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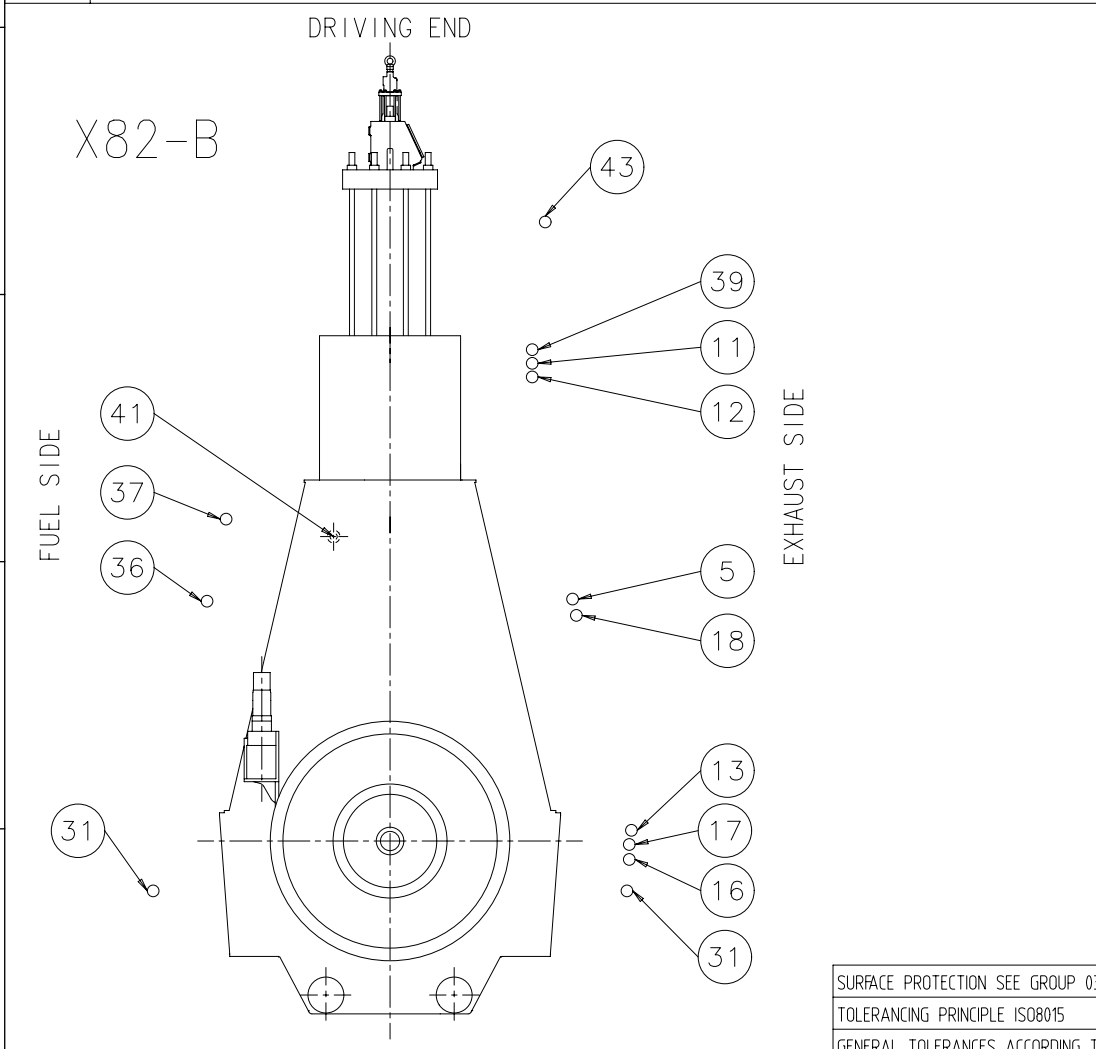
Net Weight		0,001		1		001		107.380.197.500		LEAKAGE COLLECTION/WASHING SYS.		107.380.197		0,001		
Quantity PER ENGINE		SEQ NO	Material ID	Material Name		Dimension, Occ		Standard or Drawing	Basic Material Material Standard		Weight GR./NET		Main Drw.		H	
107.388.834.200		Free space for lic.		Q-Code		XXXXXX		Standard		ISO; JIS		Main Drw.		H		
Material ID	Modif.	Number	Drawn date	Number	Drawn date	Number	Drawn date	Number	Drawn date	Number	Drawn date	Number	Drawn date	Number	Drawn date	
	A	7-77.597	30.06.2010	B	EAAD090104	12.09.2019										
WIN GD Winterthur Gas & Diesel		Product		W6-9X82-B		LEAKAGE COLLECTION/WASHING SYS.		LEAKAGE COLLECTION/WASHING SYS.								
Units	mm kg	NX		Basic Material		Net Weight										
SURFACE PROTECTION SEE GROUP 0344		Made	08.08.2007 M.PRSTEC		Scale	-		Size	A3	Page	1/1		Material ID			
TOLERANCING PRINCIPLE ISO8015		Chkd			Design Group		9724		Drawing ID		107.388.834		Rev.		B	
GENERAL TOLERANCES ACCORDING TO ISO2768-mK		Appd	02.04.2008 MPR002 Prstec													

