| NetWeight |
|---|
| 0,001 |

| Quantity PER ENGINE | SEQ NO | Material ID | Material Name / Dimension, Occ | Standard or Drawing | Basic Material / Material Standard | Weight GR./NET |
|---|---|---|---|---|---|---|
| 1 | 001 | PAAD367981 | LEAKAGE COLLECTION/WASHING SYS. | DAAD136604 | | 0,001 |

| MaterialID | Free space for lic. | Q-Code | Main Drw. |
|---|---|---|---|
| PAAD367983 | | XXXXX | H |
| | | Standard: ISO; JIS | |

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

WIN GD Winterthur Gas & Diesel

Product: 6-12X92DF

LEAKAGE COLLECTION/WASHING SYS.

LEAKAGE COLLECTION/WASHING SYS.

| Units | mm kg | NX | Basic Material | Net Weight |
|---|---|---|---|---|

| | | | | | | |
|---|---|---|---|---|---|---|
| SURFACE PROTECTION SEE GROUP 0344 | Made | 27.10.2020 Sudant Deogade | Scale – | Size A3 | Page 1/1 | Material ID |
| TOLERANCING PRINCIPLE ISO8015 | Chkd | 26.04.2021 jpi101 Pickup | Design Group 9724 | Drawing ID DAAD136605 | | Rev. – |
| GENERAL TOLERANCES ACCORDING TO ISO2768-mK | Appd | 26.04.2021 mhu019 Hug | | | | |

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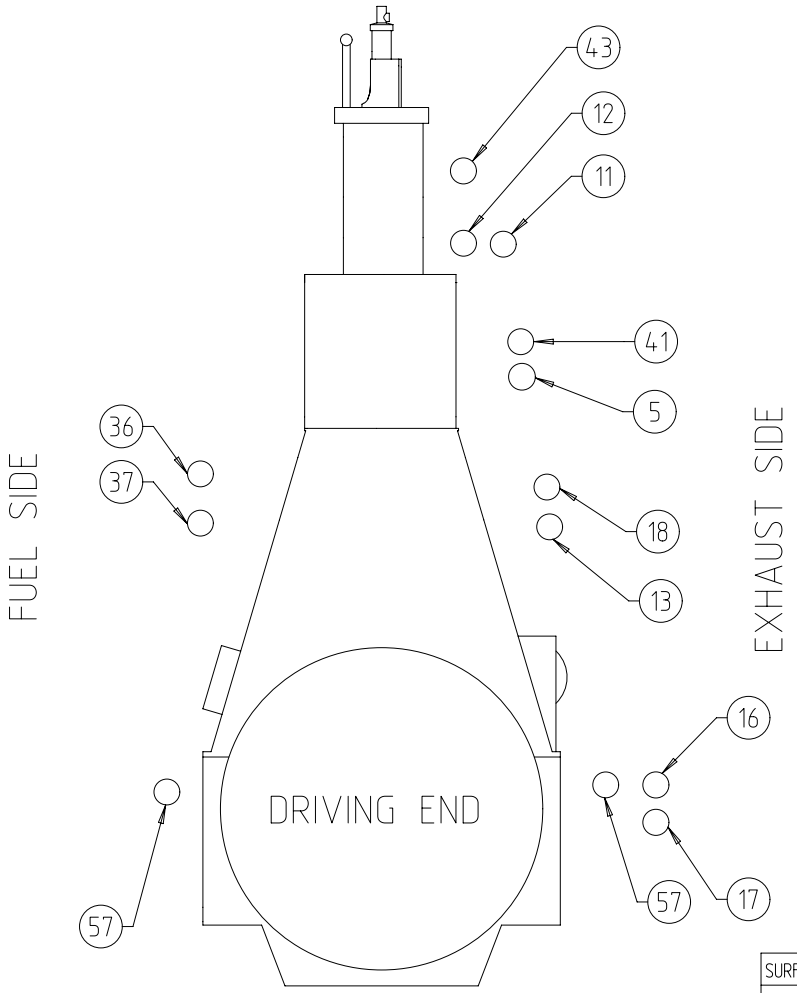
# SPECIFICATION which must be met

