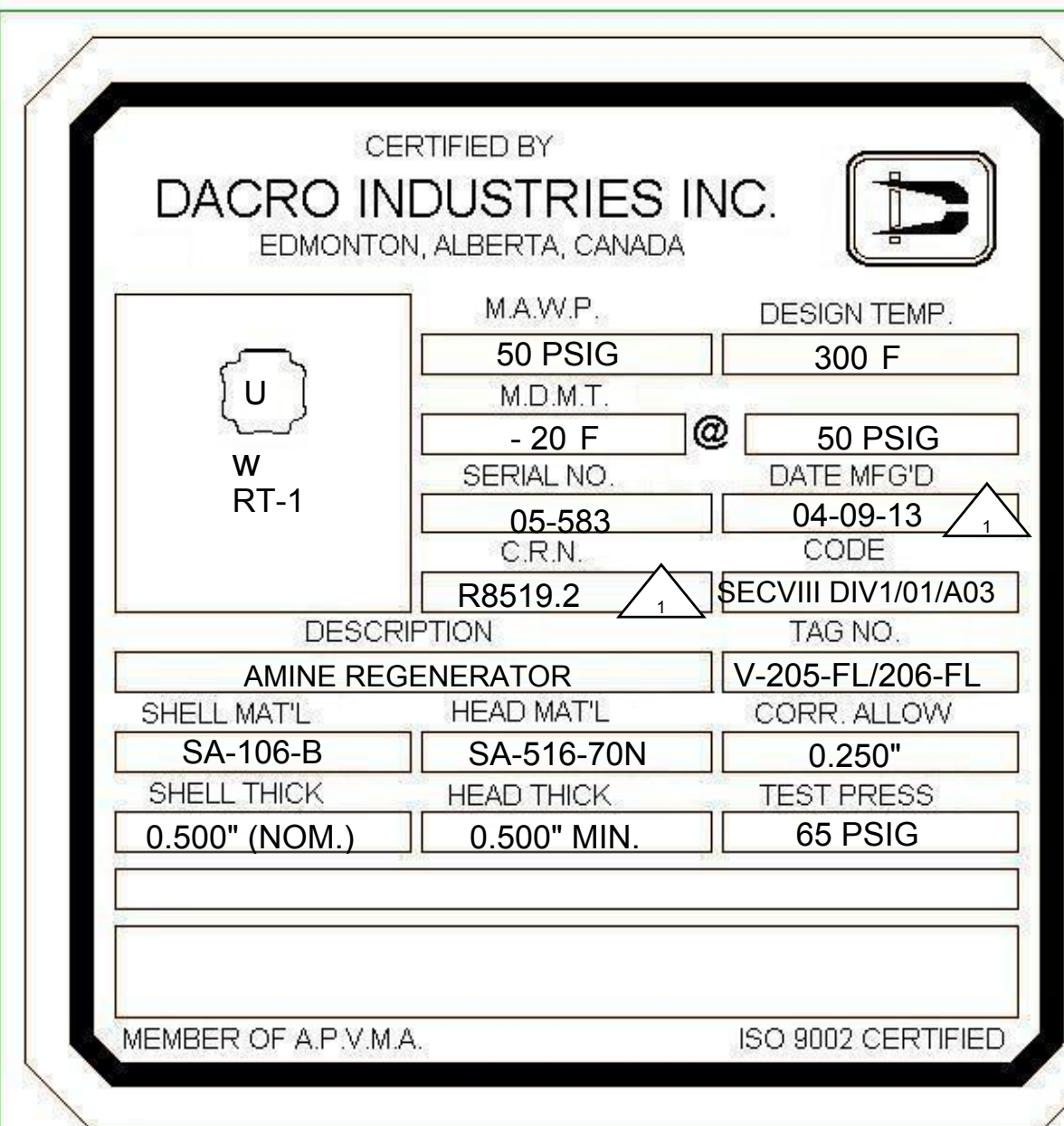


NAMEPLATE DETAIL			
			
<p>CERTIFIED BY DACRO INDUSTRIES INC. EDMONTON, ALBERTA, CANADA</p>			
M.A.W.P.		DESIGN TEMP.	
50 PSIG		300 F	
M.D.M.T.		DESIGN PRESSURE	
- 20 F @		50 PSIG @ 300 F	
PROCESS CONTENTS SOUR GAS LETHAL SERVICE NO			
M.D.M.T. -20 F @		50 PSIG	
I.T. EXEMPT PER UG-20(F)/UCS-68(C) YES			
HYDROSTATIC TEST 65 PSIG @ 40 F MIN. HOLD 1 HOUR			
PRESSURE & TEMPERATURE CHART REQUIRED YES			
RADIOGRAPHY CATEGORY 'A' SEAMLESS			
CATEGORY 'B' FULL PER UW-11 (a) - SEE RT NOTES			
P.W.H.T. YES	30 MINUTES @	1150 ± 25 °F	VESSEL
	120 MINUTES @	1150 ± 25 °F	TOP BLIND SEPARATE HEAT
EFFY SHELL CIRC AND LONG JOINT		100%	
EFFY HEAD (SMLS)		100%	
SHELL THK.	0.500 (NOM.)	COR. ALLOW	0.250"
HEAD THK.	0.500" MIN	COR. ALLOW	0.250"
C.R.N. LATER	SERIAL NO. 05-583		
CODE SYMBOL REQ'D YES	VOLUME	155 CU. FT.	
VESSEL FAB. WEIGHT (EMPTY, BARE)		10,864 LB	
VESSEL SHOP TEST WEIGHT (FLOODED, BARE)		20,426 LB	
VESSEL SHIPPING WEIGHT		11,449 LB	
VESSEL ERECTING WEIGHT		13,318 LB	
DESIGN LIQUID SPECIFY GRAVITY N/A			
WIND CODE NBC '95		SEISMIC CODE NBC '95	
Cp = 0.68	v = 0.05	Za = 0	Zv = 1.0
q = 0.0754 PSI (0.52 kPA)	F = 1.3	R = 3.0	I = 1.0
