

Assembly and Operating Instructions

装配和操作说明



Gear unit system
齿轮装置系统

KPBV

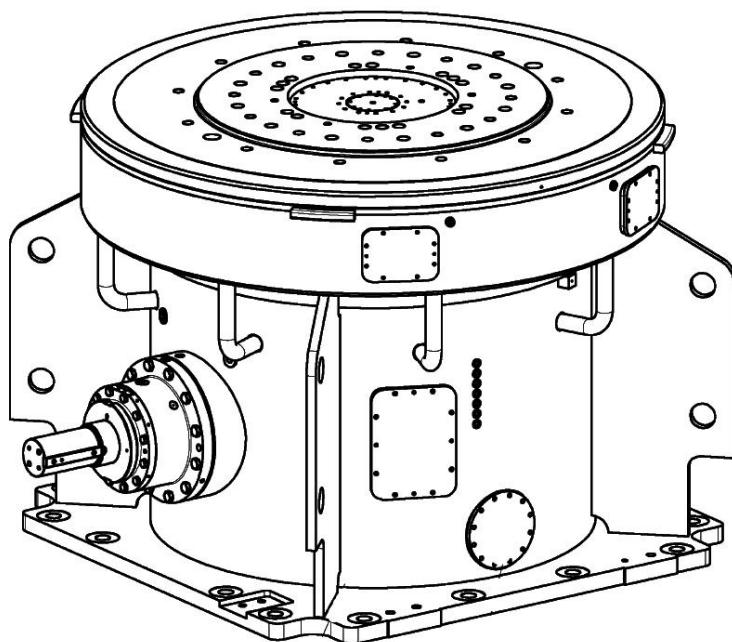
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1 General service schedule, KPBV 总体维护计划表, KPBV

 Always use this service schedule in conjunction with the assembly and operating manual for the specified gear system, paying particular attention to the handling and safety instructions it contains to ensure safe operation across all phases of the gear system service life.

总是将本维护计划表与相关齿轮系统的装配与操作手册一同使用，尤其注意其所含的搬运和安全说明，以确保齿轮系统使用寿命中各个阶段能够保持安全运转。

QL-Level 资质水平

The RENK qualified levels (QL) described in the following, as defined by RENK Aktiengesellschaft, must be adhered to for all work on the gear unit system:

根据 RENK Aktiengesellschaft 的定义，RENK 资质水平 (QL) 如下，齿轮装置系统的所有工作必须遵守：

RENK qualification level personnel RENK 资质水平人员	Definition 定义
A	Qualified specialist with system-specific instruction 系统具体指令的合格专业人员
B	Qualified service specialist, intensively trained by RENK service personnel 合格服务专业人员，经过 RENK 维护人员的严格培训
C	Exclusively RENK service personnel RENK 独家服务分院
Work on parts of the system with electrical energy must only be performed by appropriately qualified and instructed electricians at all RENK qualified levels (QL). 带电系统操作只能由各个 RENK 资质水平相应的合格和接受过相关教育的电工负责 (QL)。	

Table Error! Use the Home tab to apply Überschrift 1 to the text that you want to appear here. - 1 Qualification of trained specialized personnel

表 1-1 经过培训的专业人员资质

Definition of intervals 间隔定义

The due date of a service activity is defined by the interval when the event occurs for the first time.

在进行第一次维护时，维护工作的期限由间隔定义。

Service and maintenance intervals must be adjusted to the local conditions. These include occurrence of dirt, switch-on frequency, load etc.

维护间隔必须根据当地情况进行调整。这包括污垢、开关频率、负载等。

1)_RENK-qualification level personnel 2)_Operating hours

1)_RENK-资质水平人员

2)_工作小时

Place 位置	Activity 活动	Qual.- level ¹⁾ 资质 水平	Interval 间隔	
	Notes / consumables / references 说明/耗材/参考		Days 天	OH2) 工作 小时

