



ELITE: dedicated fireboat for Hong Kong

Builder.....Wang Tak Engineering & Shipbuilding Co Ltd
 Vessel name.....*Elite*
 Owner.....Government of the HKSAR
 Operator.....Fire Services Department, HKSAR
 Designer.....Wang Tak Engineering & Shipbuilding Co Ltd
 Flag.....HKSAR
 Total number of sister ships already completed.....Nil
 Total number of sister ships on order.....Nil
 Contract date.....2000
 Delivery date.....April 2002

The fireboat *Elite* was delivered in April and now acts as a replacement for the aged *Alexander Grantham*, for the Fire Services Department, HKSAR. She has been in service since May.

This vessel was designed and built to enhance the functional roles of fire fighting for vessels including ocean going merchantmen; fire fighting of coastal regions; search and rescue in case of marine disasters; diving support; and command centre for directing major operations.

Elite, a monohull designed to LRS 100A1 Tug designation, is propelled with two sets of CAT3516B diesel engines, which also serve as fire pumps, and deliver a 15knot cruising speed. A highly automated Unitor external fire fighting system with firewater pumping capacity totalling 7200tonnes/hr, make *Elite*, it is claimed, the world's most dedicated fireboat. Onboard firefighting equipment meets Fi-Fi 11 requirements, with 2 x 40,000litres/min water monitors at maximum throwing distance of 90m, a deluge water screen, and foam making facilities.

A Southern Oceanics diving cage, with a three-diver capacity and a maximum working depth of 60m, was fitted to carry out diving operations. This diving cage is said to be unique, and the first of its kind within HKMD's marine fleet. A Boston Whaler rescue boat is carried on deck, launched, and recovered by a Palfinger deck crane. A helicopter winching area is provided for rapid transport of survivors back to shore.

A specially designed wheelhouse has 360deg windows for all round vision. In addition, a skylight is fitted on the top of the wheelhouse, so that firefighting can be easily monitored from this area. Consoles and control stands are purposely profiled to meet operational requirements,

separated into coxswain station, navigator station, and commander station. A dedicated fire fighting and engineering station is provided as the central commander centre. Internal spaces and roomy and functional for attending crew members.

Fully air-conditioned accommodation is provided for 15 crew, with two single cabins, and one six-man crew cabin. Additionally, *Elite* is outfitted with a 16-seater conference room, a 20-seater mess room, a 25-seater briefing room, and a survivor cabin, with space for 100 people.

TECHNICAL PARTICULARS

Length, oa.....42.50m
 Length, bp.....39.60m
 Breadth, moulded.....9.60m
 Depth, moulded.....4.20m
 Gross tonnage.....653gt
 Displacement.....650tonnes
 Max speed (100% MCR engine output).....over 15knots @ 100% MCR
 Service speed.....15knots @ ~85% MCR
 Range.....50nm
 Fuel consumption.....750litres/hr
 Classification Society & Notation.....Designed to LRS 100A1 Tug (not classed)
 Other regulations.....HKMD Survey, IMO, IEE, Fi-Fi 11
 Main Engine
 Model.....CAT3516B
 Manufacturer.....Caterpillar
 Number.....2
 Output.....1772kW @ 1600rev/min
 Alternators
 Number.....CAT3406
 Make.....Caterpillar
 Number.....2
 Output.....245kW
 Gearboxes
 Make.....NICO
 Model.....MGN1424V
 Number.....2
 Reduction ratio.....3.06:1
 Propellers
 Material.....Bronze
 Manufacturer.....Stone
 Number.....2

Pitch.....5-bladed FP
 Diameter.....1700mm
 Open/nozzle.....Open
 Bow Thrusters
 Make.....Schottel
 Number.....STT330T-LK
 Output of each kW and rev/min.....500kW @ 1470rev/min

Deck machinery
 Deck crane
 Make.....Palfinger
 Model.....PK48000MA
 Number.....1
 Capacity.....SWL 3tonnes @ maximum outreach 5m

Anchor Windlass
 Make.....Plimssoll
 Model.....PR-HAW/GG-24
 Number.....2
 Gypsy size.....24mm diameter U2 chain

Speedboat
 Make.....Boston Whaler
 Model.....21' Impact
 Number.....1

Bridge Electronics
 Radar.....Furuno FR1525 Mk3
 GPS.....Furuno GP3300
 GPS Receive.....Furuno GR80
 Echo sounder.....Furuno FE-700
 VHF.....Vingtor
 PA and Intercom.....Vingtor
 Speedlog.....Walker 7070

