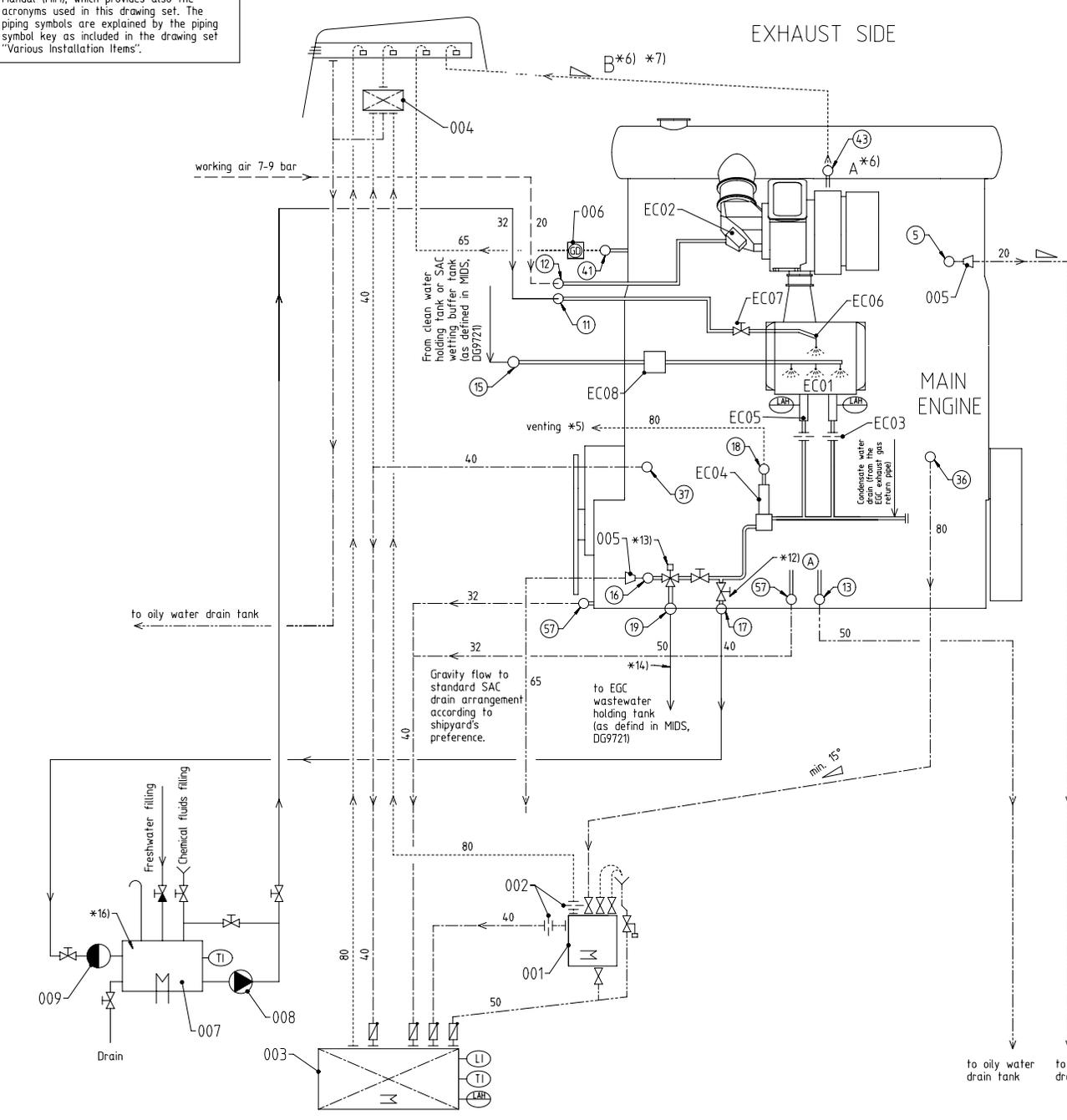
# SPECIFICATION which must be met:

A	19	OUTLET - SAC condensate water, iCER - To EGC wastewater holding tank during iCER operation - The system components downstream of this connection until the pH-neutralisation dosing unit must be designed for low pH operation.	5	OUTLET - Cylinder cooling water drain. - Gravity flow to cooling water drain tank or appropriate tank.	A
	36	OUTLET - Dirty oil piston underside - Flow with SAC pressure to sludge oil trap or appropriate arrangement. - Min. inclination of drain pipe: 15°	11	INLET - SAC wash water - Optional connection. Only necessary if an external SAC washing system is installed. - Wash water supply: From external washing system - Wash water supply pressure: min. 3.0 bar - Wash water circulation rate: min. 4.5 m³/h	
B	37	OUTLET - Leakage oil gland box - Gravity flow to sludge tank or appropriate tank.	B		B
	41	OUTLET - Venting crankcase - Venting to funnel - Must not be connected to other venting pipes.	12	INLET - Air for cleaning plants TC - Working air, supply pressure: 7-9 bar	
C	43	OUTLET - Venting turbocharger - Venting to funnel - Minimum inclination according to TC suppliers specification - Must not be connected to other venting pipes.	13	OUTLET - Oily water from scavenge air receiver - Gravity flow to oily water tank or appropriate tank.	C
	57	OUTLET - Various leakages - Gravity flow to sludge tank or appropriate tank.	15	INLET - SAC wetting water - Wetting water supply: From clean water holding tank or SAC wetting buffer tank - Wetting water supply pressure: max. 10 bar - Wetting water circulation rate: 500-1000 l/h per SAC	
D			16	OUTLET - SAC condensate water - Gravity flow to bilge water tank or wash water collection tank or to the EGC bleed-off line depending on the operation mode. - The system components downstream of this connection until the pH-neutralisation dosing unit must be designed for low pH operation.	D
			17	OUTLET - SAC wash water - Optional connection. Only necessary if an external SAC washing system is installed. - To wash water collection tank during SAC cleaning.	
E			18	OUTLET - SAC venting - Free flow outside of engine room	E

