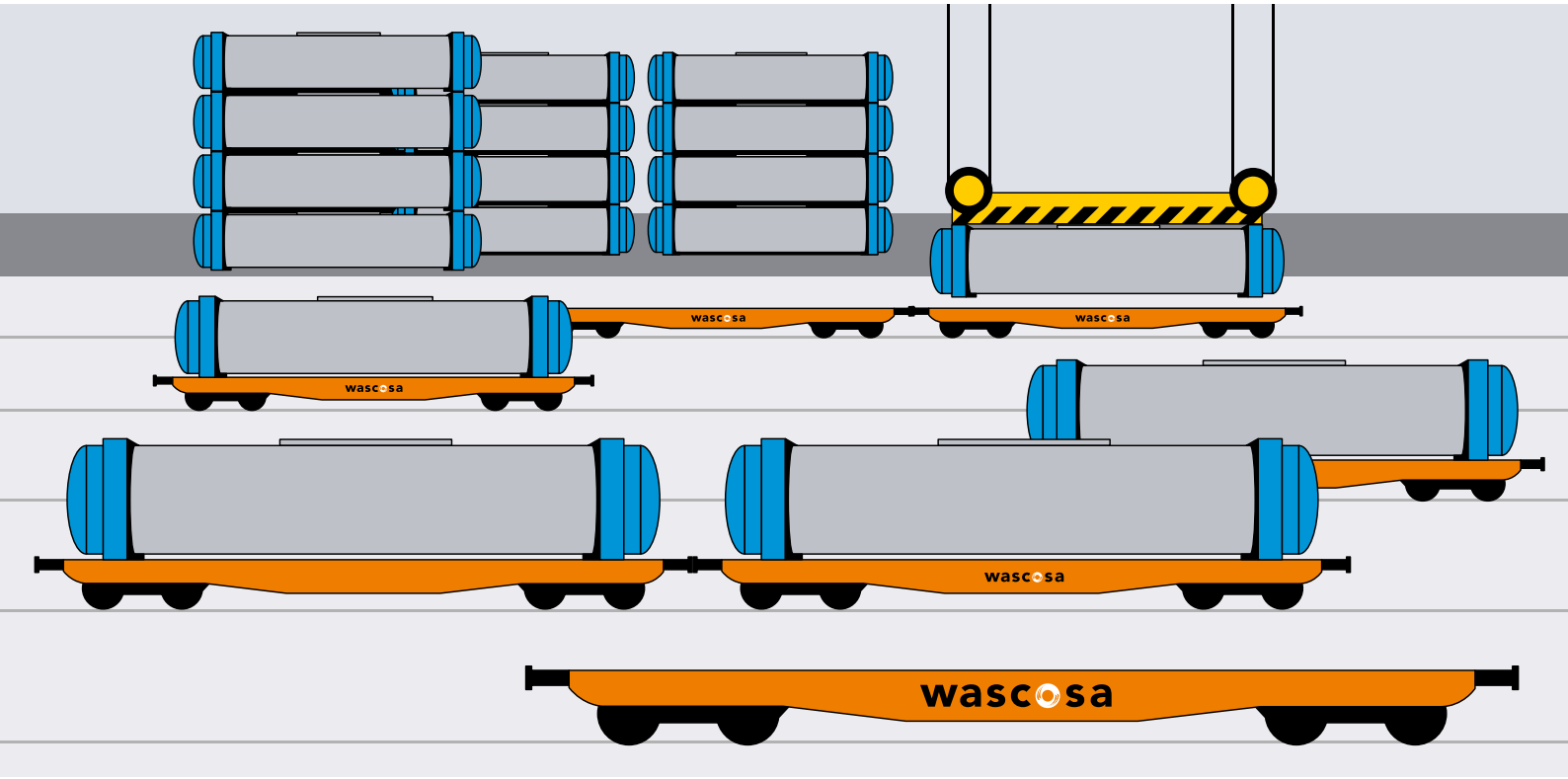
Edition 27 | May 2016

wascosa infoletter

Latest news for the freight wagon industry



Flexibility is key

A radical rethink is required if railways are to remain cost-competitive as a means of transporting chemical products. On the roads, the development of autonomous vehicles is racing ahead and will become a reality over the next 10 to 20 years. BASF relies on a flexible and innovative intermodal transport solution that links together tank containers, railways and driverless vehicles from the first to the last mile.

by Dr Thorsten Bieker, Head of Railways and Location Services, BASF SE, Ludwigshafen

Digitalisation is both a threat and an opportunity for the rail freight industry. On the one hand, the dedicated track the wagons run on is perfect for autonomous transport. On the other hand, the high level of regulation in the rail sector means that it takes a long time for innovations to be implemented. On the roads, by contrast, the development of autonomous vehicles is racing ahead and will become a reality over the next 10 to 20 years. The concept of vehicle platooning – replicating the train model on motorways – is expected to be introduced in just a few years. This puts massive cost pressure on the rail freight industry, as the cost efficiency of road transport can be improved by around 28 % through the introduction of autonomous or even semi-autonomous vehicles. Even so, it is quite possible that the cost structure of rail transport can likewise be improved by up to 25 %.

Continued on page 2

Dear Reader

Modern rail freight logistics requires exceptional flexibility. When we launched the Wascosa flex freight system® 10 years ago, we were convinced that a modular freight wagon was the best solution. This flexible freight wagon system has significant advantages over conventional goods wagons. As the BASF case study outlined on pages 1 to 4 describes, modular freight wagons are now being increasingly used to transport hazardous substances. In future, modular freight wagons are also likely to replace some tank wagons.

The benefits are obvious: modular systems enable shipping companies to increase the efficiency of their rail transport, improve the productivity of their wagon fleet and as a consequence cut their rail logistics costs. This was precisely the target we set ourselves three years ago when Wascosa repositioned itself as Europe's first provider of freight wagon systems. The rail industry is hungry for innovation, and Wascosa knows how to feed that appetite. Find out for yourself the reason why we chose the motto "Flexibility has a name" for attending the trade fair transport logistic in Munich: come and visit us at our stand between May 9th and 12th (see page 5).

Exploring new directions is still our passion; we see every technical development as a chance to come up with new systems to meet the changing logistics demands of our customers.

