



Ref fc1035

SCHEUERLE SHIPYARD TRANSPORTER MODEL SHT190.6.2 (2 units)

Year: 2008

- 01 one-man driver's cabin well-protected beneath the frame at one end
- 01 radio remote control unit with communication feedback
- Hydrostatic drive system and electronically controlled multidirectional steering (SADESS) with steering angle $\pm 165^{\circ}$.
- Air pressure brake system
- Pipe fracture safety valves
- Overspeed protection valves

Max. payload capacity	191.000 kg
Unit weight:	37.000 kg
Gross weight:	228.000 kg
Axle load:	3 x 76.000 kg
Pendulum axle load:	6 x 38.000 kg
Tires:	24 tires, 365/80 R20
Loading platform:	12.300 x 5.000 mm
Platform height unladen:	1.540 mm
Platform height in driving position laden:	1.890 mm
Total lifting stroke:	700 mm
Engine:	Deutz, model TCD 2013 L06, diesel capacity of 190KW at 2300 rpm
Tractive force:	220 kN
Speed unladen:	15 km/h
Speed laden	5 km/h
Max. gradient ability laden:	7%
Standard accessories	
Lighting system includes:	
-	02 main headlights
-	04 four working lights
-	04 multi chamber lights
-	04 emergency stop buttons
-	02 acoustic warning signal on reversing



Technical Description

1. Driver's Cabin

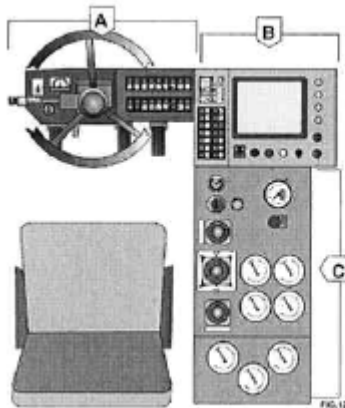
One (1) one-man driver's cabin well-protected beneath the frame, at front end of the platform.



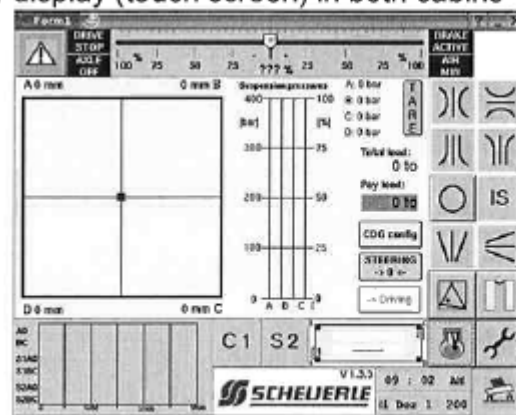
Photo shows a 650 ton ship section and engine transporter during load test

The cabin is equipped with:

- One side door with horizontally adjustable sliding window
- Horizontally adjustable sliding window on the opposite side
- One driver's seat, adjustable in height and length (forward and backward), air cushion suspension with a integrated 24 Volt compressor; provided with enlarged back and head rest, armrests on left and right
- Large front pane with two side windows; safety glass
- Windshield wiper with washer system
- Two large rear-view mirrors
- Diesel-type-operated heating/ventilation system
- air condition
- Cabin insulated against heat and noise
- Cabin fully equipped with controls for diesel engine, hydraulics, pneumatic and electric/electronics, centre of gravity display (touch screen) in both cabins



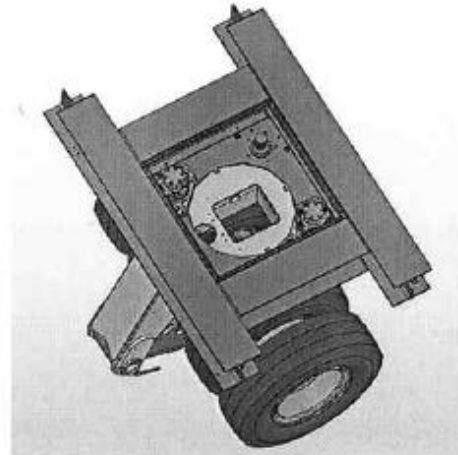
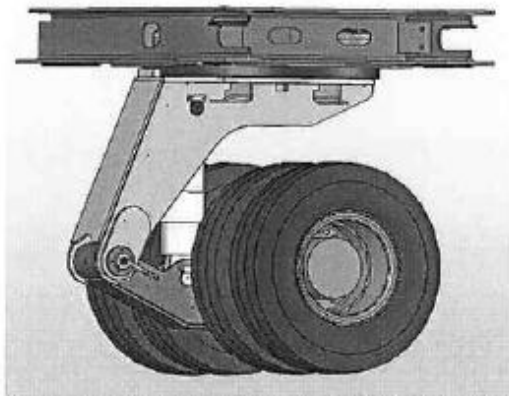
A sample of Cabin interior general arrangement



A sample of the touch screen layer display

2. Steering System

SCHEUERLE hydro motor steering system with a steering angle of ± 165 degree. Two hydraulic motors acting on the tooth gear of the table roller bearing inducing a steering moment to the wheel bogie..



