SAMJIN CORPORATION

검사 기록서
(RECORD OF INSPECTION)

담당	팀장	부서장

공사 번호 PROJECT NO. H1010	검사 품목 INSP. PRODUCT Propeller & shaft
제 작 사 MAKER 신라금속	검사 일자 DATE OF INSP. 2009.03.31
검 사 자 INSPECTOR 박 승철, 선주	검사 장소 PLACE OF INSP. 신라금속

순번 NO.	품 명 ITEM NAME	도 면 번 호 DRAW NO.	수량 Q'TY	점검결과 CHECK RESULT	특 이 사 항 REMARK
1.	Propeller	08-P-19-01	1set	AA	
2.	shaft (Inter & propeller)	DA500M104(rev1)	2EA	AC	
3.					

REMARK

1) 각종 Rope Guard 생산시 확인 - 삼진Q.C.

2) propeller Hyd. nut Cap 생산시 삼진Q.C 확인 (형상. leak test)

3) Inter shaft 베어링부 조도불량 수정요.

4) shaft & Bolts 장기 방청유도포요.

최종검사결과 RESULT OF INSP.	☒ ACCEPTED ☐ REJECTED	검사 종류 KIND OF INSP.	☐ FIT-UP ☐ VISUAL ☐ HYDRO ☐ FUNCTION ☐ SHOT BLAST ☐ PAINT ☑ FINAL ☐ OTHERS

피검자 MANUFACTURED BY	검수자 WITNESSED BY
담당자 : KKY (인)	담당자 : TPC KOREA (인)

H-1010

THE PROCESS OF INSPECTION OF PROP' & SHAFT

DATE : 31 March 2009

1. DOCUMENT CHECK

2. STATIC BALANCING TEST OF PROPELLER ALL.

3. RUN OUT CHECK OF PROP' SHAFT ALL.

4. DIMENSION CHECK OF EACH SHAFTINGS ALL.

5. DIMENSION CHECK OF PROPELLER ALL

6. RUN OUT CHECK OF INTER' SHAFT ALL.

7. NDT (PT, MT) CHECK OF PROPELLER & EACH SHAFTINGS ALL.

8. FINAL MEETING OF INSPECTION

SIL LA METAL CO., LTD
#1489-2 SONGJUNG-DONG
KANGSEO-GU PUSAN KOREA
MR. KYUNG-HO. KIM

OWNER	CLASS	YARD	INSPECTOR
2009. 3. 31	31-03-09	S.C. Park	31 Mar 09

이엔디이주식회사 e-NDE CO.,LTD.

LIQUID PENETRANT EXAMINATION REPORT
침 투 탐 상 시 험 보 고 서

보고서번호 Report No. SL-090331-02

검사일자 Date : 2009.03.31

주문주/고객 Owner/Customer SAMJIN SHIPBUILDING INDUSTRIES CO., LTD.	공사명/공사번호 Project Name./No. H-1010
제품명/제품번호 Item Name./No. PROPELLER	도면번호 Drawing No. 08-P-19
공정번호 TRV No. Revision No. Operation No. N/A	적용규격 Procedure No. KR RULE
재질/두께 Material/Thickness Ni-Al-Br (CU3)	시험방법 Examination Method ■ 용제제거성 Solvent-removable(VC-S) ☐ 형광 Fluorescent ☐ 후유화성 Post-emulsifiable ☐ 수세성 Water-washable
침 투 제 Penetrant Brand : GS CHEM ■ 분무 Spray ☐ 침적 Immerse Batch No : G081102P ☐ 솔질 Brush	세 척 제 Remover Brand : GS CHEM ☐ 분무 Spray ☐ 침적 Immerse Batch No : G081101C ■ 닦아냄 Handwipe
현상제 Developer Brand : GS CHEM ■ 분무 Spray ☐ 침적 Immerse Batch No : G081103D ☐ 솔질 Brush	침투시간/현상시간 Penetrant Time/Developing Time 15 min분 / 15 min분
표면조건 Surface Condition / 온도 Temperature ☐ 용접As Welded ■ 연마As Ground ■ 가공As Machined 14 ℃	자외선등 Black Light 모델 Model : N/A 강도 Intensity : Min. μW/cm²
조도 ILLumination ■ Min. 1000 Lux ☐ Max. 20 Lux	검사시기 Time of Examination ☐ AFTER HT ☐ BEFORE HT ■ N/A

* Remarks (비고)

*AROUND 0.7R PART "P.T"CHECK

확인번호 Identification No.	수 량 Q'TY	합 격 Accept	불합격 Reject	평 가 Interpretation	비 고 Remarks
PROPELLER	1	V		ACCEPTED	DIA: Ø5600
				~ B L A N K ~	

Examined By Level II

Approved By Level III

☐ 주문주/고객Owner/Customer ☐ 제조자 검사 Vendor Inspector
☐ 검토 Reviewed
☐ 입회 Witnessed

☐ 공인검사관 Third Party Inspector
☐ 검토 Reviewed
☑ 입회 Witnessed

e * NDE
이엔디이

MAGNETIC PARTICLE EXAMINATION REPORT
자 분 탐 상 시 험 보 고 서

보고서번호 Report No. SL-090331-01

검사일자 Date : 2009.03.31

주문주/고객 Owner/Customer SAMJIN SHIPBUILDING INDUSTRIES CO., LTD.	공사명/공사번호 Project Name./No. H-1010
제품명/제품번호 Item Name./No. SEE ID. No.	도면번호 Drawing No. DA500M104
공정번호 TRV No. / Revision No. / Operation No. N/A	적용규격 Procedure No. KR RULE
재질/두께 Material/Thickness FORGED STEEL , SCM435	표준시험편 Standard Test Block ■ FIELD INDICATOR(PIE) ☐ GE TAPERED BLOCK ☐ STB-A
장비 Equipment 모델 / 장비번호 / 제조자 Model : MT-A1 / No. MT-1009 / Maker : KANG SUNG	자분 Particle 습식 건식 형광 ■ Wet ☐ Dry ■ Fluorescent Brand MAGNA PLUX Color ■ Y-GREEN ☐ BLACK