Philipp Müller
Chairman of the Board of Directors

Continued from page 1

Overall costs are what matter

When analysing costs for rail transport, the comparison often only focuses on the transport costs on the public network. In the case of the chemicals industry, however, transport costs only represent between 30 and 40 % of the overall costs. The other shipment costs (first and last mile) and the equipment used (tank wagons) prior to the actual external rail transport account for a much higher proportion of the total costs. The high costs for tank wagons can be attributed to the comparatively small distances they tend to travel, generally in the region of 20,000 to 30,000 kilometres per year. The reasons for this are:

- Long turnaround times in single-wagon traffic
- No change of product, as there are only limited facilities for cleaning tank containers
- Downtimes due to repairs
- Using tank wagons as interim storage on suitable infrastructure

Tank containers instead of tank wagons

Tank wagons also present a problem when it comes to automation, as the actual tank is permanently fixed to the wagon below. The solution: a tank of a similar size that can be detached from the wagon and thereby streamline the logistical processes in both the first and last mile. BASF has collaborated with van Hool, the Belgian producer of commercial vehicles, to develop a novel design where the tank can actually be removed from the wagon. The world's biggest tank container was approved last year for transport on both road and rail (Figure 1).

This innovative tank container has now been launched on the market with the designation B-TC (BASF Class Tank Container), to differentiate it from the 20 to 30-foot tank containers. These new tank containers were developed for conventional rail transport, but the ability to detach the tank from the wagon offers many advantages over conventional tank wagons:

- The filling capacity and costs at the loading stations are the same as for tank wagons, as the B-TC has roughly the same volume and payload (up to 73,500 litres and 66 tonnes) as an insulated and heatable tank wagon carrying chemicals. This overcomes the usual disadvantages in terms of filling capacity and costs, which would otherwise be the case if small tank containers (20 and 26 foot) were used.
- B-TCs can also be stored temporarily in a tank container warehouse. While they are being stored, the wagon itself is available for transporting other consignments.
- Within the works, tank containers can be transported across areas where there are no rails. This means shorter delivery times between the rail depot and the loading station.
- Thanks to the removable tank, the number of workers needed for external rail transport is much less than in the case of tank wagons. At the same time, there is an increase in the distance travelled by the externally deployed wagons.
- Because of the removable tank and the ability to transport the empty B-TCs by road without restrictions, empty journeys are minimised, as the containers can be cleaned in any modern tank cleaning facility.

Novel 5L container wagon boosts performance

Container wagons freely available on the market can be used for external rail transport. By adapting the buffers and fitting the wagon with heavily reinforced pins, it can travel as a standalone unit. Tatra-

Fig. 2) First the AGV loads the blue subframe and sets the tank container on top, then proceeds the loading station.

Fig. 1) 45-foot tank container optimised for rail transport (volume 63,000 litres, payload 66 tonnes). For size comparison on the left: a 20 foot tank container suspended from a gantry crane.

vagonka, Wascosa and BASF have also jointly developed optimised 5L container wagons. Partly through their incorporation of modern disk brakes, they are quiet (75 to 78 dB(A)). As components can be replaced quickly, life cycle costs can be minimised. The wagon structure is also very lightweight (16.5 tonnes unladen weight), so is able to carry a high payload. Incorporating telematics in the platform wagon and tank container also optimises logistics. The height of the wagons has also been reduced to 1.10 metres, around 5 cm less than a standard wagon, thus enabling tank containers up to a height of 2.70 metres to be transported on the standard gauge G1 (in various alpine tunnels, for example). The use of high-performance buffers means the container wagon is approved for unrestricted hump yard use with 90 tonnes total weight. When developing the new wagon, care was also taken to ensure competitive pricing.

Autonomous transport and the first and last mile

With the new B-TCs, the separation of the tank and the wagon facilitates the automation of rail processes on the works site. This is achieved through the use of an Automated Stacking Crane (ASC) as the link between external rail transport and internal works logistics, and the use of an Automated Guided Vehicle (AGV) for automated delivery within the works.

BASF has worked with the VDL Group to develop an autonomous vehicle for daily use which, unlike the AGVs used in most large container ports, can travel on normal roads without damaging them. The weight is evenly distributed across 32 tyres, so that the vehicle even has a lower wheel load than conventional trucks. The vehicle is just as long as a normal truck, but is more manoeuvrable thanks to eight steerable axles. Since the AGV has no driver's cab, its loading length is approximately 2.10 metres longer than a road truck. The loading length and the payload of up to 78 tonnes allow the transport of a B-TC or two 26-foot tank containers at the same time. Thanks to a subframe that sits between the AGV and Container, and the height adjustment facility, the AGV is able to drop away below the container and leave it positioned on another frame it has brought along to the loading station. After the container is filled, it picks it up again (Figure 2). This means the AGV does not have to wait around in the loading station while the container is being filled.

The transport routes are controlled via passive transponders in the roadway. This allows the vehicle to be positioned with an accuracy of 3 cm. Such accuracy cannot be achieved with conventional trucks – especially within the loading station – and creates further optimisation potential.

Suitable for urban environments

Transport around the Ludwigshafen works site is very similar to transport around an inner city or industrial zone. The on-site traffic totals some 30,000 people, bicycles, cars, uses and forklift trucks. Every day sees over a thousand goods transports via trucks and tank wagons. An autonomous vehicle must be able to successfully navigate this incredibly complex environment.

Controlled by sensors, the AGV travels at low speed in autonomous mode, whilst

Next, the AGV lowers itself so that the blue subframe sits on the ground. The AGV then drives away from under the subframe ...

... leaving the container sitting on the frame at the loading station.

(Photos: BASF)

being continuously monitored. The various sensors identify any obstacles and bring the vehicle to a halt in time, thanks to the low speed. A technician in the control centre monitors the vehicle and can initiate an emergency stop or bring the vehicle to a gradual halt if necessary. Thanks to the higher payload and the platooning option (where several vehicles linked electronically travel together, but only the first vehicle is monitored), the remotely operated transport offers significant advantages compared with conventional road haulage with a human driver.

Flexible solution for intermodal transport

Automatic delivery using AGVs could also be used in intermodal transport. The combination of remote operation, platooning and autonomous vehicles opens up opportunities for use in public infrastructure, for example to cover the first and last mile in the immediate vicinity of the intermodal terminal. The high payload combined with the lower impact on the infrastructure compared with conventional trucks and the possibility of electromobility can lead to productivity improvements in intermodal transport, which could ultimately bring more traffic onto the railways. To boost rail transport volumes, the legislator should therefore approve the use of AGVs (100 tonnes total weight) on the public infrastructure within a 25 km radius of the intermodal terminal and include autonomous vehicles in its funding programme.

