

EQUIPMENT DATA SHEET

PT Totes
SHEET 1 OF 3



EQUIPMENT DATA SHEET					
Date/ Author/ Revision		August 20, 2009 RVF		Rev. 1	
Equipment Identification					
Equipment Type	Discharge Hopper				
Equipment Name	Pretreatment Totes				
Tag	T220-T223				
PID Number	P060				
General Description	Qty. 4 Twin Screw Discharge Hopper				
Does the tank have agitator?	Yes - Dual Screw				
Agitator Tag	N/A				
Agitator Specification	Included				
Attachments					
The following files are part of this Equipment Data Sheet and are to be included as attachments:					
PT Tote Vendor Doc Requirements.pdf					
E6100 Project Motor Specification Rev. 5.pdf					
Material/Finish/Requirement/Code/Included with (S/E) (P/W)	MOQ	Included/Included	Quantity	Comments	
Fully Assembled Enclosed Hopper with Discharge Unit	AISI 304	√		Hopper to have flat top with	
Nozzles / Flanges	AISI 304	√		4, evenly spaced	
Support Legs	AISI 304	√		4, evenly spaced	
Lifting Lugs	AISI 304	√			
Fork Lift access	AISI 304	√			
Motor					
Nameplate	AISI 304	√			
Tank Design Data					
Design Volume		ft ³			
Holding Capacity		30.00	Supplier to		
Main Dimensions - Hopper		Inches			
Diameter, D (Inside)		48	Supplier to		
Height, L (Shell TRL to TRL)		24	Confirm		
Overall Height, (Incl. Nozzles)		72 ± 2			
Pressure Rating		bar(g)			psig
Design Pressure, max		0.5			7.3
Design Pressure, min.		-0.1	full vacuum		-1.5 full vacuum
Temperature Rating		°C			°F
Design Temperature		120			248
Product Contact Surfaces					
1. Polishing is not required as long as unpolished surfaces meet a No. 2B or mill finish. If polishing is required, the specified roughness average or Ra value for surface finish is typically in the Ra ≤1.0 µm range.					
2. Weld shall not have any discontinuities such as cracks, voids, porosity, or joint misalignment that will promote contamination of the product (Figure 1 & 2). All welding procedures shall be qualified by an appropriate governing body agreed upon by the Customer, such as ASME BPE-2002 MJ-8 for example.					
Tank Support & Installation					
Tank location	Indoors				
Foundation Type	Tank to be supported on legs at grade			Supplier to Submit Design for Customer Approval	
Number of Support Legs	Four, evenly space				
Mounting Height	The face of the bottom tri-clamp connection shall be 18" above grade				
Loading	Maximum Operational Weight			Supplier to Provide Specification	
Painting Standard for Carbon Steel Parts	Vendors Standard, if applicable				
Lifting Lugs	Design each lug for twice the actual load lifted at each lug. Position lifting lugs to facilitate a horizontal to vertical lift.			Supplier to Submit Design for Customer Approval	
Material of Construction	S/S				



