

Reishauer Ltd. : A Driving Force in the Chinese Auto Industry

莱斯豪尔：做中国汽车工业发展的齿轮

—— Interview with Mr. Markus Wehrle, President of Reishauer Ltd. and Ms. Meng Li, Chief Representative of its Beijing Representative Office.

—— 访瑞士莱斯豪尔公司总裁威尔利先生、北京代表处首席代表孟立女士

□记者 黄晏陵

在中国，为中国。享誉全球、驰名世界的瑞士莱斯豪尔公司，2019年在中国将有投资的大动作。总裁威尔利先生最近透露，2019年将在中国华东地区投巨资建立其分支机构非索马特（Felsomat）中国生产基地和莱斯豪尔中国技术展示中心，实现非索马特机床本地研发生产，全面展示最新的莱斯豪尔机床和最前沿的磨床技术。这也是莱斯豪尔第一次在中国建实体企业和技术展示中心。“自1997年设立北京代表处以来，我们和中国的关系得以日益发展和巩固。2014年5月设立了莱斯豪尔磨削技术（北京）有限公司，2019年的新投资将坚定我们扎根中国的信心，实现对客户的长期承诺。对于莱斯豪尔公司今后在不断创新汽车制造领域的进一步发展，中国作为一个重要的未来市场具有重要意义。在中国的巨额投资，是我们全球战略的重要组成部分。鉴于中国汽车制造领域日益增长的年产量，中国市场已成为公司的支柱。”

壮阔东方潮，奋进新时代。随着中国经济的增长及从数量到质量的转变，瑞士莱斯豪尔公司正在新时代中奋进。2018年瑞士莱斯豪尔公司在中国是个丰收的一年，业绩增长喜人，再创历史新高，高端汽车变速箱齿轮加工设备市场占有率大幅提高。由于出色的表现，瑞士莱斯豪尔公司北京代表处首席代表孟立女士被中国国家权威媒体，在北京饭店金色大厅联合授予“2018中国经济优秀人物”大奖，莱斯豪尔齿轮磨削技术（北京）有限公司被授予“2018中国经济创



瑞士莱斯豪尔公司总裁威尔利先生
Mr. Markus Wehrle, President of Reishauer Ltd.

新企业”大奖。评奖标准是依据企业在中国市场的卓越表现，按照创新力、影响力、贡献力、发展力、经营力等综合评价指标衡量。全国政协副主席郑建邦莅临大会并颁奖。在庆祝中国改革开放40周年之际，记者专程采访了公司总裁威尔利先生、北京代表处首席代表孟立女士。

百年企业少见，而瑞士莱斯豪尔公司是有逾二百年历史的欧洲家族企业则更显稀缺和弥足金贵了。它是欧洲历史最悠久的机床制造公司，是世界上处于领先地位的蜗杆砂轮磨齿机制造公司，成立于1788年，至今已有231年的历史。莱斯豪尔公司作为欧洲最古老的机床生产商之一，今天已成长为世界领先的齿轮磨床生产商。莱斯豪尔的名字和莱斯豪尔磨床已成为高精度复杂齿轮加工设备的同义词。回顾莱斯豪尔231年的企业发展历史，它既是一部创新史，也是一部发明史和不断获得专利的历史。

自1788年生产手动工具起家，多年之后创造性的发明和生产了螺纹磨床，1945年发明蜗杆砂轮磨齿机，1977年RZ300E引入电子齿轮箱，1986年RZ301S实现连续移位磨削，1993年RZ362A首台高性能连续展成磨齿机问世并进入汽车制造业，1998年自主生产金刚石工具，2001年推出全新磨齿机RZ400机床带自主研发的电子齿轮箱，2003年RZ150首次在磨床中实现双主轴工艺，2006年RZ1000用于大型齿轮的单元加工机床，加工齿轮达1000mm，2008年开始自行生产砂轮，2009年推出RZ60系列，



