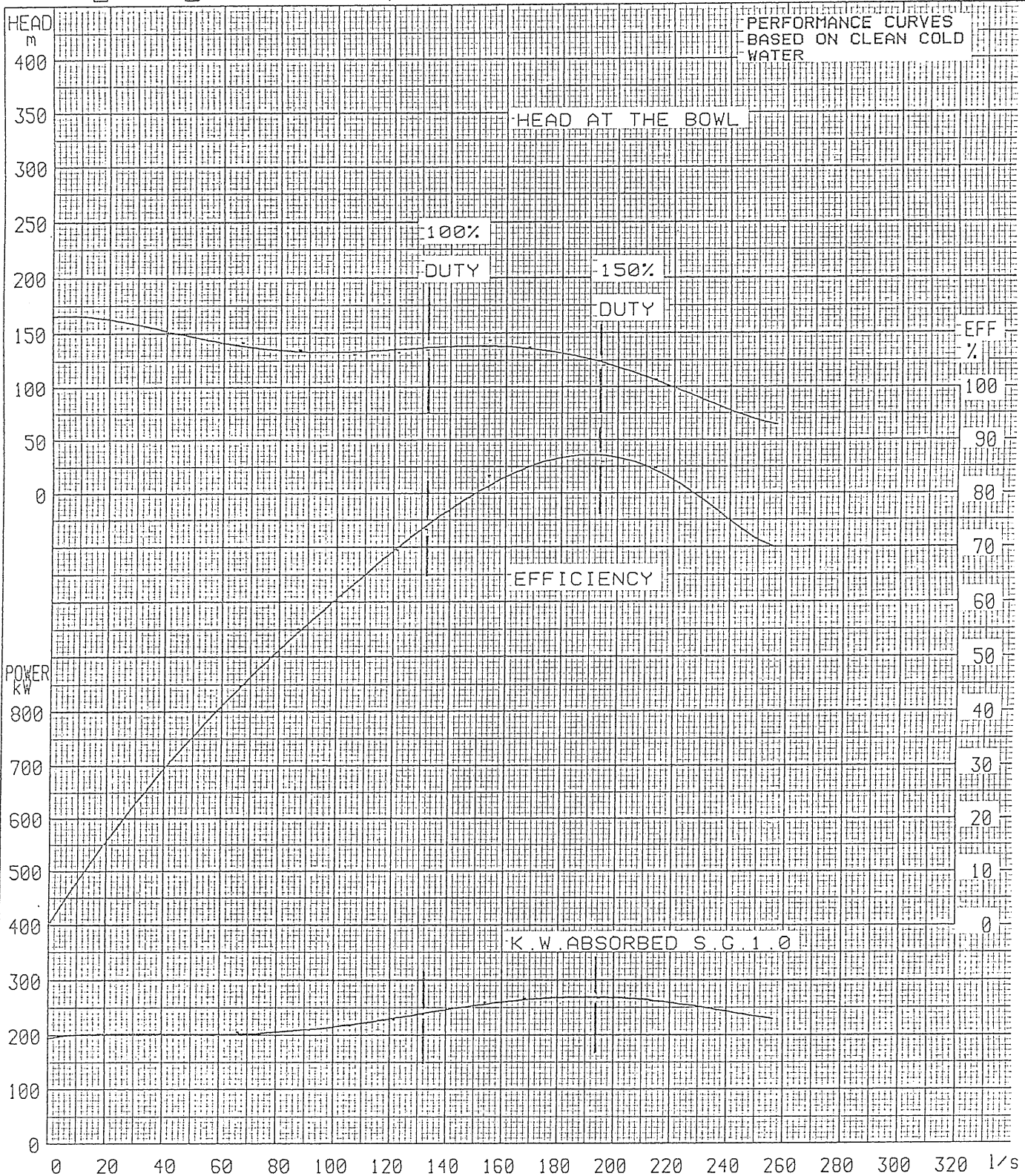


PUMP TYPE FN16B

CURVE
 NOM. SPEED 1760 rpm
 BRANCHES 0 * 250



TEST NO: 1

MAX. HYD. TEST PRESS. BARS	MAX. SUCTION PRESSURE BARS	MAX/MIN. TEMP. °C	IMP. FULL DIA. mm	IMP. ACTUAL DIA. 300.00 mm	IMP. EYE AREA mm ²
MAX. WORKING PRESSURE BARS	MAXIMUM POWER AT NOM. SPEED kW	SPECIFIC SPEED (Ns 0)	IMP. MIN. DIA. mm	IMP. EYE DIA. mm	OLD PUMP CODE
STERLING FLUID SYSTEMS- FRIGG C.C.			ITEM No.	SPP REF. 1/146002/A	CHECKED
			CUST. REF.	DATE 9-MAR-1	APPROVED

SPP LIMITED
 THEALE CROSS, READING RG3 7SP
 BERKSHIRE, ENGLAND

PERFORMANCE CURVE

PUMP TEST CERTIFICATE
 Tests Standard :
 Tested to BS 5316
 Part 1 (Class C)

PUMP TYPE: FN16B
 SUCTION DIA: BELLMOUTH
 DELIVERY DIA: 250mm
 NO. OF STAGES: 5
 WORKS NUMBER: 1/ 146002
 PUMP ID LETTER: A
 TEST NO: 1
 SHEET NO: 1 OF 3

CUSTOMER: STERLING FLUID SYSTEMS- FRIGG C.C.

CUST. ORDER NO:
 CUST. ITEM NO:

INSTRUMENTATION

DEL. GAUGE No. MW15
 PIPE DIA. 254
 SUCT. GAUGE No. 0
 SUCT. PIPE DIA. F31
 FLOWMETER No. W1
 WATTMETER No. V1
 VOLTMMETER No. A1
 AMMETER No. CT6
 TACHOMETER No.
