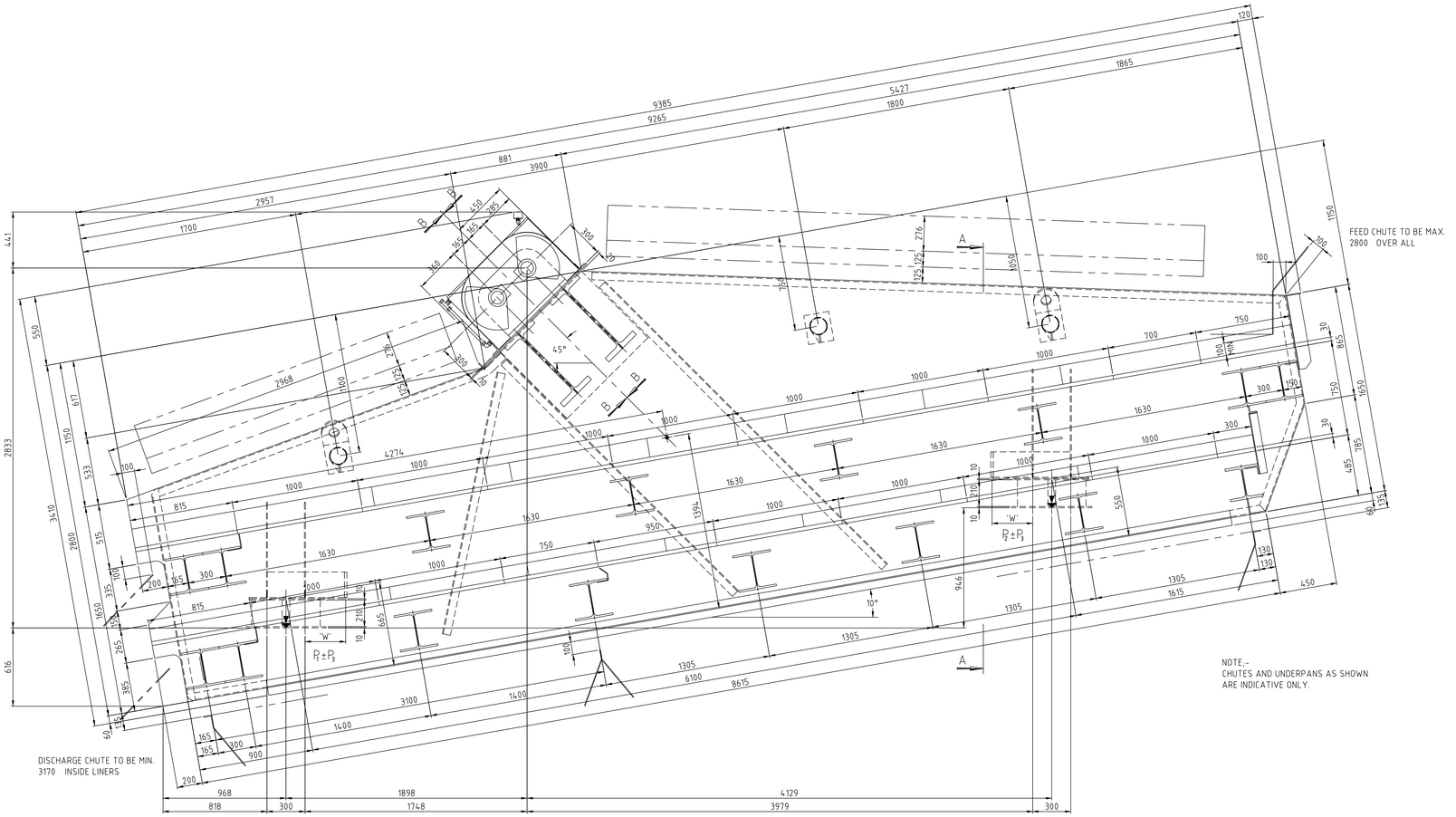
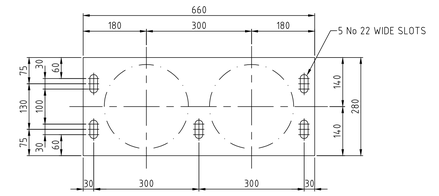
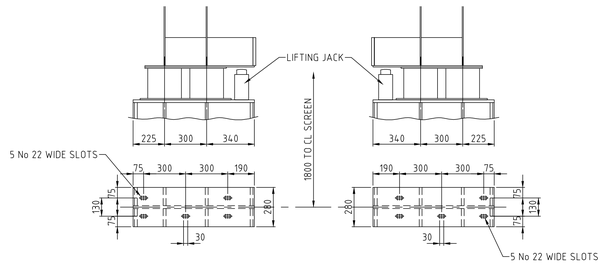