Prod.	X62DF-2.1										
Change History	B	dki021	mhu019	19.12.2022	CNA002848	Drawing Updated		4	3		
	A	rth101	mhu019	22.11.2022	CNA002751	Drawing Updated		4	3		
	-	sde101	mhu019	29.06.2022	CNA002055	new Design		-	-		
	Rev.	Creator	Approver	Approval Date	Change ID	Change Synopsis	Approved	Activity Code	E	C	
		LEAKAGE COLLECTION/WASHING SYS. iCER off-engine									
separate BOM available		Dimension			iCER off-engine						
Scale	-		NX	Units [mm] [kg]	Basic Material			Net Weight	0.001		
SURFACE PROTECTION SEE GROUP 0344		Copyright Winterthur Gas & Diesel Ltd. All rights reserved. By taking possession of the drawing the recipient recognizes and honours these rights. Neither the whole nor any part of this drawing may be used in any way for construction, fabrication, marketing or any other purpose not copied in any way nor made accessible to third parties without the previous written consent of Winterthur Gas & Diesel Ltd.			Main Design	Design Group	9724	Q-Code	XXXXXX	Standard	WDS
TOLERANCING PRINCIPLE ISO8015		Qty per	A3		Item ID	PTAA037102		Drawing Page/s	1/2		
GENERAL TOLERANCES ACCORDING TO ISO2768-mK											

# SYSTEM PROPOSAL

**NOTE**  
Further installation details and variants can be found listed in the Marine Installation Manual (MIM), which provides also the acronyms used in this drawing set. The piping symbols are explained by the piping symbol key as included in the drawing set "Various Installation Items".



EXHAUST SIDE

MAIN ENGINE

Turbocharger type	A**	B**	Min. Inclination
1 x A170-L	65	65	≥ 5°
1 x A175-L	65	65	≥ 5°
1 x A180-L	80	80	≥ 5°
1 x A185-L	80	80	≥ 5°
1 x A270-L	65	65	≥ 5°
1 x A275-L	65	65	≥ 5°
1 x A280-L	80	80	≥ 5°
1 x MET53MB	65	65	≥ 3°
1 x MET60MB	80	80	≥ 3°
1 x MET66MB	80	80	≥ 3°
1 x MET71MB	80	80	≥ 3°
1 x MET83MB	100	100	≥ 3°
2 x A165-L	65	80	≥ 5°
2 x A170-L	65	100	≥ 5°
2 x A175-L	65	100	≥ 5°
2 x A265-L	65	80	≥ 5°
2 x A270-L	65	100	≥ 5°
2 x MET42MB	50	65	≥ 3°
2 x MET48MB	65	80	≥ 3°
2 x MET53MB	65	80	≥ 3°
2 x MET60MB	80	100	≥ 3°