1)_RENK-qualification level personnel 2)_Operating hours

1)_RENK-资质水平人员

2)_工作小时

Place 位置	Activity 活动	Qual.- level ¹⁾ 资质 水平	Interval 间隔	
	Notes / consumables / references 说明/耗材/参考		Days 天	OH2) 工作 小时
Output flange (Gear unit) 输出法兰 (齿轮装置)	<ul style="list-style-type: none"> ▶ Measure of the distance (gap) of output flange to upper edge of the gear unit casing and compare to initial value (marked x). ▶ 测量输出法兰与齿轮装置外壳上沿之间的距离 (间隙) 并对比最初的值 (标注为 x)。 <p><i>A deviating value may indicate an error of the oil supply unit or wear of the axial thrust bearings. Inform the RENK SERVICE!</i> 偏差值可能表示供油装置出现故障或轴向推力轴承出现磨损。 告知 RENK 维护部门!</p>	A	365	2000
Alignment 校准 (Gear unit) (齿轮装置)	<ul style="list-style-type: none"> ▶ Check the alignment of the gear unit system and correct alignment in case of deviations. ▶ 检查齿轮装置系统的对齐情况, 如果出现偏离请予以对齐 <p><i>Please observe this documentation!</i> 请遵守本文件要求!</p>	B	365	4000
Axial thrust bearing (Gear unit) 轴向推力轴承 (齿轮装置)	<ul style="list-style-type: none"> ▶ Check the oil level in the axial thrust bearings by visual inspection of the inspection glass. ▶ 通过对检查窗进行目视检查的方式检查轴向推力轴承的油位。 <p><i>If the gear unit is in operation, the oil inspection glass on the gear unit should be filled with lubricant more than halfway. When the gear unit stands still, the lubricant should be visible up to half of the oil inspection glass. If the oil level is lower, this may indicate an error in the oil supply unit. There is a risk of dry-running. Inform the RENK SERVICE!</i> 如果齿轮装置处于工作状态, 齿轮装置上的油位检查窗应该注入一半以上的润滑油。在齿轮装置保持静止的情况下, 油位检查窗内应该可以看到一半的润滑油。如果油位较低, 这可能表示供油装置存在故障。这会存在干运转风险。 告知 RENK 维护部门!</p>	A	7	--
Fastening (Gear unit) 紧固 (齿轮装置)	<ul style="list-style-type: none"> ▶ Check the fastening of the gear unit to the foundation. ▶ 检查齿轮装置在基础上的紧固状况。 <p>If necessary: Retension and replace the fastenings. 如有必要: 重新紧固和替换紧固件。</p> <p><i>Please observe this documentation!</i> 请遵守本文件要求!</p>	B	365	4000
Torque (Gear unit) 扭矩 (齿轮装置)	<ul style="list-style-type: none"> ▶ Check torque. ▶ 检查扭矩 <p><i>Setting limit values according to the documents in appendix A.</i></p>	B	Continuously 持续	

1)_RENK-qualification level personnel 2)_Operating hours

1)_RENK-资质水平人员

2)_工作小时

Place 位置	Activity 活动	Qual.- level ¹⁾ 资质 水平	Interval 间隔	
	Notes / consumables / references 说明/耗材/参考		Days 天	OH2) 工作 小时
	根据附件 A 内的文件要求设置限制值。			
Rotational speed (Gear unit) 转速 (齿轮装置)	<ul style="list-style-type: none"> ▶ Check the rotational speed. ▶ 检查转速。 Setting limit values according to the documents in appendix A. 根据附件 A 内的文件要求设置限制值。	A	Continuously 持续	
Inlet oil pressure (Gear unit) 进口油压 (齿轮装置)	<ul style="list-style-type: none"> ▶ Check the oil pressure ▶ 检查油压 Setting limit values according to the documents in appendix A. Deviating oil pressure values may indicate malfunction of parts/component groups of the oil supply unit, leakage or errors in the gear unit. 根据附件 A 内的文件要求设置限制值。油压值出现偏差可能表示供油装置内部件或组件出现故障、齿轮装置出现泄漏或故障。	A	Continuously 持续	
External hoses (Gear unit) 外部软管 (齿轮装置)	<ul style="list-style-type: none"> ▶ Exchange the hoses of lubricant supply. ▶ 更换润滑油供应软管。 Recommended intervals for exchange BGR (Rules of the German Employer's Liability Insurance Association) 237: Normal requirements: 6 years operating period, Including maximally 2 years of storage Increased requirements: 2 years operating period (e.g. increased utilization times, multiple-shift operation) 建议更换 BGR (德国雇主责任险协会规则) 237 的建议间隔: 正常要求: 6 年工作期, 包括最多 2 年的储存期 更高要求: 2 年工作期 (例如增长利用时间、轮班工作)	B	2x 365	--
Oil filter dirt side (Gear unit) 油滤污垢侧 (齿轮装置)	<ul style="list-style-type: none"> ▶ Take oil sample from the filter dirt side and have an oil analysis carried out in a certified laboratory. ▶ 从油滤污垢侧采集油样并在认证实验室内对油样进行分析。 If oil quality declines the interval for oil analysis must be shortened and, if necessary, prepare and perform a full oil change. 如果油的质量下滑, 必须缩短间隔, 如有必要, 可以准备更换所有油。	B	365	4000
Casing and attachments (Gear unit) 外壳和配件 (齿轮装置)	<ul style="list-style-type: none"> ▶ Check all parts/component groups for damage, rust and faultless fastening. ▶ 检查所有部件/组件的损坏、生锈情况以及是否正确紧固。 If necessary: Replace, clean, renew corrosion protection. 如有必要: 更换、清洁、重新进行防腐蚀保护。	A	365	4000
	Use corrosion protection agent according to section			

