

**TC Boats**  
By Freja Marine



**ALFA** By Gustafson Finland

## HISTORY

## TG-boats since 1973



1968



1975



1979



1979



1984



1988



2002

At the end of the sixties Tage Gustafson (TG) started to build racing boats and he won his first Finnish Championship in 1970. Tage, a boat and shipbuilder in the fourth generation, who had earned his living at his own ship since he was a teenager moved ashore in 1973 and started to sell outboard engines and produce racing boats. Three years later, when the business expanded to involve service of outboards and winter storage of boats, his brother Kim joined the company. Racing boats of glass fibre were serial produced until the mid eighties. In 1979 was the first serial produced pleasure boat introduced, TG-Marin 19 Cabin. At the same time was the first aft cabin boat developed, TG-Marin 19 Fisher. The base for today's aft cabin boats was created. Since then TG has produced boats and since the mid eighties only pleasure boats have been serial produced. TG have during the years built mid cabin boats with in- and outboard engines, open boats and just to in the end specialize and concentrate the recourses on being the leading boat builder of mid cabin boats.

The family company and handicraft knowledge have always been very important for TG, all family members have worked at TG. The target has never been set to become a large manufacturer but rather to be a family company where you with skilful personnel build traditional boats for people who use their boats more than average. Today after the generation shift, it is Frese, a boat builder in fifth generation (Product Development), his mother Carina (Economy), his father Tage (Chairman of the Board) and Tage's half-brother Jan (MD) who runs the company.

As all the other TG's, Alfa is also completely built in Finland. All glass fibre parts are hand laid in Pietarsaari and the interior is made in our manufacturing facilities in Porvoo. We try to use Finnish components in our boats as far as possible. Wooden parts, pads, fuel tanks, grab rails, light mast, swimming ladder, windows and doors, just to mention a few, are all manufactured in Finland. Equipment such a steering, instruments and fittings are imported.

## Racing

TG racing boats have been seen on racing circuits since the 1970's until today. The TG's have been very successful during the years with ten's of Finnish-, Swedish and European championships. Tage himself won 9 Finnish- and 3 Nordic championships in the 70's and broke two world speed records.

In the best years the TG's dominated some classes on the circuit with more than ten boats.

The next generation continued from where Tage stopped and Frese has won 31 of 33 races in the Finnish and Swedish championships in his own designed TG FreseOff boat. Also the speed record for mono hulls 1.3 litre was broken in Sweden 2002. TG FreseOff is the words fastest mono hull in offshore class 1.3 litres. Frese has won 5 Finnish championships in 5 attempts. The most successful year was 2005 when he won the Finnish-, Nordic- and European championship when finishing second in the World championships



2005

We reserve the right to change the specifications without prior notice. Some of the pictures show boats equipped with additional non-standard equipment.

## BUILDING THE TG-ALFA

Already when we started the planning of the boat we chose to do it in a different way and use the strength of our company, i.e. to build a boat without compromises for a certain purpose. Nowadays it has been a trend to build boats that are mass-produced to suit as many users as possible, this has led to compromises. We wanted to build a boat that could be used as what we call a "commuter" and a boat that could be used for daily trips by the whole family, because in our opinion this kind of boat did not exist on the market. What do these customers require? And which qualities did we focus on? The best solutions, according to our philosophy, are not the ones that look nice at the computer but the ones that really work in real life; this can only be accomplished by testing and more testing.

### *Targets we set and accomplished*

- User-friendly, carefully planned and working solutions.
- Good driving and sea-going qualities, which have been noticed by test drivers and boat magazines. This next generation hull was accomplished by an extreme optimizing, by using all knowledge we had from racing and a whole season of testing.
- Low noise level, in order to reduce hull noises we tested every part of the hull separately. The hull and stiffeners were built very robust and all surfaces were divided into smaller areas. The stiffeners are divided and noise reducing material is installed all over the boat.
- Practical to use and safe, we were able to fit large storage compartments in the boat because there are no sleeping nor cooking possibilities. A deck at the same level all-around the cabin is of course better to walk on than a deck with steps. The deck is wide enough and the free board high enough to move around safely. Additionally are the doors very wide.



