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

Available executions

Execution No.	Material ID	Cylinder No.	Attribute 1: Alignment tool type	
			SCREWS	WEDGES
1	PAAD378499	5		X
2	PAAD378510	5	X	
3	PTAA046335	6	X	
4	PTAA046369	6		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.

Prod.: X72DF-1.2, X72DF-2.2

Change History

Rev.	Creator	Approver	Approval Date	Change ID	Change Synopsis	Activity Code	E	C
A	sde101				Drawing Updated			
-	dki021	dst009	06.12.2021	CNAA001106	new Design		-	-

WINGD Winterthur Gas & Diesel

TOOL ENGINE ALIGNMENT

MIDS master drawing

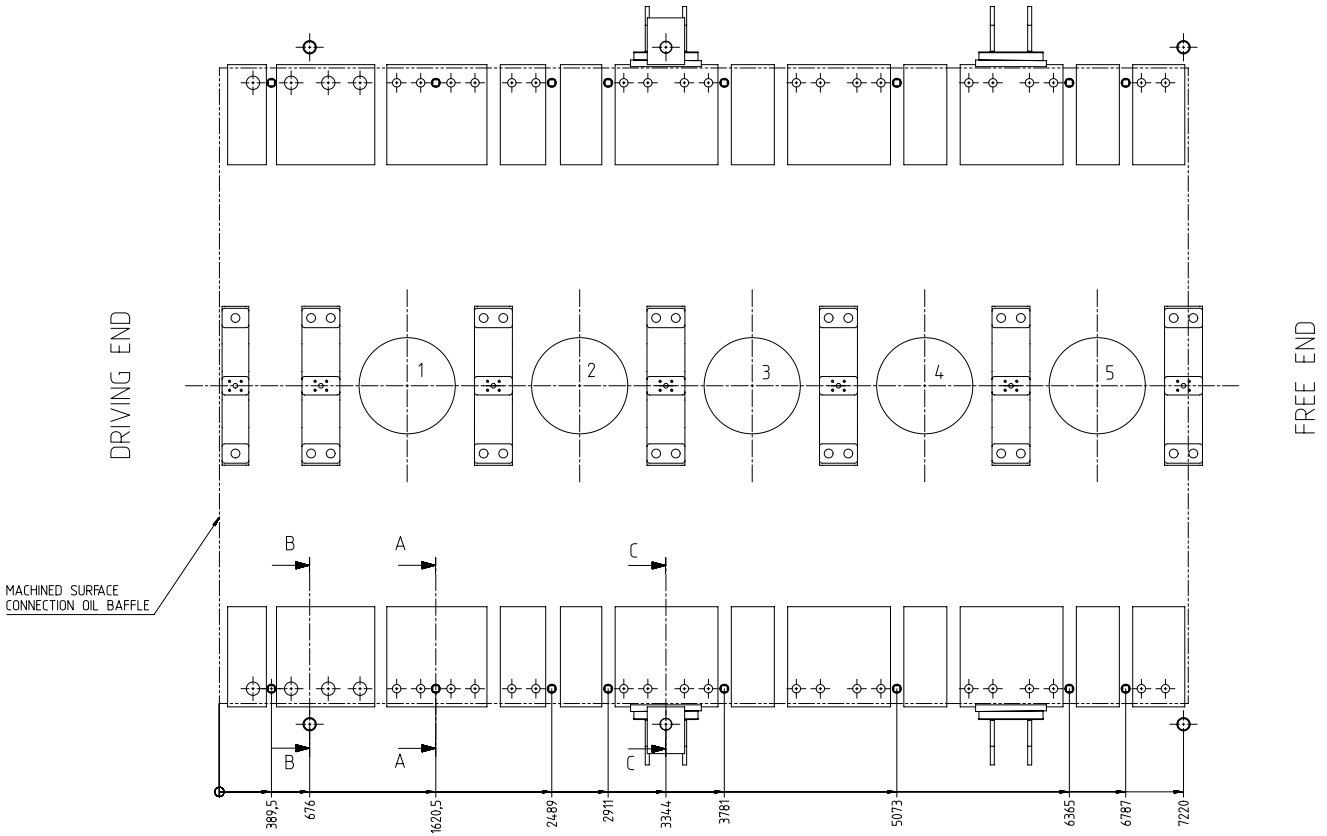
separate BOM available

Dimension

Scale	Units	Basic Material	Net Weight
- NX	[mm] [kg]		0.001

Main Design	Design Group	Q-Code	Standard
	9710-01	XXXXX	WDS

Qty per	Item ID	Drawing Page/s
A4	PTAA020662	1/1



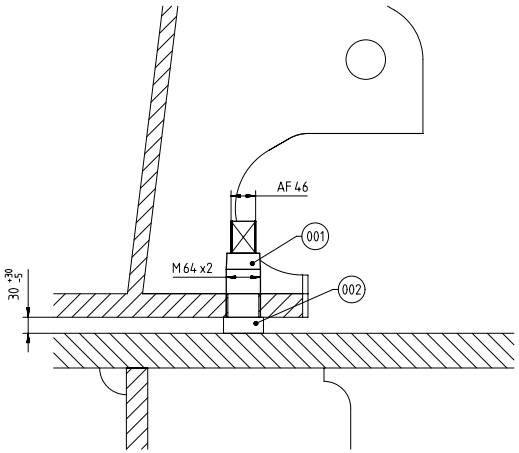
CAUTION

Risk:
Tool and/or bedplate damage

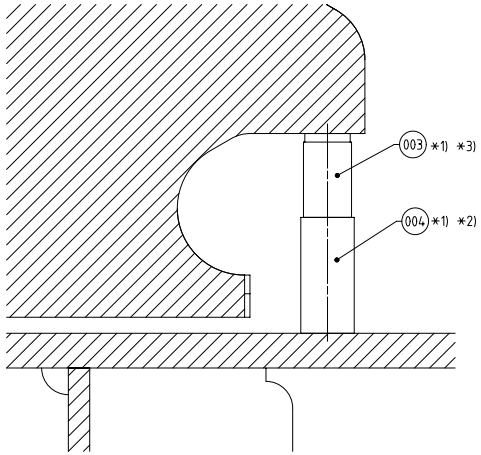
Countermeasure:
Avoid overloading of jacking screws and/or bedplate areas by observing the appropriate engine alignment/ assembly procedure as follows:

- Lift the engine into the engine room and place it on levelled , temporary blocks, underneath the bedplate beside the jacking screws.
- Screw in all jacking screws until touching the foundation top plate (the full number of jacking screws must be used)
- Apply hydraulic jacks to the protruding bedplate ribs nearby the jacking screws as indicated in the drawing.
- Remove the temporary blocks by slightly lifting the engine with the hydraulic jacks.
- Start with the engine alignment by means of jacking screws. Before turning a jacking screw, reduce its load by use of the hydraulic jacks. Any height adjustment must be performed in small steps - no more than 1 mm per step (equals to 1/2 screw turn, based on 2 mm thread pitch). Changes in height larger than the maximum allowance (1 mm) require a gradual process where all jacking screws are successively adjusted in stages, to ensure the best possible load distribution.

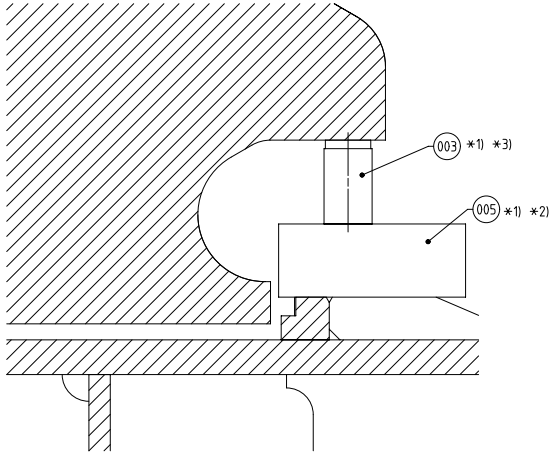
SECTION A-A ↻ 90°
SCALE 1:5



SECTION B-B ↻ 90°
SCALE 1:5



SECTION C-C ↻ 90°
SCALE 1:5



Remarks

*1) To be provided by the shipyard.
*2) Height depending on the requirement (chock thickness in correlation with maximum permissible extension of the hydraulic jack).
*3) Hydraulic jack proposal
Type: Enerpac RCS-1002
Load at 700 bar: 880 kN

Net Weight							
75							
2	005	PAAD318479	SUPPORT PLATE				
4	004	PAAD318480	SUPPORT BLOCK				
6	003	PAAD318478	HYDRAULIC JACK				
2	002	PAAD103306	SPONGE RUBBER RING	DAAD032482			0,001
16	001	PAAD109518	JACKING SCREW	DAAD034398	W-FU-235-N-T		4,64
Quantity PER ENGINE	SEQ NO	Material ID	Material Name Dimension, Occ	Standard or Drawing	Basic Material Material Standard		Weight GR/NET

