RC

INVENTORY 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95

Ward Transformer Co., Inc.

TRANSFORMER DEPT.

No. 2773

Received From:	Texas Gulf Inc	Original Cost:	
		Shop Cost:	
Town:	Aurora State N.C.	Incoming Freight:	
Received Via:	Date: 9/4/98	Date Billed:	
Card Made:	J. [illegible] P. O. No:	Our R No:	
Sold To:		Cust. Order No:	

EQUIPMENT: Station Type Transformer — Serial No. 7029615

Make: West	K.V.A. 2000	Imp. 5.3	Phase: 3	Style No. C/AS(OA)
H. Volts: 22900 Δ	Type: SL	Form:	Cycles: 60	Cat. No.
L. Volts: 4160Y/2400	Gals Oil: 460	Pol:	N.P. No. 65	Spec. No.
No. Taps 4 Taps	Up ☒ Down ☒	YEAR BUILT:		
Throat L.V.	Pocket Pri Sec	(Top Pri.) Sec	Steel ☒ Cast ☐	Cast Top Bot.
Has Fans	(Stud) Pri (Sec)	Oblong ☐	Straight ☒ Round ☐	Corregated ☐ Fins ☒

24100	Ht. top of H. V.: 111"	Tank & Fittings: 3600
23500	Ht. No. H. V. Bush: 83"	C & C Wt: 6000
22900 - 100%	Dia: Wide: 97"	Oil Wt: 3450
22300	Deep: 95"	Total Wt: 13050
21700	Oil Level Gauge ☒	Thermometer ☒
	Tap Changer: External ☒	Internal ☐
	NEW USER:	
	REBUILT USER:	
Welded Down Top	DEALER:	

REMARKS:

Oil, Dielect Slight Burnt Odor

25-28-28 KV

10816801

TRANSFORMER TEST

Continuity	Lead Clearances X	Exciting Current At Volts	Core Loss At Volts
Oil N R	Oil Level X	500 Cycles At L Volts	High Pot. X High To Grd. 45 K.V.
Grd Terminals 1 2	Surge Tested	Radio Interference OK Polprity A X	Low To Grd 12 K.V.
Oil Leaks	Anti Siphon Joints	Impeadence Calculated At Volts	High To Low K.V.
Pri. Grd. Connected Y N	Sec. Grd. Connected Y N	Number Taps 4 What %	Up 2 Down 2

SECONDARY BREAKER	Position	% Tap	Connect	Pot. Difference	T.T.R. Ratio	Calculated Ratio
Breaker No.	1		10.013	10.014	10.013	
Trip and Reset Oil Temp °C	2		9.770	9.772	9.770	
Factory Trip Allowable To Secs	3	100%	9.530	9.532	9.530	
Factory Trip Current At °C	4		9.288	9.290	9.288	
Shop Trip Current At °C	5		9.048	9.050	9.048	
Shop Trip Time Right Side Secs			Out on 3rd	Position 100% TAP		
Shop Trip Time Left Side Secs						

INSULATION POWER FACTOR	OIL TEST	INCOMING	OUTGOING
High to Grd. I.P.F. M.F.	SHOT A	SHOT B	Color .5
High to Low I.P.F. M.F.	No. 1 K.V.	No. 1 K.V.	Nevt No. .05
Low to Grd. I.P.F. M.F.	No. 2 K.V.	No. 2 K.V.	I.F.T. < 1 PPM
Megger High to Grd. In Out	No. 3 K.V.	No. 3 K.V.	Power Factor
Megger Low to Grd In Out	No. 4 K.V.	No. 4 K.V.	Oxidation % Time
Megger High to Low In Out	No. 5 K.V.	No. 5 K.V.	Oxidation % Time
	TOTAL K.V.	TOTAL K.V.	Average K.V. 30-30-30

Fuse No. Good Bad	GRD. Clamps OUT	Approved: YES	
Hangers IN OUT	Pri. Bushing Good OUT	Date Tested: 10/10/90	
Arrestors IN OUT	Sec. Bushing Good OUT	Tested	
Paint OUT	Sec. Breaker IN OUT	By: [signature]	