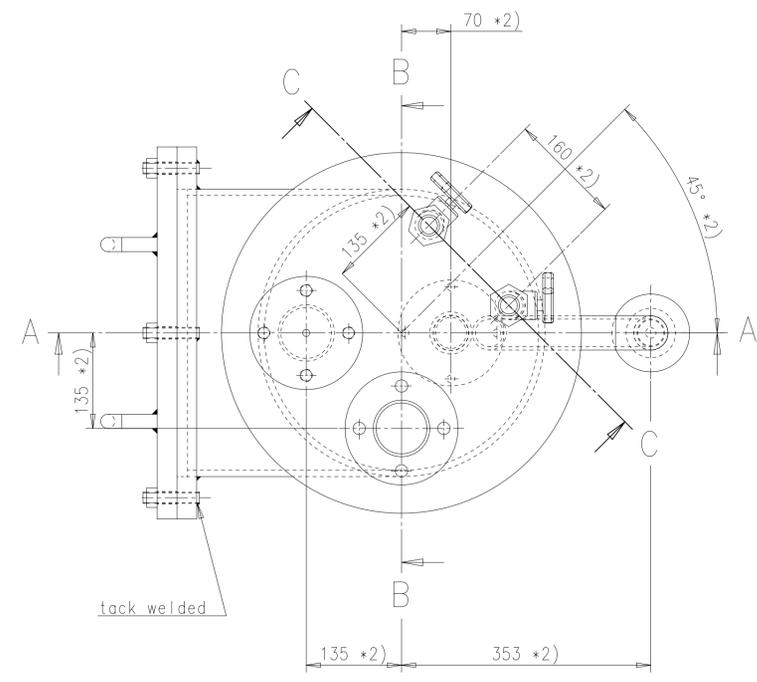
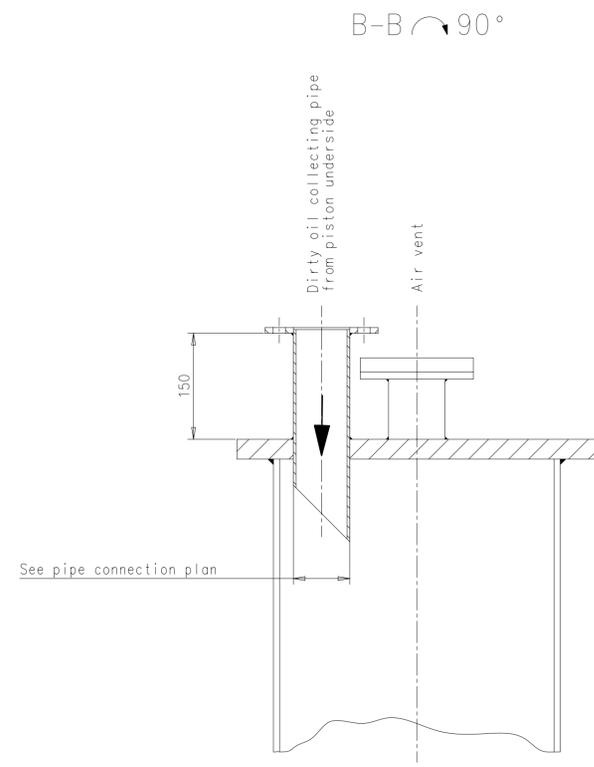
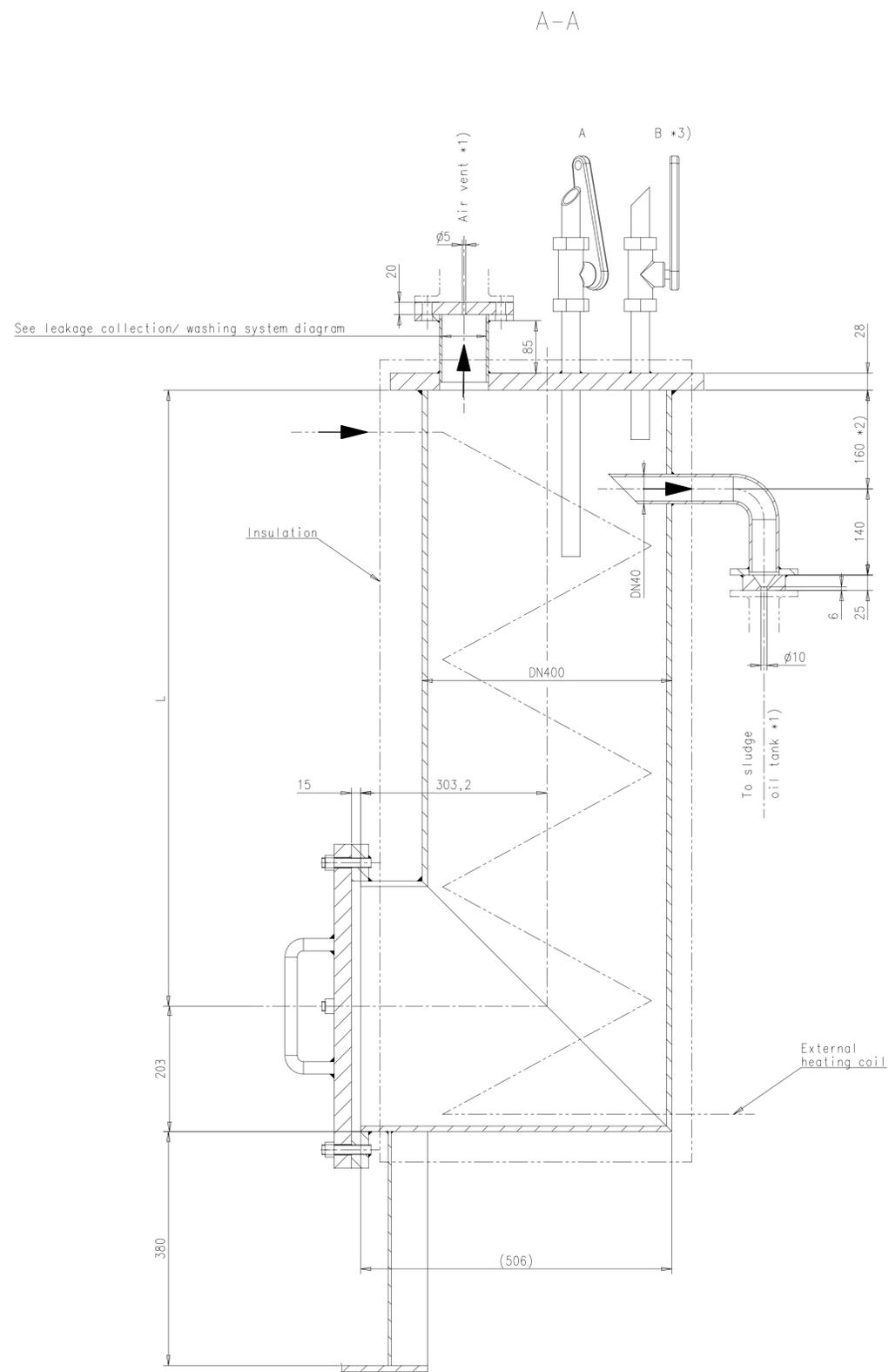
Pos.	SYSTEM COMPONENTS *1)
001	Sludge oil trap (link to detail drawing on the partlist of this drawing).
002	Throttling disc (size shown on separate sludge oil trap drawing)
003	Sludge or appropriate tank
004	Air vent manifold
005	Transition piece (adaptor) *9)
006	Gas detector *1)
007	Chemical wash water circulation tank *15)
008	Chemical wash water circulation pump *16)
009	Chemical wash water strainer (0.5-1.0 mm) *16)