EQUIPMENT DATA SHEET

PT Totes
SHEET 2 OF 3

EQUIPMENT DATA SHEET						
Date/ Author/ Revision		August 20, 2009 RVF		Rev. 1		
Equipment Identification						
Equipment Type		Discharge Hopper				
Equipment Name		Pretreatment Totes				
Tag		T220-T223				
PID Number		P060				
Tank Weight						
Empty Weight		kg		lb		
Empty Weight Total		1270		2800		Supplier to Complete
Vessel Weight Full of Water		2145		4730		
Maximum Weight of Contents		409		900		
Maximum Operational Weight		1680		3700		
Tank Nozzles Schedule						
Label	Description	Size	Type		Location	Remarks
	Bottom Discharge	10"	Tri-Clamp	150#	Bottom Center	
	Top Inlet	10"	Tri-Clamp	150#	Top Center	
	Spare	2"	ANSI	160#	Top	
	Spare	2"	ANSI	150#	Top	
	Spare	1"	ANSI	150#	Top	
Notes						
1	All nozzles will be ANSI 304 unless otherwise noted					
Application Requirements						
The hopper must discharge at a minimum rate of 15 ft ³ / hr . Higher rates are acceptable. Estimated discharge rate shall be supplied to Customer for approval.						
The material being held in and discharged from these containers is corn cobs, ground to a nominal 3/8" size (assume cubical shape) and treated by an upstream process. The moisture content will range from 15% - 45% moisture and the bulk density will range from 0.35 - 0.45 kg/L. $22 - 28 \text{ lb/ft}^3$						
Construction Tolerances						
Vertical, bottom	The (4) containers provided in this order shall vary by no more than 1/16" in the vertical direction between the bottom of the support legs and the bottom center discharge flange face					
Vertical, top	The (4) containers provided in this order shall vary by no more than 1/16" in the vertical direction between the bottom of the support legs and the top center discharge flange face					
Horizontal, bottom	The (4) containers provided in this order shall vary by no more than 1/8" in the horizontal direction, radially, from the center of the bottom discharge nozzle, as measured from any of the support legs. This requirement applies for each container individually as well as the deviation between containers.					
Horizontal, top	The (4) containers provided in this order shall vary by no more than 1/8" in the horizontal direction, radially, from the center of the top discharge nozzle, as measured from any of the support legs. This requirement applies for each container individually as well as the deviation between containers.					
Electrical Requirements						
Motor Type:	Electric Induction					
Enclosure / Insulation:	TEFC / Class F Insulation w/ B Rise					
Motor Orientation:	Horizontal Comment:					
Motor Voltage/Phase/Frequency:	460V, 3PH, 60Hz					
Motor Speed at 60Hz (Synch.):	(Choose a Response) Comment: Vendor to Provide					
Power Demand (Motor HP):	3 Other:					
Duty:	Intermittent					
NEC Classification:	Unclassified For AIT / T-Code See Spec. E6100					
Starter Type:	Full Voltage Const. Spd.					
Torque Duty:	Constant					
Motor Speed Range:	Min RPM: N/A Max. RPM: N/A (Only available on PWM Inverter)					
OverSpeed Capability:	N/A Max RPM: (Only available on PWM Inverter)					
Other Requirements:	See E6100 - Project Motor Specification for Additional Details					
These units are portable containers that require connection to and disconnection from their power source. The Vendor shall supply a motor with each unit in accordance with the above requirements, along with a conduit box for wiring connections. Customer will provide wiring to the power source and motor starter(s).						



BALDOR • RELIANCE

Part Information Packet

VECP83661T-4

3HP, 1760RPM, 3PH, 60HZ, 182TC, TEFC, FOOTLES

Part Detail			
Model Number:	VECP83661T-4	Environment:	Harsh / Mill & Chemical
Voltage:	460	HP:	3
RPM:	1760	Efficiency:	Premium (XE)
Phase:	3	Frequency:	60
Inverter Duty:	*	Enclosure:	TEFC
Frame Group:	180	Frame Size:	L182TC
Features:	Meets IEEE-841	Mounting:	Footless
Service Factor:	1.15	Enclosure Group:	TEFC
List Price:	1256.00	Price Symbol:	SD
Speed Range:	1201-1800	Insulation Class:	F
Nema Design:	B	Encl. Enhancement:	
Catalog Page:	M-24,B	Dimension Sheet:	615470-846
Connection Diagram:	416820-24	Electric Design:	E02674-B-E003
Single HP:	3	Get Notes:	Meets IEEE-841
Revision:		Instruction Manual:	MN408
Application:	General Purpose	Epact:	Y
Scaled Drawing:		Obsolete:	N
Last Data Source:	RAG,MADD	Bearing Type:	
Electrical Type:	P	Mounting Pos.:	
Ambient:	40	Duty:	CONT
Amps:	4.20	Nominal Eff.:	89.5
Kva Code:	K	Power Factor:	75.6
Poles:	04	Weight:	142

BALDOR • RELIANCE Part Information Packet: VECF83661T-4 - 3HP, 1760RPM, 3PH, 60HZ, 182TC, 182TC, TEFC, FOOTLES

