

SEQ NO	QTY	Item ID	Item Name	Dimension	Standard-ID	Basic Material	Net Weight
1	1	107.390.729.500	FLANGE DIMENSIONS				0.001
Prod.	9 X92-B						
Change History							
	A	zta101	sth017	13.01.2022	CNAA001358	TC silence casng added	4 3
	-	zta101	yzh102	02.08.2021	CNAA000439	main drawing introduced	- -
	Rev.	Creator	Approver	Approval Date	Change ID	Change Synopsis	Approved Activity Code E C
<div>WIN GD</div> <div>Winterthur Gas &amp; Diesel</div>			PIPE CONNECTION PLAN				
Bill Of Material			Dimension				
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			Main Design	Yes	Design Group	8020 Q-Code XXXXX	Standard WDS
			Qty per	Engine	A4	Item ID PTAA008513	BOM Page/s 01/01

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Abgasseite  
EXHAUST SIDE

Antriebsseite  
DRIVING END

Gasaustritt-Stellung GAS OUTLET POSITION	Y	Z
0°	4000	10105
15°	4189	10080
30°	4365	10007
45°	4516	9891

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LATER ADAPTATIONS ARE POSSIBLE BASED ON PROJECT REQUIREMENTS  
AND RELATED DETAIL DESIGN.  
THIS PIPE CONNECTION PLAN MAY NOT BE USED FOR FINAL DESIGN!

Alle Flanschanschlüsse am Motor sind mit Gegenflanschen versehen (Blindflansch), ausgenommen der Anschluss fuer den Gasaustritt am Turbolader. Die Blindflansche sind nach dem be-  
treffenden Rohrdurchmesser des Werfranschlusses aufzubohren.  
THE PIPE CONNECTIONS ON THE ENGINE ARE SUPPLIED WITH MATING FLANGES (BLIND), WITH EXCEPTION OF THE TURBO-  
CHARGER EXHAUST GAS OUTLET. BLIND FLANGES TO BE DRILLED TO MATCH PIPE DIA SUPPLIED BY THE SHIPYARD.

Die Gewinde-Anschlüsse werden komplett geliefert  
SCREWED CONNECTIONS ARE SUPPLIED COMPLETE

- \*1) Optionelle Ausführung (wenn verlangt)  
OPTIONAL EXECUTION (IF REQUIRED)
- \*2) Standard Ausführung  
STANDARD EXECUTION  
Vorschlag Endgueltige Position ist mit Werff zu bestimmen  
PROPOSAL FINAL POSITION TO BE DETERMINED IN ACCORDANCE WITH SHIPYARD
- \*3) Externale Ausführung (wenn verlangt)  
EXTERNAL EXECUTION (IF REQUIRED)
- \*4) SEE DAAD16127

3xA175-L

Brennstoffseite  
FUEL SIDE

Freies Ende  
FREE END

Antriebsseite  
DRIVING END

Freies Ende  
FREE END

Freies Ende  
FREE END

Antriebsseite  
DRIVING END

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

9X82-B																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
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	-	zta101	yzh102	02.08.2021	CNA000439	main drawing introduced														-																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
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SEQ NO	QTY	Item ID		Item Name		Dimension	Standard-ID	Basic Material		Net Weight			
1	1	107.390.729.500		FLANGE DIMENSIONS						0.001			
Prod.	9 X92-B												
Change History	D	yyi101	yzh102	21.04.2022	CNAA001753	Yard Connection updates			4	3			
	C	iki101	sth017	16.12.2021	CNAA001233	Yard Connetion updates			4	3			
	B	hle102	rfl002	03.11.2021	CNAA000943	Yard Connection updates			4	3			
	-	zta101	yzh102	30.06.2021	CNAA000228	main drawing introduced			-	-			
	Rev.	Creator	Approver	Approval Date	Change ID	Change Synopsis		Approved	Activity Code	E	C		
<div>WIN GD</div> <div>Winterthur Gas &amp; Diesel</div>				PIPE CONNECTION PLAN HP-SCR									
Bill Of Material				Dimension									
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				Main Design		Yes		Design Group		8020	Q-Code	XXXXX	Standard
				Qty per		Engine		A4	Item ID		PTAA003254		BOM Page/s



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Gasaustritt-Stellung GAS OUTLET POSITION  α	Y	Z
0°	4 168	10302
15°	4 381	10274
30°	4 580	10191
45°	4 751	10060



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THIS PIPE CONNECTION PLAN MAY NOT BE USED FOR FINAL DESIGN!