 TORQUEMETER No.

SITE DUTY
 SEA WATER
 1.05
 1800
 126.0
 133.57

TEST CONDITIONS
 AND DUTY

WATER
 1.000
 17.C
 1/s:
 m:
 kW:

1000

IMPELLER DETAILS to SPP standard EDT PRA IO2

FIG NO: 2
 D3: D4:
 A: B:
 L: 30.0 R:
 TAD CODE: AAMXH Y
 PUMP CODE:
 OTHER TEST CODES:
 HYDRO. TEST PRESS.: 26.9 BAR

DRIVER DETAILS

DRIVER CODE: M
 TYPE:
 RATED POWER kW:
 RATED VOLTS:
 PHASE/FREQU:
 TEST MOTOR No.: M11
 CALIB No.: 260
 MAKE:
 SERIAL NUMBER:
 SPEED rpm:
 F.L.AMPS:

REMARKS:

COOLING FLOW FOR ENGINE & GEARBOX :- 6 l/s
 ORIGINAL SERIAL NUMBER :- 7/415002

REF. HEAD LOSS m.: 0.00
 REF. FLOW l/s: 0.0
 CONST. DRIVE LOSS kW: 0.00
 PERCENT. DRIVE LOSS: 0.00

TESTED BY: J. JONES

INSPECTED BY: CUSTOMER
 WITNESSED BY: Mr. A. G. Nyhus

TEST DATE: 9-MAR-1

CERTIFIED ON BEHALF OF STERLING



PUMP TEST CERTIFICATE

PUMP TYPE: FN16B
 SUCTION DIA: BELMOUTH
 DELIVERY DIA: 250mm
 NO. OF STAGES: 5

WORKS NUMBER: 1/ 146002
 PUMP ID LETTER: A
 TEST NO: 1
 SHEET NO: 2 OF 3

Tests Standard
 Tested to BS 5316
 Part 1 (Class C)

CUSTOMER: STERLING FLUID SYSTEMS- FRIGG C.C.