1)_RENK-qualification level personnel 2)_Operating hours

1)_RENK-资质水平人员

2)_工作小时

Place 位置	Activity 活动	Qual.- level ¹⁾ 资质水平	Interval 间隔	
	Notes / consumables / references 说明/耗材/参考		Days 天	OH ²⁾ 工作小时
	"Preservation" in this documentation. 根据本文件内“保护”一节要求使用防腐蚀剂。			
Casing (Gear unit) 外壳 (齿轮装置)	<ul style="list-style-type: none"> ▶ Measure the specified vibrations. <ul style="list-style-type: none"> ▶ File your records. ▶ 测量具体的震动 ▶ 填写记录 <p>Vibrations of the gear unit system should be monitored inside or outside on the casing of the gear unit. Short-term or long-term changes of vibrations may indicate improper operation or damage. 应从齿轮装置外壳的内部或外部检测齿轮装置系统的震动。短期或长期震动变化可能代表操作不当或出现损坏。</p>	A	Continuously 持续	
Inspection (Gearbox) 检查 (齿轮箱)	<ul style="list-style-type: none"> ▶ Recommendation! Arrange a general inspection by RENK SERVICE. ▶ 建议! 安排由 RENK 维护部门进行全面检查。 <p>Downtimes caused by unusual influences or damage can be avoided through regular inspections by RENK SERVICE. Countermeasures can be taken promptly if needed. 通过 RENK 维护部门的定期检测可以避免不正常影响或损坏造成的停机。如有需要可以即时采取应对措施。</p>	C	1x 365	8000

1)_RENK-qualification level personnel 2)_Operating hours

1)_RENK-资质水平人员 2)_工作小时

Place 位置	Activity 活动	Qual.- level ¹⁾ 资质水平	Interval 间隔	
	Notes / consumables / references 说明/耗材/参考		Days 日	OH ²⁾ 工作小时
Roller bearings (Gearbox)	<ul style="list-style-type: none"> ▶ Recommendation! Arrange the exchange of the roller bearings by RENK SERVICE. ▶ 建议! 安排由 RENK 维护部门更换滚柱轴承。 	C	5x 365	40000

