

Available executions

Execution No.	Material ID	Attribute 1: Emission class (Tier)			
		Tier II without SCR	Tier III HP-SCR on-engine	Tier III HP-SCR off-engine	Tier III LP-SCR off-engine
001	PAAD363075	X		X	X
002	PAAD373723		X		

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.	X62-S2.0									
Change History										
	-	sna102	dst009	27.04.2023	CNAA003657	new Design		-	-	
	Rev.	Creator	Approver	Approval Date	Change ID	Change Synopsis	Approved	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	
<small>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.</small>				Main Design	Design Group	9724	Q-Code	XXXXX	Standard	WDS
				Qty per	A4	Item ID	PTAA026098		Drawing Page/s	1/1

SEQ NO	QTY	Item ID	Item Name	Dimension	Standard-ID	Basic Material	Net Weight
001	1	PAAD363071	LEAKAGE COLLECTION/WASHING SYS.				0.001

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

Prod.	5,6,7,8 X62-S2.0						
Change History							
	A	sna102	mhu019	28.11.2022	CNAA002856	Main Design/Drawing Introduced	4 3
	-	sde101	mhu019	26.02.2021	EAAD787123	-	- -
	Rev.	Creator	Approver	Approval Date	Change ID	Change Synopsis	Activity Code

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

Bill Of Material		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
Main Design Yes	Design Group 9724	Q-Code XXXXX	Standard WDS
Qty per Engine	A4	Item ID PAAD363075	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

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

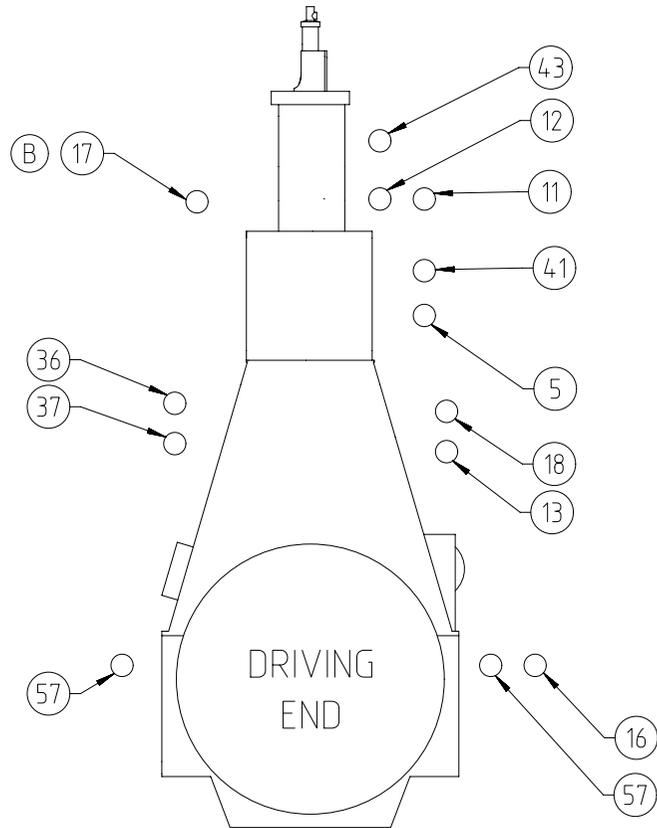
Prod.	X62-S2.0								
Change History	B	sj0101	mhu019	16.06.2023	CNA003946	Drawing updated	4	3	
	A	npa101	mhu019	06.04.2023	CNAA003513	Drawing Updated	4	3	
	-	sde101	mhu019	26.02.2021	EAAD787123	-	-	-	
	Rev.	Creator	Approver	Approval Date	Change ID	Change Synopsis	Approved	Activity Code	E C

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

Bill Of Material		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	Design Group		9724	Q-Code	XXXXX	Standard WDS
	Qty per	A4	Item ID	PAAD363071			BOM Page/s 01/01

SPECIFICATION which must be met:

- ④1 OUTLET - Venting crank case
- 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 be not 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 fresh water hydrophore system, supply pressure: 2.5 bar
- ①2 INLET - Air for cleaning plants TC
- 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 appropriate tank.
- ①7 OUTLET - SAC wash water
- To wash water collection tank during SAC cleaning.
- 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: 60 %
- ③7 OUTLET - Leakage oil gland box
- Gravity flow to sludge tank or appropriate tank.