Alle Flanschanschlüsse am Motor sind mit Gegenflanschen versehen (Blindflansch), ausgenommen der Anschluss fuer den Gasaustritt am Turbolader. Die Blindflansche sind nach dem betreffenden Rohrdurchmesser des Werfflanschlusses aufzubohren. THE PIPE CONNECTIONS ON THE ENGINE ARE SUPPLIED WITH MATING FLANGES (BLIND), WITH EXCEPTION OF THE TURBO-CHARGER EXHAUST GAS OUTLET. BLIND FLANGES TO BE DRILLED TO MATCH PIPE DIA SUPPLIED BY THE SHIPYARD.

Die Gewinde-Anschlüsse werden komplett geliefert  
SCREWED CONNECTIONS ARE SUPPLIED COMPLETE

- \*1) Optionelle Ausführung (wenn verlangt)  
OPTIONAL EXECUTION (IF REQUIRED)
- \*2) Standard Ausführung  
STANDARD EXECUTION  
Vorschlag Endgültige Position ist  
mit Wert f zu bestimmen  
PROPOSAL FINAL POSITION TO BE DETERMINED  
IN ACCORDANCE WITH SHIPYARD
- \*3) Externale Ausführung (wenn verlangt)  
EXTERNAL EXECUTION (IF REQUIRED)
- \*4) SEE DAAD116127

2x A280-L

9X9Z-8										
Change history	D	yy101	yzh102	2104-2022	0M000753	Yard Connection updates	4	3		
	C	aa101	stb107	16.12.2021	NAA001233	Yard Connection updates	4	3		
	C	ha102	fr1002	03.11.2021	0AA000943	Yard Connection updates	4	3		
	-	zha101	yzh102	30.06.2021	NAA000228	main drawing introduced	-	-		
Rev.	Create	Approve	Approved date	Change ID	Change Synopses	Approved	Activity Code	E		
<b>WIN</b> G						<b>PIPE CONNECTION PLAN</b>				
<b>Winterthur Gas &amp; Diesel</b>						<b>HP-SCR</b>				
separate BOM available						Dimension				
Scale	1:50			Units	mm	[kg]				
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Design	Yes	Design	8020	G-Code	XXXXXX	Standard	WDS			
Part	per	Engine	A0	Item ID	PTAA003254			Drawing Page/s	1/2	





SEQ NO	QTY	Item ID	Item Name	Dimension	Standard-ID	Basic Material	Net Weight
1	1	107.390.729.500	FLANGE DIMENSIONS				0.001
Prod.	9 X92-B						
Change History							
	B	yyi101	yzh102	21.04.2022	CNAA001753	Yard Connection updates	4 3
	A	hle102	sth017	16.11.2021	CNAA000967	Yard Connection updates	4 3
	-	jba039	sth017	01.07.2021	CNAA000280	New Design for 9X92B Dg8020	- -
	Rev.	Creator	Approver	Approval Date	Change ID	Change Synopsis	Approved Activity Code E C
<div>WIN GD</div> <div>Winterthur Gas &amp; Diesel</div>				PIPE CONNECTION PLAN			
Bill Of Material				Dimension			
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				Main Design	Yes	Design Group 8020 Q-Code XXXXX	Standard WDS
				Qty per	Engine	A4 Item ID PTAA002324	BOM Page/s 01/01



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FOR PRELIMINARY DESIGN.  
SECTION PLAN MAY NOT BE USED FOR FINAL DESIGN!

Alle Flanschschnitte am Motor sind mit Gegenflanschen versehen (Blindflansch), ausgenommen der Anschluss fuer den Gasaustritt am Turbolader. Die Blindflansche sind nach dem betreffenden Rohrdurchmesser des Werftanschlusses aufzubohren. THE PIPE CONNECTIONS ON THE ENGINE ARE SUPPLIED WITH MATING FLANGES (BLIND), WITH EXCEPTION OF THE TURBOCHARGER EXHAUST GAS OUTLET. BLIND FLANGES TO BE DRILLED TO MATCH PIPE DIA SUPPLIED BY THE SHIPYARD.

