

1 2 3 4 5 6 7 8

A  
B  
C  
D  
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F


A  
B  
C  
D  
E  
F

PAAD380465	HT CW static pressure adjustment: with separate expansion tank
PAAD380466	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	PAAD380403	CENTRAL COOLING WATER SYSTEM HT_static-pressure: EXP tank	DAAD142895						0,001
1	-	001	PAAD380454	CENTRAL COOLING WATER SYSTEM HT_static-pressure: Buffer-unit	DAAD142917						0,001

SEE TABLE

Quantity PER ENGINE	SEQ NO	Material ID	Material Name	Dimension, Occ	Standard or Drawing	Basic Material Material Standard	Weight GR./NET	
PAAD380466	PAAD380465	Free space for lic.				Q-Code XXXXXX Standard ISO; JIS	Main Drw. H	
Modif.	Number	Drawn date	Number	Drawn date	Number	Drawn date	Number	Drawn date

	Product W5-8X52DF-S1.0	CENTRAL COOLING WATER SYSTEM Zentralkuehlwassersystem
	Units mm kg NX	Basic Material

SURFACE PROTECTION SEE GROUP 0344	Made	20.04.2021 dki021 DH.Kim	Scale	-	Size	A3	Page	1/1	Material ID	
TOLERANCING PRINCIPLE ISO8015	Chkd	23.04.2021 jpi101 Pickup	Design Group	9721	Drawing ID	DAAD142929	Rev.	-		
GENERAL TOLERANCES ACCORDING TO ISO2768-mK	Appd	23.04.2021 mhu019 Hug								

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D  
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DIP - DIMENSIONAL DRAWING - Confidential

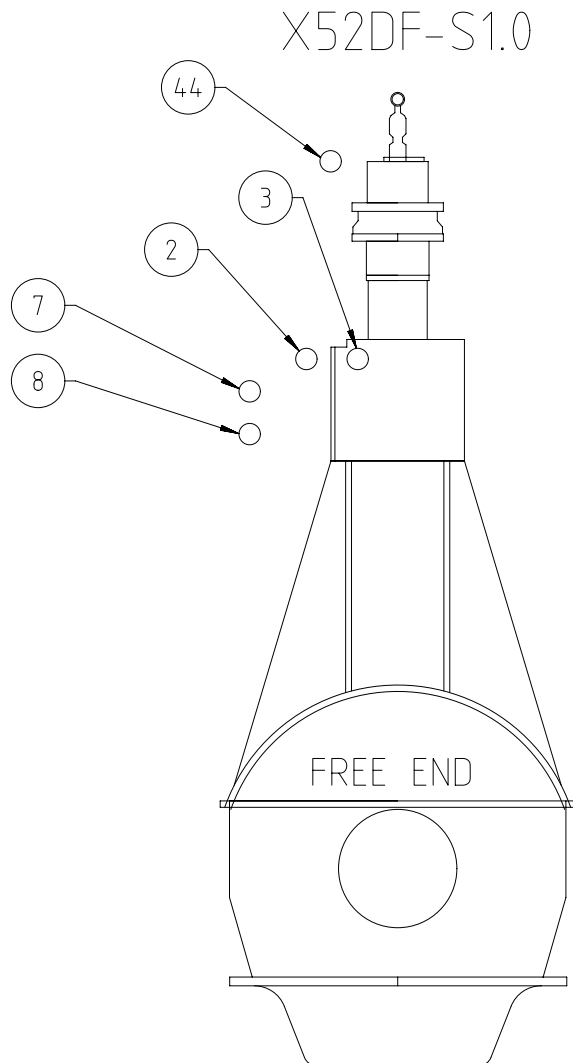
SPECIFICATION which must be met:

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
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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
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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.
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1	016	107.245.419.500	EXPANSION TANK	107.245.419		0,001	
1	015	PAAD166922	EXPANSION TANK	DAAD052664		0,001	
QTY	SEQ NO	Material ID	Material Name	Dimension, Occ	Standard or Drawing	Basic Material Material Standard	Weight GR./NET
Free space for lic.						Q-Code XXXXXX	Main Drw.
						Standard ISO; JIS	

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

	Product 5-8X52DF-S1.0	CENTRAL COOLING WATER SYSTEM HT_static-pressure: EXP tank Zentralkuehlwassersystem	
	Units mm kg NX	Basic Material	Net Weight 0,001

SURFACE PROTECTION SEE GROUP 0344	Made	19.04.2021	dk1021 DH.Kim	Scale		Size	A3	Page	1/2	Material ID	PAAD380403
TOLERANCING PRINCIPLE ISO8015	Chkd	23.04.2021	jpi101 Pickup	Design Group	9721	Drawing ID	DAAD142895	Rev.	-		
GENERAL TOLERANCES ACCORDING TO ISO2768-mK	Appd	23.04.2021	mhu019 Hug								