PAAD378510 — Material ID — Free space for Ic. — Modif. — Q-Code XXXXX — Standard ISO; JIS — Main Drw. H

Number	Drawn date	Number	Drawn date	Number	Drawn date	Number	Drawn date

WIN GD Winterthur Gas & Diesel

Product
W5X72DF-1.2
W5X72DF-2.2

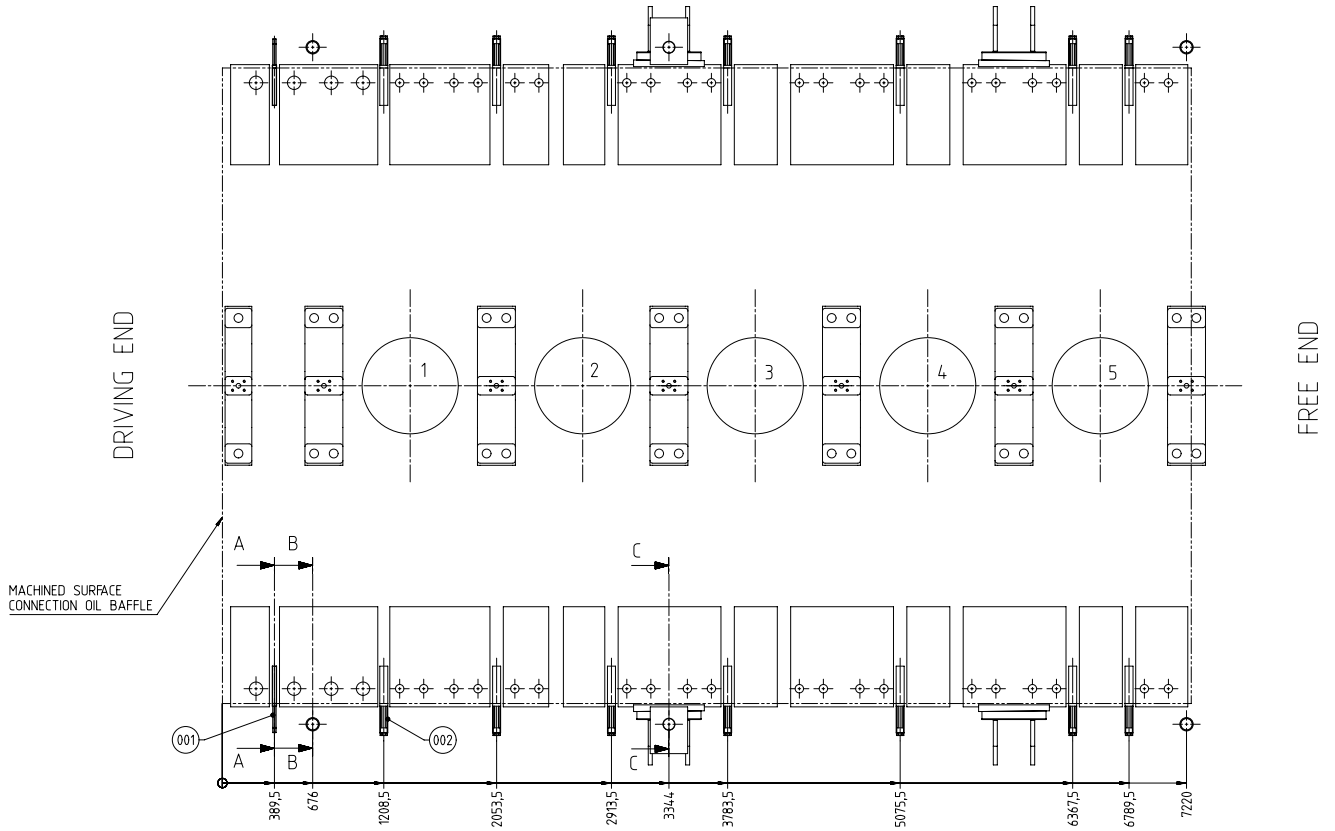
TOOL ENGINE ALIGNMENT
Alignment with: Jacking screws
Werkzeug Motorausrichtung

Units mm kg | NX | Basic Material | Net Weight

SURFACE PROTECTION SEE GROUP 0344	Made	05.04.2021	dki021	DH.Kim	Scale 1:20	Size A1	Page 1/1	Material ID
TOLERANCING PRINCIPLE ISO8015	Chkd	16.04.2021	mhu019	Hug	Design Group 9710-01	Drawing ID DAAD141922		Rev. –
GENERAL TOLERANCES ACCORDING TO ISO2768-mK	Appd	16.04.2021	dst009	Strödecke				

ID - DIMENSIONAL DRAWING - Confidential

Approved



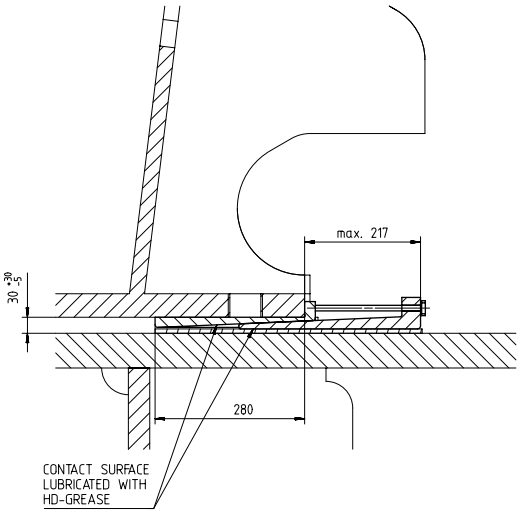
CAUTION

Risk:
Tool and/or bedplate damage

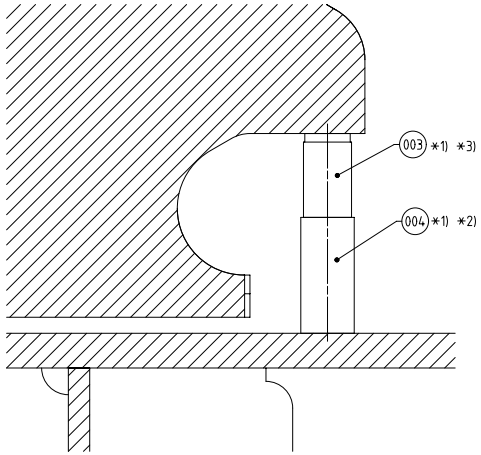
Countermeasure:
Avoid overloading of bedplate areas by observing the appropriate engine alignment/assembly procedure as follows:

- Insert wedges and/or shims in all indicated positions.
- Lift the engine into the engine room and place it on levelled wedges and/or shims (wedges or shims must be inserted as deep as possible below the bedplate to ensure that the support point is as close as possible at the engine monoblock column).
- Apply hydraulic jacks to the protruding bedplate ribs nearby the relevant wedge and/or shim as indicated in the drawing.
- Start with the engine alignment by means of wedges and/or shims. Before adjusting the height of wedges and/or shims lift the engine by the hydraulic jacks. Any height adjustment must be performed in small steps - no more than 1 mm per step. Changes in height larger than the maximum allowance (1mm) require a gradual process where all wedges and/or shims are successively adjusted in stages, to ensure the best possible load distribution.

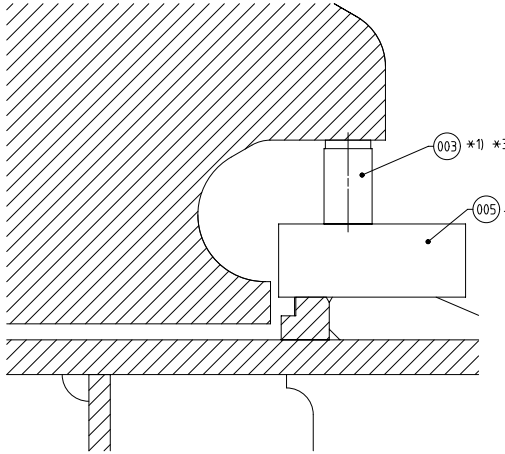
SECTION A-A ↻ 90°
SCALE 1:5



SECTION B-B ↻ 90°
SCALE 1:5



SECTION C-C ↻ 90°
SCALE 1:5



Remarks

*1) To be provided by the shipyard.
*2) Height depending on the requirement (chock thickness in correlation with maximum permissible extension of the hydraulic jack).
*3) Hydraulic jack proposal
Type: Enerpac RCS-1002
Load at 700 bar: 880 kN

