Applications for:

Fast Vessels WVS/WLS
Engine Rating up to 1,400 kW

Fast Vessels WVS/WLS
Engine Rating up to 5,000 kW

Fast Ferries VLJ
Engine Rating up to 13,200 kW

Work Boats WAF/LAF
Engine Rating up to 1,200 kW

Work Boats WAF/LAF
Engine Rating up to 8,500 kW

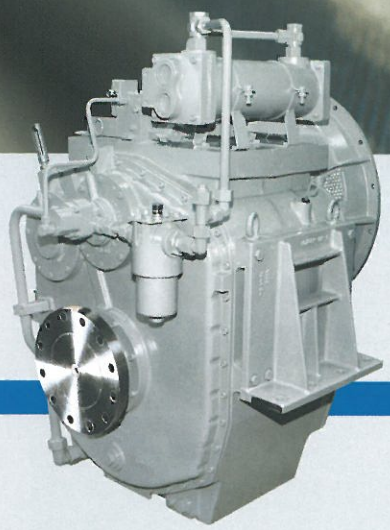
Work Boats 250 - 1,200 kW

WAF/LAF 144-572

Work Boats VA
Engine Rating up to 6,000 kW

Work Boats DLG/DLGF
Engine Rating up to 15,000 kW

Work Boats SVA[1]/SVAL[2]
Engine Rating[1] up to 20,000 kW
Engine Rating[2] up to 13,000 kW

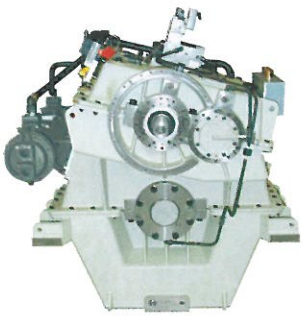


YOUR PARTNER FOR THE FUTURE

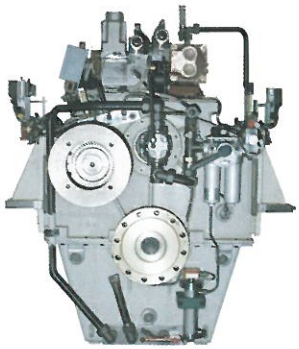
REINTJES

Applications for **Work Boats**

WAF/LAF 144 - 572

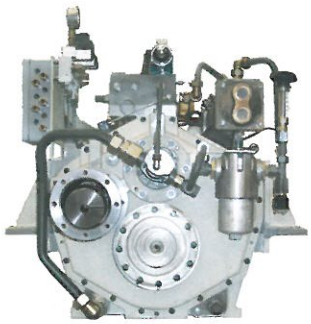


Reverse-reduction gearbox, vertically offset



Reduction gearbox with special supervision and PTO incl. SAE pads, vertically offset

Reverse-reduction gearbox, vertically offset



Reverse-reduction gearbox with special supervision and PTO incl. SAE pads, vertically offset

Advantages

Gearboxes of the WAF and LAF series have been specially developed for work boats such as tugs, fishing vessels , inland waterway crafts, ferries and special-purpose ships with similarly high performance demands.
We have the backing of over 75 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 hydraulically operated reverse-reduction gearboxes of the WAF series, as well as the reduction gearboxes of the LAF series offer various special advantages:

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

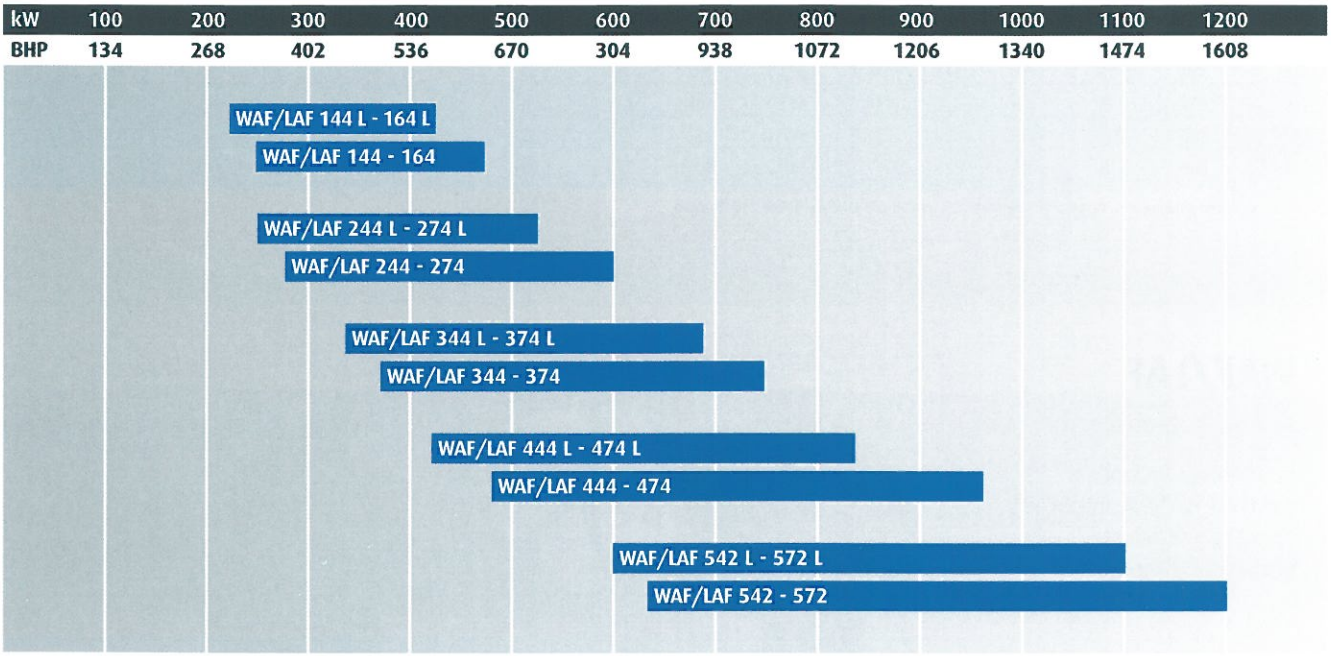
Gearbox Selection

The selection diagram opposite gives an overview of the performance ratings of the basic WAF and LAF types. These also apply for WAF/L, and LAF/L units.

However, for the final selection of gearboxes only the ratings of the applicable gearbox selection table are binding.

D E S I G N E D F O R H E A V Y D U T Y A P P L I C A T I O N S

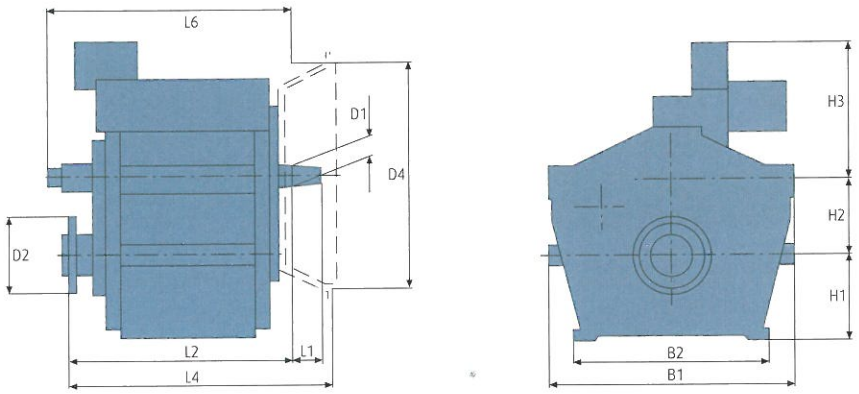

BF 110
OB-45
OB-45


kW 100 200 300 400 500 600 700 800 900 1000 1100 1200
BHP 134 268 402 536 670 304 938 1072 1206 1340 1474 1608
WAF/LAF 144 L - 164 L
WAF/LAF 144 - 164
WAF/LAF 244 L - 274 L
WAF/LAF 244 - 274
WAF/LAF 344 L - 374 L
WAF/LAF 344 - 374
WAF/LAF 444 L - 474 L
WAF/LAF 444 - 474
WAF/LAF 542 L - 572 L
WAF/LAF 542 - 572