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UID - DIMENSIONAL DRAWING - Confidential

# 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)

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)

Number of cylinders	5	6	7	8	
Main engine X52DF-S1.0 (R1 rated)	power (kW)	7500	9000	10500	12000
	speed (rpm)	120			
Pressure drop across the engine	1.3 (bar)				
Cooling water expansion tank (HT)	Cap. (m³)	Depending on ancillary plants min. 10% of HT cooling water			
Cooling water expansion tank (LT)	Cap. (m³)	Depending on ancillary plants min. 10% of LT cooling water			

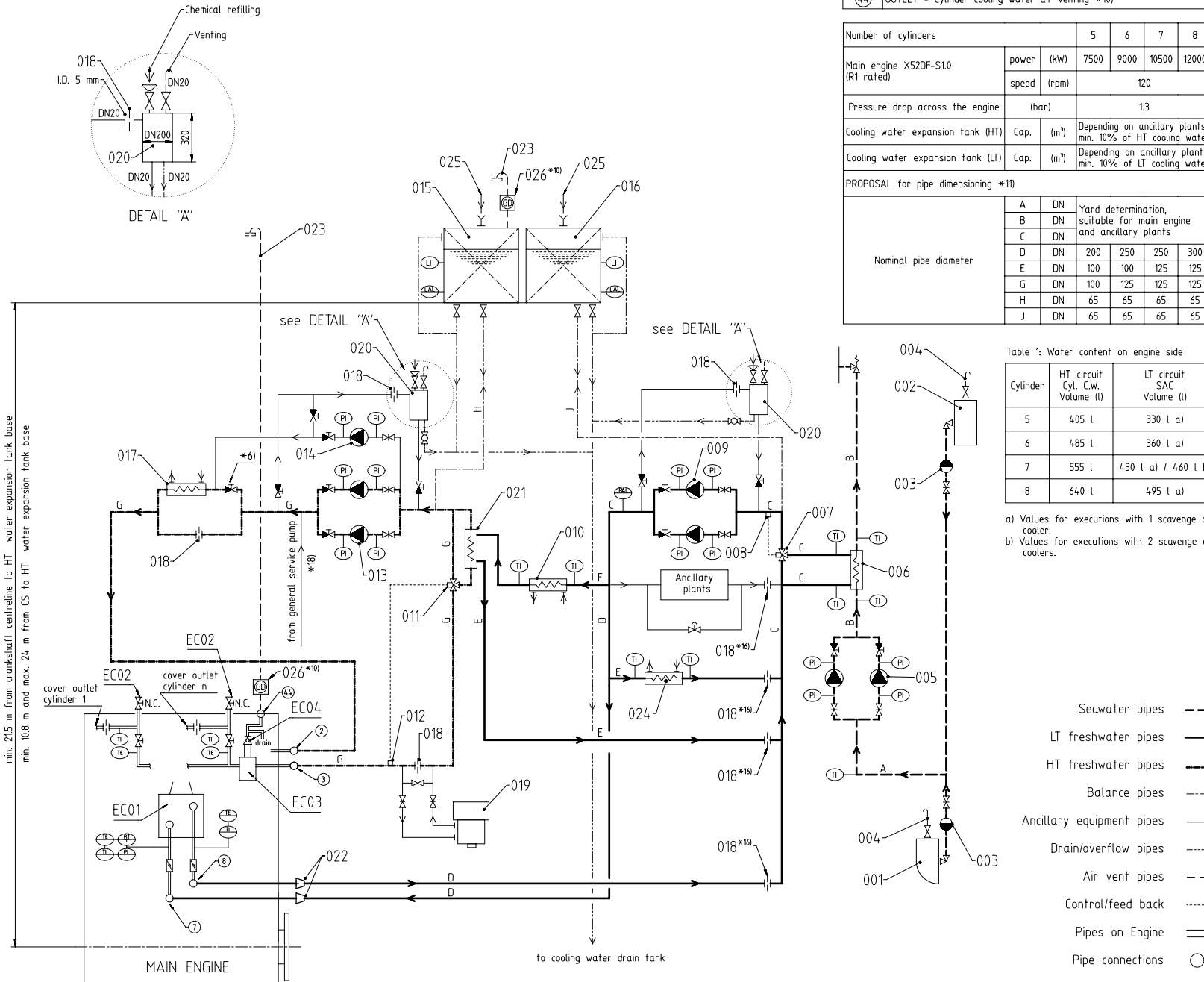
  

PROPOSAL for pipe dimensioning *11)			
	A	DN	Yard determination, suitable for main engine and ancillary plants
Nominal pipe diameter	B	DN	
	C	DN	
	D	DN	200 250 250 300
	E	DN	100 100 125 125
	G	DN	100 125 125 125
	H	DN	65 65 65 65
	J	DN	65 65 65 65

Table 1: Water content on engine side

Cylinder	HT circuit Cyl. C.W. Volume (l)	LT circuit SAC Volume (l)
5	405 l	330 l a)
6	485 l	360 l a)
7	555 l	430 l a) / 460 l b)
8	640 l	495 l a)

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



- 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 appropriate pipe diameter. Rating specific flow rates are provided by GTD.
  - \*13) A constant temperature at engine (SAC) inlet must be maintained. Required controller set-point for main engine operation is 25 °C. If the ancillary plants require a temperature lower or greater than the LT water set-point, a separate water supply system with different temperature set-point has to be installed (please refer to the 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.