조도 ILLumination ☐ Min. 1000 Lux ■ Max. 20 Lux	유효기간 Due Date 2009.04.01	농도 Particle Density ■ 2 g / ℓ ☐ mℓ/100mℓ
자외선등 Black Light 모델 Model / 제조자 Maker BL-100 / KANG SUNG	자외선등 강도 Black Ligh Intensity ☐ NOT USE ■ Min.1000 μW/㎠	검사시기 Time of Examination ■ AFTER HT ☐ BEFORE HT 시험온도 Test temp. 14 ℃
자화법 Magnetization Technique ■ Yoke ■ 연속 Continuous ☐ Prod ☐ 잔류 Residual	자화전류(자력) Current/Lifting ■ 교류 AC (Min .10 Pound) ☐ 직류 DC (Min .40 Pound) ☐ 반파 직류 HWDC 100~125Amp/in	간격 Yoke/Prod Spacing 4~6 ☐ mm ☐ inch
표면조건 Surface Condition 용접 ☐ As Welded / 연마 ☐ As Ground / 가공 ■ As Machined		탈자 Demagnetization ☐ Yes ■ No

* Remarks (비고)

*ALL SURFACE M.T CHECK

확인번호 Identification No.	(EA) Q'TY	합 격 Accept	불합격 Reject	평 가 Interpretation	비 고 Remarks
PROPELLER SHAFT	1	V		ACCEPTED	Ø460 X 6225L
INTERMEDIATE SHAFT	1	V		ACCEPTED	Ø390 X 7000L
No.1 COUPLING BOLT	13	V		ACCEPTED	
				~ BLANK ~	

Examined By [signature] Level II

Approved By Y.K. [signature] Level III

☐ 주문주/고객Owner/Customer ☐ 제조자 검사 Vendor Inspector
☐ 검토 Reviewed
☐ 입회 Witnessed

☐ 공인검사관 Third Party Inspector
☐ 검토 Reviewed
☑ 입회 Witnessed

STATIC BALANCING TEST REPORT

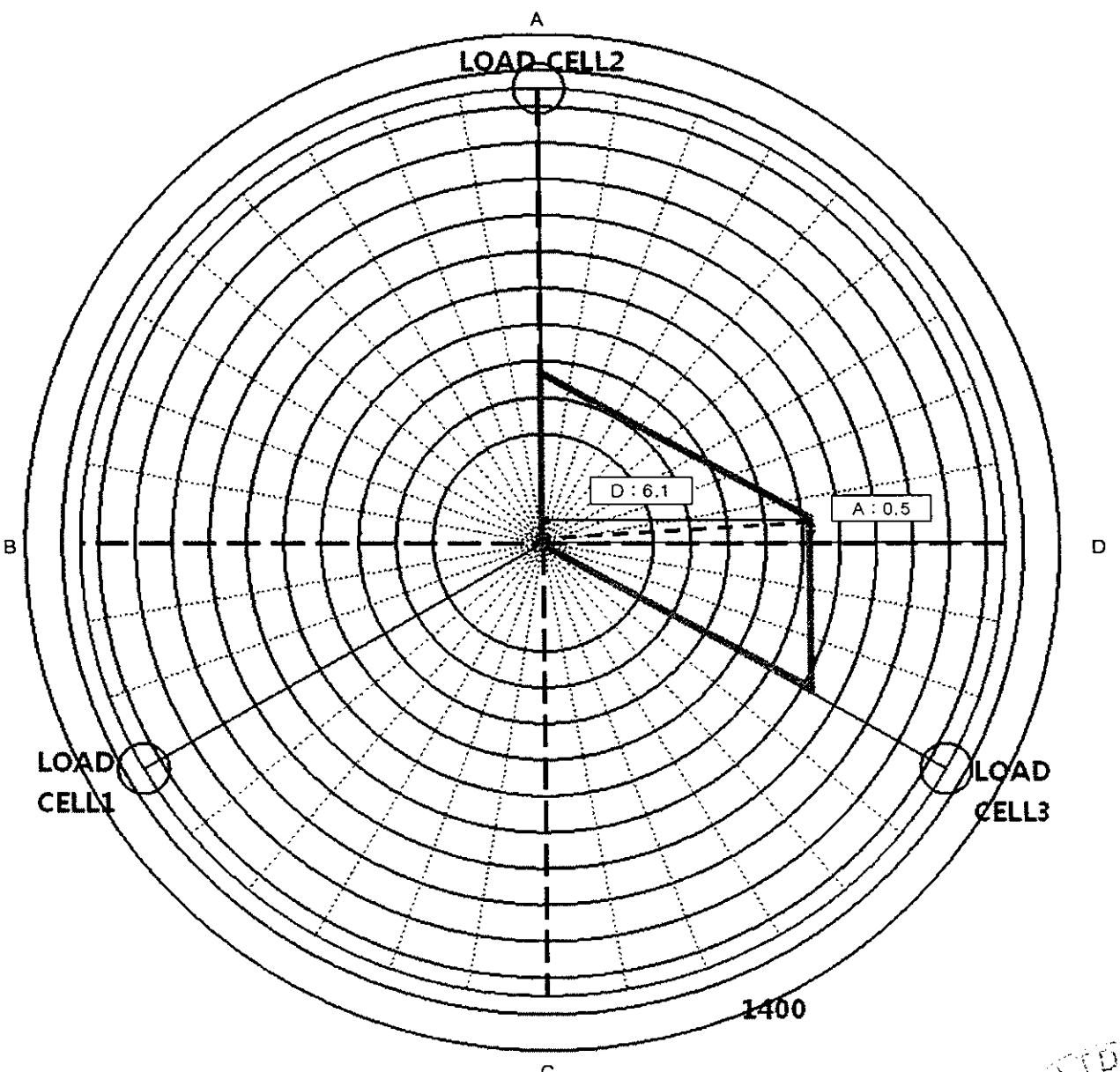
SIL LA METAL CO., LTD

OWNER : SAMJIN SHIPBUILDING INDURSTRIES CO., LTD.	DRAWING NO : 08-P-03
SHIP NO : H-1010	INSPECTION STD : ISO 484-1 CLASS (I)
JOB NO : H-1010	CLASS : KR

TOLERANCE $P = C\frac{m}{RN^2}$ or Km (ISO 484-1) = $25 \times \frac{14{,}030}{2.8 \times 127^2}$ = 7.766kg

