



# Repair Report - HV

## Customer Data 客户资料

Customer name 客户名称		Disassembly 拆解日	2019/8/23	Engineer 工程师	Nature Liu
Contact person 联络人		Assembly 组装日	2019/8/24	Engineer 工程师	Nature Liu
Telephone 电话		Finish 完成日	2019/8/28	Engineer 工程师	Nature Liu

## PUMP Data pump 资料

SAP NO. 工单号码		TYPE 型式	MAG 2200 iPL	Catalog 料号	412200V0716	S/N 序号	31000760302
Exchange pump 交换泵		Accessories 附件		Gas 气体			
Market 市场		Application 应用				In Warranty Period 在保修期内	NO
Repair reason 维修原因	保养					CCM NO 客诉号码	
Finding 拆解发现	泵内脏，安全轴承接触次数到达上限需要更换，泵在运转时突然断电操作，正确停泵方式为泵速降到0时关闭电源。						
Root cause 故障原因	泵内脏。						

## Visual Inspection 目视检查

	Check item 检查项目	Incoming inspection 进厂检查	Final inspection 最后检查
1	Exterior is clean? 外观洁净?	no	yes
2	Exterior damage? 外观损伤?	yes	yes
3	Exterior complete? 外观完整?	yes	yes
4	Parameter download 参数下载	yes	yes
5	Declaration of Contamination 除污报告	yes	yes
	Engineer 工程师	Nature Liu	Nature Liu
	Date 日期	2019/8/23	2019/8/28

## Running tests 运转测试

	Check item 检查项目	Incoming inspection 进厂检查	Final inspection 最后检查
1	Parameter check 参数确认	yes	yes
2	running test 运转测试	yes	yes
3	Running hour check 运转时数确认	yes	yes
4	Purge/ Vent function test	—	yes
5	Leak detection 测漏	—	yes
6	Final running test > 0 hrs 最终运转测试	—	yes
7	Pump packing 真空泵包装	—	yes
	Engineer 工程师	Nature Liu	Nature Liu
	Date 日期	2019/8/23	2019/8/28

	Check item 检查项目	Spec.	Result 结果
1	Grounding test 地线测试	MOTOR test R PE at 10AC	< 0.3Ω
2	Leak Current test 漏电流测试 (TMP)	I <sub>EA</sub> Test I <sub>EA</sub> =A	< 3.5mA
3	Isolation test 绝缘测试	MOTOR test R ISO =I	I MΩ
		Engineer 工程师	Nature Liu
		Date 日期	2019/8/23

<b>Suggest 建议</b>	
建议事项	

Line Manager	Service Manager	Applicant



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## Replacement parts list

Item	Part description	Quantity	Item	Part description	Quantity
1	密封套件	1			
2	动平衡矫正	1			
3	安全轴承	1			

## Repair procedure

Item	Description	Remarks
1	Inspection	ok
2	Disassembly	ok
3	Decontamination	ok
4	Cleaning	ok
5	Assembly	ok
6	Balance	ok
7	Final assembly	ok
8	Final test	ELSI test ok Leak test ok Overnight test ok Vibration test ok

Photos before clean 清洁前图片

Photos after clean 清洁后图片



铭牌



铭牌



入场外观



出场外观

Photos before clean 清洁前图片	Photos after clean 清洁后图片
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Summary Failure Storage		#VALUE!
date of data upload		23.8.19 12:58
Catalog number of pump [CHAR]	412200V0716	
Fabrication number [CHAR]	31000760302	ok
Pump operating hours [0.010°h]	8764.96	h
Start cycle counter	1165	
Standby cycle counter	0	
Counted magn. bearing touch downs	114	!!!
Accumulated time of MB touch downs [0.010°s]	4.39	s - ok
No. of touch downs at full shut down (PK)	2	ok
No. of touch downs at generator	29	
Error Counter total	35	
Error Counter overload	2	
Error counter motor temperature	0	
Error counter mains supply	26	
Suppl. S.N. converter	124200055	ok
Suppl. S.N. cartridge	124770466	!!!
OLV Cat.No. cartridge [CHAR]	6504626	
OLV S.N. cartridge [CHAR]	31000742314	
Catalog no. of converter [CHAR]	6504160	
Serial no. of converter [CHAR]	31000734867	
Converter operating hours [h]	9072	h
Software version xxx.yy.zz	81590	
Date of manufacturing	111212	TTMMJJ
Dataset of pump [CHAR]	0406249_ZSO_000_A0	
Pump type [ORD]	390	

