



Florida Department of Environmental Protection

Bob Martinez Center
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Charlie Crist
Governor

Jeff Kottkamp
Lt. Governor

Michael W. Sole
Secretary

December 6, 2007

Mr. Hayward Baker
Hayward Baker, Incorporated
Route 76 & US 441 Intersection
Port Mayaca, Florida 32601

Dear Mr. Baker:

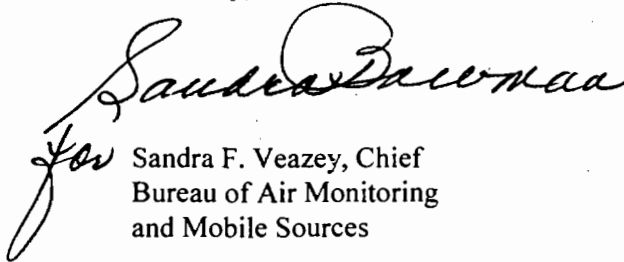
This is to acknowledge that your notification of intent to use the authority of Rule 62-210.310 to operate your facility was received on October 31, 2007. We have assigned ARMS Number 7770149-001 to this facility.

As you know, pursuant to Florida Statutes section 403.814, authority to operate under general permits commences thirty days after receipt of the registration form unless you have been notified by this office that your facility has not shown entitlement to operate pursuant to the rule provisions.

For your information, authority to operate pursuant to Rule 62-210.310 expires after 5 years. Therefore, a new registration form must be received no later than 5 years after the date your notice was received as indicated above. If your general permit rule conditions require testing, such testing must be completed within the time frame specified in the rule.

If you have any additional questions, please contact Dickson Dibble at 850/921-9586.

Sincerely,


Sandra F. Veazey, Chief
Bureau of Air Monitoring
and Mobile Sources

SFV/pg

cc: Mr Lee Hoefert, Southeast District

**CONCRETE BATCHING PLANT
AIR GENERAL PERMIT REGISTRATION FORM**

Part II. Notification to Permitting Office

(Detach and submit to appropriate permitting office; keep copy onsite)

Instructions: To give notice to the Department of an eligible facility's intent to use this air general permit, the owner or operator of the facility must detach and complete this part of the Air General Permit Registration Form and submit it to the appropriate Department of Environmental Protection or local air pollution control program office which has permitting authority. Please type or print clearly all information, and enclose the appropriate air general permit registration processing fee pursuant to Rule 62-4.050, F.A.C. (\$100 as of the effective date of this form)

Registration Type

Check one:

INITIAL REGISTRATION - Notification of intent to:

- Construct and operate a proposed new facility.
 Operate an existing facility not currently using an air general permit (e.g., a facility proposing to go from an air operation permit to an air general permit).

RE-REGISTRATION (for facilities currently using an air general permit) - Notification of intent to:

- Continue operating the facility after expiration of the current term of air general permit use.
 Continue operating the facility after a change of ownership.
 Make an equipment change requiring re-registration pursuant to Rule 62-210.310(2)(e), F.A.C., or any other change not considered an administrative correction under Rule 62-210.310(2)(d), F.A.C.

Surrender of Existing Air Operation Permit(s) - For Initial Registrations Only

If the facility currently holds one or more air operation permits, such permit(s) must be surrendered by the owner or operator upon the effective date of this air general permit. In such case, check the first box, and indicate the operation permits being surrendered. If no air operation permits are held by the facility, check the second box.

- All existing air operation permits for this facility are hereby surrendered upon the effective date of this air general permit; specifically permit number(s): _____
 No air operation permits currently exist for this facility.

General Facility Information

Facility Owner/Company Name (Name of corporation, agency, or individual owner who or which owns, leases, operates, controls, or supervises the facility.)

Hayward Baker, Inc.

Site Name (Name, if any, of the facility site; e.g., Plant A, Metropolis Plant, etc. If more than one facility is owned, a registration form must be completed for each.)

Herbert Hoover Dike

Facility Location (Provide the physical location of the facility, not necessarily the mailing address.)

Street Address: Intersection of RT 76 & US 441

City: Port Mayaca

County: Martin

Zip Code: 33438

Facility Start-Up Date (Estimated start-up date of proposed new facility.) (N/A for existing facility)

December 10, 2007

Type of Facility

Check one:

Stationary Facility

Relocatable Facility

Type(s) of Reasonable Precautions Used to Prevent Unconfined Emissions

Check all precautions to be used for the management of roads, parking areas, stock piles and yards:

Pave Roads

Pave Parking Areas

Pave Yards

Maintain Roads/Parking/Yards

Use Water Application

Use Dust Suppressant

Remove Particulate Matter

Reduce Stock Pile Height

Install Wind Breaks

Check all precautions to be used for the management of drop points to trucks:

Spray Bar

Chute

Enclosure

Partial enclosure

Description of Reasonable Precautions

Below, or as an attachment to this form, provide details of all types of reasonable precautions to be used to prevent unconfined emissions at the facility.

Description of Facility

Below, or as an attachment to this form, provide a description of the concrete batching plant operations at the facility in sufficient detail to demonstrate the facility's eligibility for use of this air general permit and to provide a basis for tracking any future equipment or process changes at the facility. Describe all air pollutant-emitting processes and equipment at the facility, and identify any air pollution control measures or equipment used.

Batch Plant is to facilitate the installation of a seepage cutoff wall (test program) along the centerline of the Herbert Hoover Dike Rehabilitation Reach 1A. Please see attached FDEP letter to U. S. Army Corps of Engineers File #EE 50-0234604-005.

Batch plant will consist of components to produce cementitious mixture to mix with existing soil and rock to form cutoff wall. Please see attached drawing of overall setup and specifications on individual components.

Batching water will be come from Lake Okeechobee. Water use permit application already submitted

Water from the lake will be placed in storage tank. Super bags of bentonite (specification attached) will be unloaded into a DSS super sacker holder which contains a auger for discharge and is scaled. The water and bentonite will then be mixed in a 2 cubic meter mixer and then pumped to the SD2000 mixer. The SD2000 mixer will then weight batch cement (specification attached) and granulated blast furnace slag (specifications attached) from 2-DSS Low Profile Silo -800 cu. ft. capacity with the bentonite slurry. The slurry will then be send to the AGI6000 Agitator tank as storage. This material will then be pumped with a moyno pump to the Trench Cutting Remixing Deep Wall Machine (TRD).

The batching setup will require either 1-400kw generator or 2-200kw generators to operate. Specifications of generators attached.

**REQUEST TO CONTINUE TO USE
DEMINIMUS EXEMPTION #0134604-001**



Florida Department of Environmental Protection

Southeast District
400 North Congress Ave., Suite 200
West Palm Beach, FL 33401

Charlie Crist
Governor

Jeff Kottkamp
Lt. Governor

Michael W. Sole
Secretary

April 27, 2007

Ms. Marie Burns
Chief, Environmental Branch
U.S. Army Corps of Engineers
Jacksonville District
701 San Marco Boulevard
Jacksonville, FL 32207-8175

Re: File No.: EE 50-0234604-005
File Name: Herbert Hoover Dike Reach 1A Seepage Cutoff Wall

Dear Ms. Burns:

On March 30, 2007, we received your request to continue to use *deminimus* exemption #0234604-001, issued on August 2, 2004, to perform the following activity: Install a seepage cutoff wall along the centerline of the levee for Reach 1A of the Herbert Hoover Dike Rehabilitation and Repair Project. Since this exemption has expired, the Florida Department of Environmental Protection (Department) cannot modify it and will need to issue a new *deminimus* exemption for this project. It is noted that the current design for the seepage cutoff wall is slightly different than the original design that was submitted for the previous exemption. The project is located on Lake Okeechobee, Class I Waters, adjacent to U.S. Highway 98/441 (Sections 22, 26, 35, Township 40 South, Range 37 East; and Sections 2, 11, 14, 23, 27, 34, Township 41 South, Range 37 East) in Martin and Palm Beach Counties.

Your application has been reviewed to determine whether it qualifies for any of three kinds of authorization that may be necessary for works in wetlands or waters of the United States. The kinds of authorization are (1) regulatory authorization, (2) proprietary authorization (related to state-owned submerged lands), and (3) federal authorization (State Programmatic General Permit). The authority for review and the outcomes of the reviews are listed below. Please read each section carefully. Your project **may not** have qualified for all three forms of authorization. If your project did not qualify for one or more of the authorizations, refer to the specific section dealing with that authorization for advice on how to obtain it.

1. Regulatory Review. – GRANTED

The Department has reviewed the submitted information and has determined that the project is not expected to cause the release of pollutants in sufficient quantity, quality, content, or character with respect to the circumstances surrounding the location, use, and operation of the project, as to contribute to pollution in contravention of the provisions of Chapters 373 and 403, Florida Statutes (F.S.), or Title 62, Florida Administrative Code (F.A.C.).

Therefore, based solely upon the documents submitted to the Department, the project to install a seepage cutoff wall along the centerline of the levee for Reach 1A of the Herbert Hoover Dike has been determined to qualify as an activity that is exempt from the need for an environmental resource permit pursuant to Chapter 373.406(6), F.S.

This determination is applicable only pursuant to the statutes and rules in effect at the time the information was submitted. This determination may not be valid in the event subsequent changes occur in the applicable statutes and rules of the Department. Pursuant to Rule 62-302, F.A.C., activities that qualify for this exemption must be constructed and operated using appropriate best management practices and in a manner that does not cause water quality violations.

The determination that your project qualifies as an exempt activity pursuant to Chapter 373.406(6), F.S., may be revoked if the installation is substantially modified, or if the basis for the exemption is determined to be materially incorrect, or if the installation results in water quality violations. Any changes made in the construction plans or location of the project may necessitate a permit or certification from the Department. Therefore, you are advised to contact the Department before beginning the project and before beginning any work in waters or wetlands which is not specifically described in your submittal.

2. Proprietary Review. – NOT REQUIRED

The Department acts as staff to the Board of Trustees of the Internal Improvement Trust Fund (Board of Trustees) and issues certain authorizations for the use of sovereign submerged lands. The Department has the authority to review your project under Chapters 253 and 258, F.S., Chapters 18-20 and 18-21, F.A.C., and Section 62-343.075, F.A.C.

Your project will not occur on sovereign submerged land. Therefore, pursuant to Chapter 253.77, F.S., authorization from the Board of Trustees is not required. The Herbert Hoover Dike is subject to a Board of Trustees Lease Agreement No. 3307 issued to the South Florida Water Management District. Right of Entry granted by the South Florida Water Management District for the proposed project may be required.

3. Federal Review (SPGP) – NOT REQUIRED

Federal authorization for the proposed project is reviewed by DEP pursuant to an agreement between the Department and the U.S. Army Corps of Engineers (Corps). The agreement is outlined in a document titled *Coordination Agreement Between the U.S. Army Corps of Engineers and the Florida Department of Environmental Protection State Programmatic General Permit, Section 10 of the Rivers and Harbor Act of 1899 and Section 404 of the Clean Water Act.*

Since the applicant is the Corps, the Department will require no permitting for this activity by the Corps.

The determinations in this letter are based solely on the information provided to the Department and on the statutes and rules in effect when the application was submitted. The determinations are effective only for the specific activity proposed. These determinations shall automatically expire if site conditions materially change or if the governing statutes or rules are amended. In addition, any substantial modifications in your plans should be submitted to the Department for review, as changes may result in a permit being required. In any event, this determination shall expire after two years.

This letter does not relieve you from the responsibility of obtaining other permits (federal, state, or local) that may be required for the project.

NOTICE OF RIGHTS OF SUBSTANTIALLY AFFECTED PERSONS

This letter acknowledges that the proposed activity is exempt from ERP permitting requirements under Chapter 373.406(6), F.S. This determination is final and effective on the date filed with the Clerk of the Department unless a sufficient petition for an administrative hearing is timely filed under sections 120.569 and 120.57 of the Florida Statutes as provided below. If a sufficient petition for an administrative hearing is timely filed, this determination automatically becomes only proposed agency action subject to the result of the administrative review process. Therefore, on the filing of a timely and sufficient petition, this action will not be final and effective until further order of the Department. The procedures for petitioning for a hearing are set forth in the attached notice.

This determination is based on the information you provided the Department and the statutes and rules in effect when the application was submitted and is effective only for the specific activity proposed. This determination shall automatically expire if site conditions materially change or the governing statutes or rules are amended. In addition, any substantial modifications in your plans should be submitted to the Department for review, as changes may result in a permit being required. In any event, this determination shall expire after two years.

