



Rodson Universal

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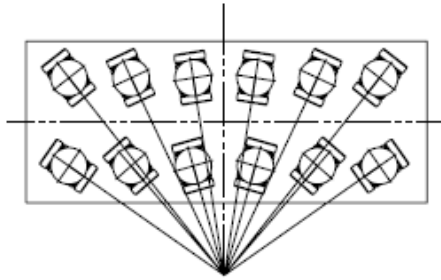
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Modular trailer brand new

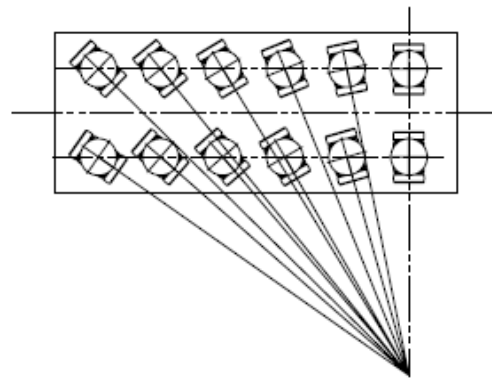
Year:	2008	
Speed (km/h):	1	5
Total weight (kg):	680,000	640,000
Dead weight (Kg):	85,700	85,700
Payload (kg):	594,300	554,300
Load per axle line (kg):	34,000	32,000
Load per pendulum axle (kg):	17,000	16,000
Total length (mm):	18622	
Total width (mm):	6280	
Total height (mm):	1500±350	
Axle distance (mm):	1500	
Wheel distance (mm):	1775	
Tyre model:	215/75 R17.5	
Number of tyre:	160	
Power pack unit liftable angle:	6	
Turning radius in circular drive (mm):	11.45	
Engine power (kW/rpm):	375/2000	
Max. climbing slop (%):	3	
Turning angle of wheels:	± 100	
Tractive force (kN):	960	
Suspension Type:	Hydraulic suspension with 3 or 4-Points -Support	
Steering Mode:	multi-model electrical control steering	
Frame Type:	Middle cross beam	
Breaking system:	Dual pipelines control, shoe break	

Electrical Multi Mode Steering System

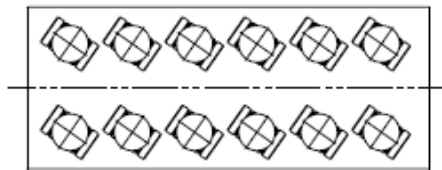
Electrical multi mode made up of the circumgyrate plate and hydraulic pressure pump above the wheel. The max turning angle it can dominate is 100° . When it needs to turn, it can realize turning by remote controller which sends out the instructions. And the hydraulic pump drive the turbine worm structure of the circumgyrate plate to realize seven turning modes: normal drive, auto drive, angle drive, circle drive, 90° drive, lateral drive, diaplasis drive (see the following pictures)



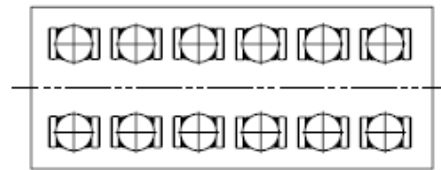
A normal drive



B auto drive



C Inclined drive



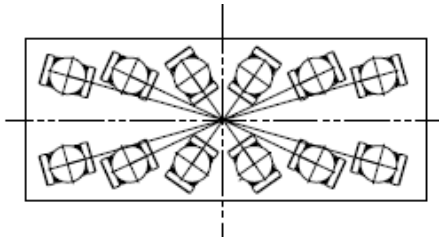
D 90° drive



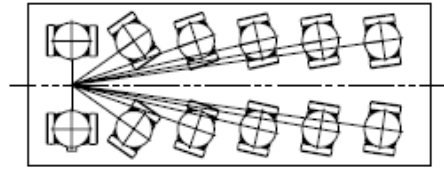
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E Circle drive



F lateral drive



G diaplasis drive



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Running System

The running system consists of hydraulic support suspension axle, and its axle compensation is $\pm 350\text{mm}$. Under uneven ground condition in vertical direction, it can provide longitudinal compensation via groups of hydraulic lifting cylinder.

All of hydraulic support cylinder in running system are be connected by hydraulic pipeline. So the module transporter can form 3 or 4-Points Support to adjust the height.

Under uneven ground condition in transversal direction, it can provide compensation by wavering of axles.

Frame Structure

The main girder is box girder with high strength. It is welded of high tensile strength steel.

Combination and control ways

Each module transporter can be connected in transversal or longitudinal direction.

Within group module transporters are connected in longitudinal direction with hydraulic pin. It is easy to operate.

Each module is with a set of control system. It can realize self-steering simultaneously and other functions.

Each group is connected by soft tube to realize vehicle connection and realize communication by CAN assembly signal line.

It is equipped with carry-on control equipment for single operation and wireless electrical remote control.

Power pack unit

Power module unit consists of engine, air filter, variable pump, cooler water/turbo air etc. Engine D2876LUE604 made by Germany MAN corporation is used.

Hydraulic System

Oil pump variable adopts electrical proportion EP2 variable technology, and will control running speed effectively.

Steering pump adopts loading sensitive constant power control. Low press and low displacement when it's unload. With the increase of load, press and displacement will increase. All of this improves the fuel utilization ratio of engine.

Self-governed hydraulic radiating system: pump of radiating system installed on engine ensure radiate normally at zero- displacement. This will make oil pump be used longer.

All suspension cylinders are installed pipe damaged safety valves.

All modules are provided with hydraulic test interfaces, they can check pressure of hydraulic system if necessary.

Brake System

The system is designed as dual-circuit compressed air system. One is service braking system and the other is parking braking system.

Service brake: when braking, the compressed air enters membranes cylinder directly from the compressed air reservoirs to brake.



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Parking brake: parking brake realizes the braking by the pressure of spring of braking cylinder (even the pipe damaged)

Each module provides braking force adjustment device by hand.

Surface processing

The surface of all steel structure should be treated with sand blasting and reaches to SA2.5, and the painting thickness should reach to national standard, the paint should be famous brand in the world. The surface color is red R05. All small elements should be zinc-plated.

Safety

The safety equipments are up to CCC stipulation.

Main parts

No	Description	Manufacture	Nation
1	Diesel Engine	MAN	GERMANY
2	Hydraulic Pump	REXROTH/SAUER	GERMANY/U.S.A.
3	Steering Pump	REXROTH/ SAUER	GERMANY/U.S.A.
4	Hydraulic Motor	REXROTH/ SAUER	GERMANY/U.S.A.
5	Gear Reducer	REXROTH/FAIRFIELD	GERMANY/U.S.A.
6	Controller	REXROTH/EPEC	GERMANY /DANMARK
7	Lifting-cylinder/ Grommet	MATCH WITH "PARK" SEAL PART	CHINA
8	Steering cylinder/ Grommet	MATCH WITH "PARK" SEAL PART	CHINA
9	Hydraulic Tube	MANULI	ITALY
10	Steel Pipe	SUMITOMO	CHINA
11	Pipe Fitting	EMB	GERMANY
12	Angle Sensor	GERFAN	ITALY
13	Rotary Supporter	IMO	GERMANY
14	Axle		CHINA

