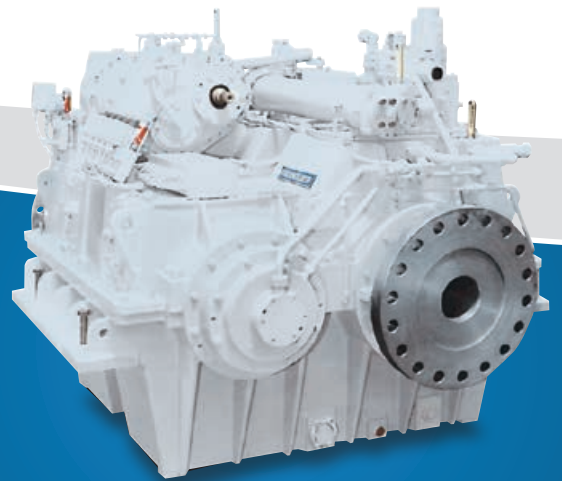


Gearboxes for  
**Fast Ferries**

VLJ 430 – 7541 | 500 – 13,200 kW

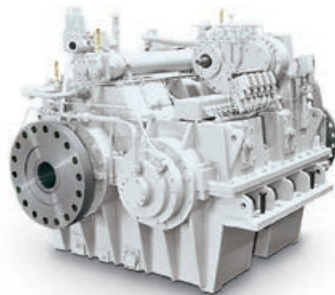


# Applications for Fast Ferries

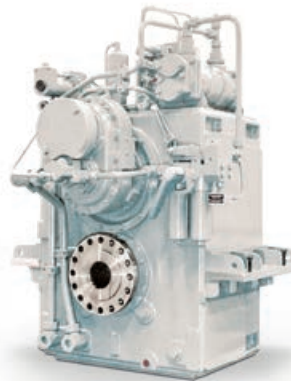
## VLJ 430 – 7541



VLJ horizontally offset



VLJ horizontally offset



VLJ vertically offset



VLJ vertically offset, special solution

### Advantages

VLJ gearboxes have been specially designed for installation in fast ferries and other vessels with similarly high performance demands. We have the backing of over 80 years of experience in marine gearbox design and

production as well as more than 30 years with fast ferry application with waterjet drives and deploy state-of-the-art computation tools and production technologies.

Owing to their design for specific areas of deployment, the reduction gearboxes of the VLJ series offer various special advantages:

- Low performance weight due to weight-optimized design
- Compact dimensions
- Integrated hydraulic clutch with smooth engagement
- Low operating noise
- High power to weight ratio

### Gearbox selection

The selection diagram opposite gives an overview of the performance ratings of the basic VLJ types.