Net Weight						
126						
2	005	PAAD318479	SUPPORT PLATE			
4	004	PAAD318480	SUPPORT BLOCK			
6	003	PAAD318478	HYDRAULIC JACK			
14	002	107.245.895.200	WEDGE	107.245.895		8,51
2	001	107.424.346.200	WEDGE NARROW TYPE	107.424.346		3,36
Quantity PER ENGINE	SEQ NO	Material ID	Material Name / Dimension, Occ	Standard or Drawing	Basic Material / Material Standard	Weight GR/NET
PAAD378499	Modif. / Free space for Ic.				Q-Code XXXXX / Standard ISO; JIS	Main Drw. H

Material	Number	Drawn date	Number	Drawn date	Number	Drawn date	Number	Drawn date

WIN GD Winterthur Gas & Diesel

Product: W5X72DF-1.2, W5X72DF-2.2

TOOL ENGINE ALIGNMENT

Werkzeug Motorausrichtung

Units	mm kg	NX	Basic Material	Net Weight
SURFACE PROTECTION SEE GROUP 0344	Made	05.04.2021	dki021	DH.Kim
TOLERANCING PRINCIPLE ISO8015	Chkd	16.04.2021	mhu019	Hug
GENERAL TOLERANCES ACCORDING TO ISO2768-mK	Appd	16.04.2021	dst009	Strödecke

Scale 1:20 | Size A1 | Page 1/1 | Material ID | Design Group 9710-01 | Drawing ID DAAD141907 | Rev. –

3D - DIMENSIONAL DRAWING - Confidential

SEQ NO	QTY	Item ID	Item Name Dimension	Standard-ID	Basic Material	Net Weight
001	16	PAAD109518	JACKING SCREW		W-FU-235-N-T	4.64
002	10	PAAD103306	SPONGE RUBBER RING			0.001
003	4	PAAD318478	HYDRAULIC JACK			
004	4	PAAD318480	SUPPORT BLOCK			

Prod.			
	6 X72DF-1.2 6 X72DF-2.2		

Change History

Rev.	Creator	Approver	Approval Date	Change ID	Change Synopsis	Activity Code	E	C
-	rth101	mhu019	18.10.2022	CNAA002635	Main Design/Drawing Introduced Approved		-	-

WIN GD
Winterthur Gas & Diesel

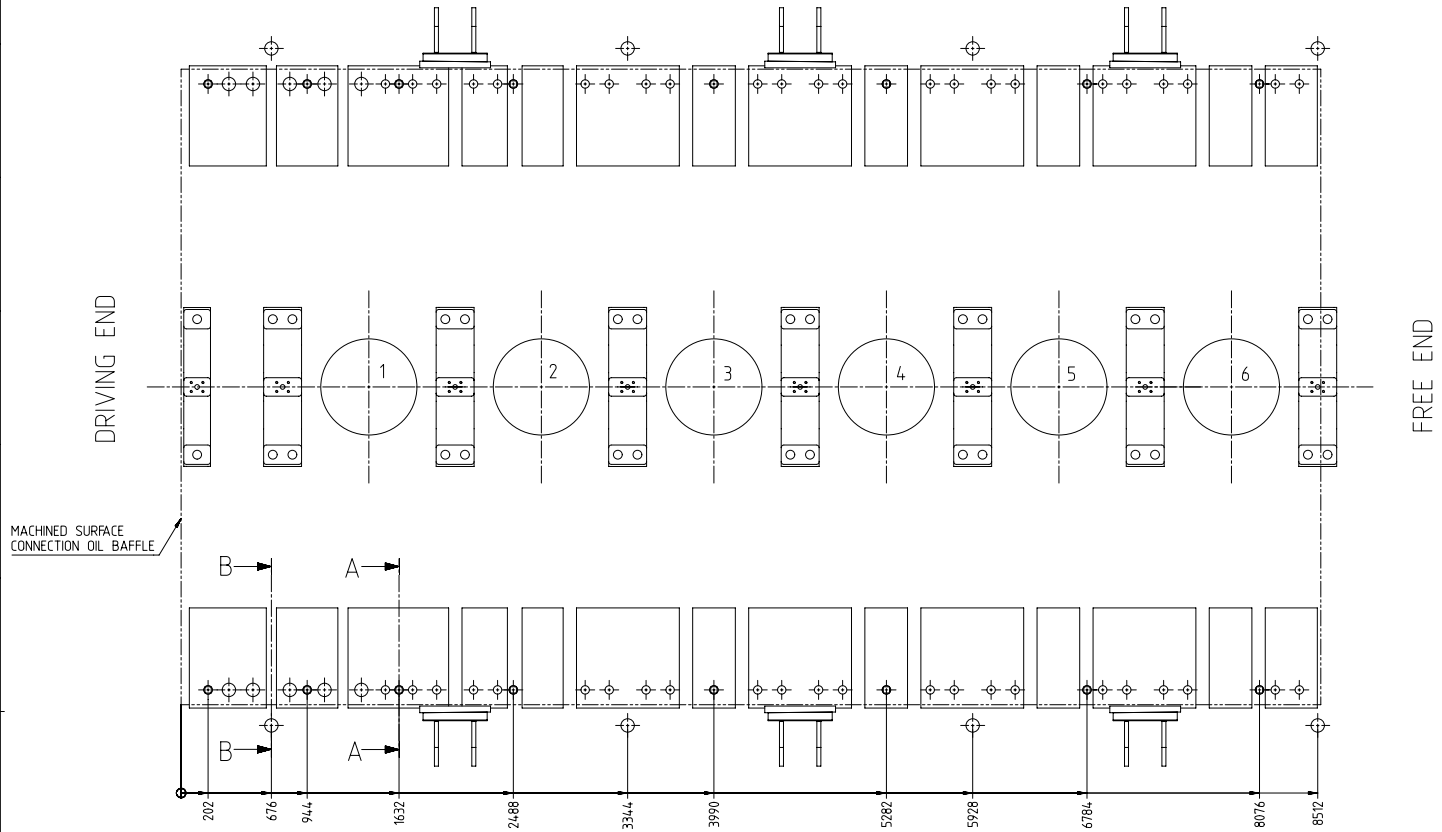
TOOL ENGINE ALIGNMENT

ALLIGNMENT WITH JACKING SCREWS

Bill Of Material

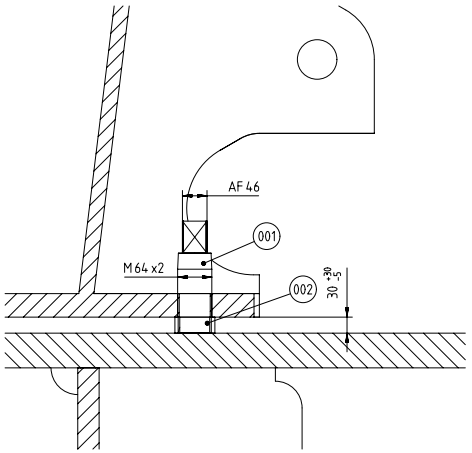
Dimension

Units	[m] [kg]	Basic Material				Net Weight	74
Main Design	Yes	Design Group	9710-01	Q-Code	XXXXX	Standard	WDS
Qty per	Engine	A4	Item ID	PTAA046335		BOM Page/s	01/01



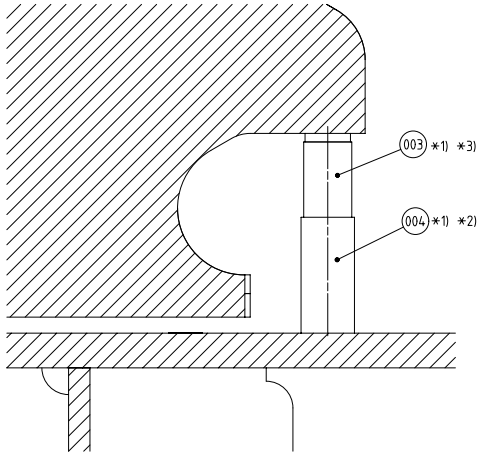
SECTION A-A ⟲ 90°

SCALE 1:5



SECTION B-B ⟲ 90°

SCALE 1:5



CAUTION

Risk:
Tool and/or bedplate damage

Countermeasure:
Avoid overloading of jacking screws and/or bedplate areas by observing the appropriate engine alignment/ assembly procedure as follows:

- Lift the engine into the engine room and place it on levelled , temporary blocks, underneath the bedplate beside the jacking screws.
- Screw in all jacking screws until touching the foundation top plate (the full number of jacking screws must be used)
- Apply hydraulic jacks to the protruding bedplate ribs nearby the jacking screws as indicated in the drawing.
- Remove the temporary blocks by slightly lifting the engine with the hydraulic jacks.
- Start with the engine alignment by means of jacking screws. Before turning a jacking screw, reduce its load by use of the hydraulic jacks. Any height adjustment must be performed in small steps - no more than 1 mm per step (equals to 1/2 screw turn, based on 2 mm thread pitch). Changes in height larger than the maximum allowance (1 mm) require a gradual process where all jacking screws are successively adjusted in stages, to ensure the best possible load distribution.