| | |
|---|---|
| (41) | OUTLET - Venting crankcase<br>- Venting to funnel<br>- Must not be connected to other venting pipes. |
| (43) | OUTLET - Venting turbocharger<br>- Venting to funnel<br>- Minimum inclination according to TC suppliers specification.<br>- Must not be connected to other venting pipes. |
| (57) | OUTLET - Various leakages<br>- Gravity flow to sludge tank or appropriate tank. |
| (5) | OUTLET - Cylinder cooling water drain.<br>- Gravity flow to cooling water drain tank or appropriate tank. |
| (11) | INLET - Washing water SAC<br>- From fresh water hydrophore system, supply pressure: 2.5 bar |
| (12) | INLET - Air for cleaning plants TC and SAC<br>- Working air, supply pressure: 7-9 bar |
| (13) | OUTLET - Oily water from scavenge air receiver<br>- Gravity flow to oily water tank or appropriate tank. |
| (16) | OUTLET - SAC condensate water<br>- Gravity flow to bilge water tank or appropriate tank. |
| (17) | OUTLET - Washing water from scavenge air coller.<br>- Gravity flow to bilge water or chemical cleaning tank. |
| (18) | OUTLET - SAC venting<br>- Free flow outside of engine room. |
| (36) | OUTLET - Dirty oil piston underside<br>- Flow with SAC pressure to sludge oil trap or appropriate arrangement.<br>- Min. inclination of drain pipe: 15° |
| (37) | OUTLET - Leakage oil gland box<br>- Gravity flow to sludge tank or appropriate tank. |

X92DF




| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1 | 001 | 107.425.369.500 | SLUDGE OIL TRAP | | 107.425.369 | | 0,001 |
| QTY | SEQ NO | Material ID | Material Name<br>Dimension, Occ | | Standard or Drawing | Basic Material<br>Material Standard | Weight GR./NET |
| Free space for lic. | | | | | | Q-Code: XXXXX<br>Standard: ISO; JIS | Main Drw. |
| Modif. | Number | Drawn date | Number | Drawn date | Number | Drawn date | Number | Drawn date |

