Rail Logistics & Forwarding
DB Schenker in Hong Kong & South China

Schenker International (H.K.) Ltd.
National Distribution Department
Aug 2013
| 1. | Economic Developments in China |
| 2. | Introduction to DB Schenker Rail |
| 3. | DB Schenker Rail Products & Services |
| 4. | China to Europe Service |
| 5. | China to Russia Service |
| 6. | China to Central Asia & Mongolia Service |
| 7. | Case Studies |
“Go West” strategy in China as accelerator of economic growth in Central China

Central and Western China provinces

“Go West” strategy in China

- Goal: foster economic development in Central and West China to close gap to coastal regions in East China
- Strategy was introduced in 2000 by Chinese government
- Goal to establish regional industry clusters, e.g.,
  - Automotive
  - High tech
  - Machinery goods
- Production is moving from coastal regions to Central China

GDP growth

<table>
<thead>
<tr>
<th>Year</th>
<th>GDP Growth of China</th>
<th>Growth of provinces Chongqing, Sichuan, Shaanxi</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009</td>
<td>8.7%</td>
<td>13.7</td>
</tr>
<tr>
<td>2010</td>
<td>9.5%</td>
<td>15.7</td>
</tr>
<tr>
<td>2011</td>
<td>9.2%</td>
<td>13.9</td>
</tr>
</tbody>
</table>

1) Arithmetic average; regions with high relevance due to central location: Chongqing Province includes the city and surrounding areas, Chengdu as biggest city of Province Sichuan, Xian as biggest city of Province Shaanxi

Source: NBS
Manufacturing in Central China requires innovative solutions – rail transport to and from Europe as an option

Relocation of manufacturing sites in China with challenges for logistics concepts

- **Distances** for hinterland traffic is **getting larger**\(^1\), which implies:
  - Increased lead times
  - Higher transport costs

- **Logistics challenges as supply chains** get more complex, e.g.,
  - Several modes involved
  - Infrastructure bottlenecks in Central / West China provinces

Rail transport as an attractive option

- Rail transport between China and Europe with
  - **Shorter lead times** than **ocean** freight
  - **Lower rates** than **air** freight

- Benefits from **economic growth of transit countries**, e.g. Kazakhstan

- Transport between **China and CIS / Central Asia**: advantages in **cost** and **lead time**

- Rail with **ecological advantages** compared with modes

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1) E.g. Chongqing to Shanghai: more than 1,700 km
<table>
<thead>
<tr>
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<td>Case Studies</td>
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</table>
DB Schenker Rail has expanded its network from Germany to many countries in Europe.
DB Schenker has been investigating regular China Europe rail transportation since 2007 – regular service as of 2011

**Track Record of DB Schenker China Train**

- First train between Beijing and Hamburg in 2007
- Test services on Northern and Southern route in 2010
- 11 company trains run on a non-regular basis from Chongqing to Duisburg (IT products)
- Start of regular company train service (Automotive) on the Northern route from Leipzig to Shenyang (eastbound)
- Regular trains east and westbound (China to Europe, Europe to China)
- Regular container shipments from China to CIS countries
### Content

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</table>
In China, we have a dedicated rail organization that is well connected and familiar with all operational aspects.

**DB Schenker in China**

**Rail Logistics and Forwarding**

- **Fully dedicated rail teams at 3 locations** (future 5)
- **Regular shipments**
  - block trains to Europe, container, conventional, oversized shipments
- **Operational expertise**
  - Container loading, transport documents, routing options, etc.
- **Close ties with China Railway**
  - CRCT, CRIMT, Local Railway stations, Terminal JV
  - CRIntermodal
Through our stake in CRIntermodal, we participate in the management of state-of-the-art container terminals in China

Terminal Locations

- Present terminals
- Planned terminals

- Joint venture initiated by the Chinese Ministry of Railways (MOR)

- 5 shareholders that combine local and overseas expertise in transport and logistics (CRCT, NWS Holding, CIMC, Lucky Glory and Deutsche Bahn)

- 9 terminals already completed, 9 more in plan

*Finisbed but presently not yet managed by CRIntermodal
Our service scope covers container transport, as well as conventional transports & oversized shipments