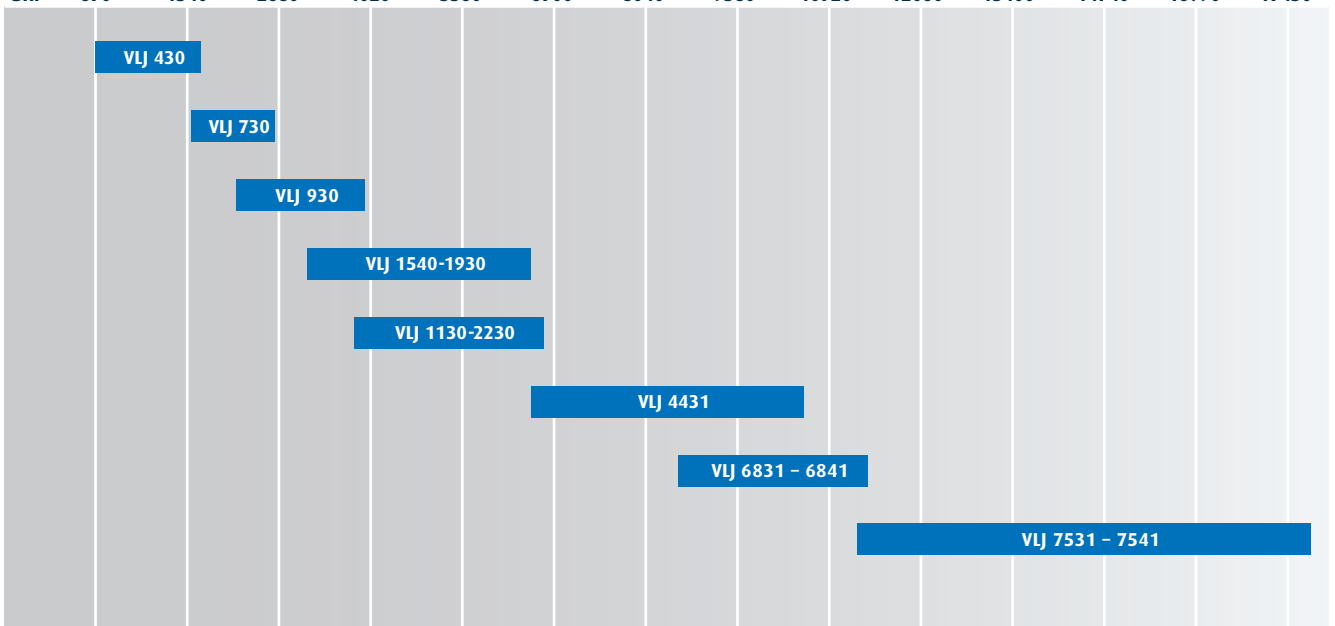
However, for the final selection of gearboxes please contact REINTJES.

D E S I G N E D F O R H I G H D E M A N D S



## Engine power

kW	500	1000	2000	3000	4000	5000	6000	7000	8000	9000	10000	11000	12000	13000
BHP	670	1340	2680	4020	5360	6700	8040	9380	10720	12060	13400	14740	16090	17430

