

S • DRIVE
Transmission



Manuale d'installazione - Installation handbook

DESCRIZIONE

La trasmissione Sail Drive Lombardini Marine è costruita utilizzando ingranaggi in acciaio temprato e cementato; il corpo frizione è in bronzo a forma di doppio cono; il dispositivo di innesto è del tipo a servocomando meccanico.

DESCRIPTION

Lombardini Marine Sail Drive transmission is made with hardened and casehardened steel gears; clutch is bronze made and has double-cone shape; coupling device is mechanical servo control type.



PRECAUZIONI AL MONTAGGIO

Prima del montaggio proteggere l'albero scanalato con grasso idrofugo. L'allineamento del motore e della trasmissione deve essere orizzontale.



ASSEMBLY PRECAUTIONS

Before installing protect the splined shaft with waterproof grease. Engine and transmission alignment must be horizontal.



IMPORTANTE

In navigazione, un brusco passaggio dalla posizione marcia avanti a quella di marcia indietro, senza sosta al punto di folle, potrebbe causare seri danni agli ingranaggi ed alla testa della trasmissione.



IMPORTANT

During sailing, a sudden change from forward to rear speed, without stopping on the neutral position, may be cause of serious damages to gears and head transmission.

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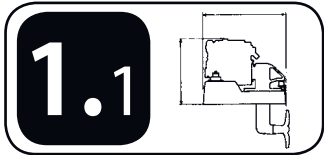
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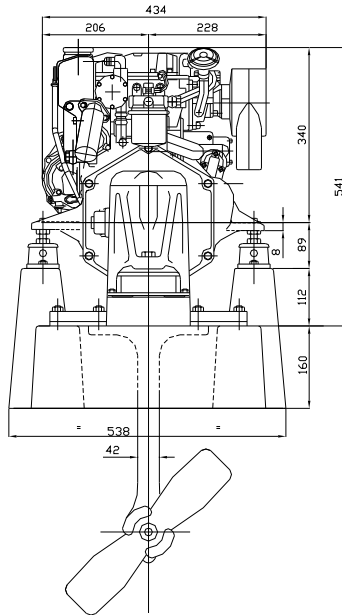


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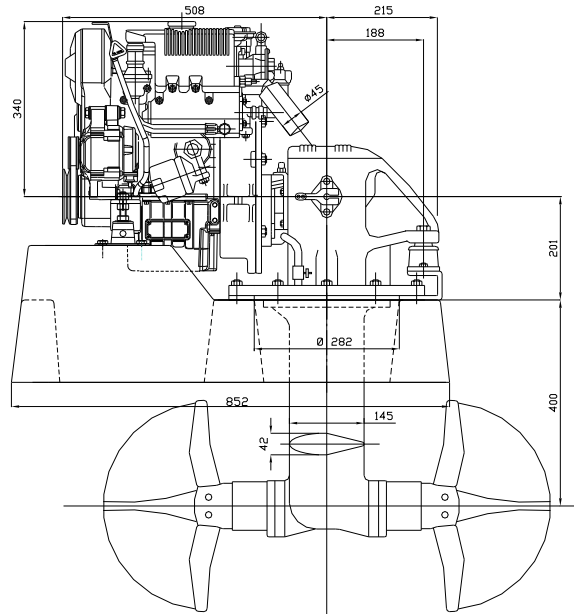
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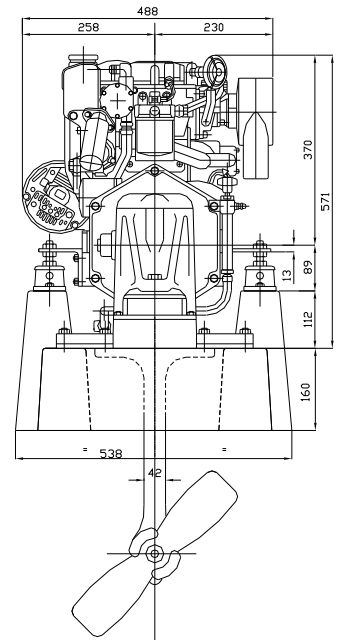
DIMENSIONI D'INGOMBRO "FOCS"
OVERALL DIMENSIONS "FOCS"



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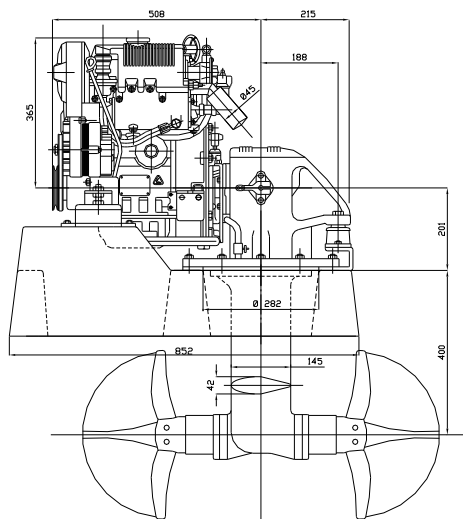
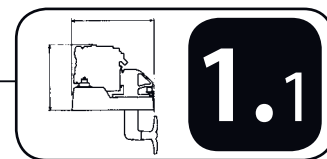


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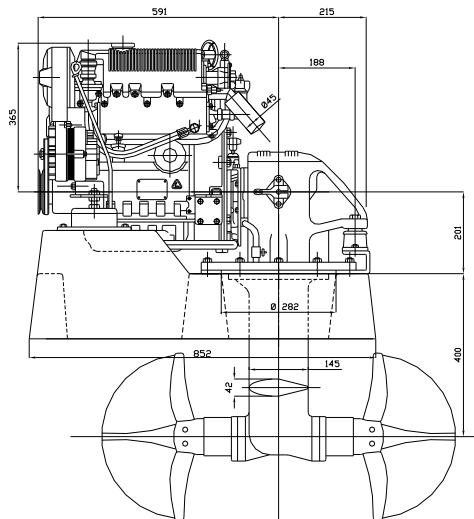