<table>
<thead>
<tr>
<th>Product</th>
<th>Transportation Mode</th>
</tr>
</thead>
<tbody>
<tr>
<td>Container Transport</td>
<td>• 20’GP, 40’GP, 40’HC, 45’GP&lt;br&gt;• Single containers, as well as container groups&lt;br&gt;• Company trains for volumes over 50 FEU</td>
</tr>
<tr>
<td>Conventional Rail Transport</td>
<td>• Cargo with large volume or heavier than container load limit, or break bulk e.g. heavy machines, steel, coal, corn, mineral, etc.&lt;br&gt;• Use of conventional wagons</td>
</tr>
<tr>
<td>Oversized Shipments</td>
<td>• Oversized machine and equipments, e.g. construction and mining machinery&lt;br&gt;• Use of flat wagons</td>
</tr>
</tbody>
</table>
We do not only arrange rail transport, we provide a seamless intermodal door-to-door service

Overview of selected Door-to-Door Services offered by DB Schenker

**Pre-carriage & Logistics Services**
- Container provision
- Check required paperwork
- Feeder services by truck / sea
- Logistics services e.g. complex container loading plan
- Oversized cargo loading solution
- VMI and buyer consolidation

**Terminal & Train Operations Control**
- Handling at origin / destination rail terminals
- Border transfer handling at China-Russia
- Transit customs clearance
- Monitoring and daily status report
- Additional security features, special cargo protection for winter shipments

**On-Carriage & Logistics Services**
- Potential re-routing of single containers or container groups at destination
- All logistics services throughout Russia

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Schenker International (H.K.) Ltd.
DB Schenker offers transports in the single wagon system, as well as on public and company block trains.

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Single Wagon System</th>
<th>Block Trains</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minimum volume from a single customer</td>
<td>Wagon with container passes through several shunting stations before arriving at the destination</td>
<td>Train has containers from many customers and goes directly from origin to destination terminal</td>
</tr>
<tr>
<td></td>
<td>1 FEU (1 x 40’ or 2 x 20’) or 1 railcar</td>
<td>Train has containers from many customers and goes directly from origin to destination terminal</td>
</tr>
<tr>
<td></td>
<td>Shipments from North/East China to Europe on Northern route</td>
<td>82 TEU / 41 railcars to Europe</td>
</tr>
<tr>
<td></td>
<td>Shipments from China to Russia, Central Asia and Mongolia</td>
<td>100 TEU / 50 railcars to Russia / Central Asia</td>
</tr>
</tbody>
</table>

**Examples**

- Shipments from North/East China to Europe on Northern route
- Zhengzhou – Hamburg (DE)
- Lianyungang - Alashankou
- Regular block trains Chongqing – Duisburg
- Regular block trains Leipzig - Shenyang
DB Schenker’s security concept offers a unique end-to-end monitoring from container loading to unloading.

Key attributes to our security concept

DB Schenker offers a refined and proven door-to-door security concept

- **DB SCHENKERSmartbox**
  - 24/7 monitoring door-to-door
  - Location, movement, light, tilt, shocks, vibration, temperature, humidity
  - Real-time door-open alert

- **Rapid response in case of open door alerts** by local railway units and police
DB Schenker’s security concept offers a unique end-to-end monitoring from container loading to unloading

Temperature monitoring

- During the winter months, the train passes through territory with very cold temperatures
- A winter solution is required to protect temperature sensitive cargo from being reduced in functionality or being damaged