Be advised that your neighbors and other parties who may be substantially affected by the proposed activity allowed under this determination of exemption have a right to request an administrative hearing on the Department's decision that the proposed activity qualifies for this exemption. Because the administrative hearing process is

FILING AND ACKNOWLEDGMENT

FILED, on this date, pursuant to 120.52(9),
Florida Statutes, with the designated Department
Clerk, receipt of which is hereby acknowledged.

Clerk

Date

GENERAL CONSENT CONDITIONS:

- (1) Authorizations are valid only for the specified activity or use. Any unauthorized deviation from the specified activity or use and the conditions for undertaking that activity or use shall constitute a violation. Violation of the authorization shall result in suspension or revocation of the grantee's use of the sovereignty submerged land unless cured to the satisfaction of the Board.
- (2) Authorizations convey no title to sovereignty submerged land or water column, nor do they constitute recognition or acknowledgment of any other person's title to such land or water.
- (3) Authorizations may be modified, suspended or revoked in accordance with their terms or the remedies provided in Sections 253.04 and 258.46, F.S., or Chapter 18-14, F.A.C.
- (4) Structures or activities shall be constructed and used to avoid or minimize adverse impacts to sovereignty submerged lands and resources.
- (5) Construction, use, or operation of the structure or activity shall not adversely affect any species which is endangered, threatened or of special concern, as listed in Rules 68A-27.003, 68A-27.004, and 68A-27.005, F.A.C.
- (6) Structures or activities shall not unreasonably interfere with riparian rights. When a court of competent jurisdiction determines that riparian rights have been unlawfully affected, the structure or activity shall be modified in accordance with the court's decision.
- (7) Structures or activities shall not create a navigational hazard.
- (8) Structures shall be maintained in a functional condition and shall be repaired or removed if they become dilapidated to such an extent that they are no longer functional. This shall not be construed to prohibit the repair or replacement subject to the provisions of Rule 18-21.005, F.A.C., within one year, of a structure damaged in a discrete event such as a storm, flood, accident, or fire.
- (9) Structures or activities shall be constructed, operated, and maintained solely for water dependent purposes, or for non-water dependent activities authorized under paragraph 18-21.004(1)(f), F.A.C., or any other applicable law.

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
NOTICE OF DETERMINATION OF EXEMPTION

The Department of Environmental Protection gives notice that the installation of a seepage cutoff wall along the centerline of the levee for Reach 1A of the Herbert Hoover Dike Rehabilitation and Repair Project has been determined to be exempt from requirements to obtain an environmental resource permit. The project is located on Lake Okeechobee, Class I Waters, adjacent to U.S. Highway 98/441 (Sections 22, 26, 35, Township 40 South, Range 37 East; and Sections 2, 11, 14, 23, 27, 34, Township 41 South, Range 37 East) in Martin and Palm Beach Counties between Port Mayaca and Sand Cut.

A person whose substantial interests are affected by the Department's action may petition for an administrative proceeding (hearing) under sections 120.569 and 120.57 of the Florida Statutes. The petition must contain the information set forth below and must be filed (received by the clerk) in the Office of General Counsel of the Department at 3900 Commonwealth Boulevard, Mail Station 35, Tallahassee, Florida 32399-3000.

Mediation is not available.

If a timely and sufficient petition for an administrative hearing is filed, other persons whose substantial interests will be affected by the outcome of the administrative process have the right to petition to intervene in the proceeding. Intervention will be permitted only at the discretion of the presiding officer upon the filing of a motion in compliance with rule 28-106.205 of the Florida Administrative Code.

In accordance with rules rule 62-110.106(3), F.A.C., petitions for an administrative hearing must be filed within 21 days of publication of the notice or receipt of written notice, whichever occurs first. Under rule 62-110.106(4) of the Florida Administrative Code, a person whose substantial interests are affected by the Department's action may also request an extension of time to file a petition for an administrative hearing. The Department may, for good cause shown, grant the request for an extension of time. Requests for extension of time must be filed with the Office of General Counsel of the Department at 3900 Commonwealth Boulevard, Mail Station 35, Tallahassee, Florida 32399-3000 prior to the applicable deadline. A timely request for extension of time shall toll the running of the time period for filing a petition until the request is acted upon. Upon motion by the requesting party showing that the failure to file a request for an extension of time before the deadline was the result of excusable neglect, the Department may also grant the requested extension of time.

The petitioner shall mail a copy of the petition to the applicant at the address indicated above at the time of filing. The failure of any person to file a petition for an administrative hearing within the appropriate time period shall constitute a waiver of that right.

A petition that disputes the material facts on which the Department's action is based must contain the following information:

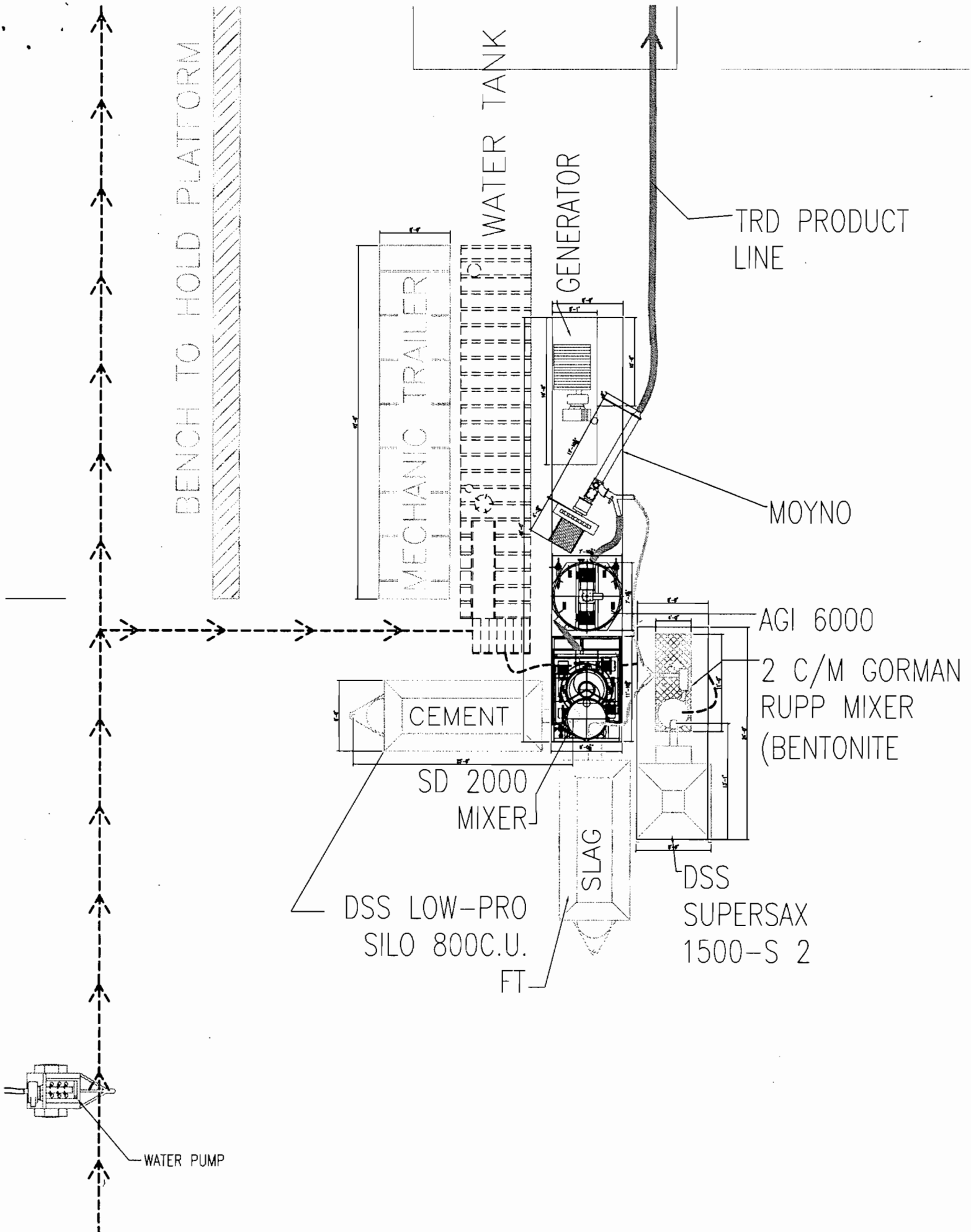
- (a) The name and address of each agency affected and each agency's file or identification number, if known;
- (b) The name, address, and telephone number of the petitioner; the name, address, and telephone number of the petitioner's representative, if any, which shall be the address for service purposes during the course of the proceeding; and an explanation of how the petitioner's substantial interests are or will be affected by the agency determination;
- (c) A statement of when and how the petitioner received notice of the agency decision;
- (d) A statement of all disputed issues of material fact. If there are none, the petition must so indicate;
- (e) A concise statement of the ultimate facts alleged, including the specific facts the petitioner contends warrant reversal or modification of the agency's proposed action;
- (f) A statement of the specific rules or statutes that the petitioner contends require reversal or modification of the agency's proposed action; and
- (g) A statement of the relief sought by the petitioner, stating precisely the action that the petitioner wishes the agency to take with respect to the agency's proposed action.

A petition that does not dispute the material facts on which the Department's action is based shall state that no such facts are in dispute and otherwise shall contain the same information as set forth above, as required by rule 28-106.301.

Under sections 120.569(2)(c) and (d) of the Florida Statutes, a petition for administrative hearing shall be dismissed by the agency if the petition does not substantially comply with the above requirements or is untimely filed.

Complete copies of all documents relating to this determination of exemption are available for public inspection during normal business hours, 8:00 a.m. to 5:00 p.m., Monday through Friday, at the Southeast District office, 400 North Congress Avenue, West Palm Beach, Florida.

BATCHING SETUP OVERALL VIEW



DSS

SUPERSAX



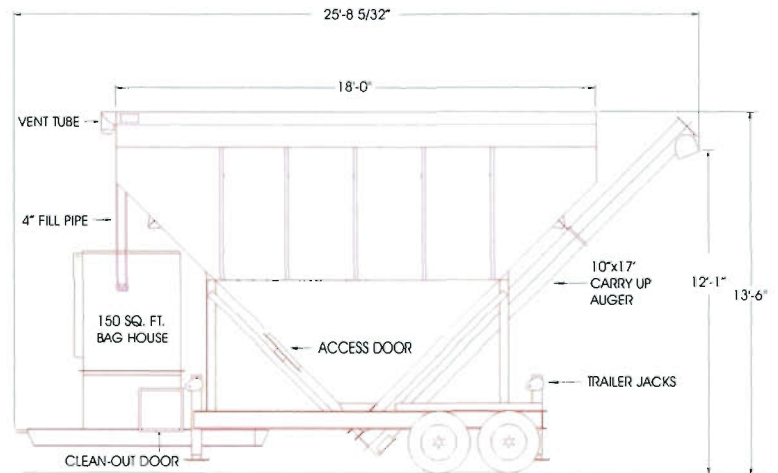
DSS

**LOW PROFILE SILO
800 CU. FT. CAPACITY**

LOW-PRO SILO - 800 CU. FT CAPACITY



Can easily be towed - legal height & width!



