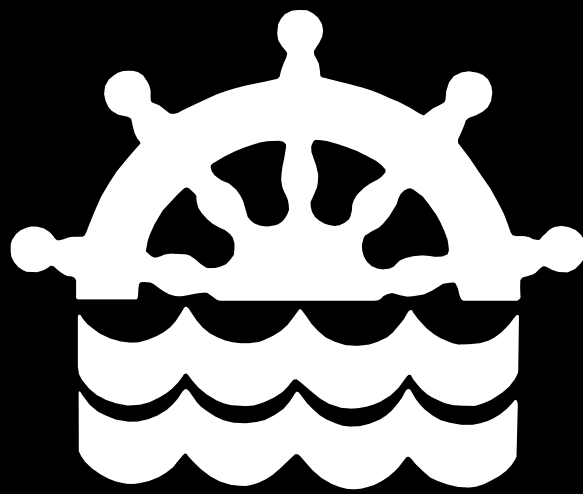


# COMPLETE STEERING SYSTEMS



**Scan-Steering**  
**EXCELLENT NAVIGATION**

az:scan

# SCAN-STEERING

## History

Scan-Steering was founded in 1960. Today Scan-Steering is one of the leading manufactures of complete steering systems, for several types of vessels in the world. We have a wide range of hydraulic and electronic equipment consisting of:

- Magnetic compass
- Gyro compass
- Repeaters
- Autopilots
- Rudder control systems
- Hydraulic steering gear
- Power units
- Computer systems
- Accessories

Scan-Steering has always been ahead of their competitors when it comes to developing new technology and total steering systems, and dealing with only one supplier will benefit you in several ways:

- Total compatibility
- Easy installation
- Easy maintenance
- Easy service
- Quick support
- Tested systems

## The steering system

Today's modern vessels require the steering system of the future, which can help reduce the cost of maintenance and increase fuel efficiency. Scan-Steering has more than 40 years of experience in making and installing special steering systems for a wide variety of vessels.

The systems are made for one, two, three or more rudders and the multi rudder system can be electronic or mechanical synchronized. All of our systems are made according to IMO, SOLAS and are built to fit the restrictions of any classification authority.

The steering gears are designed with one or two cylinders which gives a very high degree of safety and reliability. It can be provided with a support ball bearing, a spherical rudder carrier bearing, or other types of bearings.

The steering is supplied with a hand hydraulic wheel pump (axial piston pump), for hand and emergency steering. The wheel pump can be delivered for panel mounting, but can also be built into a steering column. All our hydraulic pumps can be created to fit your demands. All necessary valves and fittings are supplied according to classification requirements.



# Danish craftsmanship...

## –combined with the latest technology

Scan- Steering has continuously been working on improvement in quality and performance of all parts of the steering systems produced by the company.

The latest improvement has been made in the sealing components of the steering gears where the normally used U-gaskets and scraper rings, have been replaced by the newest technology in teflon gaskets.

This gives a lot of benefits such as great reduction in the normal wear on piston rods, reduced risk of leaks, very long life-time of the gaskets, which means that no maintenance is required.

With this latest improvement the steering gear will work for a long period of time, without requiring repairs or major overhaul, as long as the required lubrication is made according to manufacturer's instructions.

Scan-steering has a very flexible production line, and can make steering gears and systems according to requirements. Including high shock resistant anti-magnetic steering gear made in salt water resistant stainless steel and special construction for navy boats.

Scan-Steering is capable of delivering steering gears with capacity up to 1.000 KNm for single or twin rudder vessels. For twin rudder vessels there are possibilities of mechanical synchronization by means of a connecting rod or electronic synchronization of rudders, where connection rod is not possible to use, such as catamarans etc. in which case the company's unique double electronic rudder control system is used.

The electronic rudder control is extremely accurate, thanks to the electronic rudder angle transmitter, which has now been proven unsurpassed for nearly 10 years. The transmitter operates without potentiometer which means that there is no mechanical wear and in many cases the rudder transmitter(s) will last for the lifetime of the vessel.

All Scan-Steering's steering systems are made to meet the requirements of the various classification authorities, this means that all steering gears etc. are made from approved materials and are constructed, assembled, and tested in accordance with the rule and regulations of all major classification authorities. Consequently all systems can be delivered with certificate according to customer's requirement.

