

Gearboxes for  
**Work Boats**

VA 2451 – 4855 | 3,000 – 20,000 kW



# Applications for Work Boats

## VA 2451–4855



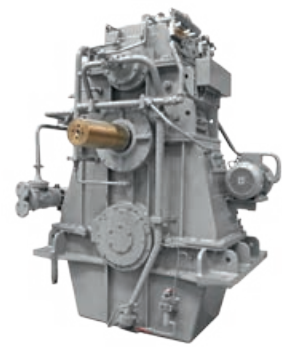
Reduction gearbox with PTO, vertically offset



Reduction gearbox with PTO, vertically offset



Reduction gearbox with PTO, vertically offset



Reduction gearbox with PTO/PTH, vertically offset

### Advantages

Gearboxes of the VA series have been specially developed for work boats such as tugs, container vessels, freighter, tanker and special-purpose ships with similarly high performance demands. We have the backing of over 80 years of experience in marine gearbox production and use state-of-the-art computation tools and production technologies.

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

- High operating reliability
- Simple operation and maintenance
- Compact dimensions
- Low operating noise

### Gearbox selection

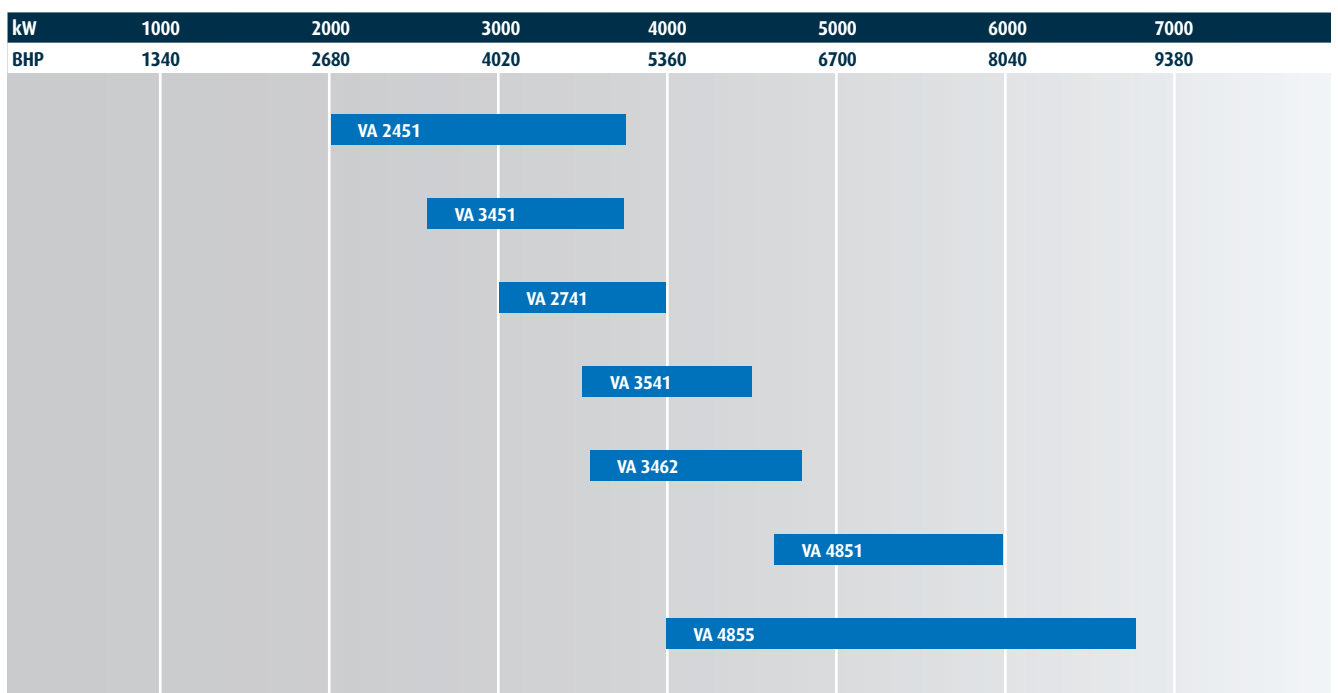
The selection diagram opposite gives an overview of the performance ratings of the basic VA types.

For the final selection of gearboxes please contact REINTJES.