STANDARD FEATURES

- 30 Ton Capacity (Cement)
- 10" Diameter Screw (12 cf/minute)
- 10hp 3 Phase Motor and Gear Box Drive
- 150 sq. ft. Bag House with Electric Vibrator
- Jamgate Assembly
- Upper Level Bindicator with Light and Horn Alarm
- Starter Panel
- Cone Actuators
- Non-stick Cone Coating
- Heavy Duty Axle Trailer with Light Package

OPTIONS

- 7" Diameter Screw
- 5hp Motor and Gear Box Drive
- 16hp Gas Motor

SETUP/SITE REQUIREMENTS

Compacted, level soil or better

APPLICATIONS

- Cement
- Fly Ash
- Lime
- CKD
- Sand
- Bentonite/Clay
- Calcium Carbonate
- Chemical Powder Products
- Agricultural Powder Products
- Food Grade Dry Bulk Products



DIVERSIFIED STORAGE SYSTEMS

(888) SILO-SYS (888) 745-6797

airmax 150 S Dust Collector



Collector Specifications

Total Filtration Area	150 Sq. Ft.
Air to Cloth Ratio (ACFM/Sq.')	2.5
Pressure Drop (in. H 2O)	6"
Air Capacity	375 C.F.M.
Outlet Area (Sq.')	.58
Cleaning Method	Shaker Plate
Vibrator (Air or Electric)	Rotary Style
Vibrator Air Consumption (High Press.)	8 CFM (Max)
Vibrator Power	120 V/ 1 ph
Duty Cycle	1.5 hours
* Normal Operating Pressure	8 -- 15 PSI
* Max Operating Pressure	20 PSI
Over pressure relief settings	18 PSI

Filter Bag Specifications

Filter Bag Count	18 hung style
Replacement Filter Bag Model #	DC150S
Dimensions	8" OD X 48" Height
Filter Area (Per)	8.33 Sq. '
Material Weight	9 oz. / Sq. Yd.
Fiber	100% Polyester
Construction	Spun/Spun
Permeability	25 c.f.m.
Mullen Burst Dry	500 PSI
Temperature Limit	275 Deg. F.
Efficiency (PM-10)	99.99%

Vibrator Specifications

Air Vibrator	Model V-190
VPM @ 60 PSI	4200
CFM @ 60 PSI	7.5 CFM
Noise @ 60 PSI	70 db
Control	Manual
Electric Vibrator	Model 2P-75
Voltage/amps	115v/0.5 amp
VPM	3600
Noise	60 db.
Control	Auto/Manual

Collector Performance (PM-Reg.)**

0.0 - 0.5 Micron	99.98% Passing
0.5- 1.0 Micron	0.02 % Passing
1.0 - 20.0 Micron	0.0% Passing

Mounting Options

- Bin Vent Mount (Silo Top)
- Base Mount (Optional Base Needed)
- Trailer Mount (Portable Applications)

** Typical Portland Cement is 44 Micron

* This style unit dose not use magnahelic gauge. Dust Collector performance is measured by back pressure at load line.

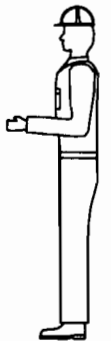
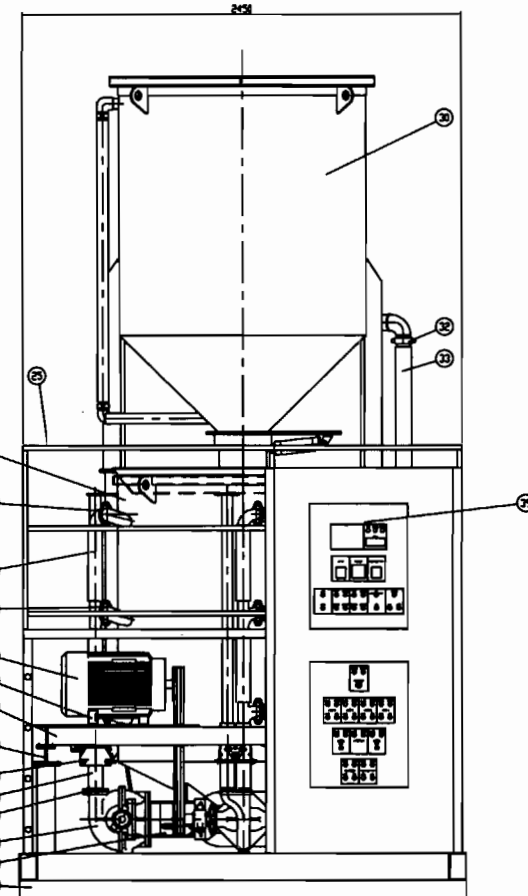
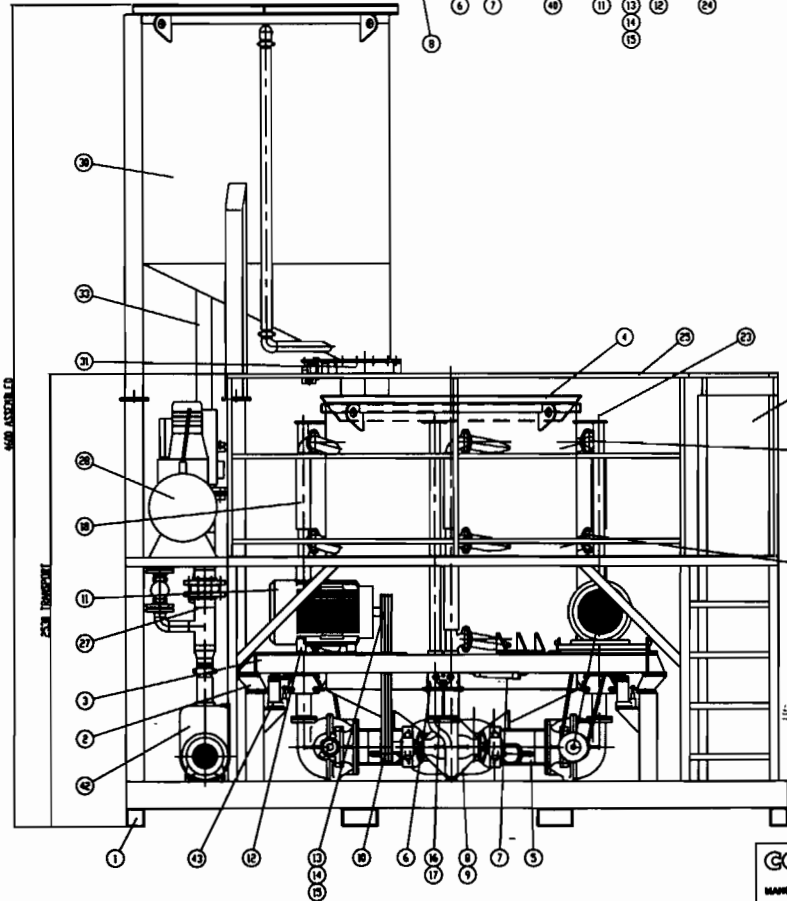
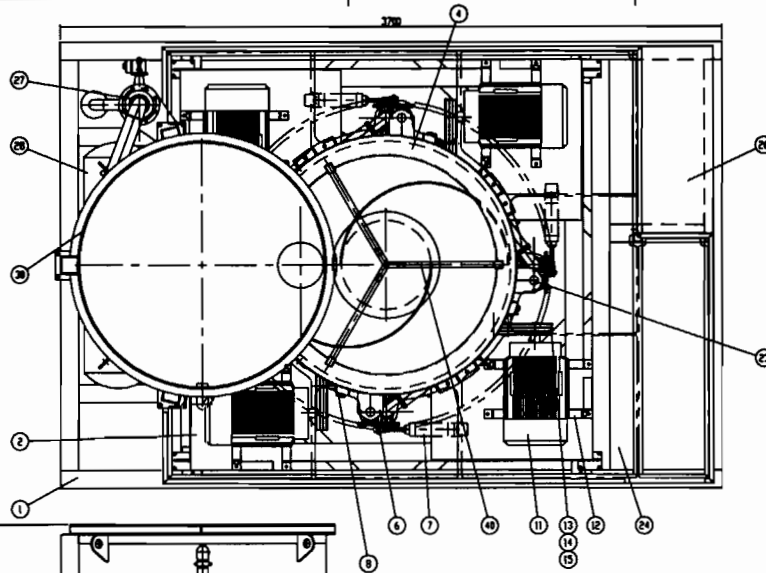
1135 E. Wooley Rd. Ph # 805-247-0418
Oxnard CA, 93030 Fax # 805-247-0246

www.CementSilos.com

SD2000

COLCRETE WEIGHT BATCHER

DATE	DESCRIPTION	BY	CHK
01	ISSUED FOR PRODUCTION	6/76	ML



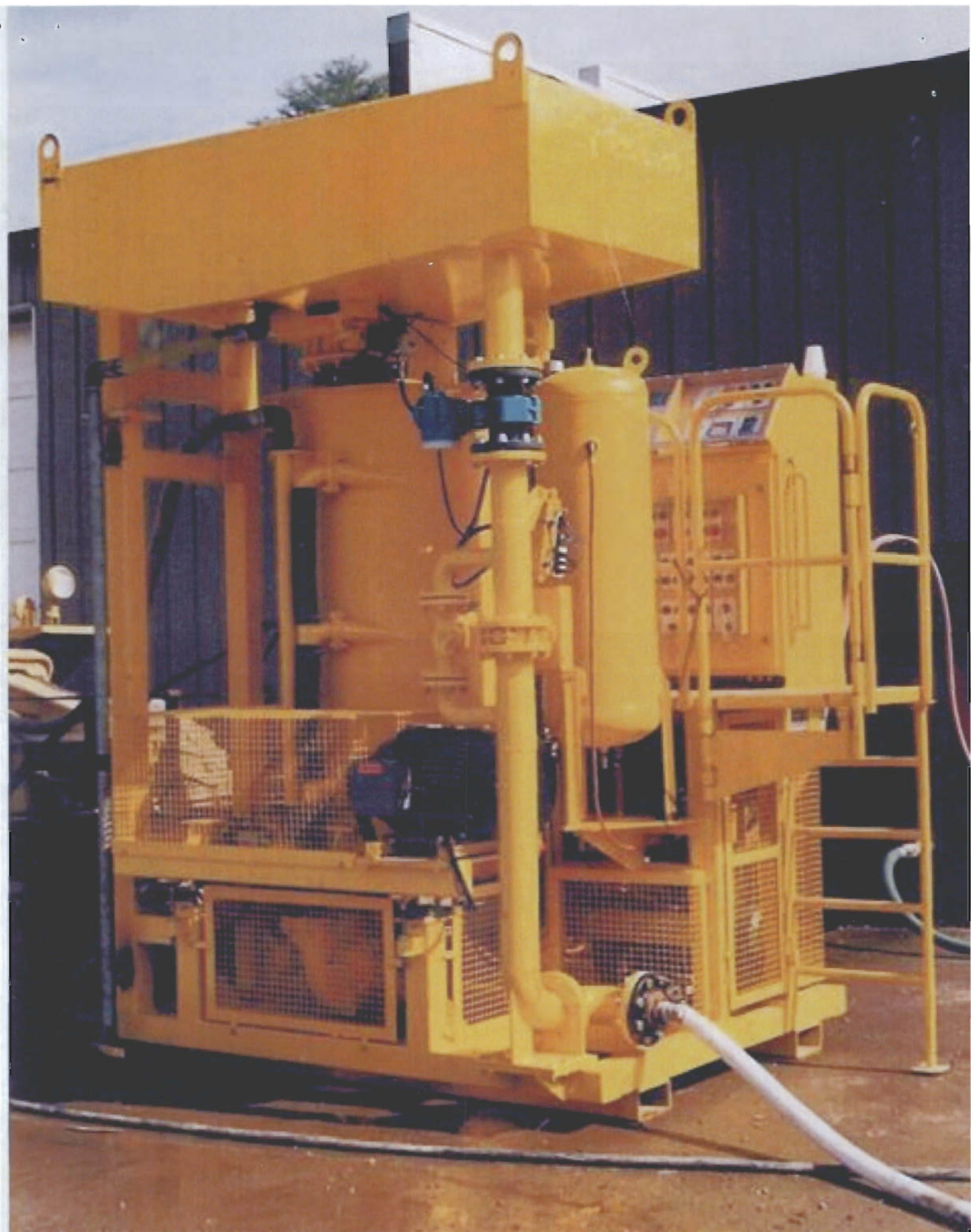
NOTE: THIS METER USES DDD SHAFTS AND SPLIT DISCS

43	00/2540H	HYDRAULIC JACK	4	
42	00/2540H	WATER PUMP	4	
41	CE/1097/43/A1	BELT GUARD	4	
40	CE/1097/43/A1	TOP CONE	1	
39	CE/1098/43/A8	00/2544H	CONTROL PANEL	1
38	CE/1096/43/A8		QUARRS	1
37	000094	RAKE	1	
36	000048	TENSION SCREW	4	
35	000047	TIGHTENING BAR (LARGE)	4	
34	000044	TRAP DOOR (LARGE)	4	
33	00/2540H	3" WATER HOSE (TO SHUT)	1	
32	00/2564H	3" FEMALE BRASS CONNECTOR	2	
31	00/2562H	1/2" WATER VALVE	1	
30	CE/1098/43/A1		WATER TANK	1
29	CE/1095/43/A1		AIR EQUIPMENT	1
28	00/2540H		COMPRESSOR	1
27	CE/1098/43/A2		WATER INLET PIPE ASSEMBLY	1
26				
25	CE/1098/43/A8		HANDRAIL	1
24	CE/1098/43/A2		PLATFORM BECKING	1
23	CE/1094/43/A2		DISCHARGE PIPES AND MANIFOLD	4
22	000023		SHORT 90° CAST BEND	4
21	000026		PITCHER TEE	8
20	000093		DUAL FLANGE GASKET	16
19	000023		SUPERCLAMP (LARGE)	32
18	000001		BOBY HOSE (TO SHUT)	1
17	000121		DOUBLE NIPPLE GASKET	4
16	000029		DOUBLE NIPPLE	4
15	00/2543H	000261	DRIVE BELT SPB2120	12
14		0004825	MOTOR PULLEY 1/4 LOCK 2517/40	4
13		0002820	MOTOR PULLEY 224 3G.	4
12		070200	SLICIC BALLS	8
11		00/2542H	MOTOR 415v 3PH 50 Hz	4
10		0002042	1/8 P.C.D. 3G. PULLEY Ø2020	4
9		000009	TRAP/BOBY CASTING GASKET	4
8	CE/1094/43/A1		METER CASTING ASSEMBLY	4
7	CE/1093/43/A2		VALVE OPERATING CYLINDER	4
6	CE/1098/43/A3		ROLLER VALVE	4
5	CE/1098/43/A8		TRAP	1
4	CE/1098/43/A8		HEATING TANK DETAIL	1
3	CE/1098/43/A3		BUSHY LONICELL	4
2	CE/1098/43/A8		LONICELL FRAME DETAIL	1
1	CE/1094/43/A8		CHASSIS DETAIL	1
001	000 No.	Part No.	DESCRIPTION	QTY. DRAWING