Prod.	X62-S2.0										
Change History	B	sjo101	mhu019	16.06.2023	CNA003946	Drawing updated			4	3	
	A	npa101	mhu019	06.04.2023	CNAA003513	Drawing Updated			4	3	
	-	sde101	mhu019	26.02.2021	EAAD787123	-			-	-	
	Rev.	Creator	Approver	Approval Date	Change ID	Change Synopsis					



LEAKAGE COLLECTION/WASHING SYS.

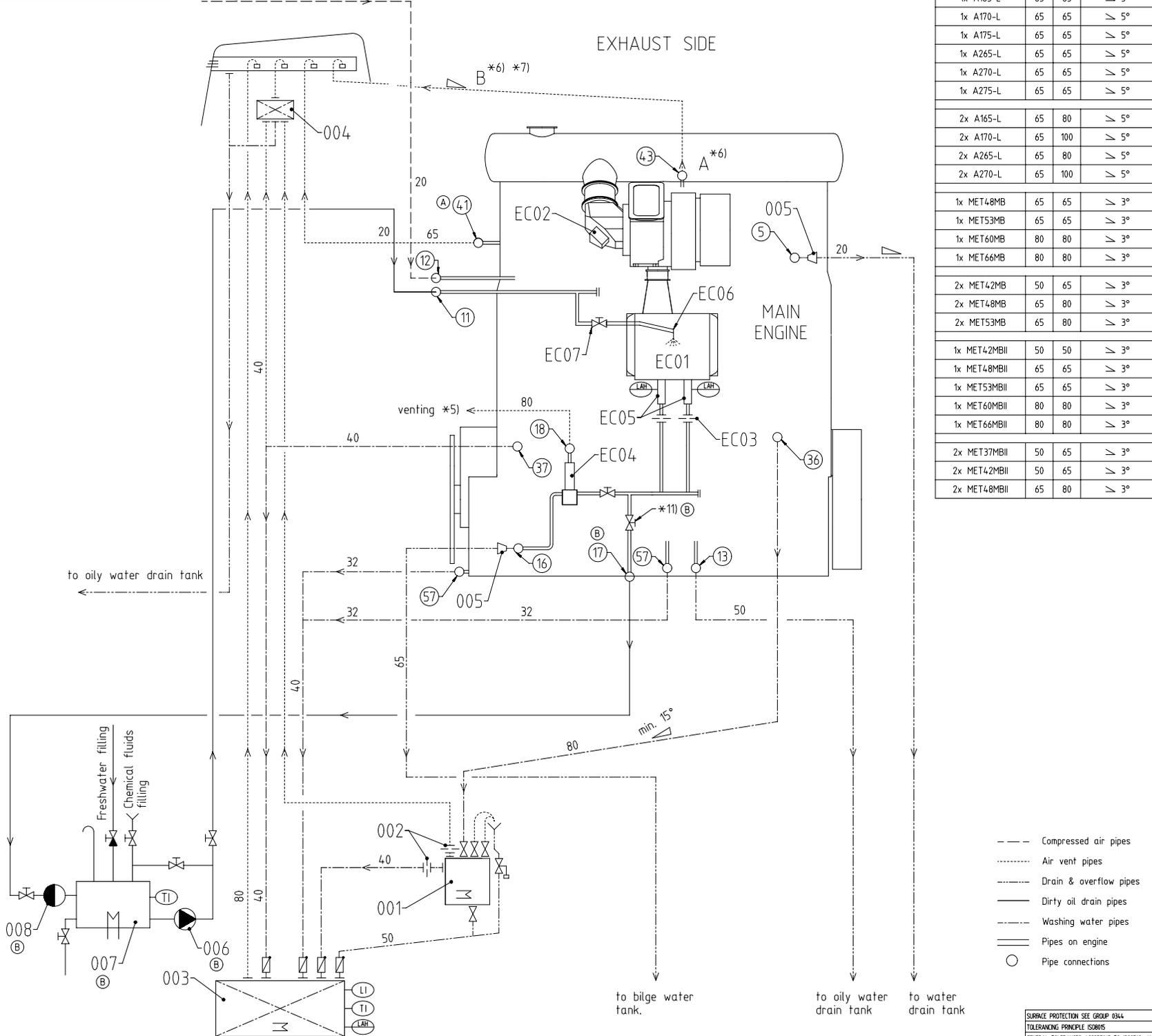
separate BOM available		Dimension									
Scale	-		NX	Units [mm] [kg]	Basic Material				Net Weight	0.001	
SURFACE PROTECTION SEE GROUP 0344		Copyright Winterthur Gas & Diesel Ltd. All rights reserved. By taking possession of the drawing the recipient recognizes and honours these rights. Neither the 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	PAAD363071				Drawing Page/s	1/2	
GENERAL TOLERANCES ACCORDING TO ISO2768-mK											