Immediate cost reduction of up to 25%

In the case of rail freight traffic, the new system comprising large tank containers (B-TCs), a fully automated tank container storage facility as the interface to external rail transport, together with fully automated delivery (first and last mile process), enable the overall costs of conventional rail transport to be reduced by as much as 25% of the current tank wagon transport costs. This is an opportunity to ensure that rail freight transport is still able to be compete on price with road transport over the next 20 years. BASF intends to launch the system in the summer of 2018, and the first AGV is already undergoing tests at the Ludwigshafen site.

New boost for the Wascosa flex freight system®

Ten years ago, Wascosa already realised the logistical advantages of a modular freight wagon where a particularly lightweight container wagon can be individually combined with a superstructure to suit the cargo being transported, and brought a suitable product on to the market with the launch of the Wascosa flex freight system®.

Whereas the focus had previously been on superstructures for transporting timber or hopper wagons for bulk goods, the system is now being expanded with the addition of the new BASF tank wagons (B-TC). The new 45-foot and 52-foot container wagons developed for B-TC can also be used to carry other superstructures, especially heavy goods. In addition to the existing 60-foot CTW light, the Wascosa flex freight system® therefore now has two other wagon variants that can be used for modular systems, allowing new solutions to be developed for superstructures as well.

Telematics facilitates predictive maintenance

Wascosa is also breaking new ground in the areas of digitalisation and automation. The bulk of its intermodal wagon fleet is already fitted with telematics systems and supplies valuable data for wagon maintainers and customers through the relevant portals. Now these data are to be increasingly used to switch the wagons used in the Wascosa flex freight system® over to condition-based or 'predictive' maintenance.

Wascosa and BASF are working together to find ways of capturing and processing other important data on the condition of wagons that can be used for predictive maintenance. The idea is to further improve wagon availability and reduce costs for customers. Wascosa is thus making an important contribution towards linking Industry 4.0 with Logistics 4.0.

Wascosa at transport logistic 2017

The international trade fair for logistics is taking place in Munich, on 9-12 May 2017. Wascosa will be showcasing its products and services at transport logistics for the eighth time, this year under the banner “Flexibility has a name”.

Visit us in Munich!

Transport logistic is considered to be the world’s leading logistics trade fair. As usual Wascosa will be exhibiting its solutions in the outdoor area, at Stand 704/5 and on platforms 3/3. Tickets are available online.

Where to find us

The best way to travel to the new Munich Exhibition Centre is by public transport. The outdoor area is easiest to reach from the East entrance. Come and see us at Stand 704/5 and experience our exciting products first hand. We look forward to seeing you.

Our co-exhibitors 2017:

We are looking forward to presenting other interesting co-exhibitors at our Wascosa stand.

BASF We create chemistry · BERTSCHI · MAGYAR · KNORR-BREMSE · HOYER WHEN IT MATTERS · kinz · VDL · sternico · VANHOOL

transport logistic 2017 at a glance

transport logistic is the international trade fair for logistics, mobility, IT and Supply Chain Management. It is a business platform and offers the opportunity to exchange information about the global logistics and transport sector.

Date:
9-12 May 2017

Place:
Neue Messe, Munich. Access to transport logistic is via entrances East and West.

Open:
Tuesday to Thursday 9am – 6pm;
Friday 9am – 4pm

Promotor:
Messe München GmbH,
Messegelände, 81823 Munich,
info@transportlogistic.de

Further information:
www.transportlogistic.de

Radical alternatives for procuring traction power

"Exceptional situations demand exceptional solutions". This quotation is attributed to the former German Chancellor Helmut Kohl. When he had the opportunity 25 years ago to reunify Germany, there were no pre-prepared plans and no templates to work from.

by Dirk Boedeker, Head of Mobility Services and Head of Rail Vehicles Distribution, Siemens Schweiz AG

Although the current political situation in central and western Europe is much more politically stable than back then, the economic environment is dominated by two key factors. The first is the extended phase of low interest rates. In Switzerland, the Swiss National Bank has imposed negative interest rates, while yields on the bonds of Eurozone issuers with good credit ratings have fallen to record lows. There is a broad consensus that interest rates certainly need to rise again, but exactly when and to what extent is much less clear now than even a few years ago.

The second area of concern is the integrity of the European Union (EU) and the single currency. This directly affects the flow of goods traffic within the EU and through Switzerland. Nowadays the bulk of traffic still flows along the north-south axis between Rotterdam-Switzerland-Genoa or Scandinavia-Brenner Pass-North Italy, as if the borders to the east had never opened. Not least thanks to the initiative to transfer shipments from road to rail, rail freight commands a high market share in Switzerland. The picture is different along the east/west corridors: the preferred means of transport is by truck, even though railways are gradually catching up. Italy leaving the Eurozone, and Turkey joining it, would certainly have a massive impact on the flow of goods.