<p>滚柱轴承 (齿轮箱)</p>	<p><i>Roller bearings are designed according to state-of-the-art technology with recognised lifespan calculation methods for a service life of 100000 hours.</i> <i>滚柱轴承根据最先进技术设计，认可的使用寿命计算方式显示使用寿命达到 100000 小时。</i></p> <p><i>A statistical rate of early failures is presumed for all lifespan calculations.</i> <i>所有使用寿命计算采用了一个统计提前报废率假设。</i></p> <p><i>These statistical early failures can also occur significantly earlier than the calculated service life of 100000 hours.</i> <i>Other circumstances, such as overloading or contamination, can also have a detrimental effect on the service life.</i> <i>这些统计提前报废的情况可能远早于计算的 100000 小时使用寿命发生。诸如过载或污染等其他情况也会缩短使用寿命。</i></p> <p><i>These connections are valid for all roller bearing manufacturers and are generally valid for all applications of roller bearings.</i> <i>这些关系适用于所有滚柱轴承生产商，在滚柱轴承的所有应用中应当予以避免。</i></p> <p><i>In order to avoid these early failures, RENK AG recommends</i> <i>为了避免提前报废，RENK 建议</i></p> <ul style="list-style-type: none"> ▶ an annual inspection by RENK SERVICE ▶ 每年由 RENK 维护部门进行一次检查 <p><i>and</i> <i>和</i></p> <ul style="list-style-type: none"> ▶ a preventative exchange of the roller bearings after 40000 operating hours or 5 years after commission. ▶ 在工作 40000 小时后或投入工作 5 年后预防性地更换滚柱轴承。 			
<p>General inspection (Gearbox) 全面检查 (齿轮箱)</p>	<ul style="list-style-type: none"> ▶ Arrange a general inspection by RENK SERVICE: <ul style="list-style-type: none"> ▶ Inspect and, if necessary, replace all relevant components/assemblies of the gearbox. <i>Toothed and rotating components, bearings, gaskets, hoses, wearing parts, instrumentation</i> ▶ Exchange of roller bearing in gearbox. ▶ 安排 RENK 维护部门进行全面检查: ▶ 检查并（如有必要）更换齿轮箱的所有相关部件/组件。有齿或旋转部件、轴承、垫片、软管、磨损件、仪表 ▶ 更换齿轮箱内的滚柱轴承。 <p><i>In order to ensure the availability of the spare parts, maintenance tasks must be planned a minimum of 6 months in advance.</i> <i>为了确保备件供应，维护工作必须至少提前 6 个月进行规划。</i></p>	C	8x 365	80000
<p>Measurement technology components, instruments (Gear unit)</p>	<ul style="list-style-type: none"> ▶ Check the function of all parts/component groups of measurement technology and the instruments. If necessary: Exchange faulty parts/component groups ▶ 检查测量技术和仪表的所有部件/组件功能。 如有必要: 	B	365	4000

测量技术 部件、仪表 (齿轮装置)	更换故障部件/组件 <i>See supplier documents in appendix D.</i> 参阅附件 D 内的供应商文件。			
Corrosion protection at still stand (Gear unit) 停机时的防 腐蚀保护 (齿轮装置)	<ul style="list-style-type: none"> ▶ By a still stand of the gear unit > 14 days, perform the necessary instructions of decommissioning. A corrosion protection in the gear unit is thereby ensured. ▶ 在齿轮装置停机超过 14 天的情况下，开展必要的停运指令。进而确保为齿轮装置提供防腐蚀保护。 <i>Please observe the instructions in the chapter "Decommissioning".</i> 请遵守“停运”一节中的要求。	A	14	-
Bearings (Gear unit) 轴承 (齿轮装置)	<ul style="list-style-type: none"> ▶ Measure the specified vibrations (roller bearings) and temperatures (sliding bearings).. ▶ File your records. ▶ 测量具体震动（滚柱轴承）和温度（滑动轴承）。 ▶ 填写记录 <i>Vibrations on the bearings of the gear unit should be monitored inside or outside the gear unit near the bearings.</i> <i>Short-term or long-term changes of vibrations may indicate improper operation or damage.</i> <i>According to frequencies specific for the gear unit as stated in this documentation or by RENK SERVICE.</i> 应从齿轮装置内部或外部靠近轴承的位置检测齿轮装置系统的震动。短期或长期震动变化可能代表操作不当或出现损坏。 根据本文件或 RENK 维护部门规定的齿轮装置检查频率。	B	Continuously 持续	

