Zeitschrift: Swiss express : the Swiss Railways Society journal
Herausgeber: Swiss Railways Society
Band: 5 (1997-1999)
Heft: 2

Artikel: Hupac
Autor: Smith, Ron
DOI: https://doi.org/10.5169/seals-854480

Hupac by Ron Smith

A significant feature of continental freight trains, especially in Switzerland, is intermodal traffic. This is where containers, swap bodies, trailers or complete lorries are carried on special wagons, either in full train loads, or even mixed in with conventional freight wagons. The advantage of intermodal freight is that the actual goods do not need to be trans-shipped into a rail wagon and back out again at the other end for collection and delivery work to be carried out by road. When the goods are loaded into a lorry at the factory, and that same load carrying unit arrives at the customer's door, there is no risk of pilferage, damage etc. It does not matter if the container or trailer has a different lorry with it, the load carrying unit is the same.

Hupac (an abbreviation for huckepack, the German for piggyback) was formed in 1967 in Chiasso, on the Swiss-Italian border. This was a very progressive move and Hupac was one of the founder members of the UIRR, (International Union of Combined Road-Rail Transport Companies). This body co-ordinates, publicises and promotes combined transport throughout Europe.

The founder members of Hupac were freight forwarding and transport companies. Today Hupac has 72 shareholders, one of whom is the SBB who hold 24% of the capital of 15 million Swiss francs. Hupac employs 125 people, and has over 1200 wagons in its fleet.

The Hupac statistics are impressive. The company has seen constant growth, restricted not because of lack of demand, but lack of train paths, and restricted terminal capacity. All these areas have been attacked with energy and investment. The trains are run at maximum length, speed and weight. In 1989 Hupac developed the "shuttle" concept. Container/swap body/semi trailer wagons are in fixed formations and shuttle constantly between the same pairs of terminals. This gives maximum utilsation of the wagons, and by avoiding intermediate shunting, marshalling yards, or splitting/joining trains, the service has the maximum punctuality and reliability. This has proved extremely successful,

Opposite page, above and next page: A road trailer is lifted from the road and loaded onto a rail wagon at Busto Arcisio.

Photo: Ron Smith

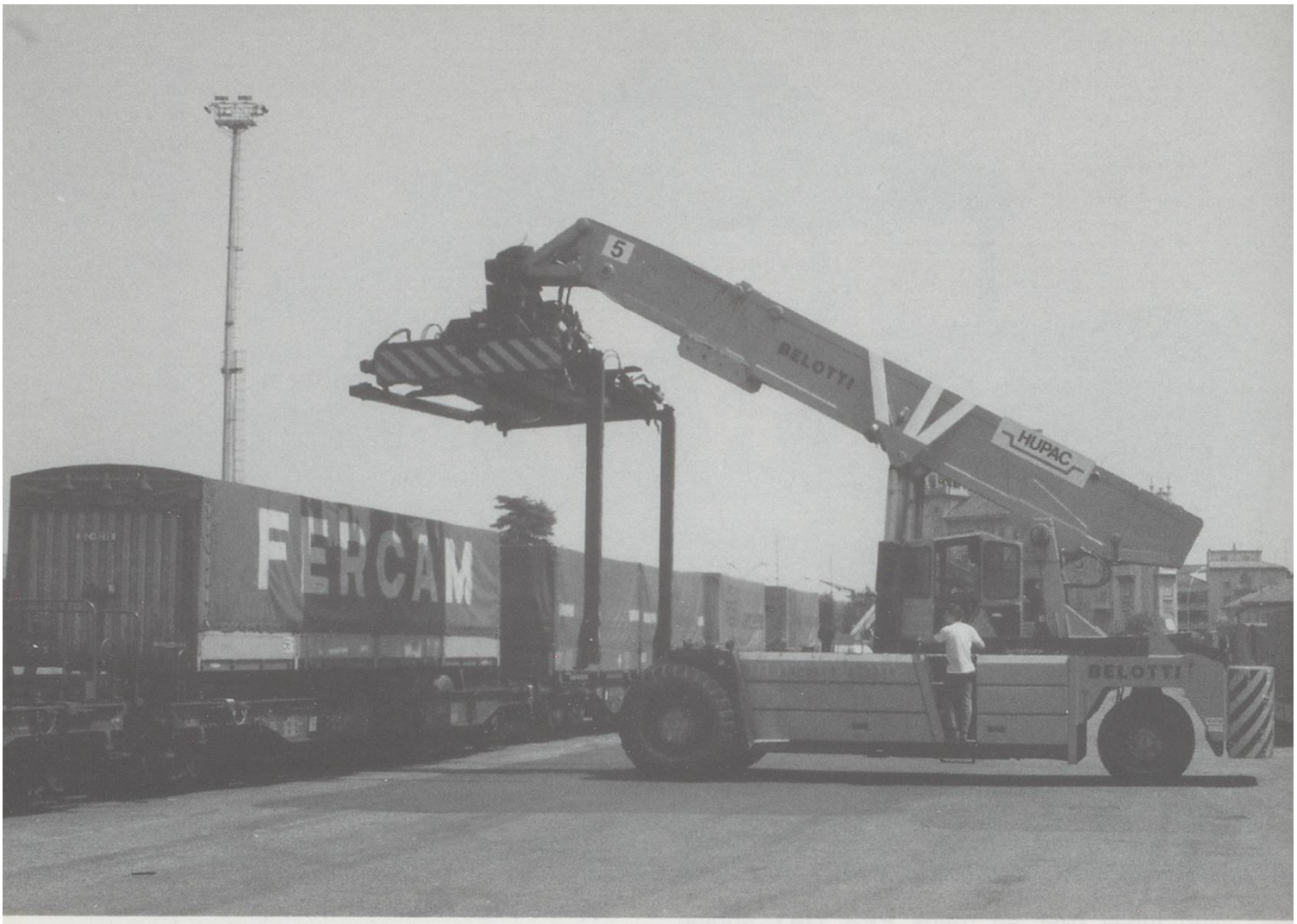
and today over 44 trains PER DAY shuttle across Switzerland, carrying 89% of Hupac's traffic.