Die Gewinde-Anschlüsse werden komplett geliefert  
SCREWED CONNECTIONS ARE SUPPLIED COMPLETE

- \*1) Optionelle Ausführung (wenn verlangt)  
OPTIONAL EXECUTION (IF REQUIRED)
- \*2) Standard Ausführung  
STANDARD EXECUTION  
Vorschlag Endgültige Position ist  
mit Werft zu bestimmen  
PROPOSAL FINAL POSITION TO BE DETERMINED  
IN ACCORDANCE WITH SHIPYARD
- \*3) Nur bei Ausführung mit separatem Brennstoff-  
pumpen-Direktlauf  
ONLY FOR EXECUTION WITH SEPARATE  
LUBRICATING OIL FOR FUEL PUMPS
- \*4) SEE DAAD161627

2xMET83-MB

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



Abmasse der Flansche  
siehe Stueckliste  
FLANGE DIMENSIONS  
SEE PARTS LIST

fuer vertikalen Oelablauf  
FOR VERTICAL LUB. OIL DRAIN  
siehe Ko.Gr. 1110 / 9722  
SEE GROUP 1110 / 9722

\*2)

\*1) Optionelle Ausfuehrung (wenn verlangt)  
OPTIONAL EXECUTION (IF REQUIRED)

\*2) Standard Ausfuehrung  
STANDARD EXECUTION  
Vorschlag Endgueltige Position ist  
mit Werft zu bestimmen  
PROPOSAL FINAL POSITION TO BE DETERMINED  
IN ACCORDANCE WITH SHIPYARD

\*3) Nur bei Ausfuehrung mit separatem Brennstoff-  
pumpen-Oelkreislauf  
ONLY FOR EXECUTION WITH SEPARATE  
LUBRICATING OIL FOR FUEL PUMPS

Gas-Austritt vom Turbolader  
GAS OUTLET FROM TURBOCHARGER

SEQ NO	QTY	Item ID	Item Name	Dimension	Standard-ID	Basic Material	Net Weight
1	1	107.390.729.500	FLANGE DIMENSIONS				0.001
Prod.	9 X92-B						
Change History							
	A	yyi101	yzh102	21.04.2022	CNAA001753	Yard Connection updates	4 3
	-	jxi101	yzh102	04.03.2022	CNAA001565	Main Design/Drawing Introduced	- -
	Rev.	Creator	Approver	Approval Date	Change ID	Change Synopsis	Approved Activity Code E C
<div>WIN GD Winterthur Gas &amp; Diesel</div>			PIPE CONNECTION PLAN				
Bill Of Material			Dimension				
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			Main Design Yes		Design Group 8020 Q-Code XXXXX		Standard WDS
			Qty per Engine	A4	Item ID PTAA027013		BOM Page/s 01/01



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Abgasseite  
EXHAUST SIDE

Antriebsseite  
DRIVING END

Gasaustritt-Stellung GAS OUTLET POSITION	Y	Z
$\alpha$		
0°	4000	10105
15°	4189	10080
30°	4365	10007
45°	4516	9891

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Gasaustritt am Turbolader. Die Blindflansche sind nach dem be-  
treffenden Rohrdurchmesser des Werftanschlusses aufzubohren.  
THE PIPE CONNECTIONS ON THE ENGINE ARE SUPPLIED  
WITH MATING FLANGES (BLIND), WITH EXCEPTION OF THE TURBO-  
CHARGER EXHAUST GAS OUTLET. BLIND FLANGES TO BE DRILLED  
TO MATCH PIPE DIA SUPPLIED BY THE SHIPYARD.