Approved

WIN GD Winterthur Gas & Diesel

Product: 6-12X92DF

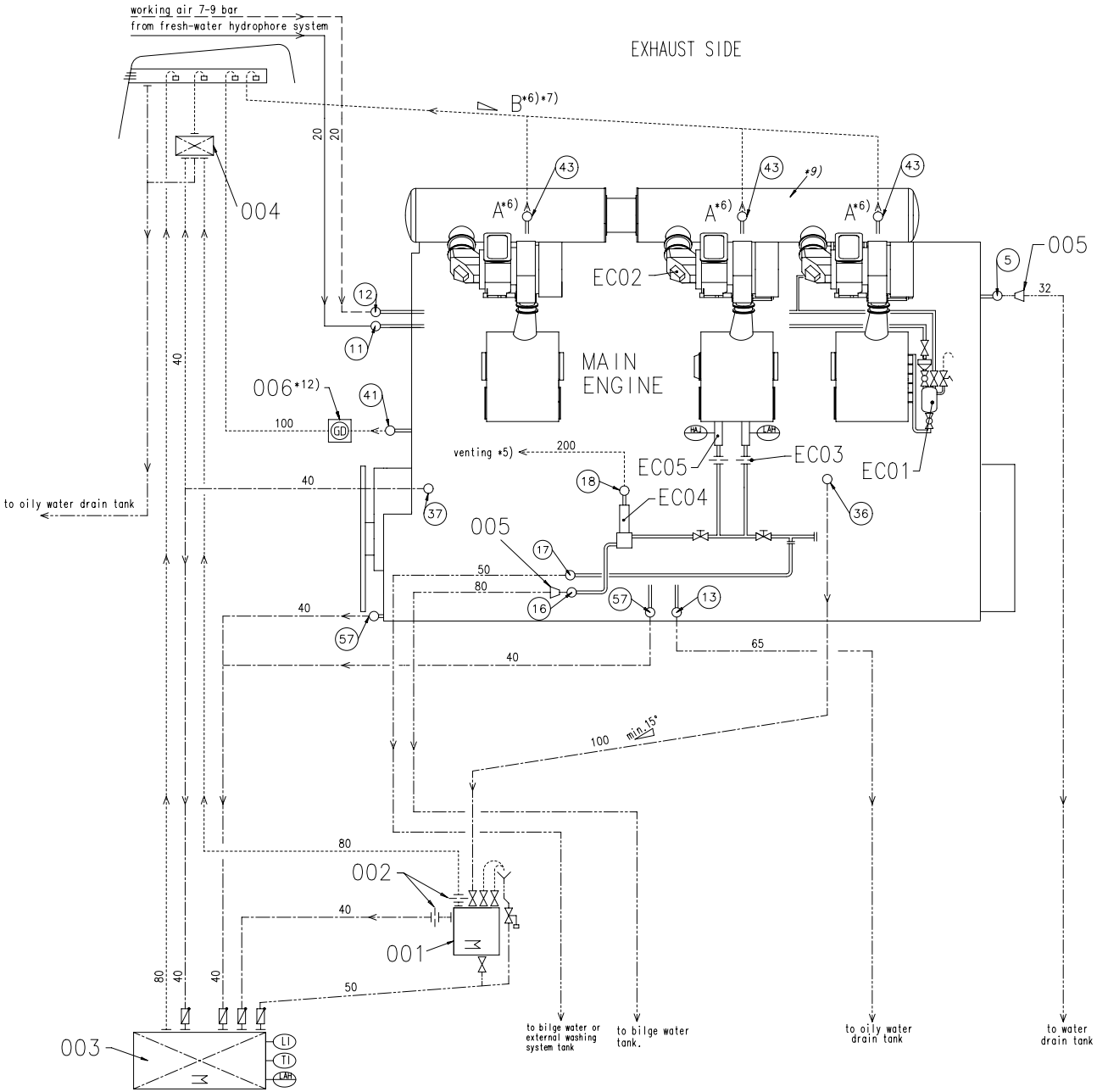
LEAKAGE COLLECTION/WASHING SYS.
SYSTEM DIAGRAM

LEAKAGE COLLECTION/WASHING SYS.

| | | | | | |
|---|---|---|---|---|---|
| Units mm kg | NX | | Basic Material | | Net Weight 0,001 |
| SURFACE PROTECTION SEE GROUP 0344 | Made | 27.10.2020 Sudant Deogade | Scale - | Size A3 | Page 1/2 | Material ID PAAD367981 |
| TOLERANCING PRINCIPLE ISO8015 | Chkd | 26.04.2021 jpi101 Pickup | Design Group 9724 | Drawing ID DAAD136604 | Rev. - |
| GENERAL TOLERANCES ACCORDING TO ISO2768-mK | Appd | 26.04.2021 mhu019 Hug | | | |

DID - DIMENSIONAL DRAWING - Confidential

# SYSTEM PROPOSAL




| Turbocharger type | A*7) | B*8) | Min. Inclination |
|---|---|---|---|
| 2x A175 | 65 | 100 | ≥ 5° |
| 2x A180 | 80 | 100 | ≥ 5° |
| 2x A185 | 80 | 125 | ≥ 5° |
| 2x A190 | 80 | 125 | ≥ 5° |
| 2x A275 | 65 | 100 | ≥ 5° |
| 2x A280 | 80 | 100 | ≥ 5° |
| 2x A285 | 80 | 125 | ≥ 5° |
| 3x A175 | 65 | 125 | ≥ 5° |
| 3x A180 | 80 | 125 | ≥ 5° |
| 3x A185 | 80 | 150 | ≥ 5° |
| 3x A190 | 80 | 150 | ≥ 5° |
| 3x A275 | 65 | 125 | ≥ 5° |
| 3x A280 | 80 | 125 | ≥ 5° |
| 3x A285 | 80 | 150 | ≥ 5° |
| 2x MET66MB | 80 | 100 | ≥ 3° |
| 2x MET71MB | 80 | 100 | ≥ 3° |
| 2x MET83MB | 100 | 125 | ≥ 3° |
| 2x MET90MB | 100 | 125 | ≥ 3° |
| 3x MET66MB | 80 | 125 | ≥ 3° |
| 3x MET71MB | 80 | 125 | ≥ 3° |
| 3x MET83MB | 100 | 150 | ≥ 3° |
| 3x MET90MB | 100 | 150 | ≥ 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 approriate tank |
| 004 | Air vent manifold |
| 005 | Transition piece (adaptor) *10) |
| 006 | Gas detector *12) |

| Pos. | ENGINE CONNECTIONS *2) |
|---|---|
| 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 *11) |
| 16 | OUTLET - SAC condensate water *4) *11) |
| 17 | OUTLET - Washing water from scavenge air coller |
| 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 |

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) Manifold pipe for 2 TC

*10) Installed as required (check with the pipe connection plan).

*11) Drain connections 13 and 16 include 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.

*12) Optional, if requested by the flag state and/or class to achieve IGC compliance.

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

Free space for ...

Q-Code XXXXX
Standard ISO; JIS
Main Drw.