SENSOR	NO.1	NO.2	NO.3
LOAD	78	74	71
DEVIATION	0.0	-4.0	-7.0

HULL.NO	H-1010
DATE	2009-03-31
PROPELLER DIAMETER	5600 mm



BLADE NO.	A	B	C	D	E	F	G	TOTAL
UNBALANCED WEIGHT	-0.2	0.0	0.0	-2.7				-2.7

OWNER		CLASS		YARD	S.C.Park	MAKER	

2009.3.31

KRCHEM-0936
31-03-09

31-Mar-09

INSPECTION REPORT

PAGE No. : 1 OF 4 | PREP | REV | APPR

PROJ. NAME : PROPELLER

DATE : 31 March 2009

PROJ. No. : H-1010 | CHARGE No. : A 8121

INSP. PLACE : PROP. SHOP | DWG. No. : 08-P-19

CUSTOMER(OWNER) | INSP. AGENCY(CLASSIFICATION) | TEMP. : 17℃

SAMJIN SHIPBUILDING INDUSTRIES CO., LTD. | KR | UNIT : mm

1. PARTICULARS

- DIAMETER OF PROPELLER : 5.600 M
- NUMBER OF BLADE : 4EA
- MEAN PITCH OF PROPELLER : 3.9194 M
- MATERIAL : Ni-Al-Br(CU3)
- EXPANDED AREA OF BLADES : 15.517 M²
- WEIGHT OF PROPELLER(DWG') : 14,030 kg

2. PITCH

BLADE SEC.		0.3 R			0.4 R			0.5 R			0.6 R			TOLER.
DESIGNED	T.E	22	450.35	106.13	18	496.18	92.76	24	430.80	88.83	21	463.07	80.17	LOCAL PITCH ±2.0%
		11	556.48		9	588.94		16	519.63		14	543.24		
		11	556.48	105.02	9	588.94	90.36	16	519.63	169.47	14	543.24	150.66	
		0	661.50		0	679.30		0	689.10		0	693.90		
		0	661.50	223.85	0	679.30	186.73	0	689.10	170.27	0	693.90	151.86	
		-22	885.35		-18	866.03		-16	859.37		-14	845.76		
		-22	885.35	119.72	-18	866.03	197.42	-16	859.37	176.06	-14	845.76	155.15	
		-33	1005.07		-36	1063.45		-32	1035.43		-28	1000.91		
		T.L.P		554.72	T.L.P		567.27	T.L.P		604.63	T.L.P		537.84	ONE SEC ±1.5%
A	T.E	22	1007.50	106.00	18	1056.00	93.00	24	992.00	88.50	21	1025.00	80.00	
		11	1113.50		9	1149.00		16	1080.50		14	1105.00		
		11	1113.50	105.00	9	1149.00	90.50	16	1080.50	169.50	14	1105.00	151.00	
		0	1218.50		0	1239.50		0	1250.00		0	1256.00		
		0	1218.50	224.00	0	1239.50	186.50	0	1250.00	170.50	0	1256.00	151.50	
		-22	1442.50		-18	1426.00		-16	1420.50		-14	1407.50		
		-22	1442.50	119.50	-18	1426.00	197.50	-16	1420.50	176.00	-14	1407.50	155.50	
		-33	1562.00		-36	1623.50		-32	1596.50		-28	1563.00		
		T.L.P		554.50	T.L.P		567.50	T.L.P		604.50	T.L.P		538.00	
B	T.E	22	1007.50	106.00	18	1054.00	93.00	24	991.00	88.50	21	1023.00	80.00	
		11	1113.50		9	1147.00		16	1079.50		14	1103.00		
		11	1113.50	105.00	9	1147.00	90.50	16	1079.50	169.50	14	1103.00	151.00	
		0	1218.50		0	1237.50		0	1249.00		0	1254.00		
		0	1218.50	224.00	0	1237.50	186.50	0	1249.00	170.50	0	1254.00	151.50	
		-22	1442.50		-18	1424.00		-16	1419.50		-14	1405.50		
		-22	1442.50	119.50	-18	1424.00	197.50	-16	1419.50	176.00	-14	1405.50	155.50	
		-33	1562.00		-36	1621.50		-32	1595.50		-28	1561.00		
		T.L.P		554.50	T.L.P		567.50	T.L.P		604.50	T.L.P		538.00	
C	T.E	22	1008.50	106.00	18	1057.00	93.00	24	992.00	88.50	21	1023.00	80.00	
		11	1114.50		9	1150.00		16	1080.50		14	1103.00		
		11	1114.50	105.00	9	1150.00	90.50	16	1080.50	169.50	14	1103.00	151.00	
		0	1219.50		0	1240.50		0	1250.00		0	1254.00		
		0	1219.50	224.00	0	1240.50	186.50	0	1250.00	170.50	0	1254.00	151.50	
		-22	1443.50		-18	1427.00		-16	1420.50		-14	1405.50		
		-22	1443.50	119.50	-18	1427.00	197.50	-16	1420.50	176.00	-14	1405.50	155.50	
		-33	1563.00		-36	1624.50		-32	1596.50		-28	1561.00		
		T.L.P		554.50	T.L.P		567.50	T.L.P		604.50	T.L.P		538.00	
D	T.E	22	1007.50	106.00	18	1056.00	93.00	24	994.00	88.50	21	1025.00	80.00	
		11	1113.50		9	1149.00		16	1082.50		14	1105.00		
		11	1113.50	105.00	9	1149.00	90.50	16	1082.50	169.50	14	1105.00	151.00	
		0	1218.50		0	1239.50		0	1252.00		0	1256.00		
		0	1218.50	224.00	0	1239.50	186.50	0	1252.00	170.50	0	1256.00	151.50	
		-22	1442.50		-18	1426.00		-16	1422.50		-14	1407.50		
		-22	1442.50	119.50	-18	1426.00	197.50	-16	1422.50	176.00	-14	1407.50	155.50	
		-33	1562.00		-36	1623.50		-32	1598.50		-28	1563.00		
		T.L.P		554.50	T.L.P		567.50	T.L.P		604.50	T.L.P		538.00	

