SCHEUERLE SPMT

SELF-PROPELLED MODULAR TRANSPORTERS
Senator E. h. Otto Rettenmaier, multi-entrepreneur and founder of the TII Group

The TII Group moves the world: Seventy percent of all transports over 3,000 tons and ninety percent of all transports over 5,000 tons are performed using vehicles by the TII Group.

With its brands SCHEUERLE, NICOLAS, KAMAG and TIIGER, the group of companies has production sites in Germany, France and India as well as a production cooperation in North America (Florida). It assists and advises its customers with a globally active sales and service organization. Heavy-duty vehicles by the TII Group transport entire industrial plants, ships, submarines, oil and offshore platforms, turbine, construction machinery but also slag pots and ladles in the remotest corners of the world.

“For our customers, we bring around 400 years of experience in heavy-duty transport, accumulated by four companies, into play, thus securing their future economic success of tomorrow today.”

Senator E. h. Otto Rettenmaier, multi-entrepreneur and founder of the TII Group
As a full-range supplier, the TII Group offers a wide range of vehicles to move loads of all kinds, from the modular, self-propelled transporter (SPMT) to transport loads of 17,200 tons and more all the way to vehicles for stock handling in yard logistics.
### SCHEUERLE SPMT

#### OVERVIEW

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In 1983, SCHEUERLE – today part of the TII Group – developed a vehicle that would fundamentally revolutionize the heavy haulage sector. The SCHEUERLE SPMT in container dimension (2.43 m) found its way into the industry and changed more than just the way loads are transported. The production concepts for the modular construction of industrial plants, conveyor systems or infrastructure projects were reinvented for the future. Today, modules can weigh up to 17,200 tons; the sky is the limit. They can be handled by using SPMT. You as a customer will benefit from the unparalleled global coverage of SPMT vehicles. Due to the vehicle fleets available all over the world, you may rent additional axles (cross hire rental) as required, cost-effectively move them around the globe on container flat racks, all the while managing your projects with flexibility. This even applies when more axles are required than are available in your own fleet. We allow you to deliver profitable projects and provide you with a competitive edge in terms of flexibility and planning reliability.

SPMT of the TII Group can be coupled from the second generation on and loaded onto container flat racks, making them easy to transport. Continuous technological developments and innovations, such as the SPMT Widening Solutions or the SPMT F with its increased top speed, ensure the technological leadership of the TII Group in this segment today.
### SCHEUERLE SPMT

#### MODEL TYPES AND BASIC ACCESSORIES

**YOUR MODULAR SYSTEM FOR PROFITABLE HEAVY-DUTY TRANSPORT**

#### Combination SPMT + PPU

<table>
<thead>
<tr>
<th>Modular bogie unit SPMT with 3 / 4 / 5 / 6 / 8 axles</th>
<th>PPU Z180 / Z390 EU4 / Tier 4 final</th>
<th>PPU Z150 / Z350</th>
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#### Combination "3-File"

<table>
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<tr>
<th>Modular bogie unit SPMT + 1 file</th>
<th>PPU Z180 / Z390 EU4 / Tier 4 final</th>
<th>PPU Z150 / Z350</th>
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<table>
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<tr>
<th>Axles</th>
<th>Length SPMT</th>
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<tbody>
<tr>
<td>3</td>
<td>4,530 mm</td>
</tr>
<tr>
<td>4</td>
<td>5,930 mm</td>
</tr>
<tr>
<td>5</td>
<td>7,330 mm</td>
</tr>
<tr>
<td>6</td>
<td>8,730 mm</td>
</tr>
<tr>
<td>8</td>
<td>11,530 mm</td>
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* Vehicle length - 330 mm = length of loading area

#### Telescopic Widening System

- Unlimited extendable

#### Scissor Widening System

#### Spacer

- Tilting device

#### Bolster

- Load distributor

- Cabin
Mechanically coupled “side-by-side”

2 modular bogie units
SPMT with 3 / 4 / 5 / 6 / 8 axles

PPU Z180 / Z390
EU4 / Tier 4 final
PPU Z150 / Z350

Mechanically coupled “end-to-end”