<table>
<thead>
<tr>
<th>Nation</th>
<th>Location</th>
<th>Temp.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kazakhstan</td>
<td>Dostyk</td>
<td>-35°C</td>
</tr>
<tr>
<td></td>
<td>Bedel</td>
<td>-40°C</td>
</tr>
<tr>
<td></td>
<td>Karaganda-Sot.</td>
<td>-43°C</td>
</tr>
<tr>
<td></td>
<td>Kandyagach</td>
<td>-45°C</td>
</tr>
<tr>
<td></td>
<td>Akbura</td>
<td>-48°C</td>
</tr>
<tr>
<td>Russia</td>
<td>Irkutsk</td>
<td>-40°C</td>
</tr>
<tr>
<td></td>
<td>Orenburg</td>
<td>-37°C</td>
</tr>
<tr>
<td></td>
<td>Kinel</td>
<td>-30°C</td>
</tr>
<tr>
<td></td>
<td>Rastovka Penz. Park</td>
<td>-28°C</td>
</tr>
<tr>
<td></td>
<td>Kustarevka</td>
<td>-29°C</td>
</tr>
<tr>
<td></td>
<td>Rybnoe</td>
<td>-28°C</td>
</tr>
<tr>
<td></td>
<td>Belazovoe</td>
<td>-27°C</td>
</tr>
<tr>
<td></td>
<td>Vjazma</td>
<td>-27°C</td>
</tr>
<tr>
<td></td>
<td>Smolensk</td>
<td>-26°C</td>
</tr>
<tr>
<td>Belarus</td>
<td>Krasnoe</td>
<td>-25°C</td>
</tr>
<tr>
<td></td>
<td>Orsha-C</td>
<td>-23°C</td>
</tr>
<tr>
<td></td>
<td>Baranovichi-C</td>
<td>-22°C</td>
</tr>
<tr>
<td></td>
<td>Brest Ost</td>
<td>-23°C</td>
</tr>
</tbody>
</table>

DB Schenker winter solution

2 levels of cold protection material

- Place top blanket with foldable flaps on goods
- Fold flaps of top blanket
- Wrap side blanket around pallet
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China – Europe rail service is a relatively new transport option positioned between air and ocean.

**Advantages of Rail Solutions**

- Rail is the perfect solution for transports that require **fast lead times** at **much lower cost** than air freight.

**Highlights of CN – EU Rail Solutions**

- Rail solutions on China-Europe route offer a new transport option that is expected to experience rapid growth.
- In 2012, almost 250 block trains and a large number of single containers have been transported by DB Schenker.
- High on-time performance of block trains and even single containers can be transported at competitive lead times on many routes.

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**Example: Door-to-Door transport of Notebooks Central China – the Netherlands**

<table>
<thead>
<tr>
<th>Door-to-Door LT</th>
<th>Ocean</th>
<th>Rail¹</th>
<th>Sea-Air</th>
<th>Air</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>USD / Notebook</strong></td>
<td>38 days</td>
<td>22 days</td>
<td>24 days</td>
<td>4 days</td>
</tr>
<tr>
<td>1.9</td>
<td>3.8</td>
<td>9</td>
<td>18</td>
<td></td>
</tr>
</tbody>
</table>

¹ block train service
On July 18, 2013, a pilot train departed Zhengzhou to Hamburg, DB Schenker served as the operator outside China

Involvement of DB Schenker
- Coordination of pre-carriage
- Check of transport documents and preparation of railway bill
- Operator for rail transportation outside China i.e. Dostyk, Kazakhstan to Hamburg, Germany
- On-carriage and other destination services in Europe

Key block train features
- Zhengzhou, China – Hamburg, Germany (an alternative destination in Central Europe is possible in the future)
- Terminal-to-Terminal lead time: 15-16 days
- Frequency: planning is 1 train per week
- Minimum booking volume: 1 x 40' or 2 x 20' containers

The Zhengzhou train targets volume from North, East and South China. Most cities in China and Europe can be connected in 20-22 days
Between East China & Europe, DB Schenker offers expedited service in the single wagon system using large wagon groups.

**Standard Rail Door-to-Door Service**

**Europe**
- Duisburg
- Warsaw
- Budapest
- Prague

**China**
- Tianjin
- Shanghai
- Shenzhen

1 Service can be offered by a sea-rail combination via Tianjin

**Example: Shanghai-Duisburg**

<table>
<thead>
<tr>
<th>Route</th>
<th>Northern</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lead time (Door-to-Door)</td>
<td>28 days</td>
</tr>
</tbody>
</table>

Lead time is based on single container transportation. DB Schenker is developing public block train solutions that will reduce lead time to approx. 24 days.
Two main rail routes used by DB Schenker between China and Europe, as well as to and from CIS countries

Overview of DB Schenker’s Main Rail Routes

Explanation

Transshipment and transit customs clearance/Gauge change

1) Consisting of Russia, Kazakhstan and Belarus

- Manzhouli (CN) - Zabaykalsk (RU)
- Alashankou (CN) - Dostyk (KAZ)
- Brest (BY) – Malaszewicze (PL)