### Pump Information

dex	Error message	Error code	Error detail	Frequency	Operating hours	Operating days
-1		0			0	8764.96
0	Supply Voltage Failure	3	2113	128	8680.04	361.7
1	Supply Voltage Failure	3	2113	146	8619.32	359.1
2	Overload Duration Failure	16	5061	302	8175.14	340.6
3	Supply Voltage Failure	3	2113	119	8167.26	340.3
4	Supply Voltage Failure	3	2113	509	8125.21	338.6
5	Supply Voltage Failure	3	2113	109	7665.68	319.4
6	Supply Voltage Failure	3	2113	509	6824.25	284.3
7	Internal Failure	950	19011	0	6074.76	253.1
8	Supply Voltage Failure	3	2113	509	5876.84	244.9
9	Supply Voltage Failure	3	2113	393	5655.79	235.7
10	Supply Voltage Failure	3	2113	509	5629.65	234.6
11	Supply Voltage Failure	3	2113	173	4549.84	189.6
12	Accel. Time	7	31059	443	4528.05	188.7
13	Supply Voltage Failure	3	2113	509	3554.41	148.1
14	Supply Voltage Failure	3	2113	509	2958.79	123.3
15	Supply Voltage Failure	3	2113	115	1956.46	81.5
16	Supply Voltage Failure	3	2113	509	1898.89	79.1
17	Supply Voltage Failure	3	2113	275	1528.17	63.7
18	Supply Voltage Failure	3	2113	267	1122.42	46.8
19	Supply Voltage Failure	3	2113	167	1121.77	46.7
20	Supply Voltage Failure	3	2113	224	1024.78	42.7
21	Supply Voltage Failure	3	2113	509	728.97	30.4
22	Supply Voltage Failure	3	2113	214	626.39	26.1
23	Supply Voltage Failure	3	2113	97	559.51	23.3
24	Starting Time exceeded	19	31058	69	519.47	21.6
25	Starting Time exceeded	19	31058	17	376.11	15.7