### *Traditionally made moulds*

Instead of making all drawings by a computer and using a CNC-robot to make the plugs to a final product, which is very common today when there always is a pressure to get the job done rapidly, we decided to choose a more traditional way. We wanted to build the plugs and moulds without a time schedule which gave us the opportunity to improve things during the project. In order to do this we built the plugs from frames, plywood and a lot of filler which were sanded, tested, rebuilt until the result was optimal.

### *3 years of development*

TG-Alfa is a real proof of handicraft from the beginning to the end. Time schedules did not exist for the project and the boat should not be ready when it was good but when it was extremely good. The project started with planning in the autumn 2006 and the first boat was shown in February 2009.

### *TG-Alfa named the boat of the fair at Vene 09 Båt show in Helsinki*

Comments made by the jury: The TG Alfa is a well-designed connection boat. No compromises have been made with the materials and craftsmanship of this boat, which is perfectly suited for its intended purpose. The jury praised the boat's smart, car-like control station, its good storage facilities and large doors as well as the innovative seats that provide support for the lower back. Boarding the boat was considered easy.

The jury chose the winners based on criteria such as the following:

- how well does the boat suit its intended purpose
- general design, both exterior and interior
- structural and space-allocation design ideas, with special credit for innovative solutions
- price-quality ratio
- properties of the boat, seaworthiness and safety in particular
- novelty value



2/2007



6/2007



2/2008



9/2008



12/2008



1/2009



## WITHOUT COMPROMISES

TG-Alfa is built to be a boat without compromises when you use it as a commuter boat or daily trip boat. The boat has responded to the high demands on sea-going, practical environment for the user and large storage compartments. In order to safely move around in the boat, we chose a cabin of walk around type and two very wide sliding doors.



### *Some of the many things we have thought about in order to make boating simpler*

- You get on board to a non slippery deck using the steps. The deck is all-around on the same level with grab rails and handrails everywhere.
- You lift in your bags in a dry, well ventilated and large luggage compartment in front of the cabin. You open an almost 1 metre wide sliding door hanged on ball bearings and a construction to avoid freezing.
- You step into the cabin through a high door opening and you will have full standing height.
- You reach to start the engine without sitting down and if it is dark you can switch on the cabin and deck lights.
- When you loosen the ropes and fenders they will fit into both the front and aft storage compartments and rope boxes.
- You and your wife will step into the cabin and you will sit at gas suspension seats, you adjust the angle, the back part and the distance to the steering wheel. You sit side by side. The rest of the family can sit on the aft sofa or outside. All passengers are of course sitting in the driving direction.
- You shut the smooth sliding door, the locking can be made either closed or with a few centimetre opening for ventilation.
- You put your right hand on the throttle where also the trim and trim tabspanel are. With your left hand you might use the bow thrusters. Both you and your co-driver can use the plotter since it is in the middle and you might put on the defroster or the search light. The wiper switch with two speeds, normal and interval, is located to the left in the row of switches in order to easily find it without looking at it.
- The engine can hardly be heard at idle running, when increasing the speed you will have a soft noiseless going. If driving in rough sea you will adjust her a bit down using the trim and trim tabs, then she will be comfortable and dry.
- When you are docking alone you will walk to the open rope box in the aft and take the buoy hook, put it on the step mid ship, put the backrest forward so that you can stand in the door opening and drive and simultaneously attach the buoy hook.
- You open the hatch to the storage compartment completely to the left and you can unload your luggage to either side or straight forward.
- You shut the doors, lock them and everything is ready to leave.
- You walk safely ashore using the steps and between the high grab rails in the front.



Does this sound like the boat you are looking for, if so, TG-Alfa is your boat!