Approved
ASD - ASSEMBLY DRAWING - Internal

SPECIFICATION which must be met (F)

37	OUTLET - Leakage oil gland box - Gravity flow to sludge tank or appropriate tank.
39	OUTLET - Leakage drain cylinder block - Gravity flow to oily water drain or appropriate tank.
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.

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 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 appropriate tank.
17	OUTLET - Washing water from scavenge air coller. - Gravity flow to bilge water or chemical cleaning tank.
18	OUTLET - SAC venting - Free flow outside of engine room
31	OUTLET - Various leakages - Gravity flow to sludge tank or appropriate tank.
36	OUTLET - Dirty oil piston underside - Flow with SAC pressure to sludge oil trap or appropriate arrangement. - Min. inclination of drain pipe: 60 %



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									
					Q-Code XXXXXX Standard ISO; JIS	Main Drw.									
Modif.	C	EAAD084349	30.01.2013	D	EAAD084854	29.11.2013	E	EAAD085091	21.05.2014	F	EAAD090104	12.09.2019			
	Number	Drawn date	Number	Drawn date	Number	Drawn date	Number	Drawn date	Number	Drawn date					
Units			mm kg	NX	Basic Material			Net Weight 0,001							
SURFACE PROTECTION SEE GROUP 0344				Made	02.07.2010	jba029	Baumann	Scale	-	Size	A3	Page	1/2	Material ID	107.380.197.500
TOLERANCING PRINCIPLE ISO8015				Chkd				Design Group				Drawing ID	107.380.197	Rev.	F
GENERAL TOLERANCES ACCORDING TO ISO2768-mK				Appd	15.11.2007	MPR002	Prstec								