*For a complete referencelist please contact us.*



**Scan-Steering**  
Excellent Navigation

# Compasses

made according to ISO, IMO and SOLAS



## Magnetic Compass

NS-140A Magnetic compass. 6 inches. Card dia. 140mm

NS-150A Magnetic compass. 8 inches. Card dia. 150mm

Telescope bearing for table or panel mounting options.



## Gyrocompass Mini Course

New gyrocompass "MINI course" is one of the most miniature mechanical gyrocompasses in the world. It is designed to meet the requirements of modern marine industry in wide range of applications due to its high accuracy, short settling time, small size and other attractive features. The gyrocompass is based on the dynamically tuned gyroscope; this accurate sensor provides follow-up speed up to 200 °/s.



## NS-160A Reflector compass

Reflector compass with 505 or 1050mm binnacle. The binnacle is made of seawater resistant aluminium, fitted with a magnetic compass, NS-150A.

- Card diameter 150mm
- Reflector type with mirror and adjustable mirror head
- Main and emergency supply 110/220VDC

# Autopilots



## HE-6000

HE-6000 has been upgraded to all new demands and can be used for all types of vessels. The HE-6000 autopilot combines the analog and digital technology, which gives a very high accuracy and extremely fast rudder control. This autopilot is one of the most fuelsaving systems in the world. HE-6000 offers a wide range of interfaces so no extra interface is needed.



**Scan-Steering**  
Excellent Navigation



# Universal repeaters

All repeaters meet the requirements of IMO & SOLAS



## DE-180

Digital repeater operates on NMEA 0183 (RS422 or RS232)



## DE-200

Digital repeater/turning indicator can operate on NMEA 0183 (RS422 or RS232), step by step and syncro 360:1 input.



## BRA-250

Steering repeater with tilting bracket. Operates on NMEA 0183 (RS422 or RS232), step by step.



## BRC-250

Bearing repeater on column. Facilities for Azimuth. Operates on NMEA 0183 (RS422 or RS232), step by step.



## BRB-250

Bearing repeater for bulkhead mounting. Facilities for Azimuth. Operates on NMEA 0183 (RS422 or RS232), step by step.

# Accessory equipment

To be used as part of our complete steering system



## RVP

Panorama rudder indicator, with dimmer.



## RXL

Ground-breaking range of panel-mounted illuminated rudder indicators.



## FFU-2000

Full Follow Up with wheel. Adjustable zero and gain.



## FBH

Electronic rudder angle transmitter with single or double signal. There is no mechanical parts which means a very high shock resistance.



## STM/STU

STM: Manual pilot operation  
STU: Joystick control



## STS Joystick

With push button to activate steering position.



## V-500m

Watch alarm with switch for 10 or 15 minutes delayed alarm.



## NFU

Hand operated non-follow-up with rudder indicator and 6 m wire.



## GFC

Azimuth circle for bearing repeater.



**Scan-Steering**  
Excellent Navigation

# Rudder control & starters



## MR-200 LA

Remote control for MS-2 motorstarter.  
For mounting on bridge. Alarms for:

- Start/stop
- Test
- Power failure
- Low oil
- Overload
- Alarmlock



## RC/MS

Double remote control for RC (rudder control) and MS-2 (motorstarter)  
Joystick for non-follow-up and rudder indicator.  
Facilities for connection of additional rudder indicator and Full-follow-up.  
Alarms for:

- Start/stop
- Test
- Power failure
- Low oil
- Overload



## MS-2

Double motorstarter for one or two electro-hydraulic pump units. Complete with amp.meter and emergency stop

Alarms for:

- Start/stop
- Test
- Power failure
- Low oil
- Overload



## RC

Double rudder control with two electrical separated systems for electrical steering and control of up to 4 sets of hydraulic valves. Each system consist of:

- Rudder indicator
- Switch for bridge/steering room control
- Non-follow-up control of the rudder



# Hydraulic gear

All our parts are approved by every major classification societies



## PSU-50

The new low noise, soft control, electro-hydraulic power steering unit. Complete with:

- Electrical motor
- Oil pump
- Non-return valve
- Filter unit
- Counter balance
- Vacuummeter for filter control
- Pressure control manometer



## PSP

Complete power pack with:

- Two PSU-50 power units
- Emergency pump
- Wheel
- Starter
- Rudder control
- Double tanks. Made for easy installation.



