



# [Shipyard transporter type 1400

*- convincing performance capability*



2.1

### *The 1400 series - reliability is standard*

Shipyard transporters from KAMAG have revolutionized the transportation of individual sections up to complete ships in the shipbuilding industry. Heavy loads of up to 1,000 ton can be moved with only one vehicle. By combining several vehicles to form one large unit, extreme loads of 5,000 ton and more can be transported.

The hydraulic system that allows accurate positioning and powerful lifting hydraulics is the central feature that makes the shipyard transporter from KAMAG an indispensable piece of equipment for ensuring cost-effective logistical operations in the shipbuilding industry.

### *KAMAG - your benefits*

- **nearly 40 years of experience in development and production**
- **highly developed series standard with the flexibility and customization to meet individual customer requirements**
- **international sales, technical assistance and after-sales network**
- **mature proprietary control technology that is functional and reliable**
- **extremely durable, heavy-duty vehicle design**
- **off-the-shelf components for the drive, hydraulics and electronics**

# [The 1400 series

*- proven and tested around the world*

## *Success through experience*

The world-wide success of the type 1400 series speaks volumes. Taking advantage of nearly 40 years of experience and integration of modern controls technology, a high-tech, stable, flexible, maintainable, adaptable product series has been developed.

The development for different operational conditions and a wide range of special transportation tasks has significantly influenced KAMAG technology for the benefit of our customers. From the small platform elevating transporter to the Megablock transporter, KAMAG offers an efficient and high performance vehicle program for the harshest conditions. Without doubt, shipyard transporters from KAMAG have defined and set the standards in shipyard transportation.



# Reliability

- no compromise of safety issues



4.1  
KAMAG pendulum axle technology



4.2  
Hydraulic suspension with hose break protection



4.3  
Best accessibility

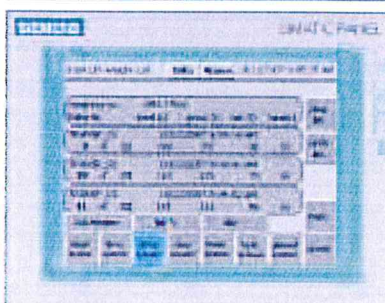
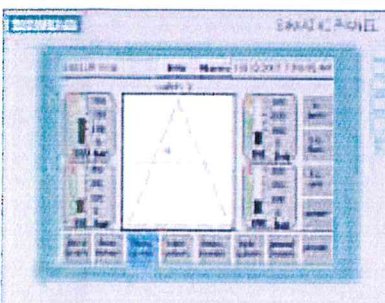
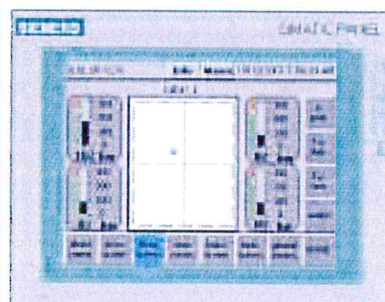
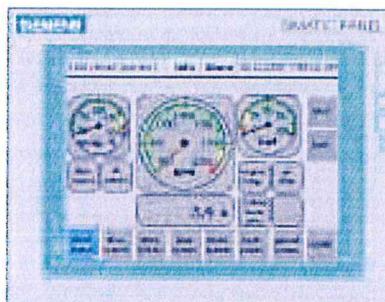
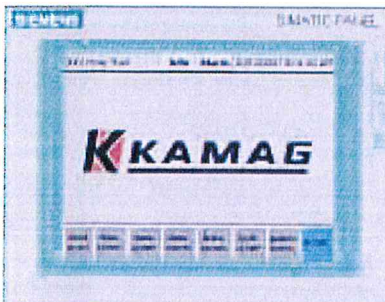


4.4  
Safety equipment



4.6  
Heavy-duty design

## On-board electronic displays



# Additional possibilities

*- transport with modular transporters type 2400*

Regardless of the transportation assignment, KAMAG always provides the most appropriate solution. This applies to the transporters required for moving ship segments in addition to the transportation of complete ships. It depends on having the highest possible load-carrying capacity while ensuring a high level of stability in each vehicle in order to bring the sensitive load safely and carefully to its place of destination.