2012年自主生产夹具，2014年全面实现自主设计、莱斯豪尔机床专用的自动化系统，2018年推出最新型RZ126。多轴联动控制；低噪音移位磨削程序；万能修形方式；加工摆线和非渐开线齿轮；加工直锥齿轮；开发出独特的磨削程序，可以实现抛光磨削和抗扭曲磨削；全自动砂轮和金刚轮啮合程序及修形程序等都是莱斯豪尔的专利技术。莱斯豪尔公司研制的新型数控磨齿机，已应用在中国各行各业中包括航空航天、机床制造业、汽车摩托车制造业、船舶工业、印刷机械和纺织工业及减速机等领域。威尔利先生说：“相对于传统领域的平稳发展，我们在汽车工业里的增长特别明显，在华高端汽车变速箱的齿轮基本上是由莱斯豪尔磨床加工制造出来的。”驱动中国汽车工业发展的齿轮，莱斯豪尔早已成为中国汽车工业不可或缺的重要战略合作伙伴，为中国汽车领域的发展贡献着自己的力量。

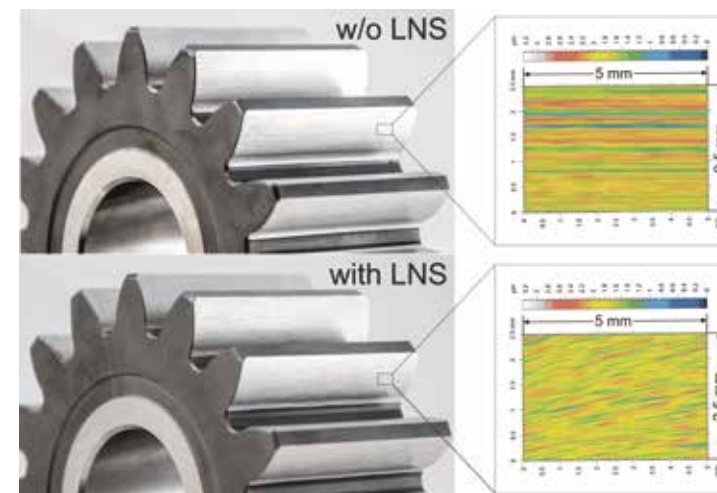
总裁威尔利先生大学一毕业即进入公司，通过努力地工作和不断进取，一步一个脚印，成长为企业里职务最高的负责人。工作了40多年的威尔利先生是从企业最基层做起的，养成了为人处世非常低调

的习惯。通过多次的接触，我认为威尔利先生非常睿智、幽默、严谨、务实，喜爱挑战，不忘初心、牢记使命，富有前瞻性、充满忧患意识，寻求公司长期、稳定的发展。在过去的五年里，他在莱斯豪尔公司总部实施了许多以用户为中心的重要策略，“这些重新定位的策略从来没有当众宣布过。”变化体现在企业的内功方面，主要有两大发展变化，其一改进并逐步完善了生产机床的制造系统，机床生产周期更快了，单位生产年产机床的数量更多了。其二机床的质量进一步提高了，确保客户加工过程中的降噪、齿轮的性能、齿轮的精度，以及齿轮生产过程中的质量稳定性、齿轮单件性价比高。勤练内功，就是着眼未来，加强研发力量。我们在研发上的投入，远远超越同行。我们的一切经营活动以用户为本，快速满足客户的需求，让用户获益，与用户结成利益共同体，形成一个紧密的利益链条闭环。”

端庄、知性的孟立女士是莱斯豪尔中国事业的开拓者、缔造者、



领军者。30余年在刚硬的机床行业的职业阅历，硬是在男士扎堆的机床行业打下一片新天地，而没有改变她女性的柔韧特质，反而变得更加细腻和敏锐，常年累月不卑不亢的执着耕耘，在中国机床行业留下了具有传奇色彩的个人烙印，把莱斯豪尔机床推向了整个中国。多年的接触，记者对她的人格魅力羡慕不已、深表钦佩。作为国内机床行业任外企高管时间最长的中国掌门人，确有比他人更具优势的人格魅力。记者认为她是一个追求工作完美的人，长期超负荷的工作已成家常便饭，空中飞人是她工作中的标配。孟立女士谦虚的说：“企业在中国的成功，不是我一个人的功劳，是公司全体员工精诚团结，紧密协作干出来的。我们是最具执行力的团队。企业在中国的成功，离不开集团总部对我们的信任、全力支持和配合。企业在中国的成功，离不开中国改革开放的大环境，我们抓住了改革开放40年中后20





年大好时机。”