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	○

Rev.	Number	Drawn date	Number	Drawn date	Number	Drawn date	Number	Drawn date
0								

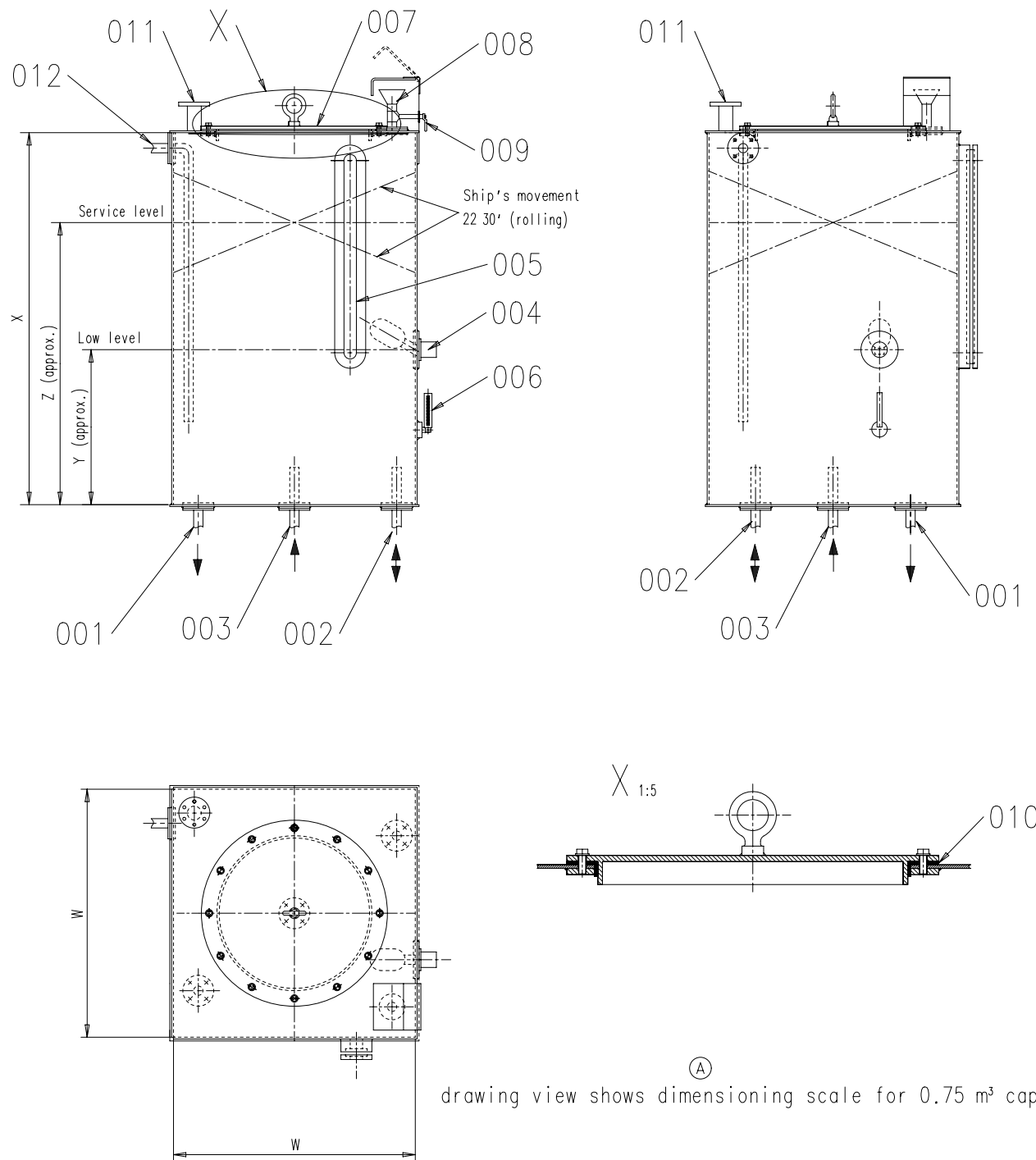
  

Q-Code	XXXXXX	Main Drw.
Standard	ISO; JS	

Product	5-BX52DF-S1.0	Project	CENTRAL COOLING WATER SYSTEM
HT static-pressure	EXP tank	Product	Zentralkuehlwassersystem