SYSTEM PROPOSAL

working air 7-9 bar

EXHAUST SIDE

MAIN ENGINE



Turbocharger type	A**	B**	Min. Inclination
1x A165-L	65	65	≥ 5°
1x A170-L	65	65	≥ 5°
1x A175-L	65	65	≥ 5°
1x A265-L	65	65	≥ 5°
1x A270-L	65	65	≥ 5°
1x A275-L	65	65	≥ 5°
2x A165-L	65	80	≥ 5°
2x A170-L	65	100	≥ 5°
2x A265-L	65	80	≥ 5°
2x A270-L	65	100	≥ 5°
1x MET48MB	65	65	≥ 3°
1x MET53MB	65	65	≥ 3°
1x MET60MB	80	80	≥ 3°
1x MET66MB	80	80	≥ 3°
2x MET42MB	50	65	≥ 3°
2x MET48MB	65	80	≥ 3°
2x MET53MB	65	80	≥ 3°
1x MET42MBII	50	50	≥ 3°
1x MET48MBII	65	65	≥ 3°
1x MET53MBII	65	65	≥ 3°
1x MET60MBII	80	80	≥ 3°
1x MET66MBII	80	80	≥ 3°
2x MET37MBII	50	65	≥ 3°
2x MET42MBII	50	65	≥ 3°
2x MET48MBII	65	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) *9)
(B) 006	Chemical wash water circulation tank *12)
(B) 007	Chemical wash water circulation pump
(B) 008	Chemical wash water strainer (0.5-1.0 mm)
Pos.	ENGINE CONNECTIONS *2)
(5)	OUTLET - Cylinder cooling water drain
(11)	INLET - Washing water SAC
(12)	INLET - Air for cleaning TC
(13)	OUTLET - Oily water from scavenge air receiver *10)
(16)	OUTLET - SAC condensate water *4) *10)
(B) (17)	OUTLET - SAC wash water
(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	Scavenge air cooler washing plant
EC02	Dry cleaning device
EC03	Throttling disc
EC04	Venting Unit
EC05	Condensate drain unit
(B) EC06	SAC washing spray nozzle
(B) EC07	SAC washing isolating valve

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) 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. 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.
- (B) *11) Switching to the separate washing water collection tank must be carried out for SAC cleaning.
- (B) *12) Wash water is heated to between 50 and 60 °C by a heating coil.

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

SEQ NO	QTY	Item ID	Item Name	Dimension	Standard-ID	Basic Material	Net Weight
001	1	PAAD373724	LEAKAGE COLLECTION/WASHING SYS.				0.001

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

Prod.	5,6,7,8 X62-S2.0						
Change History							
	A	sna102	mhu019	28.11.2022	CNAA002856	Main Design/Drawing Introduced	4 3
	-	dki021	mhu019	26.02.2021	EAAD787123	-	- -
	Rev.	Creator	Approver	Approval Date	Change ID	Change Synopsis	Activity Code