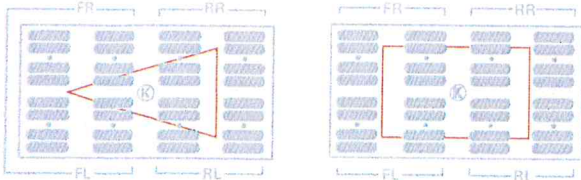
Modular type 2400 transporters from KAMAG fulfill these requirements. All load-bearing components have been designed to deal with ultra-heavy loads – from the vehicle frame through to the pendulum axles. The compensation of the pendulum axles ensures careful, distortion-free transportation.



# Technical data

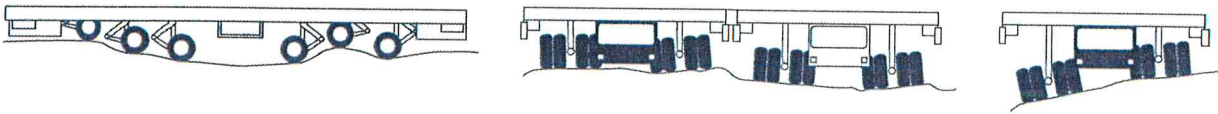
- proven performance capability

## Three or four-point suspension system



Depending on the application, the hydraulic support for the pendulum axles can be switched to 3 or 4-point suspension. This means that optimal axle compensation is available for every transportation task. These adjustments ensure safe and careful transport for both the vehicle and load.

## Axle compensation



The pendulum axle technology from KAMAG also sets benchmarks in this category. On uneven ground, the functional axle

compensation automatically provides uniform distribution of load to all the wheels.

Type	Payload (kg) approx.	Dead weight (kg) approx.	Load/pendulum axle (to)	Pendulum axles	Drive axles	Tractive force (kN)	Climbing ability max.	Loading platform (m)
Type 1402 S	105 000	23 000	32	4	2	96	5 %	4 x 10
Type 1402 H		25 000	38	4	2	128	6 %	5 x 10
Type 1403 S	160 000	32 000	32	6	2	187	7.5 %	5 x 12
Type 1403 H		35 000	38	6	2	187	6 %	5 x 12
Type 1404 S	216 000	40 000	32	8	2	187	5 %	5 x 13.5
Type 1404 H		46 000	38	8	3	280	7 %	6 x 13.5
Type 1405 S	270 000	50 000	32	10	3	280	6 %	5 x 16
Type 1405 H		58 000	38	10	3	280	5 %	6 x 16
Type 1406 S	324 000	60 000	32	12	3	280	5 %	6 x 18
Type 1406 H		67 000	38	12	4	375	6 %	6 x 18
Type 1407 S	380 000	68 000	32	14	4	375	6 %	6 x 19
Type 1407 H		75 000	38	14	5	470	6.5 %	6 x 20.3
Type 1408 S	434 000	78 000	32	16	5	470	7 %	6 x 21
Type 1408 H		86 000	38	16	5	470	5.5 %	6 x 22.3
Type 1409 S	488 000	88 000	32	18	5	470	5.5 %	6 x 23
Type 1409 H		98 000	38	18	6	577	6.3 %	6 x 24.4
Lowered Platform height (mm) unladen + Lift : 1,600+700								

# Pendulum axles

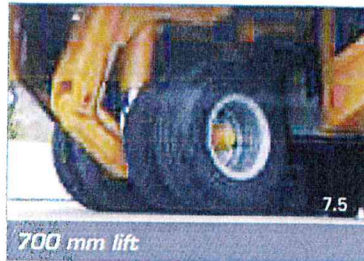
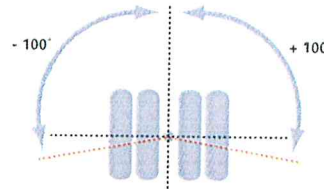
- technology to move you