2 modular bogie units
SPMT with 3 / 4 / 5 / 6 / 8 axles

PPU Z180 / Z390
EU4 / Tier 4 final
PPU Z150 / Z350

Mechanically coupled in large combinations

<table>
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<tr>
<th>P</th>
<th>max. AL (48 t/60 t)</th>
<th>driven axlelines</th>
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<tr>
<td>Z180</td>
<td>20/16</td>
<td>16</td>
</tr>
<tr>
<td>Z390</td>
<td>40/34</td>
<td>26</td>
</tr>
<tr>
<td>Z150</td>
<td>20/16</td>
<td>16</td>
</tr>
<tr>
<td>Z350</td>
<td>40/34</td>
<td>26</td>
</tr>
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Open compound: The alternative to mechanical coupling

T-combination

Y-combination

V-combination

Circle-combination
COMBINATION ILLUSTRATION
TRANSPORT ANY PAYLOAD WITH THE SCHEUERLE SPMT

1x SPMT 8-axle
1x PPU Z180
480 t payload*

2x3 SPMT 8-axle
1x PPU Z390 +
1x PPU Z180
2,880 t payload*

4x3 SPMT 8-axle
2x PPU Z390 +
1x PPU Z180
5,760 t payload*

*with 60 t axle load and Polyfill tires, minus dead weight and PPU
AXLE LOAD
VARIABLE AXLE LOADS, PERFECTLY ADAPTABLE TO LOAD AND SURFACE

AVAILABLE VARIATIONS
/ 40 t axle load with pneumatic tires
/ 48 t axle load with pneumatic tires
/ 48 t axle load with polyfill tires
/ 60 t axle load with polyfill tires

ADVANTAGES OF PNEUMATIC TIRES
/ Lower dead weight
/ Economic
/ Increased self-damping
/ Lower ground pressure

ADVANTAGES OF POLYFILL TIRES
/ Increased failure safety
/ Higher axle load possible
/ More tip-resistant due to increased tire rigidity

Pneumatic tires 40 t

Pneumatic tires 48 t

Polyfill tires 48 t

Polyfill tires 60 t

*minus dead weight
The sophisticated steering technology of the SPMT by the TII Group allows precision-positioning of the heaviest of loads. The individual module transporters can be coupled in any combination, either mechanically or in open combinations. The steering technology guarantees the synchronized control of all module transporters integrated in the coupling mode. Electronic all-wheel steering makes the module transporters extremely maneuverable. This makes them suitable to transport almost any load and provides precision-positioning of ± 2 mm.

Steering programs

- Front-wheel steering lengthwise
- Rear-wheel steering lengthwise
- Diagonal steering lengthwise
- Diagonal steering crosswise
- Front-wheel steering crosswise
- Rear-wheel steering crosswise
- Circle steering
- All-wheel steering lengthwise
- All-wheel steering crosswise

+130°/-100° Steering angle
SPMT AC – DOWN TO -40°F

TELESCOPIC WIDENING SYSTEM

SCISSOR WIDENING SYSTEM

SPMT F – UP TO 12 MPH, LOADED
SPMT SL (split type)
If two SPMT are too wide and one is too narrow for any given load, the SPMT SL can provide the solution to the problem. The SPMT SL (split type) can be divided in the middle and connected to create the so-called 3-file combinations.

SPMT ES
With its increased axle load of 60 t and bending moment the SPMT ES (Extra Strong) is the benchmark amongst self-propelled modular transporters.

SPMT SL with widening system
When flexible width is needed for higher tilting stability or fast changing loads with different sizes the SPMT Widening Solutions are the answer. Available as scissor or telescopic type the SPMT Widening Solutions offer flexible vehicle solutions that can be changed in minutes.

SMPT AC for use down to -40°F
Especially in the oil and gas industry weather conditions are often harsh. The SPMT AC, equipped with an optional pre-heating unit, can be used without performance loss in temperatures as low as -40°F.

