

تامین یا ساخت لوله با مشخصات جدول زیر جهت کاربری سازه ای

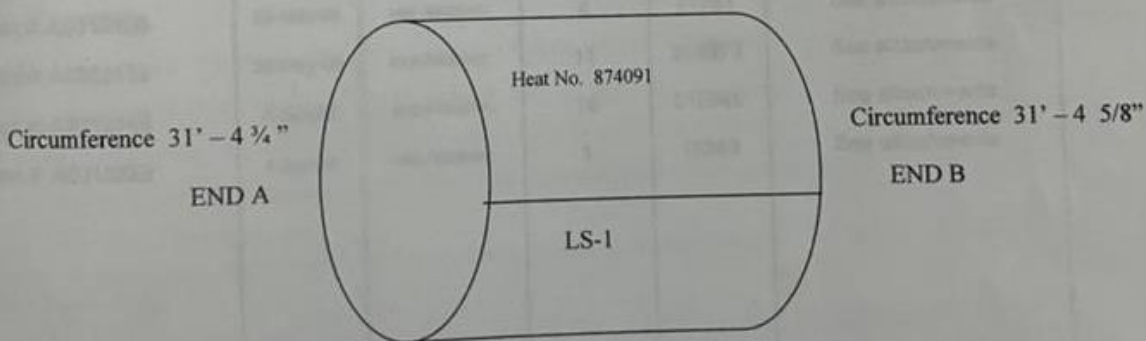
PIPE specification

Row	Item	Spec.	Remark
1	Requirement	Thermomechanically Rolled + accelerated Cooled Tubular Leg Section	
2	Shape	Cylindrical	
3	Outer Diameter	120"	Dia OD Limits (120.19" , 119.69")
4	Wall Thickness	1 1/2"	
5	Height	10'	
6	Manufacturing Tolerance	1/16" per 10'	
7	Qty.	3 section	
8	Material	EH40	
9	Standard	Rules of ABS 2008	
10	Certificate	Material Certification Report	Approved by an IACS Member
11	Coating	One layer of shop primer	Inside and outside
12	Others	Pad Eyes for lifting, Diagonal temporary braces inside	

**DOCUMENTS FOR EXISTING SAMPLE**

Job number: ARI-642  
Material grade: EH-40  
Number of cans: One  
Actual length: 120"  
Dimensions: 120" O.D. x 1 1/2" x 120"  
Section : (A) leg pontoon Hull # 07-005

Piece #1



A= 119 7/8" O.D. / 119 15/16" O.D.  
B= 119 7/8" O.D. / 119 15/16" O.D.

Shipped To: Purchaser					Specification or Grade: EH40
Description: STEEL PLATES (thermomechanically rolled + accelerated cooled) Dimensions: see attachments					ABS Markings: ABS Grade Heat-/Plate-No.
Shipping Statement/Mill Cert # or Invoice Number	Date Shipped or Tested	Heat No / Grade	No. of Pieces/ Size	Total Weight  lbs	Remarks Additional Testing / PO# / Contract # / Etc.
Mill-Cert.#: A0311989	23-May-08	see Attachm.	3	61717	See attachments
Mill-Cert.#: A0312107	23-May-08	see Attachm.	2	42265	See attachments
Mill-Cert.#: A0312108	23-May-08	see Attachm.	4	77761	See attachments
Mill-Cert.#: A0312116	29-May-08	see Attachm.	11	214979	See attachments
Mill-Cert.#: A0312148	1-Jun-08	see Attachm.	16	312040	See attachments
Mill-Cert.#: A0312222	4-Jun-08	see Attachm.	1	19363	See attachments
Total			-37-	728125	

DESCRIPTION Qty, Size, Dwg No., Piece no		HEAT NO	YIELD POINT	TENSILE STRENGTH	% ELONGATION	% REDUCTION IN AREA	CVN IMPACT (W) @ _____ °C		AVG			
See attachments												
SPEC OR GRADE		SPECIFIED VALUES										
		UNITS	N/mm2	N/mm2	%	%	Joule					
DRW NO / HEAT NUMBER	C	Mn	P	S	Si	Cu	Cr	Mo	Ni	V	Cb	Al
See attachm.												
SPECIFIED VALUES												

	YES	NO	N/A
1. For ABS Grades, All test and examinations as required by the Rules were carried out and found satisfactory.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. For non-ABS Grades, test and examinations as required by _____ specification were carried out and found satisfactory.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3. Manufacturer test records and/or mill certificates were confirmed to comply with specification.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Material accepted from a quality assurance plant. Results of above noted tests reviewed with specification.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Final markings for identification confirmed.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Calibration of testing/measuring equipment confirmed, with records maintained at facility or located: <u>testing room</u> .	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

(For T. Mueller) Surveyor, American Bureau of Shipping	Surveyor, American Bureau of Shipping
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Distribution:	AB 101	Mill Sheet
Purchaser Voest	1	21
ABS Office @ Destination		

