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18500 CENTRES OF COLUMNS

17420

550 | 700 | 1050 | 2400 | 1050 | 1050 | 2400 | 1050 | 1050 | 2400 | 1050 | 3220 | 530

SPLICE ITEMS Mkd 11X & 12 — 5 GAP

SPLICE ITEMS Mkd 11 & 12 — 5 GAP

100 x 100 x 8L

50 x 50 x 5L LACING FRONT AND BACK

OUTER BUSBAR STRAIN COLUMN NO5

INNER BUSBAR STRAIN COLUMN NO5

60 | 500 | 60

178 x 54 x 15 CHANNEL

178 x 54 x 15 CHANNEL

SECTION A-A.

200 x 75 PFC AND 90 x 65 x 8L

200 x 75 PFC AND 90 x 65 x 8L

SECTION C-C.

50 x 50 x 5L DIAMOND BRACE Mkd 22 ON BOTH SIDES OF CHANNEL Mkd 9

BEVEL WASHERS REQ'D UNDER BOLT HEAD (INSIDE)

178 x 54 x 15 CHANNEL

SECTION B-B.

FRONT VIEW

50 x 50 x 5L DIAMOND BRACE Mkd 22 ON BOTH SIDES OF CHANNEL Mkd 9

178 x 54 x 15 CHANNEL

178 x 54 x 15 CHANNEL

50 x 50 x 8L LACING TOP AND BOTTOM

60 x 60 x 8L LACING TOP AND BOTTOM

90 x 65 x 8L

200 x 75 PFC

60 | 900 | 60

TOP VIEW

BEAM ASSEMBLY DETAILS

h20

LACING / BRACING SCHEDULE

MARK	NO OFF	SIZE	A	B	C	D	E	F
J1.	2.	50 x 50 x 5.	730.	696.	32.	20.	...	...
J3.	29.	50 x 50 x 5.	697.	743.	32.	20.	...	...
J4.	29.	50 x 50 x 5.	730.	696.	32.	20.	...	...
J5.	18.	50 x 50 x 5.	885.	771.	32.	20.	...	...
J6.	2.	50 x 50 x 5.	730.	696.	32.	20.	...	...
J7.	2.	50 x 50 x 8.	1083	1039	32.	20.	...	...
J8.	29.	50 x 50 x 8.	1149	1085	32.	20.	...	...
J9.	29.	50 x 50 x 8.	1090	995.	32.	20.	...	...
J10.	6.	60 x 60 x 8.	1083	1039	32.	20.	...	...
J11.	6.	60 x 60 x 8.	1083	1039	32.	20.	1.	1.
...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...
...	...	BRACING	...	...	...	...	...	...
J2.	88.	50 x 50 x 5.	960.	896.	32.	20.	730.	...
...	...	...	...	...	...	...	...	...

* DENOTES GROUND TO PANEL CLEAR HEIGHT.

100 x 100 x 8L x 7120 LG

LABEL FIXING HOLE

2 - MAIN ANGLES REQ'D AS DRAWN Mkd 1

h15

100 x 100 x 8L x 7120 LG

LABEL FIXING HOLE

LABEL FIXING HOLE

2 - MAIN ANGLES REQ'D AS DRAWN Mkd 2

h15

100 x 100 x 8L x 4495 LG

LABEL FIXING HOLES

4 - MAIN ANGLES REQ'D AS DRAWN Mkd 3

h15

100 x 100 x 8L x 5795 LG

2 - MAIN ANGLES REQ'D AS DRAWN Mkd 4

h15

100 x 100 x 8L x 5795 LG

LABEL FIXING HOLE

2 - MAIN ANGLES REQ'D AS DRAWN Mkd 5

h15

75 THREAD

90

M16 x 300 LG GRADE 8.8 GALVANIZED U-BOLT WITH 16 NUTS AND 4 WASHERS

100

M16 SHACKLE BOLT - 16 NO OFF REQ'D

h15

178 x 54 x 15 CHANNEL x 974 LG

DIA18 HOLES

4 - ATTACHMENT MEMBERS REQ'D AS DRAWN Mkd 10

h10

178 x 54 x 15 CHANNEL x 974 LG

DIA18 HOLES

30 TYP.

6 - ATTACHMENT MEMBERS REQ'D AS DRAWN Mkd 9

h10

178 x 54 x 15 CHANNEL x 1200 LG

2 - BRACKET REQ'D AS DRAWN AND NOTED Mkd 6

h10

SEAL WELD BOTTOM AND GRIND FLUSH

90 x 65 x 8L x 1180 LG

200 x 75 PARALLEL FLANGE CHANNEL x 1200 LG

2 - BRACKETS REQ'D AS DRAWN Mkd 8

h10

90 x 90 x 8L x 395 LG

4 - SPLICE ANGLES REQ'D AS DRAWN Mkd 11

4 - SPLICE ANGLES REQ'D TO OPP.HAND Mkd 11X

h10

80 x 8 PLT x 355 LG

16 - SPLICE PLATES REQ'D AS DRAWN Mkd 12

h10

BOLT SCHEDULE

SUNDRY ITEMS ... h8

MARK	TYPE	NO OFF	LENGTH
J1.	M16	288	45.
J2.	M16	96.	50.
...	...	...	...
...	...	...	...

