

O.M.A.R. TECHNOLOGY S.R.L.



Progettazione e Costruzione attrezzature speciali
Planning and construction special equipments



SELF MOVING TROLLEY M.E. 109

20097 S. DONATO MILANESE - Via Civesio, 14

Tel. +39 (2) 55600949

Fax. +39 (2) 55601499

www.omartechnology.com

info@omartechnology.com

We would like take this opportunity to draw your attention to the helicopter and aeroplane self-moving trailers patented and manufactured by our company.

Our experience in this sector dates back to 1983 when the first self-moving trailer was delivered to the CARABINIERE ARMY CORPS' HELICOPTER CENTRE and then also to the following departments:

- LIGHT AVIATION OF THE ARMED FORCES
- REVENUE GUARD CORPS
- AIR FORCE
- FIRE DEPARTMENT
- CORPS OF FORESTERS
- STATE POLICE
- COAST GUARD
- BWB GERMANY
- BELGIAN ARMY
- SPANISH FAMET
- UNITES STATE COAST GUARD
- GREECE AVIATION
- SOUTH AFRICA AVIATION
- AGUSTA S.p.A.

Furthermore, we have supplied more than 400 units to a variety of different private customers.

We are therefore convinced that we can offer you valid, functional and reliable products which will meet all your operating needs.

If our self-moving trailers are of interest please do not hesitate to contact us for further technical information.

Best regards,

HELICOPTER SELF-MOVING TRAILERS

The helicopter self-moving trailers designed and patented by our company allow a single operator to autonomously move helicopters and aeroplanes from the hangar to the run-way and vice versa.

The series comprises four basic models called:

- M.E. 109 NUC 1730-15-100-4249
- M.E. 109/DAUPHIN

Model ME 109 can move helicopters with wheels and aeroplanes.

The above-mentioned trucks are manufactured with a particular configuration to manoeuvre helicopters fitted with other instruments and accessories such as:

- FLIR
- CABLE CUTTER
- SNOW SKIDS
- SPECIAL ANTENNAS
- ETC. ETC.

M.E. 109



STRUCTURE

The base structure and connecting rods are all made from special steel extrusion sections.

MANOEUVRING

The truck is moved by 1 electrically powered wheels with 1,000 to 2,000 W motors at 24V and is fitted with electromagnetic brakes.

The power and speed is controlled by a special electronic gearbox which, besides performing these operations, also manages the oleo dynamic system which moves the pantograph and steering wheel.

CONTROL HEAD



The control head is located at the end of the rudder.

In the ME 109 model the operator, besides activating the double levers which control the speed, can use a push-buttons to move the loading platform as well as extend and retract the helicopter wheel hooking yoke.

OLEODYNAMIC SYSTEM



The oleodynamic system which activates the lifting jacks, loading platform and yoke extension comprises:

- Hydraulic jacks;
- Electrohydraulic gearboxes;
- Oleodynamic system with high-pressure stainless steel and flexible pipes;
- Hydro-powered check valves and balancers.
- Manual pump in case of power failure

ELECTRIC SYSTEM

The electric system is supplied by a series of 24V traction batteries. All the operations: power supply to the driving wheel for traverse, manoeuvring of loading platform and extension of the yoke are controlled by a special electronic gearbox.

OPERATING AUTONOMY

The 24V traction batteries mounted on the self-moving trailers, whether they have 1 electrically driven wheels or 1,000 or 2,000 W motors, all have the same characteristics so the operating autonomy depends on the type of vehicle and the motor with which they are supplied. On average, a base truck, with an efficient battery recharged using an appropriate battery charger supplied, has an operating autonomy as follows:

Models ME 109: 4/5 hours

ANCILLARY EQUIPMENT

The helicopter manoeuvring trucks are supplied with all equipment needed for operations.

No special equipment is needed for maintenance operations.

The following equipment is supplied with the truck:

- an electronic battery charger complete with special sockets and plugs - a users' and maintenance guide.

Your company's colours are used for the painting.

A users' and maintenance guide is supplied.