PLAN VIEW ON FOUNDATION
BUFFER SEATING PLATES



PART VIEWS SHOWING RECOMMENDED DISTANCES TO ALLOW
FOR LIFTING JACK ACCESS AT FEED & DISCHARGE BUFFER SUPPORTS
(DRILLING IN TOP OF BUFFER SUPPORTS TO BE SYMMETRICAL
ABOUT CENTRELINE OF SCREEN)

TOTAL MASS OF SCREEN 2R+2R2= 19442 kg
STATIC LOAD PER SUPPORT POINT R1= 4885 kg R2= 4836 kg
VERTICAL DYNAMIC LOAD PER SUPPORT POINT R1= ± 515 kg
HORIZ. DYNAMIC LOAD PER SUPPORT POINT R2= ± 51 kg
SPRING RATE/STIFFNESS OF FOUNDATION
SPRING/MOUNTING c= 70 kg/mm
OPERATING/SPEED N= 931 R.P.M.
MOTOR REQUIRED = 37.0 kW 1475 R.P.M.

ELECTRICAL NOTE
MOTOR REQUIRED 37.0 kW, 1475 R.P.M., LOCKED ROTOR TORQUE = 300 % OF FULL LOAD TORQUE, PULL OUT TORQUE = 300 % OF FULL LOAD TORQUE, D.O.L. PEAK AMPS ON START, AT 380V = 504.0 , AT 415V= 475.2 , AT 525V= 367.9 , TO BE MAINTAINED FOR AN EXTENDED PERIOD OF BETWEEN 6 AND 12 SECONDS

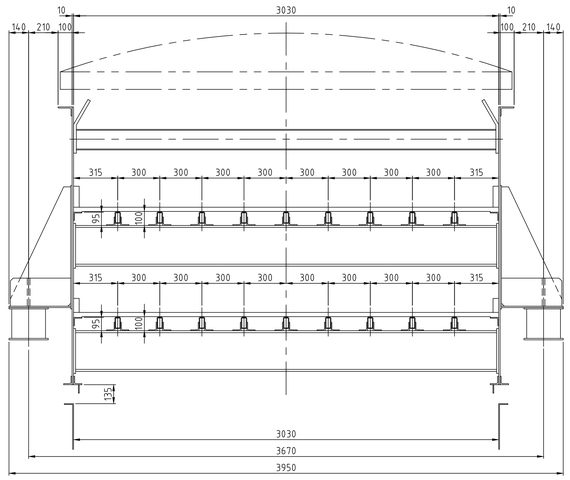
THE VIBRATION AMPLITUDES THAT MAY ARISE FROM THE ALTERNATING DYNAMIC LOADS MAY BE DETERMINED THROUGH A VIBRATION ANALYSIS CALCULATION WITH RESPECT TO THE SUPPORT STRUCTURE'S NATURAL FREQUENCY. THE ALLOWABLE VIBRATION AMPLITUDES MAY BE ASSESSED FROM THE RECOMMENDATIONS OF THE GERMAN STANDARD DIN 4150.
A STATIC LOADING CALCULATION ALONE IS NOT SUFFICIENT FOR SIZING THE SUPPORT STRUCTURE MEMBERS AND THE DIRECTLY AND INDIRECTLY CONNECTED FLOOR STRUCTURE

THE SUPPORT STRUCTURE SHOULD BE RIGID, ADEQUATELY BRACED, DESIGNED TO SUPPORT ALL LOADS WITHIN PERMISSIBLE STRESSES AND DEFLECTIONS. THE SPAN/DYNAMIC DEFLECTION LOAD RATIO BEING NOT LESS THAN 3000, IN BOTH VERTICAL AND HORIZONTAL PLANES. THE PRINCIPAL SUPPORTS SHOULD HAVE A MINIMUM NATURAL/ OPERATING FREQUENCY RATIO "R" IN ACCORDANCE WITH THE TABLE BELOW. L/R OF COMPRESSION MEMBERS USED TO REDUCE THE SPAN DEFLECTION RATIO SHOULD NOT EXCEED 80.

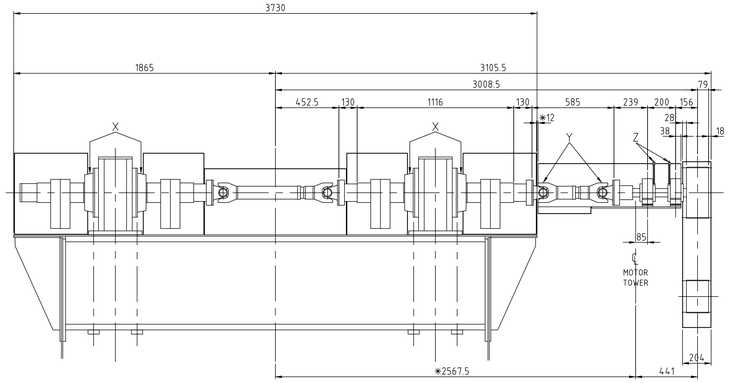
BEAM LENGTH	TYPE OF SUPPORT	R
LESS THAN OR EQUAL TO 4.8m	DIRECTLY CONNECTED TO COLUMN	1.5
GREATER THAN 4.8m	DIRECTLY CONNECTED TO COLUMN	2.0
LESS THAN OR EQUAL TO 4.8m	INDIRECTLY CONNECTED TO COLUMN	2.0
GREATER THAN 4.8m	INDIRECTLY CONNECTED TO COLUMN	2.5