WIN GD
Winterthur Gas & Diesel

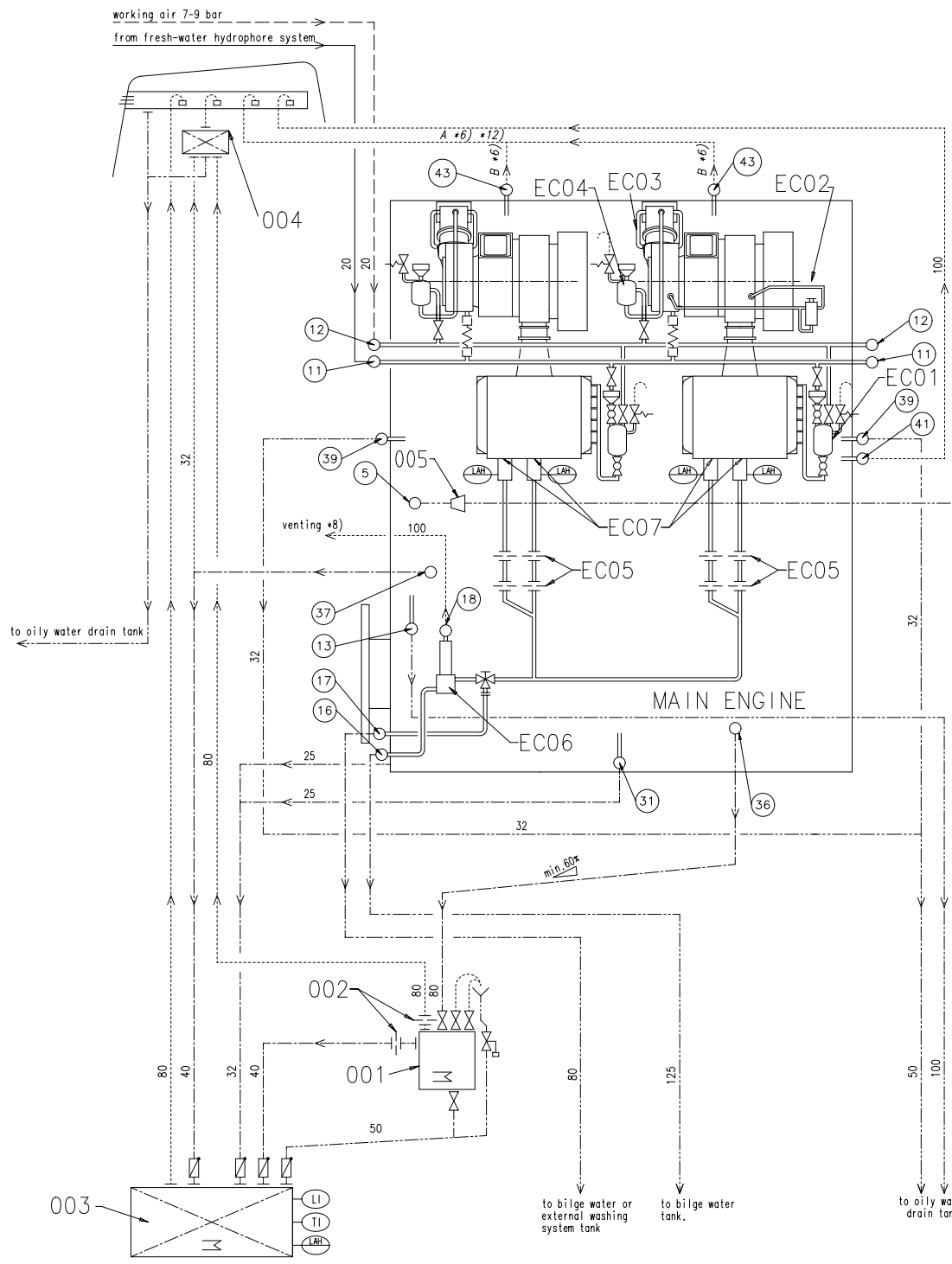
Product 6-9X82-B

LEAKAGE COLLECTION/WASHING SYS. SYSTEM DIAGRAM

LEAKAGE COLLECTION/WASHING SYS.

Approved
1D - DIMENSIONAL DRAWING - Confidential

SYSTEM PROPOSAL



Turbocharger type	A *13)	B *12)	Min. Inclination
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) (F)
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) (F)
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
㉓	OUTLET - Dirty oil piston underside
㉔	OUTLET - Leakage oil gland box
㉕	OUTLET - Leakage drain cylinder block
㉖	OUTLET - venting crankcase
㉗	OUTLET - Venting turbocharger

