

Crewtender Class



Tender in the Rough

Early 2011, Habbeké Shipyard delivered the Crewtender KRVE60 to the Royal Boatmen Association Eendracht, KRVE, in Rotterdam. The tender will operate as a very rapid means of transporting pilots and crew members to merchant marine vessels in the Rotterdam port area.



Established in 1966, Habbeké Shipyard accumulates 45 years of experience in the shipbuilding industry. The shipyard builds exclusively in aluminium and enjoys an excellent reputation for innovation, quality and service. These characteristics were recognised and honoured with the Aluminium Prize in 1994, when the beach-launched Valentijn lifeboat was selected awarded the Dutch aluminium award. The lifeboat was judged first in both the initial and final jury rounds and named an “example to the industrial sector”.

It is to this level that the yard continues to aspire and of which the KRVE60 – derived from the Valentijn class boats is another prime example. Befitting vessels which have to perform in sea conditions where other boats prefer to be in harbour, they are built to the highest quality and subject to the American Bureau of Shipping quality guidelines. In fact all Habbeké products are built under stringent quality control and the yard recommends that their products are registered by classification organisations such as the American Bureau of Shipping (ABS) or Lloyds.

‘Pride’

The Valentijn is justifiably the ‘pride’ of Habbeké Shipyard’s building program. The Valentijn class boats can rescue up to 50 people and have shown their worth and ability in the dangerous waters around the Netherlands. In 2000 the design was modified; by slightly lengthening the boats, a larger work deck at the stern could be created together with the wheelhouse, now providing more comfort to the crew. But the most significant difference with the old version is that the Valentijn 2000 class is fully self-righting. Habbeké has built some eighteen Valentijn RIB (Rigid Inflatable Boat) lifeboats for the Royal Netherlands Sea Rescue Institution KNRM and is now actively expanding the range in cooperation with naval architects De Vries Lentsch. A series of ‘Valentijn-like’ vessels has been built already, such as the HP 700 rapid response salvage vessel and the new Crewtender series, developed and built in close cooperation with the KRVE. The yard builds in Volendam, the Netherlands and operates a separate repair and completion shed in the nearby town of Edam, in contact with the

IJsselmeer and from there with the North Sea via IJmuiden and Amsterdam or Den Oever.

Cost-Effective

The shipyard works closely with her clients and designer. According to Habbeké this must be one of the key factors for her success, which has resulted in many long-term relationships with individual and institutional customers, some of the clients ordered three vessels from the yard. The longest relationship is with the Royal Dutch Lifeboat Association (KNRM). As befits vessels, which have to perform in sea conditions where other boats prefer to be in harbour, the vessels are built to the highest quality. In fact all Habbeké products are built to stringent quality controls and registered at national and international safety organisations, such as the American Bureau of Shipping (ABS) or Lloyds.

The constant attention to detail and performance has come into its own when the Crewtender series vessels were being built for the KRVE. The team was involved from the start of the venture and each vessel has benefited from the constant additions and improvements made from ongoing experience. Such an approach might not be the cheapest but, during its years of experience, but the yard feels it can claim to be one of the cost-effective yards in its segment.

KRVE

The Royal Boatmen Association Eendracht, KRVE, was formed in 1895. The organisational setup guarantees an all-out effort. All the members are fully licensed skippers, who do the mooring and unmooring of seagoing ships. They also assist in the most difficult situations alongside quays, dolphins, jetties and to buoys and during all kinds of weather conditions, covering the whole of the Rotterdam port area. The carriage of persons and goods across water has also been an important task of the firm since days past. This task is still carried out in the whole Rotterdam port area.





Photo courtesy of Flying Focus



Photo courtesy of Tanja Salden

Power and Propulsion

The vessel's main power is delivered by a 12.5l John Deere 6125SFM75 engine, delivering 455 kW. The engine drives the waterjet and a number of hydraulic pumps, the air conditioning, water pumps, bowthruster and a 10KVA generator. The complete hydraulic system has been developed by Hydromarine, while the vessel has been designed by De Vries Lentsch, The complete electrical installation was designed and installed by A. de Keizer Elektrotechniek (ADK). The navigation equipment is from Alphatron. The vessel's propulsion is performed by a Rolls-Royce Kamewa FF410 water jet with a vector stick control system. A ZF350 reduction gearbox with a 1.225:1 ratio allows the engine to be declutched from the waterjet. Waterjet and gearbox are connected by a horizontal steel Centa driving shaft.