INSPECTION REPORT

PAGE No. : 2 OF 4 | PREP | REV | APPR

PROJ. NAME : PROPELLER

DATE : 31 March 2009

PROJ. No. : H-1010 | CHARGE No. : A 8121

INSP. PLACE : PROP. SHOP | DWG. No. : 08-P-19

CUSTOMER(OWNER) | INSP. AGENCY(CLASSIFICATION) | TEMP. : 17℃

SAMJIN SHIPBUILDING INDUSTRIES CO., LTD. | KR | UNIT : mm

2. PITCH

BLADE SEC.		0.7 R		0.8 R		0.9 R		0.95 R		TOLER.
DESIGNED	T.E	24 430.17	136.11	25 422.16	113.18	25 428.88	109.67	25 431.69	54.66	LOCAL PITCH ±2.0%
		12 566.28		15 535.34		15 538.55		20 486.35		
		12 566.28	130.12	15 535.34	54.29	15 538.55	53.48	20 486.35	53.16	
		0 696.40		10 589.63		10 592.03		15 539.51		
		0 696.40	131.32	10 589.63	108.57	10 592.03	106.47	15 539.51	52.77	
		-12 827.72		0 698.20		0 698.50		10 592.28		
		-12 827.72	66.06	0 698.20	108.58	0 698.50	53.18	10 592.28	52.56	
	L.E	-18 893.78		-10 806.78		-5 751.68		5 644.84		
		T.L.P	463.61	T.L.P	384.62	T.L.P	322.80	T.L.P	213.15	ONE SEC ±1.5%
A	T.E	24 990.00	136.00	25 985.00	113.50	25 995.00	109.50	25 998.50	55.00	
		12 1126.00		15 1098.50		15 1104.50		20 1053.50		
		12 1126.00	130.50	15 1098.50	54.00	15 1104.50	53.50	20 1053.50	53.00	
		0 1256.50		10 1152.50		10 1158.00		15 1106.50		
		0 1256.50	131.00	10 1152.50	108.50	10 1158.00	106.50	15 1106.50	52.50	
		-12 1387.50		0 1261.00		0 1264.50		10 1159.00		
		-12 1387.50	66.00	0 1261.00	108.50	0 1264.50	53.00	10 1159.00	53.00	
	L.E	-18 1453.50		-10 1369.50		-5 1317.50		5 1212.00		
		T.L.P	463.50	T.L.P	384.50	T.L.P	322.50	T.L.P	213.50	
B	T.E	24 989.00	136.00	25 982.00	113.50	25 991.00	109.50	25 994.50	55.00	
		12 1125.00		15 1095.50		15 1100.50		20 1049.50		
		12 1125.00	130.50	15 1095.50	54.00	15 1100.50	53.50	20 1049.50	53.00	
		0 1255.50		10 1149.50		10 1154.00		15 1102.50		
		0 1255.50	131.00	10 1149.50	108.50	10 1154.00	106.50	15 1102.50	52.50	
		-12 1386.50		0 1258.00		0 1260.50		10 1155.00		
		-12 1386.50	66.00	0 1258.00	108.50	0 1260.50	53.00	10 1155.00	53.00	
	L.E	-18 1452.50		-10 1366.50		-5 1313.50		5 1208.00		
		T.L.P	463.50	T.L.P	384.50	T.L.P	322.50	T.L.P	213.50	
C	T.E	24 989.00	136.00	25 982.00	113.50	25 993.00	109.50	25 997.50	55.00	
		12 1125.00		15 1095.50		15 1102.50		20 1052.50		
		12 1125.00	130.50	15 1095.50	54.00	15 1102.50	53.50	20 1052.50	53.00	
		0 1255.50		10 1149.50		10 1156.00		15 1105.50		
		0 1255.50	131.00	10 1149.50	108.50	10 1156.00	106.50	15 1105.50	52.50	
		-12 1386.50		0 1258.00		0 1262.50		10 1158.00		
		-12 1386.50	66.00	0 1258.00	108.50	0 1262.50	53.00	10 1158.00	53.00	
	L.E	-18 1452.50		-10 1366.50		-5 1315.50		5 1211.00		
		T.L.P	463.50	T.L.P	384.50	T.L.P	322.50	T.L.P	213.50	
D	T.E	24 993.00	136.00	25 987.00	113.50	25 997.00	109.50	25 1001.50	55.00	
		12 1129.00		15 1100.50		15 1106.50		20 1056.50		
		12 1129.00	130.50	15 1100.50	54.00	15 1106.50	53.50	20 1056.50	53.00	
		0 1259.50		10 1154.50		10 1160.00		15 1109.50		
		0 1259.50	131.00	10 1154.50	108.50	10 1160.00	106.50	15 1109.50	52.50	
		-12 1390.50		0 1263.00		0 1266.50		10 1162.00		
		-12 1390.50	66.00	0 1263.00	108.50	0 1266.50	53.00	10 1162.00	53.00	
	L.E	-18 1456.50		-10 1371.50		-5 1319.50		5 1215.00		
		T.L.P	463.50	T.L.P	384.50	T.L.P	322.50	T.L.P	213.50	

SIL LA

INSPECTION REPORT

PAGE No. : 3 OF 4

PROJ. NAME : PROPELLER

PROJ. No. : H-1010 RULE : ISO 484-1(I)

2. PITCH (MEAN PITCH : 3,919.4) (UNIT : mm)

DESIGNED, DIA = 5,600

RADIUS		PITCH	T.L.P	ACTUAL OF T.L.P (DEV) A	B	C	D	–	–	TOLE-RANCE
0.3R	840.0	3767.7	554.72	-0.04% / -0.22	-0.04% / -0.22	-0.04% / -0.22	-0.04% / -0.22			±1.50%
0.4R	1120.0	3866.5	567.27	0.04% / 0.23	0.04% / 0.23	0.04% / 0.23	0.04% / 0.23			
0.5R	1400.0	3948.0	604.63	-0.02% / -0.13	-0.02% / -0.13	-0.02% / -0.13	-0.02% / -0.13			±1.50%
0.6R	1680.0	4000.0	537.84	0.03% / 0.16	0.03% / 0.16	0.03% / 0.16	0.03% / 0.16			
0.7R	1960.0	4011.5	463.61	-0.02% / -0.11	-0.02% / -0.11	-0.02% / -0.11	-0.02% / -0.11			
0.8R	2240.0	3980.7	384.62	-0.03% / -0.12	-0.03% / -0.12	-0.03% / -0.12	-0.03% / -0.12			
0.9R	2520.0	3901.3	322.80	-0.09% / -0.30	-0.09% / -0.30	-0.09% / -0.30	-0.09% / -0.30			
0.95R	2660.0	3849.3	213.15	0.16% / 0.35	0.16% / 0.35	0.16% / 0.35	0.16% / 0.35			
DEVIATION IN MEAN LOCAL PITCH PER BLADE				0.00%	0.00%	0.00%	0.00%	TOLERANCE : ±39.1mm		±1.00%
DEVIATION IN MEAN LOCAL PITCH FOR PROPELLER				0.00%				TOLERANCE : ±29.4mm		±0.75%