围绕跨国公司在的话题，威尔利先生重点介绍了莱斯豪尔公司近 5 年的发展成就，他说：“近 5 年来，我们在中国发展的非常好，跟着中国经济的发展，业务增长速度快，特别是在汽车领域，主要为在华高端汽车厂家提供变速箱齿轮加工机床，大众（长春一汽、大连、天津和上海）、吉利、长安福特、上汽、宝马、奔驰、丰田、菲亚特克莱斯勒、长城、比亚迪、东风、江淮等整车厂、和麦格纳 / 格特拉克、法士特、大同齿轮集团、爱信、ZF 等知名企业都是我们的客户。自 2016 年开始，莱斯豪尔中国的业务已经连续三年超过莱斯豪尔美国的业务。目前莱斯豪尔已形成欧洲、美洲、亚洲各占三分之一，三分天下的市场格局。

亚太区里的中国，增长势头好，一直直线上升，突出表现在中国的汽车工业领域。数年前中国就早已成为全球最大的汽车制造国和全球最大的汽车市场。目前中国正走在汽车制造大国向汽车制造强国迈进的道路上，这里面正有莱斯豪尔的用武之地。齿轮是汽车的重要基础部件，发动机、变速箱都离不开齿轮。性能和价值越高的汽车对

齿轮的要求也越高。作为中国汽车从大国往强国迈进的幕后英雄，莱斯豪尔专注于为中国汽车市场源源不断的提供全世界最顶级的磨床和最前沿的磨齿技术应用解决方案。中国新能源汽车走在了世界的前列，我们能为之提供相对应的齿轮磨床。今年是中国改革开放 40 周年，中国已成为全球制造业大国，中国所取得的成就如神话般不可想象。我们应该向中国改革开放 40 周年所取得的成就鞠躬、致敬！”

威尔利先生最后重点补充介绍了莱斯豪尔旗下的全资子公司德国非索玛特公司，全球领先的数控机床和自动化、智能化领域的系统供应商，可根据客户生产工艺需求提供大批量生产齿轮加工设备包括：软车削、滚齿、激光焊接、热处理、硬车削和内孔磨的定制机床和定制智能自动化系统解决方案，目前已完成了 1 万个项目。非索玛特



的产品广泛应用于国际知名汽车生产企业中变速箱和发动机领域的智能化和自动化生产。通过柔性线系统，正在推动齿轮加工和凸轮轴加工领域的革命。2016 年在美国完成了一个年产 160 万套变速箱所需要加工近 2000 万个齿轮单品的交钥匙项目。从毛坯件到成品的整个流程可以由同一个制造商提供，节省空间，成本和资源，继而为每一个生产要求设计制造经济的、可扩展的机床平台。非索玛特（北京）机床有限公司是德国非索玛特公司在华全资子公司。



软车削 滚齿 激光焊接 热处理 硬车削 展成磨削



In China, for China. Reishauer Ltd., a world-renowned Swiss company, will enhance its investment in China in 2019. Mr. Wehrle has revealed recently that in 2019, Reishauer will make an important investment in building a local production base for its subsidiary FELSOMAT together with a Reishauer technology exhibition center in eastern China, to establish local R&D and production of Felsomat automation and to exhibit the latest Reishauer machine tools and its cutting-edge grinding technology. It is also the first time for Reishauer to invest in a Chinese enterprise for local production and a technology exhibition center in China. "Since the foundation of the Beijing Representative Office in 1997, our relationship with China has been steadily strengthened and consolidated. In May 2014, Reishauer Gear Grinding Technology (Beijing) Co., Ltd. was founded, and further investments in 2019 will strengthen our confidence in taking root in China to fulfill our long-term commitment to our customers. The Chinese market, with its innovative trends in the automotive sector, is of great significance for the future development of the Reishauer Ltd.. Therefore, increased investment in China is an important part of our global and local strategy. Furthermore, the Chinese market has become the backbone of the company due to the outstanding annual growth of the Chinese car industry."

As the Chinese economy is growing and transitioning from quantity to quality, Reishauer is striving to move forward in this new era. 2018 was a year of reaping the benefit for Reishauer as it enjoyed substantial business growth in China which hit a historical high point. The market share of high-end automotive transmission gear machining equipment increased significantly. Ms. Meng Li, the Chief Representative of Reishauer AG Beijing Representative Office, won the award "2018 China Economic Figure" given by the Chinese National Authoritative Media in the Golden Hall of Beijing Hotel in December 2018, and, in addition, Reishauer Gear Grinding Technology (Beijing) Co., Ltd., was jointly awarded the prize "2018 China Economic Innovation Enterprise". Ms. Meng Li received the prize due to her outstanding performance in the Chinese market. The criteria for the award was based on a comprehensive evaluation of indicators such as innovation, influence, contribution, development and operation capabilities. Mr. Zheng Jianbang, Vice Chairman of the National Committee of the Chinese People's Political Consultative Conference, attended the ceremony and presented the awards. On the occasion of the 40th anniversary of China's reform and opening up, this journalist conducted an exclusive interview with Mr. Wehrle and Ms. Meng Li.