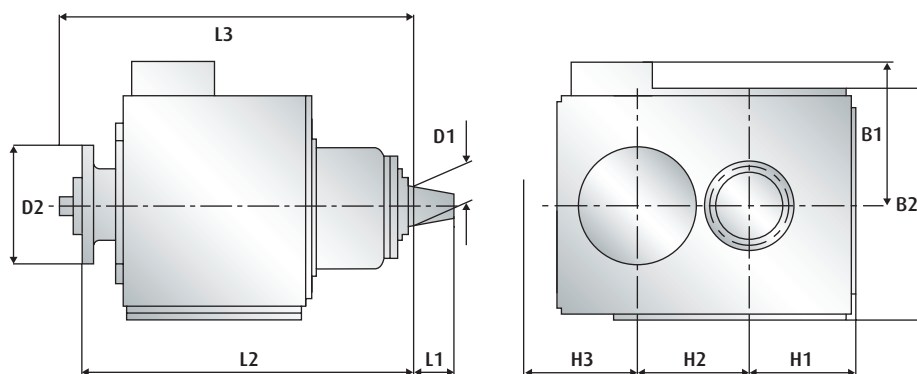


# Marine Gearboxes

## VLJ 430 – 7541

### VLJ 430 – 2230

Reduction gearbox  
with hydraulically  
operated clutch  
Horizontally offset

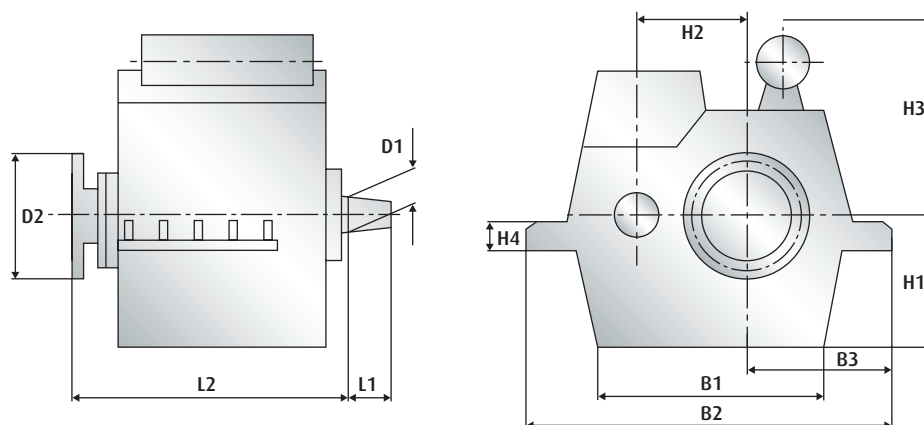


Gearbox VLJ	Main Dimensions (mm)										Weight kg <sup>1)</sup>
	B1	B2	D1	D2	H1	H2	H3	L1	L2	L3	
<b>430</b>	540	550	75	220	270	235	185	97	686	952	360
<b>730/1</b>	600	640	92	260	325	310	220	110	795	1000	560
<b>930/1</b>	680	720	102	280	350	340	240	120	870	1125	740
<b>1540</b>	-	-	-	-	-	-	-	-	-	-	-
<b>1130</b>	720	850	117	350	425	425	270	154	1095	1240	1300
<b>1930</b>	800	830	117	330	400	390	280	154	1032	1300	1150
<b>2230</b>	760	920	127	390	460	460	300	162	1150	1300	1600

1) Gearbox standard design (dry). Dimensions and weights not strictly binding.

### VLJ 4431 – 7541

Reduction gearbox  
with hydraulically  
operated clutch  
Horizontally offset



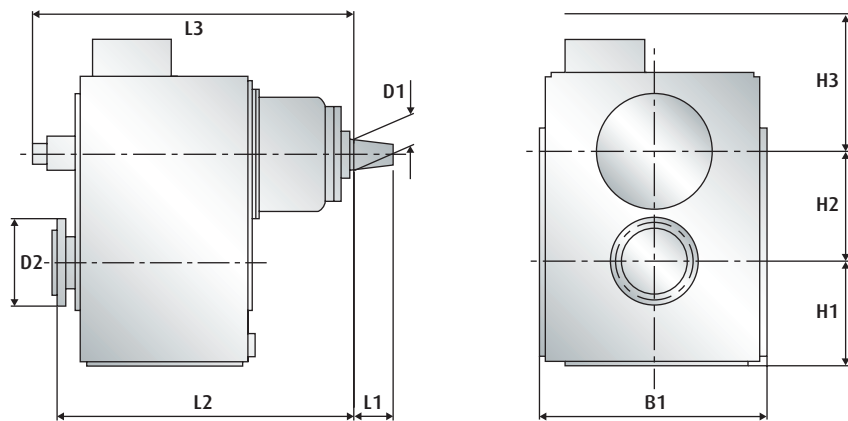
Gearbox VLJ	Main Dimensions (mm)										Weight kg <sup>1)</sup>	
	B1	B2	B3	D1	D2	H1	H2	H3	H4	L1		L2
<b>4431</b>	1050	1750	660	187	550	550	560	800	180	237	1600	3500
<b>6831</b>	1170	1690	600	187	600	565	600	900	180	237	1500	3600
<b>6841</b>	1005	1945	735	187	650	640	650	1000	55	237	1635	4500
<b>7531</b>	1310	1850	680	197	650	600	630	990	180	251	1700	4300
<b>7541</b>	1320	1975	745	197	650	640	665	1000	60	251	1700	4600

1) Gearbox standard design (dry). Dimensions and weights not strictly binding.