Die Gewinde-Anschlüsse werden komplett geliefert  
SCREWED CONNECTIONS ARE SUPPLIED COMPLETE

- \*1) Optionelle Ausführung (wenn verlangt)  
OPTIONAL EXECUTION (IF REQUIRED)
- \*2) Standard Ausführung  
STANDARD EXECUTION  
Vorschlag Endgueltige Position ist  
mit Werfft zu bestimmen  
PROPOSAL FINAL POSITION TO BE DETERMINED  
IN ACCORDANCE WITH SHIPYARD
- \*3) Externale Ausführung (wenn verlangt)  
EXTERNAL EXECUTION (IF REQUIRED)
- \*4) SEE DAAD16127

3x A175-L

Brennstoffseite  
FUEL SIDE

Freies Ende  
FREE END


Antriebsseite  
DRIVING END

Freies Ende  
FREE END

Freies Ende  
FREE END

Antriebsseite  
DRIVING END

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

9X82-B																																																																															
Change History																																																																															
	A	yy101	yzh102	2104.2022	CNA001753	Yard Connection updates	4	3																																																																							
	-	px101	yzh102	04.03.2022	CNA001565	Main Design/Drawing Introduced	-	-																																																																							
	Rev.	Creator	Approver	Approval Date	Change ID	Change Synopsis	Approved	Activity Code	E	C																																																																					
<div>WIN GD Winterthur Gas &amp; Diesel</div>										PIPE CONNECTION PLAN																																																																					
separate BOM available										Dimension																																																																					
Scale 1:50  NX										Units [mm] [kg]										Basic Material										Net Weight 0.001																																																	
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Qty per										Engine										A0										Item ID										PTAA027013										Drawing										1/2																			








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ISO																
6 bar							16 bar									
PN	DN	OUT.DIA.	THICK	DIM. FOR SCREWS			PN	DN	OUT.DIA.	THICK	DIM. FOR SCREWS					
6 bar	25	100	14	75	4	M10	11	16 bar	25	115	16	85	4	M12	14	
	32	120	16	90	4	M12	14		32	140	18	100	4	M16	18	
	40	130	16	100	4	M12	14		40	150	18	110	4	M16	18	
	50	140	16	110	4	M12	14		50	165	19	125	4	M16	18	
	65	160	16	130	4	M12	14		65	185	20	145	8	M16	18	
	80	190	18	150	4	M16	18		80	200	20	160	8	M16	18	
	100	210	18	170	4	M16	18		100	220	22	180	8	M16	18	
	125	240	20	200	8	M16	18		125	250	22	210	8	M16	18	
	150	265	20	225	8	M16	18		150	285	24	240	8	M20	22	
	200	320	22	280	8	M16	18		200	340	26	295	12	M20	22	
	250	375	24	335	12	M16	18		250	405	32	355	12	M24	26	
	300	440	24	395	12	M20	22		300	460	32	410	12	M24	26	
	350	490	26	445	12	M20	22		350	520	35	470	16	M24	26	
	400	540	28	495	16	M20	22		400	580	38	525	16	M27	30	
	450	595	30	550	16	M20	22		450	640	42	585	20	M27	30	
	500	645	30	600	20	M20	22		500	715	46	650	20	M30	33	
PN	DN	OUT.DIA.	THICK	DIM. FOR SCREWS			PN	DN	OUT.DIA.	THICK	DIM. FOR SCREWS					
10 bar	25	115	16	85	4	M12	14	40 bar	25	115	16	85	4	M12	14	
	32	140	18	100	4	M16	18		32	140	18	100	4	M16	18	
	40	150	18	110	4	M16	18		40	150	18	110	4	M16	18	
	50	165	19	125	4	M16	18		50	165	20	125	4	M16	18	
	65	185	20	145	8	M16	18		65	185	22	145	8	M16	18	
	80	200	20	160	8	M16	18		80	200	24	160	8	M16	18	
	100	220	22	180	8	M16	18		100	235	26	190	8	M20	22	
	125	250	22	210	8	M16	18		125	270	28	220	8	M24	26	
	150	285	24	240	8	M20	22		150	300	30	250	8	M24	26	
	200	340	24	295	8	M20	22		200	375	36	320	12	M27	30	
	250	395	26	350	12	M20	22		250	450	44	385	12	M30	33	
	300	445	26	400	12	M20	22		300	515	48	450	16	M30	33	
	350	505	28	460	16	M20	22		350	580	54	510	16	M33	36	
	400	565	32	515	16	M24	26		400	660	60	585	16	M36	39	
	450	615	38	565	20	M24	26									
	500	670	38	620	20	M24	26									