## PV-20/30

Seperate control valve unit. Complete with mounting plate, set of 24VDC solenoid, control valve, filter unit and non-return valve. Maximum work area: 25L/min or 50L/min.



## MT-500-60000

Hand and electro-hydraulic steering gears ranging from 0.5-100 T.M. The steering gear is suitable for one, two or more rudders, either with connection bar or electrical synchronizing. The steering gear is supplied with:

- Wheel pump
- Non-return valve
- Flexible hoses
- Base plate with support bearing
- Tiller with keyway and bolts
- All necessary valves and fittings.



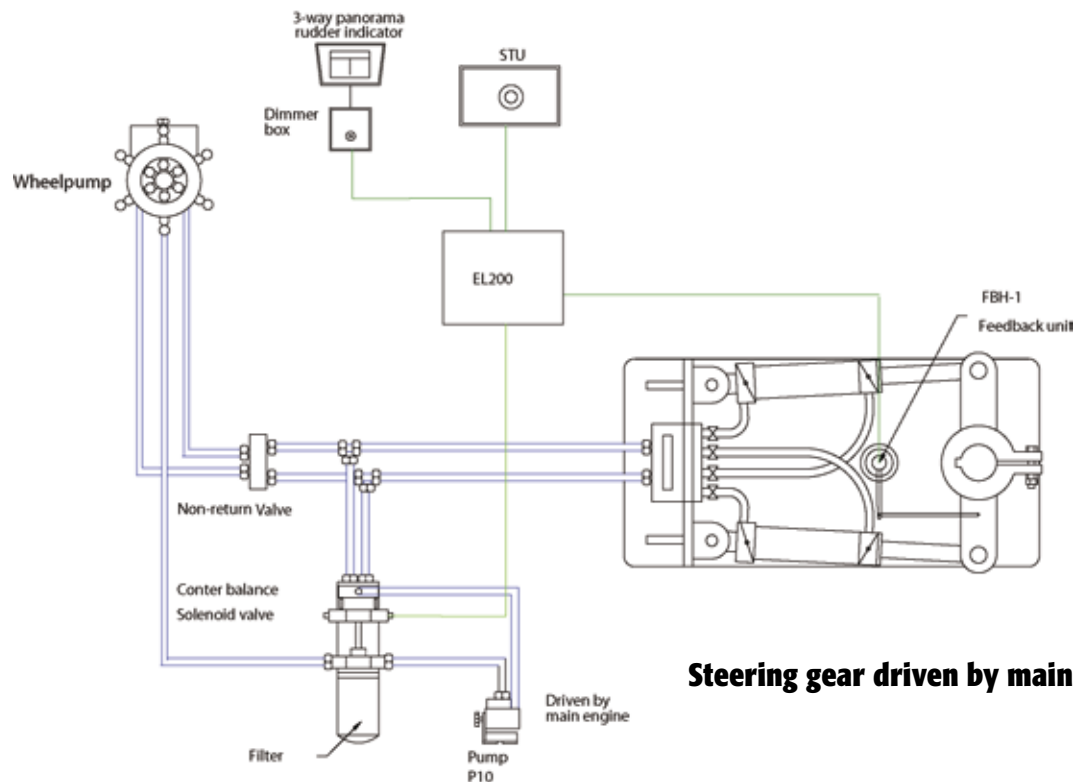
## P-10

Hydraulic oil pump, complete with mounting plate, build in flow control and safety valve. Adjustable oil flow. Driven by V-belt from main engine. The safety valve and flow control ensure a constant speed of the rudder, regardless the speed of the main engine. Standart version for clock wise rotation. When counter-clock wise is needed order P-5