Units	mm kg	NX	Basic Material	Scale	-	Size	A1	Page	2/2	Material	PAAD380403	Net Weight	0,001
SURFACE PROTECTION	SEE GROUP 0344	Made	19.04.2021	dkr021	DH, Kim	Scale	-	Size	A1	Page	2/2	Material	PAAD380403
TOLERANCING PRINCIPLE	ISO8015	Chd	23.04.2021	jit101	Pickup	Design Group		Drawing ID	DAAD142895	Rev.	-		
GENERAL TOLERANCES	ACCORDING TO ISO2768-mK	Appd	23.04.2021	mtu019	Hug	9721		DAAD142895					



(A) drawing view shows dimensioning scale for 0.75 m<sup>3</sup> capacity

Pos.	Description
001	Drain from HT circuit
002	Balance pipe from HT circuit
(A) 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: (A)

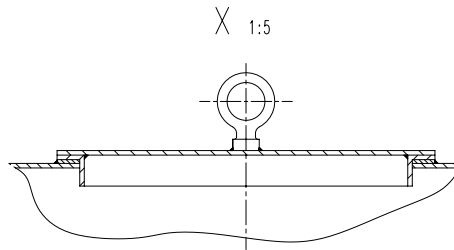
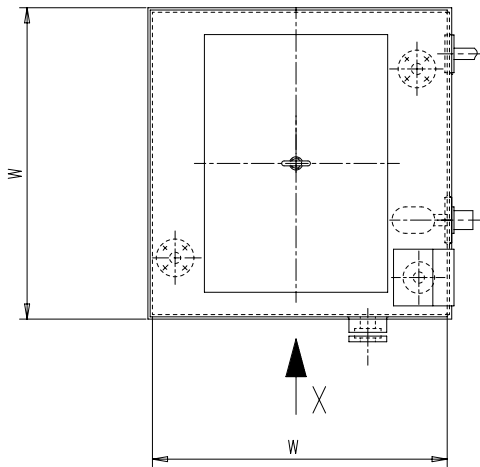
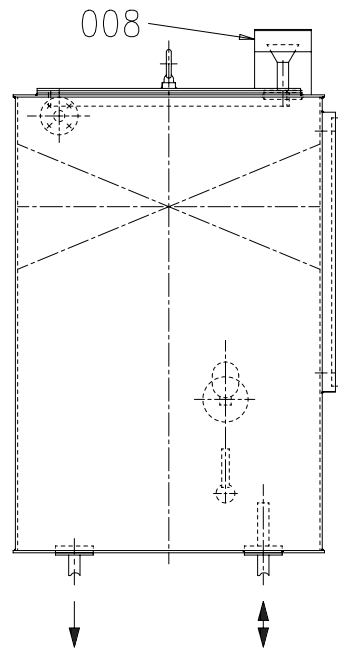
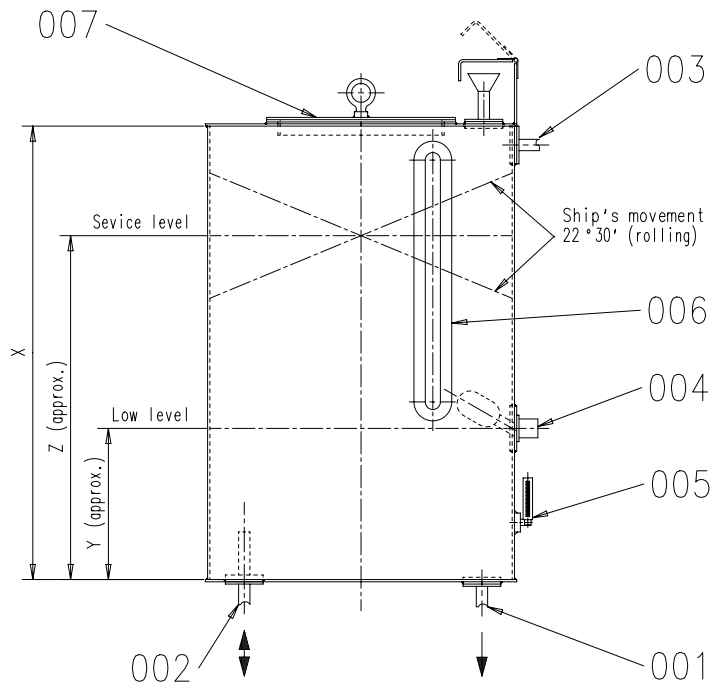
- \*1) Level indicator can be omitted if an alternative is fitted.
- \*2) Other gas tight solutions are also possible.
- \*3) Has to be closed always after treatment.
- \*4) Any instrumentation installed in the system has to be certified explosion proof apparatus.
- \*5) This connection is only needed 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 <sup>3</sup> )	(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