## VLJ 430 – 2230

Reduction gearbox with hydraulically operated clutch  
Vertically offset

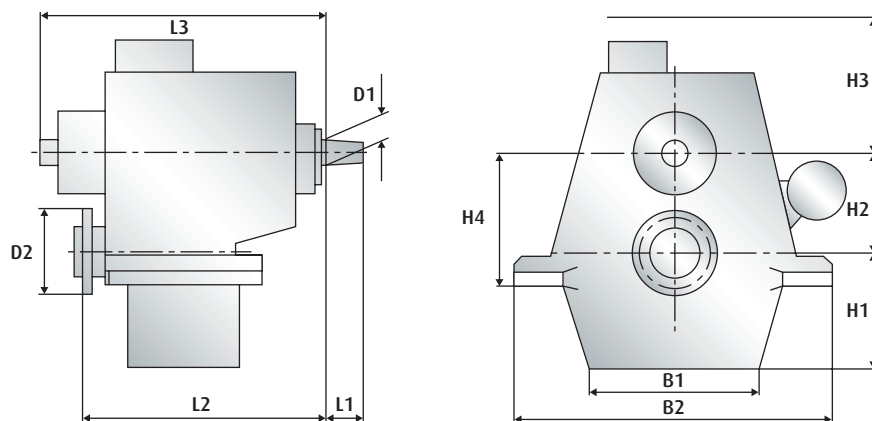


Gearbox VLJ	Main Dimensions (mm)									Weight kg <sup>1)</sup>
	B1	D1	D2	H1	H2	H3	L1	L2	L3	
430	540	75	220	270	235	185	97	686	952	360
730/1	640	92	260	325	310	480	110	795	1000	560
930/1	720	102	280	350	340	500	120	870	1125	740
1540	-	-	-	-	-	-	-	-	-	-
1130	850	117	350	425	425	570	154	1095	1240	1300
1930	800	117	330	400	390	700	154	1032	1300	1150
2230	920	127	390	460	460	600	162	1150	1300	1600

1) Gearbox standard design (dry). Dimensions and weights not strictly binding.

## VLJ 4431 – 7531

Reduction gearbox with hydraulically operated clutch  
Vertically offset

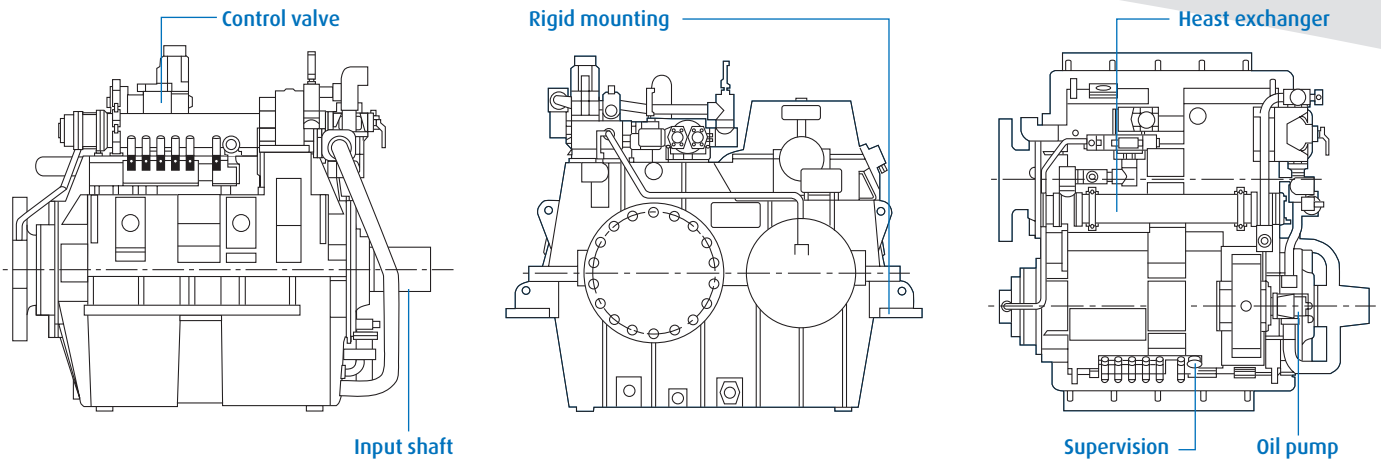


Gearbox VLJ	Main Dimensions (mm)									Weight kg <sup>1)</sup>
	B1	B2	D1	D2	H1	H2	H3	H4	L1	
4431	Main dimensions according to customers requirements.									
6831	Main dimensions according to customers requirements.									
6841	Main dimensions according to customers requirements.									
7531	Main dimensions according to customers requirements.									

1) Gearbox standard design (dry). Dimensions and weights not strictly binding.