Pos.	ENGINE CONNECTIONS *2)
05	OUTLET - Cylinder cooling water drain
11	INLET - SAC wash water *16)
12	INLET - Air for cleaning TC
13	OUTLET - Oily water from scavenge air receiver *10)
15	INLET - SAC wetting water
16	OUTLET - SAC condensate water *4) *10) *14)
17	OUTLET - SAC wash water *12) *16)
18	OUTLET - SAC venting *5)
19	OUTLET - SAC condensate water, iCER *13)
36	OUTLET - Dirty oil piston underside
37	OUTLET - Leakage oil gland box
41	OUTLET - Venting crankcase
43	OUTLET - Venting turbocharger
57	OUTLET - Various leakages

Pos.	ENGINE COMPONENTS *3)
EC01	Scavenge air cooler
EC02	Dry cleaning device
EC03	Throttling disc
EC04	Venting Unit
EC05	Condensate drain unit
EC06	SAC washing spray nozzle
EC07	SAC washing isolating valve
EC08	SAC wetting valve unit

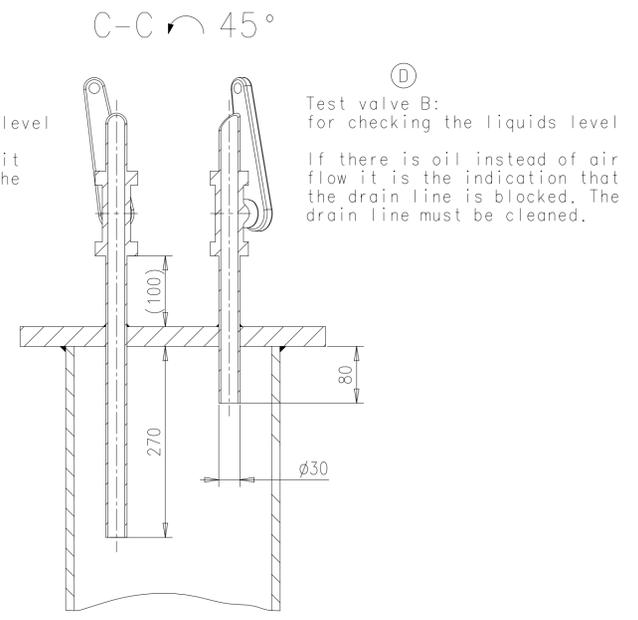
- Remarks**
- Air vent and drain pipes must be fully functional at all inclination angles of the ship at which the engine must be operational.
  - \*1) To be installed by the shipyard.
  - \*2) Refer to the "Pipe Connection Plan" for the execution and location of the engine pipe connections.
  - \*3) 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. During iCER operation, the SAC drain water amount is significantly increased. The specific drain amount is provided by the GTD.
  - \*5) Free flow venting outside of engine room.
  - \*6) In relation to turbocharger type, see table on the left side.
  - \*7) Vent pipe diameter as per turbocharger requirements.
  - \*8) Vent pipe diameter of common collection pipe.
  - \*9) Installed as required (check with the Pipe Connection Plan).
  - \*10) Drain connection 13 and 16 are with air flow from scavenging system. Both drain lines must be kept separated and directed to separate tanks. The tanks must be designed with sufficiently sized vents to prevent excessive pressure in the tanks. The drain amount depends on the ambient conditions.
  - \*11) Optional, to be installed if requested by the flag state and/or class to achieve IGC compliance.
  - \*12) Switching to the separate washing water collection tank must be carried out for SAC cleaning.
  - \*13) While the iCER is in operation, drain to the EGC waste water holding tank. The solenoid valve is actuated by a signal from the "Engine Control System".
  - \*14) The system components from the iCER bleed-off water outlet must be designed for low pH operation. After the pH neutralisation the system components can be of standard material.
  - \*15) Wash water is heated to between 50 and 60 °C by a heating coil.
  - \*16) Optional, only necessary if an external SAC washing system is installed.

- - - Compressed air pipes
- - - - Air vent pipes
- - - - - Drain & overflow pipes
- - - - - Dirty oil drain pipes
- - - - - Wash water pipes
- - - - - Pipes on engine
- Pipe connections



Ⓓ  
Test valve A:  
for checking the solids level

If there is no oil flow it is the indication that the solid level is too high. The sludge oil trap must be cleaned.