1,435 mm normal gauge
1,520 mm wide gauge
Customs Union
Northern route
Southern route
DB Schenker is in an excellent position to develop rail services from China to Europe and vice versa

**Vast distribution network by rail and truck**
- Well-established **block train system in Europe**
- Pre-/on-carriage by **truck** feasible in China and Europe based on dense branch network

**Excellent relationship with railway operators**
- Participation in railway conferences (CN / EU land bridge), including CIS Railways
- **Three joint ventures with China and Russian Railway**
  - TEL (реги Россия)
  - CRIIntermodal (ิน China)
  - YuXinOu (joined China, Russia)

**Outstanding operational expertise**
- Deep operational insights regarding booking, container provisioning and customs
- **Comprehensive security concept** from container loading to unloading destination
Rail is positioned between Ocean and Air offering customers an interesting alternative to traditional modes.

### Comparison of Transportation Cost / Lead Time (Door-to-Door)

1 notebook from Chongqing to the Netherlands

<table>
<thead>
<tr>
<th>Mode</th>
<th>USD / Notebook</th>
<th>Lead Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ocean</td>
<td>1.9&lt;sup&gt;1)&lt;/sup&gt;</td>
<td>38 days</td>
</tr>
<tr>
<td>Rail</td>
<td>3.8&lt;sup&gt;1)&lt;/sup&gt;</td>
<td>22 days</td>
</tr>
<tr>
<td>Sea/Air</td>
<td>9</td>
<td>22 days</td>
</tr>
<tr>
<td>Air</td>
<td>18</td>
<td>4 days</td>
</tr>
</tbody>
</table>

- **Ocean ↔ Rail**: Rail offers a **16 day lead time advantage**. But price is 2 times that of ocean.
- **Air ↔ Rail**: Rail offers **> 75 % price reduction**. But lead time is 18 days more than that of air.
- **Sea/Air ↔ Rail**: Rail offers **> 55 % price reduction** with same lead time.

<sup>1)</sup> Depends on number of units per 40’ Ct – Assumption here is 3.000 units.
Routes between China and Europe, as well as between China and CIS countries possible with similar product features

<table>
<thead>
<tr>
<th>Route</th>
<th>Transit time</th>
<th>Product features</th>
</tr>
</thead>
<tbody>
<tr>
<td>China to Europe</td>
<td></td>
<td>Pre-carriage by truck, Check required paperwork, Rail transportation, Handling at origin and destination terminal, Transhipment handling at borders and transit customs clearance, e.g. China-Kazakhstan or Belarus-Poland, On-carriage by truck, Door-to-Door security system and use of DB SCHENKER smartbox, Export / Import customs clearance on request, Winter solution on request with transit customs clearance</td>
</tr>
<tr>
<td>Chongqing – Duisburg</td>
<td>22 days¹)</td>
<td>Pre-carriage by truck, Check required paperwork, Rail transportation, Handling at origin and destination terminal, Transhipment handling at borders and transit customs clearance, e.g. China-Kazakhstan or Belarus-Poland, On-carriage by truck, Door-to-Door security system and use of DB SCHENKER smartbox, Export / Import customs clearance on request, Winter solution on request with transit customs clearance</td>
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<tr>
<td>Leipzig – Shenyang</td>
<td>20 days¹)</td>
<td>Pre-carriage by truck, Check required paperwork, Rail transportation, Handling at origin and destination terminal, Transhipment handling at borders and transit customs clearance, e.g. China-Kazakhstan or Belarus-Poland, On-carriage by truck, Door-to-Door security system and use of DB SCHENKER smartbox, Export / Import customs clearance on request, Winter solution on request with transit customs clearance</td>
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<tr>
<td>Shanghai – Moscow</td>
<td>28-30 days²)</td>
<td>Pre-carriage by truck, Check required paperwork, Rail transportation, Handling at origin and destination terminal, Transhipment handling at borders and transit customs clearance, e.g. China-Kazakhstan or Belarus-Poland, On-carriage by truck, Door-to-Door security system and use of DB SCHENKER smartbox, Export / Import customs clearance on request, Winter solution on request with transit customs clearance</td>
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<td>Pre-carriage by truck, Check required paperwork, Rail transportation, Handling at origin and destination terminal, Transhipment handling at borders and transit customs clearance, e.g. China-Kazakhstan or Belarus-Poland, On-carriage by truck, Door-to-Door security system and use of DB SCHENKER smartbox, Export / Import customs clearance on request, Winter solution on request with transit customs clearance</td>
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¹) Based on block trains and door-to-door transport
²) For single containers or container groups
If manufacturing sites in China or Europe are in inland locations, we can offer competitive solutions