3. RADIUS OF BLADE TOLERANCE : ±0.3% (±8.4mm)

DESIGNED	2800 R						REMARK
BLADES	A	B	C	D	–	–	AT THE TIP
ACTUAL	2800.0	2800.0	2800.0	2800.0			
DEVIATION	0.0	0.0	0.0	0.0			

4. LOCATION OF BLADE TOLERANCE : ±1.0°

DESIGNED	90°						REMARK
BLADES	A-B	B-C	C-D	D-A	–	–	MEASURED AT 0.7R SECTION
ACTUAL	90	90	90	90			
DEVIATION	0.0	0.0	0.0	0.0			

5. LENGTH OF BLADE SECTION TOLERANCE : ±D/Z*2.0% (±28.0mm)

LENGTH / BLADES	0.3R	0.4R	0.5R	0.6R	0.7R	0.8R	0.9R	0.95R	REMARK
	1480.10	1644.80	1787.10	1894.50	1945.00	1898.30	1673.80	1389.90	
A	1481.00	1645.00	1788.00	1895.00	1945.00	1899.00	1674.00	1390.00	
DEVIATION	0.9	0.2	0.9	0.5	0.0	0.7	0.2	0.1	
B	1481.00	1645.00	1788.00	1895.00	1945.00	1899.00	1674.00	1390.00	
DEVIATION	0.9	0.2	0.9	0.5	0.0	0.7	0.2	0.1	
C	1481.00	1645.00	1788.00	1895.00	1945.00	1899.00	1674.00	1390.00	
DEVIATION	0.9	0.2	0.9	0.5	0.0	0.7	0.2	0.1	
D	1481.00	1645.00	1788.00	1895.00	1945.00	1899.00	1674.00	1390.00	
DEVIATION	0.9	0.2	0.9	0.5	0.0	0.7	0.2	0.1	

6. PROPELLER WEIGHT CHECK (DWG' : 14,030 kg)

- ACTUAL WEIGHT : 14,370 KG

INSPECTION REPORT

PAGE No. : 4 OF 4 | PREP | REV | APPR

PROJ. NAME : PROPELLER

DATE : 31 March 2009

PROJ. No. : H-1009 | CHARGE No. : A 8121

DIAMETER : 5,600 mm | DWG. No. : 08-P-19

CUSTOMER(OWNER) | INSP. AGENCY (CLASSIFICATION) | TEMP. : 17℃

SAMJIN SHIPBUILDING INDUSTRIES CO., LTD. | KR | UNIT : mm

7. THICKNESS OF BLADE

(TOLERANCE : PLUS TOLERANCENS +2.5% ,MINIMUM 2.5 MM
MINUS TOLERANCENS -1.5% ,MINIMUM 1.5 MM)

RADIUS		0.3 R					-	0.4 R					-
STATION		22	11	0	-22	-33		18	9	0	-18	-36	
THICKNESS		88.70	134.90	162.80	164.10	135.40		75.50	112.20	135.30	142.50	92.60	
BLADES	A	89.5	136.0	164.0	165.0	136.0		76.0	113.0	136.0	143.0	93.5	
		0.8	1.1	1.2	0.9	0.6		0.5	0.8	0.7	0.5	0.9	
	B	89.5	135.5	163.5	165.0	136.0		76.0	113.0	136.0	143.0	93.0	
		0.8	0.6	0.7	0.9	0.6		0.5	0.8	0.7	0.5	0.4	
	C	89.5	136.0	163.5	165.0	136.0		76.0	113.0	136.0	143.0	93.5	
		0.8	1.1	0.7	0.9	0.6		0.5	0.8	0.7	0.5	0.9	
	D	89.5	136.0	164.0	165.0	136.0		76.0	113.0	136.0	143.0	93.0	
		0.8	1.1	1.2	0.9	0.6		0.5	0.8	0.7	0.5	0.4	

RADIUS		0.5 R					-	0.6 R					-
STATION		24	16	0	-16	-32		21	14	0	-14	-28	
THICKNESS		25.70	65.70	113.00	117.50	76.70		36.00	63.80	94.00	92.20	54.60	
BLADES	A	26.5	66.5	114.0	118.0	77.5		37.0	64.9	95.0	93.0	55.5	
		0.8	0.8	1.0	0.5	0.8		1.0	1.1	1.0	0.8	0.9	
	B	26.5	66.5	114.0	118.0	77.5		37.0	64.5	95.0	93.0	55.0	
		0.8	0.8	1.0	0.5	0.8		1.0	0.7	1.0	0.8	0.4	
	C	26.5	66.5	114.0	118.0	77.5		36.5	64.5	95.0	93.0	55.0	
		0.8	0.8	1.0	0.5	0.8		0.5	0.7	1.0	0.8	0.4	
	D	26.5	66.5	114.0	118.0	77.5		36.5	64.5	95.0	93.0	55.5	
		0.8	0.8	1.0	0.5	0.8		0.5	0.7	1.0	0.8	0.9	

RADIUS		0.7 R					-	0.8 R					-
STATION		24	12	0	-12	-18		25	15	10	0	-10	
THICKNESS		23.20	60.80	75.20	66.60	52.80		21.50	46.30	52.80	54.10	39.60	
BLADES	A	24.0	61.5	76.0	67.5	53.5		22.0	47.0	53.5	55.0	40.5	
		0.8	0.7	0.8	0.9	0.7		0.5	0.7	0.7	0.9	0.9	
	B	24.0	61.5	76.0	67.5	53.5		22.0	47.0	53.5	55.0	40.5	
		0.8	0.7	0.8	0.9	0.7		0.5	0.7	0.7	0.9	0.9	
	C	24.0	61.5	76.0	67.5	53.5		22.0	47.0	53.5	55.0	40.0	
		0.8	0.7	0.8	0.9	0.7		0.5	0.7	0.7	0.9	0.4	
	D	24.0	61.5	76.0	67.5	53.5		22.0	47.0	53.5	55.0	40.0	
		0.8	0.7	0.8	0.9	0.7		0.5	0.7	0.7	0.9	0.4	