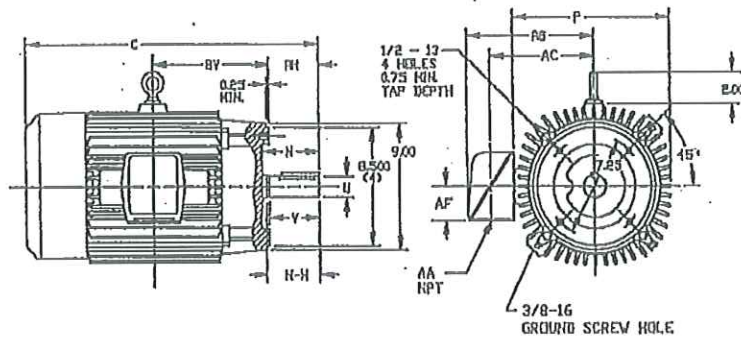
DUTY MASTER ALTERNATING CURRENT MOTORS

SQUIRREL-CAGE INDUCTION
CAST IRON CONSTRUCTION

ENCLOSURE: TOTALLY ENCLOSED
MOUNTING: FOOTLESS, NEMA "C" FACE

COOLING: FAN COOLED

FRAMES 180TC THRU 210TC
B41XL



DIMENSIONS ARE IN INCHES

FRAME SIZE	P	CAST IRON TERMINAL BOX			
		AA	AB	AC	AF
182TC-184TC	9.50	1	6.44	6.69	2.12
213TC-215TC	11.00	1-1/4	9.61	7.81	2.50

FRAME SIZE	C	BV	H	H1	H-V	SHAFT AND KEY			LGTH	WEIGHT LBS. (1)
						Ø2D	V	SØ		
182TC-184TC	17.69	7.13	3.00	2.62	2.75	1.1250	2.50	0.250	1.75	126
213TC-215TC	20.94	6.45	3.69	3.12	3.30	1.3750	3.12	0.312	2.50	190

- (1) SPECIAL DIMENSIONS APPLYING TO THIS ORDER ON THIS LINE. CONDUIT BOX LOCATED ON OPPOSITE SIDE WHEN F-2,M-1, V-1,W-5,W-7, OR C-1 MOUNTING IS SPECIFIED.
- (2) 'U' MAY VARY +.000, -.005 IF MOUNTING CLEARANCE DETAILS ARE REQUIRED, CONSULT FACTORY.
- (3) MOTOR WEIGHTS MAY VARY BY 15% DEPENDING UPON RATING. MAXIMUM PERMISSIBLE SHAFT RUNOUT WHEN MEASURED AT END OF STD. SHAFT EXTENSION IS .001 T.I.R.
- (4) 'HAY' MAY VARY +.00, -.003 FACE RUNOUT AND ECCENTRICITY IS .004 MAX. T.I.R.
- (5) 'H-V' VARIES +.00, -.25

FRAME _____ TYPE _____ CERTIFIED FOR _____
 ORDER _____ ITEM _____ HP _____ RPH _____ PH _____ HZ _____ VOLTS _____
 RELIANCE SALES ORDER _____ APPROVED BY _____ DATE _____

RELIANCE ELECTRIC
CLEVELAND, OHIO 44117 U.S.A.

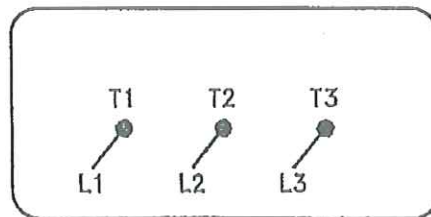
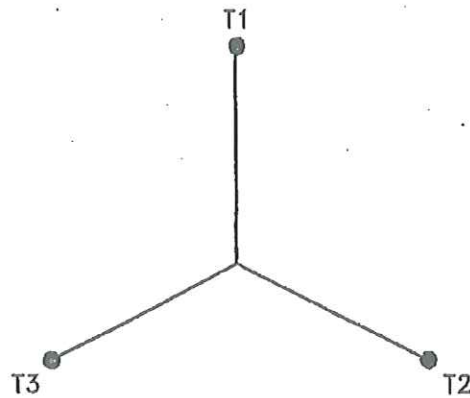
DR. BY G. ARDARI
 CK. BY E. BRYANT
 APP. BY JH. FUMIZER
 DATE 01-24-79

DIMENSION SHEET 615470-846
 ISSUE DATE JANUARY 26, 1978

C/R 322167

DIST- 10-941-05

A-C MOTOR
 CONNECTION DIAGRAM
 STANDARD 3 LEAD Y CONNECTED



(N.P. 1575-BA)

