



**SEAREX<sup>®</sup>**

Surface-drive

the King of the Sea!



ZF Marine is proud to offer you the ultimate  
in surface-drive technology. SeaRex

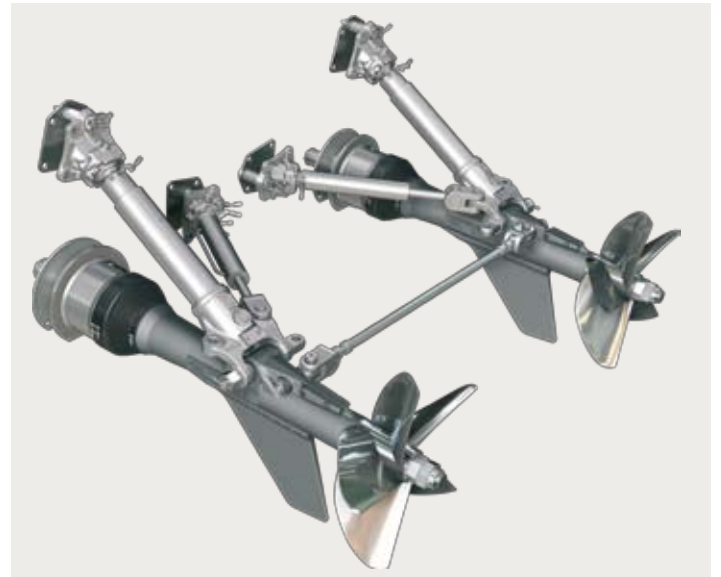


Photo: courtesy of Itama

Utilizing our extensive experience in design and manufacture of surface-drives – both articulating and fixed – ZF Marine introduces a new state of the art product.

The objective was to produce a series of advanced surface-drive systems without the disadvantages of existing designs. The new drive system concept ensures unprecedented reliability and ease of maintenance over the lifetime of the vessel, no matter what application – Pleasure, Commercial, Government or Defense.

The integrated trim configuration as well as an innovative tie bar design are just two examples of the special attention ZF Marine has given to the driveline components of SeaRex. These components are stronger and, as a result, more durable over the lifetime of the product.



## Meticulous attention to detail

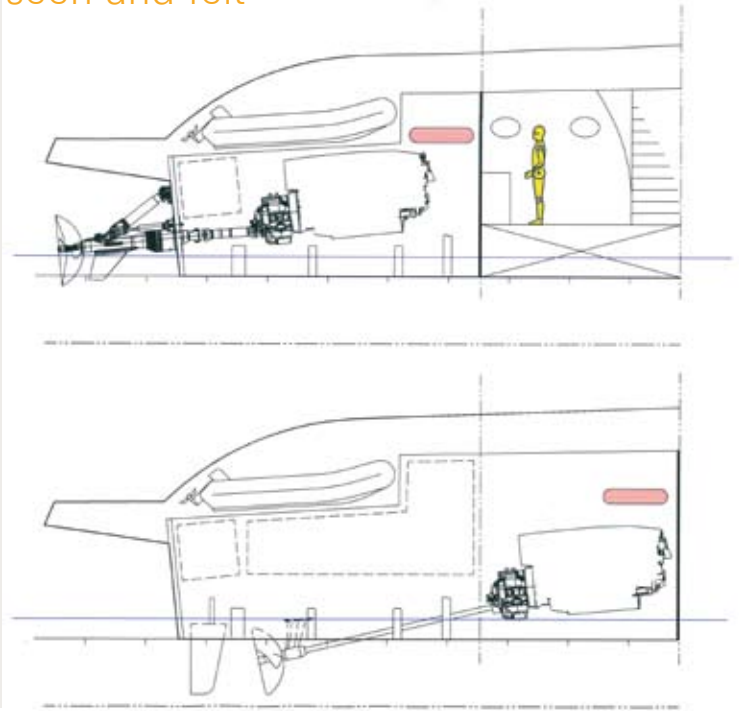
The design was developed using modern 3D solid computer modeling with integrated structural F.E.A. (Finite Element Analysis) to optimize the design geometry and stresses. Sea-trials with instrumented drives allowed the design stresses to be verified in real world conditions. The

combination of advanced computer engineering techniques, instrumented sea-trials and instrumented bench tests ensure that SeaRex will be a reliable, powerful, and easy-to-maintain surface drive offering excellent benefits and performance.

## Innovation can be seen and felt

### Key Features of SeaRex Design

- Propeller shaft manufactured from maintenance-free Aquamet 22 HS stainless steel
- Simplified installation procedure
- Integrated sensors require no external cabling
- No exposed external hydraulic lines or fittings
- Extremely compact design for the hydraulic unit
- Trim tabs, Autopilot and Tiller actuators can be added within the size of the main unit (stacking concept)
- Simple fine tuning adjustment of pistons speed
- Numerous mechanical improvements as a result of industry benchmarking

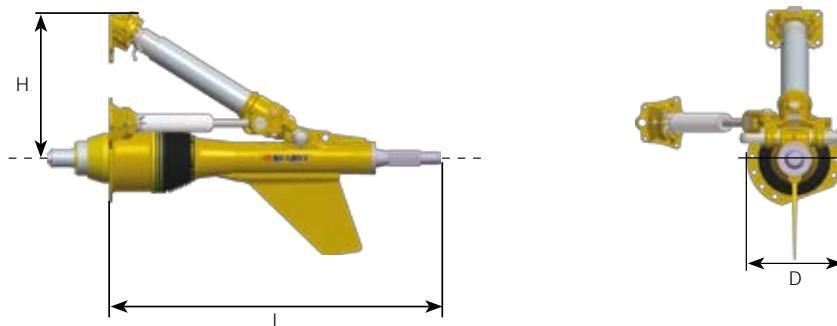


### Options include:

- ATCS\* (Automatic Trim Control System): electronic unit provides automated control of surface drives and trim tab angle for easy and smooth planning and cruising. ACTS eliminates the need to manually operate the surface drives and trim tabs, resulting in optimal vessel performance at all times.
- ASCS\* (Automatic Steer Control System): electronic unit avoids unsafe command providing steering angle restriction in relation to vessel speed.
- Powerful color LCD for surface drives and trim tabs monitoring & control, featuring customizable pages
- Analog instrumentation for surface drives and trim tabs
- Electric and manual pumps for double redundancy

\* patent granted

### Dimensions & Weights



MODEL	MAX Input Torque		Max Input Power HP at prop. RPM		Weight		Diam. propeller shaft		Transom flange diam. - D		Mounting Height-H		Overall Length-L	
	Nm	ftlb	1500 RPM	1150 RPM	kg	lb	mm	inch	mm	inch	mm	inch	mm	inch
SeaRex 100 S	5400	4030	1135	-	258	568	75	2,95	350	14	669	26	1453	57
SeaRex 120 S	9090	6784	1915	-	370	815	85	3,35	432	17	813	32	1617	63,7
SeaRex 140 S	15070	11246	3175	-	708	1559	108	4,25	540	21,25	848	33,4	1958	77,1
SeaRex 160 S	24000	17910	-	3875	990	2181	120	4,72	584	23	988	38,9	2221	87,4



**ZF Padova S.r.l.**  
Via Penghe, 48  
I - 35030 Caselle di Selvazzano (PD)  
ITALY  
Tel. +39 049 8299 311  
Fax +39 049 8299 550  
www.zf.com



**Driveline and Chassis Technology**



Photo: courtesy of Pershing

03 05 001 0710 - July 2010