Complement
 Crew.....15
 Passengers.....100
 Number of cabins.....3
 Other Equipment

Diving Cage System
 Make.....Southern Oceanics
 Model.....LG-360
 Capacity.....3 divers
 Max working depth.....60m

External Fire Fighting System
 Make.....Unitor Fi-Fi Systems
 Firepump.....3 x 2400m³/hr
 Monitor.....2 x 40,000litres/min (water monitors); 6 x 10,000litres/min (water/foam monitors)

英國皇家海事設計學院選為2002年傑出小型船舶

精英號 - 香港的專用消防船

建造商:	宏德機器鐵工廠有限公司	設計單位:	宏德機器鐵工廠有限公司
船名:	精英號消防船	掛旗:	香港特別行政區政府
業主/船東:	香港特別行政區政府	交船日期:	2002年4月
運作單位:	香港特別行政區消防處		

精英號消防船於2002年五月份正式投入服務，代替退役消防船葛亮洪號。這艘船是為了提昇海上滅火功能及提供廣泛功能而設計和建造的。其功能包括巡邏，沿岸滅火，海上意外之搜救，潛水支援及於大規模行動中作為指揮中心。

精英號，單體設計，LRS 100A1船級設計，具備2台CAT3516B型柴油主機，作為船推動及消防泵用，航速15海浬。全自動對外消防系統，總泵水量達每小時7,200噸，稱霸為世界最專業的消防船。船上滅火設備達國際滅火二級標準，2支主力水炮每分鐘可射出40,000公升水，射程達150米。另設6支水/泡沫炮每分鐘可射出10,000公升水，射程達100米。此外更設有先進的水簾灑水裝置及消防泡沫製造裝置。

此消防輪是於本港消防處船隊中，首隻設有潛水籠的船隻，供蛙人快速潛入深海中搜救使用。其設計獨特，可將3名潛水員同時安全迅速地送達60米深海工作。消防船還設有一艘消防快艇，由吊機起落。此外亦設直昇機吊運點，方便將生還者送返岸上。

特別設計的駕駛室具備360度全方位視野，於船頂安裝了強射燈；滅火及航行工作分為：通訊及控制系統站，航海站及消防站，具備先進設施為船員及消防隊長有效工作而設。

精英號內部佈置亦經精心設計，設有全船空氣調節系統，容納15名船員操作。備有單人房及6人生活間及澡室。此外，精英號更設有16人會議室，20人食堂，25人講解室及可容納100人的乘客/生還者室。

技術性資料

總長, oa	42.5米
水線長, bp	39.6米
型寬, moulded	9.6米
型深, moulded	4.2米
排水量	650噸
服務速度	15海浬@ 85% MCR
航區	沿海50浬
船級及入級符號	LRS 100A1拖船(無入級)
其他規範	香港海事處檢驗, IMO, IEE, 消防二類

主機	
型號	CAT3516B
生產廠	Caterpillar
數量	2
功率	1772千瓦@1600轉/分

發電機	
型號	CAT3406
生產廠	Caterpillar
數量	2
功率	245千瓦

齒輪箱	
生產廠	NICO
型號	MGN1424V
數量	2
速比	3.06:1

螺旋槳	
用料	銅
生產廠	Stone Marine
數量	2
螺距	五葉定距
直徑	1700毫米

艏側推器	
生產廠	Schottel
型號	STT330T-LK
功率	500千瓦@1470轉/分

甲板機械	
甲板吊機	
生產廠	Palfinger
型號	PK48000MA
數量	1
負荷	安全運作負荷為3噸@最長跨距至5米

錨機	
生產廠	Plimsoll
型號	PR-HAW/GG-24
數量	2
絞纜筒	24毫米直徑U2鏈

消防快艇	
生產廠	Boston Whaler
型號	21' Impact
數量	1

駕駛室電子器材	
雷達	古野 FR1525MK3
定位儀	古野 GP3300
定位儀接收器	古野 GR80
測深儀	古野 FE-700
VHF	Vingtor
廣播及內部	Vingtor
通話系統	
風速儀	Walker 7070

容量	
船員	15人
生還者	100人
房間	3間

其他設備	
潛水籠系統	
生產廠	Southern Oceanics
型號	LG-360
容量	3名潛水員
最深可達	60米

對外消防系統	
生產廠	Unitor/Skum
消防泵	3 x 2,400立方米/小時
消防炮	2 x 40,000升/分(水炮)
	6 x 10,000升/分(水/泡沫炮)
泡沫儲存量	30,000升