PAAD376147	HT CW static pressure adjustment: with separate expansion tank
PAAD376148	HT CW static pressure adjustment: with separate buffer-unit

Net Weight							
0,001	0,001						
1	1	003	107.429.532.500	CONCEPT GUIDANCE Freshwater generation	107.429.532		0,001
-	1	002	PAAD366863	CENTRAL COOLING WATER SYSTEM HT_static-pressure: EXP tank	DAAD135990		0,001
1	-	001	PAAD366860	CENTRAL COOLING WATER SYSTEM HT_static-pressure: Buffer-unit	DAAD135989		0,001
Quantity PER ENGINE		SEQ NO	Material ID	Material Name Dimension, Occ	Standard or Drawing	Basic Material Material Standard	Weight GR./NET

SEE TABLE

Material ID		Free space for lic.	Q-Code	Main Drw.
PAAD376148	PAAD376147		XXXXX	H
			Standard ISO; JIS	

Modif.	Number	Drawn date	Number	Drawn date	Number	Drawn date	Number	Drawn date

WIN GD Winterthur Gas & Diesel

Product W5-8X62DF-S1.0

CENTRAL COOLING WATER SYSTEM

Zentralkuehlwassersystem

Units	mm kg	NX	Basic Material	Net Weight
Made	26.02.2021 dki021 DH.Kim		Scale -	Size A3 / Page 1/1 / Material ID
Chkd	26.02.2021 jpi101 Pickup		Design Group 9721	
Appd	26.02.2021 mhu019 Hug		Drawing ID DAAD140659	Rev. -

SURFACE PROTECTION SEE GROUP 0344

TOLERANCING PRINCIPLE ISO8015

GENERAL TOLERANCES ACCORDING TO ISO2768-mK

Approved

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SPECIFICATION which must be met:

(8) OUTLET - Scavenge air cooler (SAC) cooling water (LT water)

- Cooling water volume flow: according to GTD specification, adjusted by an orifice in the outlet pipe on shipside.

(44) OUTLET - Cylinder cooling water air venting

- To be vented to a safe area outside of engine room.

(2) INLET - Cylinder cooling water (HT water)

- Cooling water pressure: 3.0 - 5.0 bar
- Cooling water volume flow: according to GTD specification
- Cooling water (freshwater) must be treated according to WinGD's specification.
- An expansion tank must be installed.
- The static pressure at engine inlet must be adjusted by the installation of the expansion tank.
- Pre-heating: The engine must be warmed-up by heated HT water to min. 60 °C before engine start.
- HT cooling water amount on engine side: Given in table1 on page 2

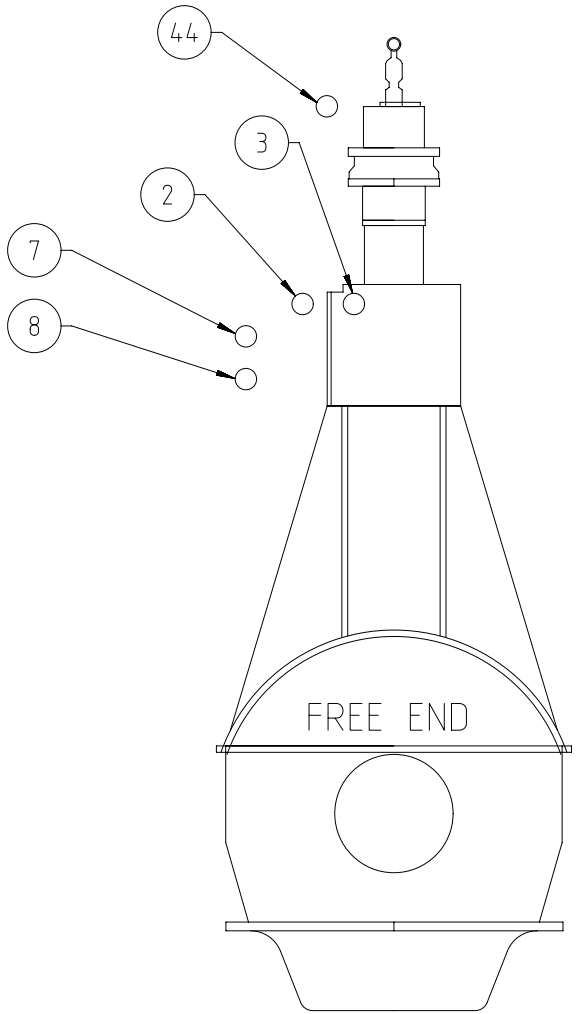
(3) OUTLET - Cylinder cooling water (HT water)

Cooling water temperature
- Controller set-point: 90 °C (controller type: PI)
- Steady state condition: 90 ± 2 °C
- Transient condition: 90 ± 4 °C

(7) INLET - Scavenge air cooler (SAC) cooling water (LT water)

- Cooling water pressure: 2.0 - 4.0 bar
- Cooling water temperature set point: 25 °C, max. 36 °C when seawater temperature at 32 °C.
- Cooling water volume flow: according to GTD specification.
- Cooling water (freshwater) must be treated according to WinGD's specification.
- LT cooling water amount on engine side: Given in table1 on page 2.

X62DF-S1.0



QTY	SEQ NO	Material ID	Material Name / Dimension, Occ	Standard or Drawing	Basic Material / Material Standard	Weight GR./NET
1	016	107.245.419.500	EXPANSION TANK	107.245.419		0,001
1	015	PAAD166922	EXPANSION TANK	DAAD052664		0,001

Free space for lic.

Q-Code: XXXXX

Standard: ISO; JIS

Main Drw.