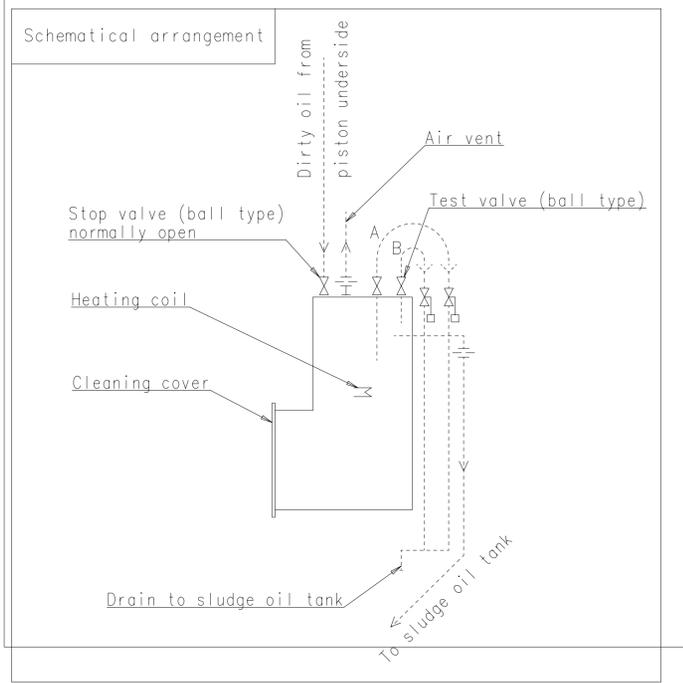
Ⓓ  
Test valve B:  
for checking the liquids level

If there is oil instead of air flow it is the indication that the drain line is blocked. The drain line must be cleaned.

Remarks:

- \*1) Orifice to be as shown
- \*2) Observe location of pipes with regard to each other
- \*3) Optional - Alternatives, such as level sensors, are possible

Details:	Cylinder bore size:	L = 1000	L = 550
	Capacity:	150 l	100 l
	Working pressure:	4 bar	
	Testing pressure:	6 bar	
	Temperatur:	80°C	



Prof.	CX40DF RT-flex48T-D	RT-flex50-D RT-flex48T-D	RT-flex58T-D V1 RT-flex58T-D V2	RT-flex58T-E RT-flex68-D	RT-flex68-D_L RT-flex82C	RT-flex82SCR-HHM-PILOT RTA68-D	X35-B [...]	
Change History	sd101	mhu019	19.01.2022	CNA001373	drawing updated		4	3
	sd101	mhu019	10.09.2018	EAAD089439	Legacy information. See corresponding ChangeNotice		4	-
	dk1021	mhu019	14.07.2017	EAAD087849	Legacy information. See corresponding ChangeNotice		4	-
	WinGD	jba029	13.11.2009	-			-	-
Rev.	Creator	Approver	Approval Date	Change ID	Change Synopsis	Approved	Activity Code	E C

**WINGD**  
Winterthur Gas & Diesel

**SLUDGE OIL TRAP**

Scale: 1:5

Units: [mm] [kg]

Basic Material: [ ]

Design Group: 9724

Q-Code: XXXXX

Net Weight: 0.001

Standard: WDS

SURFACE PROTECTION SEE GROUP 0344		Copyright Winterthur Gas & Diesel Ltd. All rights reserved. No liability is assumed for the use of this drawing for any other purpose than the one intended. Reproduction, modification, distribution, or any other use without the written consent of Winterthur Gas & Diesel Ltd. is prohibited.	
TOLERANCING PRINCIPLE ISO8015		GENERAL TOLERANCES ACCORDING TO ISO2768-mK	
Qty per	Design ID	Item ID	Drawing Page/s
	A1	107.425.369.500	1/1



**Available executions**

Execution No.	Material ID	Cylinder No.
001	PAAD359821	5-7

SURFACE PROTECTION SEE GROUP 0344  
 TOLERANCING PRINCIPLE ISO8015  
 GENERAL TOLERANCES ACCORDING TO ISO2768-mK

**NOTE**

The above executions can be configured using the Engine Configurator. Detailed guidance for the executions is provided within the Marine Installation Manual (MIM). If a specific execution of interest is not shown in the above table, then it may still be under development or not available. For further information or in case of a project-specific request, WinGD must be contacted directly.

This publication is designed to provide accurate and authoritative information with regard to the subject-matter covered as it 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 cannot accept any responsibility or liability for any eventual errors or omissions in this document 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.

NOT VALID FOR NEW PROJECTS!  
 Provided only as reference for projects  
 contracted before April 2022

Prod.									
Change History									
	-	sna102				new Design			
	Rev.	Creator	Approver	Approval Date	Change ID	Change Synopsis	Activity Code	E	C



LEAKAGE COLLECTION/WASHING SYS.  
 MIDS master drawing

separate BOM available

Dimension

Scale	-		NX	Units [mm] [kg]	Basic Material	Net Weight	0.001		
Copyright Winterthur Gas & Diesel Ltd. All rights reserved. By taking possession of the drawing the recipient recognizes and honours these rights. Neither the whole nor any part of this drawing may be used in any way for construction, fabrication, marketing or any other purpose nor copied in any way nor made accessible to third parties without the previous written consent of Winterthur Gas & Diesel Ltd.				Main Design	Design Group	9724	Q-Code XXXXX	Standard	WDS
				Qty per	A4	Item ID	PTAA026089		Drawing Page/s

SEQ NO	QTY	Item ID	Item Name	Dimension	Standard-ID	Basic Material	Net Weight
1	1	PAAD359593	LEAKAGE COLLECTION/WASHING SYS.				0.001