Remarks

*1) To be provided by the shipyard.
*2) Height depending on the requirement (chock thickness in correlation with maximum permissible extension of the hydraulic jack).
*3) Hydraulic jack proposal
Type: Enerpac RCS-1002
Load at 700 bar: 880 kN

Rev.	Creator	Approver	Approval Date	Change ID	Change Synopsis	Activity Code	E	C
-	rth101	mhu039	18.10.2022	CNAA002635	Main Design/Drawing Introduced		-	-

Applic.: 6X72DF-1.2, 6X72DF-2.2

WIN GD Winterthur Gas & Diesel

TOOL ENGINE ALIGNMENT
ALLIGNMENT WITH JACKING SCREWS

separate BOM available

Dimension

Scale 1:20 | NX | Units [mm] [kg] | Basic Material | Net Weight 74.00

Main Design	Yes	Design Group	9710-01	a-Code	XXXXX	Standard	WDS
Qty per	Engine	A1	Item ID	PTAA046335		Drawing Page/s	1/1

SURFACE PROTECTION SEE GROUP 0344
TOLERANCING PRINCIPLE ISO8015

SEQ NO	QTY	Item ID	Item Name Dimension	Standard-ID	Basic Material	Net Weight
1	12	107.245.895.200	WEDGE			8.51
2	2	107.424.346.200	WEDGE NARROW TYPE			3.357
3	4	PAAD318478	TOOL ENGINE ALIGNMENT			75
4	4	PAAD318480	TOOL ENGINE ALIGNMENT			75

Prod.				
	6 X72DF-1.2 6 X72DF-2.2			

Change History

Rev.	Creator	Approver	Approval Date	Change ID	Change Synopsis	Activity Code	E	C
-	sde101	mhu019	18.10.2022	CNAA002635	Main Design/Drawing Introduced Approved		-	-

WIN GD
Winterthur Gas & Diesel

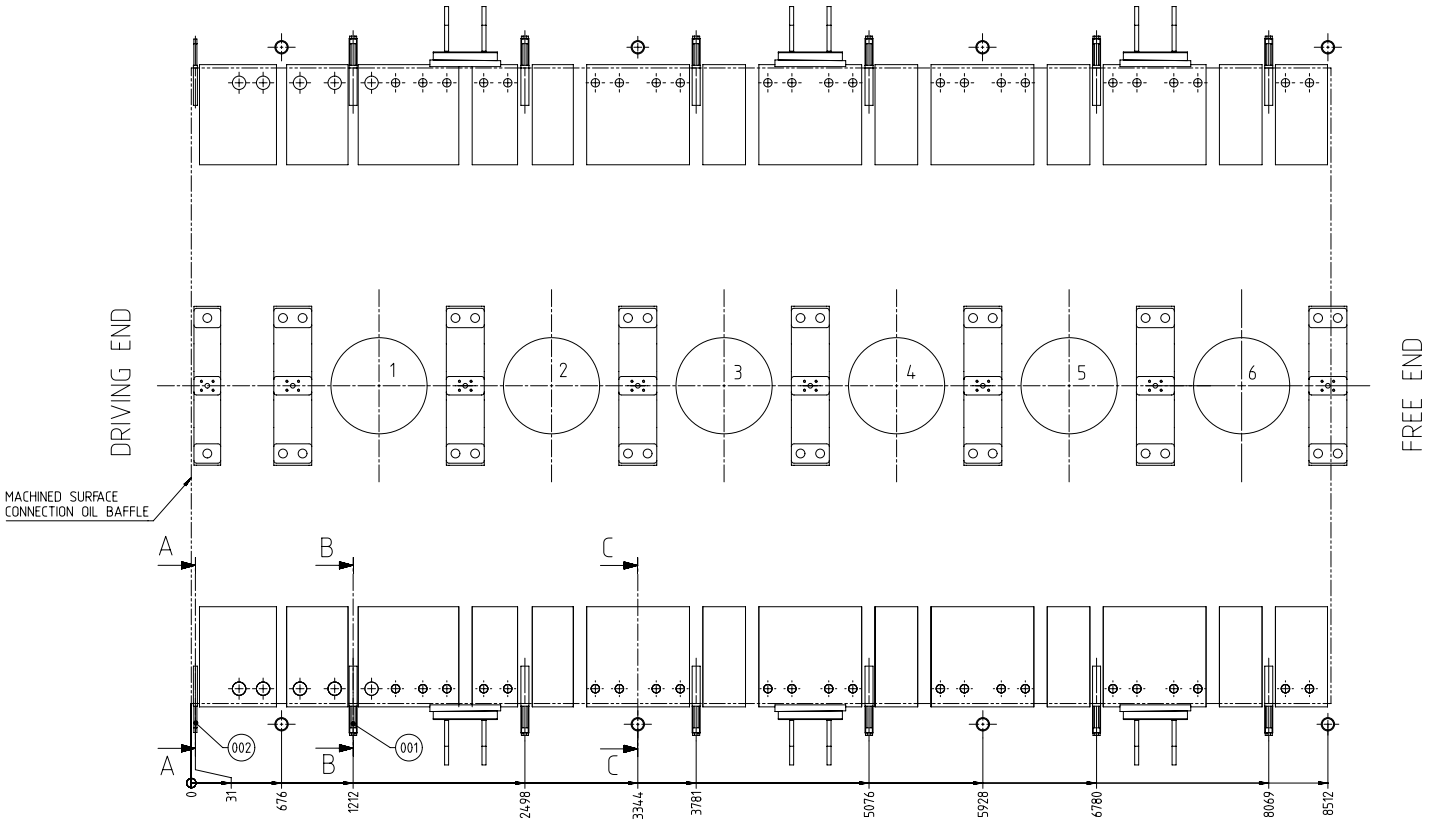
TOOL ENGINE ALIGNMENT

ALLIGNMENT WITH WEDGES

Bill Of Material

Dimension

Units	[m] [kg]	Basic Material				Net Weight	109
Main Design	Yes	Design Group	9710-01	Q-Code	XXXXX	Standard	WDS
Qty per	Engine	A4	Item ID	PTAA046369		BOM Page/s	01/01



CAUTION

Risk:
Tool and/or bedplate damage

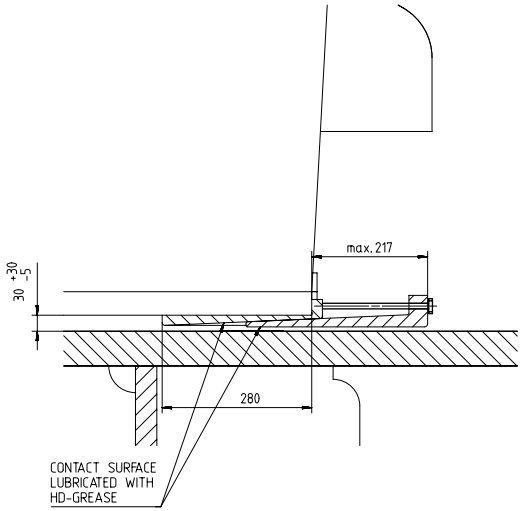
Countermeasure:
Avoid overloading of bedplate areas by observing the appropriate engine alignment/assembly procedure as follows:

- Insert wedges and/or shims in all indicated positions.
- Lift the engine into the engine room and place it on levelled wedges and/or shims (wedges or shims must be inserted as deep as possible below the bedplate to ensure that the support point is as close as possible at the engine monoblock column).
- Apply hydraulic jacks to the protruding bedplate ribs nearby the relevant wedge and/or shim as indicated in the drawing.
- Start with the engine alignment by means of wedges and/or shims. Before adjusting the height of wedges and/or shims lift the engine by the hydraulic jacks. Any height adjustment must be performed in small steps - no more than 1 mm per step. Changes in height larger than the maximum allowance (1mm) require a gradual process where all wedges and/or shims are successively adjusted in stages, to ensure the best possible load distribution.