Approved

Modif.	Number	Drawn date	Number	Drawn date	Number	Drawn date	Number	Drawn date

WINGD Winterthur Gas & Diesel

Product: 5-8X62DF-S1.0

CENTRAL COOLING WATER SYSTEM
HT_static-pressure: EXP tank

Units: mm kg | NX | Basic Material | Net Weight 0,001

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

Made	12.10.2020	Sudant Deogade	
Chkd	26.02.2021	jpi101 Pickup	
Appd	26.02.2021	mhu019 Hug	

Scale: -
Design Group: 9721
Size: A3
Page: 1/2
Material ID: PAAD366863
Drawing ID: DAAD135990
Rev.: -

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SYSTEM PROPOSAL

Pos.	ENGINE COMPONENTS *3)
EC01	Scavenge air cooler (SAC)
EC02	Manual vent valve, for each cylinder *15)
EC03	Air separator
EC04	Automatic venting unit

Pos.	ENGINE CONNECTIONS *2)
(2)	INLET - Cylinder cooling water (HT water)
(3)	OUTLET - Cylinder cooling water (HT water)
(7)	INLET - Scavenge air cooler (SAC) cooling water (LT water) *7)
(8)	OUTLET - Scavenge air cooler (SAC) cooling water (LT water) *7)
(44)	OUTLET - Cylinder cooling water air venting *10)

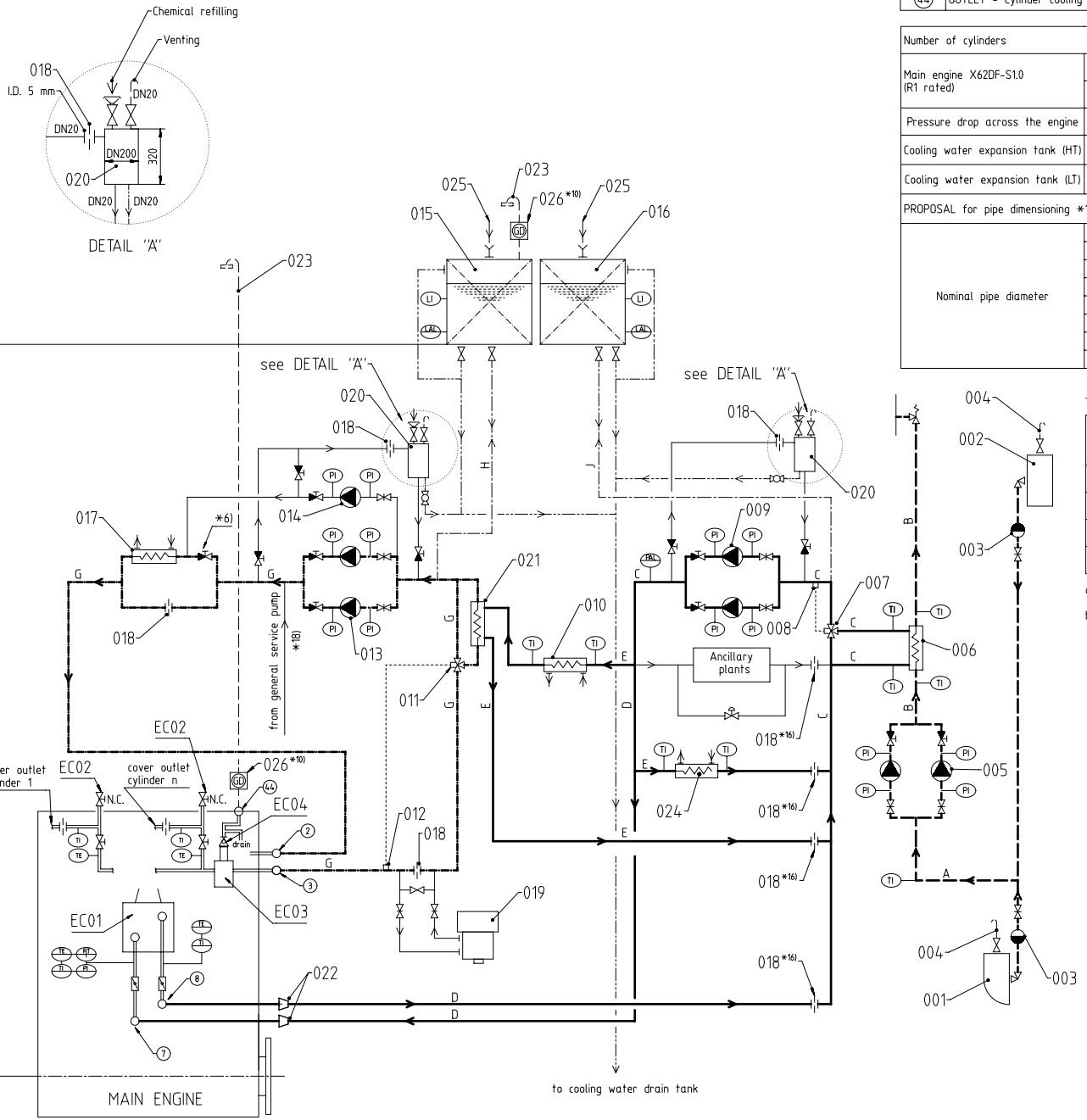
Number of cylinders				5	6	7	8
Main engine X62DF-S1.0 (R1 rated)	power	(kW)		10550	12660	14770	16880
	speed	(rpm)		108			
Pressure drop across the engine	(bar)			1.3			
Cooling water expansion tank (HT)	Cap.	(m^3)		Depending on ancillary plants min. 10% of HT cooling water			
Cooling water expansion tank (LT)	Cap.	(m^3)		Depending on ancillary plants min. 10% of LT cooling water			
PROPOSAL for pipe dimensioning *11)							
Nominal pipe diameter	A	DN	Yard determination, suitable for main engine and ancillary plants				
	B	DN					
	C	DN					
	D	DN		250	250	250	350
	E	DN		125	125	125	150
	G	DN		125	150	150	200
	H	DN		65	65	65	65
	J	DN		65	65	65	65

Table 1: Water content on engine side

Cylinder	HT circuit Cyl. C.W. Volume (l)	LT circuit SAC Volume (l)
5	600 l	575 l a)
6	700 l	575 l a) / 1450 l b)
7	825 l	575 l a) / 1650 l b)
8	950 l	575 l a) / 1900 l b)

a) Values for executions with 1 scavenge air cooler.
b) Values for executions with 2 scavenge air coolers.