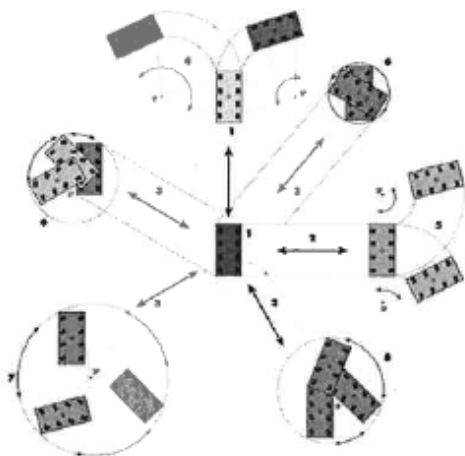
A sample of general arrangement bogie and steering system

The special design concept employs infinitely controlled proportional valves, step-less steering (an important feature for accurate positioning) with very low steering forces

The SCHEUERLE section lift transporters type SHT includes a computer-controlled all-directional electronic steering system lending it extraordinary manoeuvrability.

When moving in a compound, the great steering angle of $\pm 165^\circ$ allows the compound increased flexibility and manoeuvrability.

The steering programs include:



- Normal drive
- Diagonal drive
- Truck drive at front end
- Truck drive at rear end
- Cross drive
- Truck drive crosswise
- Carousel drive



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The steering system is designed in such a way that steering is also possible when the loaded transporter is not in motion.

Steering errors are indicated. A deviation of more than 6° is signalled by a warning lamp. Steering errors exceeding 8° cause the drive system to be shut down.

Hydraulic pumps for steering and lifting system, f.ex. Hydromatik / Rexroth type A 11 VO.

3. Brake System

Air pressure brake system acting on relevant pendulum axles; spring-accumulated parking brakes at a required number of pendulum axles; compressed air built up via air compressor mounted to the diesel engine. Adequate number of air tanks installed.

4. Bogies and Axle Suspension

All bogies are connected with the platform via table roller bearings. The swivel bogie frame is connected with the swing arm by the hydraulic support cylinder. Pendulum axle attached to the pivot of the swing arm.

Pendulum bearing and swing arm bearing with grease lubricated sliding bearings, low in maintenance.

Hydraulic support cylinder with hard-chromed piston rod; articulated bearings at both cylinder eyelets, therefore no lateral forces on the seals resp. collars arise.

Hydraulic Suspension System

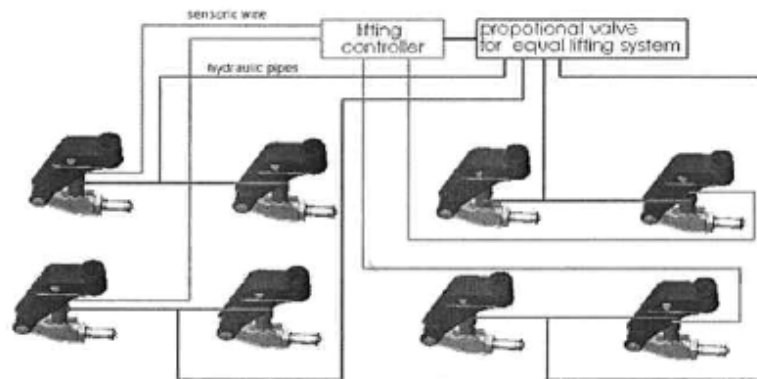
Hydraulic axle suspension and therefore hydraulic lift system, total lift 700 mm.

The single support points can be controlled manually. The system allows a 3 - or 4-point support.

5. Equal Lift System

Electronically controlled equal lift system allowing lifting and lowering of the platform parallel to the ground contact area.

The SCHEUERLE equal lift system is based on the external mounted measuring sensors at the outside corner axles.,



Function schematic for four support groups

6. Hose Fracture Safety Valves

Hose fracture safety valves (single-line design) in the axle support system. These hose fracture safety valves are installed between each axle support cylinder and main distribution line of the hydraulic system for lifting. In case of a defective line between valve and cylinder the hose fracture safety valve closes the circuit immediately.

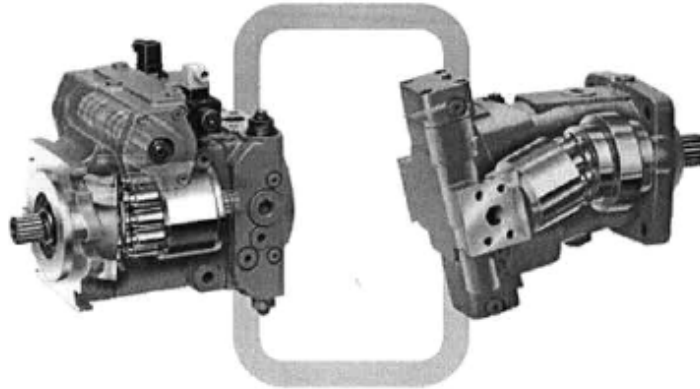
These hose fracture safety valves react in case of pressure differences. Therefore, installation of these valves prevent the platform from unilateral lowering in case of a defect in the axle support system.