## NOTE

- -There is a grab rail in the door opening that gives a natural support when moving into the sofa or entering the cabin. It is also possible for two persons to stand in the cabin when using this support.
- If you want to enjoy a glass of wine among good friends, it is possible to get a removable table as extra equipment. It can be used between the sofa and the turn able seats, if you want; it is also possible to move it to the front deck where 4 persons can sit.
- The open rope boxes in the aft works as air intakes when you drive, this air will ventilate all the storage compartments in the boat. All storage compartments and boxes have two ventilators each so that the air circulates.
- All fittings and grab rails attached on the boat can be removed and changed afterwards without making openings.
- All passengers can independently from each other stand up and sit down inside the cabin since the doors are located between the seats and the aft sofa.
- There is a possibility to order a bow thrusters but it is easily fitted afterwards as well since it will be put under the deck and installed from the luggage compartment.
- A magnificent view for all passengers.

## Noise reducing package

An extensive noise reducing package is included in the boats. What you can see in the boats are the soft roof veneers, the noise reduction material in the storage compartments and a large motor hood. Though is most of the noise reduction achieved by the construction itself. The outlay of the hull and stiffeners, materials chosen, several surfaces with sandwich laminates combined with to each other glued or laminated parts gives us a good result. All this together with divided volumes in the hull gives us one of the quietest outboard boats on the market.

## Storage compartments

- Rope box in the front.
- Storage in the front bench.
- Luggage compartment in front of the cabin, in two levels with an easily removable veneer.
- Two small shelves for small equipment such as mobiles and sunglasses.
- A shelf besides the co-drivers legs where manuals, registration papers etc. can be placed.
- A large compartment under the sofa with a divided cushion for easy access. It is possible to fit a box refrigerator in this compartment.
- Space behind the backrest at the sofa where you can put i.e. clothes.
- Space for anchor, fenders etc. on aft deck in both benches.
- Open rope boxes on both sides aft.



## A. DRIVING PERFORMANCE B. DRIVING PERFORMANCE C. Dry and quiet D. Economy E. Speed

This was the ranking of the design qualities when developing and testing the hull of TG-Alfa. This may sound a little bit crazy, but driving performance is actually the only quality that you cannot change or buy afterwards. If one wants or need to drive a little bit faster, he can just choose a larger engine. The TG-boats have always been recognized for its good driving performance and therefore it was very natural to develop the next generations hull, "FreseOff".

Since the development of traditional hulls has come quite far and there are no revolutionary qualities to develop, we had no other options than choosing a step construction. Due to the deep hull, the step, the flat ski well known from racing and a deep v-shape in the hull (22,5 aft, 25 mishap and 40 degrees in the bow) were all demands on smooth driving and buoyancy in rush weathers accomplished. The step is mainly used to optimize the driving performance, hull geometry that could not be used without a step are now used.

### *The perfect hull, with the most important factor for motor vehicles, balance*

For the first time, two hulls in the same boat, a perfect aft-and forward hull, have been connected by a cross ship step. This and a seldom seen balance is TG-Alfa's secret for its superb performance. In order to accomplish the driving performance a perfectionist requires, have even every spray list been tested individually and been placed optimally regarding size, rounding's, longitudinally and transverse. They are of course placed asymmetrically in order to balance the propeller rotation. Also the chines have been tested in three separate zones; forward, mid and aft in order to minimize noise from waves, spray and to balance the lifting forces in the forward and aft hull.

In racing (car or boat) the most important quality is the trust on the vehicle. When driving the TG-Alfa you get this trust immediately. Another important quality is the balance. The fuel tank is located under the driver near the centre of gravity, so the difference between full and empty tank is minimized. By using the trim tabs and the engine trim you can drive the boat at any speed without rising of the bow. This enhances the safety and comfort in all kind of weather.

Due to the hull step we have succeeded to bring up many of the good qualities and to minimize the bad ones. This is why the boating industry in the future will have hulls with steps. We can clearly see the advantage of hulls with steps when enhancing sea driving qualities, speed, economy and therefore also the environmental friendliness. Since TG always has been a forerunner we will now with the TG-Alfa enter the next generation boats.

