

1

2

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4

Available executions

Execution No.	Material ID
001	PAAD328384

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.

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Prod.	X82-2.0										
Change History											
	-	sde101				new Design					
	Rev.	Creator	Approver	Approval Date	Change ID	Change Synopsis				Activity Code	E
				LEAKAGE COLLECTION/WASHING SYS. MIDS master drawing							
separate BOM available				Dimension							
Scale	-		NX	Units [mm] [kg]		Basic Material			Net Weight 0.001		
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				Qty per	A4	Item ID		PTAA024865		Drawing Page/s 1/1	

1

2

3

4

SEQ NO	QTY	Item ID	Item Name	Dimension	Standard-ID	Basic Material	Net Weight
1	1	PAAD328272	LEAKAGE COLLECTION/WASHING SYS.				0.001

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Prod.	6,7,8,9 X82-2.0						
Change History							
	A	sde101	mhu019	06.10.2022	CNAA002208	Main Design/Drawing Introduced	- -
	-	dki021	mhu019	23.08.2019		-	- -
	Rev.	Creator	Approver	Approval Date	Change ID	Change Synopsis	Approved Activity Code E C


	LEAKAGE COLLECTION/WASHING SYS.
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Bill Of Material		Dimension	
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Main Design	Yes	Design Group 9724	Q-Code XXXXX Standard WDS
Qty per	Engine A4	Item ID	PAAD328384 BOM Page/s 01/01

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

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Proc.	X82-2.0									
Change History	C	npa101	mhu019	04.06.2024	CNA005685	Drawing updated			4	3
	B	npa101	mhu019	15.12.2023	CNAA004312	Drawing updated			4	3
	A	sde101	mhu019	30.04.2021	EAAD093051	Legacy information. See corresponding ChangeNotice			4	3
	-	dkl021	mhu019	23.08.2019	EAAD784628	-			-	-
	Rev.	Creator	Approver	Approval Date	Change ID	Change Synopsis	Approved	Activity Code	E	C

	LEAKAGE COLLECTION/WASHING SYS. SYSTEM DIAGRAM
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Bill Of Material		Dimension						
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	Main Design	Design Group		9724	Q-Code	X X M	Standard	WDS
	Qty per	A4	Item ID	PAAD328272			BOM Page/s	01/01

SPECIFICATION which must be met

36 OUTLET - Dirty oil piston underside
 - Flow with SAC pressure to sludge oil trap or appropriate arrangement
 - Min. inclination of drain pipe: 15°
 C
 - Must not be connected to other drain pipes

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

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 - SAC washing water
 - Only in use if an optional SAC washing system is installed on the ship side
 Otherwise blinded with a blind flange
 - Washing water properties: Fresh water mixed with a chemical washing agent
 Mixing ratio according to chemical washing agent suppliers specification
 - Washing water supply pressure: 3 bar
 - Washing water temperature: 50°C - 60 °C
 - Washing water pump circulation rate: 3.8 m3/h
 - Washing water circulation tank capacity: 0.75 m3

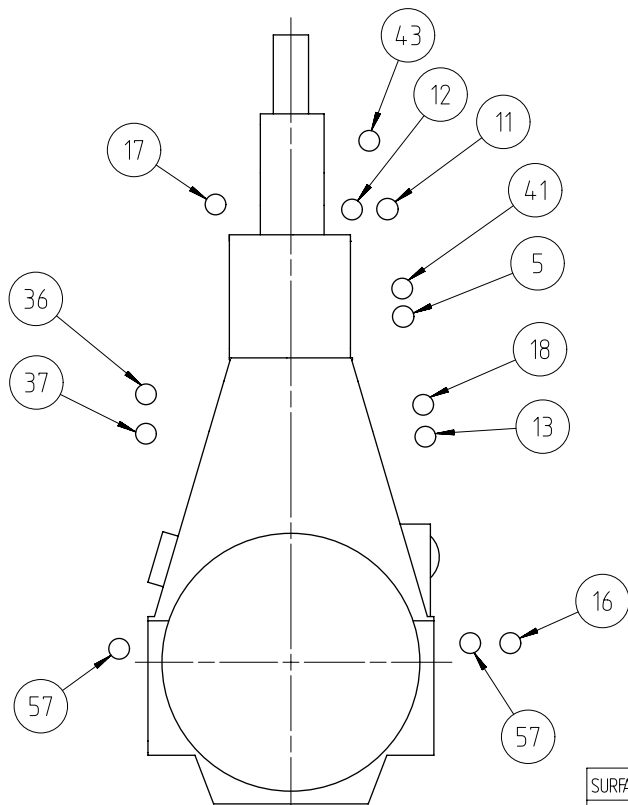
12 INLET - Air for turbocharger cleaning
 - Working air, supply pressure: 7-9 bar