CUST. ORDER NO:
 CUST. ITEM NO:

TEST POINT NO.	1	2	3	4	5	6	7	8	
FLOW	1/s	216.20	180.00	164.20	141.80	129.80	111.10	102.60	89.50
SUCTION HEAD	m.	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
DELIVERY HEAD	m.	43.00	73.30	83.00	95.30	99.50	94.00	92.80	91.40
VELOCITY CORR.	m.	0.93	0.64	0.54	0.40	0.33	0.25	0.21	0.16
PUMP LOSS	m.	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
GAUGE POS. CORR.	m.	1.55	1.55	1.55	1.55	1.55	1.55	1.55	1.55
TOTAL HEAD	m.	45.48	75.49	85.09	97.25	101.38	95.80	94.56	93.11
VOLTS		420.00	413.00	416.00	415.00	415.00	418.00	419.00	419.00
AMPS		242.00	276.00	280.00	278.00	273.00	251.00	243.00	234.00
POWER FACTOR									
FREQUENCY	Hz								
MOTOR INPUT	kW.	148.30	168.90	171.40	170.70	166.40	153.50	147.60	141.50
DRIVER OUTPUT	kW.	137.77	157.47	159.85	159.18	155.08	142.75	137.09	131.24
DRIVE LOSS	kW.	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
INPUT TO PUMP	kW.	137.77	157.47	159.85	159.18	155.08	142.75	137.09	131.24
FLUID SPEED	rpm.	96.42	133.26	137.01	135.24	129.05	104.37	95.14	81.72
		1485	1485	1484	1483	1483	1486	1487	1488
PUMP EFFICIENCY	%	69.99	84.63	85.71	84.95	83.22	73.11	69.40	62.27
RESULTS CORRECTED TO 1760rpm									
FLOW	l/s	256.24	213.33	194.74	168.29	154.04	131.59	121.44	105.86
TOTAL HEAD	m	63.88	106.04	119.68	136.97	142.80	134.38	132.47	130.26
POWER ABS (SG 1.0)		229.35	262.15	266.66	266.08	259.23	237.17	227.31	217.16
POWER ABS (SG 1.050)		240.82	275.26	279.99	279.39	272.19	249.03	238.68	228.02

PUMP TEST CERTIFICATE

PUMP TYPE: FN16B WORKS NUMBER: 1/ 146002
 SUCTION DIA: BELLMOUTH PUMP ID LETTER: A
 DELIVERY DIA: 250mm TEST NO: 1
 NO. OF STAGES: 5 SHEET NO: 3 OF 3

Tests Standard :
 Tested to BS 5316
 Part 1 (Class C)

CUSTOMER: STERLING FLUID SYSTEMS- FRIGG C.C. CUST. ORDER NO:
 CUST. ITEM NO:

TEST POINT NO.	9	10	11	12
FLOW	73.30	56.30	34.40	0.00
SUCTION HEAD	0.00	0.00	0.00	0.00
DELIVERY HEAD	94.80	99.50	105.20	116.80
VELOCITY CORR.	0.11	0.06	0.02	0.00
PUMP LOSS	0.00	0.00	0.00	0.00
GAUGE POS. CORR.	1.55	1.55	1.55	1.55
TOTAL HEAD	96.46	101.11	106.77	118.35
VOLTS	418.00	420.00	421.00	421.00
AMPS	227.00	224.00	220.00	214.00
POWER FACTOR				
FREQUENCY				
MOTOR INPUT	136.00	134.70	131.00	127.20
DRIVER OUTPUT	125.94	124.69	121.13	117.46
DRIVE LOSS	0.00	0.00	0.00	0.00
INPUT TO PUMP	125.94	124.69	121.13	117.46
FLUID SPEED	69.34	55.83	36.02	0.00
	1488	1489	1489	1489
PUMP EFFICIENCY	55.05	44.77	29.74	0.00
RESULTS CORRECTED TO 1760rpm				
FLOW	86.70	66.55	40.66	0.00
TOTAL HEAD	134.94	141.27	149.18	165.35
POWER ABS (SG 1.0)	208.40	205.92	200.03	193.97
POWER ABS (SG 1.050)	218.82	216.21	210.03	203.67