W = 340 mm MIN DISTANCE TO END OF SUPPORT STRUCTURE (TO ALLOW FOR LIFTING JACK)
X =4 GREASE NIPPLES PER EXCITER UNIT, UNSUITABLE FOR CONNECTION TO AN AUTOMATIC LUBRICATION SYSTEM AS THEY SUPPLY DIRT LABYRINTH SEALS ONLY. SEE OPERATING AND MAINTENANCE INSTRUCTIONS, SECTIONS 1.3 AND 5.5.5
Y =2 GREASE NIPPLES PER CARDAN SHAFT, UNSUITABLE FOR CONNECTION TO AN AUTOMATIC LUBRICATION SYSTEM DUE TO ROTATION OF SHAFT. SEE OPERATING AND MAINTENANCE INSTRUCTIONS, SECTIONS 1.3 AND 5.5.6
Z =1 GREASE NIPPLE PER PLUMMER BLOCK. MAY BE CONNECTED TO AN AUTOMATIC LUBRICATION SYSTEM, HOWEVER SEE OPERATING AND MAINTENANCE INSTRUCTIONS, SECTIONS 1.3 AND 5.5.5

SCREEN SUPPLIED WITH RH DRIVE
SCREEN SUPPLIED WITH LH DRIVE



SECTION A-A



SECTION B-B

TOTAL WEIGHT OF MOTOR SUPPORT ASSEMBLY = 852 kg

DIMENSIONS MARKED THUS ✳ MUST BE STRICTLY ADHERED TO.

LOCATION	QTY	DIA.	LG.	TYPE	WRS	GR.	FINISH	SHOP/SITE

BOLT LIST

ALL PARTS TO BE CLEARLY MARKED WITH PART No. PREFIXED BY DRAWING No. BY :- SHOP PAINTING, PENCIL WELDING OR STAMPING (MIN 10mm HIGH)

UNTOLERANCED DIMENSIONS

PLATE WORK UPTO 300	± 1.0mm	STRUCTUAL STEELWORK OVER END PLATES	+0.0 -5.0
PLATE WORK 300 TO 1000	± 1.5mm	SQUARENESS	
PLATE WORK 1000 TO 3000	± 2.0mm	SQUARENESS OVER CLEATS	+5.0 -0.0
PLATE WORK OVER 3000	± 3.0mm	SQUARENESS	
MACHINING	± 0.3mm		

REV.	DATE	DESCRIPTION	GRID REF.	DRAWN BY	CHECKED BY
C	2-12-06	0612/2		PR	
B	13/11/06	0611/2	L14	JBW	
A	10-11-06	CHECKED			PR

ALL DIMENSIONS IN mm U.O.S DO NOT SCALE IF IN DOUBT ASK! ANY DEVIATION FROM THIS DRAWING MUST HAVE D.O. APPROVAL

UNLESS OTHERWISE STATED WORK TO THE LATEST RELEVANT STANDARD FOR THE FOLLOWING :-
ENGINEERING DRAWING PRACTICE, WELDING TERMS & SYMBOLS, KEYS & KEYWAYS, LIMITS & FITS, WELDING PRACTICE, WELDABLE STRUCTURAL STEEL.

AUTOCAD®
THIS IS A CAD PRODUCED DRAWING AND MUST NOT BE MODIFIED MANUALY.

REFERENCE DRAWINGS

DRAWING No.	DESCRIPTION

Don Valley Engineering Co. Ltd
SANDALL STONES ROAD KIRK SANDALL DONCASTER
SOUTH YORKSHIRE ENGLAND DN3 1QR
Tel : +44 (0)1302 881188
Fax : +44 (0)1302 881000
Email : enquires@donvalleyeng.com
Web : www.donvalleyeng.com

CLIENT: DON VALLEY GEAR DRIVEN SCREENS		SCALE: 1:15	SHEET SIZE: AO
TITLE: ARRANGEMENT OF SCREEN SIZE DHG 30/77/92.65/II		DRAWN BY: JBW	
		DATE DRAWN: 9/11/2006	
SCR DRAWING NUMBER: DHG 1543	DRAWING NUMBER:	REVISION: C	

THIS DRAWING IS CONFIDENTIAL AND THE COPYRIGHT OF DON VALLEY ENG. Co. Ltd. IT MUST NOT BE COPIED, TRACED OR REPRODUCED IN ANY MATERIAL FORM OR DISCLOSED TO A THIRD PARTY WITHOUT THE WRITTEN CONSENT OF DON VALLEY ENG. Co. Ltd.