Free space for file	Q-Code XXXXX				Main Drw.
	Standard ISO; JIS				
Modif.	(A) EAAD091567	15.11.2019			
	Number	Drawn date	Number	Drawn date	Number
Product		EXPANSION TANK			
W-2S		CENTRAL COOLING WATER HT CIRCUIT			
WIN GD		Ausgleichstank			
Winterthur Gas & Diesel		Zentralkuehlwassersystem HT circuit			
Units	mm kg	NX	Basic Material	Net Weight 0,001	
Made	07.07.2014	mhu019	M.Hug	Scale	1:10
TOLERANCING PRINCIPLE	ISO8015	Chkd	08.08.2014	bha009	Haag
GENERAL TOLERANCES ACCORDING TO	ISO2768-mK	Appd	08.08.2014	bha009	Haag
Size		A2	Page	1/1	Material ID
Drawing ID		9721	DAAD052664		PAAD166922
					Rev.
					A



Drawn for 0.75 m<sup>3</sup> capacity

Pos.	Description (D)
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 ( m <sup>3</sup> )	W ( mm )	X ( mm )	Y ( mm )	Z ( 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

Free space for file	Q-Code				Main Drw.		
	XXXXXX						
Modif.	Standard				ISO; JIS		
	ISO; JIS						
EAAD014356	16.06.1997	B7-37.090	16.08.2007	EAAD083145	25.01.2012	EAAD091029	12.09.2019
Number	Drawn date	Number	Drawn date	Number	Drawn date	Number	Drawn date

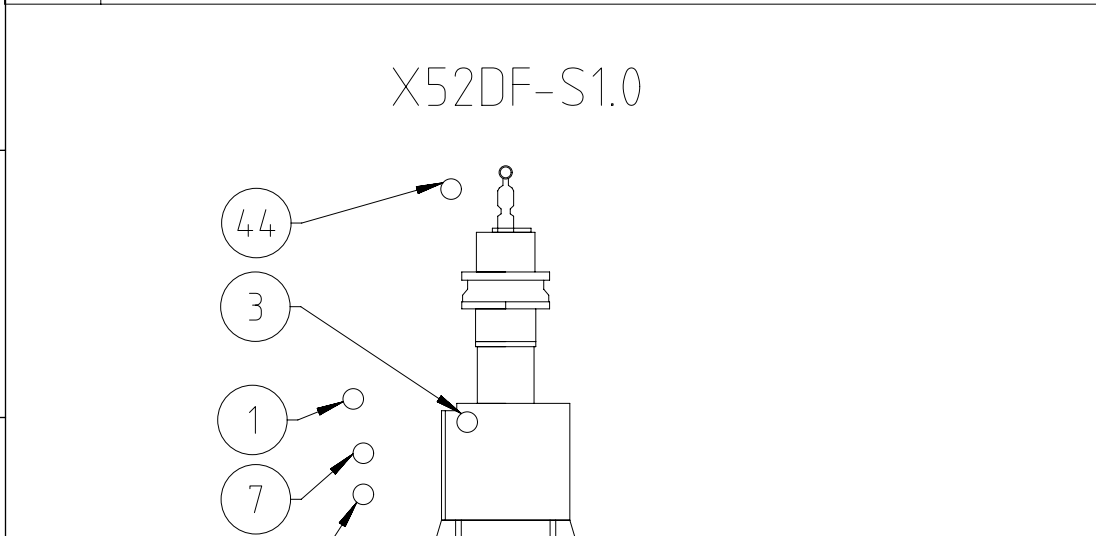

**W-2S**  
**EXPANSION TANK**  
**CENTRAL COOLING WATER LT CIRCUIT**  
**Ausgleichstank**  
**Zentralkuehlwassersystem LT**

Units	mm kg	NX	Basic Material	Net Weight	0,001
SURFACE PROTECTION SEE GROUP 0344	Made	11.06.1997	T.LANDERT	Scale	1:10
TOLERANCING PRINCIPLE ISO8015	Chkd			Size	A2
GENERAL TOLERANCES ACCORDING TO ISO2768-mK	Appd	11.06.1997	WCH001 Service User	Page	1/1
				Material ID	107.245.419.500
				Drawing ID	107.245.419
				Rev.	D

# 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.

- 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.