Alternative Mode

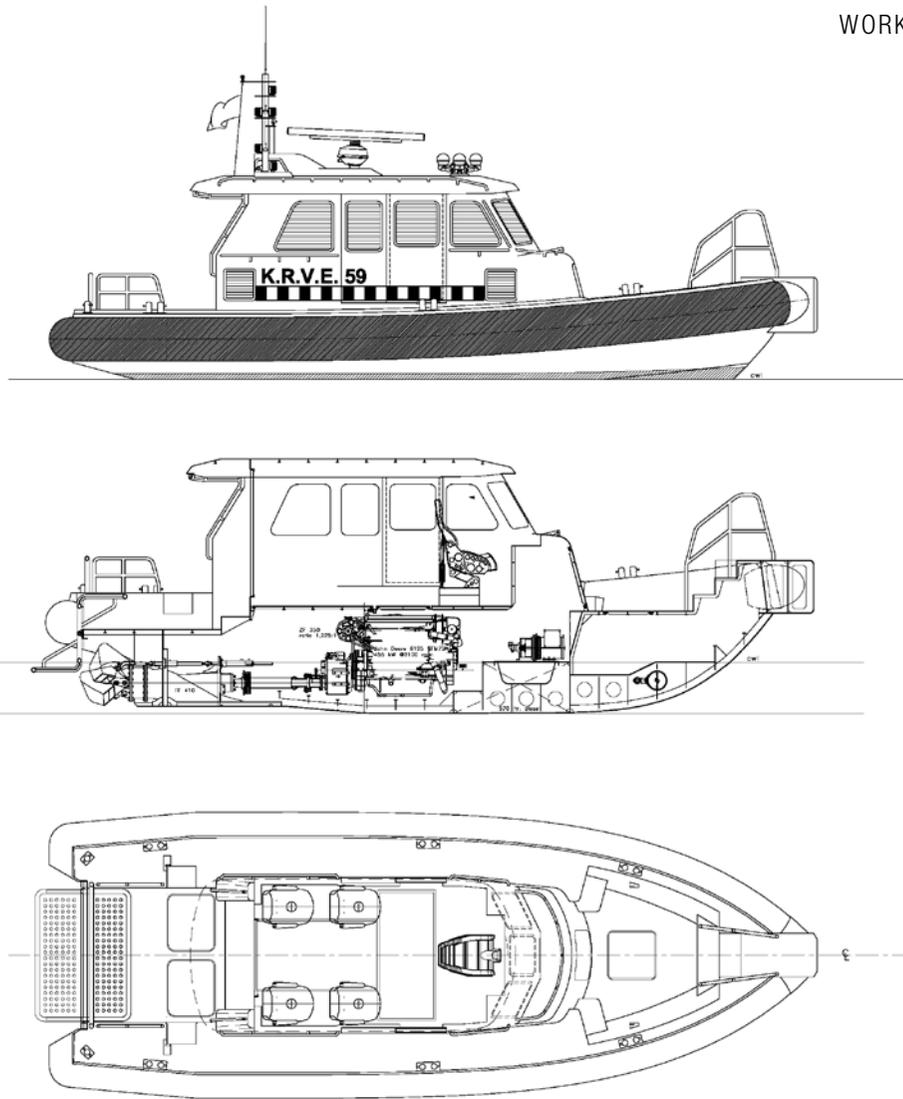
As the KRVE60 is able to reach 33 knots (60 km/h), she offers an alternative mode of transport around Rotterdam to the increasingly congested roads of Rotterdam. The aluminium KRVE60 can carry four passengers, in addition to the captain. All are accommodated in one luxurious cabin with heated floors and walls, with air/conditioning for warmer days and dry air. The passengers are

seated on suspension-mounted Norsap seats from Shockwave. In order to maximise the safe transfer of passengers, the boat has warmed decks and a fenced platform in the bow. With the nose of the boat pressed against the approach vessel, crew members can step safely from one vessel to another or from the tender onto dry land.

'Rough and Tumble'

Habbeke Shipyard has gained many years of experience in building aluminium RIBs. This RIB has been specifically designed for the 'rough and tumble' of the Rotterdam harbours and is, in the words of Orm de Waart of Habbeke shipyard, "soldier-proof". As plans for this new kind of vessel were first discussed, the emphasis was for a rapid and reliable tender. However, as discussions continued, it became clear to Mr de Waart and his team that the RIB would be one of the most advanced boats in the Rotterdam harbour, and with this, world harbours.

One of the challenges to overcome consisted of the apparent fragility of the tubes, which are traditionally built for this vessel type. Gerrit van der Burg of KRVE points out that each tender makes something in the region of a hundred 'controlled collisions' per day as it delivers or collects pilots and other crew members. Therefore the tube has to act as a shock absorber/fender, and resist



Facts & Figures

Principal particulars

Length o.a.	10.75 m
Length aluminium hull	8.95 m
Length c.w.l.	7.80 m
Beam o.a. incl. tube	3.94 m
Beam hull	3.10 m
Weight fully loaded	9,400 kg
Service speed	33 knots

Capacities

Tank	560 l
Range at full power	6 hrs

Power & Propulsion

Main engine 455kW John Deere 6125SFM75

collisions with sharp objects, such as broken ladders, steel bolts or pieces of reinforced concrete, as well as acting as a buoyancy aid to ensure that the vessel remains afloat even if completely full of water.

Poly-Marine services, specialised in these kinds of problems, developed for this purpose a special tube for the boat. Using their offshore experience they produced a tube with a hard exterior, but filled with foam. This formula appears to work, tests included driving a fork-lift truck hard into the tube, but the tube remained however fully functional. That is why the ship can be pushed head first or sideways against another surface with no disastrous results.

Positive

The KRVE's fleet counts some sixty boats of different types, entirely built and designed according to the association's specific demands. All boats are stationed across the Waterway area. Gerrit van der Burg: "Special attention is paid to the reliability of our floating equipment. Not only the annual government inspections but also our internal safety requirements do make our fleet the safest and most reliable made for this purpose. Owing to a special air chamber-construction the majority of our boats is considered to be unsinkable; if a boat is flooded she remains

floating nevertheless, offering sufficient guarantee in this way to save the lives of the persons on board."

He is positive about the Crewtenders – the first vessels live up to the expectations and initial performance trials. The next vessel, a 15m Crewtender, is scheduled for delivery in 2011/2012. At present, KRVE uses nine Mercedes taxis, each driving 180,000 km per year, to transport pilots around the Rotterdam harbour complex. With the continuing increase in road congestion this is becoming more and more difficult and using the waterways is an obvious solution. After an exhaustive testing period, Orm de Waart is preparing to start work on the next boats in the Crewtender series. To date, the KRVE owns three Crewtender series vessels: the KRVE58, 59 and 60. The KRVE60 will be on show at Seawork 2011 (see page xx).

- i. www.crewtender.com
- i. www.habbeke.nl

BUILDER	Habbeké Shipyard
OWNER	KRVE