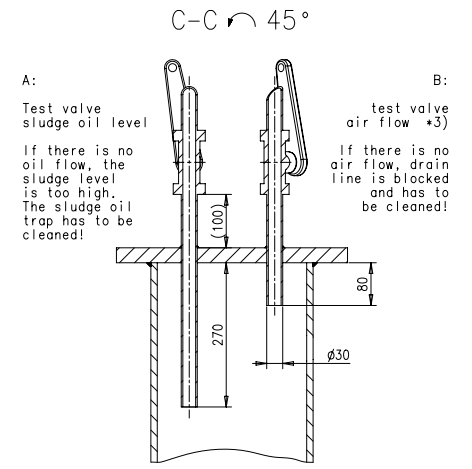
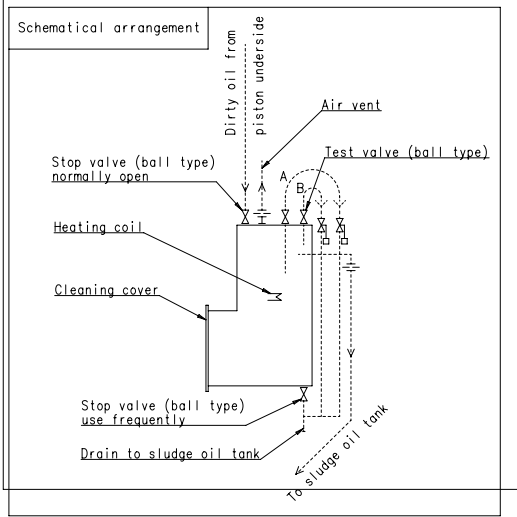
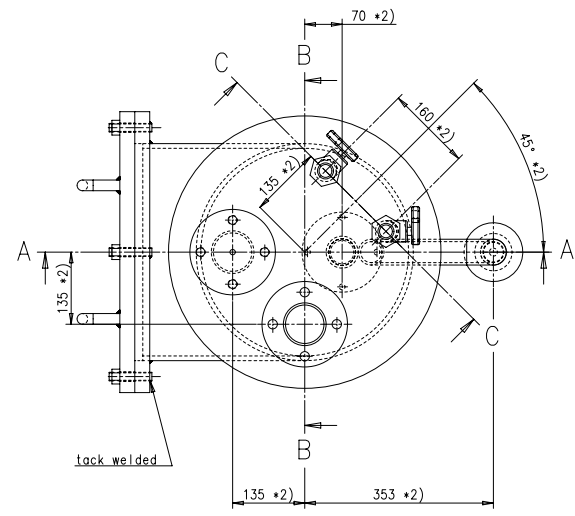
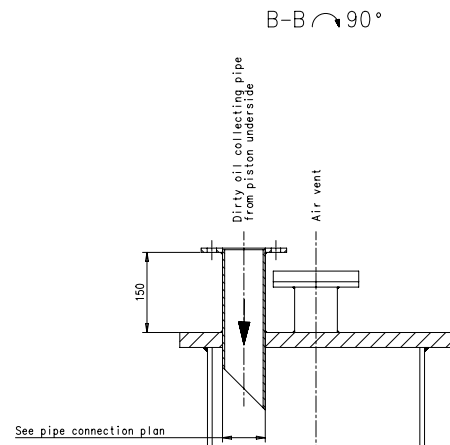
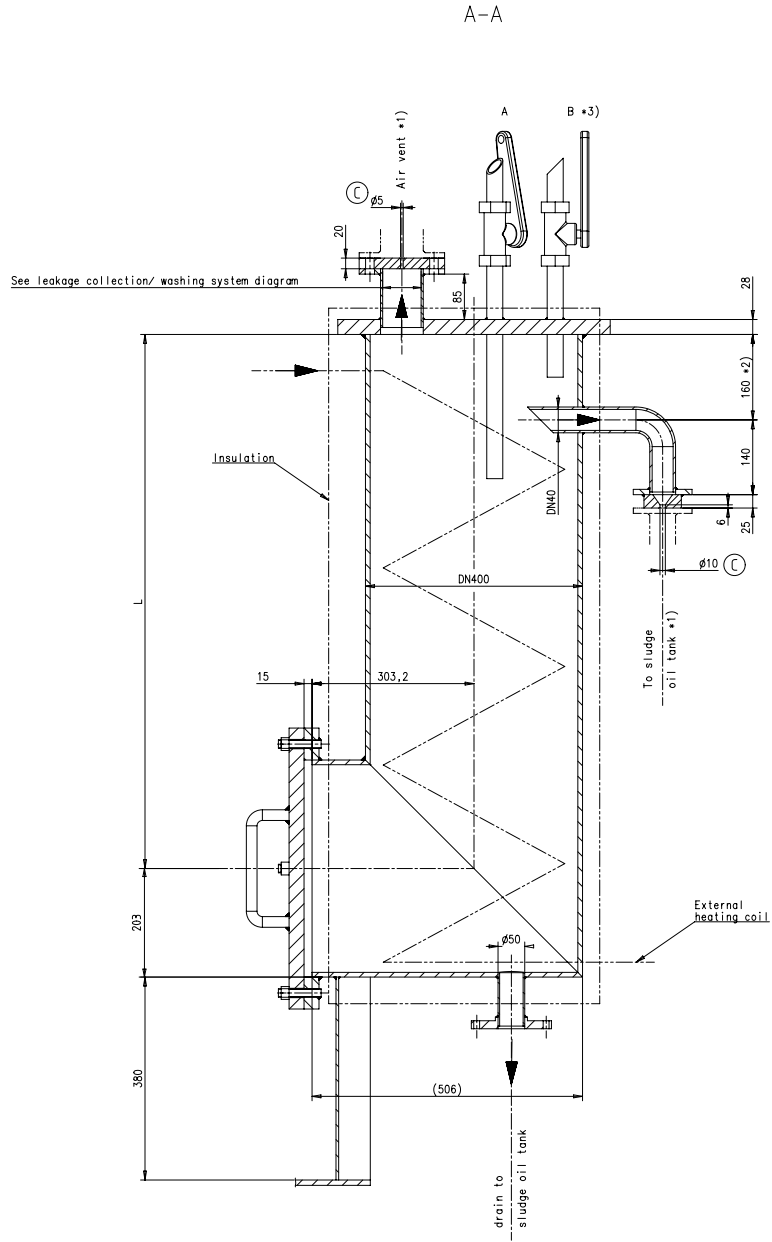
Pos.	ENGINE COMPONENTS *3) (F)
EC01	Scavenge air cooler washing plant
EC02	Turbocharger compressor wheel washing plant *5)
EC03	Turbocharger turbine washing plant *5)
EC04	Dry cleaning device *5)
EC05	Throttling disc
EC06	Venting Unit
EC07	Condensate drain unit *5)

