' high x 20' long stacker section, 4" wall box, 1987 TRENCH SHIELD #3

FFICIENCY P.O. BOX 24126 LANSING, MI 48909 EFFICIENCY TRENCH SHIELD PRODUCTION, INC. PHONE 517-349-4620 DDEL SERIAL NUMBER 620 XLD (SS) 101641 REFERENCE TO OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION RULES AND REGULATIONS /OL. 54, NO. 209, 10-31-89, PART 1926, SUBPART P PSF RATING MAXIMUM ALLOWABLE DEPTH OF CUT-FEET SHIELD SIZE SOIL TYPE TO BE EXCAVATED MAZIMUM LATERAL HYDROSTATIC MOIST SOIL EARTH PRESSURE WET MUCKY HEIGHT LENGTH 30 PSF PER PRESSURE-SOIL FEET FEET SUBMERGED SOIL TRENCH BOTTOM FOOT OF DEPTH 50 PSF PER IN POUNDS PER 82 PSF PER FOOT OF DEPTH SOUARE FOOT FOOT OF DEPTH 6' 20' 488# 16' 91 51 LIMITATIONS IN USE OF TABLE DESCRIPTION DESCRIPTION DESCRIPTION MOIST FINE SAND. WET MUCKY CLAY-SATURATED MUCK. TRENCH SHIELD TO BE ASSEMBLED AND INSTALLED SAND-GRAVEL OR SILT SOILS WITH SILT, SAND-GRAVEL AS SHOWN AND IN ACCORDANCE WITH CLAY SOILS WITH LIQUID PRESSURE OR CLAY SOILS MANUFACTURER'S INSTRUCTIONS. LIQUID PRESSURE NOT EXCEEDING 50 WITH LIQUID NOT EXCEEDING 30 PSF PER FOOT OF PRESSURE NOT BANK ABOVE TOP OF SHIELD TO BE LAID BACK PSF PER FOOT OF ACCORDING TO OSHA REGULATIONS. DEPTH EXCEEDING 82 PSF DEPTH PER FOOT OF SOILS YIELDING LATERAL EARTH PRESSURES DEPTH EXCEEDING THOSE TABULATED REQUIRE VERIFICATION BY A SOILS ENGINEER CONSULT MANUFACTURER WHEN BOTTOM OF SLOPE ACCORDING TO OSHA REGULATIONS SHIELD IS NOT AT TRENCH BOTTOM. IF DEWATERING WITH WELLS OR WELL POINTS AND 1'-6" MIN. WATER TABLE IS AT OR BELOW TRENCH BOTTOM ADJUST SOILS CLASSIFICATION. ADDITIONAL SHIELDS MAY BE STACKED WITH NO PENALTY IN DEPTH OF CUT. D DEPTHS OF CUTS SHOWN ARE BASED ON EXAMPLES OF VARIOUS SOIL CONDITIONS. VERIFY ACTUAL SOIL PRESSURES PRIOR TO EACH USE. ANY MODIFICATIONS OR ALTERATIONS NOT ALLOWED UNLESS APPROVED IN WRITING BY EFFICIENCY PRODUCTION, INC. ALLEN NIEBER NO. 17221

ATTOMATION OF THE PROPERTY OF THE PROP CERTIFIED BY: MCCLURG & ASSOCIATES, INC. CONSULTING ENGINEERS ©1990 EFFICIENCY PRODUCTION, INC. ALL RIGHTS RESERVED FEBRUARY 15, 1990 MANUFACTURED UNDER ONE OR MORE OF THE FOLLOWING U.S. PATENT NUMBERS:

4' high x 20' long stacker section, 6" wall box, 1988-used

Trench SHIELD #4

PRODUCTION, INC.			P.O. BOX 24126 LANSING, MI 48909 PHONE 517-349-4620					EFFICIENCY TRENCH SHIELD
МО	DEL 420	) HT6		[	SEI	RIAL NUMBER	N/A	
	REFERENCE TO OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION RULES AND REGULATIONS, VOL. 54, NO. 209, 10-31-89, PART 1326, SUBPART P							
SHIELD SIZE			PSF RATING		MAXIMUM ALLOWABLE DEPTH OF CUT-FEET D			
						SOIL TYPE TO BE EXCAVATED		
	HEIGHT FEET	LENGTH FEET		MAXIMUM LATERAL EARTH PRESSURE CAPACITY AT TRENCH BOTTOM IN POUNDS PER SOUARE FOOT		MOIST SOIL 30 PSF FER FOOT OF DEPTH	WET MUCKY SOIL 50 PSF PER FOOT OF DEPTH	HYDROSTATIC PRESSURE- SUBMERGED SOII 82 PSF PER FOOT OF DEPTH
L	4'	20'		660#		22'	13'	7'
1. 2. 3.	AS SMOWN AND IN ACCORDANCE WITH MANUFACTURERS INSTRUCTIONS.  BANK ABOVE TOP OF SHIELD TO BE LAID BACK ACCORDING TO OSHA REGULATIONS.  SOILS YIELDING LATERAL EARTH PRESSURES EXCEEDING THOSE TABULATED REQUIRE VERIFICATION BY A SOILS ENGINEER.  CONSULT MANUFACTURER WHEN BOTTOM OF SHIELD IS NOT AT TRENCH BOTTOM.					DESCRIPTION MOIST FINE SAND, SAND-GRAVEL OR CLAY SOILS WITH LIOUID PRESSURE NOT EXCEEDING 30 PSF PER FOOT OF DEPTH	DESCRIPTION WET MUCKY CLAY. SILT SOILS WITH LIQUID PRESSURE NOT EXCEEDING 50 PSF PER FOOT OF DEPTH	DESCRIPTION SATURATED MUCI SILT, SAND-GRAVE OR CLAY SOILS WITH LIQUID PRESSURE NOT EXCEEDING 82 PS PER FOOT OF DEPTH
6. 7. 8.	UNLESS NOTED OTHERWISE.  5. KNIFE EDGE EMBEDMENT REQUIRED FOR ALL SHIELD DESIGNS WITH HYDROSTATIC PRESSURE.  7. IF DEWATERING WITH WELLS OR WELL POINTS AND WATER TABLE IS AT OR BELOW TRENCH BOTTOM ADJUST SOILS CLASSIFICATION.  8. ADDITIONAL SHIELDS MAY BE STACKED WITH NO PENALTY IN DEPTH OF CUT.					LAT BACK ACCORDING TO OSHA REGULATIONS	D	1'-6" MIN.
	ACTUAL SOIL PRESSURES PRIOR TO EACH USE.  O. ANY MODIFICATIONS OR ALTERATIONS NOT ALLOWED UNLESS APPROVED IN WRITING BY EFFICIENCY PRODUCTION INC.						****	NAME FOR SEE HOTES
MINIMINE	ALLEN MERED		McCLUR FEBRUA	FIED BY:  RG & ASSOCIATES, INC. CONSULTING ENGINEERS  ARY 15, 1990  MANUFACTURED UNDER ONE OR MORE OF THE FOLLOWING U.S. PATENT NUMBERS:				
HHHH	POFESSIONA POFESSIONA	MINING THE PROPERTY OF THE PRO	ONE OR MORE OF THE FOLLOWING CANADIAN PATENT NUMBERS: 1.062,683-1,062,684  USE THIS PRODUCT ONLY IN ACCORDANCE WITH  APPLICABLE FEDERAL, STATE, OR LOCAL LAWS  ST					

Any use of this product not specifically described in the attached certification plate could cause cave-in. collapse, or structural failure resulting in death or serious injury.

4,090,365-4,114,383-4,259,028 ONE OR MORE OF THE FOLLOWING CANADIAN PATENT NUMBERS: 1,062,683-1.062,684 USE THIS PRODUCT ONLY IN ACCORDANCE WITH APPLICABLE FEDERAL, STATE, OR LOCAL LAWS

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