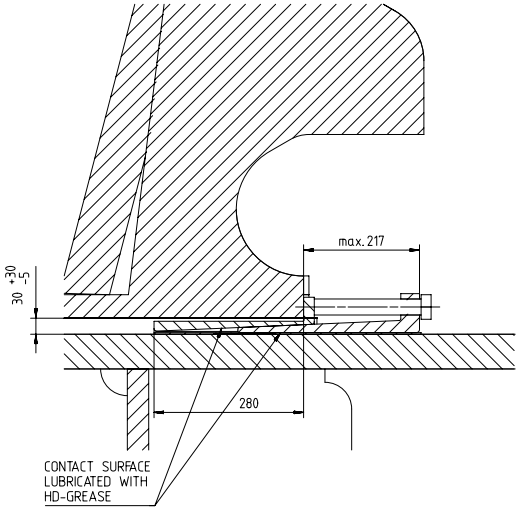
Remarks

*1) To be provided by the shipyard.
*2) Height depending on the requirement (chock thickness in correlation with maximum permissible extension of the hydraulic jack).
*3) Hydraulic jack proposal
Type: Enerpac RCS-1002
Load at 700 bar: 880 kN

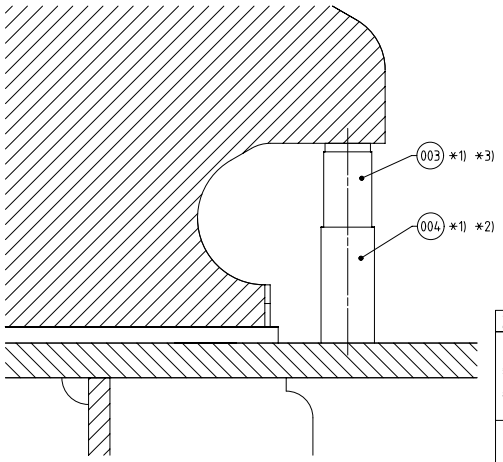
SECTION A-A ⟲ 90°
SCALE 1:5



SECTION B-B ⟲ 90°
SCALE 1:5



SECTION C-C ⟲ 90°
SCALE 1:5



Rev.	Creator	Approver	Approval Date	Change ID	Change Synopsis	Activity Code	E	C
-	sde101	mhu039	18.10.2022	CNAA002635	Main Design/Drawing Introduced	Approved	-	-

Proc: 6X72DF-1.2, 6X72DF-2.2

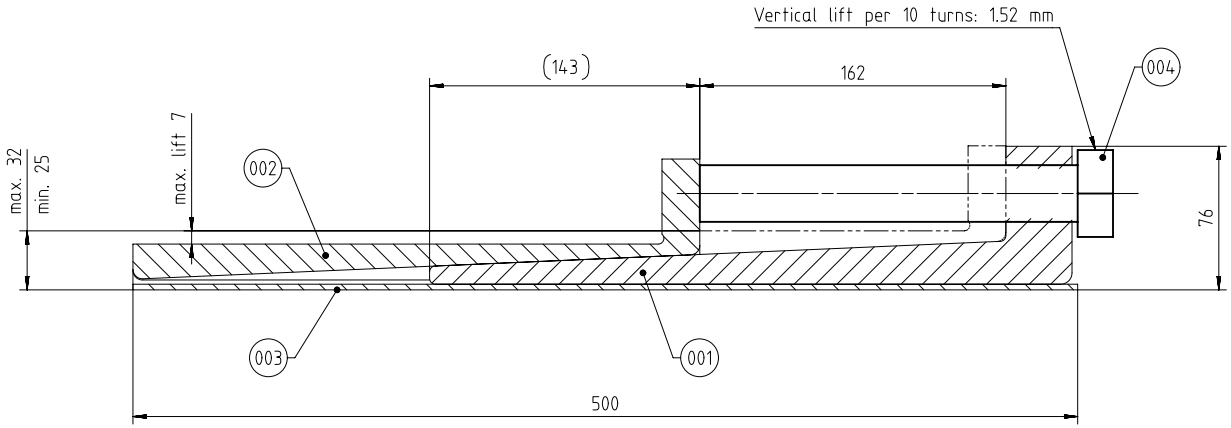
WIN GD Winterthur Gas & Diesel

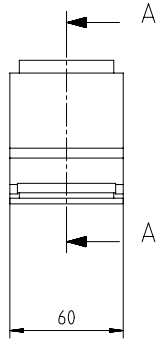
TOOL ENGINE ALIGNMENT
ALLIGNMENT WITH WEDGES

separate BOM available	Dimension				
Scale 1:20 NX	Units [mm] [kg]	Basic Material		Net Weight	109.0
Main Design Yes	Design Group 9710-01	Q-Code XXXXX		Standard	WDS
Qty per Engine	A1	Item ID PTAA046369		Drawing Page/s	1/1

SURFACE PROTECTION SEE GROUP 0344
TOLERANCING PRINCIPLE ISO8015

SECTION A-A





QTY	SEQ NO	Material ID	Material Name / Dimension, Occ	Standard or Drawing	Basic Material / Material Standard	Weight GR./NET
1	004	015.151.048.701	HEXAGON HEAD SCREW M30x200	ISO 4017	8.8	1,21
1	003	107.245.898.001	PLATE	107.245.898	W-FU-235-JR	1,0
1	002	107.246.894.001	KEY	107.246.894	W-FU-235-JR	3,0
1	001	107.246.895.001	KEY	107.246.895	W-FU-235-JR	3,3

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
B	EAAD014493	05.02.2002	C 7-73.552	19.10.2009	D EAAD084635	27.06.2013	E EAAD091472	11.11.2019

WIN GD Winterthur Gas & Diesel

Product W-2S

WEDGE

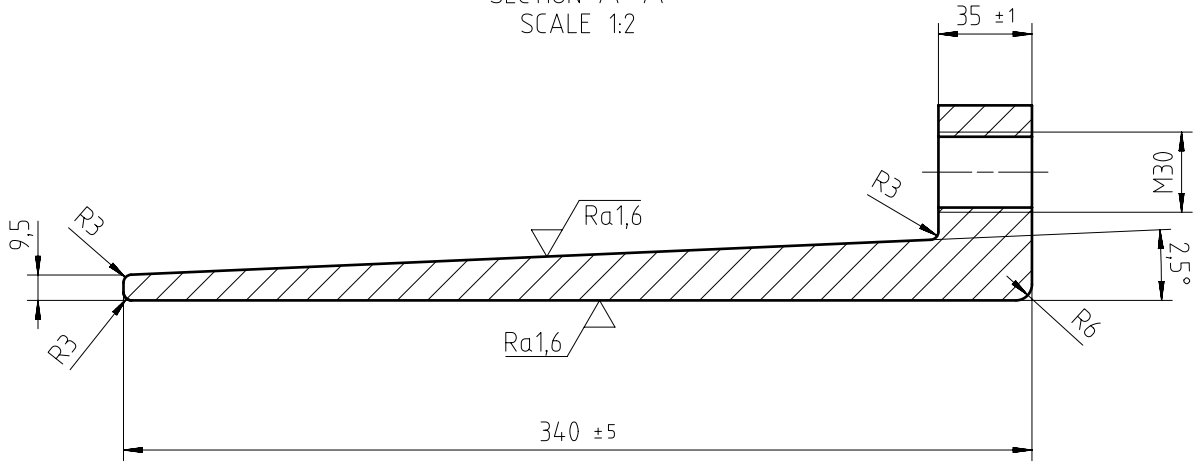
Schraeger Keil

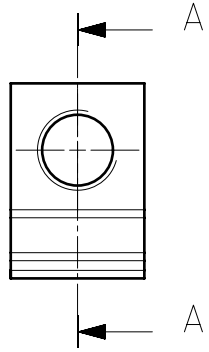
Units mm kg | NX | Basic Material | Net Weight 8,51

SURFACE PROTECTION SEE GROUP 0344	Made 10.07.1996 D.Scheffler	Scale 1:2	Size A2	Page 1/1	Material ID 107.245.895.200	
TOLERANCING PRINCIPLE ISO8015	Chkd	Design Group 9710-01	Drawing ID 107.245.895		Rev. E	
GENERAL TOLERANCES ACCORDING TO ISO2768-mK	Appd 30.08.1996 WCH001 Service User					

DID - DIMENSIONAL DRAWING - Confidential

SECTION A–A
SCALE 1:2





Ra50 (Ra1,6)

Approved

Free space for lic.									Q-Code XXXXX		Main Drw.
									Standard ISO; JIS		
Modif.	A	7-73.552	19.10.2009	B	EAAD091472	04.11.2019					
		Number	Drawn date		Number	Drawn date		Number	Drawn date		Number	Drawn date