Borders as a technical challenge

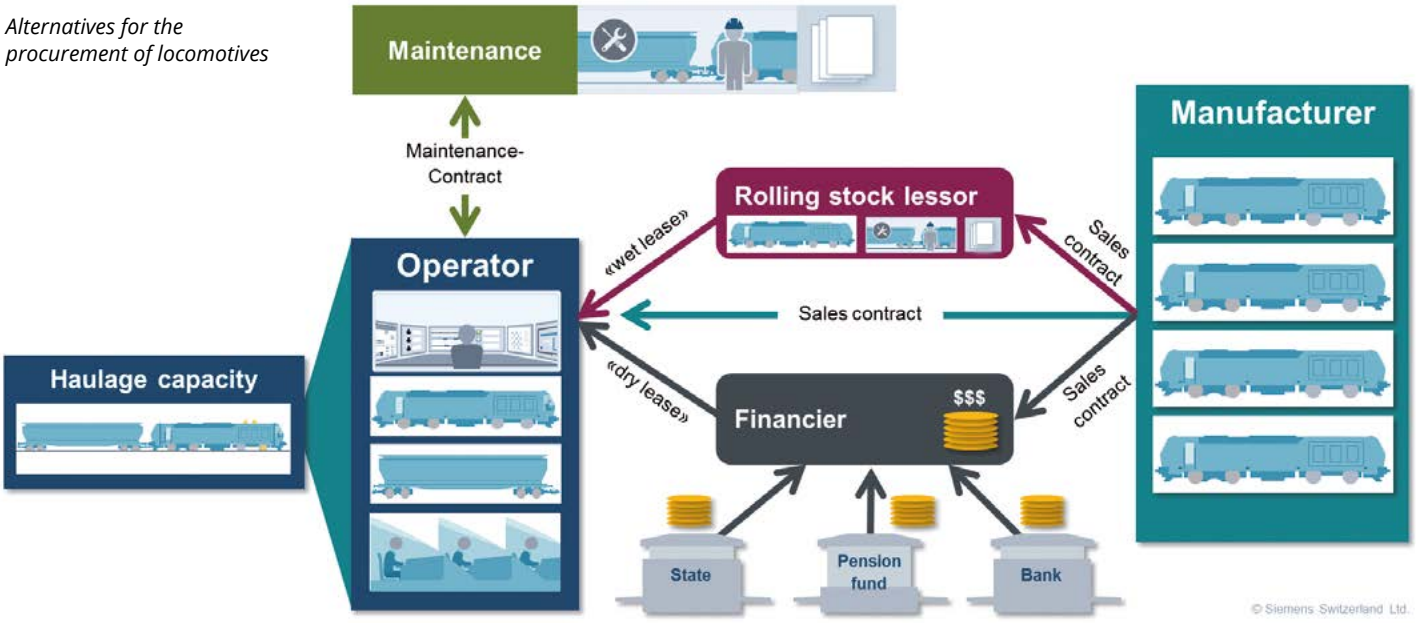
If a truck stops using the Rotterdam/Milan route and instead travels from Gdansk on the Baltic coast to Istanbul in Turkey, hardly any technical adjustments are necessary because of the Vienna Convention on Road Traffic. While trucks can pass through European borders virtually unhindered, the locomotives used to transport goods from Holland's North Sea ports to Milan in Italy need to be able to cope technically with two different electricity supplies and four different national train control systems. The new European Train Control System (ETCS) is being introduced on more and more routes. For locomotives, a new route means at least the addition of more train control systems and a protracted approval process with an uncertain outcome. This presents railway transport companies with a difficult choice when it comes to procuring the necessary locomotives.

Is locomotive procurement a risky venture?

Locomotives have a service life of at least 30 years. Contracts for transport services, on the other hand, often only last for several years, or even less. Purchasing a new locomotive is a risky venture, because the customer generally has to define the countries they intend to travel in even during the invitation to tender. In the case of modern platform locomotives such as Vectron, modifications can be made retrospectively, but they result in extra investments and lost days while the work is done.

One way out of this dilemma is offered by lease companies such as MRCE (created from the former Siemens Dispolok) or the Austrian firm ELL. These lease companies purchase locomotives, and then bundle together additional services such as ownership, maintenance or assumption of ECM tasks (Entity in Charge of Maintenance) to form a "wet-lease" locomotive package which they offer to railway transport companies on a weekly, monthly or annual basis. The risk of long-term operation is therefore transferred to the lessor company.

Alternatives for the procurement of locomotives



New business model: "dry lease"

Persistently low interest rates have encouraged the emergence of a new business model to complement the traditional options of buying or renting locomotives. Here the railway transport company splits the wet-lease package and buys in other individual services from the open market. The purchase and financing of locomotives is therefore transferred to a bank or legally separate investment company, for example.

Current examples in Switzerland include the railway transport companies RailCare and SBB Cargo International, which lease the locomotives through a bank or investment company. The term of the lease agreements is generally several years, although always less than the total service life of the locomotives. The risk of marketing locomotives to new lessees when the lease ends is therefore transferred to the financier. In addition, both railway transport companies purchase from the market services for maintenance, ECM tasks or ownership. When individual packages are split off from the wet-lease agreement, this is referred to as a dry-lease contract.

There are three main advantages for rail transport companies:

- Unlike the purchase contract, the financier carries the risk of long-term operating availability.
- Purchasing the associated services on the market keeps prices down or improves services.
- The profit made by the leasing company can be realised by the rail transport company, even though it is likely that the financier will anticipate this by pricing into the leasing rate an amount to cover their personal risk.

Thanks to these advantages, the trend is clearly moving towards platform locomotives that are flexible to use and simple to modify. Here Siemens is setting new standards with its Vectron locomotive.

New sales partnership: LokRoll and Wascosa

Most European rail transport companies (EVUs) currently still have a large number of locomotives in their fleet which are more than 25 years old. Substantial investments will be required for replacing or modernising them, in order to meet the different system requirements in cross-border service across Europe. Lokroll AG offers EVUs an attractive alternative, in the form of long-term rental contracts.

Successful collaboration

Copying the successful model of collaboration between Wascosa and InRoll AG in the area of freight wagons, LokRoll leases locomotives to EVUs and industrial clients in Europe. Lokroll supplies locomotives for both main-line and shunting operations in the form of either "dry-lease" or "full-service" leases, with Wascosa AG acting as sales partner.

Lokroll was founded in September 2016. The first customer is SBB Cargo International, which is leasing 18 new Siemens Vectron Multi-System Locomotives for a period of 15 years and plans to use them from December 2017 onwards in cross-border traffic on routes between Germany, Austria, Switzerland and Italy.

Safer way to close valves on tank wagons

Innovative solutions are needed to improve work safety and also to protect the closing mechanism of tank wagons. A smart new component provides the perfect answer.

by Jörn Stiller, Operations / Head of Maintenance, Wascosa

The mechanical bottom valves of a tank wagon are opened by a linkage rod actuated by a lever on either side of the tank wagon. Here the lever usually turns through 120°. The spring tension working in the closing direction of the bottom valve requires a huge amount of torque in order to move the lever. When the actuating lever reaches its end position, it is locked.

Once the tank has been filled or drained, the bottom valve needs to be closed again. To do this, the lever's locking mechanism is released and the entire return torque is immediately directed to the hand lever. Depending on the size of the bottom valve and the strength of the valve spring, there may be a powerful recoil which the operator has to absorb manually. This process can cause serious injury to the operator, as well as damage to the valve seat and the linkage rod bearings.

