









Situation

One of the main criteria for optimal tree cutting execution is early planning for the availability of the correct timber harvesting machine. Solid training and practical experience both in the forest and on the machine are also among the required prerequisites. Forest wardens need to know exactly what the forester expects from them, and the forester's silvicultural aims for the felling, to draw an adequate profit. The Schoch Forst GmbH company from Bäretswill in Switzer-land was founded in 2005 by Ueli Schoch. Today, all the business are run under the legal form of limited liability companies (GmbH). Agricultural contract works of any kind are carried out by a permanent employee, along with five temporary staff. These include agricultural services in gardening and landscaping, timber harvesting, felling, forestry works, and the timber trade, as well as efficiently executed logistics and timber removal.

Task

To be able to work in a yet more energy-saving, efficient, and portable manner, it is wise to invest in a wheeled excavator. Schoch Forst GmbH focusses its attention above all on a powerful, lightweight and portable machine, which lends itself with ease to various applications. When working with the "Woody 60" wood processor, the wheeled excavators should be equipped with a two-piece boom, being able to work in the close-up range of the machine. The decisive factor for a profitable investment in a machine of this type, is performance and high efficiency at the same time. A variety of protective equipment must also guarantee maximum safety for man and machine.

Solution

Liebherr-Hydraulikbagger GmbH ascertained the customer's needs, and was able to offer a machine which fulfilled all requirements without exception. The solution presented is the powerful A 918 Litronic wheeled excavator.

The A 918 Litronic features a 120 kW/163 hp (ISO 9249) Liebherr diesel engine. This meets the criteria for emissions stage IIIB of the exhaust emission standard, and is equipped with a Liebherr particle filter for use in Switzerland. Thanks to the 3.60 m long two-piece boom, and the 2.25 m long stick, the machine accesses material even in embankments and elevated positions, and can also work in the close-up range with the wood processor due to its two-piece boom. The inserted stick extension contributes to the 9.00 m maximum reach range. Due to its number of years' positive experience, Liebherr offers a full manufacturer's warranty on the two-piece boom for forestry application. The 19 tonne, lightweight wheeled excavator is equipped with stabilizing blade and 2 point outriggers and thus ensures a particularly high level of stability even with heavy loads.

The rear area monitoring camera, integrated as standard in the ballast weight, offers the driver an optimum view of the work space environment, thus ensuring greater safety when working. Another example of the extensive safety features is the built-in rollover protection (ROPS) and the safety glass cab screens. Additional safety features, such as safety grilles on the cab and the lights, the tank protection, and various protective devices on the uppercarriage, as well as a separate return line filter to protect the hydraulic system, are also optionally available from Liebherr. When processing tree trunks, tank protection is essential, as the machine works from left to right.

The fuel consumption of the A 918 Litronic when using the wood processor is around 12 litres/hour on average, which is impressive when compared to several of its market competitor machines, which require up to 6 litres/hour more fuel for the same process. When used for eight hours per day, that leads to a total annual saving of up to 12,000 litres of fuel. Even on mountainous terrain or at high driving speeds on level ground, the A 918 Litronic, with its newly developed drive system, is unbeatable in terms of fuel consumption. Due to the service-friendly machine construction, daily maintenance can be performed easily and quickly from the ground. Thus, machine downtimes are minimised and work can be quickly resumed.

As a contract service provider, Schoch Forst GmbH is aided with the reimbursement of incurred costs by the standard data transfer and positioning system, LiDAT. All operating data can therefore be easily obtained. The customer may also locate his machine at any time, and obtain relevant service interval information, which contribute to optimal time management for machine maintenance. The quick, less than 24 hour spare parts service, and a 97% at Liebherr spare parts availability, offer the customer the security, that his machine and any spare parts, are available at all times. Support and the service is carried out by Liebherr-Baumaschinen AG in Switzerland.





Technical data

| Operating weight | approx. 19 tons |
|------------------|------------------------------|
| Engine type | Liebherr D834 - ISO 9249 |
| Engine output | 120 kW (163 HP) at 1,800 RPM |
| Emission control | Liebherr particle filter |
| Emissions stage | IIIB |
| Emissions stage | IIIB |

Equipment

| Two-piece boom | 3.60 m |
|-------------------------|--|
| Stick + Stick extension | 2.25 m + 1.00 m |
| Quick coupler | SW48 |
| Max. reach | 9.00 m |
| Stabilization | stabilizing blade + 2 point outriggers |