1)_RENK-qualification level personnel 2)_Operating hours

1)_RENK-资质水平人员 2)_工作小时

Place 位置	Activity 活动	Qual.- level1) 资质 水平	Interval 间隔	
	Notes / consumables / references 说明/耗材/参考		Days 日	OH2) 工作 小时
Air vent (Gear unit) 通风 (齿轮装置)	<ul style="list-style-type: none"> ▶ Check for permeability and renew if necessary. ▶ 检查渗透性，如有必要进行更换 <i>Filter for renewing, cf. spare parts list in appendix C.</i> 更换过滤网，参考附件 C 中的备件清单。	A	30	
Oil filling level (Gear unit) 注油量 (齿轮装置)	<ul style="list-style-type: none"> ▶ Carry out visual inspection of the oil level on the oil level indicator of the gear unit. ▶ 对齿轮装置的油位指示器进行目测检测。 <i>Setting / limit values according to the documents in appendix A. Deviating oil temperature values may indicate malfunction of parts/component groups, leakage or contamination in the gear unit.</i> 根据附件 A 内的文件设置限制值。油温出现偏差可能表示部件/组件出现故障、齿轮装置出现泄漏或污染。	A	Continuously 持续	
Oil temperature (Gear unit) 油温 (齿轮装置)	<ul style="list-style-type: none"> ▶ Check the oil temperature. ▶ 检查油温。 <i>Setting / limit values according to the documents in appendix A. Deviating oil temperature values may indicate malfunction of parts/component groups of the oil supply unit, leakage or errors in the gear unit.</i>	A	Continuously 持续	

	根据附件 A 内的文件设置限制值。油温出现偏差可能表示供油装置部件/组件出现故障、齿轮装置出现泄漏或污染。			
Lubricant (Gear unit) 润滑油 (齿轮装置)	<ul style="list-style-type: none"> ▶ Exchange the entire lubricant (complete oil change), except the oil analysis allows a longer utilization period. ▶ 更换所有润滑油（完全换油），除非油样分析结果显示可以延长使用期。 <p><i>Please observe this documentation!</i> 请遵守本文件要求！</p>	B		20000
Exterior pipes, Hoses, Seals (Gear unit) 外部管件、软管、密封 (齿轮装置)	<ul style="list-style-type: none"> ▶ Carry out visual inspection and check the gear unit for leakage, dirt, rust and damage and faultless fastenings. ▶ If necessary: Replace, clean, renew corrosion protection, ensure faultless fastenings ▶ 进行目测检查，并检查齿轮装置是否出现泄漏、存在污垢、生锈和损坏以及是否正确紧固。 ▶ 如有必要： 更换、清洗、更替防腐蚀保护，确保正确紧固。 <p><i>Please observe this documentation!</i> 请遵守本文件要求！</p>	A	7	After an alarm 出现警报后
Chaim (Positioning drive) Chaim (定位驱动)	<ul style="list-style-type: none"> ▶ Carrying out the service and maintenance activities according the supplier documents. ▶ 根据供应商文件开展维护工作。 <p><i>To do so, observe the supplier documents in appendix D</i> 请遵守附件 D 中的供应商文件。</p>	B	365	4000
Positioning drive (Positioning drive) 定位驱动 (定位驱动)	<ul style="list-style-type: none"> ▶ Carrying out the service and maintenance activities according the supplier documents. ▶ 根据供应商文件开展维护工作。 <p><i>To do so, observe the supplier documents in appendix D</i> 请遵守附件 D 中的供应商文件。</p>	B	365	4000
External coupling elements (Coupling) 外部联轴元件 (联轴)	<ul style="list-style-type: none"> ▶ Check correct alignment. If necessary: Renew alignment. ▶ 检查是否正确对齐。 如有必要：重新对齐。 <p><i>To do so, observe this documentation.</i> 请遵守本文件要求。</p>	B	365	4000
Main coupling (Coupling) 主联轴 (联轴)	<ul style="list-style-type: none"> ▶ Check the elastic transmission elements for abrasion and deformation. If necessary: Exchange parts/component groups. ▶ 检查弹性传动元件是否出现摩擦和变形。 如有必要：更换部件/组件。 <p><i>To do so, observe the supplier documents in appendix D</i> 请遵守附件 D 中的供应商文件。</p>	B	365	4000
Oil filter dirt side (Oil supply unit) 油滤污垢侧 (供油装置)	<ul style="list-style-type: none"> ▶ Take oil sample from the filter dirt side and have an oil analysis carried out in a certified laboratory.. ▶ 从油滤污垢侧采集油样并在认证实验室内对油样进行分析。 <p><i>If oil quality declines, the interval for oil analysis must be shortened and, if necessary, prepare and perform a full oil change.</i> 如果油的质量下滑，必须缩短间隔，如有必要，可以准备</p>	B	365	4000