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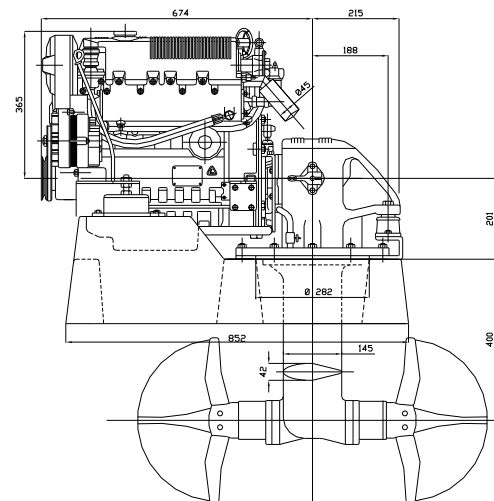
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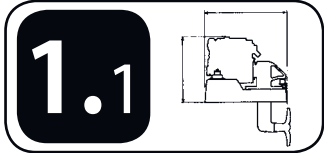
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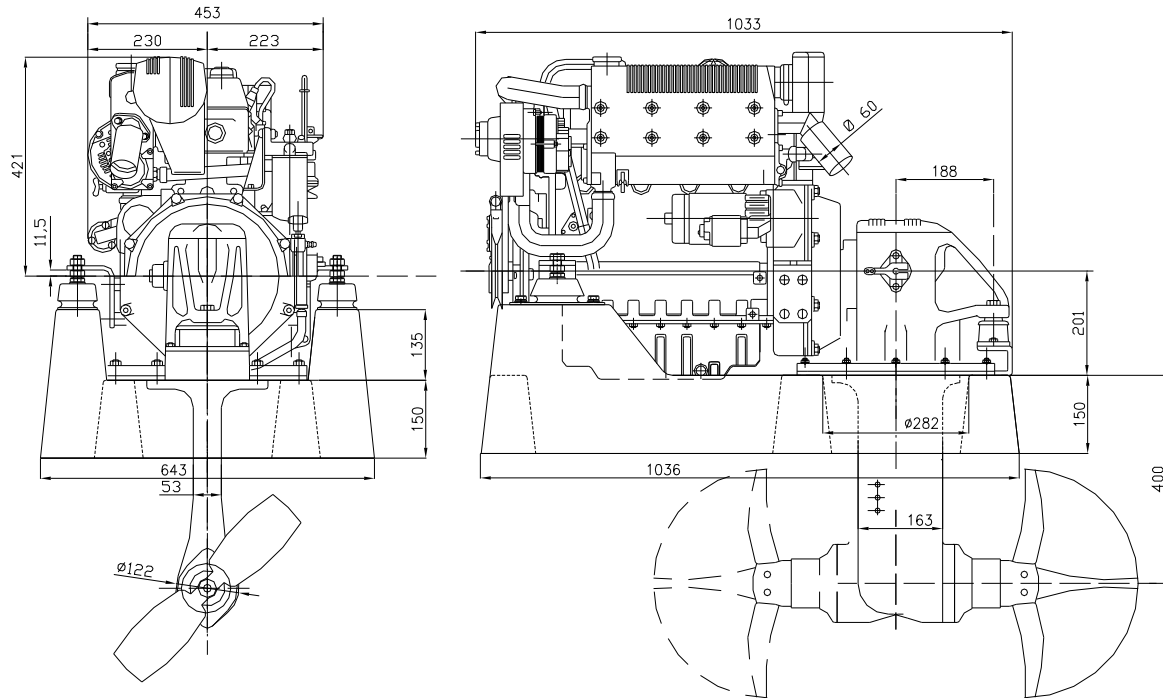
LDW 1003 SD



LDW 1404 SD

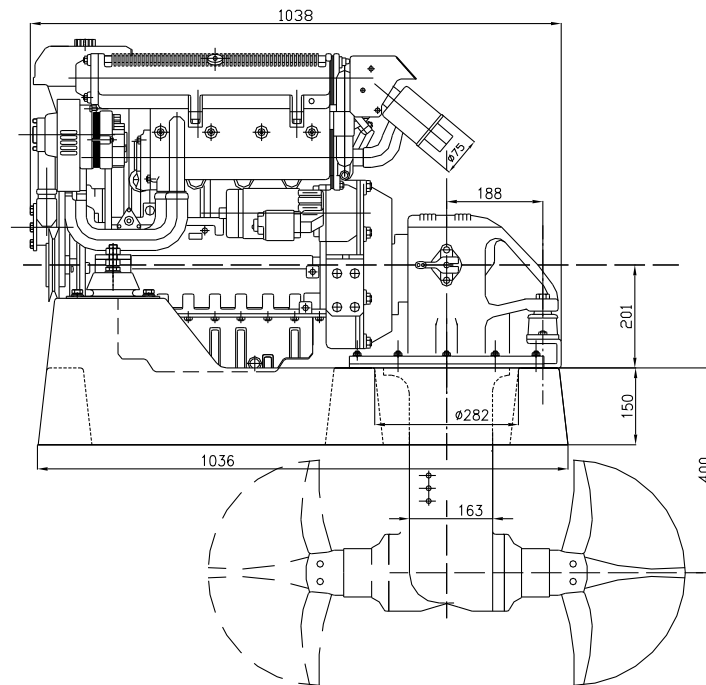
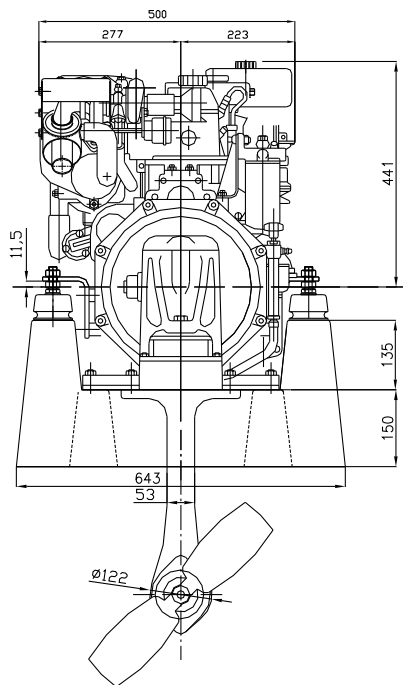
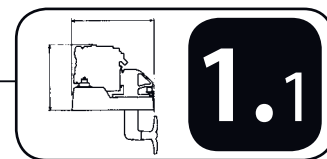


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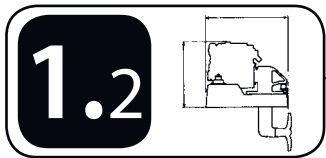


LDW 1904 SD - LDW 2204 SD

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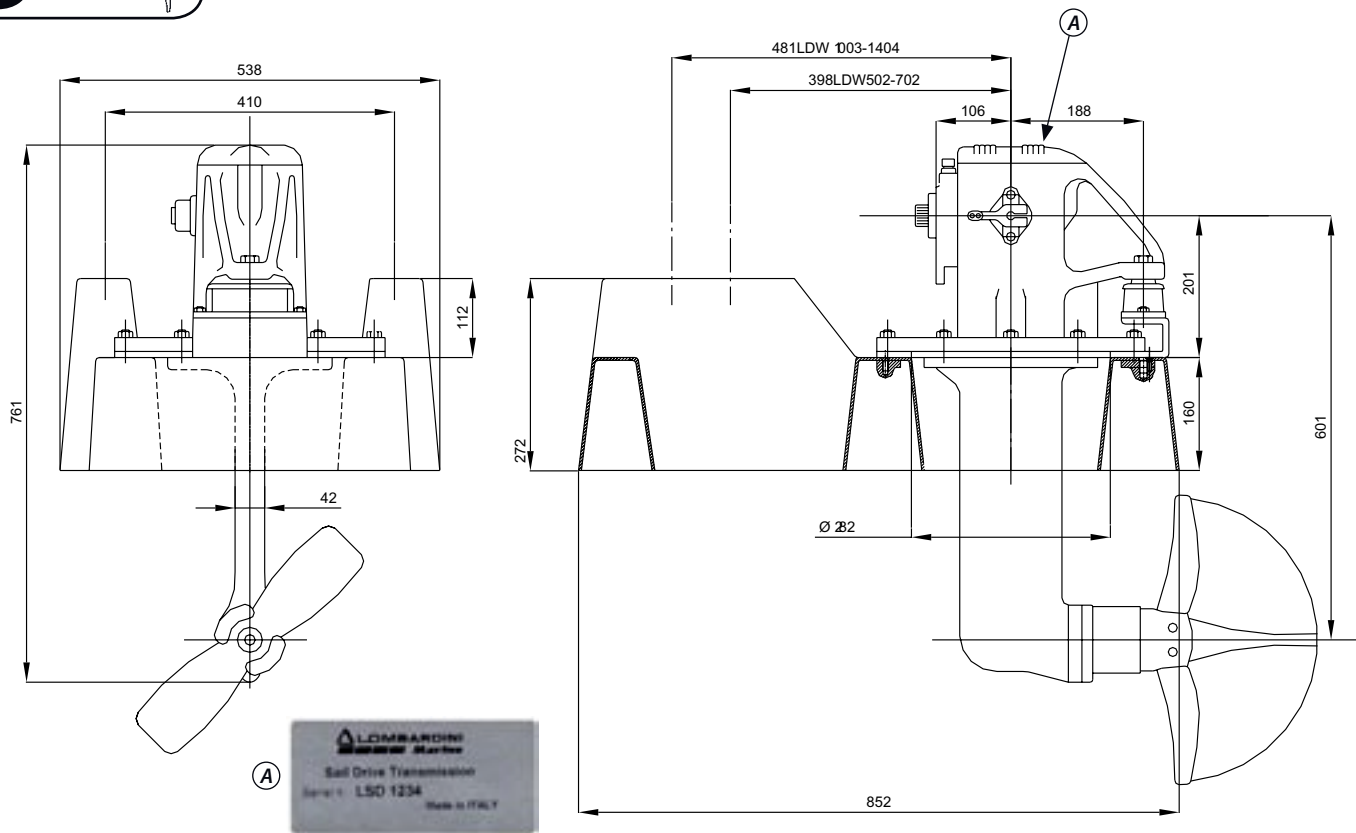