RADIUS		0.9 R					-	0.95 R					-
STATION		25	15	10	0	-5		25	20	15	10	5	
THICKNESS		19.70	35.60	37.30	28.90	15.60		15.80	24.70	28.60	27.70	21.80	
BLADES	A	20.5	36.5	38.0	29.5	16.5		16.5	25.5	29.5	28.5	22.5	
		0.8	0.9	0.7	0.6	0.9		0.7	0.8	0.9	0.8	0.7	
	B	20.5	36.5	38.0	29.5	16.5		16.5	25.5	29.5	28.5	22.5	
		0.8	0.9	0.7	0.6	0.9		0.7	0.8	0.9	0.8	0.7	
	C	20.5	36.5	38.0	29.5	16.0		16.5	25.5	29.5	28.5	22.5	
		0.8	0.9	0.7	0.6	0.4		0.7	0.8	0.9	0.8	0.7	
	D	20.5	36.5	38.0	29.5	16.5		16.5	25.5	29.5	28.5	22.5	
		0.8	0.9	0.7	0.6	0.9		0.7	0.8	0.9	0.8	0.7	

SIL LA

INSPECTION RECORD SHEET

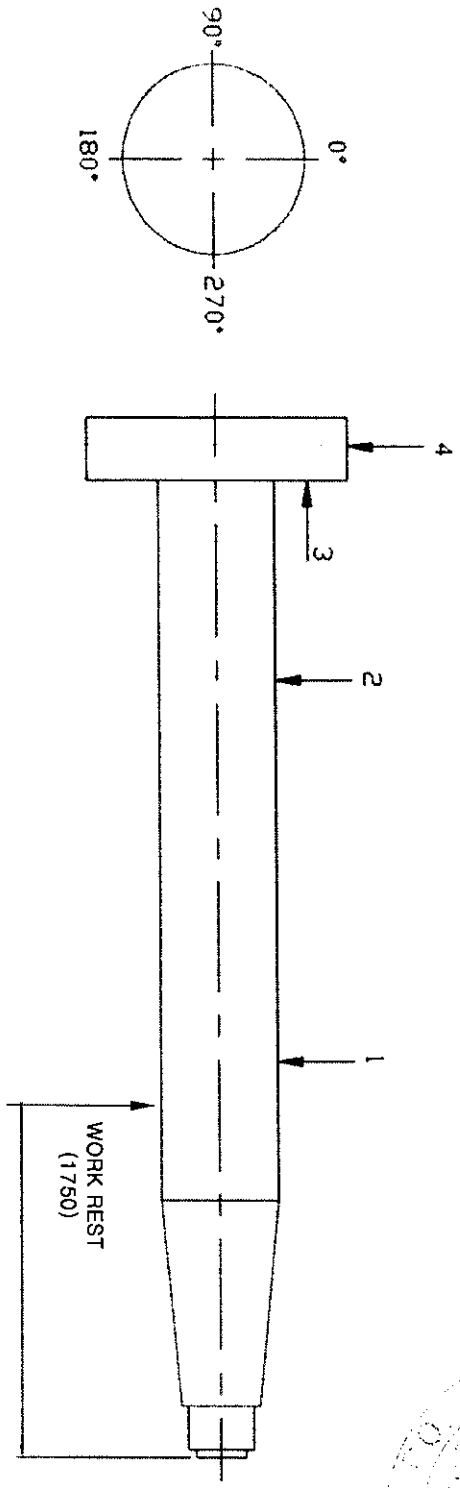
No. :
PROJECTOR :
H-1010

INSPECTION ITEM	PROPELLER SHAFT RUN OUT CONDITION CHECK	OWNER	SAMJIN SHIPBUILDING INDURSTRIES CO., LTD.
DATE OF INSPECTION	31-Mar-09	MATERIAL	FORGED STEEL

TOLERANCE : ±5

POSITION \ ANGLE	0°	90°	180°	270°
1	0	-1	0	-1
2	0	-1	-1	0
3	0	-1	-1	-1
4	0	-1	-2	-1

UNIT : 1/100mm



OWNER	KKF9	CLASS		YARD	S.C.Park	MAKER	

31-Mar-09

2009.3.31

KRGCHEM-04371

SIL LA

INSPECTION RECORD SHEET

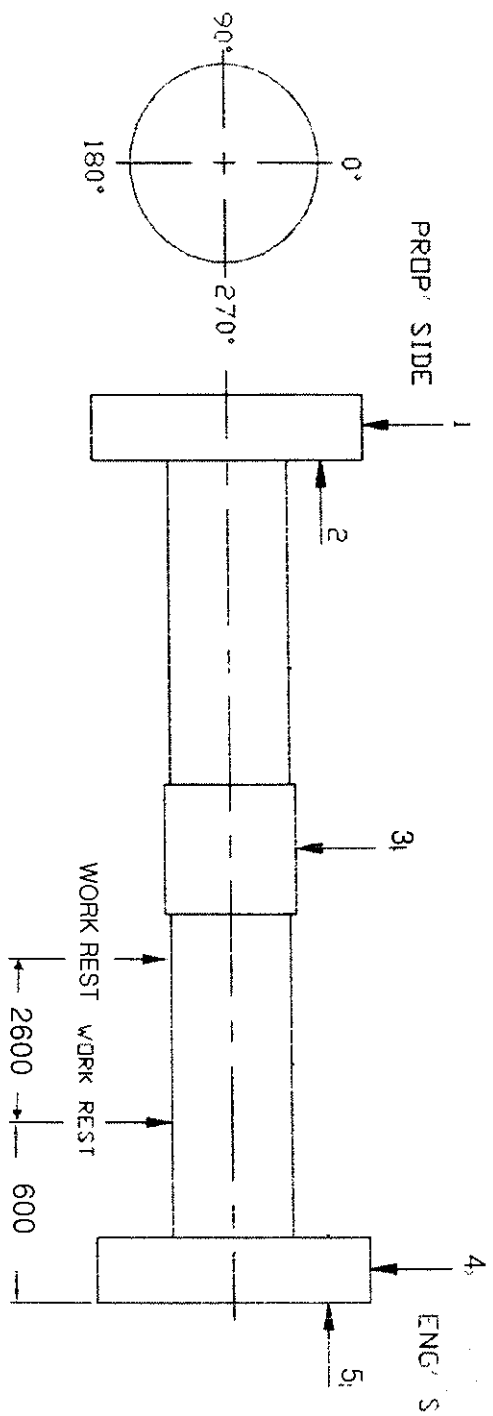
No. :
PROJECTOR :
H-1010

INSPECTION ITEM	INTERMEDIATE SHAFT RUN OUT CONDITION CHECK	OWNER	SAMJIN SHIPBUILDING INDURSTRIES CO., LTD.
DATE OF INSPECTION	31-Mar-09	MATERIAL	FORGED STEEL

