
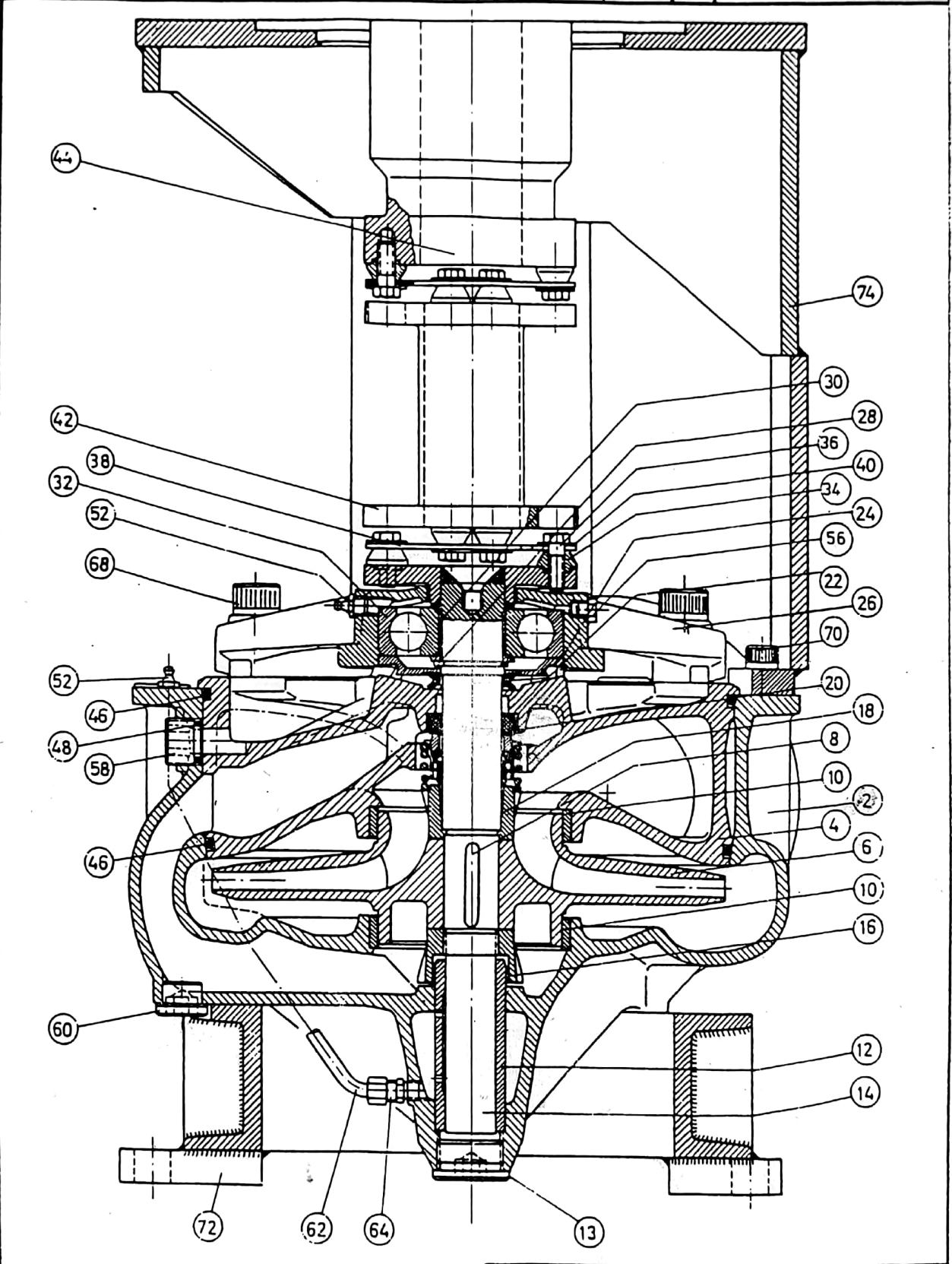


Kværner Ships Equipment		DATASHEET FOR		SECTION 1.1	
SIGN : MKL	DATE 26.05.98	CENTRIFUGAL PUMP AND ELECTRIC MOTOR		Pg	Of
CUSTOMER	:	KVÆRNER GOVAN LTD.			Rev. 04
CONTRACT NO.	:	A-82777 / 0319 / 1			Sign. SHH
TYPE OF VESSEL	:				Date. 14.09.98
HULL NO.	:	NB319			
KSET ORDER No.	:	S11689 / B805814			
KSI ORDER No.	:	820038			
<b>ITEM NO. 01 : FIRE/GENERAL SERVICE PUMP ( MARK 813TCM001 )</b>					
Fluid/Density/Temp.	:	Seawater / 1025 kg/m <sup>3</sup> / 32-45 ° C			
No. Off	:	4-Four			
Model	:	CGC150- V48- AAN- EHD c/w coupling guard			
Type	:	Single suction, one stage , radially split, vertical centrifugal pump			
Weight	:	225 kg Approx.			
Shop No.	:	98-20658 to 98-20661			
<b>PERFORMANCE DATA</b>					
Capacity	:	370	m <sup>3</sup> /h	Pump Total Head	: 85 mlc
Speed	:	3578	rpm	Inlet Total Head	: -- mlc
Power Consumption	:	125.3	kW	Outlet Total Head	: -- mlc
Driver Rating	:	132.0	kW	NPSHr	: 6.8 mlc
<b>TECHNICAL SPECIFICATION</b>					
Shaft Seal	:	Mechanical			
Bearing	:	Grease lubricated ball bearing			
Material	:	Casing in Ni-Al-Bronze			
	:	Impeller in Ni-Al-Bronze			
	:	Shaft in Stainless Steel 329			
Coating	:	Maker's standard			
<b>PRIMING SYSTEM</b>	:	Not included.			
<b>ACCESSORIES</b>	:	Gauges are included.			
	:				
<b>SPARE PARTS</b>	:	Not included			
<b>DOCUMENTATION</b>					
Description	:	SU 00066-000	Sectional Drawing	:	SU 00078-000
Performance Curve	:	Enclosed	Material List	:	SU 04783-002
Outline Drawing	:	SU 03507-001	Certificate	:	DnV
<b>TEST</b>	:	Performance test in accordance with ISO 2548 Class C. Hydrostatic pressure test to 1.5 times pump delivery pressure against closed discharge valve.			
<b>ELECTRIC MOTOR</b>					
Maker	:	ABB	Type	:	TEFC
Model	:	M2BA315SMB	Weight	:	920 kg
Insulation class	:	F	Speed	:	3578 rpm
Temperature Rise	:	B	Execution	:	V1
Protection	:	IP55	Ph./Voltage/Freq.	:	3/440/60
Max. power output (kW)	:	135.0	Heating	:	Not included.