EXPOSURE A			

DESIGN DATA-VESSEL			
FABRICATE & DESIGN TO ASME SECTION VIII, Div.1, 2001 EDITION, 2003 ADDENDA			
M.A.W.P.	50 PSIG	DESIGN TEMP	300 F
LIMITED BY	FLANGES	DESIGN PRESSURE	50 PSIG @ 300 F
PROCESS CONTENTS SOUR GAS LETHAL SERVICE NO			
M.D.M.T.	-20 F	@	50 PSIG
I.T. EXEMPT PER UG-20(F)/UCS-68(C) YES			
HYDROSTATIC TEST 65 PSIG @ 40 F MIN. HOLD 1 HOUR			
PRESSURE & TEMPERATURE CHART REQUIRED YES			
RADIOGRAPHY CATEGORY 'A' SEAMLESS			
CATEGORY 'B' FULL PER UW-11 (a) - SEE RT NOTES			
P.W.H.T. YES	30 MINUTES @	1150 ± 25 °F	VESSEL
	120 MINUTES @	1150 ± 25 °F	TOP BLIND SEPARATE HEAT
EFFY SHELL CIRC AND LONG JOINT		100%	
EFFY HEAD (SMLS)		100%	
SHELL THK.	0.500 (NOM.)	COR. ALLOW	0.250"
HEAD THK.	0.500" MIN	COR. ALLOW	0.250"
C.R.N. LATER	SERIAL NO. 05-583		
CODE SYMBOL REQ'D YES	VOLUME	155 CU. FT.	
VESSEL FAB. WEIGHT (EMPTY, BARE)		10,864 LB	
VESSEL SHOP TEST WEIGHT (FLOODED, BARE)		20,426 LB	
VESSEL SHIPPING WEIGHT		11,449 LB	
VESSEL ERECTING WEIGHT		13,318 LB	
DESIGN LIQUID SPECIFY GRAVITY N/A			
WIND CODE NBC '95		SEISMIC CODE NBC '95	
Cp = 0.68	v = 0.05	Za = 0	Zv = 1.0
q = 0.0754 PSI (0.52 kPA)	F = 1.3	R = 3.0	I = 1.0
EXPOSURE A			