	更换所有油。			
Oil filter (Oil supply unit) 油滤 (供油装置)	<ul style="list-style-type: none"> ▶ Check and change the filter elements. ▶ 检查和更换过滤元件。 	A	--	1000 After an alarm 发出警报后
	<p>To do so, observe the documents in appendix D /E.</p> <p>If metal shavings or grit are discovered inform <i>RENK SERVICE immediately.</i> 请遵守附件 D/E 中的要求。 如果发现刨屑或沉砂，立刻通知 RENK 维护部门。</p>			

1)_RENK-qualification level personnel 2)_Operating hours
1)_RENK-资质水平人员 2)_工作小时

Place 位置	Activity 活动	Qual.- level1) 资质 水平	Interval 间隔	
	Notes / consumables / references 说明/耗材/参考		Days 日	OH 工作 小时
Inspection (Oil supply unit) 检查 (供油装置)	<ul style="list-style-type: none"> ▶ Recommendation! Arrange a general inspection by RENK SERVICE. ▶ 建议! 安排 RENK 维护部门进行全面检查。 	C	1x 365	8000
	<p><i>Downtimes caused by unusual influences or damage can be avoided through regular inspections by RENK SERVICE.</i> <i>Countermeasures can be taken promptly if needed.</i></p>			
General inspection (Oil supply unit) 全面检查 (供油装置)	<ul style="list-style-type: none"> ▶ Arrange a general inspection by RENK SERVICE: <ul style="list-style-type: none"> ▶ Inspect and, if necessary, replace all relevant components/assemblies of the gearbox. ▶ 安排 RENK 维护部门进行全面检查: ▶ 检查并 (如有必要) 更换齿轮箱内所有相关部件/组件。 	C	8x 365	80000
	<p><i>RENK AG recommends carrying out the general inspection at the same time that the general inspection of the gearbox is carried out. This can reduce the standstill time.</i> <i>RENK 建议, 在进行全面检查的同时, 对齿轮箱进行全面检查。这可以减少停机时间。</i></p>			
Measuring technology components, instruments (Oil supply unit) 测量技术部件、仪表 (供油装置)	<ul style="list-style-type: none"> ▶ Check the function of all measurement technology parts/component groups and the instruments for function. If necessary: Exchange faulty parts/component groups ▶ 检查所有测量技术部件和组件的功能以及仪表的功能。 如有必要: 更换故障部件/组件 	B	365	4000
	<p><i>To do so, observe the supplier documents in appendix D /E.</i> <i>请遵守附件 D/E 供应商文件的要求。</i></p>			
Air vent (Oil supply unit) 通风 (供油装置)	<ul style="list-style-type: none"> ▶ Check for permeability and renew if necessary. ▶ 检查渗透性, 如有必要进行更换。 	A	30	--
	<p><i>To do so, observe the documents of the oil supply unit in appendix D</i> <i>遵守附件 D 中供油装置文件的要求。</i></p>			
Motors, pumps,	▶ Check the oil supply unit for unusual noises of	A	7	After