Pos.	SYSTEM COMPONENTS *1)
001	Low sea chest
002	High sea chest
003	Seawater strainer
004	Air vent (air vent pipe or equal venting system acc. to shipyard's design)
005	Seawater circulating pump
006	Central cooler (LT cooling water)
007	Automatic temperature control valve for LT circuit *13)
008	LT water temperature sensor *13)
009	Cooling water pump for LT circuit
010	Lubricating oil cooler
011	Automatic temperature control valve for HT circuit *14)
012	HT water temperature sensor *14)
013	Cylinder cooling water pump for HT circuit
014	Pre-heating circulating pump (optional), cap. 10% from cylinder cooling pump *8)
015	HT water expansion tank (link to detail drawing on page 1) *17)
016	LT water expansion tank (link to detail drawing on page 1) *17)
017	Pre-heater for main engine (HT circuit)
018	Throttling disc *5)
019	Freshwater generator
020	Chemical treatment refill unit *4)
021	HT cooling water cooler
022	Transition piece (adapter) *9)
023	Cylinder cooling water air venting line *10)
024	MDO/MGO cooler
025	Filling pipe / inlet chemical treatment
026	Gas detector *10)



Seawater pipes
LT freshwater pipes
HT freshwater pipes
Balance pipes
Ancillary equipment pipes
Drain/overflow pipes
Air vent pipes
Control/feed back
Pipes on Engine
Pipe connections

Remarks:

- Air vent and drain pipes not shown on drawing. Shall be installed where required.
- 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 Conection Plan" for the execution and location of the engine pipe connection.
*3) To be delivered by the engine manufacturer, i.e. already equipped on engine side.
*4) To be installed for cooling water after-treatment during regular engine operation. Convenient dimensions are provided in view 'A'. Other designs are possible.
*5) When using a valve, lock in proper position to avoid mishandling.
*6) Only when pos. 014 is installed.
*7) The inlet and outlet pipes to SAC must be designed to allow engine thermal expansion, or be fitted with expansion pieces.
*8) For guidance only, final layout according to actual engine pre-heating requirements.
*9) Installed as required (check with "Pipe Connection Plan")
*10) To be vented to a safe area outside of engine room. In addition, depending on flag state and/or class requirement, the venting line must also be equipped with a gas detector. The gas detector must be arranged with a max. distance of 2 m from the venting unit outlet.
*11) All given diameters are valid for the mentioned rating and serve just as an example. To make the layout for the project specific rating please refer to DG9730 "Fluid velocities and flow rates, recommended values for pipework of diesel plants" for selecting the approriate pipe diameter. Rating specific flow rates are provided by GTD.
*13) A minimum temperature at engine inlet must be maintained. The minimum temperature set-point is 10°C. A lower LT water temperature assists the main engine to reach lower BSFC. If the ancillary plants require a temperature lower or greater than the LT water set-point, a separate LT water supply system with the different temperature set-point has to be installed (please refer to system proposal in MIM).
*14) A constant temperature at engine outlet must be maintained. Recommended controller set-point for main engine operation is 90 °C.
*15) Only to be used for manual venting of isolated cylinders after maintenance. To be kept close during engine operation.
*16) Optional, only to be installed if needed for hydraulic balancing.
*17) If gas driven auxiliaries are connected to the LT circuit, the LT expansion tank must be gas tight and has to be vented to a safe area outside of engine room.
*18) Optional connection to the general service pump. To be considered if requested by class rules for emergency engine cooling.

Free space for ic.								Q-Code XXXXX	Main Drw.
								Standard ISO; JIS	
Modif.	Number	Drawn date	Number	Drawn date	Number	Drawn date	Number	Drawn date	

WIN GD Winterthur Gas & Diesel

Product 5-8X62DF-S1.0

CENTRAL COOLING WATER SYSTEM
HT_static-pressure: EXP tank

Units	mm kg	NX		Basic Material			Net Weight 0,001
SURFACE PROTECTION SEE GROUP 0344	Made	12.10.2020	Sudant Deogade	Scale	-	Size A1	Page 2/2
TOLERANCING PRINCIPLE ISO8015	Chkd	26.02.2021	jpi101 Pickup	Design Group	9721	Material ID	PAAD366863
GENERAL TOLERANCES ACCORDING TO ISO2768-mK	Appd	26.02.2021	mhu019 Hug	Drawing ID	PAAD135990	Rev.	-

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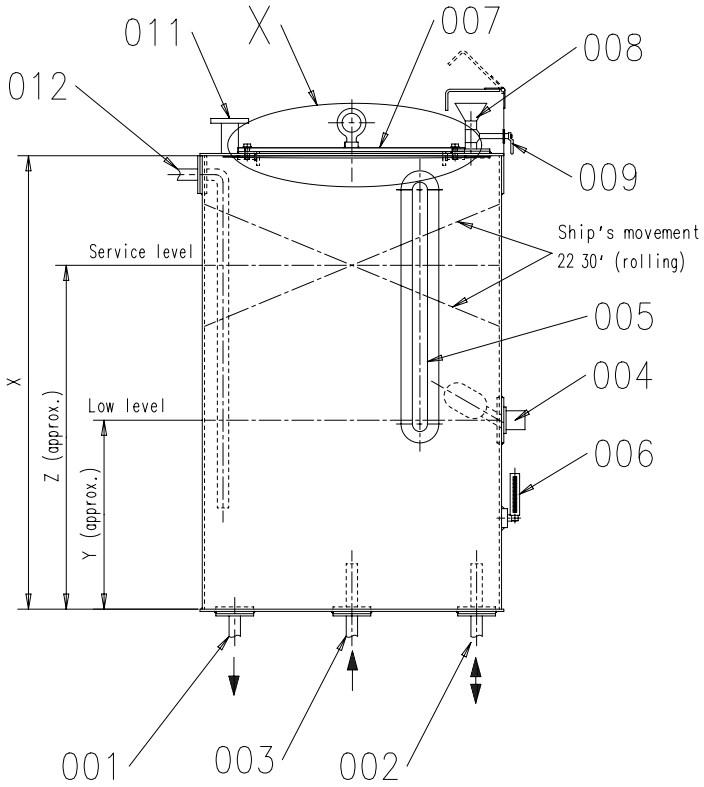
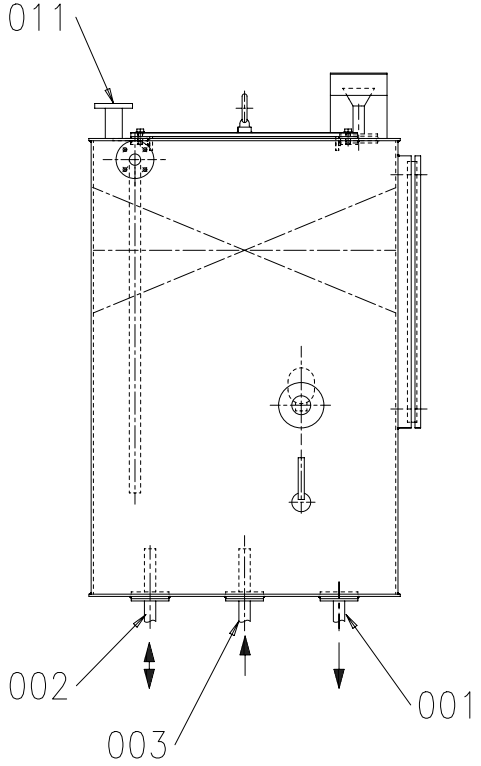