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

WIN GD Winterthur Gas & Diesel

Product 6-12X92DF

LEAKAGE COLLECTION/WASHING SYS.
SYSTEM DIAGRAM

LEAKAGE COLLECTION/WASHING SYS.

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

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| SURFACE PROTECTION SEE GROUP 0344 | Made | 27.10.2020 | Sudant Deogade | Scale | - | Size A1 | Page 2/2 |
| TOLERANCING PRINCIPLE ISO8015 | Chkd | 26.04.2021 | jipi101 Pickup | Design Group | 9724 | Material ID | PAAD367981 |
| GENERAL TOLERANCES ACCORDING TO ISO2768-mK | Appd | 26.04.2021 | mhu019 Hug | Drawing ID | DAAD136604 | Rev. | - |

DIN - DIMENSIONAL DRAWING - Confidential

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Remarks:

*1) Orifice to be as shown

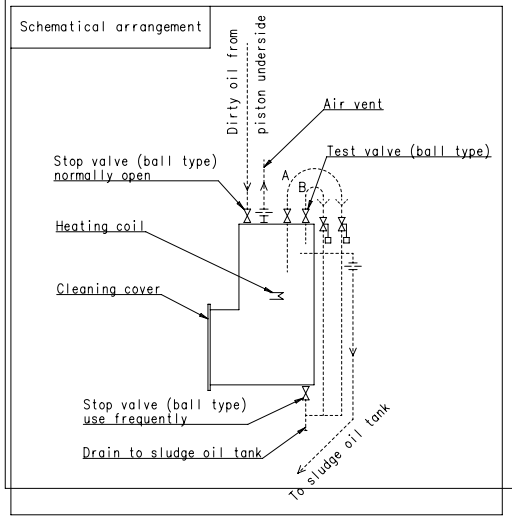
*2) Observe location of pipes with regard to each other

*3) Optional - Alternatives, such as level sensors, are possible

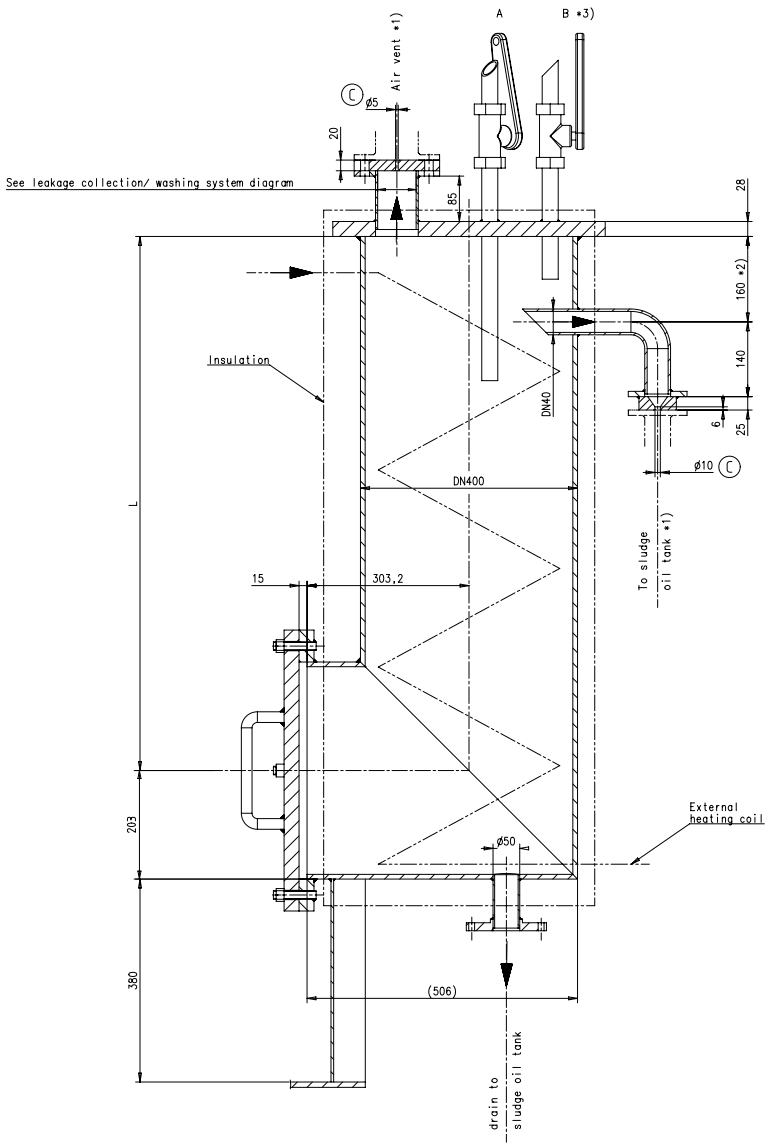
Details:

| | L = 1000 | L = 550 |
|---|---|---|
| Cylinder bore size: | 55-96 | 35-54 |
| Capacity: | 150 l | 100 l |
| Working pressure: | 4 bar | |
| Testing pressure: | 6 bar | |
| Temperatur: | 80°C | |

