



## MHD SPE

- The self-propelled, electronically steered heavy load combination

# MHD SPE

- Self-propelled, electronically steered



Transport of an offshore-jacket in Australia 2.1



470 tons luxury yacht on MHD SPE 2.2

Three meters wide, can be lowered up to 325 millimetres and equipped with twin-tyres. These are the features of the new MHD SPE heavy load range from NICOLAS. The hydrostatically-driven combination vehicle is available in 4 up to 8-axle versions. The PowerPackUnits – PP 410 / PP 215 – provide the energy for the hydrostatically driven and electronically steered transporter. Diffe-

rent driving modes can be carried out with the steering programs: all wheel steering along and cross, diagonal steering along and cross and circle steering. Changing modes can be done efficiently with the steering program of the MHD regardless whether with an individual vehicle or a complete vehicle combination.

Naturally, the MHD SPE can also be coupled with trailer modules from the MHD program. Same width, same coupling device – the MHD SPE is the cost effective addition to create self-propelled transport units.



Transport of a 110 tons and 56 m long column 2.3

# MHD SPE

## - Your benefits



3.1 Transport of the world's largest vacuum column



3.2 Transport of a topside in Nigeria

### Advantages

- Low platform, extremely strong and reliable
- Wide wheel track for high stability
- Control technology, functional and dependable
- Axle compensation of +/- 325 mm
- Steering angle of 270 degrees (+ / - 135°)
- International network for sales and after-sales service



3.3

Axles	Reference speed	Perm. total weight approx. kg	Perm. axle load approx. kg	Pendulum axles in total	Driven axles	Breaking axles
4-axle unit	0,5 km/h	160,000	20,000	8	4	4
	1 km/h	144,000	18,000	8	4	4
	5 km/h	136,000	17,000	8	4	4
6-axle unit	0,5 km/h	240,000	20,000	12	4	8
	1 km/h	216,000	18,000	12	4	8
	5 km/h	204,000	17,000	12	4	8
8-axle unit	0,5 km/h	320,000	20,000	16	4	12
	1 km/h	288,000	18,000	16	4	12
	5 km/h	272,000	17,000	16	4	12

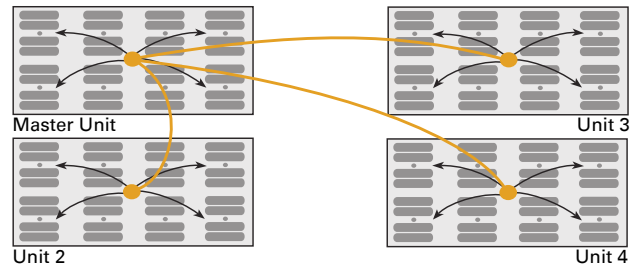
# [ MHD SPE

## Steering Technology

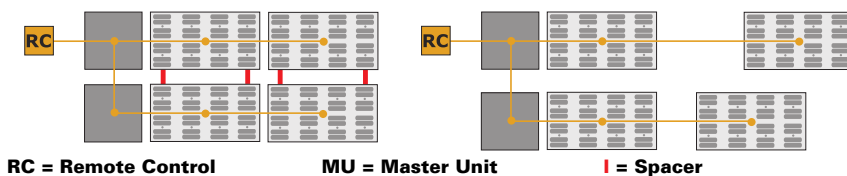
The self-propelled MHD modular transporter series is equipped with the NICOLAS electronic steering technology.

With this electronic steering, NICOLAS offers reliable control technology for the special requirements in heavy load transportation which synchronizes all functions between individual vehicle units. Within a vehicle combination, a transporter unit is defined as the so-called "master unit". From here, all other transporter

units are sent appropriate control commands for steering, traction drive, braking, etc., irrespective of the number of vehicles in the combination.