In (A)	:	238 A	Cable glands	:	Included.
Is (A)	:	548 A	Thermistor	:	Not included
Starting method	:	STAR/DELTA	Certificate	:	DnV

Kværner Eureka a.s Norway			CENTRIFUGAL PUMP CGA, B, C, FORM V		SU 00076-000	
Drawn	Date	Sign	1. GENERAL DESCRIPTION		Page	Of
	04.09.91	HAG	6. SECTIONAL DRAWING		1	1
Design.	04.09.91	RHE	Scale:	-	4	
Checked	04.09.91	SKA				



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Kvæmer Ships Equipment		CENTRIFUGAL PUMP, TYPE CG		SECTION 1.6 SU 04783-002	
1. GENERAL DESCRIPTION		6. MATERIALS LIST CLASS AAN			
Sign.	Date 30/11/94	Page Side 1		of av 3	
Documenttype: Document:		Uttent av: Written by: SKo		Godkjent: Approved: TJB	
Rev.:					
DRW.REF.					
REF	NAME OF PART	NO OFF	MATERIAL	REMARKS	
2	PUMP CASING PUMPEHUS	1	Ni-Al-BRONZE Ni-Al-BRONZE		
4	PUMP COVER PUMPELOKK	1	Ni-Al-BRONZE Ni-Al-BRONZE		
6	IMPELLER LØPEHJUL	1	Ni-Al-BRONZE Ni-Al-BRONZE		
8	SHAFT KEY PASSKILE	1	STAINLESS STEEL RUSTFRITT STÅL		
10	WEAR RING SLITERING	2	BRONZE BRONZE	CENTER.CAST SENTR. ST.	
12	BEARING BUSH HYLSELAGER	1	LEAD BRONZE BLYBRONSE		
13	BEARING PLUG LAGERPLUGG	1	BRASS MESSING		
14	PUMP SHAFT PUMPEAKSEL	1	STAINLESS STEEL RUSTFRITT STÅL	AISI 329	
16	SHAFT NUT AKSELMUTTER	1	STAINLESS STEEL RUSTFRITT STÅL	AISI 316	
18	DISTANCE RING AVSTANDSRING	1	STAINLESS STEEL RUSTFRITT STÅL	AISI 316	
20	MECHANICAL SEAL MEKANISK TETNING	1			
22	GREASE SEAL TETNINGSRING	1	NITRILE RUBBER NITRIL GUMMI		
24	BEARING COVER LAGERBLOKK	1	MILD STEEL STÅL		
26	BEARING HOUSING LAGERHUS MED TERS	1	CAST IRON STØPEJERN		
28	CIRCLIP SPORRING	1	SPRING STEEL FJÆRSTÅL		
30	BEARING SLEEVE LAGERHYLSE	1	MILD STEEL STÅL		
32	BALL BEARING KULELAGER	1	STEEL STÅL		
46	O-RING O-RING	2	NITRILE RUBBER NITRIL GUMMI		
48	SEAL GUMMIRING	1	NITRILE RUBBER NITRIL GUMMI		
52	LUBRICATING NIPPLE GREASENIPPEL	2	PLATED STEEL CADM. STÅL		
56	GREASE PLUG RØRPLUGG	1	MN. BRASS MN.MESSING		
58	DRAIN PLUG TØMMEPLUGG	1	BRONZE BRONZE		