Marine gearboxes
WAF/LAF 144-572

WAF/LAF 144 - 464

Reverse-reduction gearbox with hydraulically operated clutches.
Vertically offset

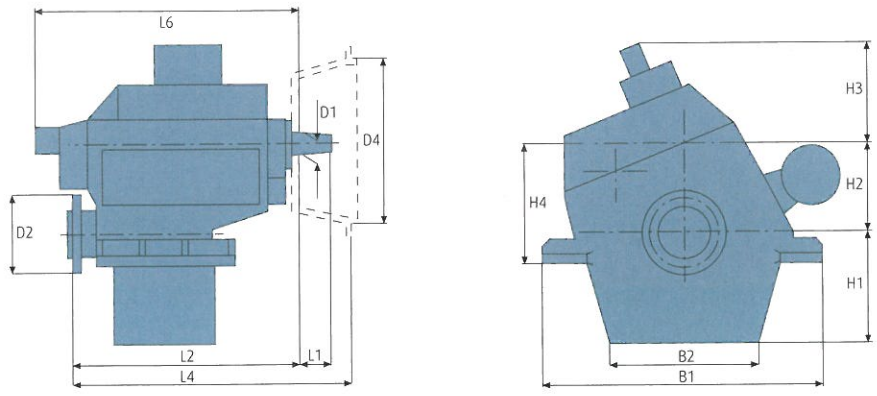


Gearbox WAF/ LAF	Main dimensions (mm) B1	B2	D1	D2	D4 SAE 1 Norm	D4 SAE 0 Norm	H1	H2	H3	L1	L2	L4 SAE 1/ SAE 0	L6	Weight kg[1] WAF	LAF
144	640	530	55	240	511.2	647.7	240	215	350	70	565	625	685	455	405
164	660	505	55	285	511.2	647.7	315	290	370	70	595	655	685	525	475
244	640	530	55	240	511.2	647.7	240	215	355	70	560	625	685	455	405
264	670	540	55	285	511.2	647.7	345	315	365	70	595	660	685	700	650
274	830	700	55	325	511.2	647.7	420	380	365	70	600	665	690	725	675
344	720	570	60	285	511.2	647.7	265	250	395	80	645	750	740	555	505
364	750	580	60	325	511.2	647.7	380	345	415	80	665	775	755	810	740
374	930	800	60	325	511.2	647.7	460	410	430	80	670	775	860	1200	1130
444	740	495	75	300	511.2	647.7	285	270	505	95	720	820	810	760	695
464	800	575	75	325	511.2	647.7	400	375	510	95	725	825	810	940	880

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

WAF/LAF 474 + 572

Reverse-reduction gearbox with hydraulically operated clutches.
Vertically offset



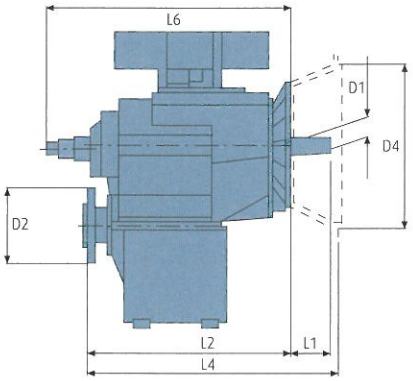
Gearbox WAF/ LAF	Main dimensions (mm) B1	B2	D1	D2	D4 SAE 1 Norm	D4 SAE 0 Norm	D4 SAE 00 Norm	H1	H2	H3	H4	L1	L2	L4 SAE 1 Norm	L4 SAE 0 Norm	L4 SAE 00 Norm	L6	Weight kg[1] WAF	LAF
474	1310	760	75	350	511.2	647.7	-	510	460	330	600	95	745	845	845	-	810	1830	1700
572	1360	690	75	375	-	647.7	787.4	575	505	500	645	95	835	-	955	970	980	2360	2190

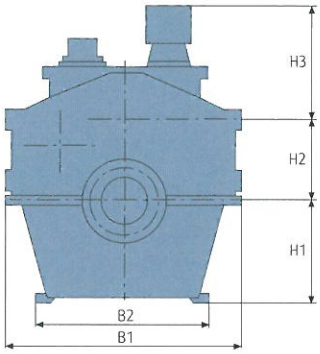
[1] Gearbox standard design (dry). Dimensions and weights not strictly binding. Subject to changes.