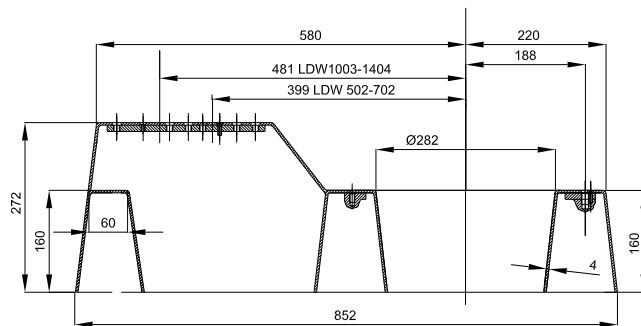
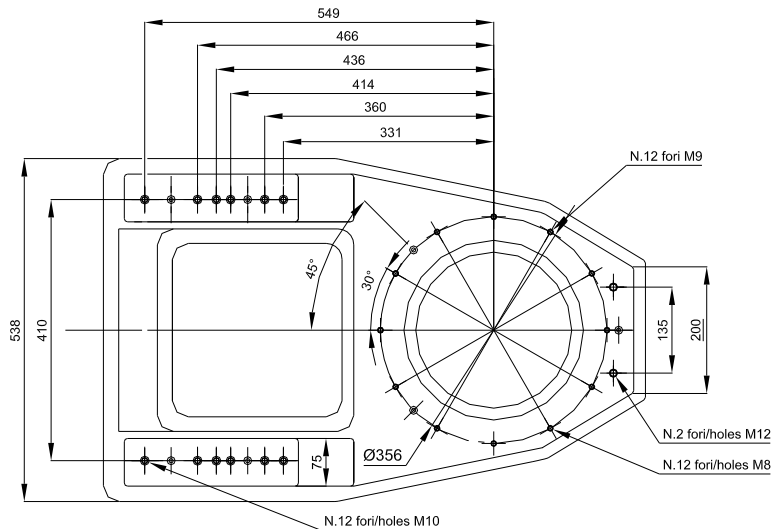
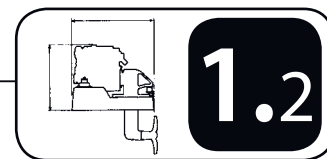
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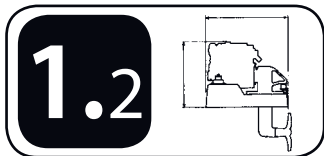


S-DRIVE "FOCS"

DIMENSIONI D'INGOMBRO
OVERALL DIMENSIONS

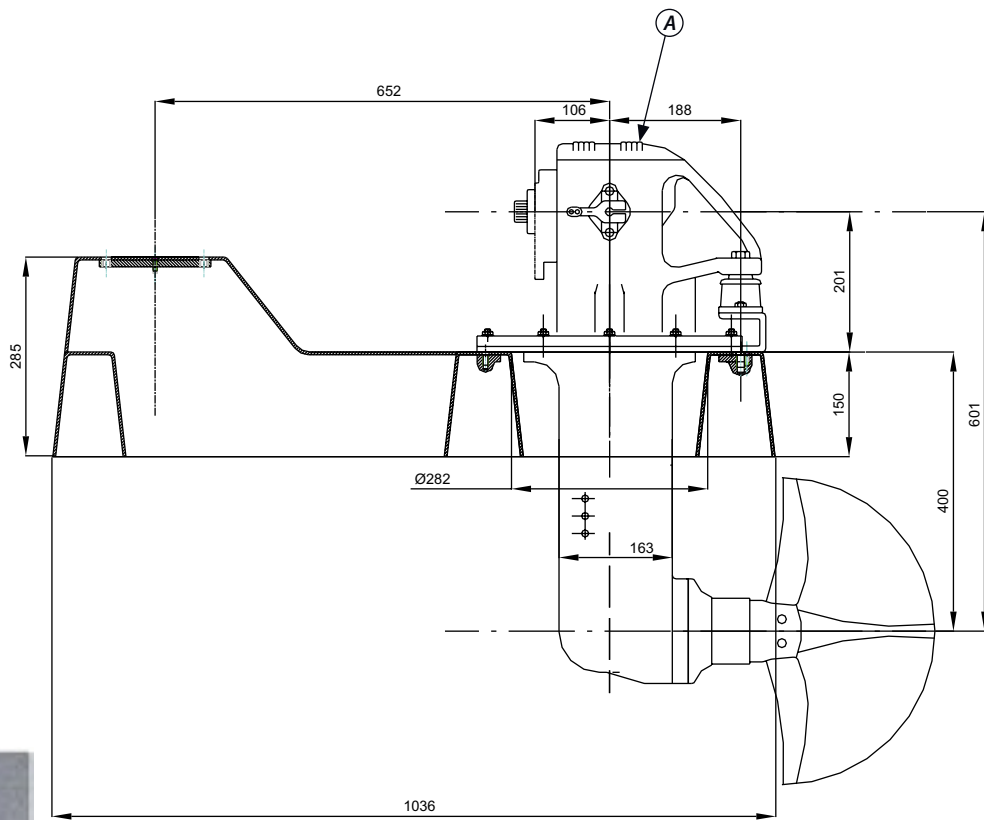
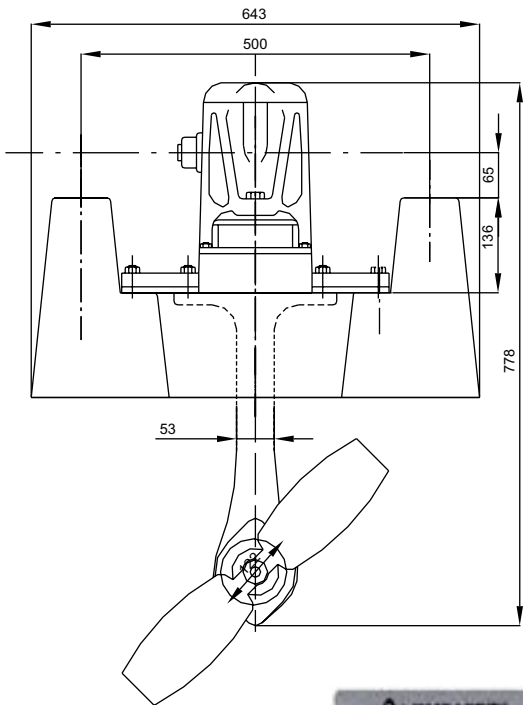