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Progettazione e Costruzione attrezzature speciali
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SELF MOVING TROLLEY M.E. 119

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Web site: www.omartechnology.com

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- AIR FORCE
- FIRE DEPARTMENT
- CORPS OF FORESTERS
- STATE POLICE
- COAST GUARD
- BWB GERMANY
- BELGIAN ARMY
- SPANISH FAMET
- TURKISH COAST GUARD
- GRACE AVIATION
- AGUSTA S.p.A.

Furthermore, we have supplied more than 1000 units to a variety of different private customers.

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Best regards,

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The series comprises four basic models called:

- M.E. 109
- M.E. 109/DAUPHIN
- M.E. 206
- M.E. 206/ECUREIL
- M.E. 205/412
- M.E. 119/KOALA

Model ME 109 can move helicopters with wheels and aeroplanes.

Models ME 206 - 205/412 - 119 - 129 can move helicopters with fixed skid and with floats.

The above-mentioned trucks are manufactured with a particular configuration to manoeuvre helicopters fitted with other instruments and accessories such as:

- CABLE CUTTER
- SNOW SKIDS
- SPECIAL ANTENNAS
- ETC. ETC

M.E. 119



STRUCTURE

The base structure, mobile part and pantograph connecting rods are all made from special steel extrusion sections.

MANOEUVRING

The truck is moved by 1 electrically powered wheels with 2,000 W motors at 24V and is fitted with electromagnetic brakes.

The power and speed is controlled by a special electronic gearbox which, besides performing these operations, also manages the oleo dynamic system which moves the pantograph and steering wheel.

CONTROL HEAD



The control head is located at the end of the rudder. On the control head there are :

Master push button, lower push button, lift push button, battery charge indicator, and the throttle lever.

In the ME 119 and derived models, simple manoeuvres allow the operator to activate the double levers which control the speed in forward and reverse gear, lift and lower the pantograph and activate the steering.

OLEODYNAMIC SYSTEM



The oleodynamic system which activates the lifting jacks, steering, loading platform and yoke extension comprises:

- Hydraulic jacks;
- Electrohydraulic gearboxes;
- Oleodynamic system with high-pressure stainless steel and flexible pipes;
- Hydro-powered check valves and balancers.

- Manual pump in case of power failure

ELECTRIC SYSTEM

The electric system is supplied by a series of 24V traction batteries. All the operations: power supply to the driving wheel for traverse, raising and lowering of the pantograph, steering control, manoeuvring of loading platform and extension of the yoke are controlled by a special electronic gearbox.

OPERATING AUTONOMY

The 24V traction batteries mounted on the self-moving trailers, whether they have 1 electrically driven wheels 2,000 W motors, all have the same characteristics so the operating autonomy depends on the type of vehicle and the motor with which they are supplied. On average, a base truck, with an efficient battery recharged using an appropriate battery charger supplied, has an operating autonomy as follows:

Models ME 119: 3/4 hours.

ANCILLARY EQUIPMENT

The helicopter manoeuvring trucks are supplied with all equipment needed for operations.

No special equipment is needed for maintenance operations.

The following equipment is supplied with the truck:

- an electronic battery charger complete with special sockets and plugs - a users' and maintenance guide.

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FRONT RUBBER
SUPPORT

REAR RUBBER
SUPPORT







O.M.A.R. TECHNOLOGY S.R.L.



Progettazione e Costruzione attrezzature speciali
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M.E. 139 ELECTRICAL TROLLEY

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ELECTRICAL TROLLEY FOR AW 139 HELICOPTERS MOVEMENT P/N 04014

TECHNICAL DESCRIPTION

The trolley model ME 139 has been designed and built to handle helicopters AW 139 series in various configurations, to allow to a single operator to move the helicopter from the hangar to the pad take-off and vice versa, with a range 4 - 5 hours before needing batteries charge, surpassing even any small differences in the manoeuvring areas

STRUCTURE:

The structure (frame) is formed with tubular steel in part and sheet metal with a specially shaped and welded that allow to realize the entire structure, which can be virtually divided into several parts:

- 1) **Front part**, where the absorbing suspension is fixed, the lower end of which is welded to the mounting plate of the electro-motor wheel, while in the upper part is applied to steering bar with the control head;
- 2) **Central part**, where are located the electro hydraulic engine, the battery pack, the electronic control unit and battery charger;
- 3) **Rear Part**, composed by two supports with a double set of rollers, hinged to the rear frame and actuated by hydraulic jacks.