INSPECTION AND TESTING			
A. INSPECTION QUALITY			
1. ALL NDE SHALL BE PERFORMED BY ASNT-TC-1A LEVEL II OR CGSB CERTIFIED TECHNICIANS.			
B. VISUAL EXAMINATION			
1. EXAMINATION AND ACCEPTANCE CRITERIA SHALL BE IN ACCORDANCE WITH ASME SECTION V, ARTICLE 9 AND ASME SEC. VIII DIV.1 RESPECTIVELY.			
2. 100% VISUAL EXAMINATION IS REQUIRED FOR ALL WELDING.			
3. AS A MINIMUM, VISUAL INSPECTION SHALL CONFIRM:			
- NO SURFACE CRACKING	- NO UNDERCUT/ARC STRIKE	- NO POROSITY	- NO SLAG
- NO INADEQUATE OR EXCESS WELD REINFORCEMENT	- NO WELD CRATERS/SPATTER	- NO LACK OF FUSION	- NO BURN-THROUGHS
- NO UNAUTHORIZED SURFACE MACHINING	- ACCEPTABLE WELD PROFILE PER CSA W59		
C. RT REQUIREMENTS			
1. EXAMINATION AND ACCEPTANCE CRITERIA SHALL BE IN ACCORDANCE WITH ASME SECTION V, ARTICLE 2 AND ASME SECTION VIII DIV.1, PAR UW-51 RESPECTIVELY			
2. USE CLASS 1 FILM.			
3. 100% RT REQUIRED FOR ALL SHELL CATEGORY B CIRC WELDS.			
D. PRODUCTION WELD HARDNESS INSPECTION			
1. HARDNESS TESTING SHALL BE PERFORMED BY "TELEBRINNELER" WITH 10mm DIA. BALL.			
2. HARDNESS SHALL BE ≤ 200 BHN (ONE PER WPS)			
3. HARDNESS READINGS TO BE TAKEN AFTER PWHT.			

HYDROTEST AND LEAK TEST REQUIREMENTS			
1. VESSEL SHALL BE HYDROTESTED PER ASME CODE, SECTION VIII, DIV. 1			
2. VESSEL SHALL BE HYDROTESTED IN THE HORIZONTAL POSITION AND SHALL BE ADEQUATELY SUPPORTED TO PREVENT WEIGHT DEFORMATION.			
3. THE HYDROTEST SHALL USE POTABLE WATER WITH A MAXIMUM CHLORIDE CONTENT OF LESS THAN 50 PPM.			
4. UPON COMPLETION OF HYDROTEST, VESSEL SHALL BE DRAINED IMMEDIATELY OF ALL WATER AND VACUUMED.			
MARKING AND PREPARATION FOR SHIPMENT			
1. ALL NOZZLES WHICH ARE NOT SUPPLIED WITH STANDARD BLIND FLANGES SHALL BE PROTECTED WITH 1/2" THICK PLYWOOD COVERS FASTENED IN PLACE WITH A MINIMUM OF FOUR (4) BOLTS FOR FLANGES WITH UP TO 24 BOLT HOLES (NOTE: TEMPORARY SHIPPING BOLTS DO NOT HAVE TO MATCH DIAMETER REQUIREMENTS OF SERVICE BOLTS).			
2. ALL TELLTALE HOLES SHALL BE PLUGGED WITH OPEN-ENDED 1/4" NPT NIPPLE, 4" LENGTH.			
3. ALL MACHINED FLANGE SURFACES AND ALL THREADS TO BE PROTECTED WITH RUST PREVENTATIVE GREASE PRIOR TO SHIPMENT.			
4. ALL LOOSE PARTS SHALL BE ADEQUATELY CRATED AND GIVEN CLEAR IDENTIFICATION NUMBER RELATING TO VESSEL TAG AND PURCHASE ORDER NUMBER.			
5. TWO (2) GASKETS TO BE PROVIDED FOR NOZZLES WITH BLIND CONNECTIONS. ONE (1) GASKET SHALL BE USED FOR HYDROTEST AND REMAIN IN PLACE FOR SHIPMENT. THE ONE (1) REMAINING NEW AND UNUSED GASKET SHALL BE APPROPRIATELY PACKAGED, LABELED AS 'SPARES', CLEARLY MARKED WITH THE CLIENT PURCHASE ORDER NO. AND TAG NO. AND SHIPPED LOOSE.			
6. VESSEL SHALL BE STENCILLED ON OPPOSITE SIDES IN 3" BLOCK LETTERS OF A CONTRASTING COLOR TO VESSEL AS FOLLOWS:			
PWHT - NO WELDING OR BURNING PERMITTED ON THIS VESSEL			