Pos.	Description
001	Drain from HT circuit
002	Balance pipe from HT circuit
Ⓐ 003	Air vent from HT circuit *5)
004	Low level alarm *4)
005	Level indicator *1) *4)
006	Thermometer *4)
007	Inspection cover (manhole) *2)
008	Filling pipe/inlet chemical treatment *2)
009	Cock *3)
010	Sealing
011	Venting *6)
012	Overflow/air vent

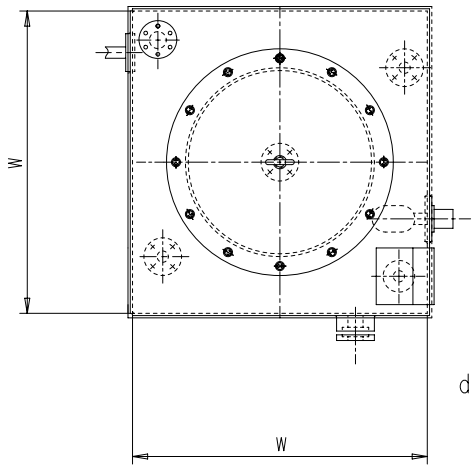
Remarks: Ⓐ

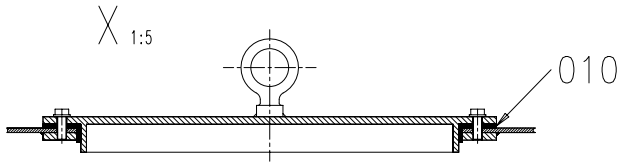
*1) Level indicator can be omitted if an alternative is fitted.
*2) Other gas tight solutions are also possible.
*3) Has to be closed always after treatment.
*4) Any instrumentation installed in the system has to be certified explosion proof apparatus.
*5) This connection is only needed if the HT cooling water system venting is done via the expansion tank.
*6) To be vented outside of engine room

- Tank dimensions are defined by the Tank capacity, as seen in Table 1. For capacity and pipe diameter, refer to drawing 'Central cooling water system'.

Table 1: Tank dimensions

HT Tank capacity	W	X	Y	Z
(m^3)	(mm)	(mm)	(mm)	(mm)
0.5	800	800	330	640
0.75	800	1200	500	960
1.0	800	1600	670	1280
1.25	1000	1250	530	1000
1.5	1000	1500	630	1200
1.75	1000	1750	730	1400
2.0	1000	2000	830	1600





Ⓐ drawing view shows dimensioning scale for 0.75 m³ capacity

Free space for llc.

Q-Code XXXXX | Main Drw.

Standard ISO; JIS

Approved

Modif.	Number	Drawn date	Number	Drawn date	Number	Drawn date	Number	Drawn date
Ⓐ	EAAD091567	15.11.2019						

WIN GD Winterthur Gas & Diesel

Product W-2S

EXPANSION TANK
CENTRAL COOLING WATER HT CIRCUIT
Ausgleichstank
Zentralkuehlwassersystem HT circuit

Units	mm kg	NX	Basic Material	Net Weight 0,001

SURFACE PROTECTION SEE GROUP 0344	Made	07.07.2014	mhu019 M.Hug	Scale 1:10	Size A2 / Page 1/1	Material ID PAAD166922
TOLERANCING PRINCIPLE ISO8015	Chkd	08.08.2014	bha009 Haag	Design Group 9721	Drawing ID DAAD052664	Rev. A
GENERAL TOLERANCES ACCORDING TO ISO2768-mK	Appd	08.08.2014	bha009 Haag			

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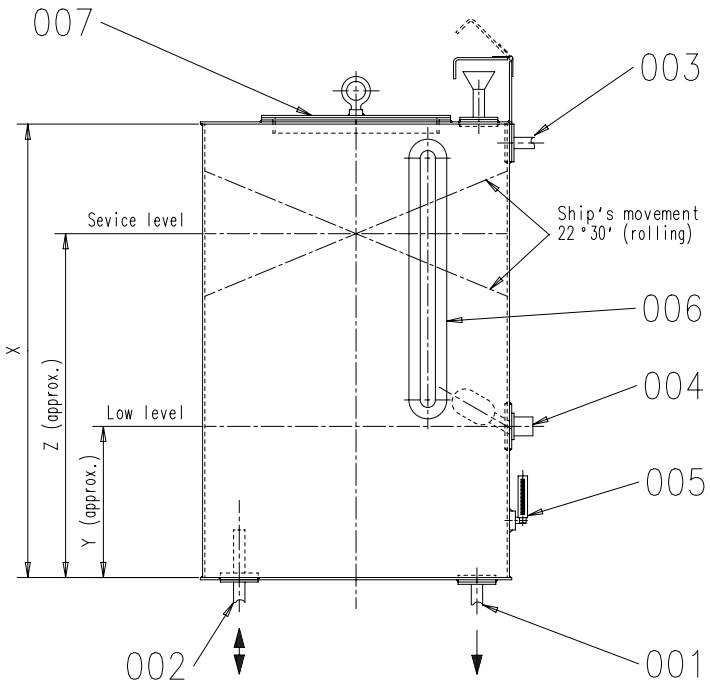