A 100-year-old company is somewhat rare, but a company with a history of more than 200 years is even more unusual. Reishauer, a European family business, is one of these rare entities. Founded in 1788, and with a history of 231 years, Reishauer is one of the oldest machine tool manufacturers in Europe and, today, is a world-leading manufacturer of generating gear grinding machines. Reishauer and its grinding machines have become synonymous with complex high-precision gear grinding equipment. When looking back on Reishauer's 231-year corporate development, it is a history replete with innovation, invention, and patents granted.

Reishauer began in 1788 with the design and the production of various hand tools, and later, advanced to manufacture thread grinding machines. Subsequently, in 1945, Reishauer

invented the generating gear grinding machine that uses a worm grinding wheel as its base technology. Later, in 1977, Reishauer introduced an electronic gearbox with the RZ300E machine and, subsequently in 1986, introduced continuous shift grinding with the grinding machine RZ301S. In 1993, the company presented the first high-performance continuous generating gear grinding machine, the RZ362A, to the automotive industry. In 1998, Reishauer started the production of its own diamond tools for the dressing of grinding wheels. In 2001, it launched an entirely new type of grinding machine: the RZ400 with its own advanced electronic gearbox. The company introduced the twin-spindle technology for gear grinding machines for the first time in 2003 with the RZ150 machine. In 2006, it launched the



RZ1000 machine, a job shop machine for large gears up to 1000 mm. Subsequently, in 2008, Reishauer started to produce its own grinding wheels. Next, in 2009, the company launched the RZ x60 series machines. Three years later, in 2012, Reishauer began the production of its own clamping fixtures. Then, in 2014, the company designed and began to build its own automation systems for Reishauer machine tools and, in 2018, launched the latest machine model the RZ126. Reishauer has obtained patents for multi-axis simultaneous control; low noise shift grinding programs; universal dressing methods; machining of cycloid and non-involute gears; machining of straight bevel gears; unique grinding programs for polish grinding and twist control grinding; and fully automatic grinding wheel and diamond wheel meshing and dressing programs. The new CNC gear grinding machines developed by Reishauer operate in various fields of application in China, including aerospace, machine tool manufacturing, automobile and motorcycle manufacturing, shipbuilding, printing machinery, textiles, and gear reducers. Mr. Wehrle said, "Our business growth is particularly significant in the automotive industry compared



with the traditional areas of application, with Reishauer grinding machines manufacturing the large majority of gears for high-end automotive transmissions in China." As a contributing force to drive the development of China's automobile industry, Reishauer has become an indispensable strategic partner for the Chinese automotive industry.

Having joined Reishauer upon graduation from university, and by steady work and continuous progress, Mr. Wehrle became the highest-ranking person of Reishauer. Having started at the bottom of the ladder, and after 40 years of work experience, he still prefers to keep a low profile. After multiple dealings with Mr. Wehrle, this journalist concludes that he is a humorous, rigorous, smart, and pragmatic person, who always remains true to his original aspirations and who seeks long-term and enduring development for Reishauer, using both foresight and risk awareness. He also implemented some enhanced customer-oriented strategies at Reishauer's headquarter during the past five years. "Such strategic reorientations and policy enhancements are never announced in public. They are reflected and embodied by the enhanced internal strength of the company in two aspects. The first aspect is the continuously improved machine tool manufacturing system, which delivers shorter production cycles and higher productivity. The second aspect is the improved quality of the machine tools, which leads



to noise reduction in the transmission, sound gear functioning and constant precision and stable quality, all of which culminate in the lowest cost per part. By focusing on research and development, the enhancement of the internal strategy and strength aims at future opportunities. Moreover, our investment in R&D is way above that of our competitors. All of our business activities are user-oriented to meet customers' requirements on time, to support them, to serve them as a partner and to form a mutually beneficial closed loop of interest."

