CERTIFICATO DI ESAME CE DEL TIPO
EC TYPE EXAMINATION CERTIFICATE
N. **DIP003017Y4**

Si certifica, in qualità di organismo notificato (n° 0474), che il seguente componente destinato ad unita' da diporto e' conforme ai requisiti essenziali di sicurezza stabiliti dalla Direttiva 2013/53/UE.
We certify, as notified body (no. 0474), that the following component is in compliance with the essential safety requirements of Directive 2013/53/EU.

Descrizione *Description*	**SISTEMI DI GOVERNO** *STEERING SYSTEMS*
Modello *Model Type*	**POMPE IDRAULICHE**
Fabbricante **Indirizzo** *Manufacturer* *Address*	**MARSILI ALDO & C. S.R.L.** **VIA NINO BIXIO 63** **62012 Civitanova Marche (MC)** **ITALY**
Norme di riferimento *Reference standards*	**Direttiva Europea 2013/53/UE - Norme per la Certificazione CE delle Imbarcazioni da Diporto e relativi Componenti, moto d'acqua, emissione sonore ed emissioni allo scarico dei motori di propulsione.** *European Directive 2013/53/EU - Rules for EC certification of recreational craft and their components, personal watercraft, noise emissions from recreational craft and exhaust emissions from propulsion engines.*

In base all'Allegato II della Direttiva 2013/53/UE, la presente certificazione (Modulo B), unitamente all'applicazione di uno dei moduli previsti dall' Art. 20 della Direttiva, consente al Fabbricante di apporre sul prodotto sopradescritto la seguente marcatura.
On the basis of Annex II of Directive 2013/53/EU, this Certificate (Module B), in conjunction with the application of one of the modules for assessment of conformity of production stated in Art. 20 of Directive, allows the Manufacturer to affix the following marking to the product described above.

CE

Rilasciato a **Genova** il **15 Marzo 2017**
*Issued in **Genoa** on **March 15, 2017***

RINA Services S.p.A.
Alberto Carmagnani

Questo Certificato e' composto di 1 pagina e di 1 allegato
This certificate consists of this page and 1 enclosure

Termini e condizioni di validità
La responsabilità del prodotto rimane del fabbricante, del suo rappresentante o, in assenza di un rappresentante, dell'importatore, in accordo con la Direttiva 2001/95/EC relativa alla Sicurezza Generale dei Prodotti.
Le seguenti condizioni possono rendere non valido il presente certificato:
- modifiche nella realizzazione del prodotto, rispetto alla documentazione tecnica esaminata
- modifiche o emendamenti alla Direttiva
- modifiche o emendamenti negli standard che costituiscono la base per la conformità documentale con i requisiti essenziali della Direttiva.

Terms and validity conditions
The product liability rests with the manufacturer, his representative or, in the absence of a representative, the importer, in accordance with the General Product Safety Directive 2001/95/EC
The following conditions may render this certificate invalid:
- Changes in construction of the product as regards the examined technical file
- Changes or amendaments to the Directive
- Changes or amendaments in the standards with form basis for documenting compliance with the essential requirements of the Directive.

RINA Services S.p.A.
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POMPE IDRAULICHE

Documenti di riferimento ***Reference documents***	Documentazione tecnica esaminata in forma completa il 15/03/2017 e depositata presso la Direzione Generale del RINA (job e rapporto n. 2004/AN/01/529 e 2017/Y4/01/33). *Examination of technical documentation completed on 15/03/2017 and filed at RINA Head Office (job and report no. 2004/AN/01/529 and 2017/Y4/01/33).*
Materiali ***Materials***	Vedi disegni depositati presso la Direzione Generale del RINA. *See drawings deposited by RINA Head Office.*
Condizioni di accettazione ***Acceptance conditions***	I sistemi di governo devono essere sistemati a bordo e marcati in accordo alla Norma EN ISO 10592 e devono essere provvisti di marcatura CE. *Steering systems are to be fitted and marked according to EN ISO 10592 and are to be provided with CE marking.*

Nota: Il presente certificato aggiorna quello n. DIP052904AN/001 rilasciato il 17 Agosto 2006.