A hand laid hull with directional fibres in the rowing gives a strong and light laminate. The TG-Alfa have been built with unusually robust and high bottom stringers, which sides are built of double laminate and the stringers are shut at several places in order to reduce noise. When the stringers are attached to the hull, the deck is lifted onto the hull and connected with laminate to the stringers and outsides of the hull. Also the inner deck sides and the hull are glued together in order to make the boat stronger, to reduce resonance and vibrations.

The target was to build what we call "a forgiving boat" i.e. a boat that bites itself to the water, moves softly and controlled, does not sheer at any wind directions and allows you to turn both right and wrong trimmed. This was accomplished by months of testing, rebuilding, testing, rebuilding etc. All this together with soft taking of waves, a stiff and quiet hull are the qualities the TG-Alfa has been praised for in all magazine tests.

### *Softness, grip*

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## SAFETY = PRACTICAL AND COMFORTABLE TO USE

One of the main demands of the TG-Alfa planning was that moving around in the boat should be safe, easy and practical. Very high free board, wide walking decks without steps increases the safety on board and minimizes the risk to fall overboard. This is especially important since the boat is normally used for a long season and very often there are children and pets walking around in the boat. These types of boats are normally also used by people that are alone at the sea and especially in the late autumns when it is cold and slippery, is safety important. The TG-Alfa has very practical grab rails and handles, so wherever you are in the boat you have rails to grab. The boat is equipped with 10 AISI 316 grab rails and 3 handles.

### *Steps in the front, mid and aft*

The deck around the cabin is at the same level all around so there is no risk to trip. The width of the deck besides the cabin is wider than normally on this size of boats. Thanks to the wide sliding doors, almost 1 m, it is very easy and fast to enter and leave the cabin. Also the door height is proper. In order to easily enter and leave the boat there are six "stairs": two in the front, two in the aft and mid ship on both sides where you step out of the cabin. At these locations are the grab rails built so that they do not interfere when entering the boat. High and steady grab rail in the front that are a bit wider than normal and leaves good space between each other makes it very easy and smooth to enter the boat. The doors are located in the mid of the cabin between the seats and the aft sofa so that all passengers can move without interfering each other.

