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Norsepower announces installation of five tiltable rotor sails on a VLOC chartered by Vale

挪世航力宣布五桅可倾收式的筒转帆已安装在淡水河谷 (Vale) 承租的超大型矿砂船(VLOC)上

HELSINKI - 13th May 2021: Norsepower Oy Ltd., the leading global provider of auxiliary wind propulsion systems, today announced the installation of five tilting Rotor Sails on board a new-build Very Large Ore Carrier (VLOC) chartered by Vale, the Brazilian mining company. The first installation of Norsepower's innovative Rotor Sails on a bulk carrier demonstrates the adaptability of the technology to reduce fuel consumption, fuel costs and reduce emissions across a variety of vessel types.

赫尔辛基 – 2021 年 5 月 13 日：风力辅助推进系统供应商中的全球领军者，挪世航力有限公司 (Norsepower Oy Ltd.)，今天宣布五桅可倾收式筒转帆已经安装在巴西矿业公司淡水河谷 (Vale) 承租的一艘新建超大型矿砂船(VLOC)上。首次在散货船上开创性地安装挪世航力的筒转帆，展现了此项技术通用在多种各类船型上，降低燃料消耗、燃料成本和减低排放的应用适应能力。

The new vessel, a 325,000 dwt VLOC is owned by Pan Ocean Ship Management and will be chartered by Vale after construction is completed in China. To enable efficient cargo operations, the five 24m high and 4m diameter Rotor Sails can be tilted by using hydraulic cylinders.

该艘 32.5 万载重吨的超大型矿砂船 (VLOC) 新船为 Pan Ocean 船舶管理公司拥有，在华建造完工后会由淡水河谷 (Vale) 承租。为了实现高效的货运作业，此五桅 24 米高、直径 4 米的筒转帆可以被其配备的液压油缸组件支撑倾收。

With growing international and public pressure on the maritime industry to move towards decarbonising their operations, the ability to harness the wind to generate thrust, reduce fuel consumption and emissions, is a natural next step is becoming an increasingly viable option to meet imminent regulatory drivers such as EEXI and CII ratings.

随着国际和公众对航运业脱碳运营的压力日益高涨，具备驾驭风能而生产推力，从而减少燃料消耗和排放的能力，自然而然地变成应对迫近的要兑现实施 EEXI 和 CII 等级监管要求的一个更加切实可行的选择。

Norsepower has analysed the routes for the vessel chartered by Vale and estimates that its technology would be able to achieve an efficiency gain of up to 8% and a consequent reduction of up to 3,400 tons of CO₂ per year.

挪世航力分析过淡水河谷 (Vale) 承租的这艘船的数条航行路线，估计其技术将能够实现每年高达 8% 的节能收益，而且随之降低二氧化碳排放量可高达 3400 吨。

Commenting on the installation, Tuomas Riski, CEO, Norsepower, said: "We are delighted to be working with Vale, and supporting them to maximise the propulsive power of wind to reduce carbon and other emissions as well as protecting the sustainability of its value chain more broadly.

就此例筒转帆的安装，挪世航力首席执行官 Tuomas Riski (托马斯·李斯奇) 表示：“我们很高兴与



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淡水河谷 (Vale) 合作，从而协助他们最大程度地利用取自于风的推进动力，减少碳排和其他污染排放，以至于更全面地保护其价值链的可持续性。”

“The five tilting Rotor Sails will allow Vale to maintain flexible cargo operations while also saving fuel and emissions. Installing our Rotor Sails on the first VLOC demonstrates that our technology is adaptable across varied operational profiles and vessel types. As vessel operators and charterers strive to decarbonise, the value of wind propulsion for both a retrofit and newbuild vessels is undeniable. The Rotor Sails can reduce a vessel’s Energy Efficiency Design Index (EEDI) and future-proof vessels against impending IMO Greenhouse Gas regulations as well as against inevitable fuel price increases as new fuels enter the market.”

李斯奇 (Riski) 补充道：“这五桅可倾收式的筒转帆既能使淡水河谷 (Vale) 保持灵活的货运作业，又能节省燃料和降低排放。在首艘超大型矿砂船 (VLOC) 上安装我们的筒转帆表明，我们的技术的可适应性可以让其通用于多样的营运作业安排和多种的船舶类型。随着船舶运营商和承租商不断努力实现脱碳，无论对现有改造或是新建船舶，风力推进的价值都是毋庸置疑的。安装筒转帆能降低特定船只的新船能效设计指数 (EEDI)，确保船舶未来能从容应对迫近实施的国际海事组织 (IMO) 温室气体法规，以及随着新燃料引进市场而不可避免的燃料价格上涨。”

Rodrigo Bermelho, Shipping Technical Manager, Vale, added: “We are committed to supporting the adoption of clean technology solutions for shipping to ensure that Vale’s sustainability objectives are achieved. Installing five Rotor Sails will maximise our fuel and emissions savings. We are working with Norsepower to ensure this new build is as environmentally friendly as possible and can achieve significant reductions in fuel consumption and CO2 emissions. If the pilot proves effective, it is estimated that at least 40% of the fleet will be able to use the technology, which would result in a reduction of almost 1.5% of Vale’s annual iron ore maritime transport emissions.”

淡水河谷 (Vale) 的航运技术经理 Rodrigo Bermelho 说：“我们致力支持在航运业清洁技术方案的采用，以确保淡水河谷 (Vale) 的可持续发展目标得以实现。安装五桅筒转帆将让我们的节能减排最大化。我们正在与挪世航力合作，确保这艘新船尽可能地对环境友好，并能显著地减少燃料消耗和二氧化碳排放。如果这个试点项目被证明有效，预计我们船队中至少 40% 的船舶将能够采用该技术，这将使淡水河谷 (Vale) 每年海上运输铁矿砂的排放量减少近 1.5%。”

The Norsepower Rotor Sail is the first third-party verified and commercially operational auxiliary wind propulsion technology for the global maritime industry. The solution is fully automated and detects whenever the wind is strong enough to deliver fuel and emission savings, at which point the Rotor Sails start automatically.

挪世航力的筒转帆是全球航运业内首个经第三方验证并开启商业运行的风力辅助推进技术。该技术方案运行是完全自动化的，当探测到风力强度增大达到足以发挥节能减排作用的临界点时，筒转帆会自行启动运转。