GOLCRETE

MANUFACTURING DIVISION

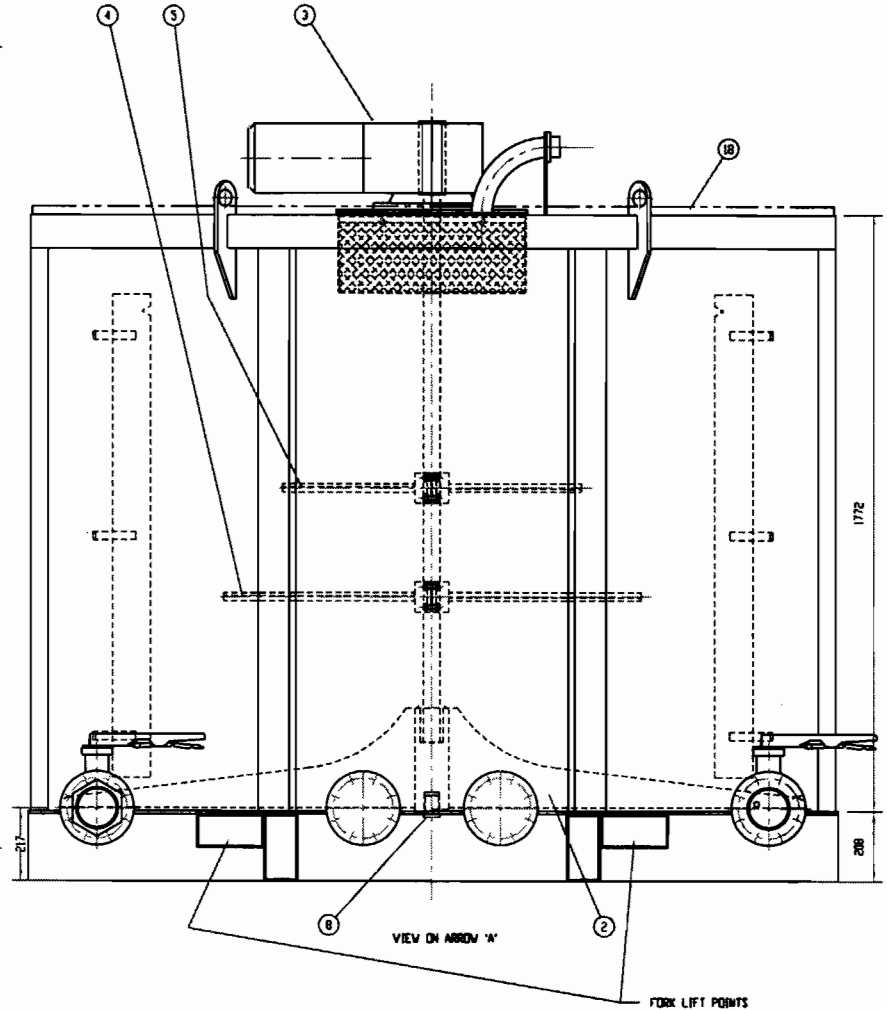
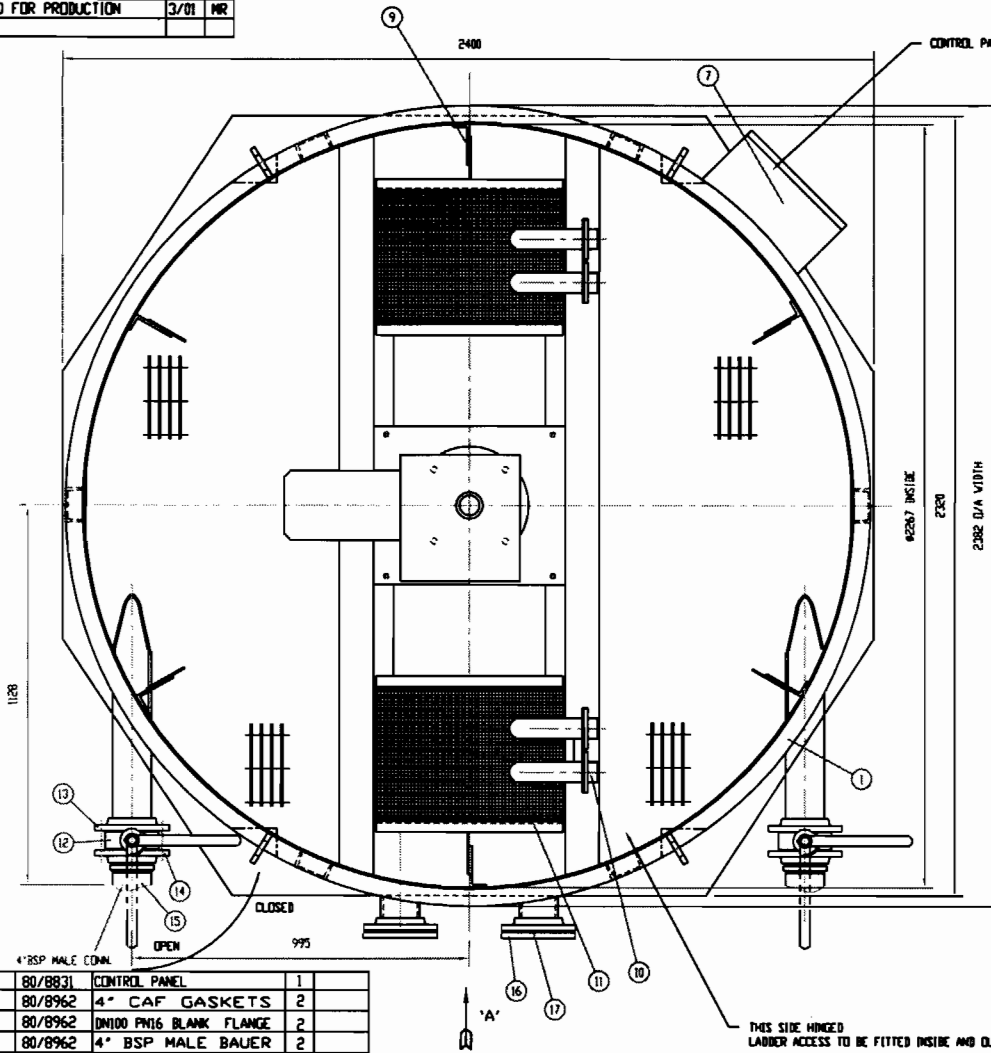
<p>THIS WHOLE PROTECTION IS BY PATENT - 2,811,100</p> <p>Model with Heating System</p> <p>Model with Heating System</p>	<p>DESIGNS REGISTERED UNDER TRADE MARK</p> <p>REGISTERED U.S. PATENT 2,811,100</p> <p>FABRICATED BY GOLCRETE CO. 11111</p> <p>ALL MEASUREMENTS IN INCHES</p>	<p>SCALE 1/4" = 1'-0"</p> <p>ASSEMBLY CA</p> <p>AUTOMATED OPERATION</p>	<p>DATE 6/76</p> <p>REV. 100</p> <p>CE/1098/43/A8</p> <p>PAGE 10</p>
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AGI 6000

COLECRETE AGITATOR TANK

3502	REVOLUTION	DATE	BY
01	ISSUED FOR PRODUCTION	3/01	MR



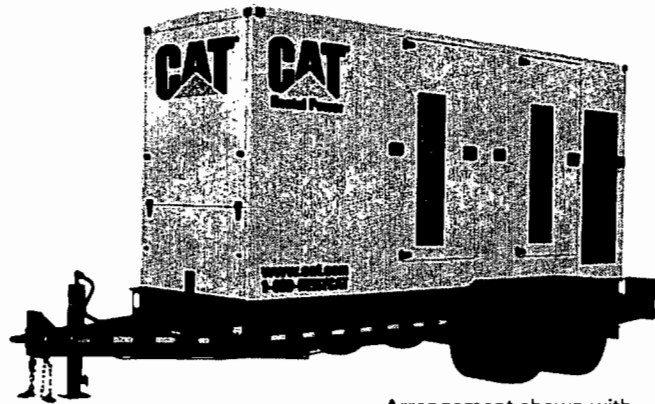
18	80/8831	CONTROL PANEL	1
17	80/8962	4" CAF GASKETS	2
16	80/8962	DN100 PN16 BLANK FLANGE	2
15	80/8962	4" BSP MALE BAUER	2
14	80/8962	DN100 PN16/13 SCREWED FLANGE	2
13	80/8962	DN100 PN16 WELD FLANGE	4
12	0503097	4" BUTTERFLY VALVE IN VALVE	2
11	02/1778/47/12	GROUT BASKET	2
10	02/1121/99/13	GROUT INLET BENDS	4
9	02/1772/47/11	BAFFLE PLATES	1
8	02/1772/47/13	CENTRE LOCATING PIN	1
7	02/1078/47/11	CONTROL PANEL ENCLOSURE	1
6	02/1769/47/12	F683 GEARBOX MTG. PLATE	1
5	02/1078/47/13	TOP AGITATOR	1
4	02/1078/47/13	CENTRE AGITATOR	1
3	80/9036	MR IC1125 GEARBOX (BREVIM)	1
2	02/1770/47/11	PADDLE SHAFT ASSEMBLY	1
1	02/1492/47/10	A6000 AGITATOR TANK DETAIL	1

PRINT LIST

 MANUFACTURING DIVISION	THIRD ANGLE PROJECTION IF IN DOUBT - ASL	DATE: 02/01 DRAWN: 17.540
	SHEET: 01 FILE: A6000 AGITATION TANK GENERAL ARRANGEMENT BREVIM GEARBOX	CHECKED: 01 DESIGNED: 01

GENERATORS

CATERPILLAR 400 KW GENERATORS



Arrangement shown with optional trailer with pintle hitch.