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	
QTY	SEQ NO	Material ID	Material Name	Dimension, Occ	Standard or Drawing	Basic Material Material Standard	Weight GR./NET

Free space for lic.						Q-Code	Main Drw.
						XXXXXX	
						Standard	
						ISO; JIS	

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

Product 5-8X52DF-S1.0

**CENTRAL COOLING WATER SYSTEM**  
HT\_static-pressure: Buffer-unit  
Zentralkuehlwassersystem

Units	mm kg	NX		Basic Material	Net Weight 0,001
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SURFACE PROTECTION SEE GROUP 0344	Made	20.04.2021 dki021 DH.Kim	Scale	-	Size	A3	Page	1/2	Material ID	PAAD380454
TOLERANCING PRINCIPLE ISO8015	Chkd	23.04.2021 jpi101 Pickup	Design Group	9721	Drawing ID	DAAD142917	Rev.	-		
GENERAL TOLERANCES ACCORDING TO ISO2768-mK	Appd	23.04.2021 mhu019 Hug								

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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	405 l	330 l a)
6	485 l	360 l a)
7	555 l	430 l a) / 460 l b)
8	640 l	495 l a)

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)

Pos. SYSTEM COMPONENTS \*1)

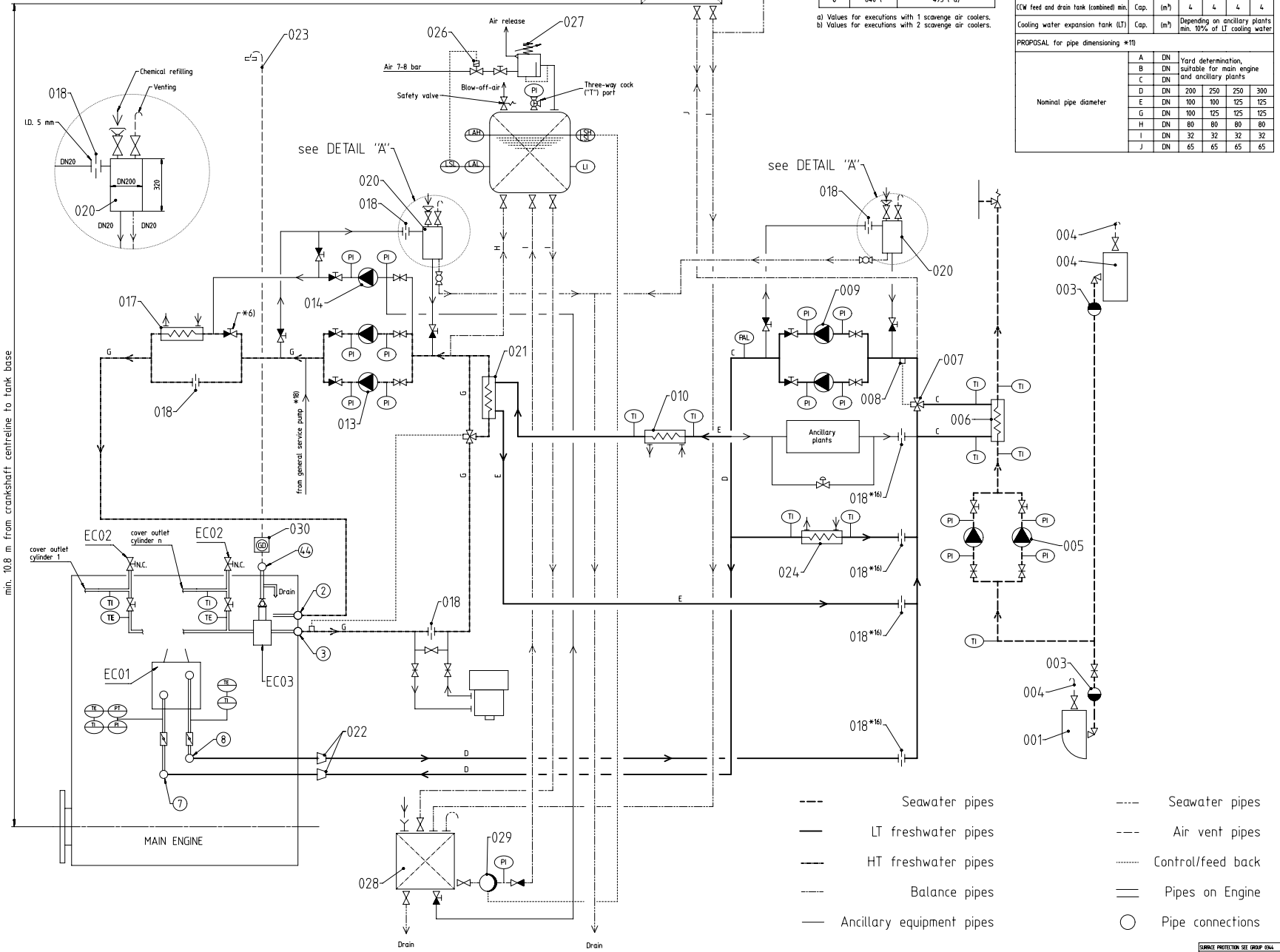
001	Low sea chest
002	High sea chest
003	Seawater strainer
004	Air vent (air vent pipe or equal venting system acc. to shipyard's design)
005	Seawater circulating pump
006	Central cooler (LT cooling water)
007	Automatic temperature control valve for LT circuit *13)
008	LT water temperature sensor *13)
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	MDDMGO 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)
028	Cylinder cooling water feed & drain tank (or feed tank only)
029	Supply pump, automatic level control (0.5 m <sup>3</sup> /h at 4bar)
030	Gas detector *10)