Distribution:	AB 101	Mill Sheet
ABS Houston CDC	1	21
Local HG	1	21
Other	—	—

A03 Document number	A0312108	A08 Order-No.:	8532023	A07 OrderDat.	10-03-2008	Date of dispatch	23-05-2008	60
A06 Customer	Edgen Murray LLC 161 Washington Street-Suite 1110 USA-19428 CONSHOHOCKEN, PA	B01 Product	Plate	B02 Material	AB EH40	B03 Standard	RULES OF ABS : 2008	
A07 OrderNo.	74949	Supplementary requirements	thermomechanically rolled					
A06 Consignee	Edgen Murray LLC 161 Washington Street-Suite 1110 USA-19428 CONSHOHOCKEN, PA	B04 Delivery condition	thermomechanically rolled + accelerated cooled					
A10 - Supplementary information	PO 74949 - ITEM 1	B03 - Supplementary requirements	HOT ROLLED STEEL PLATES IN QUALITY EH 40, We hereby certify that the material described herein has been made to the applicable specification by the pureoxygen blown process and tested under ABS- Product Quality Assurance program ( PQA-certificate 06-MMPQA-397) in accordance with the above mentioned standard with satisfactory results.					

Z01 - Visual Examination and dimensional checking: satisfactory. The results of tests performed are in compliance with the requirements.

Detail of supply										
B07 Heat No.	B06 Plate No	Dimensions B09			B08 Piece	Ind'Weight lb	total Weight lb	A09 Disp-No 130 42	Abnahmedatum	Sachnummer
		Item	Thickness inc	Width inc						
874091	303785/1	90	1,500	120,00	374,41	1	19.459	51757	21-05-2008	EZRA L.POH07005&H07006
874091	303795/1	130	1,500	120,00	374,17	1	19.472	51757	20-05-2008	EZRA L.POH07005&H07006
874091	303796/1	130	1,500	120,00	374,17	1	19.440	51757	20-05-2008	EZRA L.POH07005&H07006
874092	303801/1	100	1,500	120,00	373,94	1	19.390	51757	21-05-2008	EZRA L.POH07005&H07006
Sum						4	77.761			

C70 - Method of steelmaking: pure oxygen blown

B14 - Supplementary information

Tolerances:

Flatness - EN 10029/91, class N

Thickness - EN 10029/91, class B

A03 Document number	A0312108	A08 Order-No.:	8532023	Z02 Date	10-06-2008	Page	2	of	3							
Dimensions - EN 10029/91																
Surface - EN 10163 - A3																
Chemical composition (Heat analysis)																
B07 Heat No.	C	Si	Mn	P	S	Al	Cr	Ni	Mo	Cu	v	Nb	Ti	N	B	Cae
Set values >=		.100	.900			.020										.40
Set values <=	.180	.500	1.600	.035	.0350		.200	.400	.080	.350	.100	.050	.020	.0120		
874091	.048	.380	1.590	.006	.0010	.032	.180	.280	.014	.160	.001	.028	.011	.0048	.0003	.38
874092	.051	.400	1.590	.006	.0010	.030	.180	.270	.007	.160	.001	.028	.011	.0037	.0003	.38
C99 - Supplementary information																
Cae: C+(Mn/6)+(Cr+Mo+v)/5+(Ni+Cu)/15																
Test results: C10-C29 Tensile Test acc. DIN																
B07 Heat No.	B06 Plate No	C41 Width mm	SpThickn mm	C01 loc.	C02 Dir	C11 Reh MPa	C11 Rp0,2 MPa	C12 Rm MPa	L0	C13 E %						
Set values >=						414	414	510		20.0						
Set values <=								650								
874091	303785	30,0	38.76	F	T	494	624	A5	21.6							
	303788	30,0	38.50	F	T	489	616	A5	21.9							
874092	303797	30,0	38.58	F	T	476	619	A5	21.5							
SpThickn: specimen thickness																
C01,loc.: F: Bottom																
C02,Dir: T: transverse																
L0: gauge																
C13,E: elongation																



A03 Document number		A0312108		A08 Order No.:		8532023		Date	
<b>Test results: C40-C49 Impact Test acc. DIN</b>									
B06 Plate No	C40 shape	C01 loc.	PosThickn	C02 Dir	C03 temp °C	C42 SV J	C42 SV J	C42 SV J	C43 AV J
					-40	28	28	28	39
Set values >= <=									
303785	CV 10x10	F	O	L	-40	334	339	333	336
303795	CV 10x10	F	O	L	-40	348	351	343	347
303796	CV 10x10	F	O	L	-40	366	348	369	361
303801	CV 10x10	F	O	L	-40	349	349	351	350
C40;shape: CV 10x10: Test shape , Dimensions									
C01;loc.: F: Bottom									
PosThickn: O: surface									
C02;Dir: L: longitudinal									
C42;SV: single value									
C43;AV: average value									

