

PRESS RELEASE

Drive units for the Swiss Federal Railways: Zeppelin Power Systems to supply 94 power packs for Alstom

Hamburg, October 20, 2016. The Swiss Federal Railways (SBB) have ordered a total of 47 Prima H4 locomotives from the French manufacturer Alstom, which will be sourcing the drive units for the major order from Zeppelin Power Systems. The high-performance power packs were jointly designed by both companies and each locomotive will be equipped with two power packs (47x2). The contract was concluded in September at InnoTrans, the international trade fair for transport technology.

“We are very pleased to be working with a highly efficient engineering and distribution partner such as Zeppelin Power Systems,” said Tony Faucher, Commodity Manager at Alstom. “The close collaboration during the power pack design phase worked really well. Zeppelin’s ability to be highly flexible when implementing specific customer requirements, which can differ from the standard solutions, also became apparent here.”

The locomotives are based on Alstom’s new Prima H4 dual-mode platform for shunting and track work. The dual drive mode facilitates both diesel-electric operation and a purely electrical drive system using the overhead contact line. It can travel up to 120 km/h and can therefore easily be integrated into the mainline traffic flow. The Prima H4 dual-mode locomotive is powered by an electric drive system and two diesel generators. The two power generators, coupled with an automatic start-stop system, make it possible to achieve a 20% reduction in fuel consumption compared with a single engine diesel locomotive.

Closed diesel particle filter

Zeppelin Power Systems worked with Alstom to design the power pack specifically for Prima H4 locomotives. The fitted power packs each have a Cat C18 diesel engine with a capacity of 522 kW, and include a cooling system, preheating systems, and a traction generator that is also provided. Two power packs have been installed on each Prima H4 locomotive. The power pack meets all customer requirements such as compliance with safety standards relating to the rail sector.

“The power packs comply with the EU exhaust emissions stage IIIB, F-cycle, with a closed diesel particle filter system (DPF),” explained Thorsten Meyer, Sales Manager at Zeppelin Power Systems. “The Caterpillar DPF exhaust after-treatment system that has been fitted complies with the strict requirements of the Swiss Federal Office for the Environment (Bundesamt für Umwelt, BAFU). This ministry requires a closed DPF to be used in tunnels to

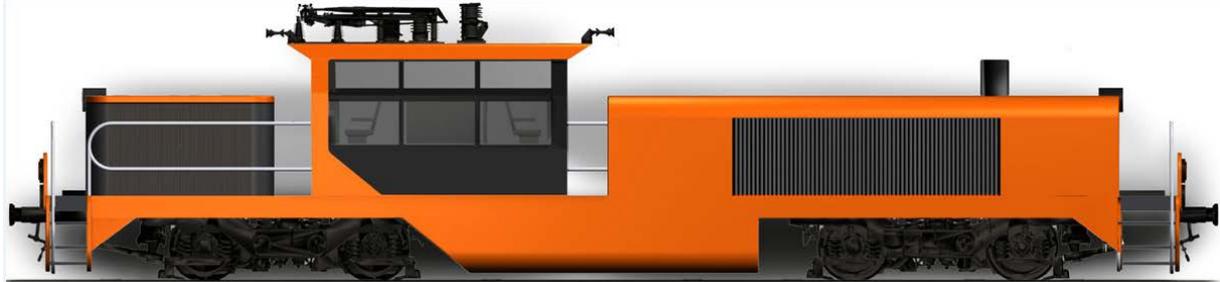
protect staff from fine particles whilst they are working. The DPF system is also fully integrated into the engine control. For easier operation and maintenance, the driver can see a digital reading of the loading and operating status of the DPF in the driver's cab."

The SBB will use the locomotives, which have a total order value of €175 million, on the railway network and for shunting in the marshalling yards at Lausanne, Triage and Limmattal. The locomotives will be built at Alstom's plant in Belfort, France, and are expected to be ready for operation in 2018.

Photos:



Caption: Alstom and Zeppelin Power Systems signed the contract at InnoTrans in Berlin. From left to right: Martin Elias (Head of Engineering and Project Management for rail vehicles, ZPS), Tony Faucher (Commodity Manager, Alstom), Thorsten Bomke (Marketing and Portfolio Director, Alstom), Volker Poßögel (CEO, ZPS), Thorsten Meyer (Sales Manager for rail vehicles at ZPS) and Peter Schlichting (Key Account Manager for rail vehicles at ZPS).



Caption: The Prima H4 dual-mode locomotive for shunting and track work.



Caption: Power pack with Cat C18 diesel engine.

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About Zeppelin Power Systems

Zeppelin Power Systems is the official partner of Caterpillar for Cat, MaK and EMD engines and a leading provider of drive, propulsion, traction and energy systems and has been partnering with Caterpillar for 60 years. With about 800 employees, Zeppelin Power Systems offers their customers individual, highly efficient system solutions with comprehensive services for industrial and marine applications, the oil and gas industry, rail vehicles and power generation.

About Zeppelin GmbH

The Zeppelin Group operates 190 sites around the world. In the 2015 fiscal year, its 7,800 employees generated sales of over 2.3 billion euros. Group-wide collaboration in the Zeppelin Group revolves around a management holding company and six strategic business units: Construction Equipment EU (sales and servicing of construction machines), Construction Equipment CIS (sales and servicing of construction and agricultural machines), Rental (rental and project solutions for the construction and industry sectors), Power Systems (drive, propulsion, traction, and energy systems) and Plant Engineering (engineering and plant engineering) as well as Digital Services and Solutions (new digital business models). Zeppelin GmbH is the Group holding company. It is legally domiciled in Friedrichshafen and has its head office in Garching near Munich, Germany. For more information, please visit www.zeppelin.com.

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