HYDRAULICO SYSTEM:

The hydraulic system composed by an hydraulic power which drives the two hydraulic jacks that manoeuvre the roller support.

ELECTRICAL PLAN:

24-volt electrical system is powered by 4 batteries and controls the electrical wheel and the hydraulic system.

The battery charging is carried out by internal electronic battery charger installed on board, equipped with an automatic disconnection dispositive when charge is complete.

CONTRO HEAD:

The control head on the end of the steering bar, allowing just one operator to do the following:

- input switch;
- opening and closing of the rollers for the helicopter connexion;
- moving the trolley in both directions;
- visual inspection of the charge level of the batteries;
- emergency brake to protect the operator.



ELECTRICAL WHEEL:

The power developed is 2000 W, suitable for towing medium-heavy helicopters, the same allows you to tow the helicopter on prepared and compact land suitable to support the weight of the helicopter, the same is provided with an electromagnetic brake which is released when the operator actuates the levers that allows handling in the two directions to a speed of $3 \div 4$ km / h.

WHEELS:

The trolley is equipped with three wheels cushion rubber: one driver wheel which is located in the front while the other two are located at the rear, in correspondence of the rollers engaging the wheel of the helicopter.

STEERING:

The steering is operated by a mechanical bar, and is connected to the amortized drive wheel. It is constituted by a manoeuvring rudder and in the ends is located the control head.

CONNEXION TO THE HELICOPTER:

The trolley, in its standard configuration is equipped with two series of rollers mounted on movable support, hinged on the rear part of the structure and controlled by the operator by the head control, and a series of fixed rollers positioned in opposite position then the movable one



EQUIPMENT SUPPLIED:

The trolley in various configurations is equipped with:

- Electronic battery charger, directly fitted on board. The same when charging is completed, stop charging automatically.
- device for coupling of a tow bar when the helicopter is equipped with snow or mud skid.
- use and maintenance manual.

ELECTRICAL TROLLEY FOR AW 139 WITH FLIR INSTALLED MOVEMENT

P/N 04005

In the configuration for towing helicopters equipped with FLIR, to allow access of the trolley without interfering with the same, the structure is substantially different from the normal one, the central part is completely free and also the rear rollers are movable. when the lower rear roller leans to the wheels of the helicopter, the operator, from the control head, carried out the closure of the rollers which wrap the helicopters wheells



In this configuration, the trolley is equipped with a camera with IR lighting in matching easily the engagement of the helicopter in low light conditions. The camera is positioned in the near the lower rollers, while the monitor is placed on the steering bar clearly visible for the operator



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SELF MOVING TROLLEY M.E. 205

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Messrs

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- CORPS OF FORESTERS
- STATE POLICE
- COAST GUARD
- UNITED STATES COAST GUARD
- **TURKISH COAST GUARD**
- SOUTH AFRICAN AVIATION
- BWB GERMANY
- BELGIAN ARMY
- SPANISH FAMET
- GREEK AVIATION
- AGUSTA S.p.A.

Furthermore, we have supplied more than 1000 units to a variety of different private customers.

We are therefore convinced that we can offer you valid, functional and reliable products which will meet all your operating needs.

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Best regards,

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The series comprises four basic models called:

- M.E. 109
- M.E. 109/DAUPHIN
- M.E. 206
- M.E. 206/ECUREIL
- M.E. 205/212/412
- M.E. 119/KOALA

Model ME 109 can move helicopters with wheels and aeroplanes.

Models ME 206 - 205/412 - 119 - 129 can move helicopters with fixed skid and with floats.