REMARKS: NEW Oil

L-G 10,000
H-G 10,000 } 2500 Volt Scale
H-L 10,000

OHMS 23°C	OHMS
H-1-H-2 2.20	X-1-X-2 .045
H-2-H-3 2.21	X-2-X-3 .044
H-1-H-3 2.21	X-1-X-3 .044

Texasgulf Shipping Record

8973

HIGHWAY 306 N.
P. O. BOX 48
AURORA, N.C. 27806
PHONE (919) 322-4111

SHIP TO	DATE
WARD TRANSFORMER MOUNT HERMAN CHURCH RD RALEIGH, NC 27612	8-30-90
	SHIPPED BY
	WARD
PURCHASE ORDER NO.	CHARGE
D40-18972	226460
REQUISITION NO.	B/L NO.
IE2-1771	
REASON FOR SHIPMENT	
REPAIR AND RETURN	

QUANTITY	UNIT	DESCRIPTION OF ITEMS SHIPPED
1	ea ea	WESTINGHOUSE 2000 KVA TRANSFORMER 22900 PRI/4160 V SEC
		SERNIAL# 7027615

Bill Easterling

009-00-102-030

"Safety Awareness is Everyone's Responsibility"

G. Veren 8/30/90
WAREHOUSEMAN

(216) 339-7354

cMc

McMillen Contamination Control
Oil Analysis

Rural Route No. 7 - Box 7210
New Philadelphia, Ohio 44663

DAN McMILLEN
Owner

CUSTOMER • ENSR OPERATIONS
1501 RAFF ROAD SW
CANTON, OH
44710

ATTENTION • TIM MCBRIDE
(216) 477-0527 CANTON

JOB •

UNIT COMPANY NO TEXAS GULF
UNIT SERIAL NO #7027615
MANUFACTURER G-227
MODEL
COMPONENT MFG
FILTER MFG
COMPONENT TRANSFORMER

PHYSICAL TEST RESULTS: A-ACCEPTABLE B-BORDERLINE E-EXCESSIVE I-INSUFFICIENT SAMPLE N-NEGATIVE P-POSITIVE T-TRACE > MORE THAN < LESS THAN

UNIT DATA					WEAR ELEMENTS - PPM						PHYSICAL TEST - OIL CONDITION						
			HOURS/MILES SERVICE													TOTAL SOLIDS	
SAMPLE NO	DATE SAMPLED	DATE RECEIVED	UNIT	OIL	IRON (Fe)	LEAD (Pb)	COPPER (Cu)	CHROMIUM (Cr)	ALUMINUM (Al)	SILICON (Si)	FUEL DILUTION % VOL	MOISTURE % VOL	ANTI-FREEZE	T.B.N	VISCOSITY 210°F	SUS SOLIDS	NON-SUSPENDED SOLIDS
No	Date	Date-r	Unit	Oil	Fe	Pb	Cu	Cr	Al	Si	F.Vol	M.Vol	An	Tbn	100°F	PRODUCTS OF OIL DEGRADATION AND/OR SOOT	AMOUNT OF VISIBLE PARTICLE CONTAMINATION BASED ON MICROSCOPIC INSPECTION
222	10-05-88	12-02-88			0.6	0.9	0.6	0.4	1.8	0.1		N			055	DIRT IN SAMPLE	

VALUES UNDERLINED ARE CONSIDERED SLIGHTLY OR MODERATELY ABOVE NORMAL - VALUES CIRCLED ARE CONSIDERED TO BE SUBSTANTIALLY ABOVE ACCEPTABLE

SILVER: 0.2
TIN : -0.9

SHOP

WARD TRANSFORMER CO., INC.