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

Bill Of Material		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	Yes	Design Group 9724 Q-Code XXXXX
	Qty per	Engine A4	Item ID PAAD373723
			Net Weight 0 Standard WDS 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

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

Prod.	X62-S2.0								
Change History									
	A	npa101	nmh019	16.06.2023	EAAD787123	Drawing Updated		4 3	
	-	dkl021	mhu019	26.02.2021	EAAD787123	-		- -	
	Rev.	Creator	Approver	Approval Date	Change ID	Change Synopsis	Approved	Activity Code	E C

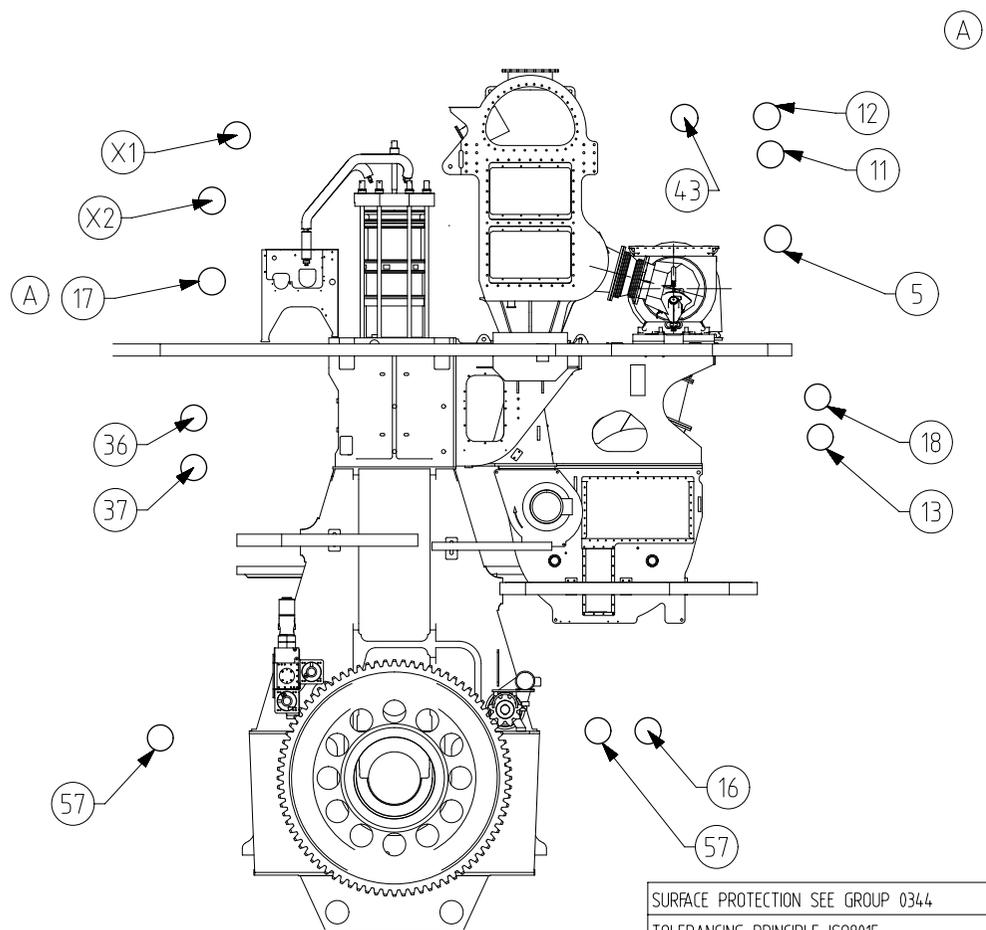
	<h1>LEAKAGE COLLECTION/WASHING SYS.</h1> <h2>with iSCR</h2>
--	---

Bill Of Material				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		Design Group		9724	Q-Code	XXXXX	Standard	WDS
Qty per		A4	Item ID	PAAD373724			BOM Page/s	01/01

SPECIFICATION which must be met:

- (43) OUTLET - Venting turbocharger
 - Venting to funnel
 - Minimum inclination according to TC suppliers specification
 - Must be not connected to other venting pipes.
- (57) OUTLET - Various leakages
 - Gravity flow to sludge tank or appropriate tank.
- (X1) INLET - SCR freshwater supply
 - Freshwater, supply pressure: 0.2 -1.5 bar
- (X2) OUTLET - SCR water drain
 - Gravity flow to sewage tank or an appropriate tank

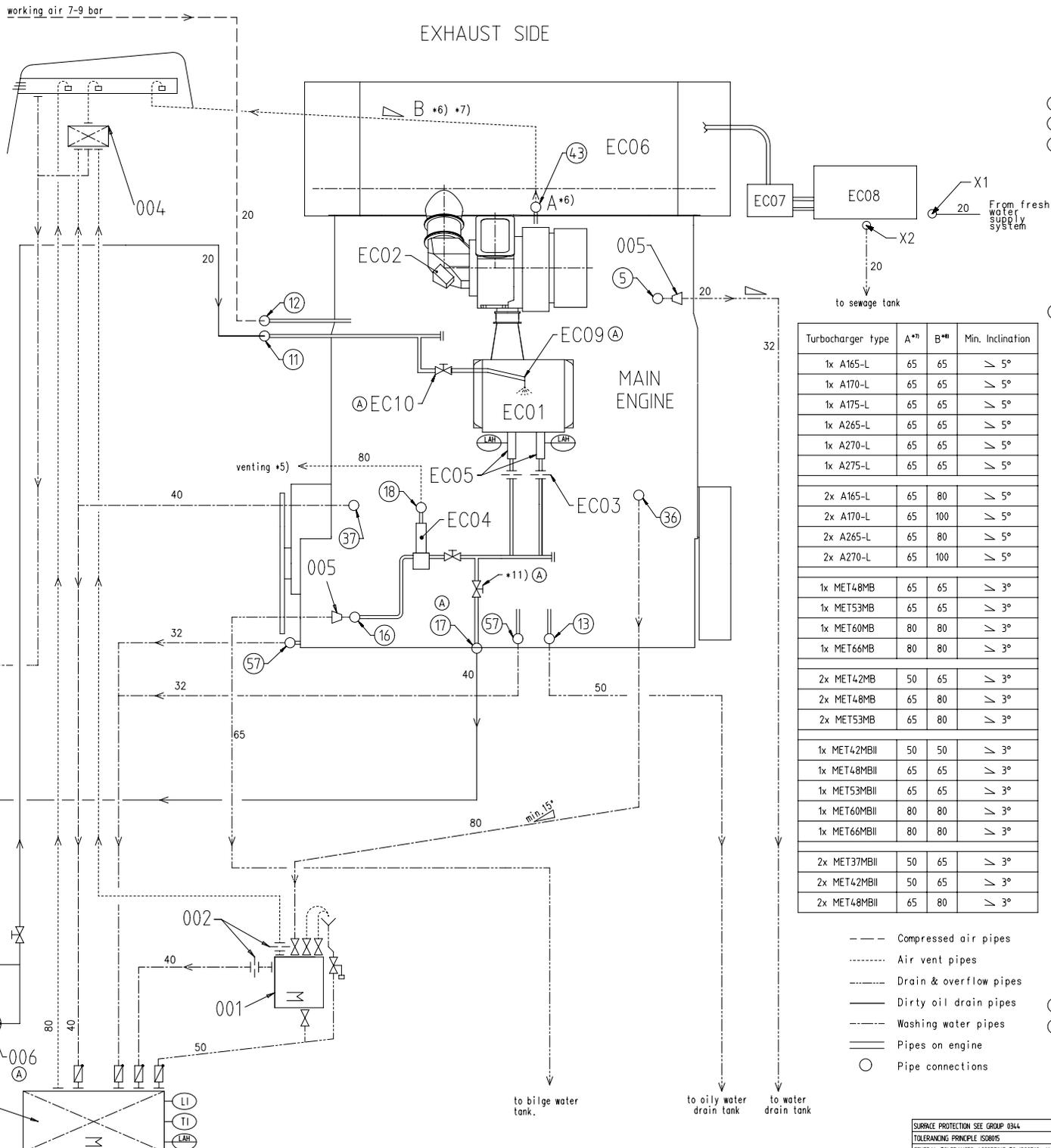
- (5) OUTLET - Cylinder cooling water drain.
 - Gravity flow to cooling water drain tank or appropriate tank.
- (11) INLET - Washing water SAC
 - From fresh water hydrophore system, supply pressure: 2.5 bar
- (12) INLET - Air for cleaning plants TC
 - Working air, supply pressure: 7-9 bar
- (13) OUTLET - 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 appropriate tank.
- (17) OUTLET - SAC wash water
 - To wash water collection tank during SAC cleaning.
- (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.