Number of cylinders

		5	6	7	8
Main engine XS2DF-S1.0	power (kW)	7500	9000	10500	12000
	speed (rpm)	120			
Buffer unit for HT circuit	Cap. (m <sup>3</sup> )	0.8	0.8	0.8	0.8
Cylinder cooling water feed tank only min.	Cap. (m <sup>3</sup> )	1.5	1.5	1.5	1.5
CW feed and drain tank (combined) min.	Cap. (m <sup>3</sup> )	4	4	4	4
Cooling water expansion tank (LT)	Cap. (m <sup>3</sup> )	Depending on ancillary plants min. 10% of LT cooling water			

PROPOSAL for pipe dimensioning \*10)

	A	B	C	D	E	F	G	H	I	J
DN	200	250	250	300	100	100	125	125	80	80
DN	100	100	100	125	125	125	80	80	80	80
DN	100	125	125	125	125	125	80	80	80	80
DN	32	32	32	32	32	32	32	32	32	32
DN	65	65	65	65	65	65	65	65	65	65

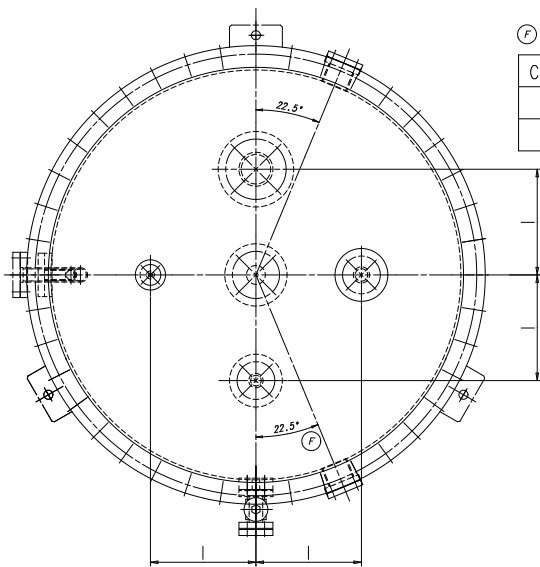
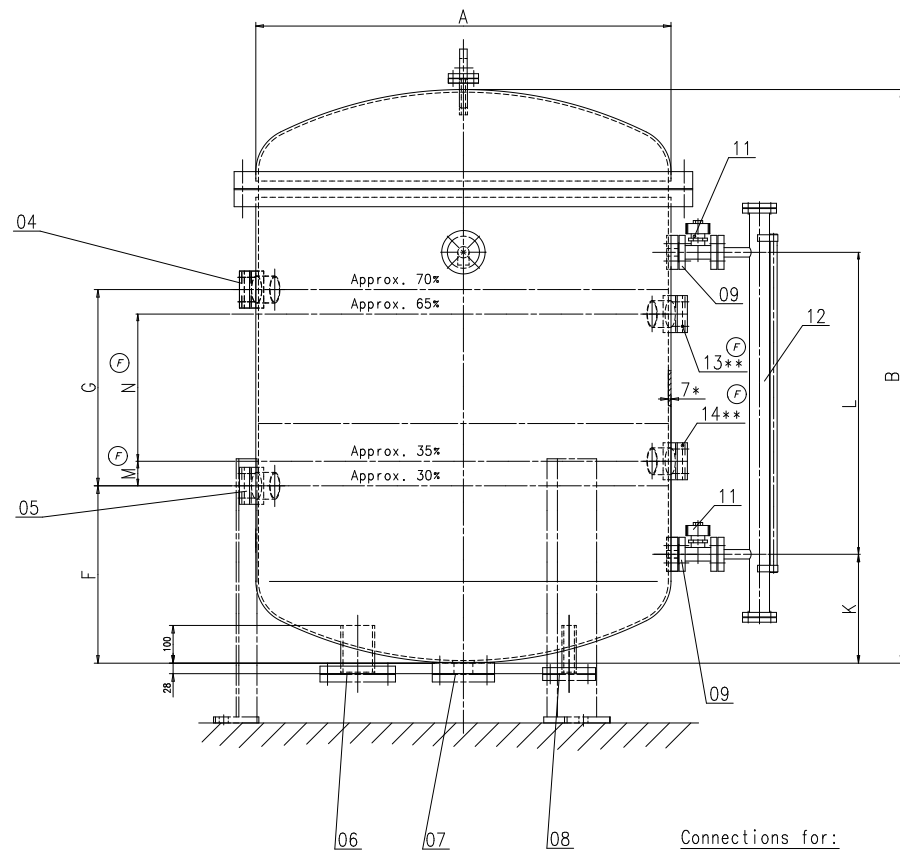
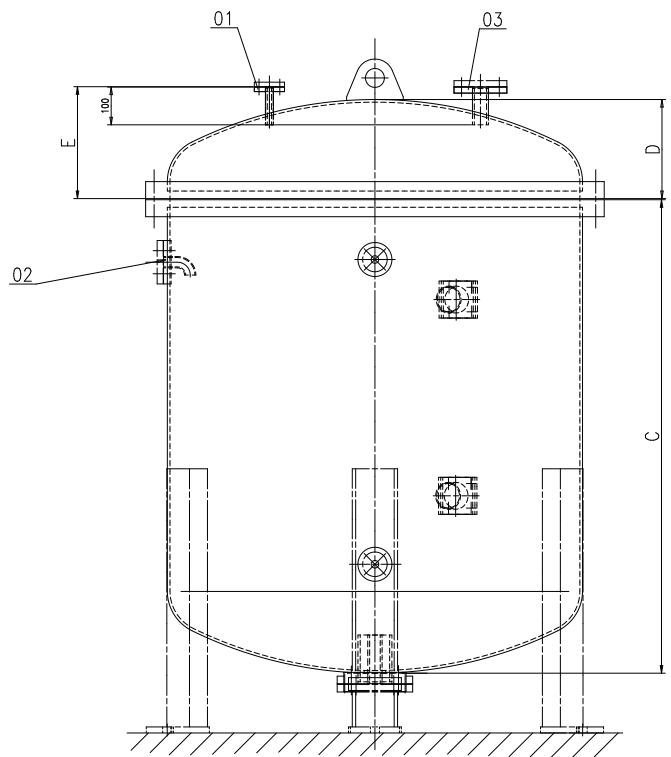