13 OUTLET - Oily water from scavenge air receiver
 - Gravity flow to oily water tank or appropriate tank

16 OUTLET - SAC condensate water
 C
 - Gravity flow to bilge water tank or appropriate tank

17 OUTLET - SAC washing water
 - Only in use if an optional SAC washing system is installed on the ship side
 Otherwise blinded with a blind flange
 - To chemical washing water circulation tank during SAC cleaning

18 OUTLET - SAC venting
 - Free flow outside of engine room



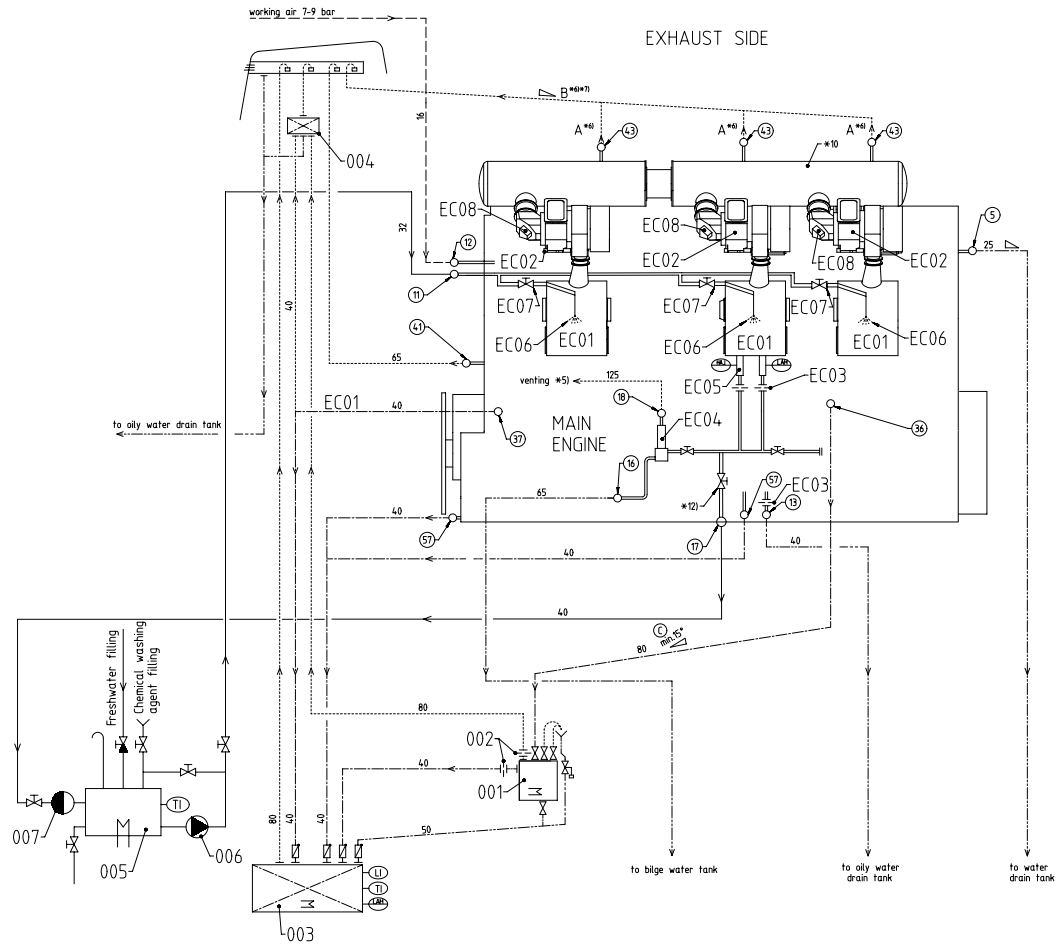
SURFACE PROTECTION SEE GROUP 0344
 TOLERANCING PRINCIPLE ISO8015
 GENERAL TOLERANCES ACCORDING TO ISO2768-mK