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

Prod.	X62-S2.0												
Change History	A	npa101	nm019	16.06.2023	044003946	Drawing Updated					4	3	
	-	dki021	mhu019	26.02.2021	EAAD787123						-	-	
	Rev.	Creator	Approver	Approval Date	Change ID	Change Synopsis					Approved	Activity Code	E
		LEAKAGE COLLECTION/WASHING SYS. with iSCR											
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			Item ID		PAAD373724			Drawing Page/s		1/2			

SYSTEM PROPOSAL



Turbocharger type	A**	B**m	Min. Inclination
1x A165-L	65	65	≥ 5°
1x A170-L	65	65	≥ 5°
1x A175-L	65	65	≥ 5°
1x A265-L	65	65	≥ 5°
1x A270-L	65	65	≥ 5°
1x A275-L	65	65	≥ 5°

2x A165-L	65	80	≥ 5°
2x A170-L	65	100	≥ 5°
2x A265-L	65	80	≥ 5°
2x A270-L	65	100	≥ 5°

1x MET48MB	65	65	≥ 3°
1x MET53MB	65	65	≥ 3°
1x MET60MB	80	80	≥ 3°
1x MET66MB	80	80	≥ 3°

2x MET42MB	50	65	≥ 3°
2x MET48MB	65	80	≥ 3°