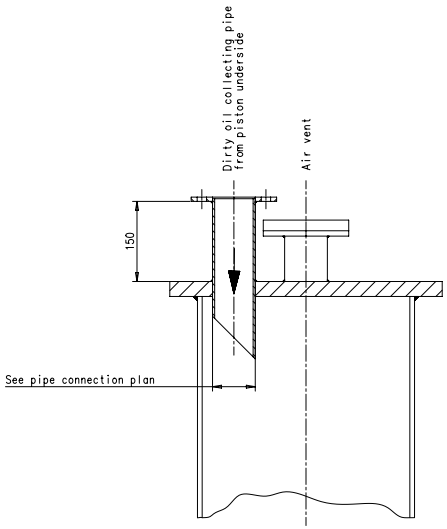
Schematical arrangement

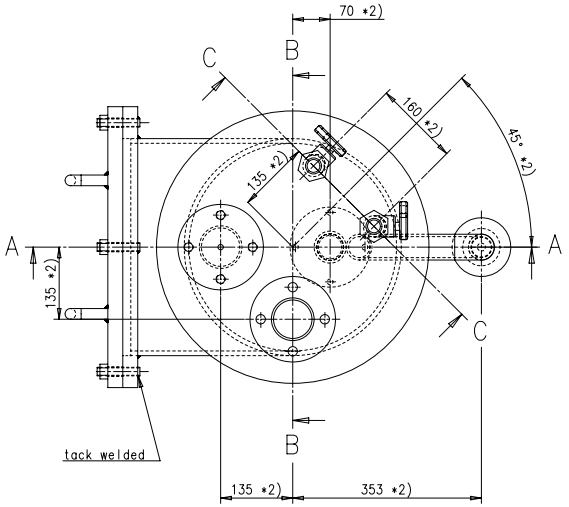



A-A




B-B 90°




C-C 45°

A:

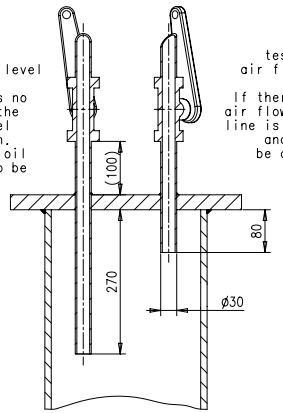
Test valve sludge oil level

If there is no oil flow, the sludge level is too high. The sludge oil trap has to be cleaned!

B:

test valve air flow *3)

If there is no air flow, drain line is blocked and has to be cleaned!




| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Free space for lic. | | | | | | | | | | Q-Code XXXXX | Main Drw. |
| | | | | | | | | | | Standard ISO; JIS | |
| Modif. | A | EAAD084051 | 22.01.2013 | B | EAAD087849 | 14.07.2017 | C | EAAD089439 | 12.07.2018 | | |
| | Number | | Drawn date | Number | | Drawn date | Number | | Drawn date | Number | Drawn date |

WINGD Winterthur Gas & Diesel

Product W-2S

SLUDGE OIL TRAP

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Units mm kg | NX | Basic Material | | | | | | Net Weight 0.001 | |
| SURFACE PROTECTION SEE GROUP 0344 | Made | 31.08.2009 | J.BAUMANN | Scale | 1:5 | Size | A1 | Page | 1/1 |
| TOLERANCING PRINCIPLE ISO8015 | Chkd | | | Design Group | 9724 | Drawing ID | 107.425.369 | Rev. | C |
| GENERAL TOLERANCES ACCORDING TO ISO2768-mK | Appd | 13.11.2009 | JBA029 Baumann | | | | | Material ID | 107.425.369.500 |

# MIDS WinGD- X92DF LEAKAGE-COLLECTION and WASHING-SYSTEM (DG9724)

## TRACK CHANGES

| DATE | SUBJECT | DESCRIPTION |
|---|---|---|
| 2021-05-04 | DRAWING SET | First web upload |



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