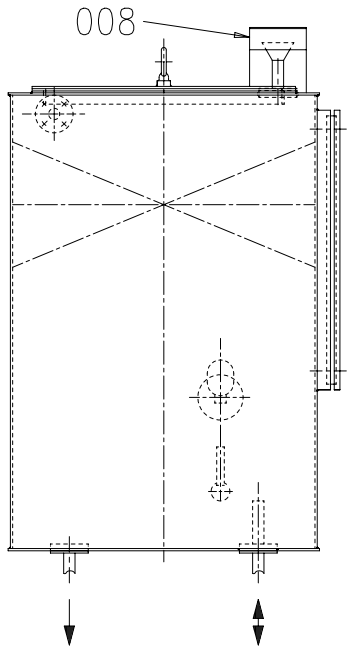

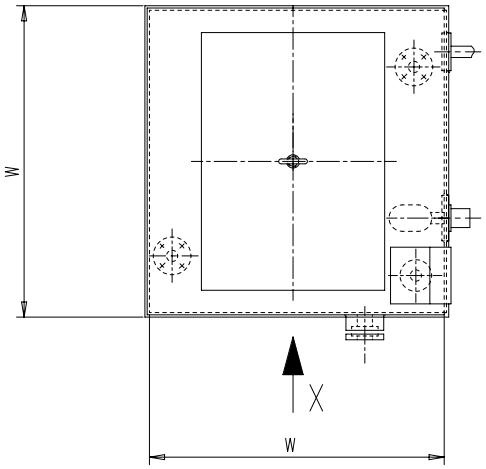

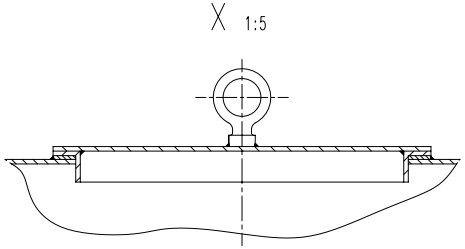

Drawn for 0.75 m^3 capacity

Pos.	Description Ⓓ
001	Drain
002	Balance pipe from LT circuit
003	Overflow/air vent
004	Low level alarm
005	Thermometer
006	Level indicator *1)
007	Inspection cover *2)
008	Filling pipe/inlet chemical treatment *2)

Remarks:

*1) Level indicator can be omitted if an alternative is fitted.
*2) Other designs like hinged covers, etc. are also possible

- For required tank capacity and pipe diameters refer to drawing 'Central cooling water system'

Table 1: Tank dimensions

LT tank capacity	W	X	Y	Z
(m^3)	(mm)	(mm)	(mm)	(mm)
0.5	800	800	330	640
0.75	800	1200	500	960
1.0	800	1600	670	1280
1.25	1000	1250	530	1000
1.5	1000	1500	630	1200
1.75	1000	1750	730	1400
2.0	1000	2000	830	1600

Approved

Free space for lic.

Q-Code XXXXX
Standard ISO; JIS
Main Drw.

Modif.	Number	Drawn date	Number	Drawn date	Number	Drawn date	Number	Drawn date
A	EAAD014356	16.06.1997	B 7-37.090	16.08.2007	C EAAD083145	25.01.2012	D EAAD091029	12.09.2019

WIN GD Winterthur Gas & Diesel

Product W-2S

EXPANSION TANK
CENTRAL COOLING WATER LT CIRCUIT
Ausgleichstank
Zentralkuehlwassersystem LT

Units	mm kg	NX	Basic Material	Net Weight 0,001

SURFACE PROTECTION SEE GROUP 0344	Made 11.06.1997 T.LANDERT	Scale 1:10	Size A2	Page 1/1	Material ID 107.245.419.500	
TOLERANCING PRINCIPLE ISO8015	Chkd	Design Group 9721	Drawing ID 107.245.419		Rev. D	
GENERAL TOLERANCES ACCORDING TO ISO2768-mK	Appd 11.06.1997 WCH001 Service User					

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SPECIFICATION which must be met:

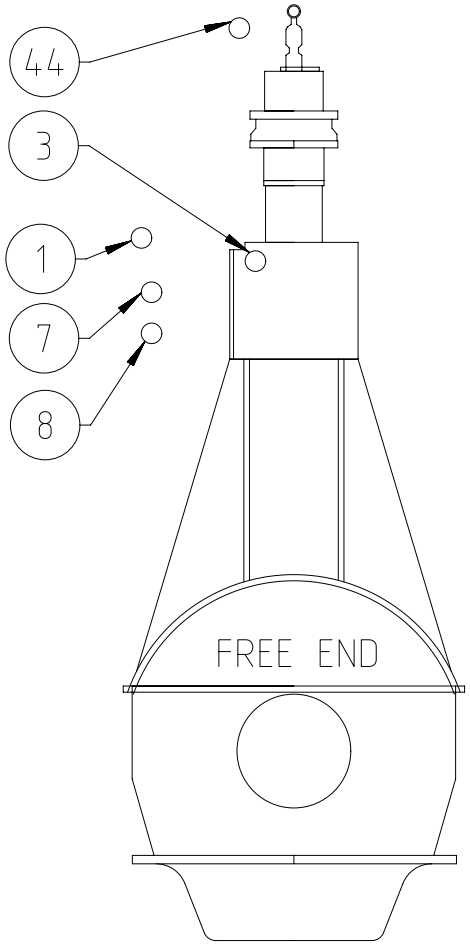
8 OUTLET - Scavenge air cooler (SAC) cooling water (LT water)

- Cooling water volume flow: according to GTD specification, adjusted by an orifice in the outlet pipe on shipside.

44 OUTLET - Cylinder cooling water air venting

- To be vented to a safe area outside of engine room.

X62DF-S1.0



1 INLET - Cylinder cooling water (HT water)

- Cooling water pressure: 3.0 - 5.0 bar
- Cooling water volume flow: according to GTD specification
- Cooling water (freshwater) has to be treated according to WinGD specification.
- A buffer unit must be installed.
- The static pressure at engine inlet must be adjusted by buffer unit pressure setting.
- Pre-heating: The engine must be warmed-up by heated HT water to min. 60 °C before engine start.
- HT cooling water amount on engine side: Given in table 1 on page 2

3 OUTLET - Cylinder cooling water (HT water)

Cooling water temperature
- Controller set-point: 90 °C
- Steady state condition: 90 ± 2 °C
- Transient condition: 90 ± 4 °C

7 INLET - Scavenge air cooler (SAC) cooling water (LT water)

- Cooling water pressure: 2.0 - 4.0 bar
- Cooling water temperature: controller set point: 25 °C, max. 36 °C when seawater temperature at 32 °C.
- Cooling water volume flow: according to GTD specification
- Cooling water (freshwater) has to be treated according to WinGD specification.
- LT cooling water amount on engine side: Given in table 1 on page 2.