2x MET53MB	65	80	≥ 3°

1x MET42MBII	50	50	≥ 3°
1x MET48MBII	65	65	≥ 3°
1x MET53MBII	65	65	≥ 3°
1x MET60MBII	80	80	≥ 3°
1x MET66MBII	80	80	≥ 3°

2x MET37MBII	50	65	≥ 3°
2x MET42MBII	50	65	≥ 3°
2x MET48MBII	65	80	≥ 3°

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

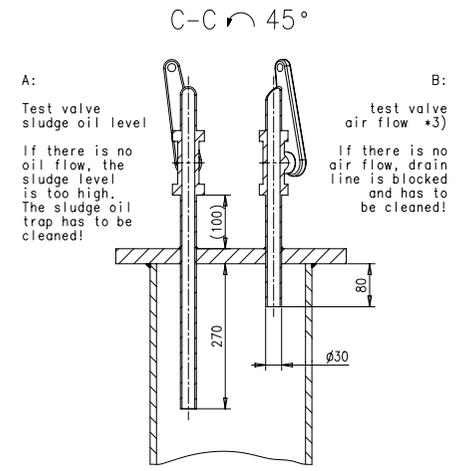
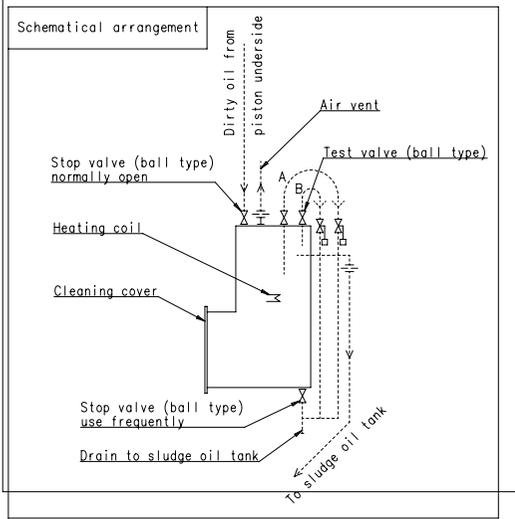
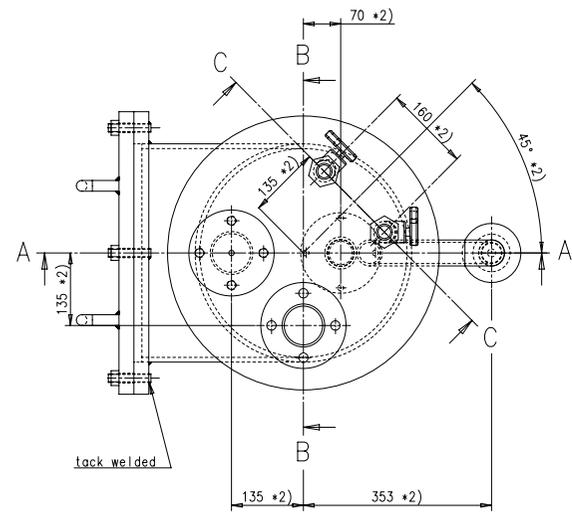
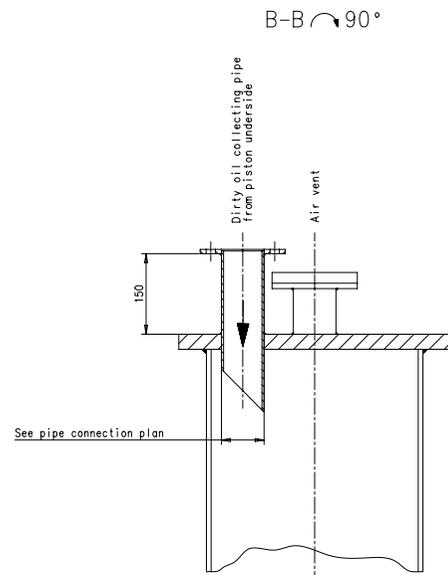
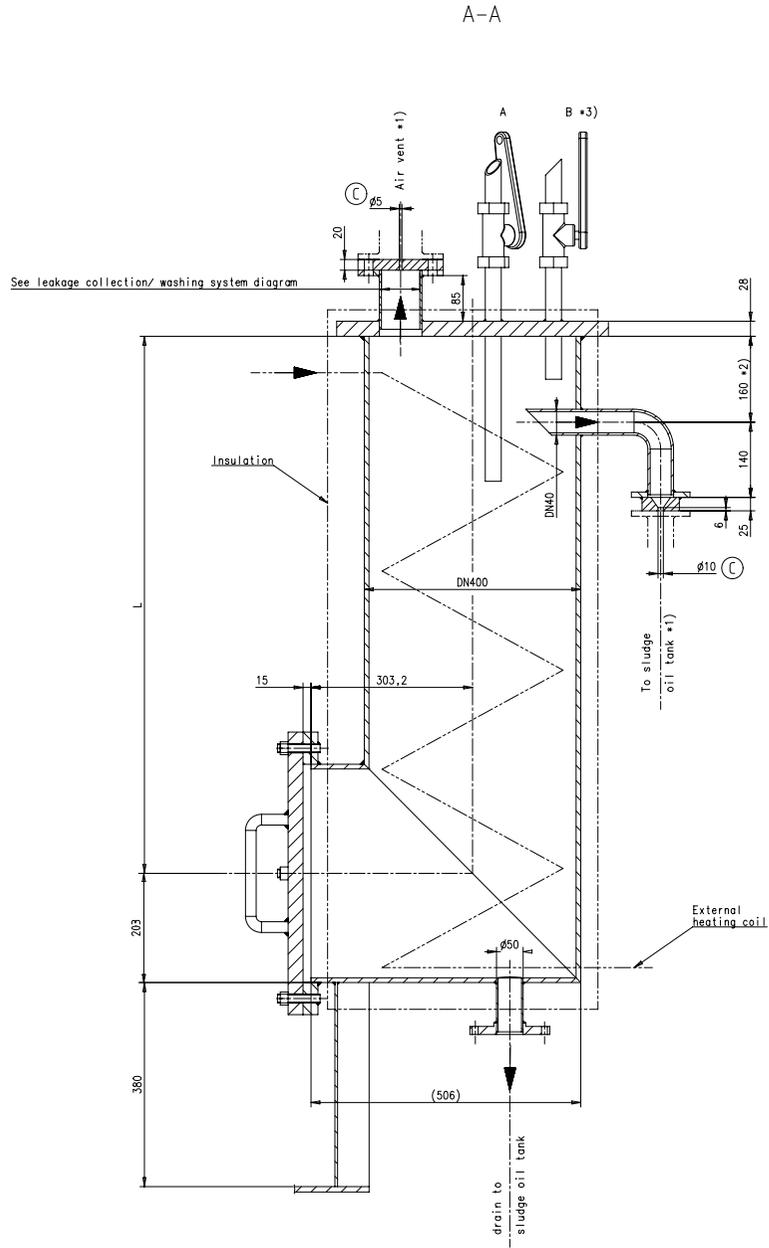
Pos.	SYSTEM COMPONENTS *1)
001	Sludge oil trap (according to separate drawing)
002	Throttling disc (size shown on separate sludge oil trap drawing)
003	Sludge or appropriate tank
004	Air vent manifold
005	Transition piece (adaptor) *9)
006	Chemical wash water circulation tank *12)
007	Chemical wash water circulation pump
008	Chemical wash water strainer (0.5-1.0 mm)