SPMT F with increased velocity
Increasing maximum speed means decreasing necessities to transport SPMT modules on trailers if they have to be relocated for transportation jobs. Growing oil and gas field sizes made this improvement necessary and the TII Group engineers delivered the solution.
Swivel bolsters
Swivel bolsters with payloads of 150 to 600 tons allow the transport of self-supporting long loads.

Driver’s cabin
In particular high-speed vehicles such as the SPMT F are often equipped with a driver’s cabin.

Vehicle lighting
The optionally available vehicle lighting system is mounted directly above the axles, provides increased safety and facilitates maintenance.

Remote control
Wireless or cable remote controls with an ergonomic design facilitate precise control of the vehicles.

Spacers
Spacers are used to mechanically connect multiple vehicle modules. Available lengths: 2.80 m - 8.40 m

Other available accessories
/ Chalwyn valve for emergency shutdown
/ Remote receiver
/ Lashing hook
/ T-media carrier for side-by-side coupling
/ Cable retaining plate for sorted connection cables
/ Additional oil cooler for operation at high temperatures
/ Several lifting devices
/ Arctic remote control with heatable gloves
/ heating/pre-heating unit
Modular vehicles by the TII Group are powered by special driving units, the so-called PPU (Power Pack Units). These comply with the latest emission standards (EU 4/Tier 4 final). Today, vehicles of the TII Group are powered by PPU with combustion engines, electric and hybrid drives and are used under most difficult conditions around the world. The standard for SCHEUERLE SPMT are the models Z390 and Z180 with low-emission diesel engine. The PPU are normally mounted at the rear of the vehicle or combination but can also be carried along on top of the vehicle or even on the side of the vehicle.

**PPU Z390**
Emission standard EU5 / Tier 4 final / CARB

**PPU Z180**
Emission standard EU5 / Tier 4 final / CARB

**PPU Z150**
Emission standard EU3A / Tier 3A
SERVICE OFFERED BY THE TII GROUP

LIFELONG PARTNERSHIP

TRAINING
/ Optimal training
/ Individual

TECHN. SUPPORT
/ Direct help with questions and problems
/ 24/7 availability

SPARE PARTS SERVICE
/ Reliable supply of spare parts
/ Expert advice
/ Fast delivery times

SERVICE TECHNICIANS
/ Available to you at any time
/ Service and repairs – quick and efficient

SERVICE CONTRACTS
/ Minimal downtime
/ We always find a solution

SERVICE PARTNERS WORLDWIDE
/ Specific market knowledge
/ Always close at hand

RETROFIT

ACCEPTANCE & HANDOVER
/ Comprehensive check of all functions
/ Superb quality
**CAREER AT THE TII GROUP**

**TII as an employer**
The TII Group offers its employees opportunities that would not normally be available in major corporations. The international character of the business with heavy-duty vehicles – over 70% are exported worldwide – brings a cosmopolitan flair to the daily working life. A steelworks vehicle for Oman, a modular transport solution for Colombia, mining equipment for Australia. At the TII Group, new employees notice from the very beginning that they are moving something on a global scale, both literally and figuratively. Joining the company is possible at all stages of life – the TII Group offers opportunities for trainees, students, young and experienced professionals.

**Vocational Training**
At the company's in-house vocational training center, the TII Group provides apprenticeships in all professions typical for the industry. In the process, future construction mechanics, mechatronics engineers, product designers, industrial clerks and office clerks are not only provided with solid basic knowledge but also specialist knowledge. Due to insights gained in related departments such as design or project planning, apprentices at the TII Group get a glimpse of the bigger picture early on.

**Cooperative studies, internships or final paper**
Be it engineering, business management or computer science: The TII Group offers dual courses of study in cooperation with renowned colleges (DHBW). Furthermore, students often like taking the opportunity to gain their first professional experience through internships at the TII Group.

**Starting out with and without professional experience**
The TII Group offers attractive career options for qualified skilled workers, young professionals and professionals with years of experience. Be it as a skilled worker in production, as an engineer in design or as a manager in sales - dedication and performance are rewarded at the TII Group. Our global presence offers an interesting working environment, not only for members of the sales and service staff traveling around the globe. Flat hierarchies and open structures guarantee responsible, independent actions.

**Contact job application**

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