ACCEPTANCE STD: ABS  
 TEST PROCEDURE: UTA-001  
 CALIBRATION STD: S/N 00-7876 REVIEWED BY: C.D.T.  
 INSPECTED BY: CARY D. TODD ASNT LEVEL II  
 INSTRUMENT: KRAUTKRAMER USK-7D SER. NO: 32810-2067

TRANSDUCER:  
 SIZE: 0.500 FREQUENCY: 2.25 MHZ SERIAL NO: 8Z6606  
 ANGLE: 60 DECIBLES: 69 COUPLANT: UT-X

INSPECTION SURFACE:  
 PROBED FROM: SIDE A INSIDE    OUTSIDE X ACCEPTABLE X UNACCEPTABLE     
 MATERIAL: C/S PLATE THICKNESS: 1.500" WELD LENGTH INSPECTED 100%

EVALUATION:

100% UT FLAW DETECTION WAS PERFORMED ON THE FOLLOWING.

HULL 07-05 ABS # YY202308

10" X 1.500" X 120" O.D. CANS, (LONG SEAMS) THREE EACH  
 NUMBERS: 1, 35 & 69

NO REJECTABLE INDICATIONS.

Job No. ARI-642

W.O. \_\_\_\_\_

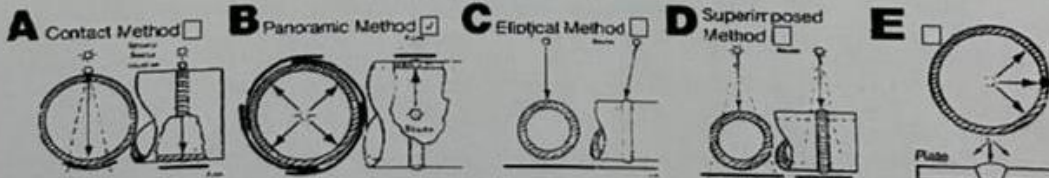
AFE \_\_\_\_\_

Other ABS CLASS A

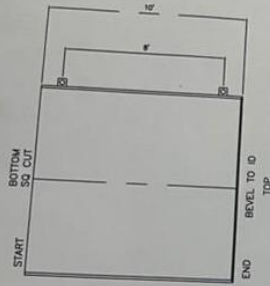
Job Specifications GAMMA RAY OF PONTOONS WELDS ON HULL

	WELD NO.	PIPE SIZE	RECOMMENDATION			WELD NO.	PIPE SIZE	RECOMMENDATION		
			✓ X	ACCEPT REJECT	REMARKS			✓ X	ACCEPT REJECT	REMARKS
1	LS-1				A-LEG 07005	31				
2	A-B		✓			32				
3	B-C		✓			33				
4						34				
5	LS-35				B-LEG 07005	35				
6	A-B		✓			36				
7	B-C		✓			37				
8						38				
9	LS-69				C-LEG 07005	39				
10	A-B		✓			40				
11	B-C		✓			41				
12						42				
13						43				
14						44				
15						45				
16						46				
17						47				
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30						60				

**RADIOGRAPHIC SET-UP**



MATL CARBON STEEL O.F.D. 53.5 DIAMETER 123" TECHNIQUE NO. RT05REV1  
 SOD 53.3 ma or ci 109Ci FOCAL 0.168 FILM KODAK SCREENS LEAD 0.10  
 L.Q.I. 0.06 EXP. TIME 23MIN FILM PROCESSING 5 MIN TEMP. 76 UG- -47.07  
 VOLTAGE N/A ISOTOPE Ir.192 Other \_\_\_\_\_ Customer Representative \_\_\_\_\_  
 No. of Welds Checked: 1 No. of Film/Holder: 1 Date 2/15/2009  
 Linear Ft. Film 3 PCS Type 4 1/2X17 MM Technician: W.JOHNSON Level: II  
 Hours Worked: 8HR Assistant: P. LEDET  
 Stand-By Time: N/A Substance (check is applicable) N/A Assistant: M.POLLOCK  
 Camera Fee \_\_\_\_\_ Travel Time: N/A Mileage N/A Unit No. N/A



SHIPPING +/- 11 SHORT TONS  
LOWER LEG SECTION 1

STRAIGHT GAGE

	1/2	END
OP	3/4	3/4
DE	3/4	3/4

DIA GAGE

	VERT ID	VERT OD	HORZ ID	HORZ OD
START	116.88	119.88	116.75	119.75
1/2	116.88	119.88	116.75	119.75
END	116.88	119.88	116.75	119.75

DIA OD LIMITS  
120.19  
119.69



PLAN VIEW

FIELD NOTE; ALIGN LONG SEAM 180° TO SECTION 2

MANUFACTURING TOLERANCES 1/16" PER 10' IN LENGTH

GAGING BLOCKS @ CAN START & END, TENSION WIRE TO 25# PER STRAIGHT GAGE CHART  
GAGE DISTANCE. DESIGN TOL. 1/8" PER 10' IN LENGTH

BILL OF MATERIALS			
QTY	DESCRIPTION	DATE	BY