New development thanks to innovative partnership

This is where a new product jointly developed by Franz Kaminski Waggonbau GmbH and Ventaix GmbH comes into play: the FD-30 vane damper was developed specifically to avoid this danger and ensure that the tank wagon's bottom valves can be closed safely and in a controlled manner. The special feature of the vane damper is that it cushions the force of the closing action, but does not affect the lever's operation when the valve is being opened.

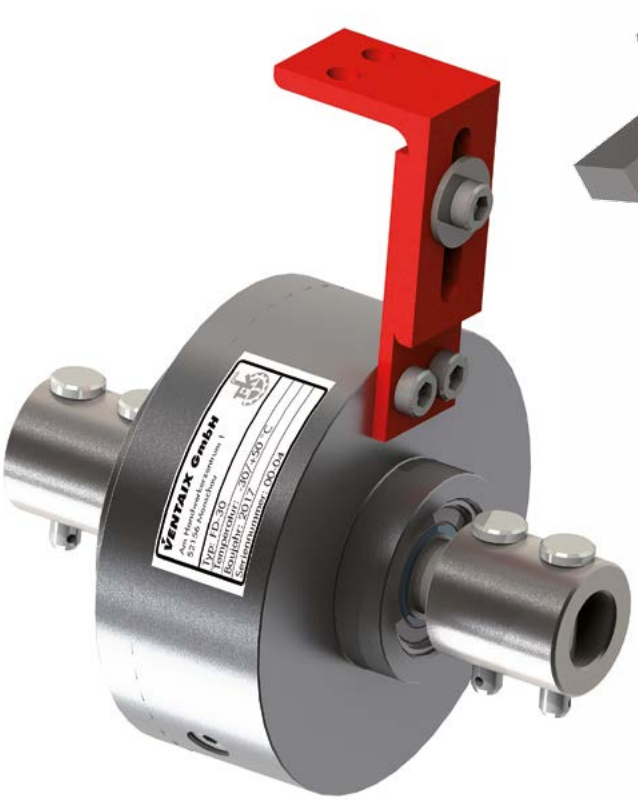
The dampening action is created by fluid contained in the vane damper. The stronger the recoil force, the greater the dampening of the hand lever's turning momentum. In this way the procedure for shutting off the bottom valve is no longer potentially damaging to both the operator and the tank wagon's closing mechanism.

Minimal cost, safer operation

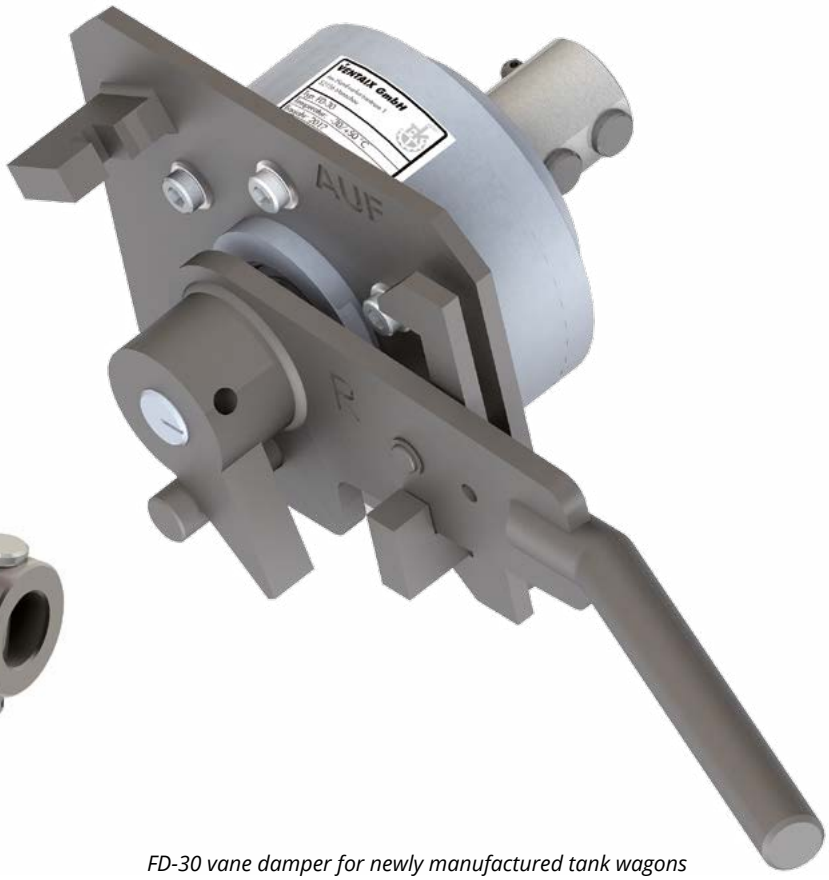
Fitting the vane damper is incredibly easy and it can be attached to the linkage rod on any tank wagon. To do so, the existing handwheel shaft simply needs to be separated at the right position, a section removed from the shaft and the vane damper inserted into the resulting gap with the help of shaft adapters. Thanks to the adjustable angle bracket, the vane damper can be attached at a suitable place on the tank wagon.

Safety gap plugged

The vane damper was first showcased at Innotrans 2016 in Berlin. After this international trade fair, a number of clients said they wanted to test the damper on their own wagons. In autumn 2016 Wascosa immediately started planning and implementation, and should be able to report on its initial experiences in no more than six months' time.



FD-30 vane damper for retrofitting tank wagons



FD-30 vane damper for newly manufactured tank wagons

Even safer chlorine transport across the Swiss railway network in future

In September 2016, a second “Joint Declaration” was signed, under the aegis of the Federal Office for the Environment, by the Federal Office of Transport and other parties directly involved (manufacturing industry, Swiss Railways and VAP as the representative of wagon keepers.

by Markus Vaerst, Regulation / Technology, Association of Swiss Owners of Railway Sidings and Private Freight Wagons (VAP)

The “Joint Declaration” sets a clear target for risk reduction and a package of measures already in place and still to be implemented, such as slower train speeds, shorter routes or removal of obstacles along the infrastructure that are not essential for operational purposes. Last but not least, any imports of chlorine into Switzerland from 31 December 2018 onwards will only be permitted in tank containers that satisfy the below criteria.