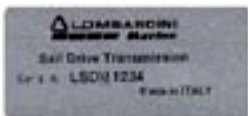


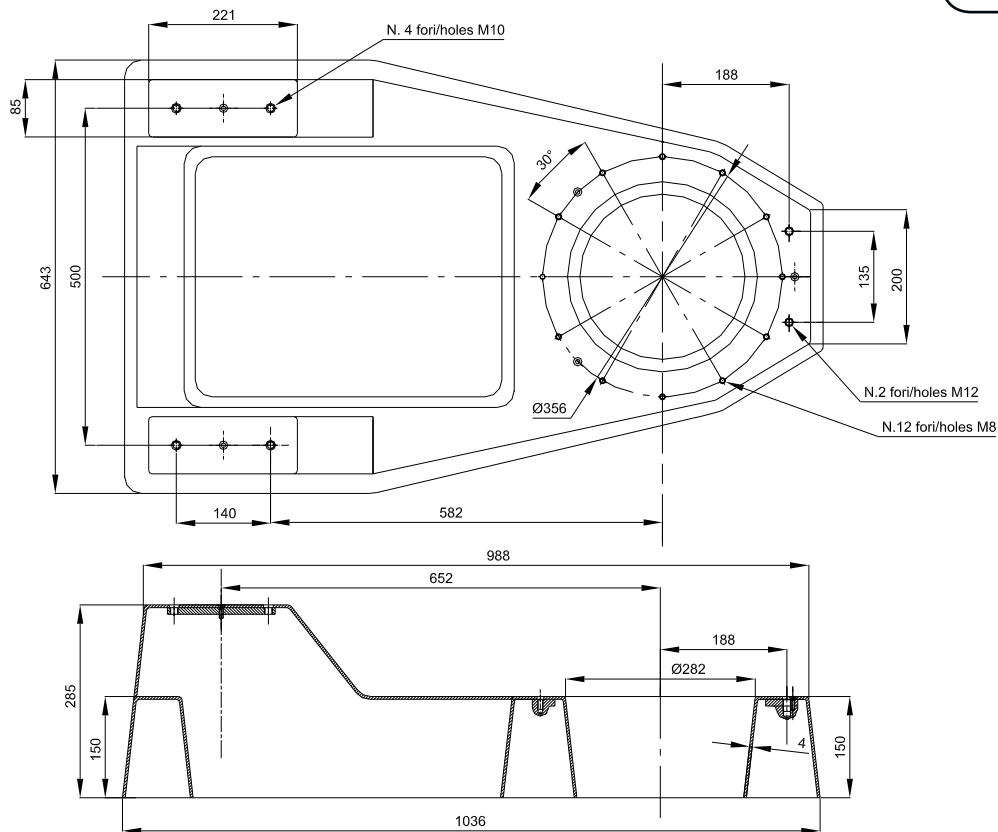
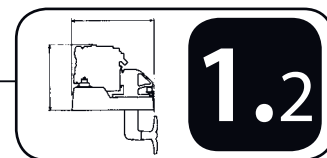
S-DRIVE "CHD"

**DIMENSIONI D'INGOMBRO
OVERALL DIMENSIONS**

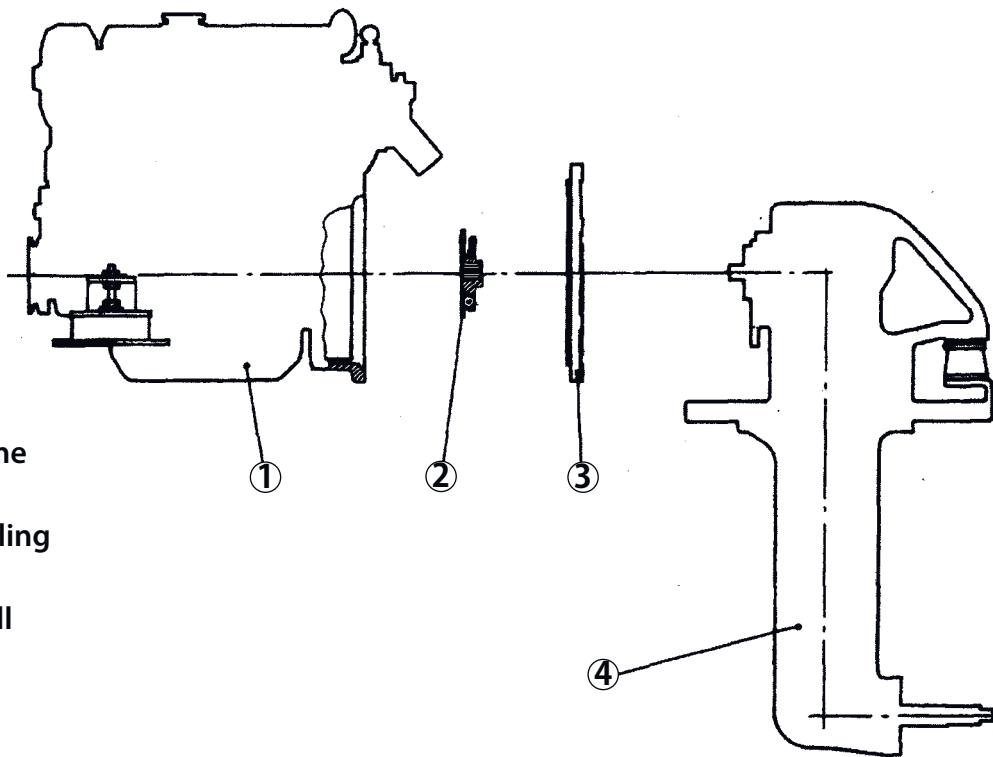
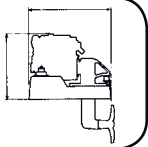