QTY	SEQ NO	Material ID	Material Name / Dimension, Occ	Standard or Drawing	Basic Material / Material Standard	Weight GR./NET
1	016	107.245.419.500	EXPANSION TANK	107.245.419		0,001
1	015	107.245.626.500	BUFFER	107.245.626		0,001

Free space for lic. | Q-Code XXXXX | Standard | Main Drw.

Modif. | Number | Drawn date | Number | Drawn date | Number | Drawn date | Number | Drawn date

WINGD Winterthur Gas & Diesel

Product 5-8X62DF-S1.0

CENTRAL COOLING WATER SYSTEM
HT_static-pressure: Buffer-unit
Zentralkuehlwassersystem

Approved

Units mm kg | NX | Basic Material | Net Weight 0,001

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

Made	08.01.2021	dki021 DH.Kim
Chkd	26.02.2021	jpi101 Pickup
Appd	26.02.2021	mhu019 Hug

Scale - | Design Group 9721 | Size A3 | Page 1/2 | Material ID PAAD366860 | Drawing ID DAAD135989 | Rev. -

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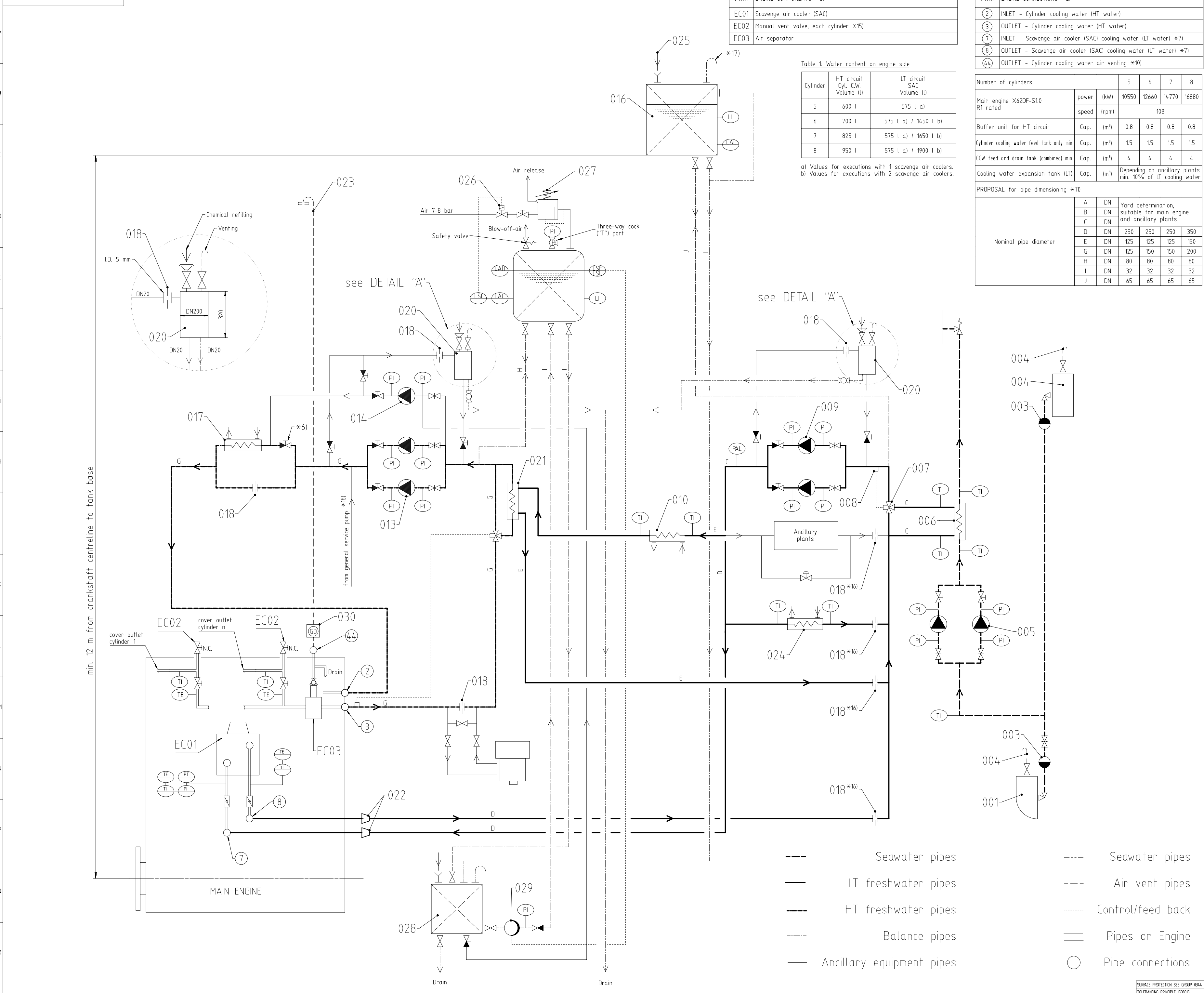
SYSTEM PROPOSAL



Pos.	ENGINE COMPONENTS *3)
EC01	Scavenge air cooler (SAC)
EC02	Manual vent valve, each cylinder *15)
EC03	Air separator

Table 1: Water content on engine side

Cylinder	HT circuit Cyl. C.W. Volume (l)	LT circuit SAC Volume (l)
5	600 l	575 l a)
6	700 l	575 l a) / 1450 l b)
7	825 l	575 l a) / 1650 l b)
8	950 l	575 l a) / 1900 l b)

a) Values for executions with 1 scavenge air coolers.
b) Values for executions with 2 scavenge air coolers.