- **Focus on company trains and container groups**
- **Focus** is on connecting:
  - **Inland locations** with high pre-/on-carriage cost for ocean, e.g. West / Central China
  - **Location pairs with a much shorter rail distance compared to ocean** (e.g. North China-Scandinavia)
- Both **Northern** and **Southern route** can be used depending on origin and destination

![Rail Advantageous Origins & Destinations in Europe & China](image-url)
We can arrange rail transport from almost any location in China to any location in CIS countries

- CIS and Mongolia shipments are often transported by Ocean to Europe first and then by rail or truck to the final destination resulting in very high costs and long lead-times.
- As rail has a natural competitive advantage to Ocean basically **any location in China** can be connected with **any location in CIS**.
- Even **single container shipments** are possible and can be transported **at shorter transit times and cost** than with Ocean.

**Origins & Destinations in CIS & China**

- Moscow
- Kazakhstan
- Turkmenistan
- Tajikistan
- Kyrgyzstan
- Uzbekistan
- Mongolia
- Russia

- Beijing
- Shanghai
- Chengdu
- Chongqing
- Shenzhen
- Urumqi
- Moscow
- Almaty
- moscow
- Turkmenistan
- Tajikistan
- Kyrgyzstan
- Uzbekistan
- Kazakhstan
- Mongolia
- Russia
- Beijing
- Shanghai
- Chengdu
- Chongqing
- Shenzhen
- Urumqi
1) Not part of CIS
Currently, we focus on company block trains and single containers, as well as oversized shipments.

<table>
<thead>
<tr>
<th>Product</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Company train</strong></td>
<td>- Minimum 41 FEU containers from China to Europe</td>
</tr>
<tr>
<td>(Block train for a customer)</td>
<td>- Minimum 50 FEU containers from China to CIS</td>
</tr>
<tr>
<td></td>
<td>- Best transit times and highest priority by railroad</td>
</tr>
<tr>
<td>**Singles containers/</td>
<td>- High flexibility, e.g. departure</td>
</tr>
<tr>
<td>Container groups**</td>
<td>- Smaller volumes possible</td>
</tr>
<tr>
<td></td>
<td><strong>Oversized shipments</strong></td>
</tr>
<tr>
<td></td>
<td>- Possible for goods not fitting in a container, e.g. heavy machines</td>
</tr>
<tr>
<td></td>
<td>- Use of conventional wagons</td>
</tr>
</tbody>
</table>
Advantages of the DB Schenker China and CIS train product

- **Speed** – Much faster than Ocean freight
- **Costs** – Less expensive than Air freight and Ocean-Air product
- **Environment** – Most eco-friendly transport mode

**China & CIS train**

- Excellent relationship with railway operators along the route
- Well-established distribution system in China and Europe
- Outstanding operational expertise based on past and current solutions

**DB Schenker China and CIS train key success factors**
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</table>
For shipments to Russia, we offer both direct rail service and sea-rail solutions

Overview of DB Schenker Rail Network covering Main Cities in China & Russia

Explanation

- 1435 mm normal gauge
- 1520 mm wide gauge
- Customs Union

Transshipment and transit customs clearance/Gauge Change

1. Manzhouli (CN) - Zabaykalsk (RU) border
2. Alashankou (CN) – Dostyk (KZ) border

Sea-Rail intermodal transfer

Remark:
DB Schenker is currently focused on the Northern Route connecting China to Russia, while the Southern Route is only applied for company block train
Rail based products offer the most competitive transport solution between China and Russia

Rationale for rail transportation between China and Russia / Central Asia

- Trade between China and Russia / Central Asia is growing rapidly
- Presently many companies send goods produced in China by ocean freight to Europe and then use rail or truck to Russia / Central Asia. This is costly and time consuming
- Direct rail or sea-rail combination offers competitive solutions from any location in China to most cities in Russia and Central Asia
- For many companies, a rail based solution can generate substantial savings in lead time and cost
DB Schenker is already a key provider of rail service to Russia

