SALSA PLUS
SIMULATION OF HEAVY LOAD TRANSPORTS
The extended „Salsa Plus“ program from SCHEUERLE, NICOLAS and KAMAG allows the calculation of the fifth wheel and axle loads in connection with a freely-definable load as well as additional load whilst taking into account the tractor being used for all SCHEUERLE, KAMAG and SCHEUERLE-NICOLAS heavy load transporters. In addition, the system checks the frame load of the vehicle combination and clearly shows the operator by just a quick glance at a coloured bar chart whether the planned combination is going to comply with or exceed the permissible bending moment. Further more, testing with self-propelled vehicle like the KAMAG Modular Transporter, the SCHEUERLE SPMT, IC SP and SPE series, the SCHEUERLE-KAMAG K25, as well as bolster combinations and multifile combinations (side by side) are possible.
FUNCTION OVERVIEW OF THE SALSA PLUS PROGRAM
FOR ALL POSSIBLE LOAD CASES

- Creation of steering diagrams, dimensional drawings, load charts and loading cases for the selected combination
- Creating tractrix in the vehicle plan view with freely selectable routes
- Preview graphics when assembling the vehicle combinations
- Checking the coupling capability of the components with a filter for pre-selection
- Multi-file combinations
- Extensive vehicle library
- Checking problem situations on the transportation route by means of aerial image data or DWG drawings
- The possibility of on-the-spot recording and evaluation of obstacles with the help of a position director
- Calculating the stability
- Hydraulic 3-point or 4-point suspension
- Calculation of hydraulic axle compensation when climbing ramps (gradients)
- Separate calculation of axle loads of the truck tractor
- Possibility to enter information of several loads
- Calculation of deflection and providing the required pre-load on the frame
- Automatic output of the steering diagrams
The further development of suspension group-dependent loading case investigations are the main features of the new SALSA Plus regarding load and axle load distribution of the vehicle simulation. Using a vehicle plan view, the various hydraulic circuits including the gooseneck can be simulated with 3 and 4-point suspensions. The existing payload data from Salsa 2D can be adopted and further configured. Loading cases, such as lateral and longitudinal inclinations, braking, wind and cornering can be entered via parameters and the axle load distribution as well as stability can be calculated with regard to the respective overturn line.
With the help of the gradient function, the permissible hydraulic axle compensation of the vehicle combination can be simulated. Creating a geometric progression height, e.g. in the form of a depression, hilltop or ramp of the roadway. Adjustment of the lift in the pre-defined suspension groups. Simulation of a range of hills over the course of the geometry including the load. Verification of the compensation at the gooseneck and evaluation of the permissible hydraulic axle compensation. Graphic representation of the inclined vehicle combination and output of the vehicle longitudinal inclination.
The new SALSA Plus program makes use of the „Tractrix“ module from Geovision. This includes a complete geometry and steering-dependent vehicle simulation. In the process, space requirements are calculated either for the total combination including the load or separately. The presentation takes place directly on the screen as aerial photographs or graphically in the form of a site plan (DWG).

There is the possibility of optimizing the driving curves via a trailing steering function along with investigating narrow passages found in heavy duty and large-volume transports. A range of platform trailers are available as a semi-trailer, trailer or bolster combinations for determining space requirements.

**FUNCTIONS**

/ Automatic and manual generation of driving curves, forwards and reverse  
/ Vehicle definition with adjustable parameters  
/ Determining any points on the vehicle is possible  
/ Detailed vehicle and wheel presentation in all positions  
/ Tractrix curves for vehicles with self-supporting loads  
/ Vehicle presentations with illustrations of the defined vehicle points