# Standards

## VLJ 430 – 7541



### Basic equipment

- Housing made from aluminium alloy
- With cast brackets or prepared for fitting of mounting brackets for foundation connection (VLJ 430-2230 only)
- Vertical, alternative horizontal execution
- Spur wheels helically toothed, case hardened and tooth flank ground
- Built-in hydraulically operated disc clutches with steel/sinter friction surface.
- Smooth engagement by adapted pressure increase during shifting

### Scope of supply

#### STANDARD

- Integrated oil sump. Common circuit for operating pressure and lube oil. Oil pump and oil filter accessible from the outside
- Fitted heat exchanger for cooling water inlet temperature of max. 32°C, seawater resistant
- Supervision instruments for pressure and temperature
- Built-on control valve, electrically or pneumatically operated
- Input: free shaft end with taper 1:30
- Output: forged-on flange
- Paint coating with synthetic resin varnish in all RAL-colours

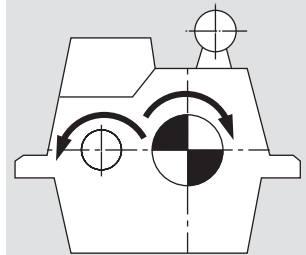
#### EXTRAS

- Rigid, alternative resilient mounting (VLJ 430-2230 only)
- Supervision instruments in accordance with class requirements
- Spare parts kit as per classification rules

In addition to our comprehensive standard VLJ gearboxes, we offer customers special systems individually tailored to meet their propulsion unit requirements.

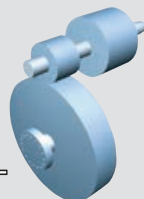
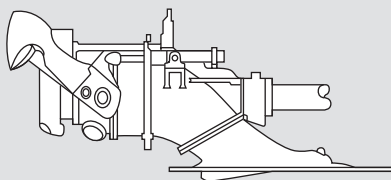
### Direction of rotation VLJ

Seen from waterjet onto engine flywheel  
anticlockwise  
clockwise



### VLJ series

Reduction gear for water jet propulsion



Vertically and horizontally offset available





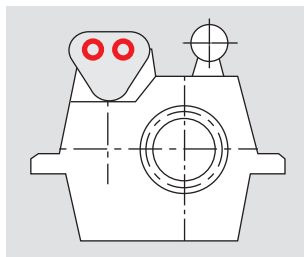
# O P T I O N S   A N D   F E A T U R E S



## Options

### POWER TAKE OFF (PTO)

If required, the gearboxes can be fitted with additional Power Take Off (PTO; application: hydraulic pumps).



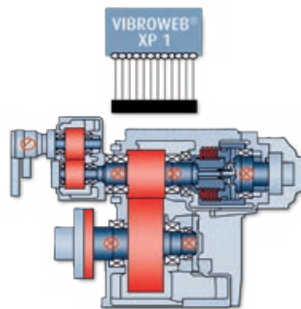
### DVLJ SERIES

V LJ gearboxes are also available in twin input/single output execution.



### CONDITION MONITORING

Monitoring for all key data for proactive maintenance and management.



### UNATTENDED MACHINERY SPACE

All gearboxes can be supplied with additional supervision instruments, according to classification society rules, enabling the operator to take all necessary information from the bridge.

## Duty cycle classification



### Medium duty

- Intermittent operation with some variations in engine speed and power
- Average engine operating hours limit: 4,000 hours/year
- Allowable hull forms: planing, semi-planing, catamaran
- Allowable applications: private, charter and commercial craft, navy and police activity (example: crew boats, high speed ferries)