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PN	DN	OUT.DIA.	THICK	DIM. FOR SCREWS				PN	DN	OUT.DIA.	THICK	DIM. FOR SCREWS				
5 bar	25	95	10	75	4	M10	12	16 bar	25	125	14	90	4	M16	19	
	32	115	12	90	4	M12	15		32	135	16	100	4	M16	19	
	40	120	12	95	4	M12	15		40	140	16	105	4	M16	19	
	50	130	14	105	4	M12	15		50	155	16	120	8	M16	19	
	65	155	14	130	4	M12	15		65	175	18	140	8	M16	19	
	80	180	14	145	4	M16	19		80	200	20	160	8	M20	23	
	100	200	16	165	8	M16	19		100	225	22	185	8	M20	23	
	125	235	16	200	8	M16	19		125	270	22	225	8	M22	25	
	150	265	18	230	8	M16	19		150	305	24	260	12	M22	25	
	200	320	20	280	8	M20	23		200	350	26	305	12	M22	25	
	250	385	22	345	12	M20	23		250	430	28	380	12	M24	27	
	300	430	22	390	12	M20	23		300	480	30	430	16	M24	27	
	350	480	24	435	12	M22	25		350	540	34	480	16	M30	33	
	400	540	24	495	16	M22	25		400	605	38	540	16	M30	33	
	450	605	24	555	16	M22	25		450	675	40	605	20	M30	33	
	500	655	24	605	20	M22	25		500	730	42	660	20	M30	33	
PN	DN	OUT.DIA.	THICK	DIM. FOR SCREWS				PN	DN	OUT.DIA.	THICK	DIM. FOR SCREWS				
10 bar	25	125	14	90	4	M16	19	30 bar	25	130	20	95	4	M16	19	
	32	135	16	100	4	M16	19		32	140	22	105	4	M16	19	
	40	140	16	105	4	M16	19		40	160	22	120	4	M20	23	
	50	155	16	120	4	M16	19		50	165	22	130	8	M16	19	
	65	175	18	140	4	M16	19		65	200	26	160	8	M20	23	
	80	185	18	150	8	M16	19		80	210	28	170	8	M20	23	
	100	210	18	175	8	M16	19		100	240	32	195	8	M22	25	
	125	250	20	210	8	M20	23		125	275	36	230	8	M22	25	
	150	280	22	240	8	M20	23		150	325	38	275	12	M24	27	
	200	330	22	290	12	M20	23		200	370	42	320	12	M24	27	
	250	400	24	355	12	M22	25		250	450	48	390	12	M30	33	
	300	445	24	400	16	M22	25		300	515	52	450	16	M30	33	
	350	490	26	445	16	M22	25		350	560	54	495	16	M30	33	
	400	560	28	510	16	M24	27		400	630	60	560	16	M36	39	
	450	620	30	565	20	M24	27									
	500	675	30	620	20	M24	27									

Substitute for:										PC	Q-Code	X	X	X	X	X	
Modif	A	EAAD084180	04.10.2012														
		Number	Drawn Date		Number	Drawn Date		Number	Drawn Date		Number	Drawn Date					
		Product <b>W-2S</b>				Flange Dimensions											
Made	19.09.2007	N. Brand				Main Drw.	Page 1 / 1	Material ID <b>107.390.729.500</b>									
Chkd	27.09.2007	M. Frei				Design Group	Drawing ID <b>107.390.729</b>										Rev <b>A</b>
Appd	27.09.2007	B. Haag				<b>8020</b>											

## WinGD – 9X92-B\_Pipe Connection Plan

### TRACK CHANGES

DATE	SUBJECT	DESCRIPTION
2021-09-15	DRAWING SET	First web upload
2021-12-02	PTAA003254 PTAA002324	Revised Pipe connection plan for Turbocharger type 2xA280 L & 2xMET83MB have been updated.
2021-12-24	PTAA003254	Revised Pipe connection plan for Turbocharger type 2xA280 L has been updated.
2022-03-16	PTAA008513	Revised Pipe connection plan for Turbocharger type 3xA175 L has been updated.
2022-03-24	PTAA027013	New Pipe connection plan for Turbocharger type 3xA175 L has been added.
2022-04-28	PTAA003254 PTAA027013 PTAA002324	Revised Pipe connection plan for Turbocharger type 2xA280 L, 3xA175 L and 2xMET83MB have been updated.

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