A





1.3

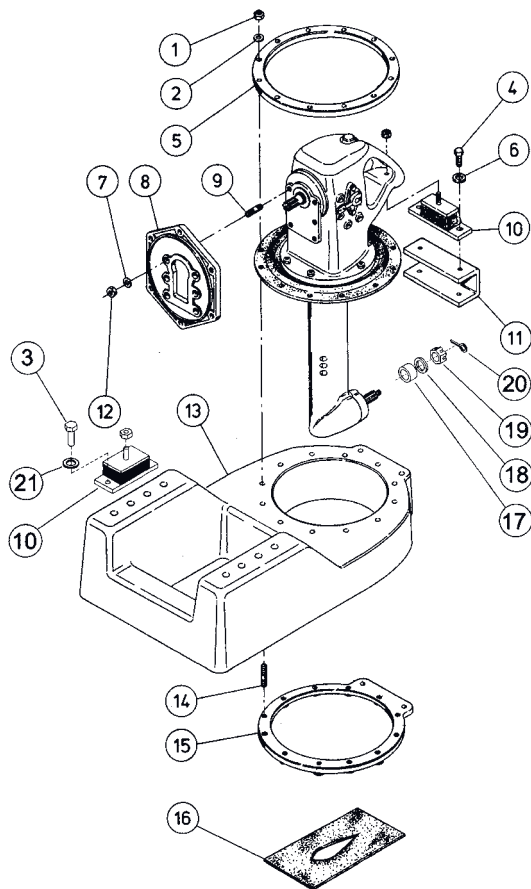
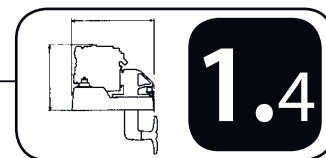


① Motore / Engine

② Giunto / Coupling

③ Campana / Bell

④ S. Drive



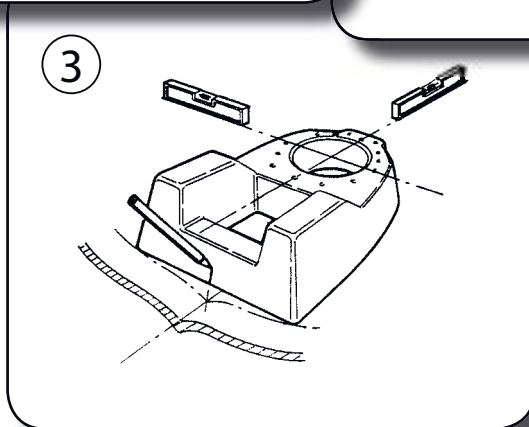
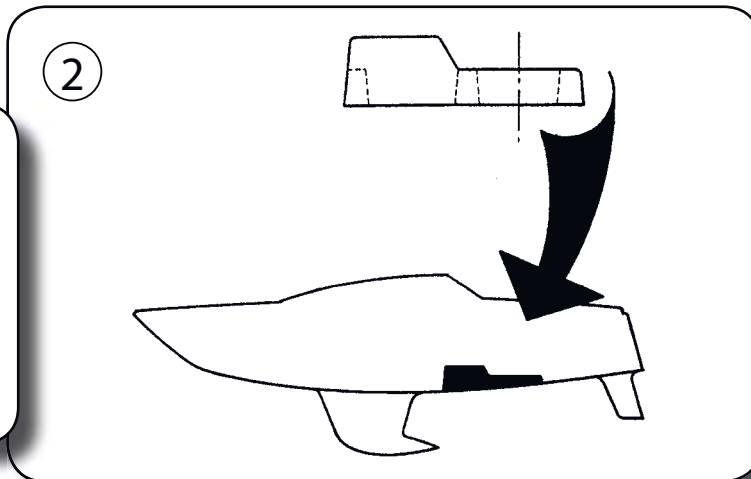
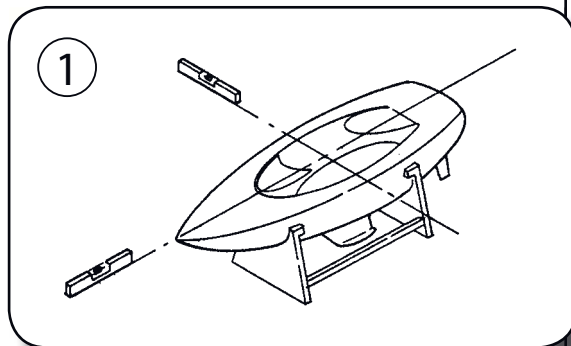
- | | | |
|----|-------------------------------|------------------------|
| 1 | dado autobloccante | Stopnut |
| 2 | Rondella ø8 | Washer ø8 |
| 3 | Bullone M10 | Bolt M10 |
| 4 | Bullone M12 | Bolt M12 |
| 5 | Anello superiore | Upper ring |
| 6 | Rondella piana ø12 | Plain washer ø12 |
| 7 | Rondella elastica ø8 | Plain washer ø8 |
| 8 | Anello flangiatura | Coupling flange |
| 9 | Prigioniero M8 | Stud M8 |
| 10 | Supporto elastico | Flexible mounting |
| 11 | Distanziale supporto | Mounting spacer |
| 12 | Dado M8 | Nut M8 |
| 13 | Basamento in vetroresina | Fiberglass engine bed |
| 14 | Prigioniero M8x45 | Stud M8x45 |
| 15 | Anello inferiore (vedi n. 13) | Lower ring (see n. 13) |
| 16 | Guarnizione fondo barca | Boat bottom seal |
| 17 | Anello | Coupling |
| 18 | Rondella | Washer |
| 19 | Dado | Nut |
| 20 | Coppiglia | Split pin |
| 21 | Rondella | Washer |

Quantità Quantity	Part number FOCS	Part number CHD
12	0032030870	0032030870
12	0076252040	0076252040
4	0017801010	0017801010
2	0017801190	0017801190
1	0013013410	0013013410
2	0076250260	0076250260
6	0075550290	0075550290
1	0011700130	0011700260
6	0067800190	0067800100
3	*	**
1	0089033120	0089033120
6	0032401400	0032401400
1	0015162400	0015109060
12	0067801530	0067801530
1	0013013400	0013013400
1	0047755210	0047756000
1	0035270970	0035270970
1	0077011930	0077011930
1	0033002400	0033002400
1	0028000810	0028000810
4	0076252110	0076252110

* Per/for LDW 702 - 1003 - 1404 n. 3 0086361250
Per/for LDW 502 n. 1 0086361250 n. 2 0086361500

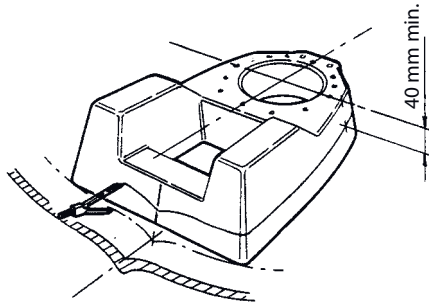
** Per/for CHD n. 1 0086361250 n. 2 0086361380

2.1



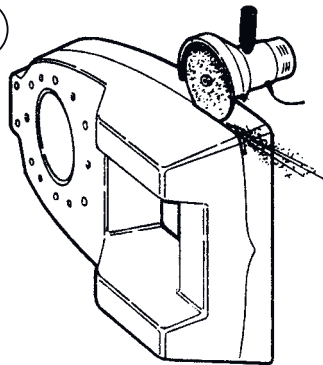


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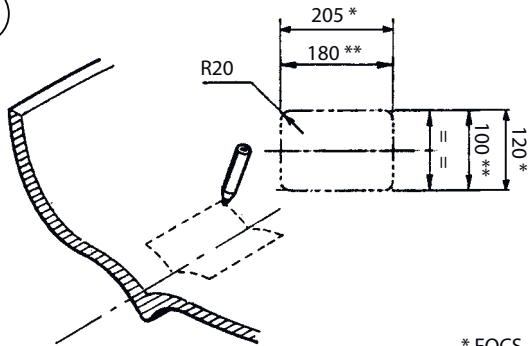


40 mm min.

