

SCREW AIR END PERFORMANCE TEST REPORT

TEST METHOD: Module
 MODULE TYPE: CD26D_229334850 37 STAGE1 TYPE: CDA128 STAGE2 TYPE: CDB90
 MODULE SN: WJ16695CD2623 STAGE1 SN: C23DAF1320 STAGE2 SN: C23DAT3766
 TEST MEDIUM: Air SPECIFICATION: CD26D | G24 | OP54 | RO | RO
 TEST OP: Yulai Liu TEST STAND: Big Bed TR1 DATE OF TEST: 20231205/21:31

TEST CONDITION AND PERFORMANCE					
ITEMS	UNIT	DESIGN	TEST(Stage1)	TEST(Stage2)	CORRECTED
AMBIENT PRESSURE	[bara]		1.021		
AMBIENT AIR HUMIDITY	[%]		25.9		
MOTOR SPEED	[r/min]	1475	1475	1475	
COMPRESSOR SPEED	[r/min]	8018/13596	8017	13594	
ABS.SUCTION PRESSURE	[bara]	0.985/2.95	0.988	2.85	
SUCTION TEMPERATURE	[°C]	55.0/50.0	56.0	49.9	
DISCHARGE PRESSURE	[bara]	3.03/11.50	2.99	11.49	
DISCHARGE TEMPERATURE	[°C]	204.3/258.30	203.4	254.5	
PRESSURE RATIO	[-]	11.68	11.631		
SUCTION VOLUME	[m ³ /h]	2353.70	2417.76		2420.61(2.8%)
SHAFT POWER	[kW]	278.06	275.61		273.86(-1.5%)
SPECIFIC POWER	[kW/(m ³ /min)]	7.09	6.84		6.79(-4.2%)

OIL SYSTEM PARAMETERS						
OIL-TYPE						
ISO VG 46						
STAGE		STAGE1		STAGE2		
GEAR OIL						
PRESSURE	[bara]	2.52		2.59		
TEMPERATURE INLET	[°C]	48.26		48.33		
VOLUME	[l/min]	2.50		2.73		
LUBE OIL						
PRESSURE	[bara]	SUCTION SIDE	DISCHARGE SIDE	SUCTION SIDE	DISCHARGE SIDE	
TEMPERATURE INLET	[°C]	2.53	2.49	2.48	2.53	
VOLUME	[l/min]	48.91	48.61	47.89	47.88	
		4.34	7.33	3.86	5.90	
COOLANT OIL						
PRESSURE	[bara]	2.47				
TEMPERATURE INLET	[°C]	48.24				
VOLUME	[l/min]	11.47				

Released

SCREW AIR END MECHANICAL TEST REPORT

TEST METHOD:	Module				
MODULE TYPE:	CD26D-22933485037	STAGE1 TYPE:	CDA128	STAGE2 TYPE:	CDB90
MODULE SN:	WJ16695CD2623	STAGE1 SN:	C23DAF1320	STAGE2 SN:	C23DAT3766
TEST MEDIUM:	Air	SPECIFICATION:	CD26D G24 OP54 RO RO		
TEST OP:	Yulai Liu	TEST STAND:	Big Bed TR1	DATE OF TEST:	20231205/21:29

v=vertical	h=horizontal	a=axial
()=Filtered Frequency		

StageType	Speed	Vibration								Result
		1v	1h	2v	2h	2a				
Stage1	CDA128	8018	4.01	6.03	2.50	4.20	2.65			
		(133.63)	0.78	0.31	0.22	0.68	0.06			
Stage2	CDB90	13595.7	3.40	5.87	3.88	3.33	3.57			
		(226.6)	1.87	2.04	1.81	1.67	1.93			

Stage sealing												
Stage	Stage1						Stage2					
	HL	NL	Unit	Result		HL	NL	Unit	Result			
SUCTION SIDE	Tested value	0	0	m ³ /h	Min	H-3.094 N-2.142	Tested value	2.11	2.35	m ³ /h	Min	H0.378 NO.252
		0	0	°C	Max	H-0.273 N-0.189		69	71	°C	Max	H4.284 N2.856
	Corrected value	0.000	0.000	m ³ /h	PASS		Corrected value	0.714	0.790	m ³ /h	PASS	
DISCHARGE SIDE	Tested value	1.28	1.74	m ³ /h	Min	H1.509 N1.044	Tested value	5.34	4.46	m ³ /h	Min	H0.873 NO.873
		55	63	°C	Max	H17.102 N11.832		102	91	°C	Max	H9.894 N9.894
	Corrected value	1.326	1.760	m ³ /h	PASS		Corrected value	1.647	1.417	m ³ /h	PASS	

Released