<p>couplings (Oil supply unit) 电机、泵、联轴 (供油装置)</p>	<p>motors, pumps, couplings and suspensions. ▶ 检查供油装置是否出现不正常的电机、泵、联轴和悬挂噪音。 To do so, observe the supplier documents in appendix D /E. 遵守附件 D 中供油装置文件的要求。</p>			<p>an alarm 发出 警报后</p>
<p>Oil filter- contamination display (Oil supply unit) 油滤-污染显示 (供油装置)</p>	<p>▶ Check the degree of contamination and the optical and electrical monitoring system. ▶ 检查污染程度和光学与电气监控系统。 To do so, observe the documents of the oil supply unit in appendix E. Changes of the degree of contamination indicate that the filter element must be cleaned or replaced. 遵守附件 E 中供油装置文件的要求。 调整必须清洗或更换油滤元件的污染程度指标。</p>	A	7	<p>After an alarm 发出 警报后</p>
<p>Oil cooler (Oil supply unit) 油冷却器 (供油装置)</p>	<p>▶ Check and clean the oil cooler. ▶ 检查和清洗油冷却器 Check the pipe side (water side) and clean if necessary. Built-up dirt may cause destruction of the oil supply unit and reduced service life the gear unit. Order new seals in time! 检查管道侧(水侧), 如有必要, 进行清洗。 积累的污垢会导致供油装置损坏并减少齿轮装置的使用寿命。及时订购新的密封件!</p>	B	365	2000
<p>Oil level (Oil supply unit) 油位 (供油装置)</p>	<p>▶ Carry out visual inspection of the oil level. ▶ 对油位进行目测检查。 To do so, observe the documents of the oil supply unit in appendix E. The oil level must always be within the limit values in order to prevent and danger caused by the immersion heaters and an error of the oil system. Changes of the oil level may indicate leakage, water penetration or an error in the oil supply unit. 遵守附件 E 中供油装置文件的要求。 为了防止浸没式加热器和供油系统故障导致的危险, 油位必须在限制值内。油位出现变化可能表示供油装置出现泄漏、水渗透或故障。</p>	A	7	--

1)_RENK-qualification level personnel 2)_Operating hours

1)_RENK-资质水平人员 2)_工作小时

Place 位置	Activity 活动	Qual.- level1) 资质 水平	Interval 间隔	
	Notes / consumables / references 说明/耗材/参考		Days 日	OH 工作 小时
<p>Pipes, hoses, seals (Oil supply unit) 管道、软管、密封 (供油装置)</p>	<p>▶ Carry out a visual inspection for leakages, dirt, rust, damage and faultless fastenings. If necessary: Replace, clean, renew corrosion protection, re-work fastening. ▶ 目测检查是否出现泄漏、污垢、锈迹、损坏并确保准确紧固。 如有必要: 更换、清洗、更替防腐蚀保护, 重新紧固。</p>	A	7	<p>After an alarm 发出 警报后</p>

	<p>To do so, observe the documents of the oil supply unit in appendix E. 遵守附件 E 中供油装置文件的要求。</p>			
<p>Hoses (Oil supply unit) 软管 (供油装置)</p>	<ul style="list-style-type: none"> ▶ Exchange the hoses of lubricant and cooling water supply ▶ 更换润滑油和冷却水供应的软管 	B	2x 365	--
	<p>Recommended intervals for exchange BGR (Rules of the German Employer's Liability Insurance Association) 237: Normal requirements: 6 years operating period, Including maximally 2 years of storage Increased requirements: 2 years operating period (e.g. increased utilization times, multiple-shift operation) 建议更换 BGR (德国雇主责任险协会规则) 237 的建议间隔: 正常要求: 6 年工作期, 包括最多 2 年的储存期 更高要求: 2 年工作期 (例如增长利用时间、轮班工作)</p>			

Table Error! Use the Home tab to apply Überschrift 1 to the text that you want to appear here. - 2 Service schedule
表 1 - 2 维护计划表

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2 Document directory

文档目录

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2.1 Identification of the documentation

文件识别

Gear unit system 齿轮装置系统	KPBV				
Keyword 关键词					
Country of installation 安装国家					
Order number 订单号	2088790				
Product number 产品编号					
Serial number 系列号	03-14-03434				
Customer 客户					
Customer order number 客户订单号	2014133600801				
Document type 文件类型	Assembly and Operating Instructions 装配和操作说明				
First Issue 第一版	2015-08-04				
Issue 版本	2015-08-04				
Revision 修订	-A-				
Document number 文件编号	2088790-A-EN <small>(Order number-keyword-index-language of the issue) (订单号-关键词-索引-版本语言)</small>				
Issue type 版本类型	Translation of the original issue 原版翻译				
Language of the issue 版本语言	english (en) 英语				
Scope of delivery of the first issue 第一版交付范围	DE		Hardcopy 硬拷贝	1x	CD-Rom
	EN	1x	Hardcopy 硬拷贝	1x	CD-Rom
	ES	1x	Hardcopy 硬拷贝	1x	CD-ROM

Table Error! Use the Home tab to apply Überschrift 1 to the text that you want to appear here. - 1 Document and system identification
表 2 - 1 文件和系统识别

End of the chapter 篇章末尾

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