ANGLE / POSITION	0°	90°	180°	270°
1	0	-1	-1	0
2	0	-1	-2	-1
3	0	-1	0	-1
4	0	-1	0	-1
5	0	-1	-2	-1

TOLERANCE : ±5

UNIT : 1/100mm



OWNER		CLASS		YARD		MAKER	

31-Mar-09

2009.03.31

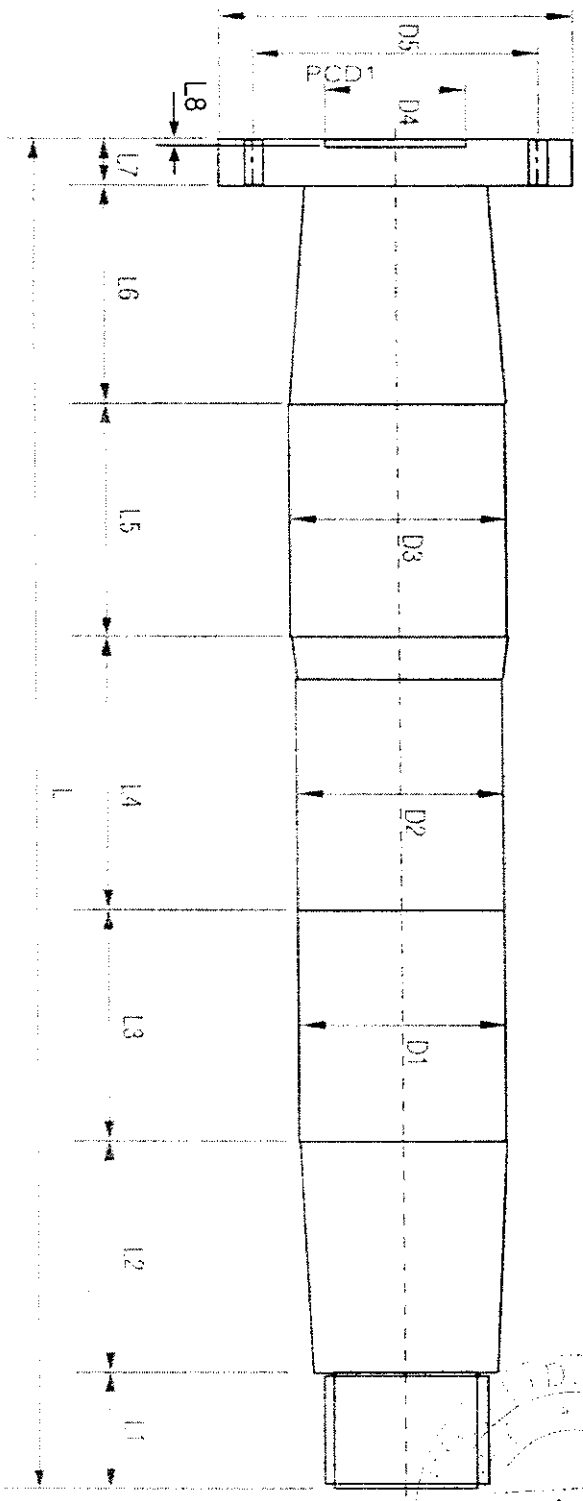
KRECHEM-8937-2

SIL LA

INSPECTION RECORD SHEET

No. :
PROJECTOR : H-1010

INSPECTION ITEM	PROPELLER SHAFT	OWNER	SAMJIN SHIPBUILDING INDURSTRIES CO., LTD.
DATE OF INSPECTION	31-Mar-09	MATERIAL	FORGED STEEL



POSITION	DESIGNED	RESULTS P-S	RESULTS T-B
D1	$\phi460^{0}_{-0.05}$	-0.03	-0.03
D2	$\phi460^{+0.5}_{0}$	+0.2	+0.2
D3	$\phi462^{0}_{-0.05}$	-0.02	-0.02
D4	$\phi400$	0	0
D5	$\phi740^{0}_{-0.1}$	0	0
PCD1	$\phi625$	0	0