SURFACE PREPARATION & PAINTING REQUIREMENTS					
COMPONENT	BLAST	PRIMER	D.F.T.	FINISH	D.F.T.
SHELL AND HEADS	SP-6	P-1	1.5 - 2.0 MIL	N/A	N/A
NOZZLES	SP-6	P-1	1.5 - 2.0 MIL	N/A	N/A
APPURTENANCES	SP-6	P-1	1.5 - 2.0 MIL	N/A	N/A
SKIRT	SP-6	P-1	1.5 - 2.0 MIL	N/A	N/A
NOTES: 1. SP-6: COMMERCIAL BLAST CLEANING TO SSPC-SP-6 2. P-1 PRIMER: ONE (1) COAT ZINC PHOSPHATE PRIMER - MANUFACTURER'S STANDARD COLOUR.					
INSULATION REQUIREMENTS					
COMPONENT	INSULATION TYPE	THK.	CLAD TYP	THK.	
SHELL	MINERAL FIBRE	2"	SMOOTH ALUM.	0.020"	
NOTES: 1. INSULATION AND INSULATION SUPPORTS BY DACRO 2. INSULATION IS APPLICABLE TO V-205-FL ONLY (TRAYED SECTION FROM FLANGE TO FLANGE) 3. INSULATION FOR NOZZLES, BODY FLANGES, CLIPS, SUPPORTS OR ANY OTHER APPURTENANCES IS NOT INCLUDED.					

MATERIAL REQUIREMENTS			
A. PLATE:			
1. RE-PAD MATERIAL TO BE SA-516-70 NORMALIZED.			
2. ALL MATERIAL SHALL HAVE THE FOLLOWING PROPERTIES:			
a) CHEMICAL PROPERTIES BY LADLE ANALYSIS: %C + Mn /4 ≤ 0.55			
b) PHYSICAL PROPERTIES: MAXIMUM HARDENESS 200 BRINELL			
B. HEADS			
1. HEAD MATERIAL TO BE SA-516-70 NORMALIZED.			
2. ALL MATERIAL SHALL HAVE THE FOLLOWING PROPERTIES:			
a) CHEMICAL PROPERTIES BY LADLE ANALYSIS: %C + Mn /4 ≤ 0.55			
b) PHYSICAL PROPERTIES: MAXIMUM HARDENESS 200 BRINELL			
C. SHELL			
1. SHELL MATERIAL TO BE SA-106-B.			
2. ALL MATERIAL SHALL HAVE THE FOLLOWING PROPERTIES:			
a) CHEMICAL PROPERTIES BY LADLE ANALYSIS: %C + Mn /4 ≤ 0.55			
b) PHYSICAL PROPERTIES: MAXIMUM HARDENESS 200 BRINELL			
D. PIPE & FLANGES			
1. PIPE TO BE SA-106-B.			
2. FLANGES AND FORGINGS TO BE SA-350-LF2.			
3. FLANGE GASKET SURFACE TO BE MACHINE FINISHED TO 125-250 AARH.			
4. ALL MATERIAL SHALL HAVE THE FOLLOWING PROPERTIES:			
a) CHEMICAL PROPERTIES BY LADLE ANALYSIS: %C + Mn /4 ≤ 0.55			
b) PHYSICAL PROPERTIES: MAXIMUM HARDENESS 200 BRINELL			
E. GASKETS:			
1. EXTERNAL GASKETS TO BE GRAPHOIL FILLED SPIRAL WOUND (FLEXITALLIC) 304SS c/w CS OUTER RING.			
F. STUDS			
1. STUDS/NUTS: SA-193-B7M, SA-194-2HM.			
△	AS BUILT	10/26/2004	LJ
△	FIRST ISSUE	07/15/2004	LJ
REV	DESCRIPTION	DATE	ENG. BY