Pos.	ENGINE CONNECTIONS *2)
(2)	INLET – Cylinder cooling water (HT water)
(3)	OUTLET – Cylinder cooling water (HT water)
(7)	INLET – Scavenge air cooler (SAC) cooling water (LT water) *7)
(8)	OUTLET – Scavenge air cooler (SAC) cooling water (LT water) *7)
(44)	OUTLET – Cylinder cooling water air venting *10)

Number of cylinders			5	6	7	8
Main engine X62DF-S1.0 R1 rated	power	(kW)	10550	12660	14770	16880
	speed	(rpm)	108			
Buffer unit for HT circuit	Cap.	(m^3)	0.8	0.8	0.8	0.8
Cylinder cooling water feed tank only min.	Cap.	(m^3)	1.5	1.5	1.5	1.5
CCW feed and drain tank (combined) min.	Cap.	(m^3)	4	4	4	4
Cooling water expansion tank (LT)	Cap.	(m^3)	Depending on ancillary plants min. 10% of LT cooling water			
PROPOSAL for pipe dimensioning *11)						
Nominal pipe diameter	A	DN	Yard determination, suitable for main engine and ancillary plants			
	B	DN				
	C	DN				
	D	DN	250	250	250	350
	E	DN	125	125	125	150
	G	DN	125	150	150	200
	H	DN	80	80	80	80
	I	DN	32	32	32	32
	J	DN	65	65	65	65

Pos.	SYSTEM COMPONENTS *1)
001	Low sea chest
002	High sea chest
003	Seawater strainer
004	Air vent (air vent pipe or equal venting system acc. to shipyard's design)
005	Seawater circulating pump
006	Central cooler (LT cooling water)
007	Automatic temperature control valve for LT circuit *13)
008	LT water temperature sensor *13)
009	Cooling water pump for LT circuit
010	Lubricating oil cooler
011	Automatic temperature control valve for HT circuit *14)
012	HT water temperature sensor *14)
013	Cylinder cooling water pump for HT circuit
014	Pre-heating circulating pump (optional), cap. 10% from cylinder cooling pump *8)
015	Buffer unit for HT circuit (link to detail drawing on page 1)
016	LT water expansion tank (link to detail drawing on page 1)
017	Pre-heater for main engine (HT circuit)
018	Throttling disc *5)
019	Freshwater generator
020	Chemical treatment refill unit *4)
021	HT cooling water cooler
022	Transition piece (adapter) *9)
023	Cylinder cooling water air venting line *10)
024	MDO/MGO cooler
025	Filling pipe / inlet chemical treatment
026	Solenoid valve (air inlet to be interlocked with min. water level)
027	Control air valve with air release function *12) (to be adjusted to ensure CW pressure at ME inlet 4 – 5 bar(g))
028	Cylinder cooling water feed & drain tank (or feed tank only)
029	Supply pump, automatic level control (0.5 m^3/h at 4bar)
030	Gas detector *10)

Remarks:

- Air vent and drain pipes not shown on drawing. Shall be installed where required.
- 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 connection.
*3) To be delivered by the engine manufacturer, i.e. already equipped on engine side.
*4) To be installed for cooling water after-treatment during regular engine operation. Convenient dimensions are provided in view "A". Other designs are possible.
*5) When using a valve, lock in proper position to avoid mishandling.
*6) Only when pos. 014 is installed.
*7) The inlet and outlet pipes to SAC must be designed to allow engine thermal expansion, or be fitted with expansion pieces.
*8) For guidance only, final layout according to actual engine pre-heating requirements.
*9) Installed as required (check with "Pipe Connection Plan")
*10) To be vented to a safe area outside of engine room. In addition, depending on flag state and/or class requirement, the venting line must also be equipped with a gas detector. The gas detector must be arranged with a max. distance of 2 m from the venting unit outlet.
*11) All given diameters are valid for the mentioned rating and serve just as an example. To make the layout for the project specific rating please refer to DG9730 "Fluid velocities and flow rates, recommended values for pipework of diesel plants" for selecting the approriate pipe diameter. Rating specific flow rates are provided by GTD.
*12) If the selected control air valve does not have the intefrated air release functionality a separate air release valve can be installed as alternative on the top of the buffer unit.
*13) A minimum temperature at engine inlet must be maintained. The minimum temperature set-point is 10°C. A lower LT water temperature assists the main engine to reach lower BSFC. If the ancillary plants require a temperature lower or greater than the LT water set-point, a separate LT water supply system with the different temperature set-point has to be installed (please refer to system proposal in MIM).
*14) A constant temperature at engine outlet must be maintained. Recommended controller set-point for main engine operation is 90 °C.
*15) Only to be used for manual venting of isolated cylinders after maintenance. To be kept closed during engine operation.
*16) Optional, only to be installed if needed for hydraulic balancing.
*17) If gas driven auxiliaries are connected to the LT circuit, the LT expansion tank must be gas tight and has to be vented to a safe area outside of engine room.
*18) Optional connection to the general service pump. To be considered if requested by class rules for emergency engine cooling.

WIN GD Winterthur Gas & Diesel

Q-Code: XXXXX | Standard | Main Drw.

Product: 5-8X62DF-S1.0

CENTRAL COOLING WATER SYSTEM
HT_static-pressure: Buffer-unit
Zentralkuehlwassersystem

Units: mm kg | NX | Basic Material | Net Weight 0,001

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

Made: 08.01.2021 dki021 DH.Kim
Chkd: 26.02.2021 jpi101 Pickup
Appd: 26.02.2021 mhu019 Hug

Scale: – | Design Group: 9721 | Size: A0 | Page: 2/2 | Material ID: PAAD366860 | Drawing ID: DAAD135989 | Rev.: –