5



6



205*

180**

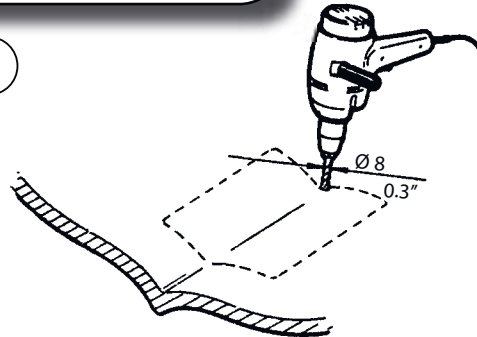
R20

120*

* FOCS

** CHD

7



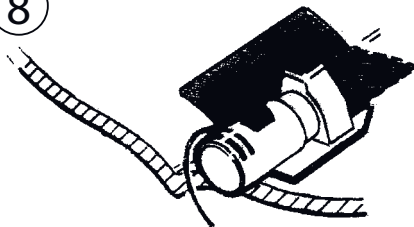
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0.3°

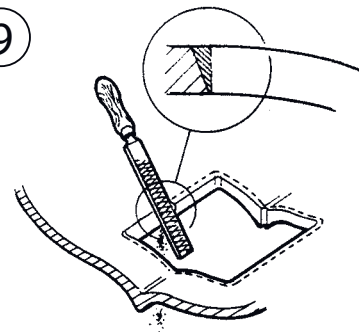
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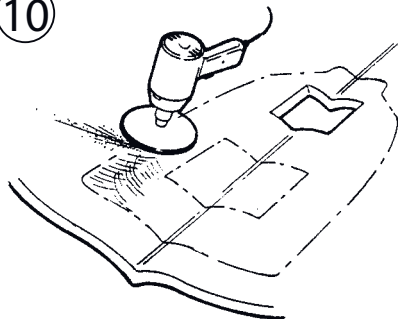
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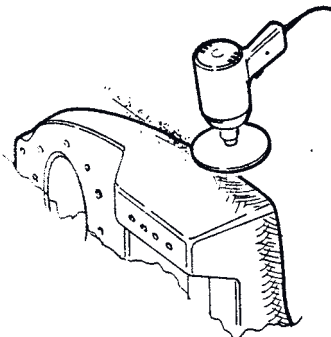
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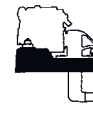


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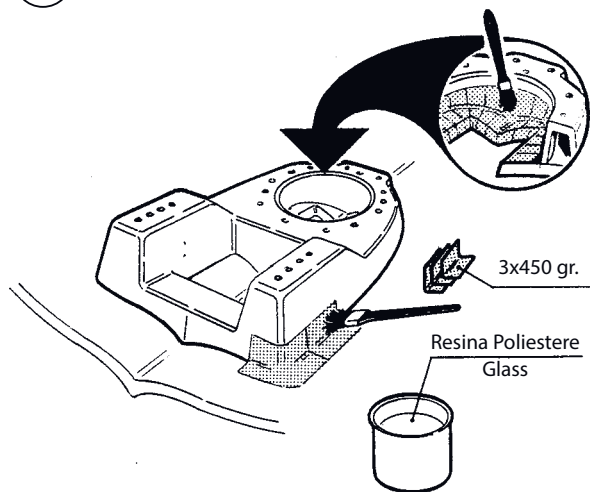


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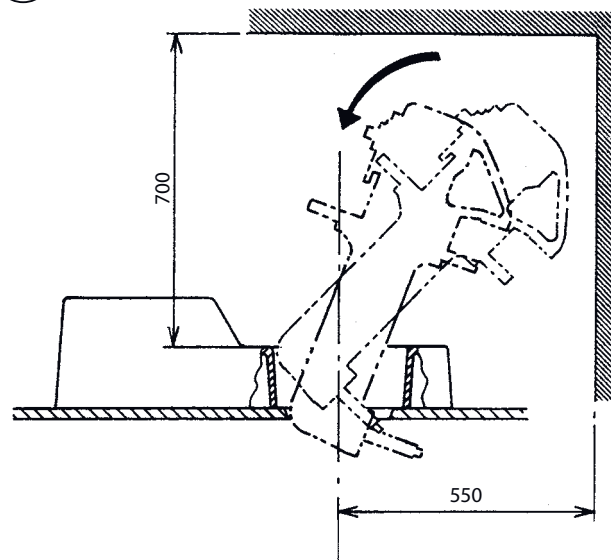




12



13

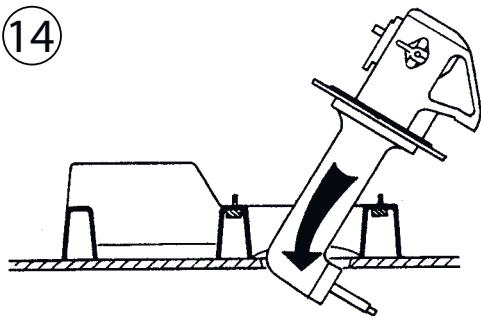


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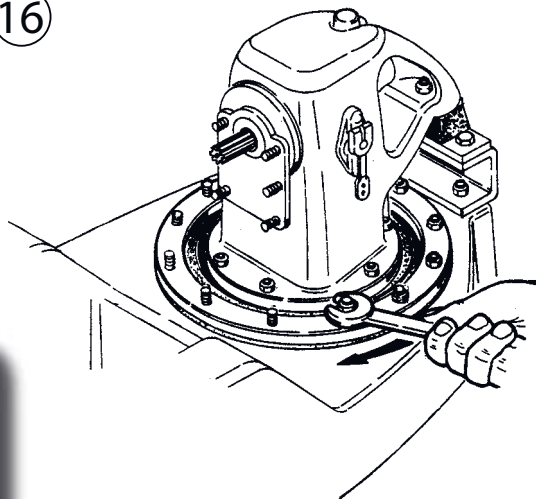