Remarks (F)

- 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

Mod. C EAAD084349 30.01.2013 Number Drawn date		D EAAD084854 29.11.2013 Number Drawn date		E EAAD085091 21.05.2014 Number Drawn date		F EAAD090104 12.09.2019 Number Drawn date	
Product 6-9X82-B				LEAKAGE COLLECTION/WASHING SYS. SYSTEM DIAGRAM			
LEAKAGE COLLECTION/WASHING SYS.				LEAKAGE COLLECTION/WASHING SYS.			
Units	mm	kg	NX	Basic Material	Scale	Page	Net Weight 0,001
SURFACE PROTECTION SEE GROUP 0344		Made	02.07.2010	ibg029	Baumann	Size	A1
TOLERANCING PRINCIPLE ISO8015		Chd		Design Group		Page	2/2
GENERAL TOLERANCES ACCORDING TO ISO2768-mK		Appd	15.11.2007	MFR002	Pratic	Drawing	107.380.197
						Rev.	F



A: EAAD08405122.01.2013 Number Drawn date		B: EAAD08784914.07.2017 Number Drawn date		C: EAAD08943912.07.2018 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		App'd 13.11.2009 JBA020 Baumann		Drawing ID 9724		Design Group		Rev. C		107.425.369			
GENERAL TOLERANCES ACCORDING TO ISO2768-mK													

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

DISCLAIMER

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