The partners will continuously supervise implementation of these measures and will also review and potentially introduce additional steps for reducing risks. To this end, the project committee was formed at the end of December 2016, supported by a panel of experts and reporting regularly to an advisory commission.

Requirement	Description
Derailment detection	Elements for detecting derailments (e.g. EDT
TE22 extended	Energy-consuming elements (crash buffers) with optimised energy absorption
TE25 combined	Overbuffering protection compliant with TE25a or a combination of two measures to limit damage caused by overbuffering in accordance with RID TE25b up to/including TE25e.
Valves	Protection mechanism between the external and internal valves (two-peace valve with predetermined breaking point), so that if the external top valve fractures, the internal bottom valve guarantees the wagon will not leak. Additional measures to boost safety up to RID 6.8.2.2.1.
Brake with automatic load switch	Prevents incorrect manual adjustment of the brake.
Optimised wheelset axle*	Wheelset axle with higher load-bearing capacity: 25 t wheelset axles used instead of 22.5 t axles when building new wagons.
Avoidance of ladders	Reduces the possibility of authorised opening of the valves. This measure only needs to be implemented if both the loading and unloading companies do not depend on using the ladders.

*Retrofitting existing wagons is not compulsory

Wascosa safe tank car® - setting the benchmark for maximum safety in rail freight transport.

Swiss Post: delivering millions of letters a day

The Habbiillnss sliding-door wagons leased from Wascosa have been in service with Swiss Post for over a year now. Experiences to date have been very positive, as confirmed by feedback from workers in the postal depot, whose task has been made much easier by the spacious new wagons. The new wagons also attract a lot of attention when they are on the move: painted bright yellow and carrying advertising slogans such as “Heading your way”, they certainly catch the eye.

by Daniel Walker, PostMail Shipments, Swiss Post

Swiss Post transports millions of letters across the country every day. Since 1 January 2016, they have been assisted in this task by 55 jumbo “Habbiillness” sliding-door wagons leased from Wascosa. The new wagons serve the routes Gossau SG – Zurich-Mülligen – Härkingen – Eclépens Sud – Geneva and also Zürich-Mülligen – Landquart – Chur, and have been introduced on the line between Härkingen and Cadenazzo as well.

Positive operational experiences

After their first year in service, the general opinion is very positive and Swiss Post is very satisfied with the new wagons. The postal workers in the transfer depots who use the new sliding-door wagons on a daily basis also appreciate the advantage of a big loading capacity and the ease of loading/unloading. The convenient way the doors open and close is another plus point. The general satisfaction is echoed across all regions: “Employees are generally very satisfied”, “Overall, our entire workforce is very happy with these new wagons”, and “The spacious wagons make our work much easier and we are very satisfied with them”.

Eye-catching advertising media

On their journey across Switzerland, the wagons are exposed to grubby conditions and bad weather. Their exteriors need to be thoroughly cleaned at least once a year to ensure their trademark yellow colouring maintains its shine. This also ensures that the advertising slogans displayed across the 55 wagons are clearly legible: 12 brief statements in total, in one of Switzerland’s three official languages – German, French or Italian – which were chosen by a jury as part of a special competition. These include “Millionen Briefe täglich”, “Emotions en route” oder “In viaggio per te”. Swiss Post is therefore skilfully using the sliding-door wagons as an effective advertising medium.

Locomotive no. 50912 (Zürich-Mülligen – Geneva) in Härkingen pulling three jumbo Swiss Post wagons. On the other line: more of the yellow Habbiillnss wagons leased since 1 January 2016.

About Swiss Post
Swiss Post is Switzerland’s public postal service. In 2015 it handled 2.2 billion letters, over 112 million packages, transported 140 million passengers and through its subsidiary PostFinance AG managed over CHF 115 billion in client assets. This was achieved with a workforce of just over 62,000 employees, more than 54,000 of them based in Switzerland. This makes Swiss Post Switzerland’s biggest employer.

The interior of the wagon: the Habbiillnss loaded with pallets on wheels capable of holding up to 28 grey letter crates

The exteriors of the wagons are cleaned at least once a year, to make sure the distinctive yellow paintwork associated with the Post continues to gleam. (Photos: D. Walker)

Wascosa railshow in Duisburg

On 1 December 2016, Wascosa showcased a selection of freight wagons “in the flesh” to more than 50 invited guests in Duisburg. A solution was on hand to cater for virtually every requirement: the T2000, T3000e, Super Jumbo 98m3 and Mutant 88m³.

The guests braved the winter cold and listened intently to the information provided by the wagon experts. Frozen hands were warmed up with mulled wine and punch. Then there was the opportunity to chat, ask questions and share ideas over hot tea and a hearty buffet lunch.

Wascosa Carefree Module – Professional fleet management

Outsourcing the management of a wagon fleet to an external service provider allows companies to concentrate on their core business once again. At the same time, it allows companies to cut their costs, reduce workshop throughput times and thereby improve the availability of wagons. Wascosa is Europe's first ECM service provider to be certified to ECM 445/2011 and already manages a large portfolio of wagons right across Europe.

Even before accepting the wagons, Wascosa examines their every detail and performs a professional risk analysis. Based on this analysis, the customer has an overview of the status of their wagon fleet right from the start.

As part of this collaborative venture, the client can access Wascosa Net at any time for information regarding the use and status of their wagon fleet. Using a smart phone, tablet or PC, the client can access up-to-date information on their fleet any time, whether it be technical master data or important documents in the document management system (DMS). Personalised and protected online access, combined with secure data transfer from Wascosa Net, allows the client to monitor all the relevant data and documents, such as key performance indicators (KPIs), status information and availability statistics for every wagon.

This information provides a platform for the efficient controlling of every wagon in the fleet: there is no need for physical document archives on the wagons managed by Wascosa, as the relevant data and documents can be accessed at any time on Wascosa Net.

Wascosa Net gives customers a comprehensive overview of the most important information of the wagons being managed and, if required, data and third-party wagons as well. Transparency and openness build trust.