POSIZIONAMENTO SAIL DRIVE
SAIL DRIVE FITTING

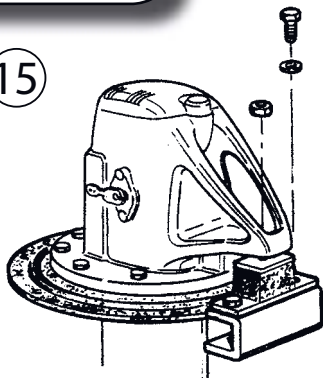
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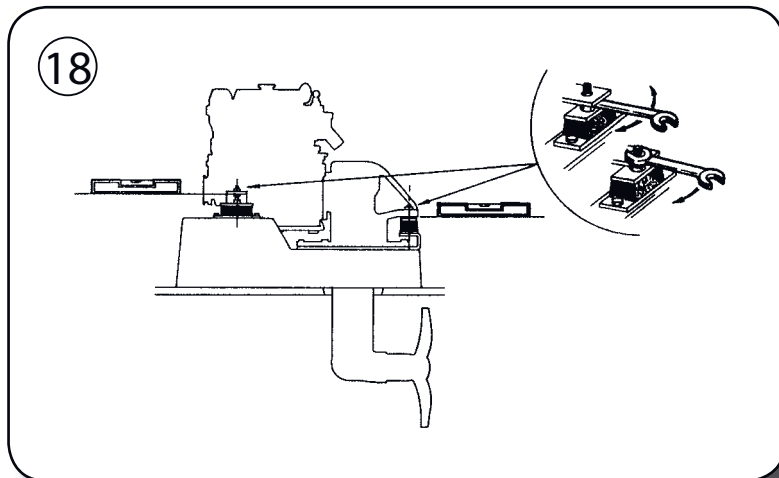
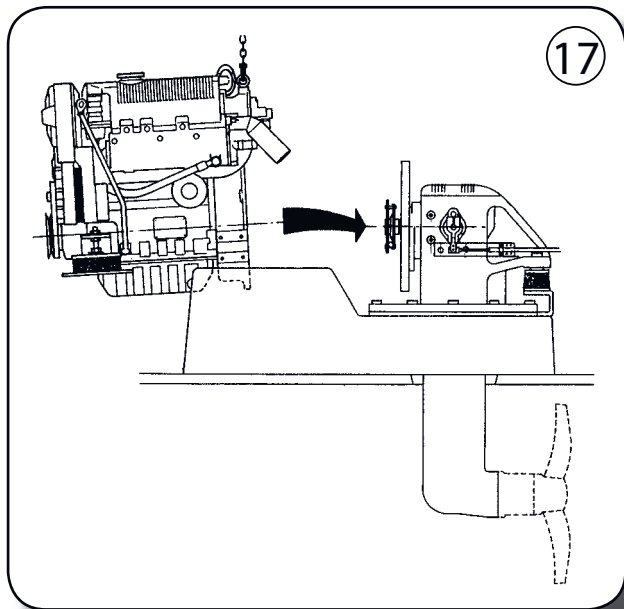


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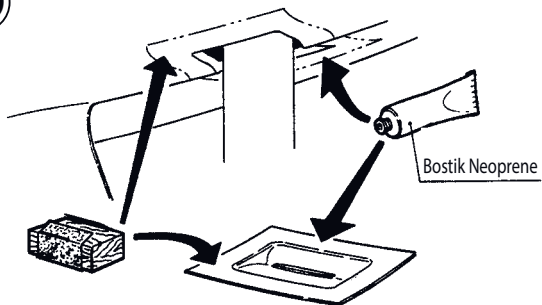




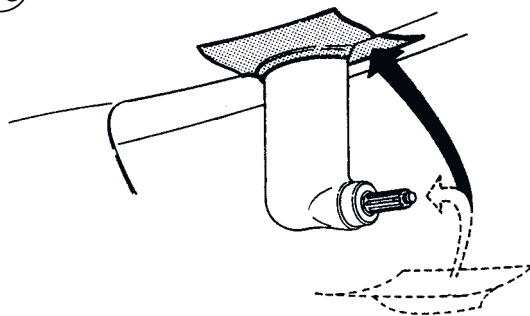
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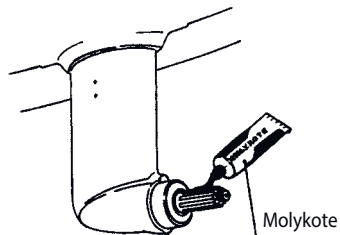
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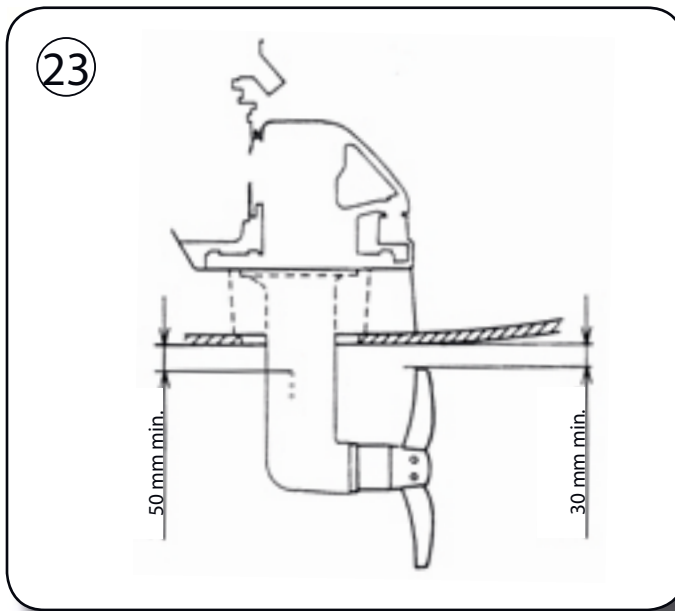
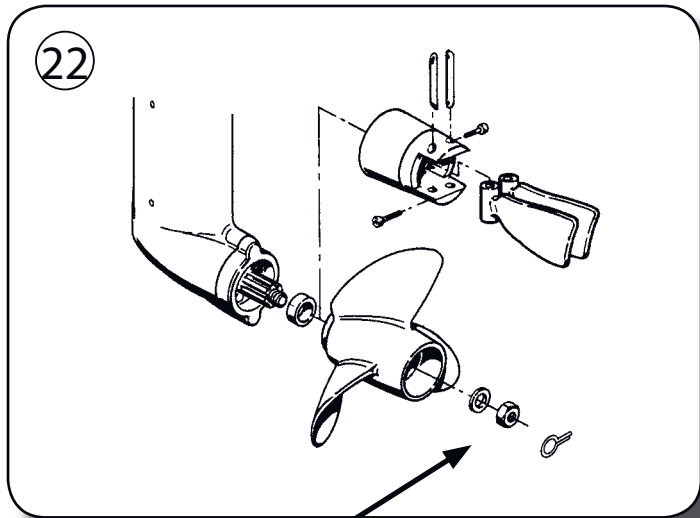
20



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Tra lo scafo ed il piede lasciare una luce di almeno 20 mm
Between hull and leg provide at least 20 mm clearance



Serrare a 15 Kgm
Tighten to 15 Kgm

5.3

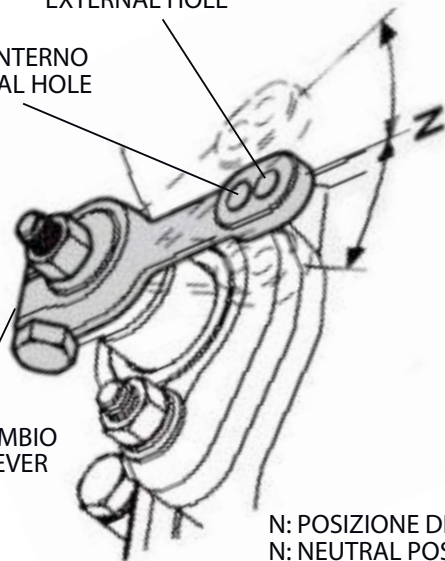


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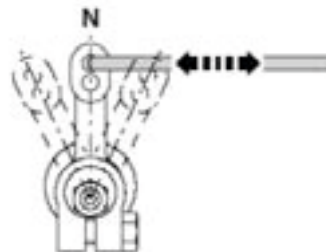
FORO ESTERNO
EXTERNAL HOLE

FORO INTERNO
INTERNAL HOLE

LEVA CAMBIO
GEAR LEVER



N: POSIZIONE DI FOLLE
N: NEUTRAL POSITION



CONTROLLARE CHE IL CAVO DI COMANDO SIA IDONEO PER
CONSENTIRE TUTTA LA CORSA DELLA LEVA DEL CAMBIO E
CHE LA LEVA SIA AL CENTRO QUANDO È IN POSIZIONE DI
FOLLE.

