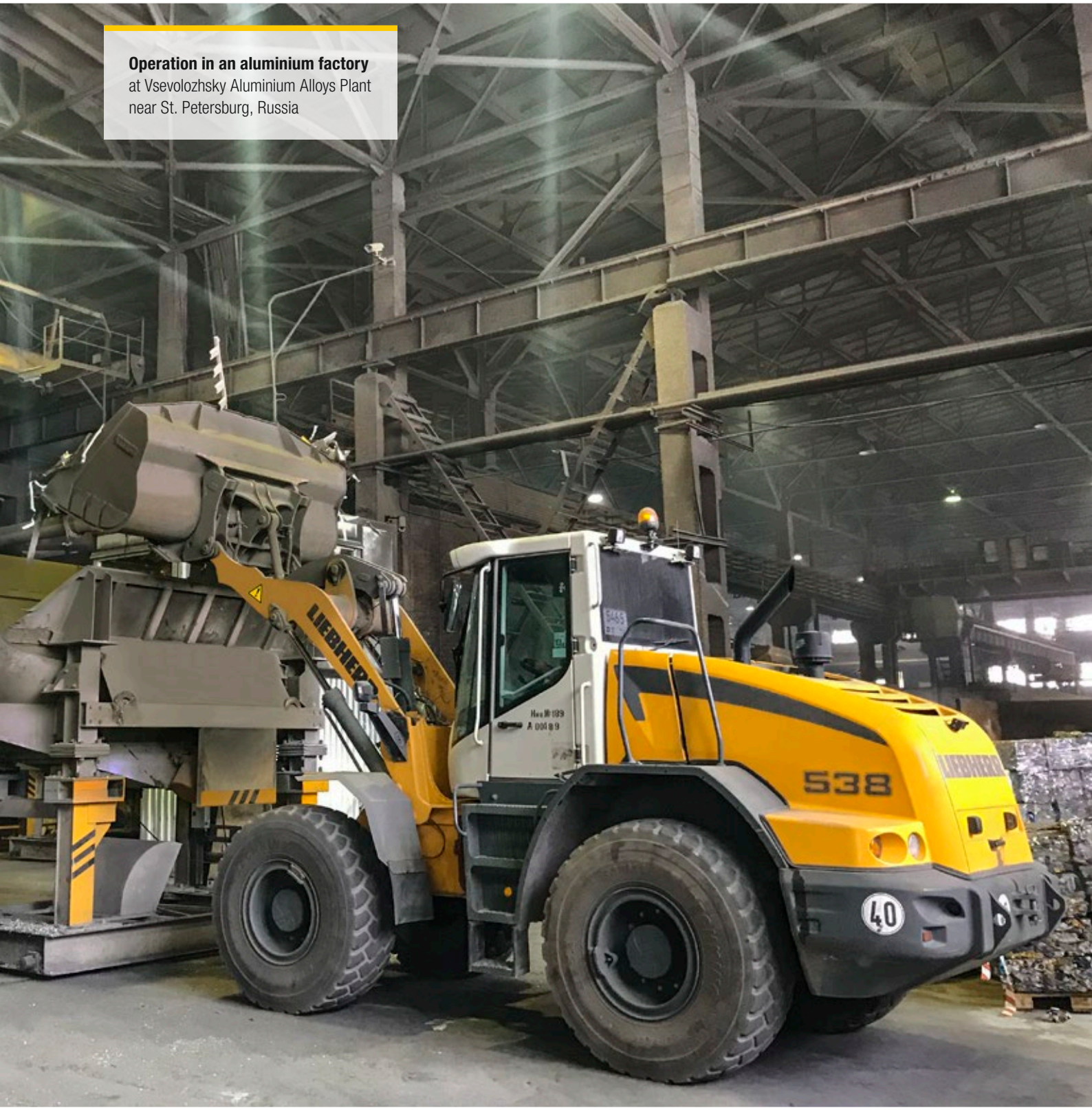
Job Report Wheel Loader

L 538



Operation in an aluminium factory
at Vsevolozhsky Aluminium Alloys Plant
near St. Petersburg, Russia

LIEBHERR

L 538 loading aluminium waste.

L 538 filling a truck with black slag.

Situation

The Vsevolozhsky Aluminium Alloys Plant (VZAS) founded in 1999 is located 30 km away from St. Petersburg. The company is one of the largest producers of secondary aluminium alloys in Russia and its main activity is recycling aluminium cans. In 2014 the company deployed a new-generation melting unit with a capacity to produce six tons of aluminium alloys per hour, which has ramped up total production volumes by more than 60 %. This high-melting equipment enables the company to process the most complex types of metallic waste into a wide range of aluminium alloys that comply with both Russian and international standards.

Task

Aluminium waste delivered to the plant is subjected to grinding and sorting into various sizes and gradings. The sorting process selects only aluminium to be ground and further processed. The wheel loader at the plant has a range of responsibilities: truck loading with black slag and feeding the grinding and screening plant with aluminium waste, as well as subsequent cleaning of converters.

Solution

Another important responsibility of Vsevolozhsky Aluminium Alloys Plant is the mitigation of environmental impact. This goal will be achieved through a whole set of measures such as treatment facilities installation, waste control and reduction and the use of fuel efficient equipment. In 2017 the company´s directors took into consideration the round-the-clock operation of the equipment and made the decision to purchase a Liebherr wheel loader L 538 Stage IIIA / Tier 3. This purchasing decision was primarily based on the very satisfactory experience they have had with their previous Liebherr L 538 wheel loader. The hydrostatic transmission of the L 538 significantly lowers the fuel consumption of the machine which not only decreases operating costs but also contributes to environmental protection thanks to reduced emissions.

Since February 2017 the L 538 has been clocked up more than 5,000 operating hours and has worked reliably for 24 hours a day, seven days a week. The Liebherr wheel loader has already proven its fuel efficiency with an average fuel consumption of 5.8 litres per hour. This is 30 % lower than the fuel consumption of other manufacturers analogue wheel loaders at the plant. The Vsevolozhsky Aluminium Alloys Plant needs machines which are reliable and powerful. Liebherr wheel loaders are both, because of the strong construction and robust steel components. According to the operators, the new wheel loader enables more productive and comfortable work. Taking into account the results and achieved estimated effect, Vsevolozhsky Aluminium Alloys Plant plans to expand the machine park with further Liebherr wheel loaders.

Technical Data

Operating weight	13,200 kg
Tipping load, articulated	9,000 kg
Engine output (ISO 14396)	104 kW / 141 HP

Bucket capacity	2.2 m^3
Fuel consumption	5.8 litres / hour
Tyres	Techking L3 20.5R25EM

Printed by LBH BK LBH-12229883-web-11.17_enGB
Subject to technical modifications.

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