DID – DIMENSIONAL DRAWING – Confidential | Approved

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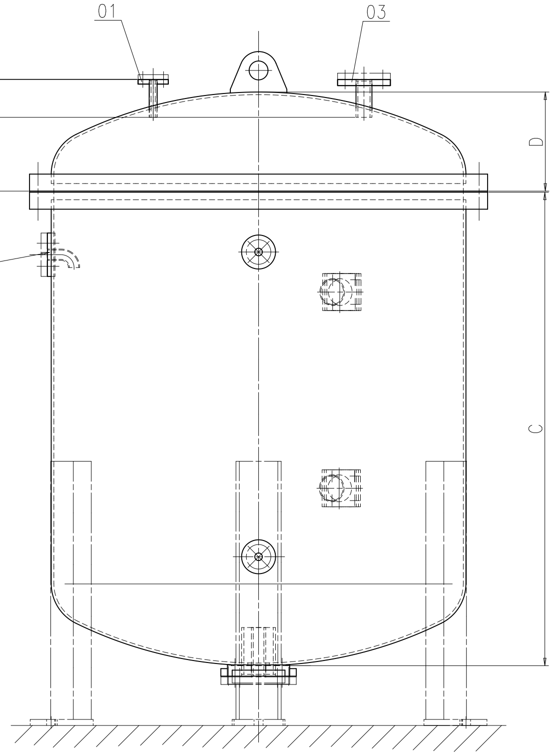
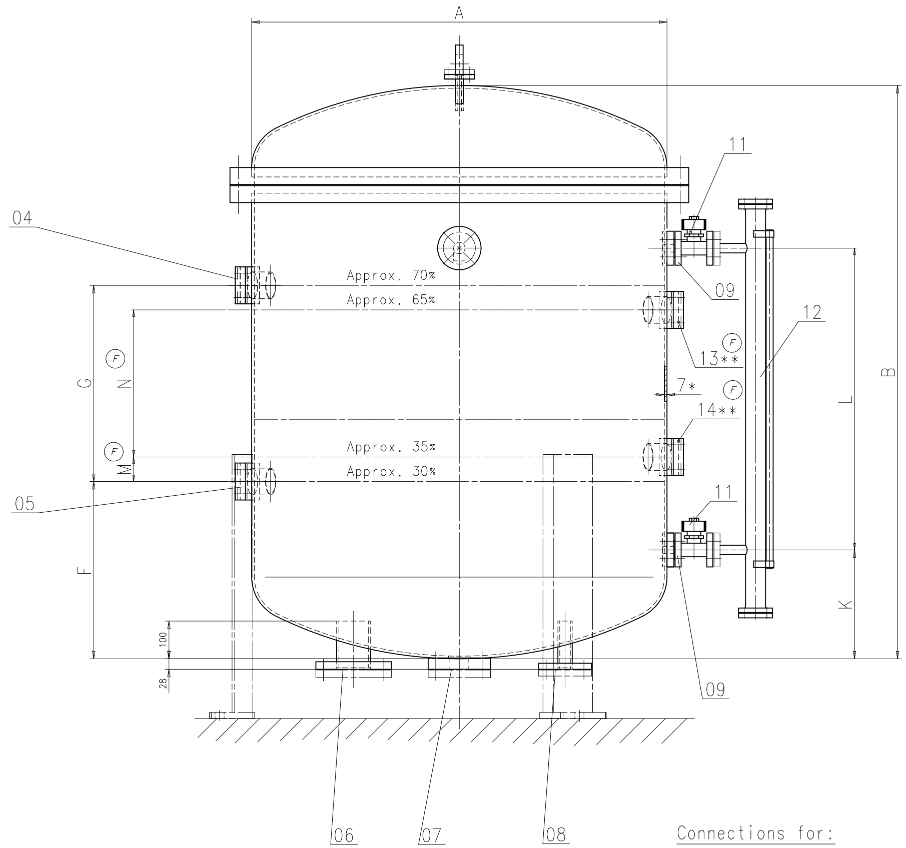
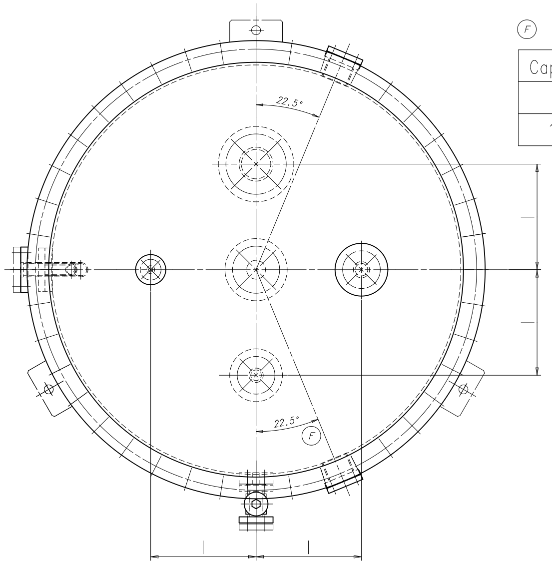
Tank Proposal (F)







(F)

Capacity	A	B	C	D	E	F	G	H	I	K	L	M	N
800l	∅900	1430	1205	222	250	455	520	600	250	250	800	65	390
1200l	∅1100	1520	1255	262	300	470	520	650	280	290	800	65	390

Connections for:

01 Compressed air supply from control air valve, DN15 with blank flange
02 Pressure indicator, DN25 with blank flange
03 Safety and relief valve adjustment 5,5 bar DN32 with blank flange
04 Level alarm high, with blank flange
05 Level alarm low, with blank flange
06 Compensation, DN80 with blank flange
07 Drain, DN32 with blank flange
08 Feed, DN32 with blank flange
09 Flanges for level indicator
(F) 11 Valve for level indicator, self-closing type
12 Level indicator
13 Level switch high, with blank flange **
14 Level switch low, with blank flange **

Drawn for 1200l capacity

Working pressure : 5 bar
* Wall thickness and test pressure : according to relevant classification society/rules
Service temperature : max. 95°C
(F) ** Tank volume between LSH and LSL shall be no less than 150 litres.

Free space for lic.									Q-Code XXXXX		Main Drw.
									Standard ISO		
Modif.	C	7-61.644	05.03.2008	D	EAAD084051	14.08.2012	E	EAAD085172	22.04.2014	F	EAAD087035 12.10.2016
		Number	Drawn date		Number	Drawn date		Number	Drawn date		Number / Drawn date

WIN GD Winterthur Gas & Diesel

Product W-2S

BUFFER
TO CYL.COOLING WATER SYS
Puffer

Units mm kg	IDE	Basic Material	Net Weight 0.001
SURFACE PROTECTION SEE GROUP 0344	Made 22.09.00 S.STYLIANOU	Scale 1:5	Size A0 / Page 1/1 / Material ID 107.245.626.500
TOLERANCING PRINCIPLE ISO8015	Chkd	Design Group 9721	Drawing ID 107.245.626 / Rev. F
GENERAL TOLERANCES ACCORDING TO ISO2768-mK	Appd		

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MIDS_WinGD-X62DF-S1.0_COOLING-WATER-SYSTEM

TRACK CHANGES

DATE	SUBJECT	DESCRIPTION
2021-03-01	DRAWING SET	First web upload

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Winterthur Gas & Diesel Ltd.
Winterthur Gas & Diesel AG.
Winterthur Gas & Diesel S.A.

Schützenstrasse 3
PO Box 414, CH-8401
Winterthur, Switzerland

Tel. +41 (0)52 264 8844
Fax +41 (0)52 264 8866

www.wingd.com