Rev.	Creator	Approver	Approval Date	Change ID	Change Synopsis	Approved	Activity Code	E	C
C	npa101	mhu019	04.06.2024	CNA005685	Drawing updated			4	3
B	npa101	mhu019	15.12.2023	CNA004312	Drawing updated			4	3
A	sde101	mhu019	30.04.2021	EAAD093051	Legacy information. See corresponding ChangeNotice			4	3
-	dki021	mhu019	23.08.2019	EAAD784628	-			-	-

WINGD
 Winterthur Gas & Diesel

LEAKAGE COLLECTION/WASHING SYS.
 SYSTEM DIAGRAM

separate BOM available		Dimension		Units [mm] [kg]		Basic Material		Net Weight 0.001	
Scale	-		NX	Main Design	Design Group	9724	Q-Code X X M	Standard	WDS
Qty per		Item ID	PAAD328272		Drawing	Page/s		1/2	



Turbocharger type	A**	B**	Min. Inclination
2x A165 / 265	65	80	> 5°
2x A270	65	100	> 5°
2x A175 / 275	65	100	> 5°
2x A280	80	100	> 5°
3x A165 / 265	65	100	> 5°
3x A270	65	125	> 5°
3x A175 / 275	65	125	> 5°
2x MET42MB / II	50	65	> 3°
2x MET48MB / II	65	80	> 3°
2x MET53MB / II	65	80	> 3°
2x MET60MB / II	80	100	> 3°
2x MET66MB / II	80	100	> 3°
2x MET77MB / II	80	100	> 3°
2x MET83MB / II	100	125	> 3°
3x MET42MB / II	50	80	> 3°
3x MET48MB / II	65	100	> 3°
3x MET53MB / II	65	100	> 3°
3x MET60MB / II	80	125	> 3°
3x MET66MB / II	80	125	> 3°
3x MET77	80	125	> 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	Chemical washing water circulation tank *13)
006	Chemical washing water circulation pump
007	Chemical washing water strainer (0.5-1.0 mm)