***Note**: This certificate updates the one no. DIP052904AN/001 issued on August 17, 2006.*

CODE	DRW.REF	OPERATING PRESSURE (Kpa)
21C5/18	MA 1820/5	7500
C5/25	MA 1732/2	7500
21C7/25	MA 1810/5	7500
25C7/56	MA 2445/1	7500
31C7/100	MA 2237	7500

Genova 15 Marzo 2017

Genoa March 15, 2017

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INSTRUCTION FOR ONBOARD INSTALLATION

APPLICATION:

Mounting platform:

The machine installation can be done in differently desired directions, for this purpose an iron or sound wood Mounting Platform must be prepared and fixed firmly to the hull at the required height and perfectly square with the rudder stock.

A : Fastening of the iron base:

Before drilling the mounting platform, with the base (already drilled), make sure that:
1) The rudder is in a symmetrical position with the boat
2) The cylinder rod is in the intermediate position of its course (1/2 way)
3) The base axis in parallel with the boat axis.
4) The base is at the correct distance from the rudder axis **"Steering gear axis centre"** to be **respected** after which it may be drilled and tightened with bolts.

B: Alignment between rudder axis and cylinder axis:

Before tightening the bolts, suitable thicknesses of packing should be used, (if the mounting platform could not be planed before) in a way that the inclination between the cylinder axis and the two gudgeon pins (tiller arm base), is not above 2°; errors within this range are compensated for by the ball joints on the cylinder rods.
A good alignment is to be preferred as well as the welded stops at the base angles, after tightening the bolts.

TUBING

Rigid tubing:

It is advisable to use steel tubing without welding (Mannesmann) of different diameters as indicated in the drawing "Hydraulic Scheme"
The various connections must be made with steel flanges to be welded electrically to the tube, or threaded steel pipe fittings or welded steel pipe fittings; do not use hemp on the threaded pipe fittings but an appropriate Teflon tape, found on sale.
Check to see that the tubes are internally clean before assembling, fasten well with brackets so that they will not vibrate and do not pass inside the cold stores, even if the oil used is at a low freezing point.
The position of the tube connections "1" and "2" which go from the hydraulic transmitter to the device and then to the actuator must not be inverted.

Flexible tubing:

The flexible tubing should be mounted with the external fitting, using two spanners so no deformation occurs.
They should be free of any contact, so no rubbing occurs during working.

FILLING THE PLANT:

1. Fill the Transmitter with oil
2. Open the By-pass valve
3. Turn the Steering wheel slowly
4. Take off the Air-bleeder screws on the Cylinders (near Cylinder Rod)
5. Continue turning the wheel and filling the Transmitter with oil until all the air is bled from the System
6. Check that the oil comes out clean and without air bubbles, stop turning the wheel and stop filling with oil.
7. Screw on the Air-bleeder screws and close the By-pass valve.

EMERGENCY:

In case of an emergency, open the By-pass valve and manoeuvre with the Emergency Tiller arm

MAINTENANCE:

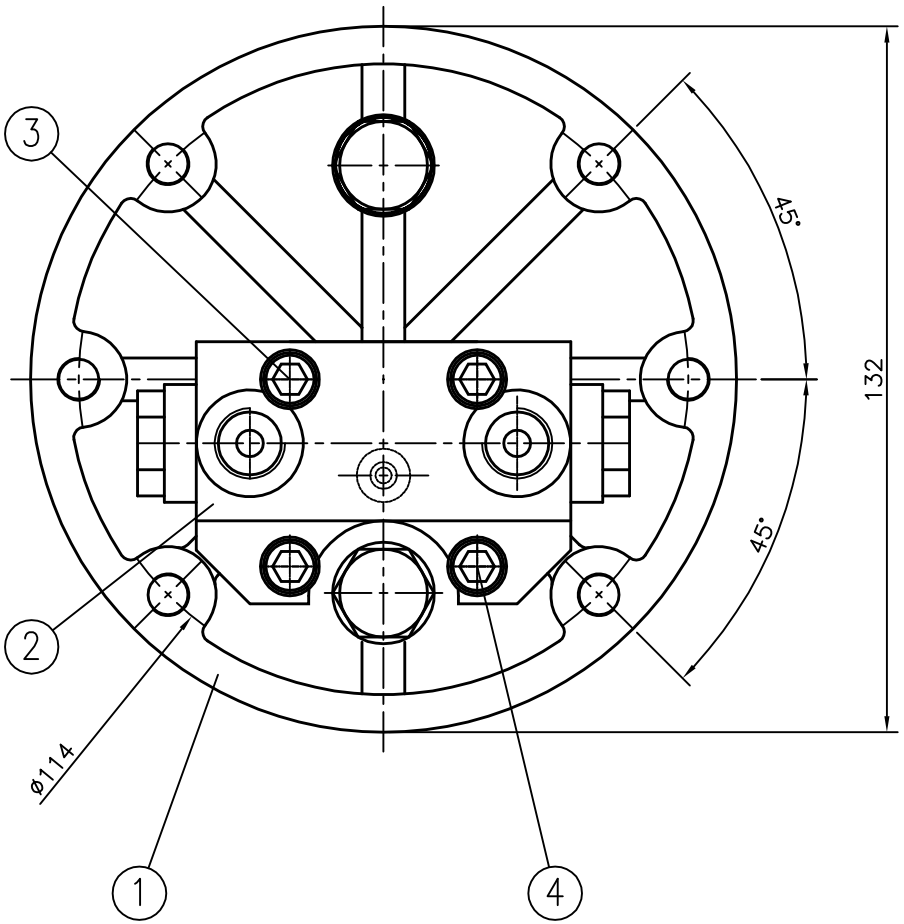
It is sufficient for the maintenance to periodically control the transmitter oil level, which should not be below the minimum level.
Periodically grease the device and the stainless steel piston rods.
The piston rods should be protected from eventual leaking from the top cover.