The depot capacity restriction has been eased by investment in terminals. Near Milan, Busto Arsizio has been doubled in size, two Italian railways (FS) class D341 Bo Bo diesel electric locos purchased to shunt, and an average of two intermodal trains per hour, 24 hours per day, use this terminal. In the autumn of 1996, Hupac opened a new terminal at Singen, in Baden-Wurttemburg, Germany. The local authority have heavily supported this terminal, as they see it as the solution to their rapidly growing freight traffic congestion problem, and they predict a 135% growth in rail freight between 1990 and 2010, thanks to this initiative. Singen has two large gantry cranes spanning four tracks plus four road lines. There is also a track for rolling motorway wagons, and in total covers 50,000 square metres.

Like most UIRR members, Hupac takes responsibility for loading the trains, i.e. finding the customers. It contracts with the various railways for traction of its trains, leaving no risk for the railways. Hupac must not contract directly with the ultimate customers, or it would be in direct competition with the hauliers and freight forwarders who are Hupacs customers. It offers a transport service to its customers that they cannon beat by using any other means of moving their customers goods. This is the essence of combined transport.

Hupac does not work in isolation, they have developed good computerised information links with customers, customs, and the railways. By taking responsibility for the train, each container does not have to be checked at each border or railway boundary. The Hupac data is accepted. This greatly speeds up transits. Their computer system is also compatible with their partner UIRR companies such as Cemat in Italy, Kombi Verkehr in Germany, and Trailstar in Holland, which again ensures delay free transits.

There are four major types of combined transport. International maritime transport is



Above: The road trailer ready for onward travel by rail.

Photo: Ron Smith

dominated by the steel container. Being developed by the U.K. they are not metric, and never will be, as it is impossible to change world wide installations. The containers have many types, but are predominantly 40 feet long and 20 feet long steel boxes with doors at one end only, 8 feet wide, and 8 feet 6 inches high, with corner castings which take "twistlocks" which hold the boxes onto each other, rail wagons, road vehicles or ships. Ports such as Rotterdam and Antwerp handle huge numbers of containers per day, and rail carries a significant quantity of these boxes to and from the ports. These steel boxes have become rather restrictive in dimensions for the developments in traffics, and are relatively heavy. Containers are constructed to hold 40 tonnes, and be stacked up to eight high, so they are very strong. For purely land transits, the swap body evolved. This is a container which is not stackable, as it is not intended to be left hanging around awaiting its next shipment, or next ship, or stacked in the slots of a cellular container ship. It is therefore lighter. It still has twistlock pockets in standard positions in its base, so it still fits easily onto rail wagons or road vehicles. The most common bodywork consists of a tarpaulin cover, or increasingly a tank for the carriage of liquids such as hazardous chemicals or milk. Interestingly German milk has successfully been sent to Italy for cheese making for many years. The tanks are not refrigerated, the speed of the transit has made this unnecessary. It is a tribute to the reliability of combined transport that this flow has caused no problems. Swap bodies have been, and continue to be, the growth area. As they are not too restricted in size, they are slightly wider to more easily accommodate palletised load. Swap bodies can be adapted to suit all manner of goods.