XQ400 SOUND ATTENUATED

60 Hz

FEATURES



EMISSIONS

- EPA Tier II and CARB Emissions Certified for non-road mobile applications



CAT 3456 ATAAC DIESEL ENGINE

- Reliable, rugged, durable design
- Field-proven in thousands of applications worldwide
- Four-stroke-cycle diesel engine combines durability with minimum weight while providing dependability and economy



CAT SR4B GENERATOR

- Designed to match performance and output characteristics of Caterpillar diesel engines
- Optimum winding pitch for minimum total harmonic distortion and maximum efficiency
- Segregated AC/DC, low voltage accessory box provides single point access to accessory connections



ENCLOSURE

- Made with 12-gauge steel
- Single point lifting eye
- Sound attenuated
- Convenient hand holds and steps for safe operation

ENVIRONMENTALLY FRIENDLY DESIGN

- Sound attenuated for low noise operation
- OSHA compliant safe design
- Spill containment for coolant, oil and fuel

MULTI-VOLTAGE DISTRIBUTION PANEL

- Load door safety switch, engine faults, and shut down system
- Rust-free hinges on rear opening door
- Adequate space for line and plug connection without interference
- Remote start and stop contacts

SINGLE-SOURCE SUPPLIER

- Complete systems designed at Caterpillar ISO9001 certified facilities
- **Certified Prototype Tested** with torsional analysis

WORLDWIDE PRODUCT SUPPORT

- Worldwide parts availability through the Caterpillar dealer network
- With over 1,200 dealer outlets operating in 166 countries, you're never far from the Caterpillar part you need
- 99.5% of parts orders filled within 48 hours. The best product support record in the industry
- Caterpillar dealer service technicians are trained to service every aspect of your electric power generation system

LEHX0758-02

FACTORY INSTALLED STANDARD & OPTIONAL EQUIPMENT

STANDARD FEATURES	
Air Inlet System	Air cleaner, dual element Turbocharger
Charging System	Battery charger Heavy duty charging alternator
Control Panel	Generator controls and monitoring Fuel tank monitoring Engine controls and monitoring Digital displays
Cooling System	Fan and belt guards Base mounted radiator
Distribution Panel	Lockable doors Individual bus bar connections Circuit breakers Remote start/stop contacts Shore power connections
Enclosure	Sound attenuated Load door safety switch, engine faults and shut down system 12-gauge steel Lockable doors Separate vented battery compartment Single point lifting arch Exterior oil and water drains Hidden exterior fuel drain Hand holds and steps
Fuel System	Primary fuel filter/water separator Spill containment dike 1780 L (470 Gal) dual wall fuel tank
Generator	Brushless, permanent magnet Coastal corrosion protection Shock mounted VR3 voltage regulator Space heater
Mounting System	Generator soft mounted to base Base contains integral fuel tank Skiddable structural steel design
Starting System	Electric starting motor Battery set with disconnect switch Jacket water heater with thermostat, shut-off valves

OPTIONAL FEATURES	
Trailer	Full frame support Independent tandem axle trailer frame with tongue Electric brakes with safety breakaway Full length fenders Non-skid surface on steps Heavy duty safety chains and grab hooks Reinforced 4540 kg (10,000 lb) top wind drop jack

SPECIFICATIONS

CAT SR4B GENERATOR

Frame size	450
Type	Permanent magnet brushless
Construction	Single bearing, close coupled
Three phase	12 lead reconnectable
Insulation	Class H with coastal insulation protection
IP rating	22
Alignment	Pilot shaft
Overspeed capability	
Prototype tested	150%
Production tested	125%
Wave form	Less than 5% deviation
Voltage regulator	3 phase sensing with Volts-per-Hertz no load
Voltage regulation	±½% steady state/±1% full load
TIF	Less than 50
THD	Less than 5%

CAT ENGINE

3456 ATAAC, 4-stroke-cycle watercooled diesel	
Bore — mm (in)	140 (5.5)
Stroke — mm (in)	171 (6.75)
Displacement — L (cu in)	15.8 (966)
Compression ratio	16.0:1
Aspiration	Turbocharged-ATAAC

CAT CONTROL PANEL

24 Volt DC Control	
NEMA 1, IP22 enclosure	
Lockable hinged door	
Generator instruments meet ANSI C-39-1	
Enclosure mounted	
Single location customer connector point	

Consult your Caterpillar dealer for available voltages.

TECHNICAL DATA

		XQ400	
Power Rating 60 Hz	ekW	Standby 400	Prime DM6125 365
Engine and Container Information Engine model Container dimensions		3456 ATAAC see chart on next page	
Shipping Weight (Dry) Unit with trailer Unit without trailer	kg (lb) kg (lb)	7620 (16,800) 6287 (13,860)	
Maximum Fuel Capacity Weight Unit with trailer Unit without trailer	kg (lb) kg (lb)	9280 (20,458) 7946 (17,518)	
Engine Lubricating Oil Capacity Engine Coolant Capacity with Radiator Fuel Tank Capacity	L (Qts) L (Gal) L (Gal)	38 (39.9) 64 (17) 1780 (470)	
Fuel Consumption with Fan Fuel Consumption (75% Prime) with Fan Running Time @ 75% Prime Sound Level Standby No load @ 7 m (23 ft)	L/hr (Gal/hr) L/hr (Gal/hr) hours dBA dBA	109.8 (29.0)	97.3 (25.7) 74.1 (19.6) 24 75.35 72.65

RATING DEFINITIONS AND CONDITIONS

Meets or Exceeds International Specifications:

- ABGSM TM3, AS1359, AS2789, BS4999, BS5000, BS5514, DIN6271, DIN6280, EGSA101P, IEC34/1, ISO3046/1, ISO8528, JEM1359, NEMA MG1-22, VDE0530, 89/392/EEC, 89/336/EEC

Standby — Output available with varying load for the duration of the interruption of the normal source power. Standby power in accordance with ISO8528. Fuel stop power in accordance with ISO3046/1, AS2789, DIN6271, and BS5514.

Prime — Output available with varying load for an unlimited time. Prime power in accordance with ISO8528. 10% overload power in accordance with ISO3046/1, AS2789, DIN6271, and BS5514 available on request.

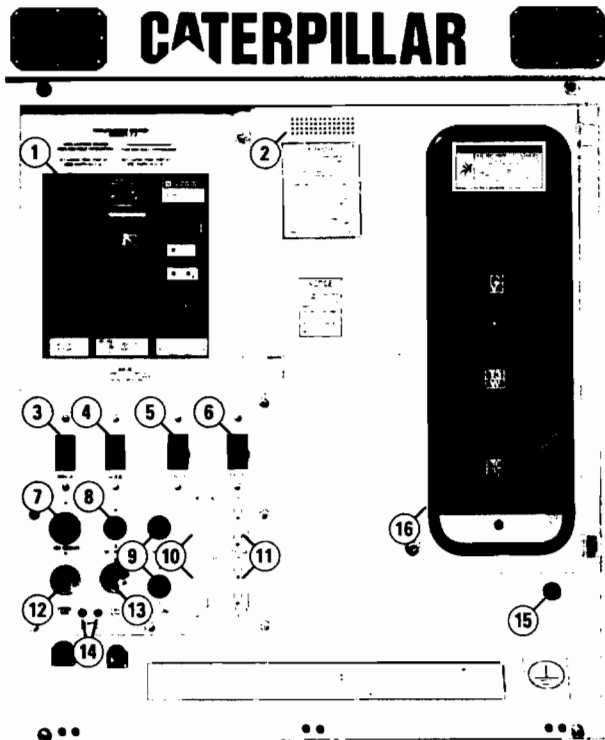
Ratings are based on SAE J1349 standard conditions.

These ratings also apply at ISO3046/1, DIN6271, and BS5514 standard conditions.

Fuel rates are based on fuel oil of 35° API [@ 16° C (60° F)] gravity having an LHV of 42 780 kJ/kg (18,390 Btu/lb) when used at 29° C (85° F) and weighing 838.9 g/liter (7.001 lbs/U.S. gal.).

Additional ratings may be available for specific customer requirements. Consult your Caterpillar representative for details.

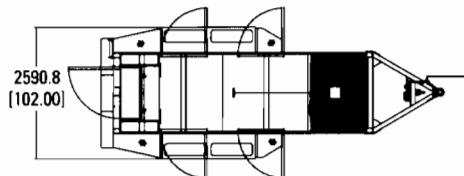
DISTRIBUTION PANEL



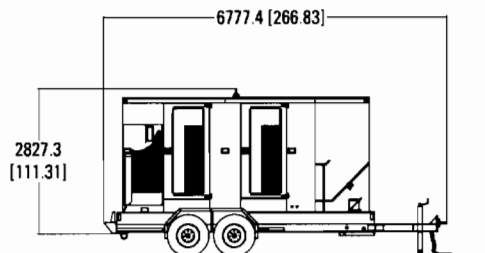
Wiring Descriptions

1. 1600A main breaker 240V/480V with adjustable trip and 24V DC shunt trip
2. Voltage change over board
3. 50 amp 240V branch breaker
4. 20 amp 240V branch breaker
5. 20 amp 120V branch breaker
6. 15 amp 120V branch breaker
7. 50 amp 240V twistlock receptacle
8. 20 amp 240V twistlock receptacle
9. 20 amp 120V twistlock receptacle
10. 20 amp 120V ground fault interrupter
11. 15 amp 120V ground fault interrupter duplex receptacle
12. 30 amp 120V battery charger/generator space heater receptacle
13. 30 amp 120V JWH receptacle
14. Remote start/stop contacts
15. 12.7 mm (1/2") ground stud
16. Load connection bus board [6.35 mm × 101.6 mm × 101.6 mm (1/4" × 4" × 4") bus bars]

CONTAINER DIMENSIONS — TOP VIEW



CONTAINER DIMENSIONS — RIGHT SIDE VIEW



Package Dimensions				
	Enclosure		With Trailer	
Length	5080 mm	200 in	6777.4 mm	266.83 in
Width	1549 mm	61 in	2590.8 mm	102 in
Height	2827.3 mm	111.31 in	3302 mm	130 in

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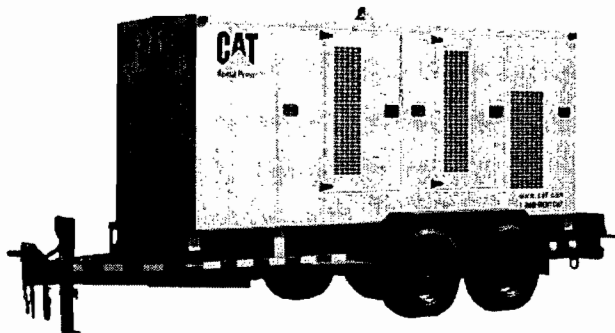
TMI Reference No.: DM6125

LEHX0758-02 (4-02)

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The International System of Units (SI) is used in this publication.

CATERPILLAR 200 KW GENERATORS



Arrangement shown with optional trailer with pintle hitch.

XQ200 SOUND ATTENUATED 60 Hz

FEATURES



EMISSIONS

- EPA Tier II and CARB Emissions Certified for non-road mobile applications



DIESEL ENGINE

- Reliable, rugged, durable design
- Field-proven in thousands of applications worldwide
- Four-stroke-cycle diesel engine combines durability with minimum weight while providing dependability and economy



CAT SR4B GENERATOR

- Designed to match performance and output characteristics of diesel engines
- Optimum winding pitch for minimum total harmonic distortion and maximum efficiency
- Segregated AC/DC, low voltage accessory box provides single point access to accessory connections



ENCLOSURE

- Made with 12-gauge steel
- Single point lifting eye
- Sound attenuated
- Convenient hand holds and steps for safe operation
- 2 coat polyester powder coated finish

ENVIRONMENTALLY FRIENDLY DESIGN

- Sound attenuated for low noise operation
- OSHA compliant safe design
- Spill containment for coolant, oil and fuel
- UL142 certified
- Dual wall fuel
- Base feature

MULTI-VOLTAGE DISTRIBUTION PANEL

- Load door safety switch, engine faults, and shut down system
- Rust-free hinges on rear opening door
- Adequate space for line and plug connection without interference
- Remote start and stop contacts

SINGLE-SOURCE SUPPLIER

- Complete systems designed at Caterpillar ISO9001 certified facilities
- **Certified Prototype Tested** with torsional analysis

WORLDWIDE PRODUCT SUPPORT

- Worldwide parts availability through the Caterpillar dealer network
- With over 1,200 dealer outlets operating in 166 countries, you're never far from the Caterpillar part you need
- 99.5% of parts orders filled within 48 hours. The best product support record in the industry
- Caterpillar dealer service technicians are trained to service every aspect of your electric power generation system

LEHX0756-04



WHERE THE WORLD TURNS FOR POWER

FACTORY INSTALLED STANDARD & OPTIONAL EQUIPMENT

STANDARD FEATURES	
Air Inlet System	Air cleaner, heavy duty Turbocharger
Charging System	Battery charger Heavy duty charging alternator
Control Panel	Generator controls and monitoring Fuel tank monitoring Engine controls and monitoring Digital displays
Cooling System	Fan and belt guards Base mounted radiator Air to air aftercooling
Distribution Panel	Lockable doors Load door safety switch, engine faults and shut down system Individual bus bar connections Circuit breakers Remote start/stop contacts Shore power connections
Enclosure	Sound attenuated 12-gauge steel Lockable doors Separate vented battery compartment Single point lifting arch Exterior oil and water drains Hidden exterior fuel drain Hand holds and steps Powder coated finish
Fuel System	Primary fuel filter/water separator Spill containment dike 1158 L (306 Gal) dual wall fuel tank UL142 dual wall fuel tank 330 gallon
Generator	Brushless, permanent magnet Coastal corrosion protection Shock mounted VR3 voltage regulator Space heater
Mounting System	Generator soft mounted to base Base contains integral fuel tank Skiddable structural steel design
Starting System	Electric starting motor Battery set with disconnect switch Jacket water heater with thermostat, shut-off valves

OPTIONAL FEATURES	
Trailer	Full frame support Independent tandem axle trailer frame with tongue Electric brakes with safety breakaway Full length fenders Non-skid surface on steps Heavy duty safety chains and grab hooks Reinforced 4540 kg (10,000 lb) top wind drop jack

SPECIFICATIONS



CAT SR4B GENERATOR

Frame size	448
Type	Permanent magnet brushless
Construction	Single bearing, close coupled
Three phase	12 lead reconnectable
Insulation	Class H with coastal insulation protection
IP rating	22
Alignment	Pilot shaft
Overspeed capability	
Prototype tested	150%
Production tested	125%
Wave form	Less than 5% deviation
Voltage regulator	3 phase sensing with Volts-per-Hertz no load
Voltage regulation	±½% steady state/±1% full load
TIF	Less than 50
THD	Less than 5%



ENGINE

1306-E87TA300, 4-stroke-cycle watercooled diesel	
Bore — mm (in)	116.6 (4.59)
Stroke — mm (in)	135.9 (5.35)
Displacement — L (cu in)	8.71 (532)
Compression ratio	16.9:1
Aspiration	Turbocharged AA charge cooled



CAT CONTROL PANEL

24 Volt DC Control	
NEMA 1, IP22 enclosure	
Lockable hinged door	
Generator instruments meet ANSI C-39-1	
Enclosure mounted	
Single location customer connector point	

Consult your Caterpillar dealer for available voltages.