DESIGNED FOR HEAVY DUTY APPLICATIONS



## Engine power

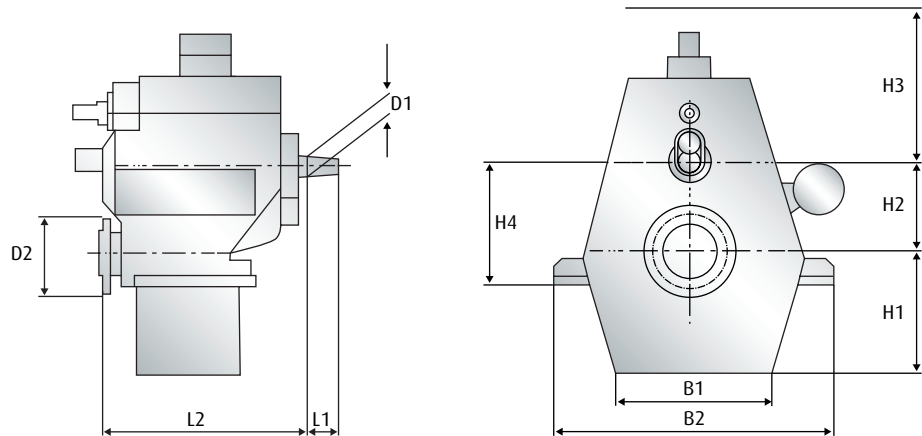


# Marine Gearboxes

## VA 2451 – 4855

### VA 2451 – 4855

Reduction gearbox  
Vertically offset

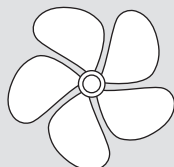


Gearbox VA	Main Dimensions (mm)										Weight kg <sup>1)</sup>
	B1	B2	D1	D2	H1	H2	H3	H4	L1	L2	
2451	1090	1650	157	600	660	600	890	820	183	1487	5100
2741	800	1650	187	600	720	560	840	760	237	1407	5500
3451	1100	2000	187	650	860	720	860	940	237	1450	8700
3462	1720	2150	187	650	900	820	1080	1040	237	1666	10200
3541	1000	1780	197	650	760	630	840	850	251	1485	7600
4851	1230	2250	197	750	900	820	970	1040	263	1566	12000
4855	1220	2000	217	750	880	850	970	1130	306	1626	12500

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

### VA series

Reduction gearbox for  
propulsion with controll-  
able pitch propeller

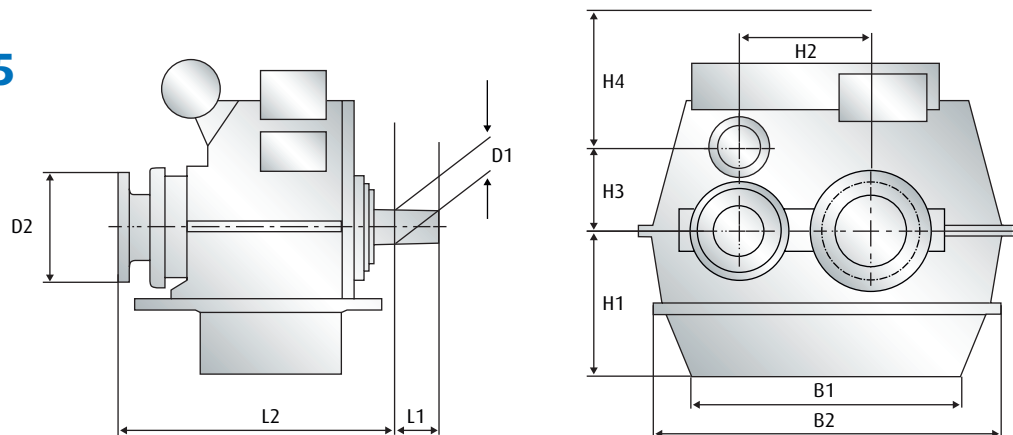


Counter rotation  
of input and output



## VA 2451 – 4855

Reduction gearbox  
Horizontally offset

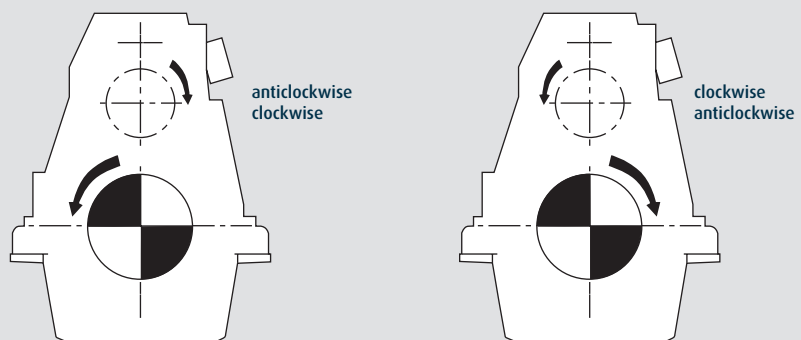


Gearbox VA	B1	B2	D1	D2	Main Dimensions (mm)				L1	L2	Weight kg <sup>1)</sup>
2451	1535	1935	220	770	650	560	430	650	250	1700	5100
3451	1470	1890	187	650	810	720	455	940	237	1747	8700
3541	1340	1850	220	650	760	630	472	828	251	1600	7600
4855	2050	2460	190	690	880	900	500	1300	266	1934	12500