7. Loading Platform

Consisting of robust longitudinal profile beams with welded-in transverse profile beams, shield-gas welded; platform in open frame construction. Platform covered by 6 mm welded in steel plates. The engine compartment is covered by removable, stepsafe steel profiles. The steering mechanisms above the bogies are covered with removable steel covers.

8. Hydrostatic Drive System

Drive system consisting of diesel engine, coupling and relevant hydro pumps. Adjustable axial piston pumps are acting on adjustable axial piston motors, mounted to the driven pendulum axles. The electronic control system improves efficiency and safety. Therefore, it is not possible to overload or stall the diesel engine when putting the vehicle into motion.



The SCHEUERLE drive system works in a closed circuit. The characteristics and the operating comfort are the same as for an automatic transmission.

The operator has to operate the switch for forward/reverse drive, the accelerator and the brake pedal only.

A separate hydraulic oil cooler is installed in the hydraulic system.

All hydraulic pressure circuits are equipped with 10-micron fine-grade filters. The filter contamination is optically indicated in the driver's cabin.

Important hydraulic lines are equipped with test connections.

9. Electronic Over-speed Protection

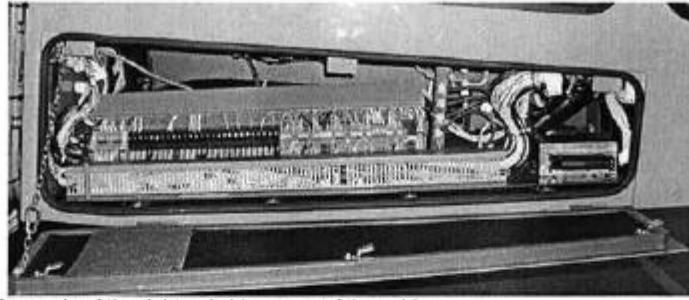
In case of moving on slippery underground and/or losing traction at the driven bogies, an over spinning of the hydraulic motors in the drive pendulum axles is prevented due to the electronically controlled drive system.

10. Electric System

Electric system 24 V with two electric batteries for each diesel engine , 12 V / 180 Ah. The electric installation at the cabin is perfectly located for easy maintenance and repair.

The lighting system includes:

- Two main headlights (inserted in the frame of each cabin, part of cabin design).
- Four working lights at the four corners.
- Four multi-chamber lights (flasher, stop light, parking light, reversing light)
- Four emergency stop button below platform, at the corners.
- Two acoustic warning signal on reversing at front and rear



A sample of the right switchbox area of the cabin

11. Controller Area Network

All the sensors and controllers in the SCHEUERLE transporters are connected by CAN BUS.

- Very efficient for high rate of data exchange
- High reliability by recognition and automatic adjustment of faults
- Very helpful for central diagnostic
- Easy handling by small cable dimensions (very important for coupling operation)

12. SCHEUERLE Diagnostic -System

The electronic control of the SCHEUERLE section lift transporter is equipped with a Diagnostic -System. This system notes online the breakdowns / failures of sensed components. A failure listing can be called up (visually) via the operation terminal (on the touch screen).

Advantages of the system:

- minimising of down-time by direct information (online-failure messages) and short repairing times.
- failure identification by indication of kind of failure and failure priority.

13. Coating

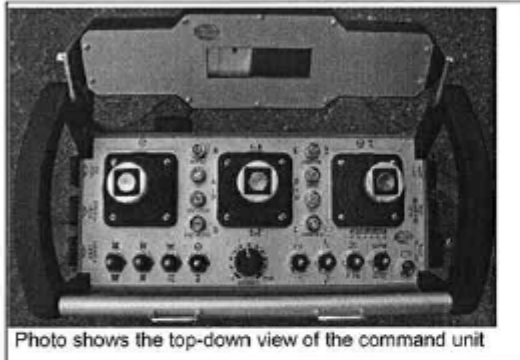
- Steel construction shot blasted (DIN 55928-4).
- First coat: 2-component primer, approx. 50 µm DFT.
- Second coat: 2-component intermediate, approx. 50 µm DFT.
- Top coat: 2-component paint, approx. 50 µm DFT.
- Total coat thickness approx. 150 µm DFT.
- Colour: Uni-colour RAL - standard at customer's preference
- Rims: RAL 9006 (silver).

14. Standard Accessories / Documentation

- One set of tools in tool box

Operating manual including maintenance and troubleshooting instructions, spare parts documentation with drawings in in English;

15.4 Radio Remote Control



For optimised operating conditions and higher transportation safety the carrier can be equipped with a comfortable radio remote control unit. This gives the operator a very high operating flexibility. This control system will be used for single machines as well as for coupled units.

If the radio link fails to work, there is the option for an additional cable connection as back up system.