UNIT : mm

POSITION	DESIGNED	RESULTS
L	6225	0
L1	310	0
L2	1120	0
L3	1545	0
L4	1230	0
L5	1200	0
L6	740	0
L7	80	0
L8	2	0

31-Mar-09

OWNER		CLASS		YARD		MAKER	

2009. 3. 31

SIL LA

INSPECTION RECORD SHEET

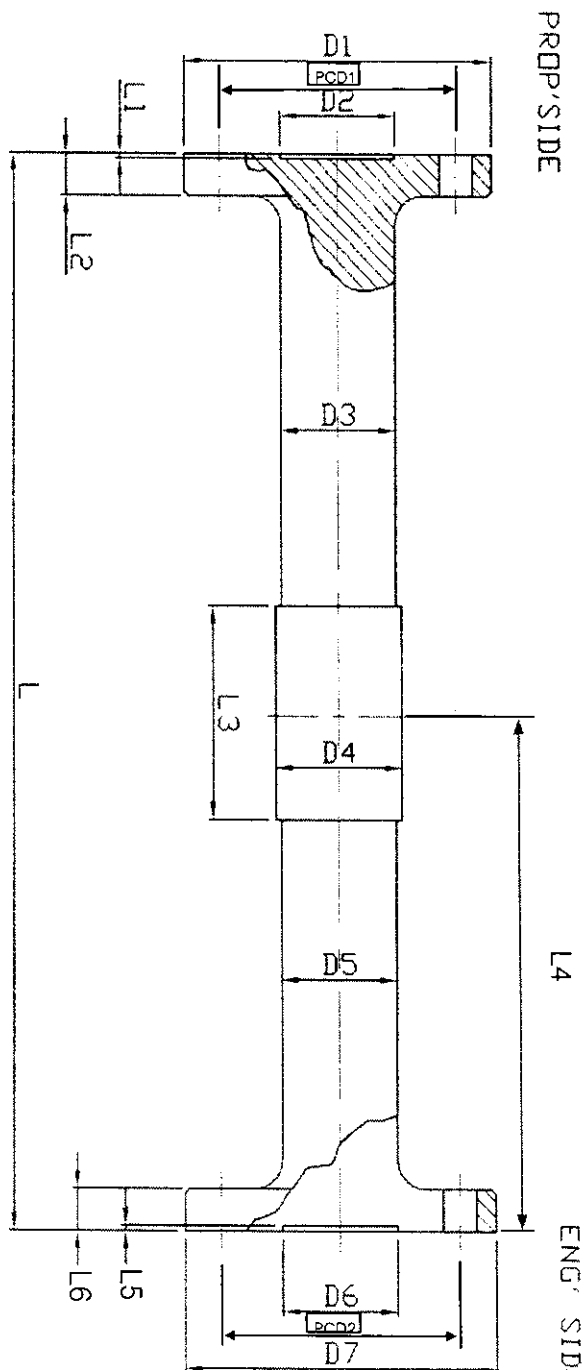
No. :
PROJECTOR :
H-1010

INSPECTION ITEM	INTERMEDIAT SHAFT	OWNER	SAMJIN SHIPBUILDING INDURSTRIES CO., LTD.
DATE OF INSPECTION	31-Mar-09	MATERIAL	FORGED STEEL

POSITION	L	L1	L2	L3	L4	L5	L6
DESIGNED	7000	2	80	700	3725	2	80
RESULTS	0	0	0	0	0	0	0

POSITION	DESIGNED	RESULTS	
		T-B	P-S
D1	$\phi740^{0}_{-0.1}$	0	0
D2	$\phi400$	0	0
D3	$\phi390\pm0.1$	+0.1	+0.1
D4	$\phi395^{0}_{-0.05}$	-0.04	-0.04
D5	$\phi390\pm0.1$	+0.1	+0.1
D6	$\phi450$	0	0
D7	$\phi900^{0}_{-0.1}$	0	0
PCD 1	$\phi625$	0	0
PCD 2	$\phi780$	0	0

UNIT : mm



OWNER	K.K Fo	CLASS		YARD	S.C Park	MAKER	31-Mar-09

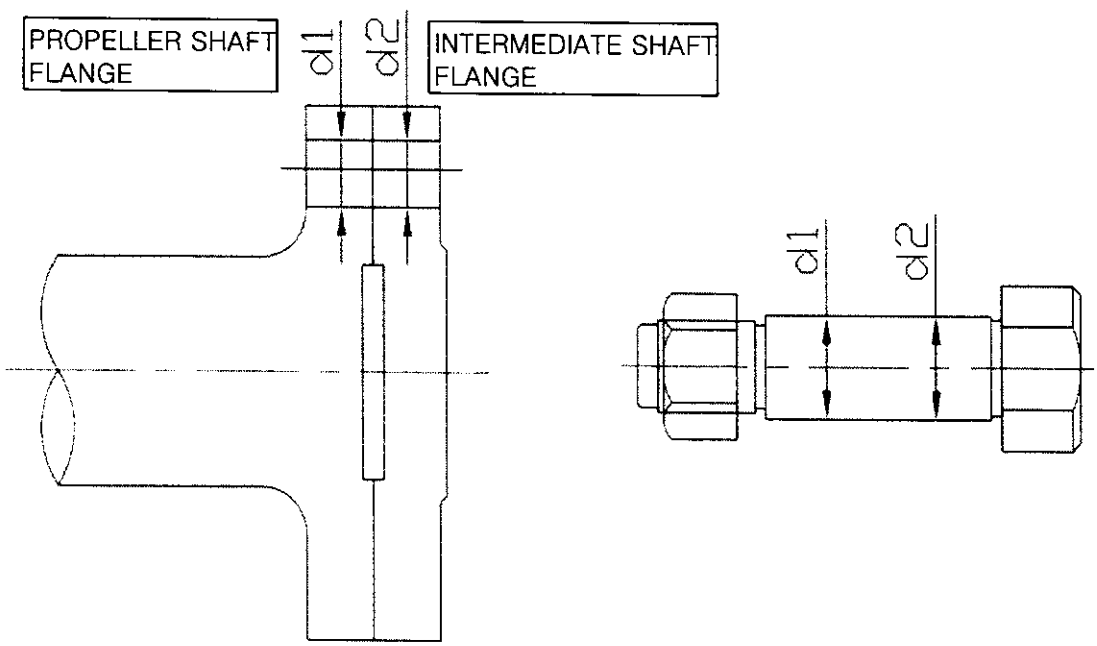
2009. 3. 31

SIL LA

INSPECTION RECORD SHEET

No. :
PROJECTOR : H-1010

INSPECTION ITEM	NO.1 COUPLING REAMER BOLT - AFT. SIDE	OWNER	SAMJIN SHIPBUILDING INDURSTRIES CO., LTD.
DATE OF INSPECTION	31-Mar-09	MATERIAL	SCM 435



REAMER BOLTS DESIGNED (Φ65)

UNIT : 1/100 mm

POSITION		2-1		2-2		2-3		2-4		2-5	
PART		d1	d2	d1	d2	d1	d2	d1	d2	d1	d2
RESULTS	HOLE	-9.5	-9.5	-9.5	-9.0	-9.5	-9.5	-9.5	-9.0	-9.5	-9.0
	BOLT	-8.0	-8.0	-8.0	-7.5	-8.0	-8.0	-8.0	-8.0	-8.0	-8.0
INTERFERENCE		1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.0	1.5	1.0
POSITION		2-6		2-7		2-8		2-9		2-10	
PART		d1	d2	d1	d2	d1	d2	d1	d2	d1	d2
RESULTS	HOLE	-8.5	-8.5	-9.5	-9.0	-9.5	-9.0	-9.0	-9.0	-9.5	-9.5
	BOLT	-6.5	-6.5	-8.0	-8.0	-8.0	-8.0	-7.5	-7.5	-8.5	-8.5
INTERFERENCE		2.0	2.0	1.5	1.0	1.5	1.0	1.5	1.5	1.0	1.0

OWNER		CLASS		YARD		MAKER	

2009.3.31

31-Mar-09