

Wheel Loader

L 576

Job Report

Liebherr L 576 wheel loader in use
at Schotterwerke Michldorf GmbH
in Bavaria, Germany



LIEBHERR

Situation

Schotterwerke Michldorf GmbH is located on the outskirts of Michldorf in the municipality of Leuchtenberg in the Upper Palatinate nature park. The stone quarry here was opened in 1979. Since 2004 the business has belonged to the Richard Rank Group based in Weiden in der Oberpfalz, which quarries the very hard stone amphibolite which is similar to basalt. Schotterwerke Michldorf GmbH employees carry out all the necessary work independently and produce every imaginable type of building material and aggregate for road construction and underground engineering, and asphalt and concrete mixing plants as well as rock for hydraulic engineering.



Task

The production process starts at the 'wall', where blasting is carried out producing thousands of tons of hard rock for processing. Following blasting, heavy loading trucks in the form of excavators and loaders are used to load the rock onto enormous dumpers (heavy duty vehicles). These then transport the rock from the various levels of the plant up to the primary crusher, tipping their load into its feed hopper. Here, the rock is broken down into fist-sized pieces and temporarily stored in large silos. If necessary, this crushed material can then be fed into other crushers and refined to the desired size in screening plants. Finally, the individual aggregate fractions travel on conveyor belts before being piled up and are then either loaded directly onto the designated collection lorry or piled up in large storage areas using a wheel loader.

Schotterwerke Michldorf were searching for a new wheel loader to deal with this reloading work, which can involve up to 4,000 tons a day, and found it in the form of a Liebherr L 576.





Solution

A wide range of different criteria played an important role in Schotterwerke Michldorf GmbH's search for a new wheel loader. As such, the company needed to know which of the machines currently available on the market could fulfil the stipulated requirements and which offered the best performance. To begin with, all well-known competitors on the market were invited to showcase their machines, so that the company could put them through their paces. In addition to fuel consumption, which is becoming more and more important, other decisive criteria included handling and driver comfort. So that the company didn't have to rely on theoretical information from the manufacturers regarding fuel consumption, the impartial consultancy firm Dr. Steinmaßl Managementberatung from Taching am See was tasked with testing and validating the fuel consumption of the various different machines under real operating conditions. Following extensive tests and measurements, the expert's conclusion was that the Liebherr wheel loader had the lowest fuel consumption.

Performance was, of course, also extremely important in the machine tests. The wheel loader needs to be able to load up to 4,000 tons of material onto lorries every day as well as transporting the same amount across the ballast work's premises. The L 576 was also able to achieve above-average test results in this respect.

Given that management places great importance in the happiness of its employees, as already mentioned, handling and comfort came into play. The L 576 was also able to make a positive impression in these areas too. All of the machine's operating and driving functions can be precisely, safely and sensitively controlled using joystick-steering and the separate Liebherr operating lever. The temperature-controlled cab with its automatic air conditioning system and comfortable driver's seat offer the driver unbeatable comfort, making it easier to carry out productive work without getting tired. Due to the fact that road traffic checks are becoming increasingly strict, not only is it important not to overload the lorries but also, from an economical point of view, it is important to use up the maximum permitted payload. For this reason, the wheel loader has a checkweighing machine built into the Liebherr touchscreen control. This supports and optimises the loading process and helps avoid potential subsequent loading onto the lorry weighing machines and even tipping and reloading.

Furthermore, the optimal installation position of the cooling system comes into play due to dust formation in the plant. This is not located at the rear, but in the part of the machine which is proven to be the cleanest: directly behind the cab. This reduces the number of cleaning intervals required by approximately eight times in comparison to competitors. Overall, the Liebherr L 576 wheel loader was able to make a great impression on both management and employees with regard to all points mentioned above and since spring 2013 has been effective in daily operation at Schotterwerke Michldorf GmbH.

Technical Data

Operating weight _____ 24,450 kg
 Tipping load, articulated _____ 17,500 kg
 Engine output _____ 205 kW / 279 HP

Bucket capacity _____ 4.5 m³
 Fuel consumption _____ 17 litres / hour
 Tyres _____ Bridgestone VSDT 26.5R25



The Liebherr Wheel Loaders

Wheel loader



		L 506 Compact	L 507 Stereo	L 508 Compact	L 509 Stereo	L 514 Stereo
Tipping load	kg	3,450	3,712	3,850	4,430	5,680
Bucket capacity	m ³	0.8	0.9	1.0	1.2	1.5
Operating weight	kg	5,180	5,470	5,600	6,390	8,350
Engine output	kW/HP	46/63	50/68	50/68	54/73	77/105

Wheel loader



		L 524	L 528	L 538	L 542	L 550
Tipping load	kg	7,500	8,500	9,500	10,200	12,150
Bucket capacity	m ³	2.1	2.3	2.6	2.8	3.2
Operating weight	kg	10,400	10,900	12,800	13,400	17,300
Engine output	kW/HP	90/122	100/136	115/156	120/163	129/175

Wheel loader



		L 556	L 566	L 576	L 580	L 586
Tipping load	kg	13,550	15,750	17,500	18,500	20,430
Bucket capacity	m ³	3.6	4.0	4.5	5.0	5.5
Operating weight	kg	17,900	23,150	24,450	25,180	31,380
Engine output	kW/HP	140/191	190/259	205/279	215/292	250/340

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