CUSTOMER _____ CUSTOMER ORDER NO. _____ RELIANCE S.O. NO. _____

C/R

RELIANCE
ELECTRIC
 CLEVELAND, OHIO 44117

DR. BY...NFJ
 CK. BY...GS
 APP. BY...HEJ
 DATE...10/27/76

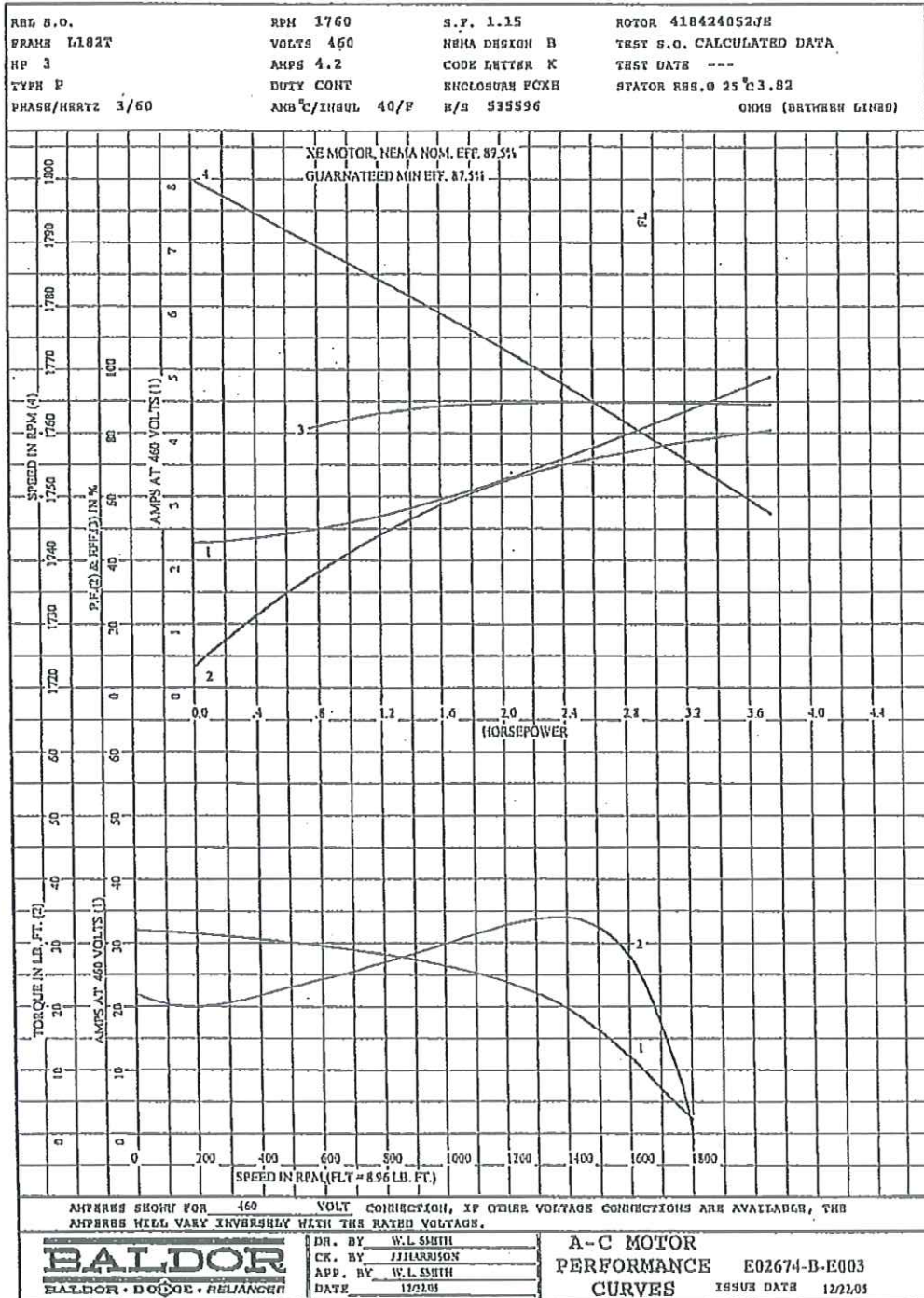
CONNECTION
 DIAGRAM