Pos.	ENGINE CONNECTIONS *2)
5	OUTLET - Cylinder cooling water drain
11	INLET - Washing water SAC
12	INLET - Air for cleaning TC
13	OUTLET - Oily water from scavange air receiver *10)
16	OUTLET - SAC condensate water *4) *10)
17	OUTLET - SAC wash water
18	OUTLET - SAC venting *5)
36	OUTLET - Dirty oil piston underside
37	OUTLET - Leakage oil gland box
43	OUTLET - Venting turbocharger
57	OUTLET - Various leakages
X1	INLET - SCR freshwater supply
X2	OUTLET - SCR water drain

Pos.	ENGINE COMPONENTS *3)
EC01	Scavange Air Cooler (SAC)
EC02	Dry cleaning device
EC03	Throttling disc
EC04	Venting Unit
EC05	Condensate drain unit
EC06	SCR reactor
EC07	Urea dosing unit
EC08	Urea pump unit
EC09	SAC washing spray nozzle (A)
EC10	SAC washing isolating valve (A)

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 scavange 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) 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. 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.
- (A) *11) Switching to the separate washing water collection tank must be carried out for SAC cleaning.
- (A) *12) Wash water is heated to between 50 and 60 °C by a heating coil.



Mod. 1: EAAD084051/22.01.2013 Number Drawn date		Mod. 2: EAAD087849/14.07.2017 Number Drawn date		Mod. 3: EAAD089439/12.07.2018 Number Drawn date		Q-Code XXXXX Standard ISO, JIS	Main Drw.							
WINGD Winkler Gas & Diesel							Product: W-25 SLUDGE OIL TRAP							
Units	mm	kg	NX	Basic Material	Scale	1:5	Size	A1	Page	1/1	Material ID	107.425.369.500	Net Weight	0.001

SURFACE PROTECTION SEE GROUP 0344		Made 31.08.2009 J.BAUMANN		Scale 1:5		Size A1		Page 1/1		Material ID 107.425.369.500		Net Weight 0.001	
TOLERANCING PRINCIPLE ISO8015		Appd 13.11.2009 JBA020 Baumann		Drawing ID 9724		Design Group		Rev. C		107.425.369			
GENERAL TOLERANCES ACCORDING TO ISO2768-mK													

MIDS - LEAKAGE-COLLECTION_and_WASHING-SYSTEM (DG9724)

WinGD-X62-S2.0

TRACK CHANGES

DATE	SUBJECT	DESCRIPTION
2021-03-01	DRAWING SET	First web upload
2023-04-26	PAAD363075 PAAD373723	Main items and MDS master – new revision
2023-05-05	PAAD363071A	System drg – new revision
2023-06-19	PAAD373724A PAAD363071B	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.