The above-mentioned trucks are manufactured with a particular configuration to manoeuvre helicopters fitted with other instruments and accessories such as:

- CABLE CUTTER
- SNOW SKIDS
- SPECIAL ANTENNAS
- ETC. ETC

M.E. 205



STRUCTURE

The base structure, mobile part and pantograph connecting rods are all made from special steel extrusion sections.

MANOEUVRING

The truck is moved by 1 electrically powered wheels with 2,000 W motors at 24V and is fitted with electromagnetic brakes.

The power and speed is controlled by a special electronic gearbox which, besides performing these operations, also manages the oleo dynamic system which moves the pantograph and steering wheel.

CONTROL HEAD



The control head is located at the end of the rudder. On the control head there are :

Master push button, lower push button, lift push button, battery charge indicator, and the throttle lever.

In the ME 119 and derived models, simple manoeuvres allow the operator to activate the double levers which control the speed in forward and reverse gear, lift and lower the pantograph and activate the steering.

OLEODYNAMIC SYSTEM



The oleodynamic system which activates the lifting jacks, steering, loading platform and yoke extension comprises:

- Hydraulic jacks;

- Electrohydraulic gearboxes;
- Oleodynamic system with high-pressure stainless steel and flexible pipes;
- Hydro-powered check valves and balancers.
- Manual pump in case of power failure

ELECTRIC SYSTEM

The electric system is supplied by a series of 24V traction batteries. All the operations: power supply to the driving wheel for traverse, raising and lowering of the pantograph, steering control, manoeuvring of loading platform and extension of the yoke are controlled by a special electronic gearbox.

OPERATING AUTONOMY

The 24V traction batteries mounted on the self-moving trailers, whether they have 1 electrically driven wheels 2,000 W motors, all have the same characteristics so the operating autonomy depends on the type of vehicle and the motor with which they are supplied. On average, a base truck, with an efficient battery recharged using an appropriate battery charger supplied, has an operating autonomy as follows:

Models ME 205: 3/4 hours.

ANCILLARY EQUIPMENT

The helicopter manoeuvring trucks are supplied with all equipment needed for operations.

No special equipment is needed for maintenance operations.

The following equipment is supplied with the truck:

- an electronic battery charger complete with special sockets and plugs - a users' and maintenance guide.

Your company's colours are used for the painting.

A users' and maintenance guide is supplied.



FRONT RUBBER
SUPPORT

REAR RUBBER
SUPPORT





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Progettazione e Costruzione attrezzature speciali
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SELF MOVING TROLLEY M.E. 206 / AS 350 / 355

20097 S. DONATO MILANESE - Via Civesio, 14

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- STATE POLICE
- COAST GUARD
- BWB GERMANY
- BELGIAN ARMY
- SPANISH FAMET
- TURKISH COAST GUARD
- GREECE AVIATION
- U.S. COAST GUARD
- SOUTH AFRICA AVIATION
- AGUSTA S.p.A.

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The helicopter self-moving trailers designed and patented by our company allow a **single operator** to autonomously move helicopters from the hangar to the run-way and vice versa.

The series comprises four basic models called:

- M.E. 109
- M.E. 109/DAUPHIN
- M.E. 206
- M.E. 206/ECUREUIL AS 350 / AS 355
- M.E. 205/412
- M.E. 205/EC 130
- M.E. 206/EC 120
- M.E. 119/KOALA

Model ME 109 can move helicopters with wheels and aeroplanes.

Models ME 206 - 205/412 - 119 - 129 can move helicopters with fixed skid and with floats.

The above-mentioned trucks are manufactured with a particular configuration to manoeuvre helicopters fitted with other instruments and accessories such as:

- CABLE CUTTER
- SNOW SKIDS
- SPECIAL ANTENNAS
- ETC. ETC

M.E. 206



STRUCTURE

The base structure, mobile part and pantograph connecting rods are all made from special steel extrusion sections.

MANOEUVRING

The truck is moved by 1 electrically powered wheels with 1,000 W motors at 24V and is fitted with electromagnetic brakes.