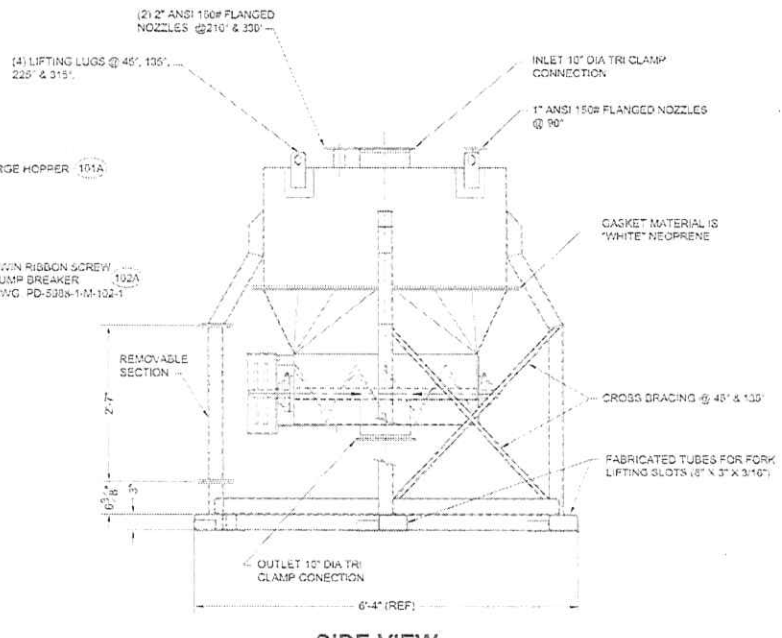
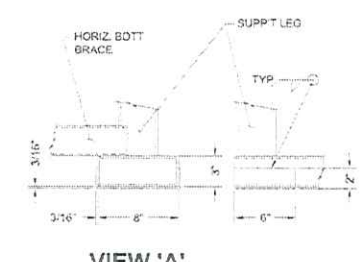
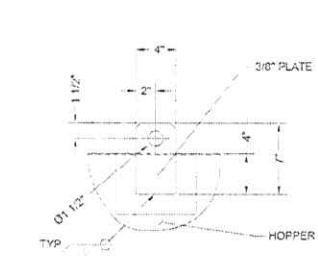
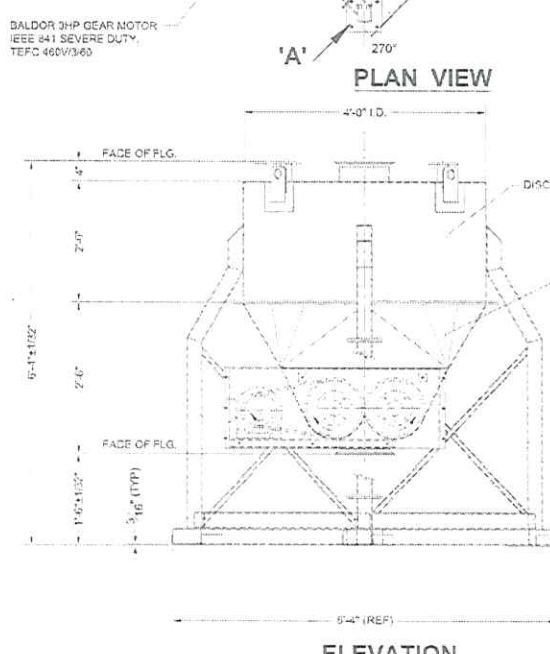
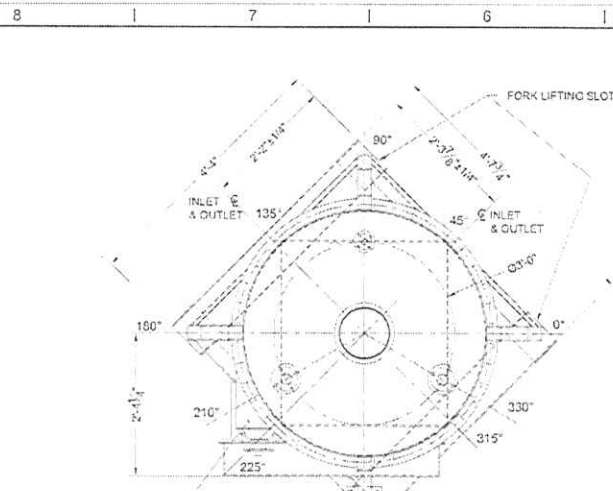
416820-24
 ISSUE DATE APRIL 7, 1977