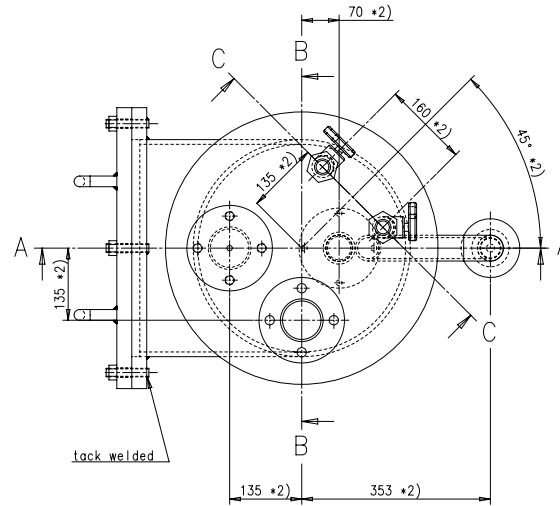
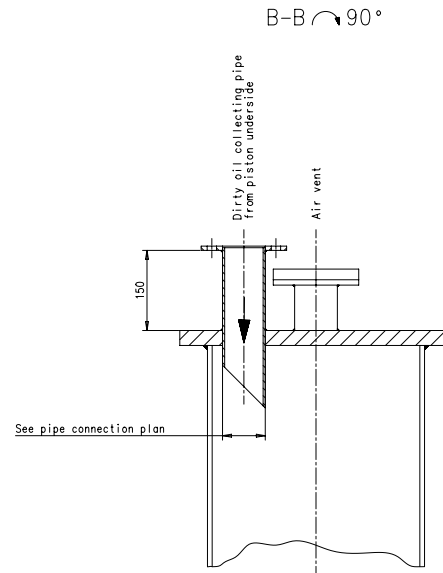
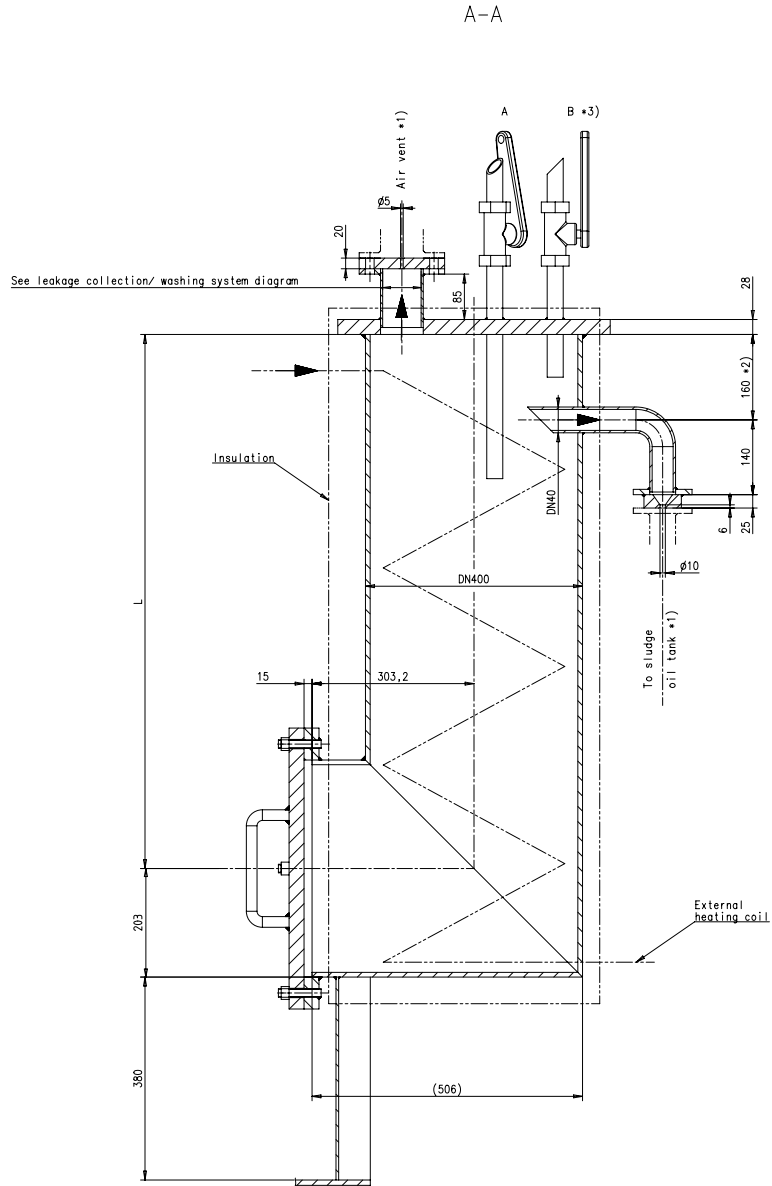
Pos.	ENGINE CONNECTIONS *2)
⑤	OUTLET - Cylinder cooling water drain
⑪	INLET - SAC washing water
⑫	INLET - Air for turbocharger cleaning
⑬	OUTLET - Oily water from scavenge air receiver *11)
⑭	OUTLET - SAC condensate water *4) *10)
⑰	OUTLET - SAC washing water
⑱	OUTLET - SAC venting *5)
⑳	OUTLET - Dirty oil piston underside
㉑	OUTLET - Leakage oil gland box
㉒	OUTLET - venting crankcase
㉓	OUTLET - Venting turbocharger
㉔	OUTLET - Various leakages

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

Remarks:

- Air vent and drain pipes must be fully functional at all inclination angles of the ship to 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. Under extreme ambient conditions a maximum condensate quantity of up to 0.16 kg/kWh may be produced.
- *5) Free flow venting outside of engine room.
- *6) Depends on 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) Manifold pipe for 2 TC
- *11) Drain connection 13 and 16 are with air-flow from scavenging air 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.
- *12) Switching to the chemical washing water circulation tank must be carried out for SAC cleaning.
- *13) Washing water is heated to between 50 and 60 °C by a heating coil.