The power and speed is controlled by a special electronic gearbox which, besides performing these operations, also manages the oleo dynamic system which moves the pantograph and steering wheel.

CONTROL HEAD

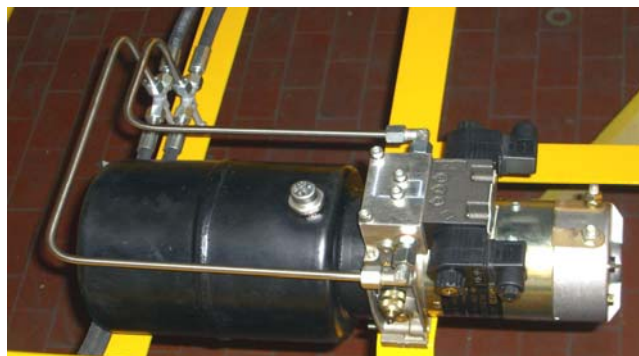


The control head is located at the end of the rudder. On the control head there are :

Master push button, lower push button, lift push button, battery charge indicator, and the throttle lever.

In the ME 206 and derived models, simple manoeuvres allow the operator to activate the double levers which control the speed in forward and reverse gear, lift and lower the pantograph activate.

OLEODYNAMIC SYSTEM



The oleodynamic system which activates the lifting jacks and loading platform comprises:

- Hydraulic jacks;
- Electrohydraulic gearboxes;
- Oleodynamic system with high-pressure stainless steel and flexible pipes;
- Hydro-powered check valves and balancers.

ELECTRIC SYSTEM

The electric system is supplied by a series of 24V traction batteries. All the operations: power supply to the driving wheel for traverse, raising and lowering of the pantograph and manoeuvring of loading platform are controlled by a special electronic gearbox.

OPERATING AUTONOMY

The 24V traction batteries mounted on the self-moving trailers, whether they have 1 electrically driven wheels 1,000 W motors, all have the same characteristics so the operating autonomy depends on the type of vehicle and the motor with which they are supplied. On average, a base truck, with an efficient battery recharged using an appropriate battery charger supplied, has an operating autonomy as follows:

Models ME 206: 4 hours.

ANCILLARY EQUIPMENT

The helicopter manoeuvring trucks are supplied with all equipment needed for operations.

No special equipment is needed for maintenance operations.

The following equipment is supplied with the truck:

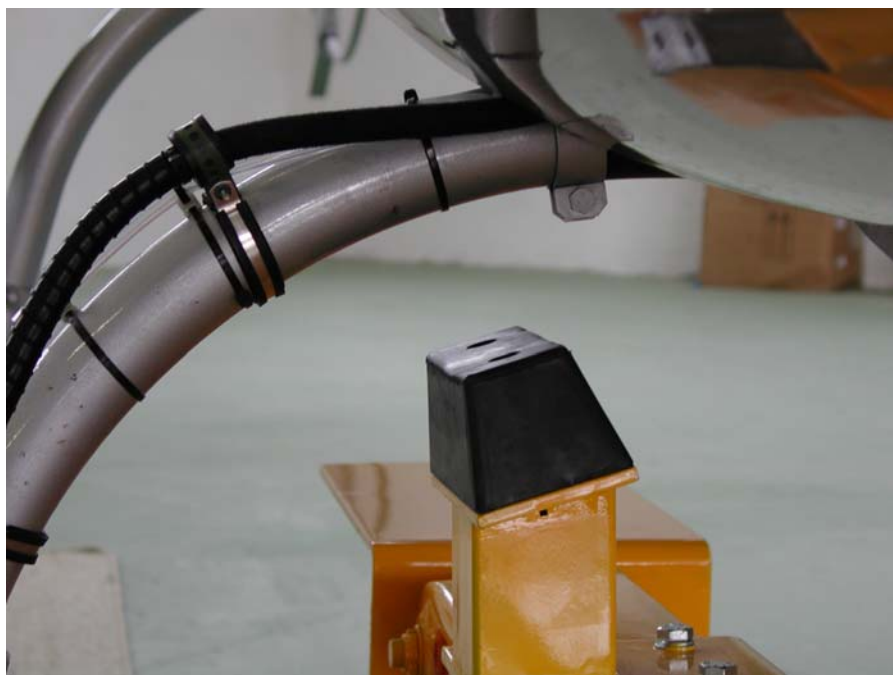
- an electronic battery charger complete with special sockets and plugs - a users' and maintenance guide.