<table>
<thead>
<tr>
<th>Excellent Relationship with Railway Carriers</th>
<th>Outstanding Operational Expertise</th>
<th>Destination Competence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Participation in railway conferences (Eurasia Land Bridge) including CIS Railways</td>
<td>Deep operational insights regarding booking, container provisioning and customs</td>
<td>We offer genuine door-to-door service with customs brokerage, as well as on-carriage at destination</td>
</tr>
</tbody>
</table>
| 3 joint ventures with China and Russian Railway  
  TEL (RU)  
  CRIIntermodal (CN)  
  YuXinOu (CN, RU) | Excellent track record in shipments to Russia, not just from China but also through China from North and South-East Asia and even America | In Russia, we use Schenker ZAO (subsidiary of DB Schenker) as well |
Single container shipments can be transported with competitive lead time via block trains

<table>
<thead>
<tr>
<th>Destination</th>
<th>Origin</th>
<th>Beijing</th>
<th>Shanghai</th>
<th>Guangzhou</th>
</tr>
</thead>
<tbody>
<tr>
<td>Novosibirsk</td>
<td></td>
<td>24-26 days</td>
<td>26-28 days</td>
<td>30-32 days</td>
</tr>
<tr>
<td>Moscow</td>
<td></td>
<td>30-32 days</td>
<td>32-34 days</td>
<td>36-38 days</td>
</tr>
</tbody>
</table>

Remarks
- Lead-times are based on Door-to-Door service of a single container
- The company block train is much faster, but currently under development
The decision to use direct rail or sea-rail options depends on lead time and cost preferences.

### Example: Door-Door service between Shanghai and Novosibirsk

<table>
<thead>
<tr>
<th>Mode</th>
<th>Lead Time</th>
<th>Total Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full Rail</td>
<td>26-28 days</td>
<td>100%</td>
</tr>
<tr>
<td>Sea-Rail via Chinese Port</td>
<td>28-30 days</td>
<td>90%</td>
</tr>
<tr>
<td>(Yingkou)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sea-Rail via Russian Port</td>
<td>31-33 days</td>
<td>95%</td>
</tr>
<tr>
<td>(Vostochny)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Capabilities**
- DB Schenker offers all above solutions with self-controlled resources
- DB Schenker consults you on the best solution for your specific needs
- DB Schenker can shift between modes as per different situations (traffic, weather conditions, etc.)
We offer genuine door-to-door products as DB Schenker in Russia offers a full range of destination services

**Overview**
- Established in 1992
- Approx. 600 employees
- Offices in 22 cities
- Customs broker license since 2000
- Customs registration at rail terminals

**Customs Services**
- Customs consulting
- Customs clearance
- ATA carnet handling (temp. import)
- Customs classification decisions for special requirements, etc

**Destination Services**
- Terminal handling
- Payment of rail terminal fee
- On-carriage by truck

**Strengths**

**DB Schenker offices in Russia**

**Customs Brokerage License**

**QM System Registration**
## Content

1. Economic Developments in China
2. Introduction to DB Schenker Rail
3. DB Schenker Rail Products & Services
4. China to Europe Service
5. China to Russia Service
6. China to Central Asia & Mongolia Service
7. Case Studies
All major cities in Central Asia & Mongolia can be reached by our rail service

**China to Mongolia Multi-modal Route Example (Door-to-Door)**

<table>
<thead>
<tr>
<th></th>
<th>Beijing-Ulanbator</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transport Mode</td>
<td>Truck-Rail</td>
</tr>
<tr>
<td>Total Transit Time</td>
<td>9 days</td>
</tr>
</tbody>
</table>

Bonded truck-rail multimodal solution based on single wagon solution, door-terminal service

**China to Central Asia Route Example (Door-to-Door)**

<table>
<thead>
<tr>
<th></th>
<th>Shanghai-Almaty</th>
<th>Beijing-Almaty</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transport Mode</td>
<td>Full Rail</td>
<td>Full Rail</td>
</tr>
<tr>
<td>Lead Time (Door-Terminal)</td>
<td>30 days</td>
<td>29 days</td>
</tr>
</tbody>
</table>