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

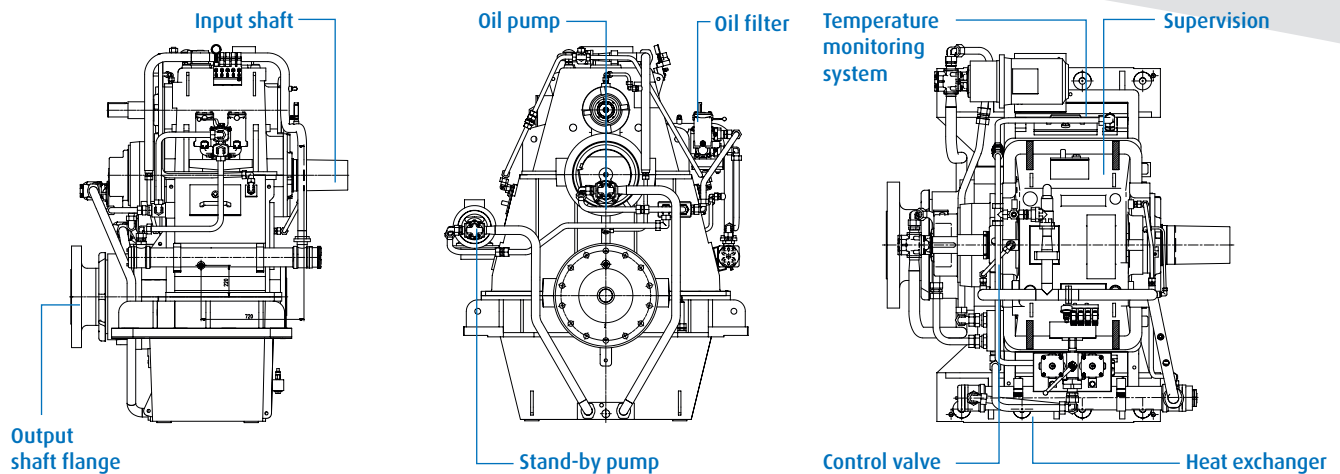
## Direction of rotation VA

Seen from propeller onto engine flywheel in direction of travel ahead



# Standards

## VA 2451 – 4855



### Basic equipment

- Housing made from grey cast iron or steel in torsion stiff design, rigid mounting
- Spur wheels helically toothed, case hardened and tooth flank ground
- The pinion and output shaft are supported in roller bearings. The input shaft and the PTO shaft are supported in roller bearings

### 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. 38°C, seawater resistant
- Input: free shaft end with taper 1:30
- Output: forged-on-flange
- Paint coating with synthetic resin varnish.

- Supervision
  1. Temperature sensor (2xPT100) – oil temperature behind heat exchanger
  2. Temperature supervision system of slide bearings
  3. Filter contamination – electrical signal for “filter contaminated”
  4. Thermometer – oil temperature before and behind heat exchanger
  5. Pressure gauge for operating oil pressure

#### EXTRAS

- Supervision instruments as per classification rules
- Special PTO executions
- Spare part kit as per classification rules
- Heat exchanger for cooling water temperature higher than 38°C
- Special reduction ratios
- Stand-by pump

Subject to change



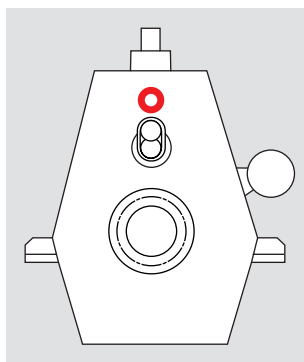
# O P T I O N S   A N D   F E A T U R E S



## Options

### SINGLE POWER TAKE OFF (PTO) / SINGLE POWER TAKE IN (PTI)

If required, the gearboxes can be fitted with additional Power Take Off (PTO) and Power Take In (PTI).

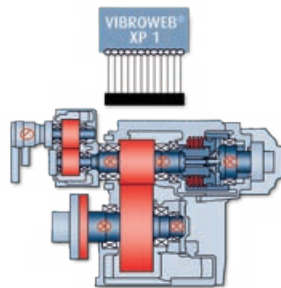


### UNATTENDED MACHINERY SPACE

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.

### CONDITION MONITORING

Monitoring for all key data for proactive maintenance and management available.