NOT VALID FOR NEW PROJECTS!  
 Provided only as reference for projects  
 contracted before April 2022

Prod.	5,6,7 X62DF-2.1							
Change History								
	-	dkl021	mhu019	04.12.2020		-		-
	Rev.	Creator	Approver	Approval Date	Change ID	Change Synopsis	Activity Code	E C

	LEAKAGE COLLECTION/WASHING SYS.
--	---------------------------------

<b>Bill Of Material</b>		Dimension					
Copyright Winterthur Gas & Diesel Ltd. All rights reserved. By taking possession of the document the recipient recognizes and honours these rights. Neither the whole nor any part of this document may be used in any way for construction, fabrication, marketing or any other purpose nor copied in any way nor made accessible to third parties without the previous written consent of Winterthur Gas & Diesel Ltd.	Units	[m] [kg]	Basic Material			Net Weight	0.001
	Main Design	Yes	Design Group		9724	Q-Code	XXXXX
	Qty per	Engine	A4	Item ID	PAAD359821		BOM Page/s

SEQ NO	QTY	Item ID	Item Name	Dimension	Standard-ID	Basic Material	Net Weight
001	1	107.425.369.500	SLUDGE OIL TRAP				0.001

NOT VALID FOR NEW PROJECTS!  
 Provided only as reference for projects  
 Contracted before April 2022

Prod.	X62DF-2.1							
Change History	B	sde101	mhu019	08.03.2022	CNA001599	Drawing Updated	4	3
	A	mhu019	dst009	20.12.2021	CNA001054	Drawing Updated	4	3
	-	dkl021	mhu019	04.12.2020		-	-	-
	Rev.	Creator	Approver	Approval Date	Change ID	Change Synopsis	Approved	Activity Code

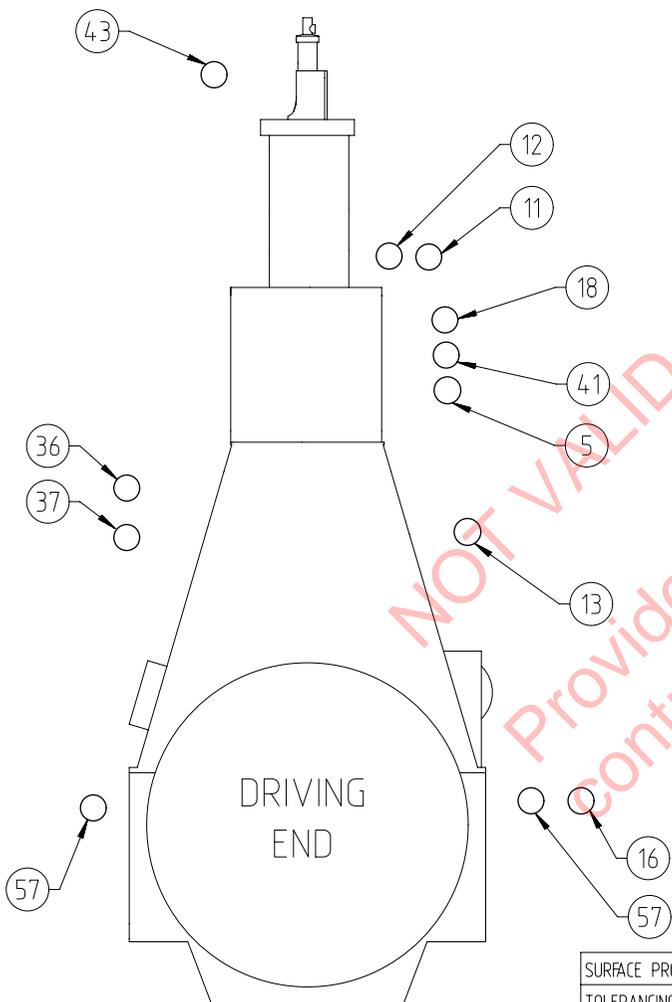
	LEAKAGE COLLECTION/WASHING SYS.
--	---------------------------------

<b>Bill Of Material</b>		Dimension	
Copyright Winterthur Gas & Diesel Ltd. All rights reserved. By taking possession of the document the recipient recognizes and honours these rights. Neither the whole nor any part of this document may be used in any way for construction, fabrication, marketing or any other purpose nor copied in any way nor made accessible to third parties without the previous written consent of Winterthur Gas & Diesel Ltd.	Units	[m] [kg]	Basic Material
	Main Design	Design Group	9724 Q-Code XXXXX Standard WDS
	Qty per	A4 Item ID	PAAD359593 BOM Page/s 01/01
			Net Weight 0.001

SPECIFICATION which must be met:

- ④3 OUTLET - Venting turbocharger
  - Venting to funnel
  - Minimum inclination according to TC suppliers specification
  - Must not be connected to other venting pipes.
- ⑤7 OUTLET - Various leakages
  - Gravity flow to sludge tank or appropriate tank.