### 故障信息



泵腔

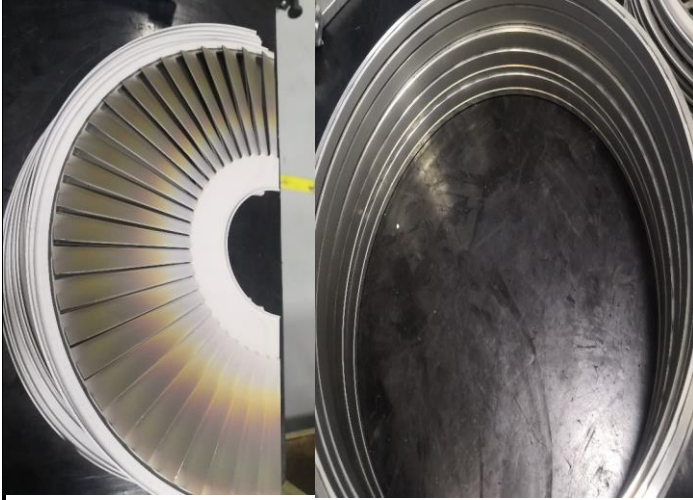


泵腔



Photos before clean 清洁前图片

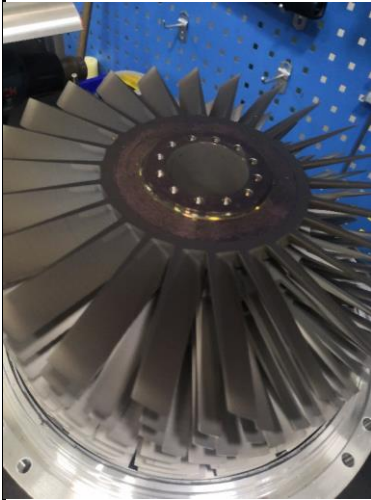
Photos after clean 清洁后图片



定子片钉子环



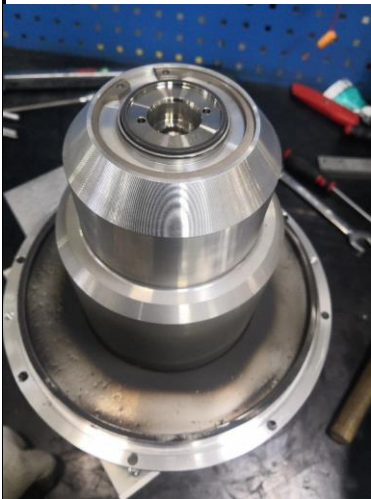
定子片钉子环



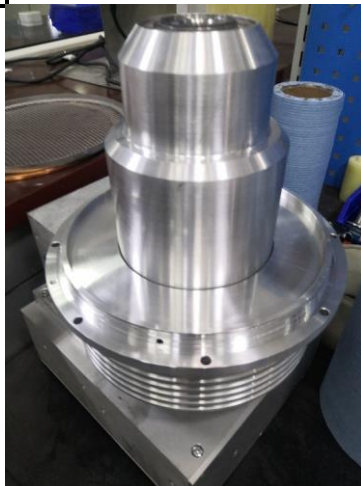
转子



转子



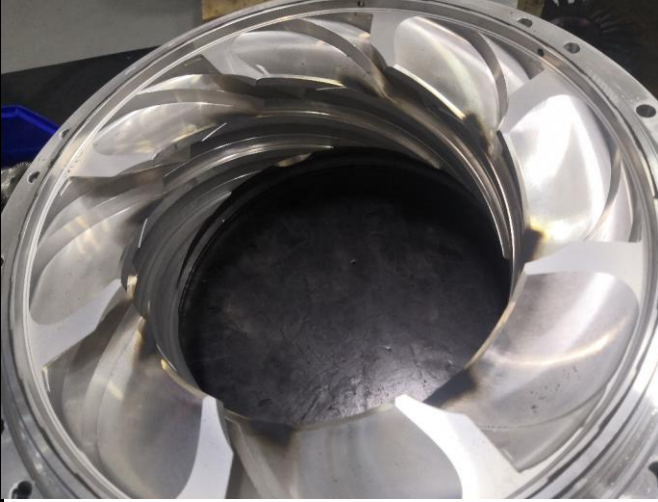
磁悬浮



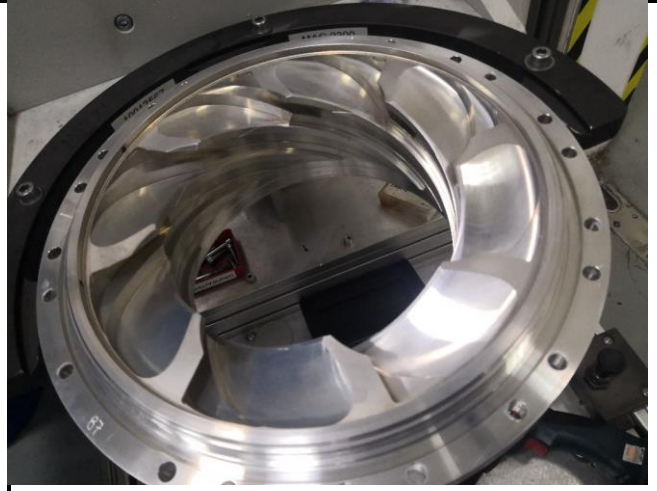
磁悬浮

Photos before clean 清洁前图片

Photos after clean 清洁后图片



底座



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进气口铜环不在保养范围之内，如需要更换，客户自行购买