Kvæmer Ships Equipment	CENTRIFUGAL PUMP, TYPE CG		SECTION 1.6	
	1. GENERAL DESCRIPTION		SU 04783-002	
Sign.	Date	6. MATERIALS LIST CLASS AAN		Page
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				2
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				av
				3

DRW.REF.

REF	NAME OF PART	NO OFF	MATERIAL	REMARKS
60	DRAIN PLUG TØMMEPLUGG	1	BRONZE BRONSE	
62	LUBRICATING PIPE SMØRERØR	1	COPPER KOPPER	
64	PIPE NIPPLE PIPENIPPEL	2	BRASS MESSING	
68	LOCK SCREW LÅSESKRUE	4	PLATED STEEL CADM. STÅL	HIGH TENSILE HØY STREKKFASTH.
70	SOCKET HEAD SCREW UNBRAKOSKRUE	20	STEEL STÅL	HIGH TENSILE HØY STREKKFASTH.

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Sign. _____ Date 30/11/94		1. GENERAL DESCRIPTION				
		6. MATERIALS LIST CLASS AAN				
		Page Side	3	of av	3	
DRW.REF.						
REF	NAME OF PART	NO. OFF	MATERIAL	REMARKS		
<b>TRANSMISSION: Common for Forms V - - HD &amp; S</b>						
34	ROBBIN KUPLINGSDUBB	16	F.C.STEEL AUT.STÅL			
36	COUPLING BOLT KUPLINGSSKRUE	16	STEEL STÅL			
38	COUPLING DISC KUPLINGSLAMELL	X	STAINLESS STEEL RUSTFRITT STÅL			
40	COUPLING LOCK LÅSEBRIKKE	8	STAINLESS STEEL RUSTFRITT STÅL			
42	PROPELLER SHAFT MELLOMAKSEL	1	MILD STEEL STÅL			
44	MOTOR COUPLING MOTORKUPLING	1	MILD STEEL STÅL			
<b>FORM V - - HD</b>						
70	SOCKET HEAD SCREW UNBRAKOSKRUE	20/22	STEEL STÅL	CGD/CGE		
71	PUMP FOOT PUMPEFOT	1	MILD STEEL STÅL			
73	COLUMN STAG	2	MILD STEEL STÅL			
75	MOTOR PEDESTAL MOTORSTATIV	1	MILD STEEL STÅL			
77	SOCKER HEAD SCREW UNBRAKOSKRUE	4	STEEL STÅL			
79	SOCKET HEAD SCREW UNBRAKOSKRUE	2	STEEL STÅL			
81	NUT MUTTER	2	STEEL STÅL			
<b>FORM S</b>						
70	SOCKET HEAD SCREW UNBRAKOSKRUE	14	STEEL STÅL			
76	BULKHEAD BRACKET SKOTTBRAKETT	1	MILD STEEL STÅL			
<b>FORM T</b>						
70	SOCKER HEAD SCREW UNBRAKOSKRUE	14/16	STEEL STÅL	CGD/CGE		
72	PUMP FOOT PUMPEFOT	1	MILD STEEL STÅL			
78	SOCKER HEAD SCREW UNBRAKOSKRUE	4	PLATED STEEL CADM. STÅL			
80	ADAPTOR FLANGE KUPLINGSFLENS	1	MILD STEEL STÅL			
82	CEMENT LÅSESEMENT					