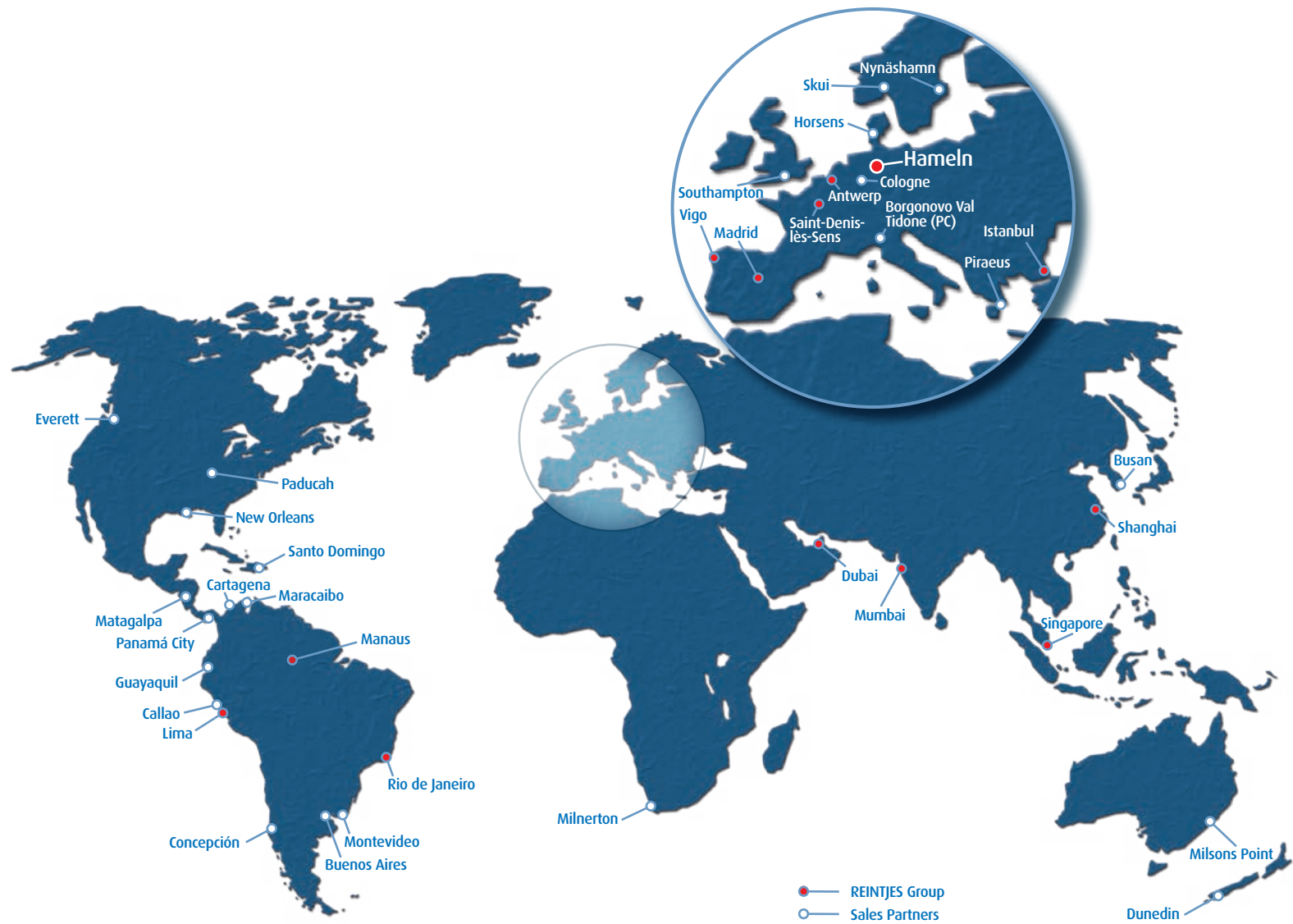
### Continuous duty (from VLJ 1130 on)

- Continuous operation with little or no variations in engine speed and power
- Average engine operating hours: unlimited
- Allowable hull forms: semi-displacement, displacement
- Allowable applications: commercial vessels

Other duty cycles for special applications such as patrol boats, rescue vessels etc. on request.

## Approved quality

Several renowned classification societies have granted REINTJES permission to conduct inspection and approval procedures themselves. In the same way many gearbox types come with a drawing approval for the main classification societies. Since 1990 REINTJES has been certified to DIN ISO 9001/EN 29001.



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