WIN GD Winterthur Gas & Diesel

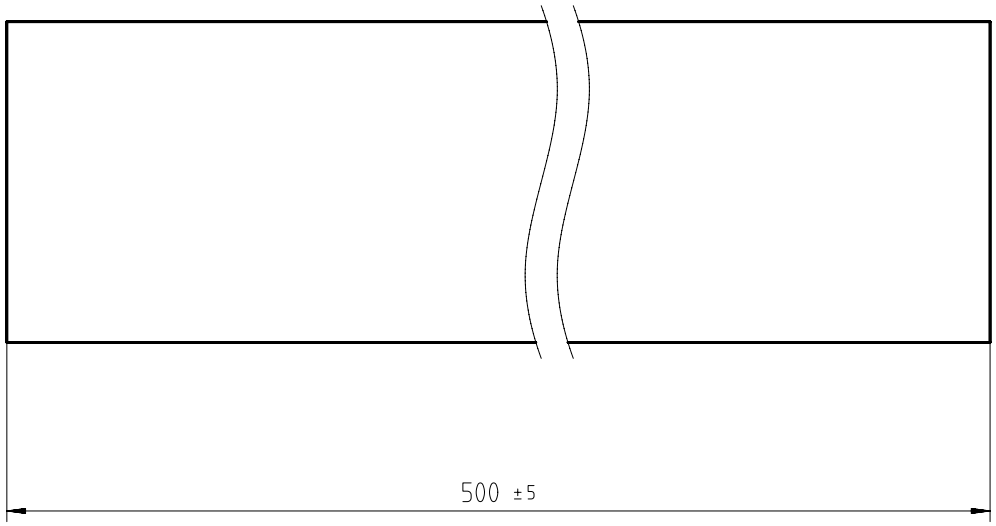
Product W-2S

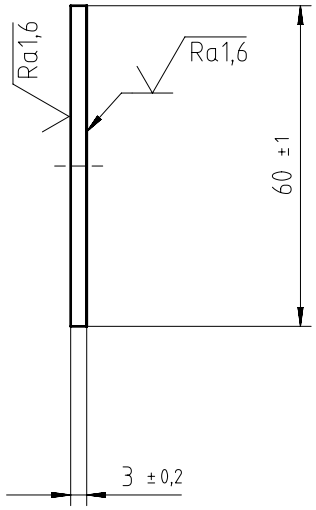
KEY

Keil

Units mm kg	NX		Basic Material W-FU-235-JR		Net Weight 3,3
SURFACE PROTECTION SEE GROUP 0344	Made 16.05.2001 D.ADMINISTRATOR		Scale 1:2	Size A3 / Page 1/1	Material ID 107.246.895.001
TOLERANCING PRINCIPLE ISO8015	Chkd		Design Group 9710-01	Drawing ID 107.246.895	Rev. B
GENERAL TOLERANCES ACCORDING TO ISO2768-mK	Appd 27.12.2001 WDMS2				

DID - DIMENSIONAL DRAWING - Confidential





Ra50 (Ra1,6)

Approved

Free space for lic.								Q-Code XXXXX		Main Drw.	
								Standard ISO; JIS			
Modif.	A	EAAD014305	11.09.1996	B	EAAD091472	05.11.2019					
		Number	Drawn date		Number	Drawn date		Number	Drawn date		

WIN GD Winterthur Gas & Diesel

Product W-2S

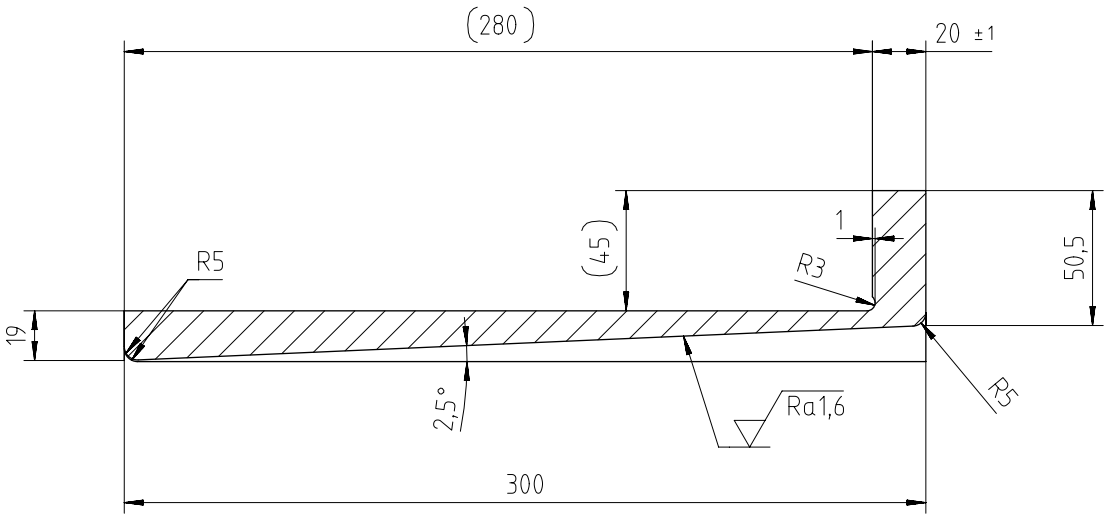
PLATE

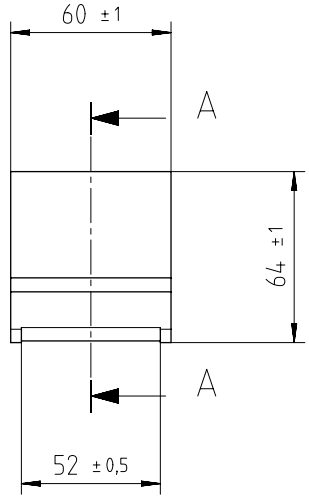
Blech

Units mm kg	NX		Basic Material W-FU-235-JR		Net Weight 1
SURFACE PROTECTION SEE GROUP 0344	Made 11.07.1996 D. Schaeffler		Scale 1:1	Size A3 / Page 1/1	Material ID 107.245.898.001
TOLERANCING PRINCIPLE ISO8015	Chkd		Design Group 9710-01	Drawing ID 107.245.898	Rev. B
GENERAL TOLERANCES ACCORDING TO ISO2768-mK	Appd 22.07.1996 MLU011 Lüthi				

DID - DIMENSIONAL DRAWING - Confidential

SECTION A-A
SCALE 1:2





Ra50 (Ra1,6)

Approved

Free space for lic.								Q-Code XXXXX		Main Drw.	
								Standard ISO; JIS			
Modif.	A	7-73.552	19.10.2009	B	EAAD091472	05.11.2019					
		Number	Drawn date		Number	Drawn date		Number	Drawn date		

WIN GD Winterthur Gas & Diesel

Product W-2S

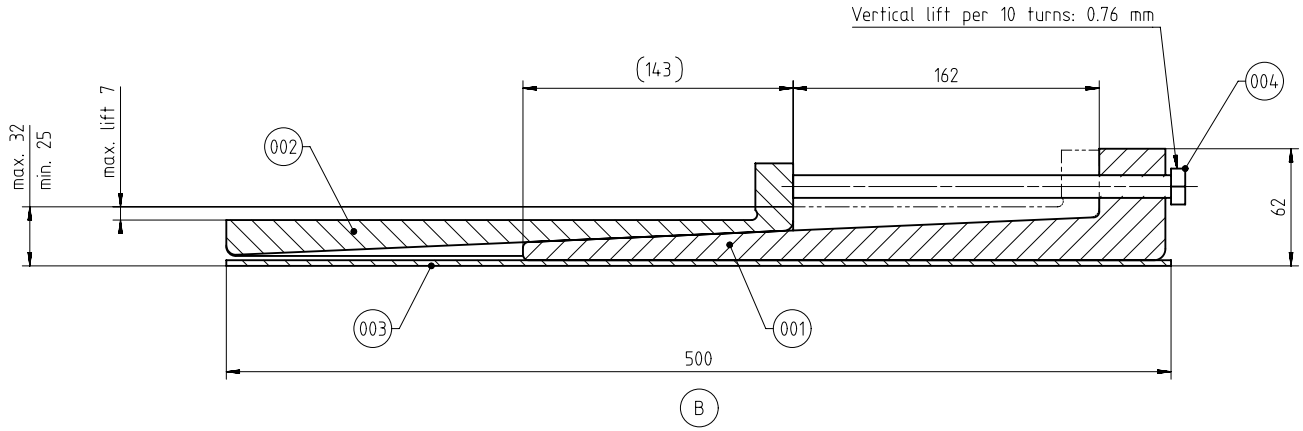
KEY

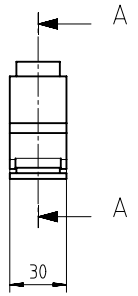
Keil

Units mm kg	NX		Basic Material W-FU-235-JR			Net Weight 3
SURFACE PROTECTION SEE GROUP 0344	Made 16.05.2001 D.ADMINISTRATOR		Scale 1:2	Size A3	Page 1/1	Material ID 107.246.894.001
TOLERANCING PRINCIPLE ISO8015	Chkd		Design Group 9710-01	Drawing ID 107.246.894		Rev. B
GENERAL TOLERANCES ACCORDING TO ISO2768-mK	Appd 27.12.2001 WDMS2					