M16 NUTS REQ'D WHERE NOTED.

NOTES ON BOLTS:
M16 BOLTS TO BE SUPPLIED with NUT and WASHER.
M16 BOLTS CHECKED with HEAD TO INSIDE FACE(S).
3) WASHER TO BE PLACED UNDER NUT.
4) ALL BOLTS TO BE GALVANIZED.
5) BOLT POSITIONS INDICATED thus: NO OFF/hole eg.4/o
6) TIGHTENING TORQUE = 120 Nm

MASS OF STEELWORK (BOLTS EXCLUDED)

MASS OF STEELWORK (BOLTS EXCLUDED)	..2165 kg
NO. OFF GRADE 8.8 M-BOLTS	16..
NO. OFF GRADE 8.8 BOLTS	192.

NOTES

UNLESS OTHERWISE NOTED :
1) GALVANIZING SHALL BE FOR ONE DIP ONLY.
2) ALL STRUCTURAL STEEL TO BE GRADE 300W.
3) ALL WELDING TO BE AS PER SPECIFICATION TO SABS 163.
4) ALL HOLES TO BE 18 DIAMETER UNO.
5) WORK HOLES AND SITE BOLTS INDICATED thus: + +
6) THE CONTRACTOR SHALL SUPPLY ALL NUTS, BOLTS, WASHERS, ETC. REQUIRED FOR ERECTION.
7) ALL PORTIONS OF WELDED JOINTS, NOT SEALED BY STRUCTURAL WELD, SHALL BE SEAL WELDED.
8) ALL WORK TO BE STAMPED AND SERIALISED AND SHALL BE CLEARLY LEGIBLE AFTER GALVANIZING.
9) ALL WORK TO BE MARKED : ...100.....
10) LIMITATIONS OF CERTIFICATE :
THESE STRUCTURES HAVE BEEN DESIGNED TO SATISFY WINDLOAD FOR THE FOLLOWING LOADING CONDITIONS:
NORMAL CONDITION LOADS OF 20 mm PER PANEL AT +10 DEGREES CENTIGRADE.
ABNORMAL CONDITION LOADS TO BE 10 mm PER PANEL AT 20 DEGREES CENTIGRADE.
WINDLOADS RESULTING FROM A FREE STREAM VELOCITY PRESSURE EQUIVALENT TO 1000 Pa AS DEFINED IN CLAUSE 4.5.3 OF SABS 0160-1989. THIS DESIGN PRESSURE IS APPLICABLE FOR TERRAIN CATEGORY 2 LOCATIONS THROUGHOUT SOUTH AFRICA, WITH THE EXCEPTION OF THE AREA BOUNDED BY THE TOWNS OF SPRINGBOK, NIEUWOUDTVILLE, CALVINIA AND LOXTONIA INCLUSIVE. WHERE THESE STRUCTURES ARE TO BE ERECTED WITHIN THIS AREA, OR ANYWHERE WITHIN 50km INLAND OF A TERRAIN CATEGORY 1 LOCATION (i.e. IN A SEVERELY EXPOSED LOCATION) APPROVAL TO USE THESE STRUCTURES MUST BE OBTAINED FROM ESKOM'S CIVIL ENGINEERING DIVISION.
CYCLONIC-CYCLONIC LOADS ARE TO PANEL-TO-PANEL AND PANEL-TO-EARTH FACES.

REV	AUTH SIG	DATE DATUM	REVISION/PRINCIPLES	BY SIGN	CHKD SIGN'S	REFERENCE DRAWINGS VERIFIED/ACCEPTANCE
2	GS.	96/09	ADDITIONAL BRACING ADDED	GS.	GS.	
1	GS.	96/08	ADDITIONAL BRACING ADDED	GS.	GS.	
0			FIRST ISSUE / EERSTE UITREIKING			

DRAWN: G.S. 96/08/12
CHKD: G.S. 96/08/12
SCALE: NS.SHOWN

ESKOM

275 kv YARD STEELWORK

ASSEMBLY DETAILS OF BUSBAR STRAIN GANTRY

DRG. NO.: 0-54/3909.. REV: .2

THIS DRAWING HAS BEEN CREATED ON A CAD SYSTEM. ANY AMENDMENT MUST BE EFFECTED ON THE SAME SYSTEM. CAD REFERENCE No: 003_160\03909000-002.1.

SIZE: UNDEFINED