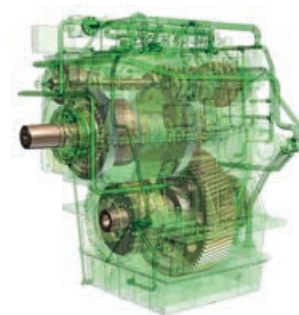
### OD-BOX

For all customary CPP systems, the output shaft can be provided with a centre bore and a connection for the oil distributor box.



### POWER TAKE OFF (PTO)-/ POWER TAKE HOME (PTH)- COMBINATION

Secondarily driven PTO in combination with secondary PTH. Different propeller speed for PTH-operation or for operation with main engine possible.



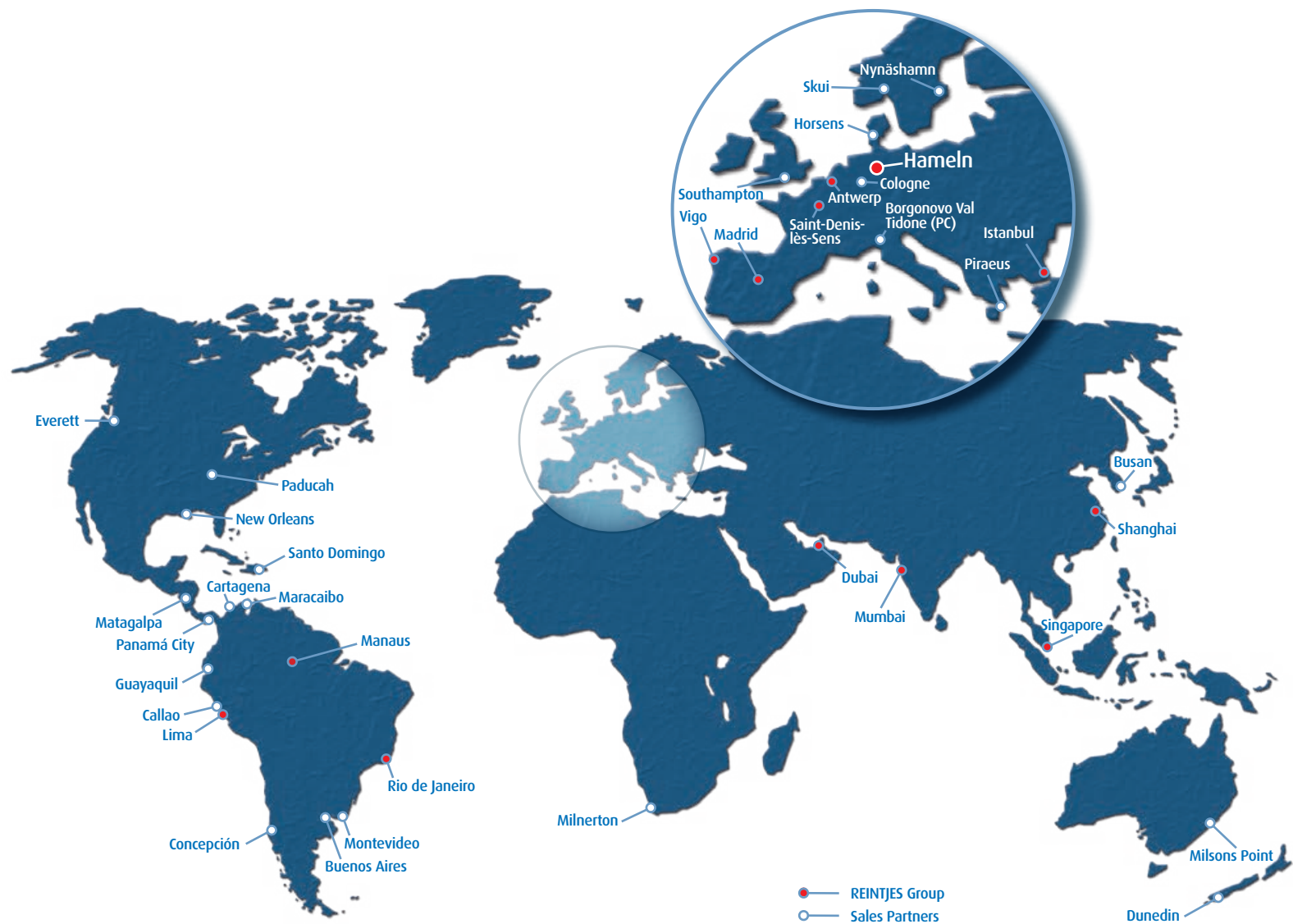
## C Duty cycle classification

### CONTINUOUS DUTY

- 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

## 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 or full classification for the main classification societies (IACS members). Since 1990 REINTJES has been certified to DIN ISO 9001/EN 29001.



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