



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.....PK4800OMA
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)

英国皇家海事设计学院选为2002年杰出小型船舶

精英号 - 香港的专用消防船

建造商：	宏德机器铁工厂有限公司	设计单位：	宏德机器铁工厂有限公司
船名：	精英号消防船	挂旗：	香港特别行政区政府
业主/船东：	香港特别行政区政府	交船日期：	2002年4月
运作单位：	香港特别行政区消防处		

精英号消防船于2002年5月份正式投入服务，代替退役消防船葛亮洪号。这艘船是为了提升海上灭火功能及提供广泛功能而设计和建造的。其功能包括巡逻，沿岸灭火，海上意外之搜救，潜水支援及于大规模行动中作为指挥中心。

精英号，单体设计，LRS 100AI船级设计，具备两台CAT3516B型柴油主机，作为船推动及消防泵用，航速15海浬。全自动对外消防系统，总泵水量达每小时7,200吨，称霸为世界最专业的消防船。船上灭火设备达国际灭火二级标准，2支主力水炮每分钟可射出40,000公升水，射程达150米。另设6支水/泡沫炮每分钟可射出10,000公升水，射程达100米。此外更设有先进的水帘洒水装置及消防泡沫制造装置。

此消防轮是于本港消防处船队中，首只设有潜水笼的船只，供蛙人快速潜入深海中搜救使用。其设计独特，可将3名潜水员同时安全迅速地送达60米深海工作。消防船还设有一艘消防快艇，由吊机起落。此外亦设直升机吊运点，方便将生还者送返岸上。

特别设计的驾驶室具备360度全方位视野，于船顶安装了强射灯；灭火及航行工作分为：通讯及控制系统站，航海站及消防站，具备先进设施为船员及消防队长有效工作而设。

精英号内部布置亦经精心设计，设有全船空气调节系统，容纳15名船员操作。备有单人房及6人生活间及澡室。此外，精英号更设有16人会议室，20人食堂，25人讲解室及可容纳100人的乘客/生还者室。

技术性资料

总长，oa	42.5米	锚机	
水线长，bp	39.6米	生产厂	Plimsoll
型宽，moulded	9.6米	型号	PR-HAW/GG-24
型深，moulded	4.2米	数量	2
排水量	650吨	绞缆筒	24毫米直径U2链
服务速度	15海浬@ 85% MCR	消防快艇	
航区	沿海50浬	生产厂	Boston Whaler
船级及入级符号	LRS 100A1拖船(无入级)	型号	21' Impact
其他规范	香港海事处检验,IMO,IEE,消防二类	数量	1
主机		驾驶室电子器材	
型号	CAT3516B	雷达	古野 FR1525MK3
生产厂	Caterpillar	定位仪	古野 GP3300
数量	2	定位仪接收器	古野 GR80
功率	1772千瓦@1600转/分	测深仪	古野 FE-700
发电机		VHF	Vingtor
型号	CAT3406	广播及内部	Vingtor
生产厂	Caterpillar	通话系统	
数量	2	风速仪	Walker 7070
功率	245千瓦	容量	
齿轮箱		船员	15人
生产厂	NICO	生还者	100人
型号	MGN1424V	房间	3间
数量	2	其他设备	
速比	3.06:1	潜水笼系统	
螺旋桨		生产厂	Southern Oceanics
用料	铜	型号	LG-360
生产厂	Stone Marine	容量	3名潜水员
数量	2	最深可达	60米
螺距	五叶定距	对外消防系统	
直径	1700毫米	生产厂	Unitor/Skum
艏侧推器		消防泵	3 x 2,400立方米/小时
生产厂	Schottel	消防炮	2 x 40,000升/分(水炮)
型号	STT330T-LK		6 x 10,000升/分(水/泡沫炮)
功率	500千瓦@1470转/分	泡沫储存量	30,000升
甲板机械			
甲板吊机			
生产厂	Palfinger		
型号	PK48000MA		
数量	1		
负荷	安全运作负荷为3吨@最长跨距至5米		