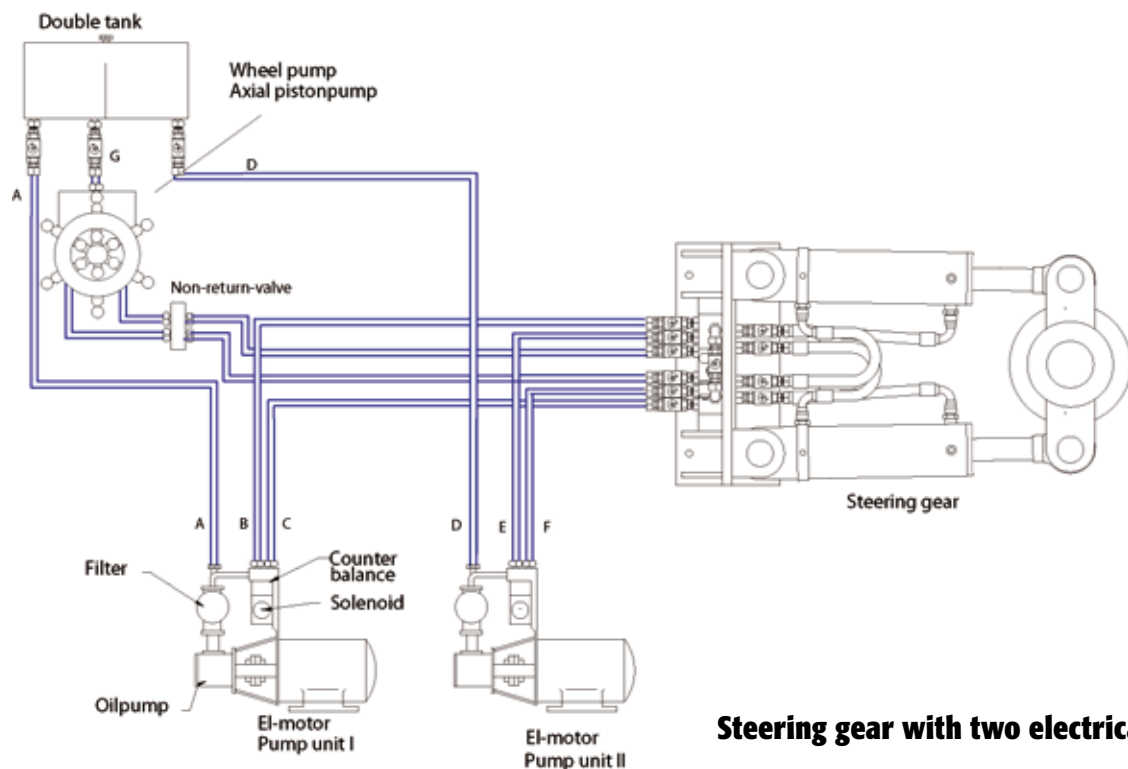


**Scan-Steering**  
Excellent Navigation

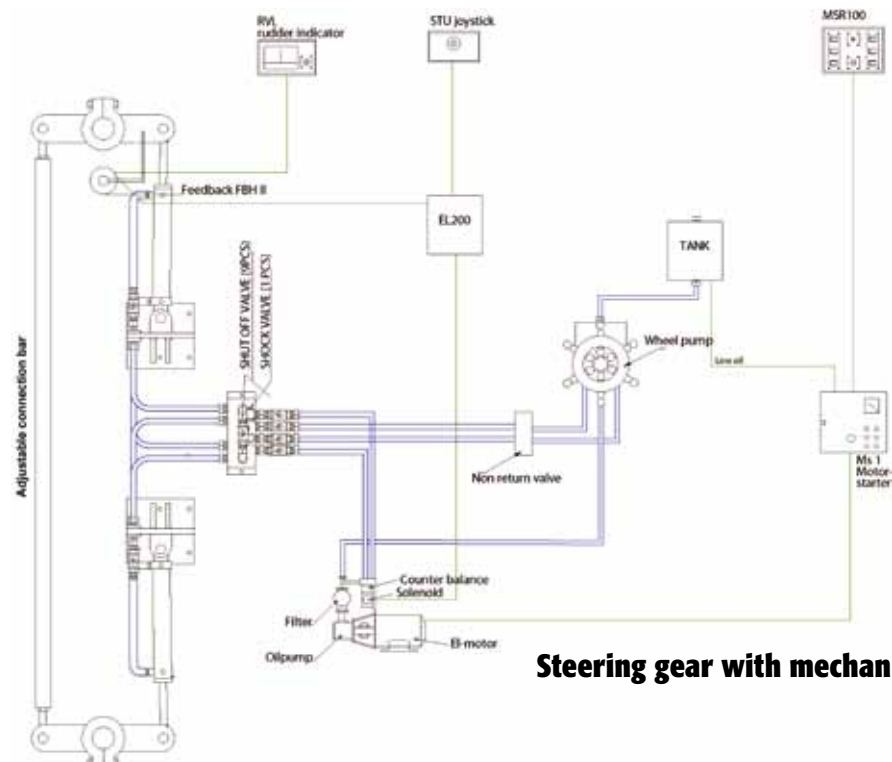
# Examples of complete steering systems



**All systems are made according to classification authorities**

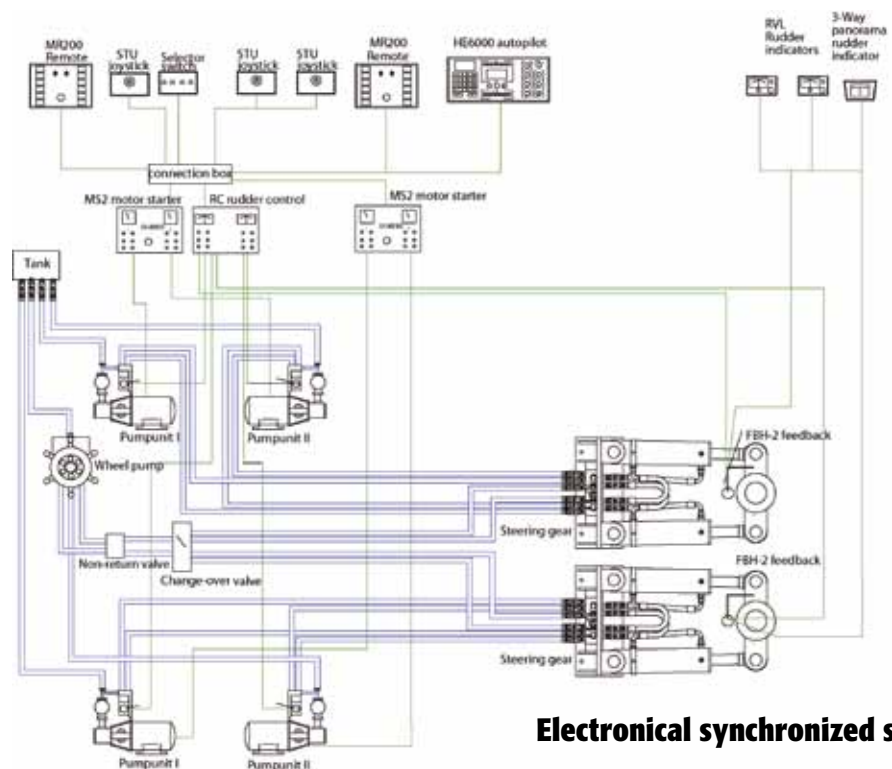


# Examples of complete steering systems



**Steering gear with mechanical connection bar**

**All systems are made according to classification authorities**

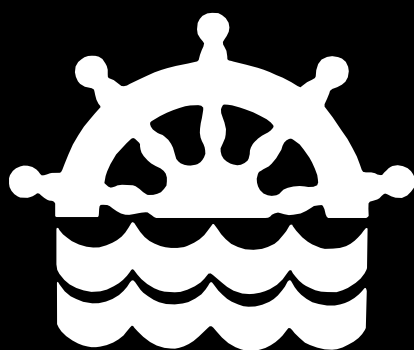


**Electronical synchronized steering gear**



**Scan-Steering**  
Excellent Navigation

TOGETHER  
we'll compile the steering system  
YOU need



# Scan-Steering

**Fabriksvej 14 - 6960 Hvide Sande - Denmark**

**Phone: +45 9731 1045 - Fax: +45 9731 1677**

**[info@as-scan.com](mailto:info@as-scan.com) - [www.as-scan.com](http://www.as-scan.com)**

as:scan