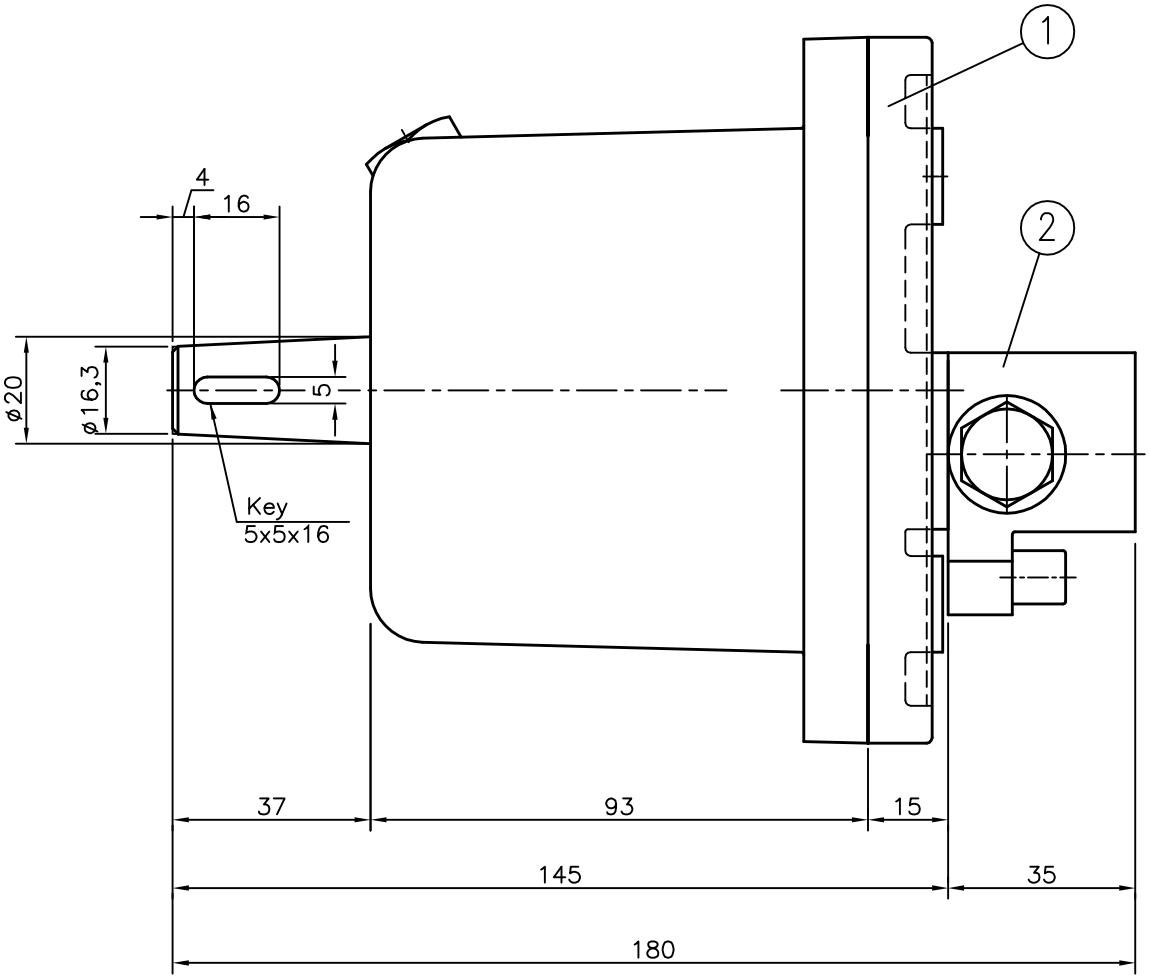
OIL TO BE USED:

We recommend hydraulic oil with the following characteristics:

Viscosity Engler 1,8 – 2,5 °E at a Temperature of 40 °C

AGIP	OSO 15
API	CIS 10
BP	ENERGOL HP 10
CASTROL	HYSPIN AVS 10
ELF	SPINELF 10
ESSO	SPINESSO 10
IP	IP HYDRUS OIL 10
MOBIL	MOBIL DTE 21
Q8	HAYDN 10
SHELL	TELLUS OIL C10
TOTAL	AZOLLA ZS 10





POS	DESCRIZIONE	QT	CODICE	MATERIALE	DIM. TAGLIO	PESO KG
4	FIXING SCREW	2	M 6x20 UNI 5932	Acciaio inox		0,020
3	FIXING SCREW	2	M 6x35 UNI 5932	Acciaio inox		0,025
2	CHECK VALVE	1	Tipo: 1667	Dis. MA 1841		0,250
1	PUMP	1	Tipo: 21C5-18 o 21C7-25	Dis. MA 1810 o 1820		2,700

MATERIALE
PROFILO
TAGLIO
PESO IN KG
N. CODICE

PESO IN KG | SCALA 1:1

MODIFICHE

DATA	DESCRIZIONE	DISEGNATORE	
			7
			6
			5
28.02.2005	Aggiunto pos. 4	ottavio	4
17.11.2003	Specificato peso e chiavetta	otto	3
17.10.2003	Accorciato di 7mm, variato corpo	otto	2
09.10.2003	Aggiorn. lunghez., tabel. e cartigl.	otto	1

DENOMINAZIONE
PUMP Type: 21C 5/18 – 21C 7/25
OVERALL DIMENSIONS

DISEGNATO IL 11.Settembre.2003
DA otto
NOTE

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Timonerie idrauliche
Timonerie elettroidrauliche
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NUMERO CODICE
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