The next type of combined transport is the carriage of road semi trailers. This has plateaued in recent years and is unlikely to ever grow. It is interesting that efforts are being made in the U.K. to exploit this technology which looks to be going nowhere. The road trailer has to be

modified. Usually it is lower than normal, with chamfered edges to the roof to avoid hitting bridges, this reduces load space. The rear light cluster and under run bumper has to fold up through 180 degrees - more things to go wrong. The landing legs have to fold up and be pegged in position, and it must have air suspension which will collapse to reduce the height as much as possible. The trailer sits in "pocket" wagons. The ration of payload weight to the combined road trailer and wagon weight is poor, and the road trailers have to be fairly rugged to take the lifting and lowering, and they have higher maintenance costs than ordinary road trailers.

The last method is the rolling motorway. Here, complete lorries drive onto very specialised wagons. The drivers get out and travel in a special lounge coach. The rail wagons have ultra small (30 cm diameter) wheels on four axle bogies. The payload weight to tare weight ratio is very poor indeed, and such transits are only justified by external influences. For example, Switzerland retains a maximum of 28 tonne gross vehicle weight for road vehicles, while all around it the limit is 40 tonnes g.v.w., so if a fully loaded lorry wants to go through Switzerland it must go by train or detour via France or Austria. Despite being economically unsound, the sight of a long train of lorries swishing through the Alps is impressive. Currently 22% of Hupac business is rolling motorway, with 310 customers, of which 61% is Germany/Italy, while unaccompanied is 78% with 190 customers.

For the future, Hupac has set itself some high targets to achieve by the year 2000. They plan to more than double the daily number of trains that they run, in particular shuttle trains. They intend to focus attention on particular market niches which are currently poor performers, such as Netherlands to Italy, and Southern Germany to Italy, and double their market share on these routes. If you had a factory near Busto and a customer near Hamburg, Hupac offers an unbeatable service, in terms of quality, price and speed. However, if you are 100 miles away from a terminal and so is your customer, the economics change. This inflexibility is unavoidable with rail. Hupac plan to develop the services available to peripheral areas to encourage them to use the "gateway" terminals.

There are several factors which will impact greatly on Hupac over the next few years. The opening of the NEAT base tunnel through the Gotthard will dramatically improve transit times and therefore competitiveness. There will be reforms to the railways of Switzerland and elsewhere which are expected to improve services and costs, and there could be financial contributions to the infrastructure at terminals. It is also anticipated that, as a result of environmental pressure, there will be tax exemptions for road hauliers who use rail for part of their journey. There is a lot of pressure on Switzerland to allow a corridor for 40 tonne lorries to pass through. This would have a very bad effect on combined transport services, and the whole E.U./Switzerland issue is watched carefully. If E.U. philosophies of unrestricted access to the market, and complete deregulation of road haulage, were to come into effect, Hupac would suffer. They realise this and are already taking steps to ensure that their services will always be attractive. The e.d.i. systems are receiving a lot of attention and investment so that customers can access the system, track consignments, be billed and pay, have customs clearance, all electronically. The reliability of the service is also paramount in attracting and keeping customers, and the shuttle concept has certainly delivered this, the inter working with other UIRR companies is producing a network of services which will be difficult for any new entrant to the market to match.

Hupac is well aware that attracting more business is not difficult, but there will be increasing pressure on prices. Environmental considerations are particularly strong in the Alpine countries who seem to attract pollution from neighbouring countries, and coupled with the growing grid lock on our roads must encourage the use of rail.

Hupac are preparing themselves to greatly increase the level of their business, at competitive prices, and at a very high quality of service. They continue to invest in wagons and terminals, and to broaden their range of "products" to give the most attractive service possible. Looking at their past growth record and the dynamism of their management we can be sure that we will continue to see their trains shuttling through the Alps for a long time to come.