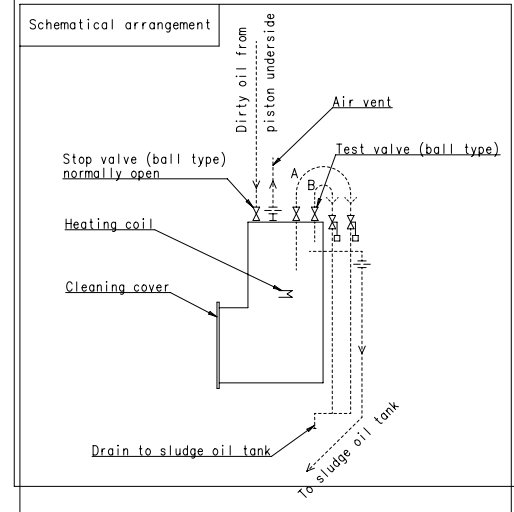
- Compressed air pipes
- Air vent pipes
- Drain & overflow pipes
- Washing water pipes
- Dirty oil drain pipes
- Pipes on engine
- Pipe connections



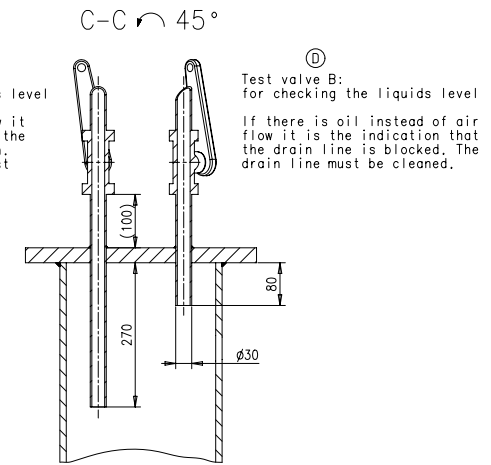
Remarks:

- *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:	55-96	35-54
	Working pressure:	4 bar	
	Testing pressure:	6 bar	
	Temperature:	80°C	



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.

Proj.	CX40DF	R1=rev50-D	R1=rev50-D	R1=rev50-T-D V1	R1=rev50-T-E	R1=rev50-L	R1=rev50-D	R1=rev50-C	CR4HMM-PILOT	X35	X35-B
D	sde01	mhu01	10.01.2022	04A00373	drawing updated						4
C	sde01	mhu01	10.09.2018	EAA008439	Legacy information. See corresponding ChangeNotice						4
B	dki021	mhu01	16.07.2017	EAA0087849	Legacy information. See corresponding ChangeNotice						4
Rev	WnGD	jba029	13.11.2009								-
Rev	Creator	Approver	Approval Date	Change ID	Change Synopsis				Approval	Activity Code	E C

WINGD Winterthur Gas & Diesel		SLUDGE OIL TRAP	
Scale	1:5	Units [mm] [kg]	Basic Material
Net Weight	0.001		

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GENERAL TOLERANCES ACCORDING TO ISO2768-MK		Rev	Form ID	A1	Part ID	107.4.25.369.500	Drawing Page	1/1

MIDS - LEAKAGE-COLLECTION_&_WASHING-SYSTEM. (DG9724)

WinGD X82-2.0

TRACK CHANGES

DATE	SUBJECT	DESCRIPTION
2019-08-23	DRAWING SET	First web upload
2023-12-20	PAAD328272B	New revision
2024-06-05	PAAD328272C	New revision

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