DID - DIMENSIONAL DRAWING - Confidential

SECTION A-A





QTY	SEQ NO	Material ID	Material Name / Dimension, Occ	Standard or Drawing	Basic Material / Material Standard	Weight GR./NET
1	004	015.151.040.701	HEXAGON HEAD SCREW M12x200	ISO 4017	8.8	0,156
1	003	PAAD343262	PLATE	DAAD123406	W-FU-235-JR	0,4
1	002	107.424.348.001	KEY	107.424.348	W-FU-235-JR	1,5
1	001	107.424.347.001	KEY	107.424.347	W-FU-235-JR	1,7

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	EAAD084635	27.06.2013	B	EAAD091472	06.11.2019			

WIN GD Winterthur Gas & Diesel

Product W-2S

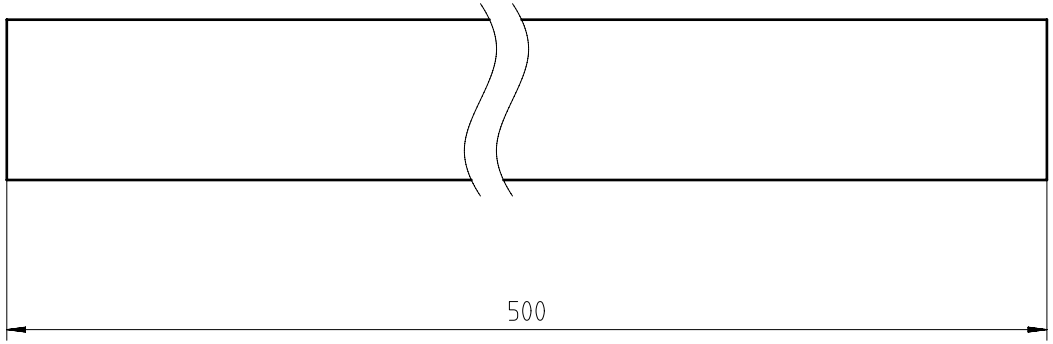
WEDGE

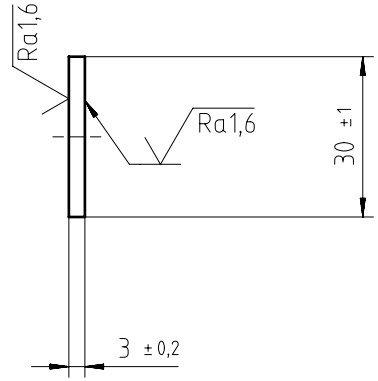
Schraeger Keil

Units	mm kg	NX	Basic Material	W-FU-235-JR	Net Weight 3.8

SURFACE PROTECTION SEE GROUP 0344	Made	05.08.2009 jba029 J.BAUMANN	Scale 1:2	Size A2	Page 1/1	Material ID 107.424.346.200
TOLERANCING PRINCIPLE ISO8015	Chkd		Design Group 9710-01	Drawing ID 107.424.346		Rev. B
GENERAL TOLERANCES ACCORDING TO ISO2768-mK	Appd	28.09.2009 JBA029 Baumann				

DID - DIMENSIONAL DRAWING - Confidential





Ra50 (Ra1,6)

Approved

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

WIN GD Winterthur Gas & Diesel

Product W-2S

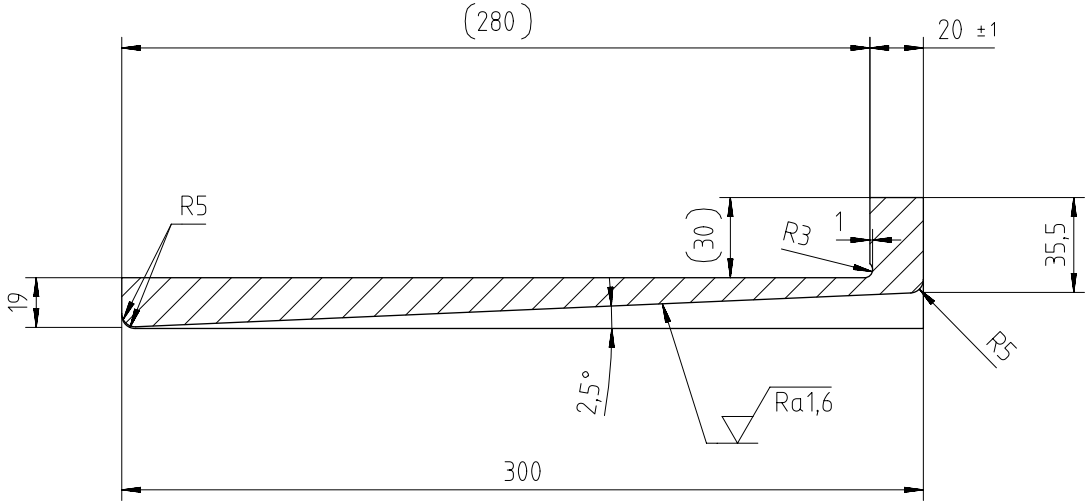
PLATE

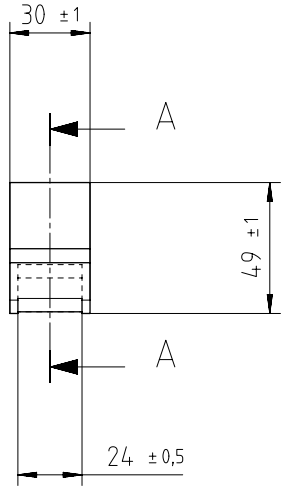
Blech

Units mm kg	NX		Basic Material W-FU-235-JR		Net Weight 0,4
SURFACE PROTECTION SEE GROUP 0344	Made 06.11.2019 dki021 DH.Kim	Scale 1:1	Size A3	Page 1/1	Material ID PAAD343262
TOLERANCING PRINCIPLE ISO8015	Chkd 26.11.2019 jpi101 Pickup	Design Group 9710-01	Drawing ID DAAD123406		Rev. –
GENERAL TOLERANCES ACCORDING TO ISO2768-mK	Appd 02.12.2019 mhu019 Hug				

DID - DIMENSIONAL DRAWING - Confidential

SECTION A-A





Ra50 (Ra1,6)

Approved

Free space for lic.									Q-Code XXXXX	Standard ISO; JIS	Main Drw.
Modif.	A	EAAD091472	06.11.2019								
		Number	Drawn date	Number	Drawn date	Number	Drawn date	Number	Drawn date		

WIN GD Winterthur Gas & Diesel

Product W-2S

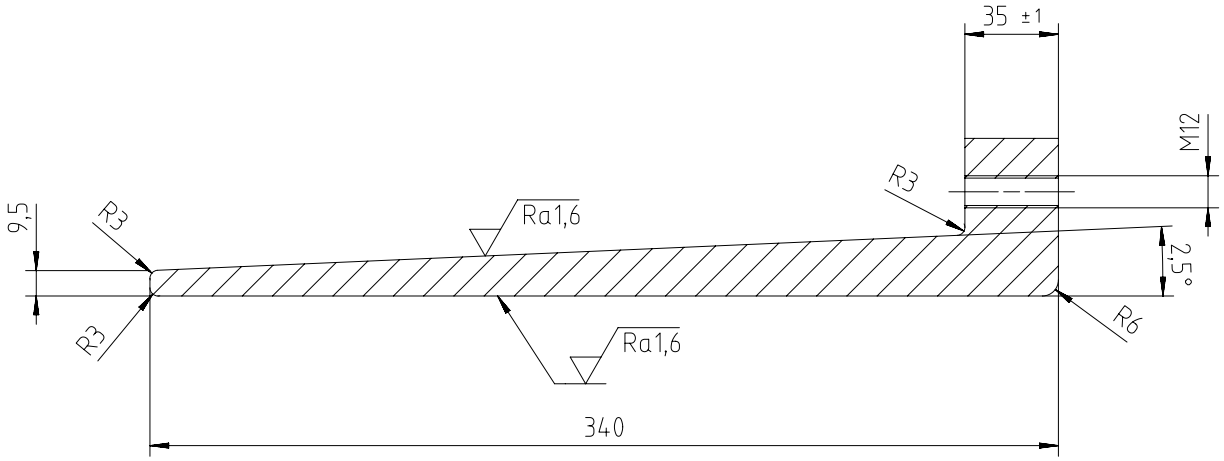
KEY

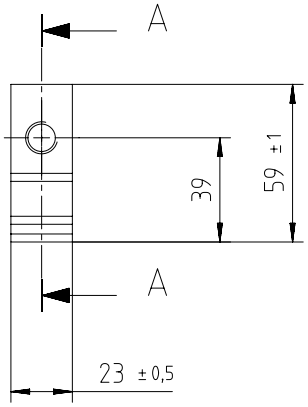
Keil

Units mm kg	NX		Basic Material W-FU-235-JR		Net Weight 1,5
SURFACE PROTECTION SEE GROUP 0344	Made 05.08.2009 J.BAUMANN	Scale 1:2	Size A3	Page 1/1	Material ID 107.424.348.001
TOLERANCING PRINCIPLE ISO8015	Chkd	Design Group 9710-01	Drawing ID 107.424.348		Rev. A
GENERAL TOLERANCES ACCORDING TO ISO2768-mK	Appd 28.09.2009 JBA029 Baumann				