FABRICATION NOTES			
1. ALL MATERIALS AND WELDER IDENTIFICATION SHALL BE WITH LOW STRESS STAMPS.			
2. EXPOSED INSIDE EDGES OF NOZZLES TO BE ROUNDED TO 1/8" MIN. RADIUS, MANWAYS TO 3/16" MIN. RADIUS.			
3. ALL FLANGE BOLT HOLES SHALL STRADDLE CENTERLINES.			
4. FABRICATION TOLERANCES PER ESSO SPECIFICATION 18P-5-1-1 AND ASME CODE SECTION VIII.			
5. REMOVE ALL ARC STRIKES AND TEMPORARY ATTACHMENTS BY GRINDING.			
6. UNDER NO CIRCUMSTANCES SHALL CUTTING, GOUGING OR WELDING BE PERFORMED UNTIL ALL BASE METALS ARE AT ROOM TEMPERATURE.			
7. PRIOR TO HYDROSTATIC TEST, PNEUMATICALLY SOAP TEST ALL REPADS AT 15 PSIG.			
8. EACH RE-PAD TO HAVE A 1/4" NPT WEEP TEST HOLE LOCATED AT LEAST 45 DEGREES OFF THE LONGITUDINAL AXIS OF THE VESSEL.			
9. NO UNDERCUTTING PERMITTED.			
10. NO PRODUCTION CVN IMPACT TESTS REQUIRED.			

CUSTOMER INFORMATION			
CUSTOMER NAME		END USER	
TALISMAN ENERGY		TALISMAN ENERGY	
PURCHASE ORDER NO.		LOCATION	
GP-301174		BOUNDARY LAKE, AB	
DACRO INDUSTRIES INC.		TAG NO.	
9325 - 51 AVENUE		V-205-FL /V-206-FL	
EDMONTON, ALBERTA		AMINE REGENERATOR	
		(REPLACEMENT VESSEL)	
		DESIGN DATA	
		AND	
		FABRICATION NOTES	
ENGINEERED BY		DOCUMENT NO.	
L. JOHNSTON		05-583-DN-1	
DATE	SHEET	REV	
7/15/2004	1 OF 1	1	

CUSTOMER INFORMATION			
CUSTOMER NAME		END USER	
TALISMAN ENERGY		TALISMAN ENERGY	
PURCHASE ORDER NO.		LOCATION	
GP-301174		BOUNDARY LAKE, AB	
DACRO INDUSTRIES INC.		TAG NO.	
9325 - 51 AVENUE		V-205-FL /V-206-FL	
EDMONTON, ALBERTA		AMINE REGENERATOR	
		(REPLACEMENT VESSEL)	
		DESIGN DATA	
		AND	
		FABRICATION NOTES	
ENGINEERED BY		DOCUMENT NO.	
L. JOHNSTON		05-583-DN-1	
DATE	SHEET	REV	
7/15/2004	1 OF 1	1	

CUSTOMER INFORMATION			
CUSTOMER NAME		END USER	
TALISMAN ENERGY		TALISMAN ENERGY	
PURCHASE ORDER NO.		LOCATION	
GP-301174		BOUNDARY LAKE, AB	
DACRO INDUSTRIES INC.		TAG NO.	
9325 - 51 AVENUE		V-205-FL /V-206-FL	
EDMONTON, ALBERTA		AMINE REGENERATOR	
		(REPLACEMENT VESSEL)	
		DESIGN DATA	
		AND	
		FABRICATION NOTES	
ENGINEERED BY		DOCUMENT NO.	
L. JOHNSTON		05-583-DN-1	
DATE	SHEET	REV	
7/15/2004	1 OF 1	1	