- Remarks:
- Air vent and drain pipes not shown on drawing. Shall be installed where required.
  - Air vent and drain pipes must be fully functional at all inclination angles of the ship at which the engine must be operational.
  - \*1) To be installed by the shipyard.
  - \*2) Refer to the "Pipe Connection 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 appropriate pipe diameter. Rating specific flow rates are provided by GIB.
  - \*12) If the selected control air valve does not have the infreated air release functionality a separate air release valve can be installed as alternative on the top of the buffer unit.
  - \*13) A constant temperature at engine (SAC) inlet must be maintained. Required controller set-point for main engine operations is 25 °C. If the ancillary plants require a temperature lower or greater than the LT water set-point, a separate water supply system with different temperature set-point has to be installed (please refer to the system proposal in M/M).
  - \*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.
  - \*19) To be considered if requested by class rules for emergency engine cooling.

- Seawater pipes
- Seawater pipes
- LT freshwater pipes
- Air vent pipes
- HT freshwater pipes
- ..... Control/feed back
- Balance pipes
- == Pipes on Engine
- Ancillary equipment pipes
- Pipe connections

WINGED logo and project information:

DATE: 20.04.2021  
 DRAWING NO: 04021  
 PROJECT: CENTRAL COOLING WATER SYSTEM  
 SHEET: 1/2  
 SCALE: 1:10  
 DRAWN BY: [Signature]  
 CHECKED BY: [Signature]  
 APPROVED BY: [Signature]



Capacity	A	B	C	D	E	F	G	H	I	K	L	M	N
800l	ø900	1430	1205	222	250	455	520	600	250	250	800	65	390
1200l	ø1100	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 \*\*

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.

Drawn for 1200l capacity

1-41.644.105.03.2000 (L) (A) (B) (C) (D) (E) (F) (G) (H) (I) (J) (K) (L) (M) (N) (O) (P) (Q) (R) (S) (T) (U) (V) (W) (X) (Y) (Z)		14.08.2012 (E) (F) (G) (H) (I) (J) (K) (L) (M) (N) (O) (P) (Q) (R) (S) (T) (U) (V) (W) (X) (Y) (Z)	107.245.626.500
107.245.626.500	107.245.626.500	107.245.626.500	107.245.626.500
SURFACE PROTECTION SEE GROUP 0344		Scale: 1:5	No. Weight: 0.001
TOLERANCING PER EN ISO 2768		Date: 22.08.20	Drawn date: 107.245.626.500
GENERAL TOLERANCES ACCORDING TO ISO 2768-MS		Dev. Group: 3721	Date: 107.245.626

WIN GO  
 BUFFER TO CYL. COOLING WATER SYS  
 Puffer



## MIDS - WinGD X52DF-S1.0 – Cooling Water System (DG9721)

### TRACK CHANGES

DATE	SUBJECT	DESCRIPTION
2021-05-10	DRAWING SET	First web upload

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