- ⑤ OUTLET - Cylinder cooling water drain.
  - Gravity flow to cooling water drain tank or appropriate tank.
- ①1 INLET - Washing water SAC
  - From freshwater hydrophore system
- ①2 INLET - Air for cleaning plants TC and SAC
  - Working air, supply pressure: 7-9 bar
- ①3 OUTLET - Oily water from scavenge air receiver
  - Gravity flow to oily water tank or appropriate tank.
- ①6 OUTLET - SAC condensate water
  - Gravity flow to bilge water tank or washing water collection tank or to the EGC bleed-off line depending on the operation mode.
  - The system components downstream of this connection until the pH-neutralisation dosing unit must be designed for low pH operation.
- ①8 OUTLET - SAC venting
  - Free flow outside of engine room
- ③6 OUTLET - Dirty oil piston underside
  - Flow with SAC pressure to sludge oil trap or appropriate arrangement.
  - Min. inclination of drain pipe: 15°
- ③7 OUTLET - Leakage oil gland box
  - Gravity flow to sludge tank or appropriate tank.
- ④1 OUTLET - Venting crankcase
  - Venting to funnel
  - Must not be connected to other venting pipes.

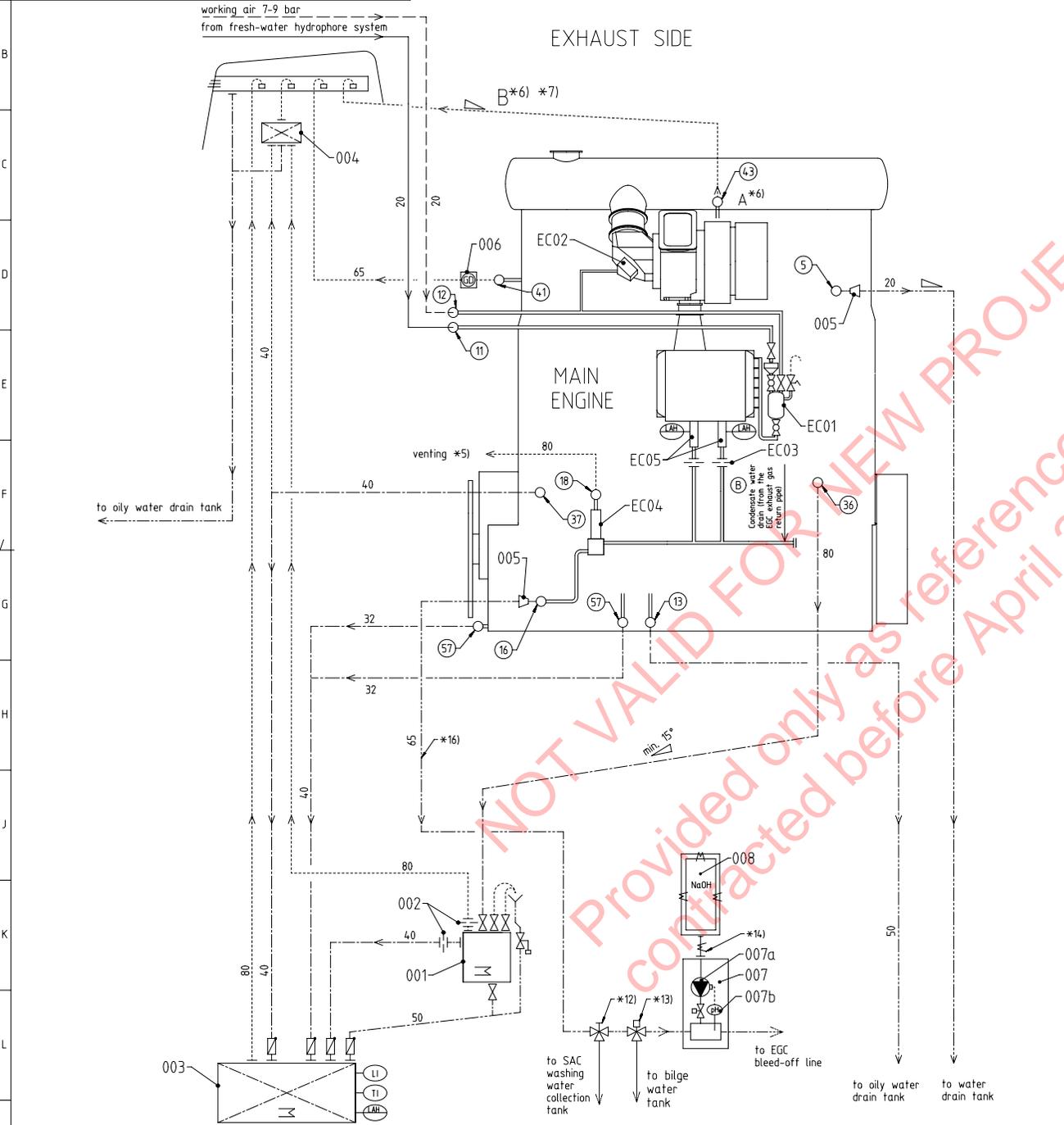


NOT VALID FOR NEW PROJECTS  
 Provided only as reference  
 Contracted before April 2022

SURFACE PROTECTION SEE GROUP 0344  
 TOLERANCING PRINCIPLE ISO8015  
 GENERAL TOLERANCES ACCORDING TO ISO2768-mK

Prod.	X62DF-2.1									
Change History	B	sde101	mhu019	08.03.2022	CNA001599	Drawing Updated			4	3
	A	mhu019	dst009	20.12.2021	CNAA001054	Drawing Updated			4	3
	-	dki021	mhu019	04.12.2020					-	-
Rev.	Creator	Approver	Approval Date	Change ID	Change Synopsis	<b>Approved</b>			Activity Code	E C
<b>WINGD</b> Winterthur Gas & Diesel		LEAKAGE COLLECTION/WASHING SYS.								
separate BOM available		Dimension								
Scale	-		NX	Units [mm] [kg]	Basic Material			Net Weight	0.001	
Main Design	Design Group		9724	Q-Code	XXXXXX		Standard	WDS		
Qty per	A3	Item ID	PAAD359593			Drawing Page/s	1/2			

NOTE  
Further installation details and variants can be found listed in the Marine Installation Manual (MIM), which provides also the acronyms used in this drawing set. The piping symbols are explained by the piping symbol key as included in the drawing set "Various Installation Items".