TECHNICAL DATA

		XQ200	
Power Rating		Standby	Prime DM6197
60 Hz	ekW	200	180
Engine and Container Information Engine model Container dimensions		1306-E87Ta300 see chart on next page	
Shipping Weight (Dry) Unit with trailer Unit without trailer	kg (lb) kg (lb)	5452 (12,020) 4345 (9580)	
Maximum Fuel Capacity Weight Unit with trailer Unit without trailer	kg (lb) kg (lb)	6641 (14,640) 5534 (12,200)	
Engine Lubricating Oil Capacity	L (Gal)	26.4 (7)	
Engine Coolant Capacity with Radiator	L (Gal)	39.8 (10.5)	
Fuel Tank Capacity	L (Gal)	1249.1 (330)	
Fuel Consumption 100% Load	L/hr (Gal/hr)	61.26 (16.18)	
Fuel Consumption with Fan	L/hr (Gal/hr)	58.3 (15.4)	52.9 (14.0)
Fuel Consumption (75% Prime) with Fan	L/hr (Gal/hr)	40.6 (10.7)	
Running Time @ 75% Prime	hours	24	
Sound Level			
Standby	dBA	73.7	
No load @ 7 m (23 ft)	dBA	70.2	
Prime	dBA	72.3	

RATING DEFINITIONS AND CONDITIONS

Meets or Exceeds International Specifications:

- ABGSM TM3, AS1359, AS2789, BS4999, BS5000, BS5514, DIN6271, DIN6280, EGSA101P, IEC34/1, ISO3046/1, ISO8528, JEM1359, NEMA MG1-22, VDE0530, 89/392/EEC, 89/336/EEC

Standby — Output available with varying load for the duration of the interruption of the normal source power. Standby power in accordance with ISO8528. Fuel stop power in accordance with ISO3046/1, AS2789, DIN6271, and BS5514.

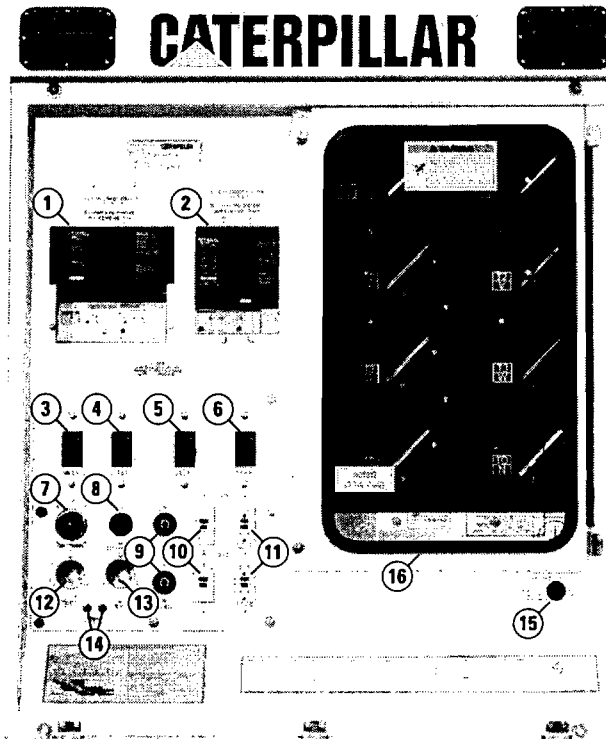
Prime — Output available with varying load for an unlimited time. Prime power in accordance with ISO8528. 10% overload power in accordance with ISO3046/1, AS2789, DIN6271, and BS5514 available on request.

Ratings are based on SAE J1349 standard conditions. These ratings also apply at ISO3046/1, DIN6271, and BS5514 standard conditions.

Fuel rates are based on fuel oil of 35° API (@ 16° C (60° F)) gravity having an LHV of 42 780 kJ/kg (18,390 Btu/lb) when used at 29° C (85° F) and weighing 838.9 g/liter (7.001 lbs/U.S. gal.).

Additional ratings may be available for specific customer requirements. Consult your Caterpillar representative for details.

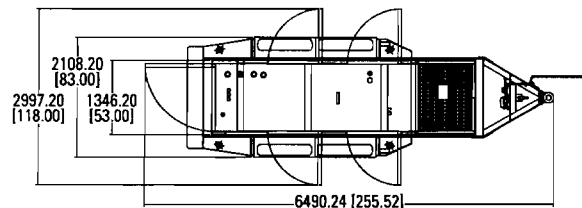
DISTRIBUTION PANEL



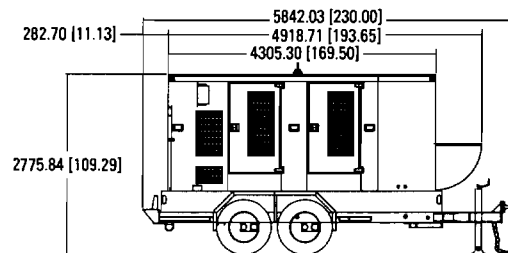
Wiring Descriptions

1. 700A main breaker 240V with 24V shunt trip
2. 350A main 480V with 24V shunt trip
350A main 600V with 24V shunt trip
3. 50 amp 240V branch breaker
4. 20 amp 240V branch breaker
5. 20 amp 120V branch breaker
6. 15 amp 120V branch breaker
7. 50 amp 240V twistlock receptacle
8. 20 amp 240V twistlock receptacle
9. 20 amp 120V twistlock receptacle
10. 20 amp 120V ground fault interrupter
11. 15 amp 120V ground fault interrupter duplex receptacle
12. 30 amp 120V battery charger/generator space heater receptacle
13. 30 amp 120V JWH receptacle
14. Remote start/stop contacts
15. 12.7 mm (1/2") ground stud
16. Dual voltage load connection bus board [6.35 mm × 101.6 mm × 101.6 mm (1/4" × 4" × 4") bus bars]

CONTAINER DIMENSIONS — TOP VIEW



CONTAINER DIMENSIONS — RIGHT SIDE VIEW



Package Dimensions				
	Enclosure		With Trailer	
Length	4305.3 mm	169.5 in	5842.03 mm	230 in
Width	1346.2 mm	53 in	2108.2 mm	83 in
Height	2362 mm	93 in	2775.84 mm	109.29 in



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U.S. sourced

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LEHX0756-04 (3-04)

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The International System of Units (SI) is used in this publication.

TRD

**TRENCH CUTTING REMIXING DEEP
WALL MACHINE**

TRD Working Platform Width

1. Outline

Follows figure of the TRD machine shows the general required TRD machine(type-2) working space.

In case that the working space is narrow for the TRD machine, we are considering the construction way at each site conditions.

2. Machine dimension and working space

1)Mark:

- (A) : Center of the wall (Cutter post)
- (B) : End of the crawler
- (C) Rear end of the machine as the power unit
- (D) Front space of the machine

2)Machine length at each part

	I	II	III (I + II)	IV	V (III+IV)
Mark	(A) to (B)	(B) to (C)	(A) to (C)	(A) to (D)	(A) to (C)
Length	22.4ft	10.7ft	33.1ft	4.9ft	38ft

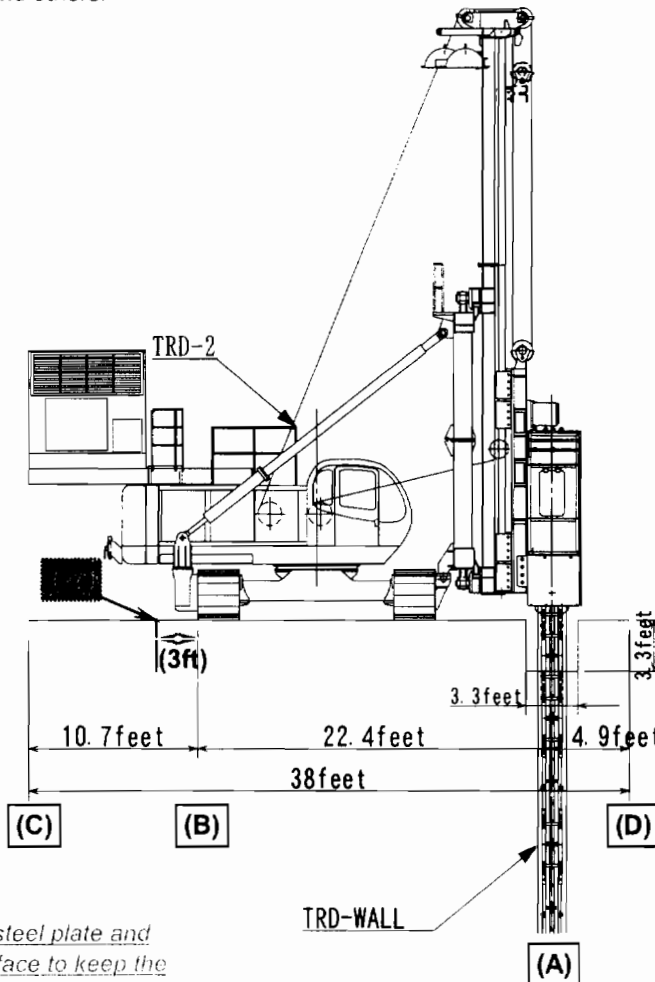
3)Remarks

Generally, the space (A) to (C) as 33.1ft is required from the center of the wall to toward the machine, and (A) to (D) as 4.9ft is required toward front of the machine.

However, if it is difficult to keep the sufficient working space between (A) to (C), TRD machine can work based on the working space (A) to (B) as 22.4ft and plus extra space (approx. 3ft : from (B) to (α)) from the end of the crawler .

And if feasible, keeping the space of the front of machine (A) to (D) as 4.9ft is required.

Finally, we are considering the TRD working space at each project, including the handling space of the spoil, how to feed the oil to the power unit, and others.