Ms. Meng Li, dignified and bright, is the pioneer, founder and leader of Reishauer's business in China. With over 30 years of working experience in the machine tool industry, Ms. Meng established herself among males without losing her feminine attributes of being both flexible and tough, while, at the same time, becoming more sensitive and sharper. Without ever being servile or overly self-assertive, her long-term perseverance has made her a legendary figure in the Chinese machine tool industry, which in turn contributed that Reishauer machine tools had become well-received across China. After years of association with Ms. Meng Li, this journalist admires her personal qualities. Her personality has been indeed advantageous for her to become the Chinese head with the longest tenure as a senior executive for a foreign company in the Chinese machine tool industry. She is a person who pursues perfection in work, accepts high workloads as part of the job, and spends much time on business trips. Ms. Meng Li said modestly: "The success of Reishauer in China is not my merit, but the result of all employees working together with sincere cooperation. We are a team of action. The success of Reishauer in China could not have been achieved without the trust, full support, and coordination of the Swiss headquarter. Also, the success of Reishauer in China could not have been realized without the excellent environment of China's reform and opening up, and we have seized this opportunity for development in the past 20 years."

Focusing on the topic of multinationals in China, Mr. Wehrle highlighted the development achievements of Reishauer in the past five years. "The past five years have seen a fast development of Reishauer in China, with high business growth, especially in the automotive field, in line with the development of China's economy. We mainly provide gear machine tools



for high-end automotive transmission manufacturers in China such as: Magna/Getrag, SAGW, Fast, Shanxi Datong Gear Group, Aisin, ZF, and for automotive assembly plants and car manufacturers such as Volkswagen (Changchun, Dalian Tianjin, Shanghai), Geely, Changan Ford, SAIC, BMW, Mercedes-Benz, Toyota, Fiat Chrysler, Great Wall, BYD, Dongfeng, JAC. Reishauer's business in China has surpassed that in the US for three consecutive years since 2016. At present, Reishauer Ltd. has formed a strategic target that Europe, America, and Asia each represent one-third of the global business.

Furthermore, in the Asia Pacific region, its business in the Chinese market shows a favorable growth momentum and has been rising linearly, highlighting the growth in the automotive industry. China has become the world's largest

automotive manufacturer and market long ago. At present, it is transitioning from an automobile manufacturing power to an automobile manufacturing superpower, which offers excellent opportunities for Reishauer. Gears are essential parts of an automobile, and indispensable for the engine and the transmission. The higher the performance and the value of a car, the stricter become the requirements placed on gears. As a driving force for China to transit from an automotive power to a superpower, Reishauer is committed to supplying the world's top-class grinding machines and cutting-edge gear grinding technology solutions to the Chinese automotive market. Across the globe, China takes the lead in new energy vehicles, and we have the appropriate gear grinding machines ready for this unique situation. This year marks the 40th anniversary of China's reform and opening up, and China has become a global manufacturing power that has made inestimable achievements that we must pay tribute to."

Mr. Wehrle also made a special introduction of Reishauer's wholly-owned subsidiary, Felsomat GmbH (Germany), a leading supplier of CNC machine tools and intelligent automation systems for the high volume production of gears. It can supply customized machine tools for turning, hobbing, laser welding, hard turning and bore grinding and intelligent automation solutions according to customers' production process requirements. Products of Felsomat are in extensive use in automated manufacturing lines of transmissions and engines by world-renowned automobile manufacturers. Felsomat is driving a revolution in the field of gear and camshaft machining with its Flexline System. In 2016, a turnkey project was implemented in the US, which required the machining of 20 million gear parts for an annual transmission output of 1.6 million units. The entire process is made available from the same manufacturer, which saves space, cost, and resources. Thus, economical, flexible and expandable machine tool platforms can be designed for individual production requirements. Felsomat (Beijing) Machine Tool Co., Ltd. is a wholly-owned subsidiary of Felsomat GmbH.





Swiss Precision Gear Grinding

瑞士精密齿轮磨削技术

Cars, aircraft and industrial machinery all require high-accuracy gears for their transmissions. Reishauer gear grinding systems play a major role in the manufacturing process of such transmissions.

汽车，航空及工业领域的传动系统均需要高精度的齿轮。莱斯豪尔齿轮磨削技术在这些传动系统的制造过程中发挥了重要的作用。