P.O. BOX 30009 • MT. HERMAN CHURCH ROAD
RALEIGH, N.C. 27622

PHONE: 919-787-3553
800-334-9600

FAX: 919-787-1683

ORDER SHEET

ORDER NO.	DATE SOLD	SALESMA
0003139237	09/05/90	33

CUSTOMER NO.	TERMS
007782	.0 % Disc - 0 Days

SOLD TO:
TEXAS GULF INC
PO BOX 48
AURORA, NORTH CAROLINA
27806

CUSTOMER P.O. NO. D40-18932
ATTENTION:
TELEPHONE NO. 919-322-4111

SHIP TO:
TEXAS GULF INC
HWY 306 N
AURORA, NORTH CAROLINA
27806

REFERENCE NO.:
ATTENTION:
TELEPHONE NO. 919-322-4111

DATE REQUIRED: ~~09/07/90~~ 10/31/90
F.O.B. PT. & FREIGHT:
SHIP VIA: WARD/PP&A

ITEM NUMBER	QTY. ORD.	QTY. SHIP	DESCRIPTION	UNIT
83-2773	1	0	COMPLETE REMANUFACUTURE 2000KVA WESTINGHOUSE STATION TYPE, 3PH, 60HZ, 65 DEGREE C RISE, 5.30% IMP., HIGH VOLT: 22,900 DELTA WITH 2-2.5% TAPS ABOVE AND BELOW, LOW VOLT: 4160Y/2400 460 GALLONS, 13050 LBS. NEW COPPER WINDINGS LV AND HV, NEW INSULATION, NEW OIL, REGASKET, VACUUM DRY, ANSI TESTS, 1 YR WARRANTY ***NEED TO INCLUDE FREIGHT BOTH WAYS.... CALL BILL FOSTER BEFORE YOU SHIP.	EA

W/O # 091070.04

INSTRUCTIONS:

TRANSFORMER OIL TEST REPORT

EQUIP. NO.

CUSTOMER	CUSTOMER NUMBER	CONTACT
[illegible] GULF INC. P. O. BOX 48 AURORA IN 47006	856	[illegible]

LOCATION: [illegible] SUP

COMMENTS: * GAS SAMPLE FITTING BROKEN OFF, 10/88

OUTDOOR	INDOOR	RIG	ROOF	VAULT	POLE	PLATFORM	PORTABLE REQ'D	HOSE LENGTH	ELECT. PO
X						X			

NAME PLATE DATA

MANUFACTURER	SERIAL NUMBER	KVA	PRIMARY VOLTS	SECONDARY VOLTS	PHASE	TRANS	REG.	TAPCOMP.	OIL SW
WESTINGHOUSE	7027615	2000	2250	[illegible]	[illegible]	[illegible]			

EQUIPMENT DATA

LIQUID TYPE	GALLONS	LIQUID LEVEL	IND TEMP °C	PEAK TEMP °C	PRESS (LBS)	SAMPLE VALVE INSTALLED	WELDED CLOSED	FANS	WELDED CLOSED	WELDED CLOSED	RADIATORS	CONSERVATOR TANK	GRAND COLANT	PAINTED CORROSION	FAIR	PAINT GOOD	TOP VALVE DIAM
[illegible]	460	N	21		0.02		X		X	X	X		X	X			

ASTM NO.		D1500	D1524	D974	D877	D971	D1298	D924	D1533-77	DEHYD.	RECLAIM	MARGIN	PCBX		E/TEST	REPAIR	SAMPLED BY	TESTED BY	REPAIR / TEST HISTORY COMMENTS
DATE	JOB NUMBER	COLOR	SLUDGE (VISUAL)	NEUT NO. MG KOH/G	DIEL. KV.	IFT DYNES/CM	SPECIFIC GRAVITY	POWER FACTOR (OPTIONAL)	WATER PPM (OPTIONAL)					REMARK TYPE					
[illegible]	[illegible] 018	1.5	L9	.029	48	35.5	.874	.10	26					12			JL	[illegible]	

N NORMAL
H HIGH
L LOW

N/A NOT AVAILABLE

NOTE: ASKAREL - COLOR ASTM D 2129

O OIL

A ASKAREL

RT R - TEMP

SL SILICONE

PCB ANALYSIS

DATE	11-88		
CERT NO.	15454		
PPM	18		

EAGLE

1700 GATEWAY BLVD. S.E., CANTON, OHIO [illegible]707