Based on single wagon solution, door-terminal service
## Content

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Case study: regular block trains from Chongqing to Duisburg for a leading electronics customer

Overview
- Customer: Leading multinational electronics supplier
- Commodity: Electronic goods (notebook)
- Route: Chongqing, China to Duisburg, Germany (10,800 km) and on-carriage to the Netherlands
- Lead time: 22 days (door-to-door)
- Volume: 41-50 FEU per train
- Frequency: Regular weekly service

Challenges
- Relocation of customer’s production facilities from coastal areas to Chongqing
- Customer needs to find transport solution matching or surpassing the previous ocean lead time
- Up to 2011 no rail service available on the Southern route making DB Schenker a pioneer on this route

Solution & Benefit to customer
- Door-to-door lead-time reduction by 12-15 days compared to previous ocean transport
  - Time to market advantage
  - Cost of capital reduction
- High flexibility to accommodate additional transport volume (special trains with short booking timelines, specially designed sea-air solution)
- Innovative security concept based on DB SCHENKER smartbox enable real-time cargo status monitoring
Case study: regular rail freight service for prestigious car manufacturer from Leipzig to Shenyang

Overview
- Customer: Leading car manufacturer
- Commodity: Auto parts (CKD)
- Route: Leipzig and Wackersdorf, both in Germany, to Shenyang, China (11,000 km)
- Lead time: 20 days (door-to-door)
- Volume: up to 42 FEU containers per train
- Frequency: regular weekly service (2-6 trains per week)

Challenges
- Customer requires faster transit time than provided by ocean freight
- Coordination of more than ten involved partners (thereof 5 railway companies) necessary

Solution & Benefit to Customer
- Lead-time reduction of 50% compared to ocean freight
- High reliability in lead time and capacity
- High flexibility during peak season (6 trains per week)
Case study: regular rail freight service for European component manufacturer from Qingdao to Moscow

Overview
- Customer: European component manufacturer
- Commodity: components for subway wagons
- Route: Qingdao (CN) to Moscow (RU)
- Lead time: 30 days (terminal-to-terminal)

Challenges
- Customer has transferred production from Europe to China and therefore requires a completely new transport solution
- Customer has no previous experience with China – Russia shipments and the respective paperwork

Solution & Benefit to Customer
- Our product enables the customer to successfully serve the Russian market from China
- New solution was implemented within 2 weeks
- Comprehensive consulting was provided on documentation to ensure smooth customs clearance
Case study: rail transport for cosmetics brand from Shanghai / Shenzhen to Moscow / Novosibirsk

Overview
- Customer: Global skin and body care company
- Commodity: Cosmetics
- Route: Shanghai and Guangzhou, both in China, to Moscow / Novosibirsk, both in Russia
- Lead time: 24-32 days (door-to-terminal)
- Volume: 100 FEU per year

Challenges
- Customer used to transport by ocean freight to Europe and then by rail / truck to Russia
- Small volume from individual suppliers cannot support FCL shipments

Solution & Benefit to Customer
- Consolidation center built in Shanghai and Guangzhou collecting cargo from local suppliers with small volume shipment
- Reduction of transit time by more than 25 days (compared to ocean-rail via Europe), and achieve reduction in transportation cost at the same time
Case study: regular rail freight service for cosmetics company from Shanghai / Shenzhen to Novosibirsk / Moscow

Overview
- Customer: Global skin and body care company
- Commodity: cosmetics
- Route: Shanghai & Shenzhen, to Moscow & Novosibirsk
- Lead time: 28 days ex Shanghai, 32 days ex Shenzhen (terminal-to-terminal)
- Volume: 100 FEU/year

Challenges
- Customer used to ship their cargo by ocean freight to Europe and then by rail / truck to Russia
- Small volumes from individual suppliers cannot support FCL shipments

Solution & Benefit to Customer
- Consolidation of shipments from several suppliers at a central location in Guangzhou and Shanghai
- Reduced transit time by more than 25 days and reduction in transportation cost
- Based on the success of the product, customer has started to ship goods from the U.S. using our rail service via China
DB Schenker’s rail based door-to-door solutions provide new alternatives to optimize your supply chain

We offer you

- Door-to-Door competence
- Competitive pricing
- Reduce transport and capital cost
- Achieve short and reliable lead times
Thank you for your attention