Turbocharger type	A**	B**	Min. inclination
1 x A170-L	65	65	≥ 5°
1 x A175-L	65	65	≥ 5°
1 x A180-L	80	80	≥ 5°
1 x A185-L	80	80	≥ 5°
1 x A270-L	65	65	≥ 5°
1 x A275-L	65	65	≥ 5°
1 x A280-L	80	80	≥ 5°
1 x MET53MB	65	65	≥ 3°
1 x MET60MB	80	80	≥ 3°
1 x MET71MB	80	80	≥ 3°
1 x MET83MB	100	100	≥ 3°
2 x A165-L	65	80	≥ 5°
2 x A170-L	65	100	≥ 5°
2 x A175-L	65	100	≥ 5°
2 x A265-L	65	80	≥ 5°
2 x A270-L	65	100	≥ 5°
2 x MET42MB	50	65	≥ 3°
2 x MET48MB	65	80	≥ 3°
2 x MET53MB	65	80	≥ 3°
2 x MET60MB	80	100	≥ 3°

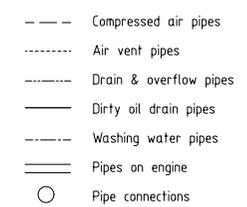
Pos.	SYSTEM COMPONENTS *1)
001	Sludge oil trap (link to detail drawing on the partlist of this drawing).
002	Throttling disc (size shown on separate sludge oil trap drawing)
003	Sludge or appropriate tank
004	Air vent manifold
005	Transition piece (adaptor) *9)
006	Gas detector *11)
007	pH-neutralisation dosing unit with *15) 007a - NaOH dosing pump 007b - pH sensor
008	NaOH storage tank *14) *15)

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 scavange air receiver *10)
16	OUTLET - SAC condensate water *4) *10) *16) A
18	OUTLET - SAC venting *5)
36	OUTLET - Dirty oil piston underside
37	OUTLET - Leakage oil gland box
41	OUTLET - Venting crankcase
43	OUTLET - Venting turbocharger
57	OUTLET - Various leakages

Pos.	ENGINE COMPONENTS *3)
EC01	Scavange air cooler washing plant
EC02	Dry cleaning device
EC03	Throttling disc
EC04	Venting Unit
EC05	Condensate drain unit

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 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 scavange air temperature before and after the SAC. During ICER operation, the SAC drain water amount is significantly increased. The specific drain amount is provided by the GTD.
- \*5) Free flow venting outside of engine room.
- \*6) In relation to turbocharger type, see table on the left side.
- \*7) Vent pipe diameter as per turbocharger requirements.
- \*8) Vent pipe diameter of common collection pipe.
- \*9) Installed as required (check with the Pipe Connection Plan).
- \*10) Drain connection 13 and 16 are with air flow from scavenging system. Both drain lines must be kept separated and directed to separate tanks. The tanks must be designed with sufficiently sized vents to prevent excessive pressure in the tanks. The drain amount depends on the ambient conditions.
- \*11) Optional, to be installed if requested by the flag state and/or class to achieve IGC compliance.
- \*12) Switching to the separate washing water collection tank must be carried out for SAC cleaning.
- \*13) While the ICER is in operation, drain to the EGC bleed-off line. The solenoid valve is actuated by a signal from the "Engine Control System".
- \*14) If the caustic soda water solution has a mass fraction of 90% min NaOH, then the tank and supply line must be trace heated and insulated to keep the caustic soda temperature in the range of 27 - 37 °C. If the caustic soda water solution has a mass fraction of max. 30% min NaOH, then no heating is required.
- \*15) The caustic soda storage tank and the pH-neutralisation dosing unit must be applied for installations with ICER diesel Tier III mode. For installations with only ICER gas mode, this unit can be omitted.
- \*16) The system components from the SAC condensation water outlet (engine connection 16) must be designed for low pH operation. After pH neutralisation unit 007 on this drawing or the pH-neutralisation dosing unit in the EGC bleed-off line, the system components can be of standard material.



## MIDS - WinGD X62DF-2.1 – Leakage Collection & Washing System (DG9724)

### TRACK CHANGES

DATE	SUBJECT	DESCRIPTION
2020-12-10	DRAWING SET	First web upload
2021-12-22	PAAD359593	System drg – new revision
2022-03-10	PAAD359593 107.425.369.500	System drgs – new revision
2022-06-29	PTAA037102 PTAA037457	System and main drg – new drgs as replacement of previous drawing set
2022-12-01	PTAA037102	System drg – new revision
2022-12-20	PTAA037102	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.