REINTJES

WAF/LAF 542 + 562

Reverse-reduction gearbox with hydraulically operated clutches.
Vertically offset



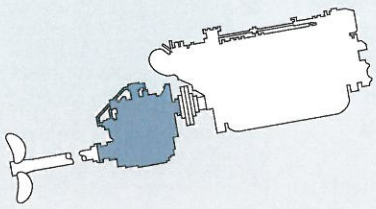


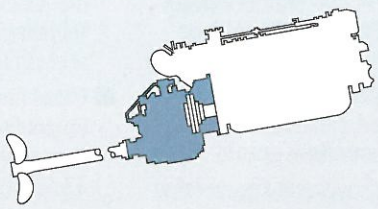
Gearbox WAF/ LAF	Main dimensions (mm) B1	B2	D1	D2	D4 SAE 0 Norm	D4 SAE 00 Norm	H1	H2	H3	L1	L2	L4 SAE 0 Norm	L4 SAE 00 Norm	L6	Weight kg[1] WAF	LAF
542	840	530	75	325	647.7	787.4	380	310	540	95	775	895	910	935	1035	925
562	920	570	75	350	647.7	787.4	475	410	550	95	820	940	960	1060	1440	1320

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

WAF series

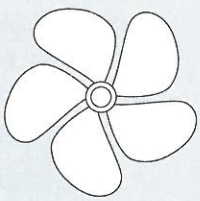
Free-standing
Close-coupled

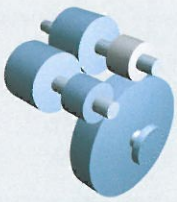




WAF series

Reverse-reduction gearbox for propulsion with fixed pitch propeller

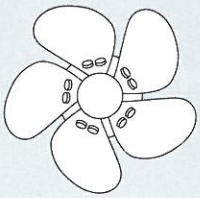




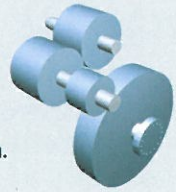
Counter or identical rotation of input and output as standard.

LAF series

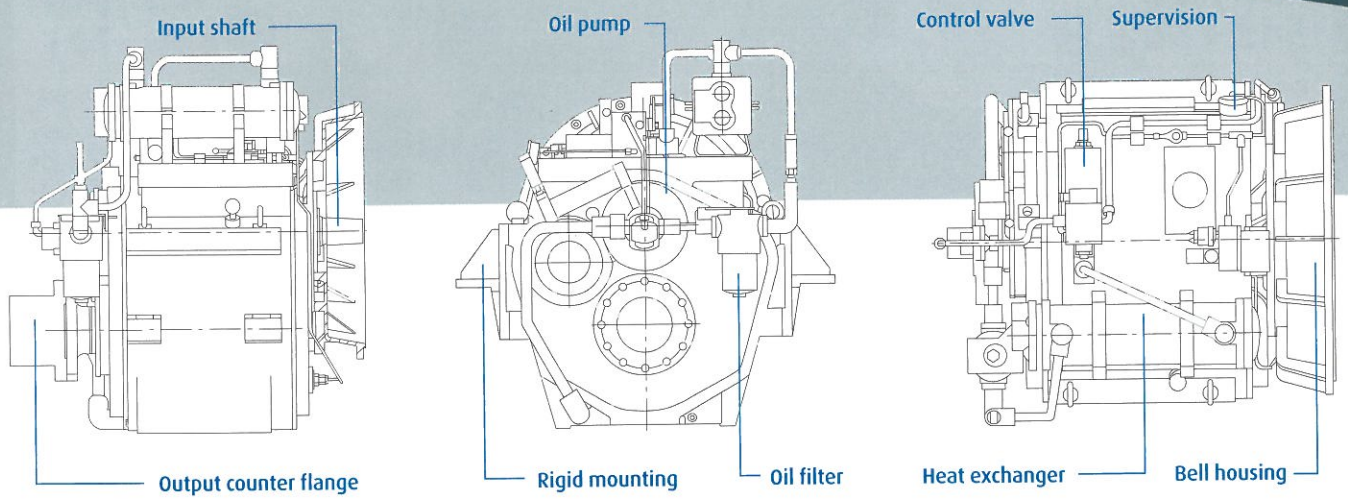
Reduction gearbox for propulsion with controllable pitch propeller