Your company's colours are used for the painting.

A users' and maintenance guide is supplied.



FRONT RUBBER SUPPORT



REAR RUBBER SUPPORT



O.M.A.R. TECHNOLOGY S.R.L.



Progettazione - Costruzione - attrezzature meccaniche
su disegno - Licenza e brevettate



CARRELLI PER MOVIMENTAZIONE ELICOTTERI

SELF-MOVING TRAILERS FOR HELICOPTER MOVEMENT

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Web-site : www.omartechnology.com

NATO CAGE A4883



MOD. M.E. 109

**CARRELLO MOVIMENTAZIONE
ELICOTTERI MUNITI DI RUOTE**

**SELF-MOVING TRAILER FOR
HELICOPTERS WITH WHEELS**

**HELICOPTERS / AIRPLANE
AW 139 – A 109 – AS 365 DAUPHIN
AS 532 COUGAR**





MOD.M.E. 206

**CARRELLO MOVIMENTAZIONE
ELICOTTERI MEDIO LEGGERI
MUNITI DI PATTINI**

**SELF-MOVING TRAILER FOR
MOVING MIDDLE HELICOPTERS
WITH SKIDS.**

**HELICOPTERS
AB 206 – AS 350/355 ECUREUIL
EC 120**





MOD. M.E. 205

CARRELLO MOVIMENTAZIONE
ELICOTTERI MEDIO PESANTI
CON PATTINI MUNITI DI FLIR O
TRANCIA CAVI

SELF-MOVING TRAILER FOR
MOVING HEAVY HELICOPTERS
WITH SKIDS AND FLIR OR
CABLE CUTTER

HELICOPTERS

AB 204/205/212/412

EC 130 – BK 117 – EC 145



MOD. M.E. 119

CARRELLO
MOVIMENTAZIONE
ELICOTTERI MEDIO
PESANTI CON PATTINI.

SELF-MOVING TRAILER
FOR MOVING HEAVY
HELICOPTERS WITH SKIDS

HELICOPTER
A 119 KOALA



TECHNICAL DATA

MOD. M.E. 109

Compact three-wheeled trailer, whose the front driving-wheel is equipped with electromagnetic brake, with gearbox, in two directions, from 0 to 4/5 Km/h.

Speed is regulated through an electronic control system.

Rear wheels are hydraulically retractile and simultaneously to the extension of the anchorage fork to front-wheel of the helicopter. (The sostitution of anchorage fork allows the use for movement of small and middle aircraft's).

Controls of trailer movement and driving hydraulic system are placed on the head of steering-gear.

Feeding-with a 24 V. traction-battery, with continuous work-range of 4/5 h.

MOD. M.E. 206

Four-wheeled trailer, whose a driving-wheel is equipped with electro-magnetic brake, with gearbox, in two directions, from zero to 4/5 Km/h.

Speed is regulated through an electronic control system.

Vertical lifting from mm.450 to mm.1500 nearly, through hydraulic jacks with OVER-CENTER and locking valve.

Controls movements head is placed to extremity of steering-bar.

Feeding with a 24 V. traction-battery, with continuous work-range of 4/5 h.

MOD. M.E. 205 / M.E. 119

Four-wheeled trailer, whose a driving-wheel is equipped with electro-magnetic brake, with gearbox, in two directions, from zero to 4 Km/h.

Speed is regulated through an electronic control system.

Vertical lifting from mm.350 to mm.700 nearly, through hydraulic jacks with OVER-CENTER and locking valve.

Controls movements head is placed to extremity of the rudder.

Steering is moved by an oleodynamic system.

INTERNATIONAL PATENTED EQUIPMENT.

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