E:\DIAG\416820\024 RAG

10-541-04

REF. S.O.	FRAME	HP	TYPE	PHASE/ HERTZ	RPM	VOLTS
	L182T	3	P	3/60	1760	460
AMPS	DUTY	AMB °C/ INSUL.	S.F.	NEHA DESIGN	CODE LETTER	ENCL.
4.2	CONT	40/P	1.15	B	K	FCXE
S/S	ROTOR	TEST S.O.	TEST DATE	STATOR RES. @25 °C OHMS (BETWEEN LINES)		
535596	418424052JH	---	---	3.82		
PERFORMANCE						
LOAD	HP	AMPERES	RPM	% POWER FACTOR	% EFFICIENCY	
NO LOAD	0	2.3	1800	6.52	0	
1/4	.75	2.5	1790	34.8	81.6	
2/4	1.50	2.9	1780	55.2	88.1	
3/4	2.25	3.5	1770	68.0	89.5	
4/4	3.00	4.2	1759	75.6	89.5	
5/4	3.75	4.9	1747	80.8	88.9	
SPEED TORQUE						
		RPM	TORQUE % FULL LOAD	TORQUE LB.-FT.	AMPERES	
LOCKED ROTOR		0	246	22.0	32.0	
PULL UP		180	223	20.0	31.5	
BREAKDOWN		1384	179	34.0	20.1	
FULL LOAD		1759	100	8.96	4.2	
AMPERES SHOWN FOR 460. VOLT CONNECTION. IF OTHER VOLTAGE CONNECTIONS ARE AVAILABLE, THE AMPERES WILL VARY INVERSELY WITH THE RATED VOLTAGE						
REMARKS: CALCULATED DATA NE MOTOR, NEHA NOM. EFF. 89.5% GUARANTEED MIN EFF. 87.5%						
BALDOR BALDOR • DOUGLASS • RELIANCE		DR. BY <u>M. J. SMITH</u> CK. BY <u>J. J. HARRISON</u> APP. BY <u>M. L. SMITH</u> DATE <u>12/22/05</u>		A-C MOTOR PERFORMANCE R02674-B-K003 DATA ISSUE DATE 12/22/05		





- NOTES
1. MATERIAL OF CONSTRUCTION- 304 ST. STL. CW. 2B FINISH- INSIDE
 2. PAINT- 4
 3. DRIVE WILL BE AS PER MANUFACTURER'S STANDARD FINISH. PRODUCT, CORN COBS, GROUND TO A NOMINAL 3/8" SIZE (ASSEMBLED CORN) AND TREATED BY AN UPSTREAM PROCESS. THE MOISTURE CONTENT RANGES FROM 15% - 45% MOISTURE AND BULK DENSITY RANGES FROM 22 TO 23 LBS PER FT³
 4. DISCHRG HOLDING CAPACITY- 30 FT³ (HOPPER W/ LUMP BREAKER). ESTIMATED PRODUCT WEIGHT- BASED ON 30 FT³ @ 26 LBS/FT³ = 810 LBS
 5. HOPPER & LUMP BREAKER ESTIMATED WEIGHT = 1,700 LBS
 6. TOTAL ESTIMATED WEIGHT WITH PRODUCT = 2,700 LBS
 7. ASSEMBLED UNITS ONE (1) THRU THREE (3) TO BE TAGGED T221, T222 & T223 RESPECTIVELY

STANCO PROJECTS LTD.
CERTIFIED
 DATE: 2009-12-09 8:00 AM

REFERENCES DRAWINGS

FOODGRADE CONSTRUCTION

QTY REQ'D: THREE
 101A SO-5988
 3

QTY REQ'D: THREE
 102A SO-5988
 3

1	201-102-01	2-04	DRY & SHARP & 9-10 WERE 0-8
1	201-102-02	2-04	NON-VOLATILE TOLUENE 9-10 WERE 0-8
1	201-102-03	2-04	NON-VOLATILE TOLUENE 9-10 WERE 0-8
1	201-102-04	2-04	NON-VOLATILE TOLUENE 9-10 WERE 0-8
1	201-102-05	2-04	NON-VOLATILE TOLUENE 9-10 WERE 0-8
1	201-102-06	2-04	NON-VOLATILE TOLUENE 9-10 WERE 0-8
1	201-102-07	2-04	NON-VOLATILE TOLUENE 9-10 WERE 0-8
1	201-102-08	2-04	NON-VOLATILE TOLUENE 9-10 WERE 0-8
1	201-102-09	2-04	NON-VOLATILE TOLUENE 9-10 WERE 0-8
1	201-102-10	2-04	NON-VOLATILE TOLUENE 9-10 WERE 0-8



PROFESSIONAL SEAL

TITLE
TBS TWIN SCREW DISCHARGE HOPPER & TWIN RIBBON SCREW LUMP BREAKER GENERAL ARRANGEMENT

PROJECT NO	SCALE	DATE/ISSUE	PKT
SO-5988	10:1	PD-5988-1-M-101-1	4

PROJECT NO: SO-5988-1-M-101-1 (REVISED) DRAWING NO: PD-5988-1-M-101-1 (REVISED) DATE: 2009-12-09 8:00 AM
 PROJECT NO: SO-5988-1-M-101-1 (REVISED) DRAWING NO: PD-5988-1-M-101-1 (REVISED) DATE: 2009-12-09 8:00 AM