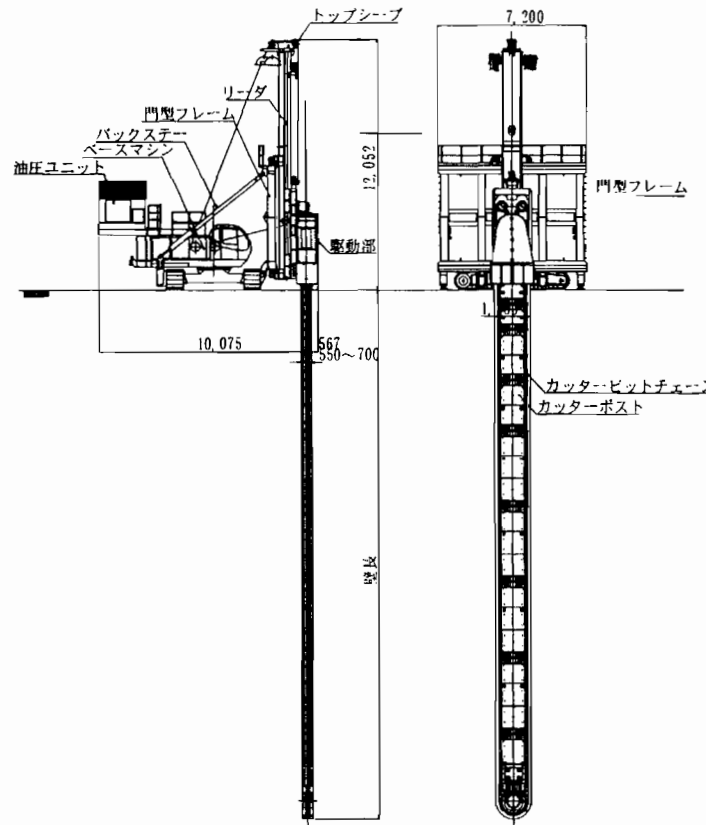


**) It is required to set the steel plate and improve the ground surface to keep the sufficient stability for the TRD machine, during construction.*

TRD machine -2)

- TRD type- II (mm)

Standard type



MATERIALS

BENTONITE



HYDROGEL[®]



NSF/ANSI 60

For use in drilling operations where premium grade Wyoming Bentonite is desired. HYDROGEL[®] is a preferred product for use in oil and gas exploration drilling. It is also used in slurry trenching, caisson boring, and cast-in-place concrete foundations.

PRODUCT CHARACTERISTICS:

- Manufactured to exceed API 13A, Section 9 specifications.
- 200 mesh viscosity builder.
- Yields excellent fluid loss characteristics.
- Assists in stabilizing the bore hole or trench walls.

PRODUCT SPECIFICATIONS	A.P.I. Specifications 13-A, Sec. 9-2004	Typical HYDROGEL [®]
Barrel Yield	--	96 ± 5
Viscometer Reading at 600 rpm	30 Min.	36 ± 6
Water Loss	15.0 cc Max.	13.5 ± 1
% through 200 Mesh Screen	--	80 ± 4
Wet Screen Analysis Residue on U.S. Sieve No. 200	4.0% Max.	3.0 ± .5
% Moisture	10.0%	7 ± 1
pH	--	9.0 ± 1.0
Gel Strength—10 sec	--	4 ± 1
Gel Strength—10 min	--	12 ± 3
Plastic Viscosity	--	12 ± 2
Yield Point, lb/100 sq. ft.	3 x P.V. Max.	16 ± 2

APPLICATION RATE

Mix 20 to 50 pounds per 100 gallons of make-up water. This product is designed to be flushed out of the well bore prior to using the well for drinking water. Before placing a well in service for drinking water it is to be properly flushed and drained until the turbidity of the water is <1 NTU above ambient turbidity.

HYDROGEL[®] is available in 50 pound and 100 pound multi-walled paper bags, bulk bags, or bulk.

PRODUCT SPECIFICATIONS	A.P.I. Specifications 13-A, Sec. 9-2004	Typical HYDROGEL®
Barrel Yield	--	96 ± 5
Viscometer Reading at 600 rpm	30 Min.	36 ± 6
Water Loss	15.0 cc Max.	13.5 ± 1
% through 200 Mesh Screen	--	80 ± 4
Wet Screen Analysis Residue on U.S. Sieve No. 200	4.0% Max.	3.0 ± .5
% Moisture	10.0%	7 ± 1
pH	--	9.0 ± 1.0
Gel Strength—10 sec	--	4 ± 1
Gel Strength—10 min	--	12 ± 3
Plastic Viscosity	--	12 ± 2
Yield Point, lb/100 sq. ft.	3 x P.V. Max.	16 ± 2

APPLICATION RATE

Mix 20 to 50 pounds per 100 gallons of make-up water. This product is designed to be flushed out of the well bore prior to using the well for drinking water. Before placing a well in service for drinking water it is to be properly flushed and drained until the turbidity of the water is <1 NTU above ambient turbidity.

HYDROGEL® is available in 50 pound and 100 pound multi-walled paper bags, bulk bags, or bulk.

CEMENT



11000 N.W. 121 WAY
Medley, Florida

Consignee _____
Date _____
Batch # 2007-0950-2
Silos 1,8,10,11,12

Car/Truck _____
Type I/II

Destination _____
Plant _____

CHEMICAL REQUIREMENTS	Average Percent		SPECIFICATION			
			AASHTO M-85		ASTM C-150	
			TYPE I	TYPE II	TYPE I	TYPE II
Silicon Dioxide (SiO ₂)	20.6	MIN %		20.0		20.0
Aluminum Oxide (Al ₂ O ₃)	5.2	MAX %		6.0		6.0
Ferric Oxide (Fe ₂ O ₃)	4.2	MAX%		6.0		6.0
Calcium Oxide (CaO)	63.4					
Magnesium Oxide (MgO)	0.9	MAX%	6.0	6.0	6.0	6.0
Sulfur Trioxide (SO ₃) When 3CaO.Al ₂ O ₃ <8%	3.4	MAX%	3.0	3.0	3.0	3.0
Sulfur Trioxide (SO ₃) When 3CaO.Al ₂ O ₃ >8%		MAX%	3.5		3.5	
Ignition Loss	1.6	MAX%	3.0	3.0	3.0	3.0
Insoluble Residue	0.30	MAX%	0.75	0.75	0.75	0.75
Tricalcium Silicate (C3S)	51	MAX%		58		58
Tricalcium Aluminate (C3A)	7	MAX%		8		8
Na ₂ O Equivalent	0.38	MAX%	0.60	0.60	0.60	0.60
PHYSICAL REQUIREMENTS						
BLAINE	3881	MIN	2800	2800	2800	2800
		MAX	4000	4000		
		MIN	1600	1600	1600	1600
		MAX	2200	2200		
Specific Surface (Wagner)						
Soundness, Autoclave expansion	0.15	MAX	0.80	0.80	0.80	0.80
- 325 MESH % Passing	96.2					
7 days Heat of Hydration (cal/g)						
AIR CONTENT %	5.9	MAX	12	12	12	12
Time of set(Vicat) initial	110	MIN	60	60	60	60
Time of set(Vicat) Final	199	MAX	600	600	600	600
Compressive Strength, psi 1 Day	2062			7238		
Compressive Strength, psi 3 Day	3197	MIN	1800	1500	1740	1450
Compressive Strength, psi 7 Day	4309	MIN	2800	2500	2760	2470
Compressive Strength, psi 28 D (prev. month)	6575					

This Mill Certificate covers cement in this shipment and all future shipments with this batch number. This cement conforms to ASTM C-150 for type I and II. Also conform to Florida Department of Transportation AASHTO M-85 for Type I and II. The cement covered by this mill test certificate has been produced in the United States including the manufacturing of the clinker.

Date 10/2/2007

Victor Turin

Quality Manager

MATERIAL SAFETY DATA SHEET

for
Portland Cement



Effective Date: August 2001

Page 1 of 4

1. PRODUCT/COMPANY IDENTIFICATION

Manufacturer's Name & Address:

Titan Florida
11000 NW 121 Way
Medley, FL 33178

Trade Name:

Portland Cement

Chemical Name and Synonyms

Gypsum Hydraulic cement, portland cement silicate.

Department of Transportation Identification No.:

None

Telephone Number for Information:

1.800.458.4250

Emergency Telephone:

1.800.965.9896

*Composition varies, may contains crystalline silica

2. COMPOSITION INFORMATION

Major Compounds

<u>Chemical Name</u>	<u>CAS Registry Number</u>	<u>% in this cement product</u>
Portland Cement*	65997-15-1	95
Gypsum (calcium sulfate)	13397-24-5	5
* May contain crystalline silica	14808-60-7	> .1

3. PHYSICAL/CHEMICAL CHARACTERISTICS

Boiling Point	N/A
Specific Gravity (H ₂ O = 1)	3.15
Vapor Pressure (mm Hg)	N/A
Melting Point	N/A
Vapor Density (AIR-1)	N/A
Evaporation Rate	N/A
Solubility in Water	Slightly soluble (0.1 to 1.0 %)
pH (in water) (ASTM D 1293-95)	12 to 13
Appearance & Odor	White or grey powder; no odor

4. FIRE AND EXPLOSION HAZARD DATA

Flash Point	N/A
Extinguishing Media	N/A
Special Fire Fighting Procedures	None
Unusual Fire & Explosion Hazards:	None
Flammable Limits	N/A
LEL	N/A
UEL	N/A

MATERIAL SAFETY DATA SHEET

for Portland Cement



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5. REACTIVITY DATA

Stability: Stable. Avoid unintentional contact with water and incompatible materials.

Incompatibility: Wet portland cement is alkaline. It is incompatible with acids, ammonium salts and aluminum metal.

Hazardous Decomposition or Byproducts: Will not spontaneously occur. Adding water results in hydration and produces (caustic) calcium hydroxide. Respirable dust particles may occur from handling dry material.

Hazardous Polymerization: Will not occur. No conditions to avoid.

6. HEALTH HAZARD DATA AND FIRST AID

EXPOSURE LIMITS:

Unless specified otherwise, limits are expressed as a time-weighted average (TWA) concentration for an 8-hour work shift of a 40-hour workweek. Limits for cristobalite and tridymite (other forms of crystalline silica) are equal to one-half the limits for quartz.

ABBREVIATIONS:

ACGIH TLV: Threshold limit value of the American Conference of Governmental Industrial Hygienists (ACGIH).

mg/m³: Milligrams of substance per cubic meter of air.

NIOSH REL: Recommended exposure limit of the National Institute for Occupational Safety and Health (NIOSH), expressed as a TWA concentration for up to a 10-hour work-day during a 40-hour workweek.

OSHA PEL: Permissible exposure limit of the federal Occupational Safety and Health Administration (OSHA).

Portland Cement: OSHA PEL (respirable fraction) 5 mg/m³, (total dust) 15 mg/m³, ACGIH TLV (total dust) 10 mg/m³, NIOSH REL (respirable) 5 mg/m³ (total) 10 mg/m³.

Gypsum (Calcium sulfate): OSHA PELs (respirable fraction) 5 mg/m³, (total dust) 15 mg/m³, ACGIH TLV (total dust) 10mg/m³.

Crystalline Silica SiO₂: OSHA PELs (respirable fraction) $[10 \text{ mg/m}^3 \div (\% \text{ SiO}_2+2)]$, (total dust) $[30 \text{ mg/m}^3 \div (\% \text{ SiO}_2+2)]$, ACGIH TLV (respirable fraction) 0.05 mg/m³; NIOSH REL (respirable fraction) 0.05 mg/m³.

Other Particulates: OSHA PEL (total particulate, not otherwise regulated) 15 mg/m³, (respirable particulate, not otherwise regulated) 5 mg/m³, ACGIH TLV (nuisance particulates) 10 mg/m³ (inhalable); 5 mg/m³ (respirable).

HEALTH HAZARDS:

Primary Route(s) of Entry:

Inhalation: Yes

Skin: Yes

Ingestion: No

Acute:

Eye Contact: Direct contact with dust may cause irritation. Direct contact by larger amounts of dry powder or splashes of wet portland cement may cause effects ranging from moderate eye irritation to chemical burns and blindness.

Skin Contact: Exposure to dry portland cement may cause drying of the skin with consequent mild irritation. Dry portland cement contacting wet skin or exposure to moist or wet portland cement may cause more severe skin effects including thickening, cracking or fissuring of the skin. Prolonged exposure can cause severe skin damage in the form of (caustic) chemical burns. Some individuals may exhibit an allergic response upon exposure to portland cement, possibly due to trace amounts of chromium. The response may appear in a variety of forms ranging from a mild rash to severe skin ulcers.

Skin Absorption: Not expected to be a significant exposure route.

Ingestion: Although small quantities of dust are not known to be harmful, ill effects are possible if larger quantities are consumed. Portland cement should not be ingested.

Inhalation: Dusts may irritate the nose, throat, and respiratory tract. Coughing, sneezing, and shortness of breath may occur following exposures in excess of appropriate exposure limits.

MATERIAL SAFETY DATA SHEET

for Portland Cement



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Chronic:

Inhalation: Chronic exposure to respirable dust in excess of appropriate exposure limits may cause lung disease. Silicosis may result from excessive exposure to respirable silica dust for prolonged periods. Not all individuals with silicosis will exhibit symptoms. Silicosis is progressive and symptoms can appear at any time, even after exposure has ceased. Symptoms may include shortness of breath, coughing, or right heart enlargement and/or failure. Persons with silicosis have an increased risk of pulmonary tuberculosis infection. Tobacco smoking may increase the risk of developing lung disorders, including emphysema and lung cancer.