Europe's first provider of freight wagon systems

Wascosa now present in Budapest, Nova Gorica and Warsaw

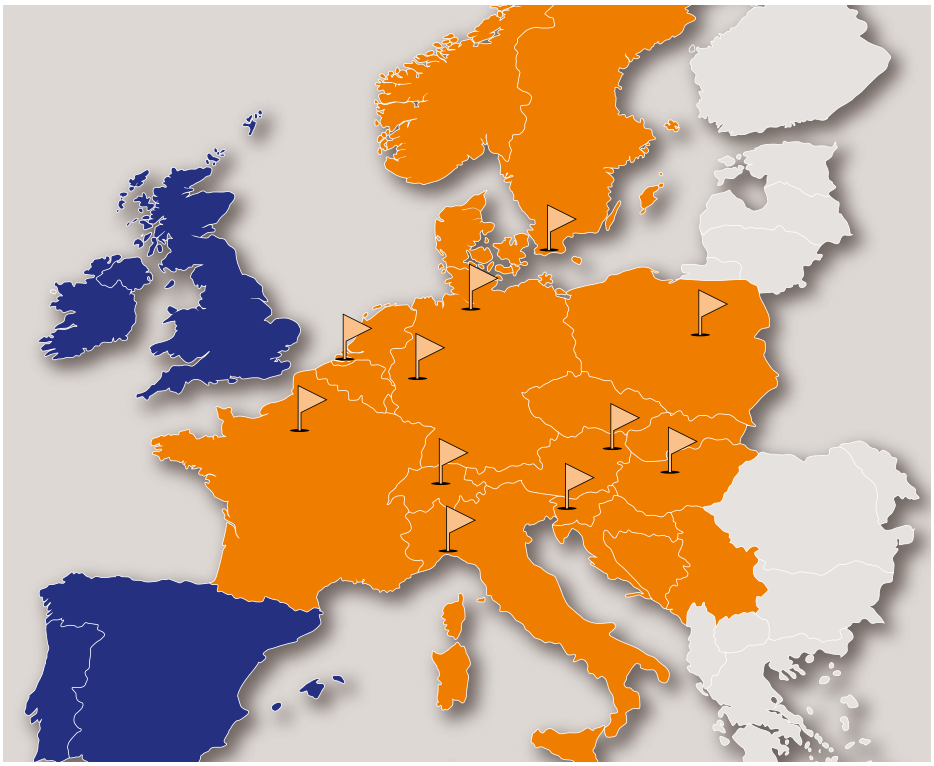
We are continuing to expand our European business activities. At the end of 2016 Wascosa extended its sales organisation into Poland and Hungary. Since April 2017 Wascosa also has an office in Slovenia. Clients in the new locations of Budapest, Nova Gorica and Warsaw will be served by Jolanta Wielgus, Árpád Szücs and Janko Tominec.

The further expansion of rail logistics into different countries offers attractive growth opportunities for Wascosa. Wascosa is therefore continuously extending its sales organisation to include other European locations, such as Poland, Slovenia and Hungary.

Philipp Müller, Jolanta Wielgus, Peter Balzer

Jolanta Wielgus has been the sales agent for Poland since October 2016. She has been working in the field of freight wagon leasing for many years. Her Master of Science Engineer degree from the Agriculture and Technology Academy in Olsztyn laid the foundation for her career in the transport sector.

Contact: jolanta.wielgus@wascosa.com



Árpád Szücs

Wascosa has had an agent in Hungary since January 2017: Árpád Szücs will concentrate on developing the Hungarian market for Wascosa. He will be able to draw on many years of experience in rail transport and wagon leasing, having previously worked for Rail Cargo Logistics GmbH in Vienna.

Contact: arpad.szucs@wascosa.com

Janko Tominec

Janko Tominec has been in charge of Wascosa's sales organisation in Slovenia, Serbia and Croatia since April 2017. He has many years of experience in rail transport and international shipping. Latterly he was the owner of the Slovenian companies Trans Trade Adria d.o.o. and T.T. Cargo d.o.o.

Contact: janko.tominec@wascosa.com

Calendar of events

Date	Event	Location	Website
9. – 12.05.2017	transport logistic	Munich, DE	www.transportlogistic.de
10.05.2017	SERA regional conference for members from DK, SE, FI, EE, LV, LT, (NO)	Helsinki, FI	www.uiprail.org
23.05.2017	SERA regional conference for members from FR, IT, ES, PT, MT	Valletta, MT	www.uiprail.org
07.06.2017	SERA regional conference for members from DE, AT, PL, CZ, (CH)	Berlin, DE	www.uiprail.org
14.06.2017	SERA regional conference for members from UK, IR, NL, BE, LU	Amsterdam, NL	www.uiprail.org
15.06.2017	Annual Meeting of the Association Française des Détenteurs de Wagons	Paris, FR	www.afwp.asso.fr
20.06.2017	SERA Convention	Brussels, BE	www.uiprail.org
20. – 21.06.2017	14th Marketplace Event DSLV/VDV	Siegburg, DE	www.vdv.de
21. – 23.06.2017	Annual Meeting of the Federation of European Rail Industry UNIFE	Barcelona, ES	www.unife.org
22.06.2017	17th Technical Information Seminar of the Federation of Freight Wagon Maintainers in Germany (VPI)	Leipzig, DE	www.vpihamburg.de
06.07.2017	Annual Meeting of the Rail Committee on the Interoperability and Safety of the European Rail System (RISC)	Brussels, BE	www.uiprail.org
28.08.2017	Meeting of Members of the Cargo Rail Service Center e.V.	Fulda, DE	www.crsc.eu.com
30.09. – 03.10.2017	51th Annual Meeting of EPCA	Berlin, DE	www.epca.eu
17. – 18.10.2017	10th International BME/ VDV Rail Conference on the topic «Future of wagon loading traffic in Europe»	Hannover, DE	www.vdv.de

Impressum

Publisher	Wascosa AG, Werftestrasse 4, 6005 Lucerne, Switzerland
Contact	T +41 41 727 67 67, infoletter@wascosa.ch
Concept, text and design	Wascosa AG, Cornelia Ineichen and Taktkomm AG
Translation	Graeme High, Edinburgh
Printing	Druckerei Ebikon AG
Print run	2000 copies in German and 1400 copies in English
Produced	Appears twice a year in German and English
Photos	Wascosa AG, BASF SE, Siemens Schweiz AG, D. Walker
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Interview with Markus Basler, new member of the Executive Board

On 1 January 2017, our Head of Controlling Markus Basler joined the Executive Board of Wascosa AG. We met him for coffee and discussed new beginnings, challenges and something he has in common with Roger Federer.

