

# INDUSTRIAL POWER PROFILE

## SYN TRAC – a global début



**A revolutionary vehicle concept with versatile possibilities.**

**Customer:**

SYN TRAC GmbH

**Location:**

Austria

**Scope of engine use:**

Cat® C9.3B, providing 310 kW (416 hp) and torque of 1904 Nm, meeting EU Stage V/U.S EPA Tier 4 Final emission standards

**Cat® Dealer:**

Zeppelin Austria

SYN TRAC combines the key features of both a lorry and tractor to define a new class of vehicle, with additional innovations. One of the most important developments is the automatic coupling and decoupling of attachments. Hydraulics, pneumatics, electrics, PTO and software are all automatically coupled in less than a minute, using a specially developed docking system. Gone is the 'classic' tractor bonnet, with the motor and stepless gears instead mounted in a U-shaped arrangement under the tilting cab.

The Cat® C9.3B, providing 310 kW (416 hp) and torque of 1904 Nm, meeting EU Stage V.U.S. EPA Tier 4 Final emission standards, ensures a reliable supply of Cat power even in the most

adverse conditions. The latest exhaust technology, using SCR (selective catalytic reduction) and DPF (diesel particulate filter) systems, ensures clean power.

**Areas of application with the maximum performance range**

The SYN TRAC offers flexibility for a variety of target groups. These include agriculture, forestry, amenity applications, traffic infrastructure, civilian and catastrophe protection and special areas of application.

“With power output of up to 49 hp per litre displacement, coupled with the usual reliability of Cat industrial motors, the Cat C9.3B sets a new benchmark. Thus, the perfect partners meet: Cat C9.3B as the gem of the industrial motor





The SYN TRAC with trailer



The SYN TRAC with snow blower and powerpack



SYN TRAC is set up in its mowing combination

world and what is probably the most innovative and versatile tractor in the world," explains Andreas Mach, sales executive for Zeppelin industrial motors, Austria.

### Uncompromising comfort, safety and stability

The docking system not only enables fully automatic docking of attachments but also the coupling of an additional motor in just one minute. This consolidates power to the PTO shaft and delivers increased power and torque to attachments.

The SYN TRAC is quickly becoming synonymous with effortless steering and hitherto unknown manoeuvrability. Using front, crab and four-wheel steering, its turning radius of just 4.5 m is achieved with a 4.7 m vehicle length (dependent on tyre choice). Thanks to the independent suspension and the hydro-pneumatic chassis, perfect driving comfort and an improved driving style are guaranteed.

The drive axle system is freely extendible, allowing completely automatic coupling of a third axle or multi-axle chassis. Available in 60 km/h or 80 km/h variants, the SYN TRAC's comfortable cab boasts outstanding operator visibility, while the hydro-pneumatic suspension minimizes impact and vibration loads within the cab.

### A reliable development partner from the start

Cat dealer Zeppelin Austria worked closely with SYN TRAC GmbH, almost from the very first stage of design, allowing all aspects of such a complex product development to be taken into consideration. Construction of the first fully functional prototypes – Stage V/Tier 4 Final at 310 kW in the test phase – was supported by Zeppelin Austria, with support provided by its employees to SYN TRAC GmbH.

The teams worked together to achieve efficient engine integration in what is an agricultural and amenity vehicle. In spite of the constraints presented by the chassis and cab, perfect functionality has been achieved, representing an important product development. Thanks to the close professional cooperation of application specialists from Zeppelin Austria and SYN TRAC GmbH, the development of this complex vehicle in record-breaking time was made possible.