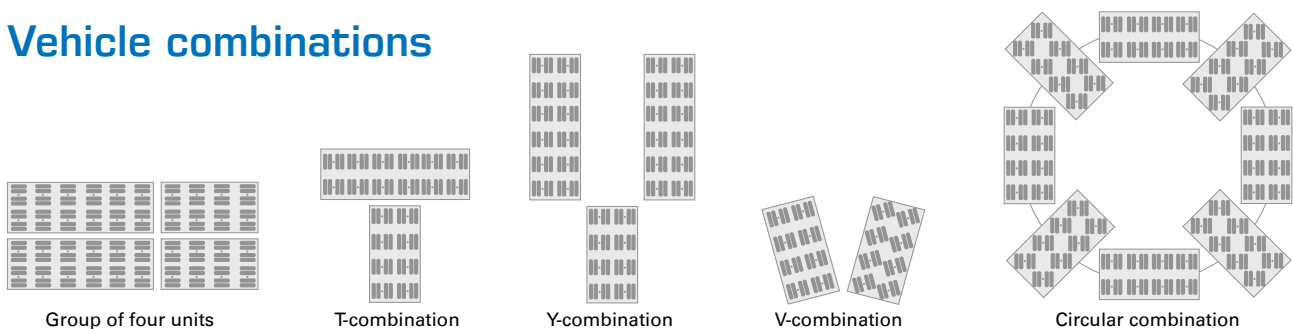


## Vehicle combination in fixed coupling mode or loose coupling mode

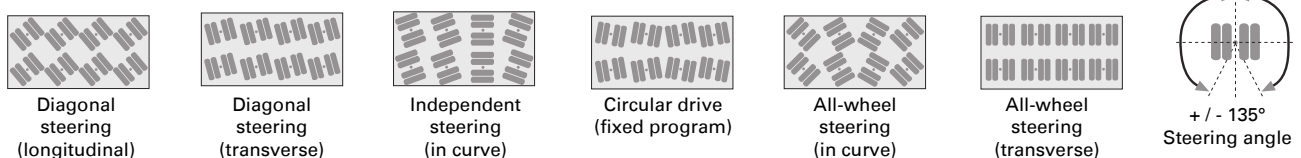


Coupling by means of coupling elements (spacers) or using only a data link up to a distance of approx. 500 meters.

## Vehicle combinations



## Steering modes






## The MHD SPE modular construction kit



# Technical Data

Axles	Combinations	Total weight	Payload max.*
4		160 tons	137,8 tons
6		240 tons	209,3 tons
8		320 tons	279,8 tons
			280,8 tons
14		560 tons	492 tons
			493 tons
20		800 tons	715,5 tons
			
30		1200 tons	1061 tons
			
32		1280 tons	1138 tons
			1140 tons
36		1440 tons	1281 tons

Data based on the following figures:

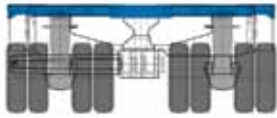
-  4-axles module - Dead weight 18 tons
-  6-axles module - Dead weight 26,5 tons
-  8-axles module - Dead weight 35 tons

\*Payload is calculated without considering the weight of the PPU ( 4200kg for PP215 and 500kg for the PP410)

The tractive force will be adapted to the need. Each configuration can be made with mixed 4, 6 and 8 lines modules.

# Details

## Characteristics

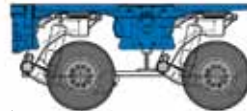


3,000 mm

40,000 kg



215/75 R 17,5  
per axle line



775 1,550 mm

min.	920
max.	1570
stroke	650

## Accessories



Flat bed  
(telescopic)



Beams  
(telescopic)



High capacity  
beams and  
bolsters



Windmill  
Tower adapters



Bolster



6.1

Connection of hydraulics and electronics through quick-release couplers



6.2

Centering actuator for raising and lowering the PowerPack-Unit



6.3

Hydraulic locking cylinder



6.4

Cable remote control



6.5

Radio remote control



6.6

Functional control panel



6.7

PowerPackUnit provides power for drive, lift and steering



6.8

Hydrostatic wheel drive in the twin-tyred pendulum axles



6.9

Drive and brake axles proved and tested countless time over

# [The new MHD G2 SPE

Today's vehicles need to meet constantly new challenges. Loads are continually becoming heavier and more concentrated. With this in mind NICOLAS has evolved the MHD G2 modular range, whilst maintaining the trademark NICOLAS versatility and improving the technical specification. Loading capacity and concentration have both been improved.

Different steering modes are available thanks to a range of control programs: longitudinal, diagonal, front- or rear-wheel steering, circle steering. Combination capacity can be improved by synchronising several trailers. The MHD G2 SPE of course is all more versatile, as it can be coupled with MHD vehicles.



7.1

## Advantages

- Capacity of 40 tons per line at 0,5 km/h
- Common chassis
- Hydraulic connection screwed
- Bending moment 7500 kNm
- Side part of the platform reinforced to increase the moment of the torsion
- Lashing rings capacity 20,000 daN



7.2

# Competence

## - NICOLAS at a glance

NICOLAS Industrie S.A.S, a French company located at Champs-sur-Yonne, was created in 1855. From that time, this company orientated its activity to designing and manufacturing handling and transport equipment. With the modernization of the industry, the development of modern production methods and the increase of the capacity of earth moving machines, the transportation field took up new challenges. NICOLAS is the expert in the market of transport and heavy handling from loads of 40 tons to over 15,000 tons. NICOLAS belongs to the TII Group (Transporter Industry International) created and managed by Otto Rettenmaier and family. Considering

the companies which are part of the group, TII is the most prominent worldwide supplier of transportation and heavy handling equipment, including the field of special vehicles.



8.1

### Examples of our product range



8.2

Offshore & Plant Construction



8.3

Road Transport / Industry



8.4

Road transport



8.5

Tractomas



8.6

Air & Space Industry



8.7

Agriculture



8.8

Environment



8.9

Military



8.10

Wind energy industry



NICOLAS Industrie S.A.S • RN 6 BP 3 • 89290 Champs-sur-Yonne • France  
 Tel.: +33(0)386/5352-00 • Fax: +33(0)386/5352-49 • contact@nicolas.fr • www.nicolas.fr