Counter rotation of input and output as standard, identical rotation available as option.



Standards WAF/LAF 144-572



Basic Equipment

- Housing made from grey cast iron
- Prepared for mounting of SAE bell housings as well as mounting brackets for foundation connection
- 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
- Full power transmission in both output senses of rotation

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
- Fitted pressure gauge for operating pressure as well as connection facility for remote supervision of pressure and temperature
- Built-on control valve, mechanically operated
- Emergency control: in case of failure of operating pressure the disc clutch can be locked mechanically
- Input: free shaft end with taper 1:30
- Output: forged-on-flange
- Paint coating with synthetic resin varnish. Colour: RAL 7023 concrete grey

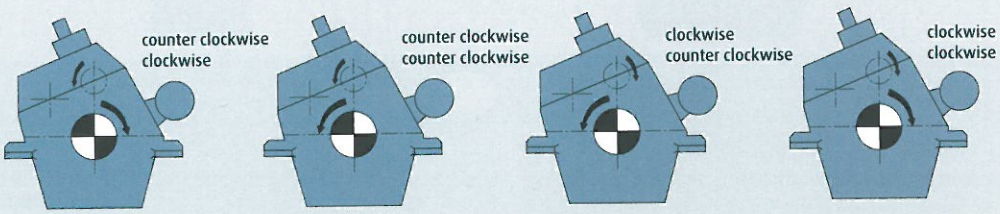
EXTRAS

- Rigid mounting
- SAE bell housing
- Flexible coupling
- Supervision instruments
- PTO executions incl. SAE pads
- Spare part kit as per classification rules
- Paint coating with synthetic resin varnish in all RAL-colours
- Heat exchanger for cooling water temperature higher than 32 °C
- PTO execution K 21
- Control valve, electrically or pneumatically operated
- Resilient mounting
- Special reduction ratios
- Connection facility for electrical stand-by or trailing pumps

Subject to changes

Direction of rotation WAF/LAF

Seen from propeller onto engine flywheel in direction of travel ahead



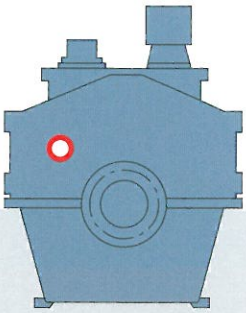
REINTJES

OPTIONS AND FEATURES

Options

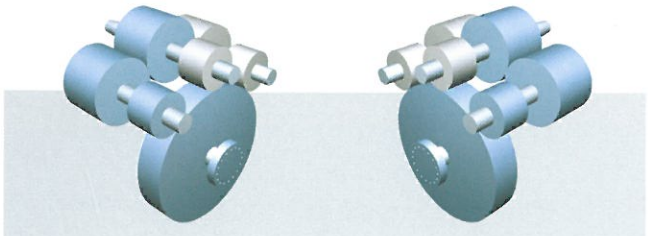
POWER TAKE OFF (PTO)

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



TWO-SPEED GEARBOXES

Two selectable gear ratios are provided between input and output shaft. This ensures optimal operation of the ship.



Duty Cycle Classification

MEDIUM DUTY

M

- 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

C

- 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.

REINTJES

XMH

YOUR CONNECTION
TO THE RIGHT MACHINE

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