CHECK THAT COMMAND CABLE IS SUITABLE TO ALLOW
THE COMPLETE TRAVERSE OF THE GEAR LEVER AND THAT
LEVER IS IN CENTRAL POSITION WHEN CLUTCH IS NEUTRAL.

CONTROLLARE LA CORSA DEL CAVO DI COMANDO:

70 mm minimo sul foro esterno

60 mm minimo sul foro interno

CHECK THE COMMAND CABLE TRAVERSE:

70 mm minimum on the external hole

60 mm minimum on the internal hole

25

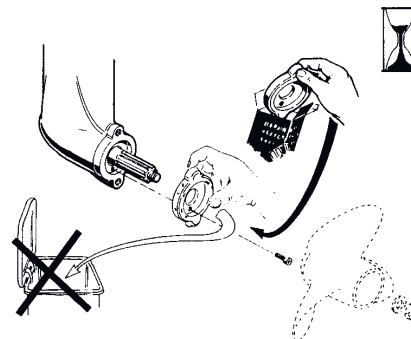


ATTENZIONE:
DURANTE LA NAVIGAZIONE A VELA CON MOTORE SPENTO ED ELICA A PALE FISSE, PREDISPORRE IL SAIL DRIVE IN POSIZIONE DI RETROMARCIA.

ATTENTION:
DURING SAILING WITH ENGINE STOPPED AND FIXED BLADES PROPELLER, SET SAIL DRIVE WITH REVERSE SPEED ENGAGED.

IMPORTANTE: CONTROLLARE COSTANTEMANTE L'USURA DELL'ANODO E SOSTITUIRLO QUANDO IL SUO VOLUME SI È RIDOTTO DEL 50%. IN OGNI CASO SOSTITUIRE L'ANODO ALMENO UNA VOLTA OGNI ANNO.

IMPORTANT: THE ANOD SHOULD BE INSPECTED REGULARLY AND CHANGE WHEN IT HAS DECREASED BY MORE THAN 50% OF ORIGINAL SIZE. IN ANY CASE, REPLACE IT AT LEAST ONCE A YEAR



Da smaltire in conformità alla normativa vigente

Dispose of anode in compliance with enforced rules

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5.5



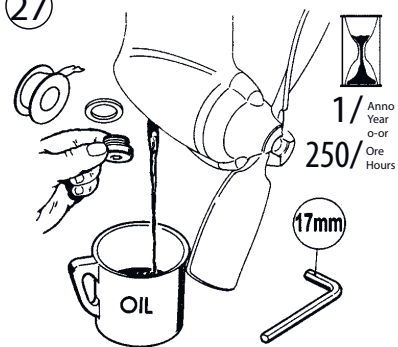
**SENSO DI ROTAZIONE DELLE ELICHE AMMESSO
RATOTION SENSE OF PROPELLER ALLOWED**

Sail Drive - Motori "FOCS"	Sinistrorse o Destrorse
Sail Drive - "FOCS" Engine	Left Handed (LH) or Right Handed (RH)
Sail Drive - Motori "CHD"	Sinistrorse
Sail Drive - "CHD" Engine	Left Handed (LH)

**ELICHE TESTATE DA LOMBARDINI MARINE
IDONEE PER ESSERE MONTATE SUI SAIL DRIVE:
PROPELLERS TESTED BY LOMBARDINI MARINE
SUITABLE FOR BEING FITTED ON SAIL DRIVE:**

Eliche Radice a 2 pale fisse/Radice 2 blades fixed propellers
Eliche Radice a 3 pale fisse/Radice 3 blades fixed propellers
Eliche Radice a 2 pale abbattibili/Radice 2 blades folding propellers
Eliche J-prop/J-prop propellers
Eliche Gori/Gori propellers
Eliche Varifold a 3 pale abbattibili/Varifold 3 blades folding propellers

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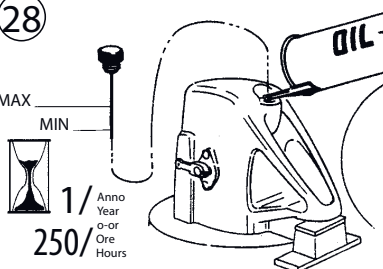


1/ Anno
Year
o-or
250/ Ore
Hours

17mm

N.B. AL RIMONTAGGIO DEL TAPPO INSERIRE O-RING
E TEFLON
NOTE BEFORE PLUG'S REASSEMBLY INSERT O-RING
AND TEFLON

28



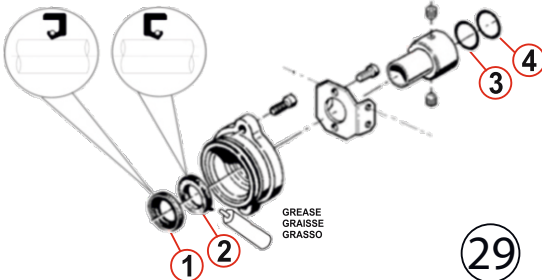
MAX
MIN

1/ Anno
Year
o-or
250/ Ore
Hours

TOTAL RUBIA 4400
o-or
SAE 15W/40
MIL - L - 2104C
API - CD

Lt 3.75÷3.85 (FOCS)
Lt 4÷4.12 (CHD)

N.B. CONTROLLARE IL LIVELLO CON ASTA COMPLETAMENTE AVVITATA
NOTE CHECK THE LEVEL WITH OIL DIPSTICK COMPLETELY SCREWED



GREASE
GRAISSE
GRASSO

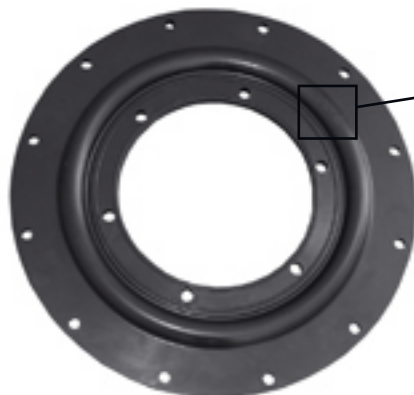
29

N.B.: SOSTITUIRE GLI ANELLI DI TENUTA MASSIMO
OGNI 2 ANNI
NOTE: REPLACE THE SEALING RINGS EVERY 2 YEARS MAXIMUM



6.2

30



7/ Anni
Years

20 06

L'anno di fabbricazione della membrana è stampato sulla sua superficie esterna.

Manufacturing year of rubber membrane is marked on external surface



Rispettare, in ogni caso, il contratto di assicurazione in vigore, che potrebbe imporre una clausola per la sostituzione ogni 5 anni.

In any case, observe the insurance contract provisions, which could establish the replacement each 5 years.

 **LOMBARDINI**
Marine is a division of:

 **LOMBARDINI**

Capitale Soc. € 44.000.000,00 int. vers.
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Cas. Post. 1074 - Tel. 0522.3891 - Telegr.: Lombarmotor
Internet: www.lombardini.it
R.E.A. 227083 - Reg. Imp. Cod. Fisc./P. IVA 01829970357 - CEE Code: IT 01829970357

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e-mail: info@lombardinimarine.com
web-page: www.lombardinimarine.com

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Sales Office**

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