Carcinogenicity: Portland cement is not listed as a carcinogen by the National Toxicology Program (NTP), OSHA or the International Agency for Research on Cancer (IARC). It may, however, contain trace amounts of substances listed as carcinogens by these organizations. Crystalline silica, a potential trace level contaminant in Portland cement, is classified by the IARC as a carcinogenic to humans (Group 1). The NTP has characterized respirable silica as "known to be a human carcinogen". Prolonged and repeated breathing of silica may cause lung cancer.

Signs & Symptoms

of Exposure: Irritation of eyes, skin and/or respiratory system.

Medical Conditions

Generally

Aggravated

by Exposure: Inhaling respirable dust may aggravate existing respiratory system disease(s) and/or dysfunctions such as emphysema or asthma and may aggravate existing skin and/or eye conditions.

EMERGENCY & FIRST AID PROCEDURES:

Eyes: Immediately flush eye(s) with plenty of clean water for at least 15 minutes, while holding the eyelid(s) open. Beyond flushing, do not attempt to remove material from the eye(s). Contact a physician if irritation persists or later develops.

Skin: Wash skin with cool water and pH-neutral soap or mild detergent intended for use on skin. Seek medical treatment in all cases of prolonged direct exposure to wet cement, cement mixtures, liquids from fresh cement products, or prolonged wet skin exposure to dry cement.

Ingestion: Do not induce vomiting. If person is conscious, give large quantity of water. Get immediate medical attention.

Inhalation: Remove to fresh air. Dust in throat and nasal passages should clear spontaneously. Contact a physician if irritation persists or later develops.

7. PERSONAL PROTECTION AND CONTROL MEASURES

Ventilation: Local exhaust or general ventilation adequate to maintain exposures below appropriate exposure limits.

Other: Respirable dust and silica levels should be monitored regularly. Dust and silica levels in excess of appropriate exposure limits should be reduced by all feasible engineering controls, including (but not limited to) ventilation, process enclosure, and enclosed employee work stations.

Respiratory

Protection: When dust or silica levels exceed or are likely to exceed appropriate exposure limits, follow MSHA or OSHA regulations, as appropriate, for use of NIOSH-approved respiratory protection equipment.

Skin Protection: Protective gloves, shoes and protective clothing that are impervious to water should be worn to avoid contact with skin.

Eye Protection: Safety glasses with side shields should be worn as minimum protection. Dust goggles should be worn when excessive (visible) dust conditions are present or anticipated. Contact lenses should not be worn when working with this product.

Hygiene: Periodically wash exposed skin with a pH-neutral soap. Wash again before eating, drinking, smoking, and using toilet facilities. Wash work clothes after each use. If clothing becomes saturated with wet cement, it should be removed and replaced with clean, dry clothing.

MATERIAL SAFETY DATA SHEET

for Portland Cement



Page 4 of 4

8. STORAGE AND HANDLING PRECAUTIONS

Respirable silica and dust may be generated during processing, handling, and storage. The personal protection and controls identified in Section VII of the MSDS should be applied as appropriate.

Keep portland cement dry until used.

Do not store or handle near food and beverages or smoking materials.

9. SPILL, LEAK AND DISPOSAL PRACTICES

The personal protection and controls identified in Section VII of the MSDS should be applied as appropriate.

Steps to Be Taken if Material Is Released or Spilled: Use dry clean-up methods which do not disperse dust into the air. Avoid actions that cause dust to become airborne. Avoid inhalation of dust and contact with skin. Wear appropriate personal protective equipment. Scrape up wet material and place in an appropriate container. Allow the material to "dry" before disposal.

Waste Disposal Method: Do not attempt to wash portland cement down drains. Dispose of waste materials only in accordance with applicable federal, state, and local laws and regulations.

NOTICE: Based on research of available data, Titan Florida believes that the information contained in this Material Safety Data Sheet is accurate. The suggested procedures are based on data and experience as of the date of preparation of the MSDS. The suggestions should not be confused with nor followed in violation of applicable laws, regulations, rules or insurance requirements. Titan Florida's voluntary preparation of this MSDS should not be construed, in any way, as an agreement to be subject to MSHA/OSHA jurisdiction, as applicable.

GRANULATED BLAST FURNACE SLAG



P.O. Box 335
Newtown, CT 06470
Tel: 203.270.1416
Fax: 203.270.1931
www.bulkmaterials.net

Description: Granulated Blast Furnace Slag

Source: Japan

Method: Trace Metals Analysis by ICP-OES TCLP

Date: 12/13/05

N/D = NOT DETECTED

<u>ELEMENT</u>	<u>RESULTS</u>	<u>LIMITS</u>	DETECTION
	<u>mg/l</u>	<u>mg/l</u>	<u>LIMIT</u> <u>mg/l</u>
ARSENIC (As)	N/D < .04	5	.04
BARIUM (Ba)	0.04	100	.01
CADMIUM (Cd)	N/D < .01	1	.01
CHROMIUM (Cr III, VI)	N/D < .01	5	.01
LEAD (Pb)	N/D < .03	5	.03
SELENIUM (Se)	N/D < .07	1	.07

Material Certification Report



Brand Name: CAMCEM™
 Material: GGBFS Cement
 Type: 100 or Higher (ASTM C989)

DATE: 01-Oct-2007

General Information

Supplier: Hanson Slag Cement DBA Civil and Marine, Inc
 Address: 575 Cargo Road
 Cape Canaveral, Florida 32920
 Telephone: (321)783-0373

Source Location: Hanson Slag Cement
 575 Cargo Road
 Cape Canaveral, Florida 32920
 Contact: Dennis Thompson (321)783-0373

The following information is based on average test data. The data is typical of GGBFS shipped by Hanson Slag Cement; individual shipments may vary.

Test Data on ASTM "Standard" Requirements

Chemical (C989, Table 2)			Physical (C989, Table1)		
Item	Limit	Result	Item	Limit	Result
Sulfide S (%)	2.5 max	0.8	+45 µm (No. 325) Sieve (%)	20 max	0.74
Sulfate Ion - SO ₃ (%)	4.0 max	2.2	Blaine Fineness (m2/kg)	-	521
			Air Content (%)	12 max	4.0
			Slag Activity Index (%)		
			Average of Last 5 Samples:		
			Avg 7 Day Index	75 min	100
			Avg 28 Day Index	95 min	124
			Current Samples:		
			7 Day Index	70 min	99
			28 Day Index	90 min	123

Test Data on Reference Cement

Chemical			Physical		
Item	Limit	Result	Item	Limit	Result
Total Alkalies as Na ₂ O (%)	0.60 - 0.90	0.71	Blaine Fineness (m2/kg)	-	360
C ₃ S	-	61	Compressive Strength MPa (psi):		
C ₂ S	-	13	7 Day	-	4618
C ₃ A	-	9	28 Day	35 (5000) min	40.3 (5763)
C ₄ AF	-	7			

Optional Test Data

Chemical			Physical		
Item	Limit	Result	Item	Limit	Result
% Total Alkalies	-	0.37	Specific Gravity	-	2.92
%Cl (Chloride)	-	0.01	1 Day Accelerated (C-1073) psi	-	3068

Certification

Hanson Slag Cement GGBFS meets ASTM C-989 specification for Grade 100 or higher and Section 929-1 and 929-5 of FDOT Specifications

Dennis S. Thompson (Laboratory Manager)

VI. HEALTH HAZARD INFORMATION

Routes of Exposure and Effects:

Skin: Possible drying resulting in dermatitis.

Eyes: Mechanical irritant.

Inhalation: Acute (short term) exposure to dust levels exceeding the PEL may cause irritation of respiratory tract resulting in a dry cough.

Chronic (long term) exposure to airborne bentonite dust containing respirable size ($\leq 10 \mu$) quartz particles, where respirable quartz particle levels are higher than TLV's, may lead to development of silicosis or other respiratory problems. Persistent dry cough and labored breathing upon exertion may be symptomatic.

Ingestion: No adverse effects.

Permissible Exposure Limits: (for air contaminants)

OSHA PEL
(8hr. TWA)

ACGIH TLV

Bentonite as "Particulates not
otherwise regulated"
(formerly nuisance dust)

Total dust

15mg/m³

ND

Respirable dust

5mg/m³

ND

Crystalline Quartz (respirable)

0.1mg/m³

0.1mg/m³

Carcinogenicity: Bentonite is not listed by NTP or OSHA. IARC, 1997, concludes that there is sufficient evidence in humans for the carcinogenicity of inhaled crystalline silica from occupational sources (IARC Class 1), that carcinogenicity was not detected in all industrial circumstances studied and that carcinogenicity may depend on characteristics of the crystalline silica or on external factors affecting its biological activity.

Acute Oral LD₅₀: ND

Acute Dermal LD₅₀: ND

Aquatic Toxicology LC₅₀: ND

Emergency and First Aid Procedures:

Skin: Wash with soap and water until clean.

Eyes: Flush with water until irritation ceases.

Inhalation: Move to area free from dust. If symptoms of irritation persist contact physician. Inhalation may aggravate existing respiratory illness.

VII. HANDLING AND USE PRECAUTIONS

Steps to be Taken if Material is Released or Spilled: Avoid breathing dust; wear respirator approved for silica bearing dust. Vacuum up to avoid generating airborne dust. Avoid using water. Product slippery when wetted.

Waste Disposal Methods: Product should be disposed of in accordance with applicable local, state and federal regulations.

Handling and Storage Precautions: Use NIOSH/MSHA respirators approved for silica bearing dust when free silica containing airborne bentonite dust levels exceed PEL/TLV's. Clean up spills promptly to avoid making dust. Storage area floors may become slippery if wetted.

VIII. INDUSTRIAL HYGIENE CONTROL MEASURES

Ventilation Requirements: Mechanical, general room ventilation. Use local ventilation to maintain PEL's/TLV's.

Respirator: Use respirators approved by NIOSH/MSHA for silica bearing dust.

Eye Protection: Generally not necessary. Personal preference.

Gloves: Generally not necessary. Personal preference.

Other Protective Clothing or Equipment: None

IX. SPECIAL PRECAUTIONS

Avoid prolonged inhalation of airborne dust.

DEPARTMENT OF TRANSPORTATION INFORMATION

Shipping Name: NA (Not Regulated)

Hazard Class: NA

Hazardous Substance: NA

Cautionary Labeling: NA

Date Prepared: January 14, 2000

Doc #: 10100

All information presented herein is believed to be accurate, however, it is the user's responsibility to determine in advance of need that the information is current and suitable for their circumstances. No warranty or guarantee, expressed or implied is made by WYO-BEN, INC. as to this information, or as to the safety, toxicity or effect of the use of this product.

**Florida Department of Environmental Protection
Cash Receiving Application (CRA)
Cashlisting by Deposit #: 281254 thru 281254
Printed: 10/31/2007 4:30:44 PM - Page 7**

Cashlisting: 64889 Cashlist Area: 3755 Description: DIV OF AIR RESOURCES MGMT.
Deposit No: 281254 Date Deposited: 10/31/2007 Contact: PATTY ADAMS

Object	Transmittal	Dep.DDN	Receipt Number	Pre- Numbered Receipt	Name	Check Number	Payment Amount	Reference Account	Payment Number	Remittance Number	Fund
002272	45454	47776	604915		HAYWARD BAKER, INC.	1362	\$100.00	11/13/2007	846059	753510	PFTF

Object Code 002272 Subtotal: \$100.00

Cashlisting 64889 Total: \$100.00

Hayward Baker, Inc

Florida Department Of Environmental Protection
35060 200 2

10/26/2007

1362

100.00

Checking

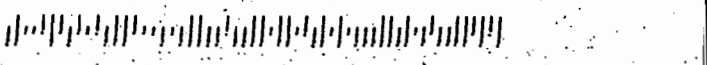
Air PEmit

100.00

**HA
BAKER**

A Keller Company

6850 Benjamin Road
Tampa, FL 33634



7000 1670 0012 1583 7596

**HAYWARD
BAKER**

A Keller Company

6850 Benjamin Road
Tampa, FL 33634-4416

FDEP
Receipts
P.O. Box 3070
Tallahassee, FL 32315-3070



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U.S. POSTAGE
1490 PB3502659
9843 \$07.30 OCT 26 2007
1688 MAILED FROM ZIP CODE 33634

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