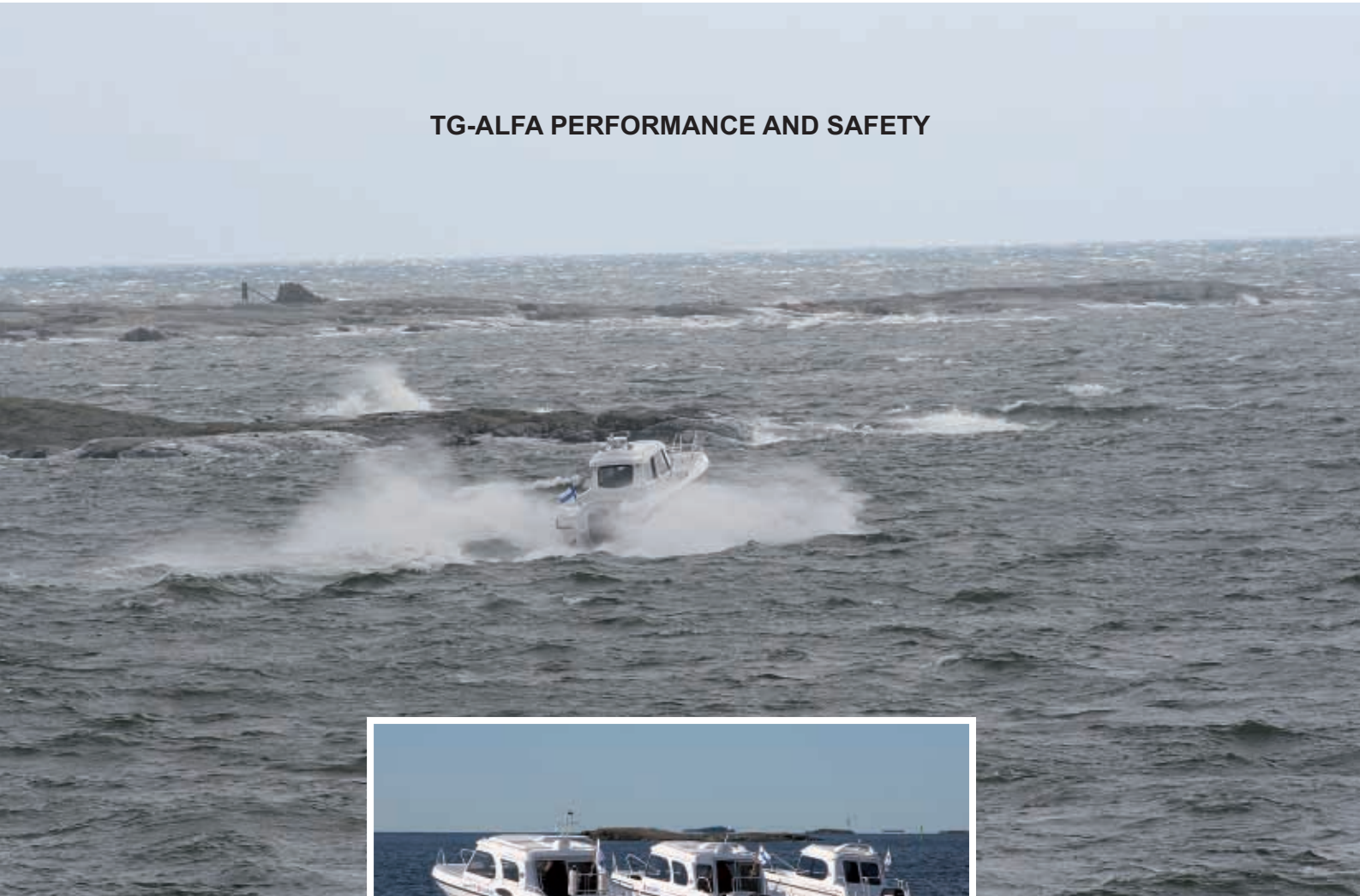


### *Comfort*

Inside the cabin you get the feeling of a jeep, there are two gas suspension seats in the front and a sofa for three persons in the aft, all at the same level. All passengers have a 360 degree view through the hardened security glasses. The front windows are clear for maximal visibility and the aft and side windows are slightly toned to avoid blinding. The cabin height inside is 1,91cm. A powerful stainless steel wiper, with two speeds, normal and periodical, keeps the window dry and increases the safety. Both seats can be adjusted for stiffness, angle, the back and distance to the steering wheel. All needed equipment are close to you, on your right hand you have the throttle, trim and trim tabs panel, all within 10 cm. On your left hand you have the starting key, the emergency switch, plotter and maybe the bow thruster's joystick. The plotter is in the middle so that both the driver and the co-driver can use it, also all the passengers on the aft sofa have a free visibility to the plotter. All the floors inside are of plywood with real oiled teak surface. The inner roof is covered with noise reducing material and it is possible to get a sliding roof hatch of glass with aluminium frames.



## TG-ALFA PERFORMANCE AND SAFETY



**TG-7200**

**TG-6500**

**TG-5900**

### TG-ALFA

Length	7,2 m
Width	2,7 m
Height from waterline	2,22 m
Height from keel	2,62 m
Weight (when ready to drive)	1800 kg
Persons	7
Seating in cabin	5
Gas suspension seats	2
Seats at front deck	4
Seats at aft deck	2
Hull with step construction	
Hull angle aft	22,5
Hull angle mid ship	25
Hull angle front	40

Recommended power

Optimized power

Max power

150 hp

175 hp

225 hp

250 hp

Consumption 175hp

Noise level

Fuel capacity

Battery capacity

Design

Top speed

33-34 knots

35-36 knots

42-43 knots

43-44 knots

1,2 L/nm

75 decibel

### TECHNICAL DATA

135-225 hp

150-175 hp

250 hp

Cruising speed.

18-28 knots

18-30 knots

20-37 knots

20-40 knots

28 knots

24 knots

200 L / 160 nm

1x115 Ah / 2 x115 Ah

Frese Gustafson