What persuaded you to join Wascosa a year ago?

Wascosa is a leading company in our industry and has an excellent reputation. It is well known and highly respected, even outside its own walls. It was therefore the ideal opportunity for me to try something new after working for the same employer for 14 years. The fact that Wascosa is still run by the founding family says a lot about the company. It means I have a more personal relationship and I know who I am working for every day – which is a good feeling.

What did you do beforehand – what's your background

I spent the past 14 years in the Accounting/ Controlling department of AAE, now part of VTG AG.

You're also a new member of the Executive Board. Such a big change always offer the opportunity for a new beginning as well. What are your priorities in the future?

The most important task for me personally is to ensure that controlling is efficient and accurate. Looking ahead to the future, we can set course accordingly and respond flexibly to market changes. However, this is always a matter of teamwork – and I am determined to do my best to play my part in this

What was the biggest change when you joined the Executive Board?

I'm now involved in far more meetings, which has both its good and bad sides. I'm very pleased with the diversity and the broad range of topics that I'm involved in. Even so, my leisure time is also important to allow me to recharge my batteries and ensure a good work-life balance, which is something that Wascosa is mindful of as a good employer. That means a lot to me.

Talking about leisure: what do you like to do in your free time?

My tennis gear is always on hand in my car. I'm always up for a spontaneous game after work.

Markus Basler, a resident of Eschenbach (LU), is 47 years old and joined Wascosa in January 2016. He brings many decades of financial and management experience in the rail industry. As a family man, he likes to spend his time playing tennis or enjoying a nice glass of wine on holiday in Piedmont, Italy.

His appointment completes the Executive Board of Wascosa AG comprising Thomas Lippuner (Chief Sales Officer), Irmhild Saabel (Chief Business Development Officer) and Peter Balzer (CEO) (back row, left to right) as well as Markus Basler (Head of Controlling), Detlef Schlickelmann (COO) and Fabian Stadler (CFO, Organisation & Strategic Projects) (front row, left to right).

Overview of leasing and finance companies for mainline and shunting locomotives

	Mainline electric locos			Mainline diesel locos			Shunting diesel locos			
Company	**Manufacturer**	**Type**	**Qty.**	**Manufacturer**	**Type**	**Qty.**	**Manufacturer**	**Type**	**Qty.**	**Total locos**
Alpha Trains	Bombardier	TRAXX F140 AC	6	EMD	JT42CWRM	7	Vossloh	G 1000 BB	24	
Köln, DE	Bombardier	TRAXX F140 AC1	29	Siemens	ER 20	12	Vossloh	G 1206	71	
www.alphatrains.eu	Bombardier	TRAXX F140 AC2	33				Vossloh	G 1700-2 BB	4	
	Bombardier	TRAXX F140 MS	80				Vossloh	G 2000 BB	17	
	Bombardier	TRAXX F140 DC	20				Vossloh	G 2000-2 BB	9	
	Siemens	Vectron MS	6				Vossloh	G 2000-3 BB	34	
							Vossloh	Euro 4000	24	376
AKIEM	Alstom	Prima EL3U	68	Alstom	Prima DE33 B AC	40	Vossloh	G 1000 BB	5	
Clichy, FR	Alstom	Prima EL2U	70	EMD	JT42CWRM	7	Vossloh	G 1206	10	
www.akiem.com	Alstom	BB36000	30				various	various	40	
	Bombardier	TRAXX F140 AC2	3							
	Bombardier	TRAXX F140 MS	19							
	Bombardier	TRAXX F140 DC	20							
	Bombardier	TRAXX AC3 Last Mile	4							316
MRCE	Bombardier	TRAXX F140 AC1	11				Vossloh	G 1000 BB	4	
Amsterdam, NL	Bombardier	TRAXX F140 AC2	13				Vossloh	G 1206	25	
www.mrceurope.com	Bombardier	TRAXX F140 MS	5				Vossloh	G 2000-3 BB	4	
	Siemens	ES 64 U2	52							
	Siemens	ES 64 F4	124							
	Siemens	Vectron AC	45							
	Siemens	Vectron MS	6							289
Railpool	Bombardier	TRAXX F140 AC2	51				Voith	Gravita 10 BB	5	
Munich, DE	Bombardier	TRAXX F140 MS	71							
www.railpool.eu	Bombardier	TRAXX F140 DC	8							
	Bombardier	TRAXX AC3 Last Mile	25							
	Siemens	Vectron AC	19							179
Beacon Rail	Bombardier	TRAXX F140 AC	5	EMD	JT42CWR-T1	50	Vossloh	Euro 4000	38	
London, UK	Bombardier	TRAXX F140 AC1	3	EMD	JT42CWRM	10				
www.beaconrail.com	Bombardier	TRAXX F140 AC2	12	Siemens	ER 20	15				
	Diverse	Rc3	12							145
Macquarie	Alstom	Prima EL3U	16				Bombardier	TRAXX F140 DE	10	
London, UK	Bombardier	TRAXX F140 AC2	11				EMD	JT42CWR	1	
www.macquarierail.com	Bombardier	TRAXX F140 MS	21				EMD	JT42CWR-T1	3	
	Bombardier	TRAXX P160 AC2	4				EMD	JT42CWRM	6	
							GE	311D	20	92
Northrail	Siemens	Vectron AC	2				Voith	Gravita 10 BB	16	
Hamburg, DE	Diverse	1142	2				Voith	Gravita 15L BB	3	
www.northrail.eu							Vossloh	G 1000 BB	3	
							Vossloh	G 1206	7	
							various	various	49	82
ELL	Siemens	Vectron AC	49							
Vienna, AT	Siemens	Vectron MS	27							
www.ell.co.at										76
EAH							Vossloh	G 1206	8	
Duisburg, DE							various	various	29	
www.eahgmbh.com										37
LokRoll	**Siemens**	**Vectron**	**18**	**also on offer**			**also on offer**			
Lucerne, CH										
www.wascosa.ch										**18**
Millet							Vossloh	G 1206	12	
Paris, FR										
www.millet-wagons.com										12
SRI	Bombardier	TRAXX F140 AC	2							
Gundremmingen, DE										
www.sri-rail-invest.de	various	151	4							6

NEW (see page 7)

Sources: «Europäische Bahnen» market review, www.eu-bahnen.info, Wascosa