DID - DIMENSIONAL DRAWING - Confidential

SECTION A–A





Ra50 (Ra1,6)

Approved

Free space for lic.								Q-Code XXXXX		Main Drw.	
								Standard ISO; JIS			
Modif.	A	EAAD091472	05.11.2019								
		Number	Drawn date	Number	Drawn date	Number	Drawn date	Number	Drawn date		

WIN GD Winterthur Gas & Diesel

Product W-2S

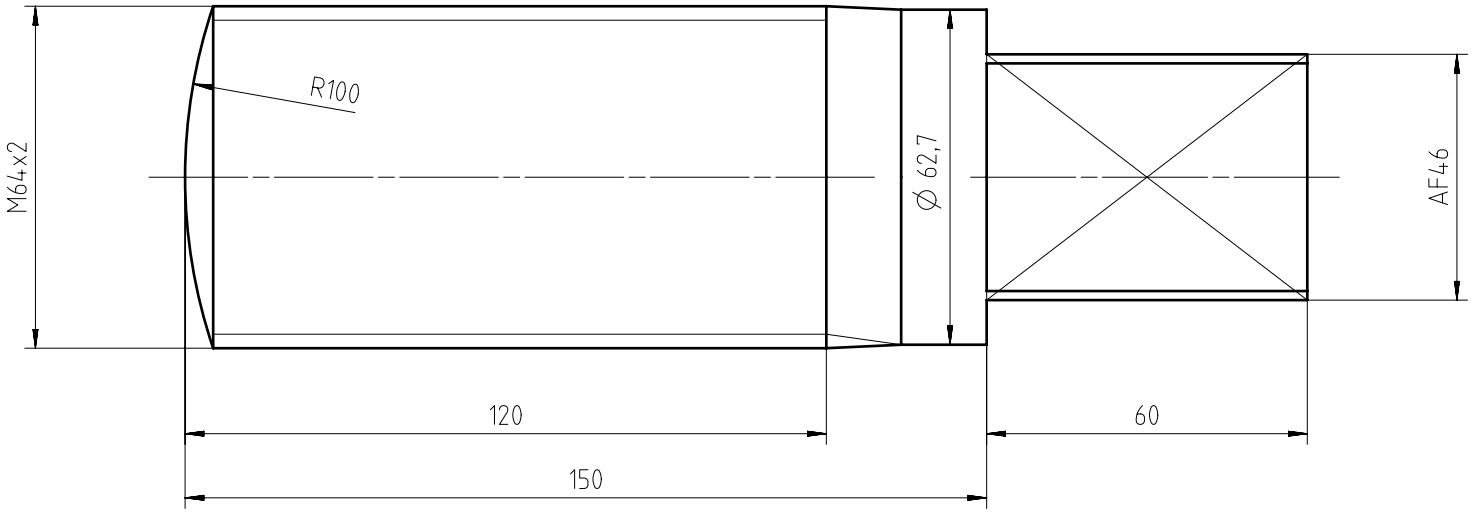
KEY

Keil

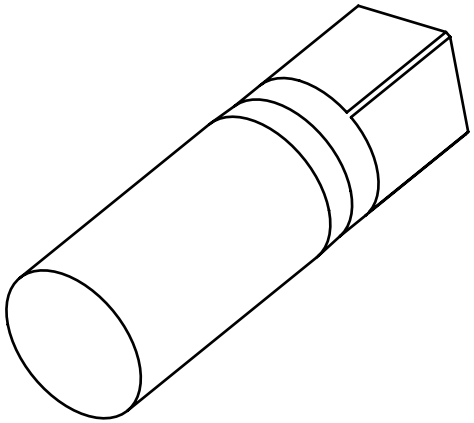
Units mm kg	NX	Basic Material W-FU-235-JR			Net Weight 1,7
SURFACE PROTECTION SEE GROUP 0344	Made 05.08.2009 J.BAUMANN	Scale 1:2	Size A3	Page 1/1	Material ID 107.424.347.001
TOLERANCING PRINCIPLE ISO8015	Chkd	Design Group 9710-01	Drawing ID 107.424.347		Rev. A
GENERAL TOLERANCES ACCORDING TO ISO2768-mK	Appd 28.09.2009 JBA029 Baumann				

DID - DIMENSIONAL DRAWING - Confidential

ROLLED THREAD



M 1:2



Free space for lic.									Q-Code XXXXX	Standard ISO; JIS	Main Drw.
Modif.	A	EAAD091472	06.11.2019								
		Number	Drawn date	Number	Drawn date	Number	Drawn date	Number	Drawn date		

WIN GD Winterthur Gas & Diesel

Product W-2S

JACKING SCREW

Abdrueckschraube

Units mm kg	NX		Basic Material W-FU-235-N-T		Net Weight 4,64
Made 07.12.2012 mhu019 M.Hug			Scale 1:1	Size A3 / Page 1/1	Material ID PAAD109518
Chkd 10.12.2012 wwr001 Wroblewski			Design Group 9710-01	Drawing ID DAAD034398	Rev. A
Appd 12.12.2012 bha009 Haag					

SURFACE PROTECTION SEE GROUP 0344

TOLERANCING PRINCIPLE ISO8015

GENERAL TOLERANCES ACCORDING TO ISO2768-mK

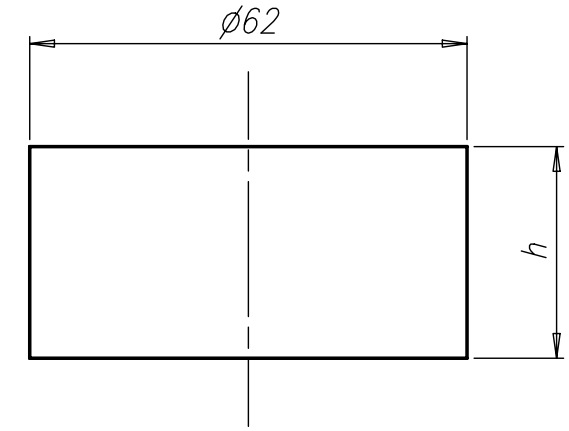
Approved

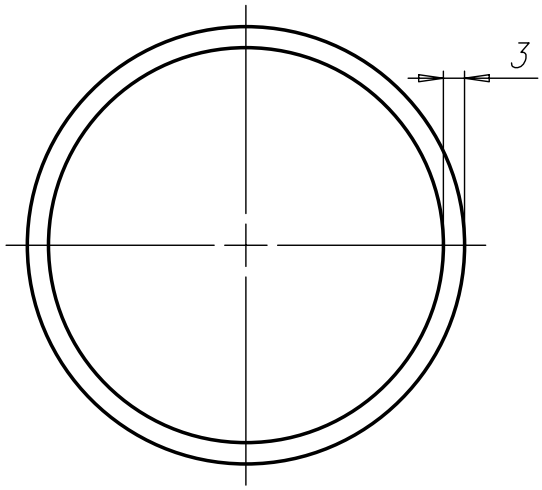
DID - DIMENSIONAL DRAWING - Confidential

SURFACE PROTECTION SEE GROUP 0344

TOLERANCING PRINCIPLE ISO8015

GENERAL TOLERANCES ACCORDING TO ISO2768-mK





h - determinated after engine alignment

** material according to shipyard experience*

Free space for lic.

Q-Code XXXXX

Standard ISO JIS

Main Drw. N

Modif.	Number	Drawn date	Number	Drawn date	Number	Drawn date	Number	Drawn date
A	EAAD085169	13.06.2014						

WIN GD Winterthur Gas & Diesel

Product W-2S

SPONGE RUBBER RING

Schaumstoff Huelse

Units mm kg | IDE

Basic Material *

Net Weight 0.001

Made	22.10.2012 asex06 A.Sekulic	Scale 1:1	Size A4	Page 1/1	Material ID	PAAD103306
Chkd	15.11.2012 mhu019 Hug	Design Group 9710-01	Drawing ID	DAAD032482	Rev.	A
Appd	04.12.2012 wwr001 Wroblewski					

Approved

PD - PRODUCTION DRAWING - Confidential

MIDS - WinGD X72DF-1.2/2.2 – Tool Engine Alignment (DG9710-01)

TRACK CHANGES

DATE	SUBJECT	DESCRIPTION
2021-04-16	DRAWING SET	First web upload
2022-10-25	PTAA046335 PTAA046369	Drawing set for 6 cyl. - added

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