## The core element

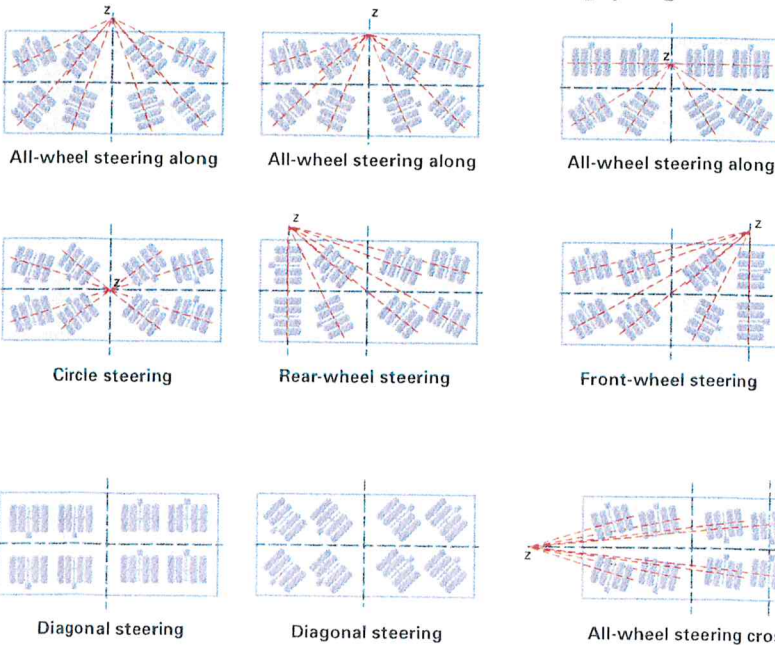
The KAMAG pendulum axle technology has revolutionized the world of special and heavy transportation. The basic characteristics of every KAMAG pendulum axle are the ability to carry extremely heavy loads with precise steering capabilities. The stable, wear-resistant design gives reliable and problem-free use.

Thanks to the steering angle of 100 degrees in both directions, the pendulum axle technology from KAMAG makes the shipyard transporter a very maneuverable transporter even in limited

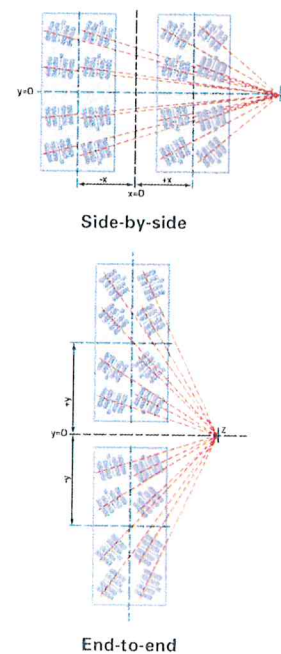
spaces. Different steering modes can be carried out with great precision using KAMAG pendulum axle technology.



## 100 degrees in all directions - steering programs



## Combination examples



# Competence

- KAMAG at a glance

Special vehicles from KAMAG stand for state-of-the-art technology and special product quality around the world. Reliability in daily operations, high load-bearing capacity and a long service life make the vehicles an important element of modern logistical processes. In a wide range of areas such as smelting works and steel mills, shipyards and off-shore technology, transport vehicles and systems from KAMAG are in daily use. In the space industry and at logistical terminals of large

haulage companies, vehicles from KAMAG efficiently deal with demanding transport assignments.

The company was founded in 1969 and is based in the southern German town of Ulm. The history of vehicle technology for heavy transport vehicles is closely connected with the name KAMAG. KAMAG belongs to a unique group of companies owned by the Heilbronn industrialist, Otto Rettenmaier. Within the group, the "Tii - Transporter Industry International" heavy load division is the global market player.

## Examples from our product program

