

**ISEBE LEMFUNDO LEMPUMA KOLONI
EASTERN CAPE EDUCATION DEPARTMENT
OOS-KAAP ONDERWYSDEPARTEMENT**

NATIONAL SENIOR CERTIFICATE

GRADE 11

ENGINEERING GRAPHICS AND DESIGN P2

NOVEMBER 2022

**FINAL EXAMINATION
MARKING GUIDELINE**

MARKS: 200

TIME: 3 hours

This marking guideline consists of 6 pages.

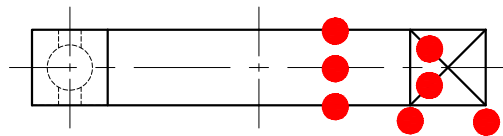
Copyright reserved

QUESTION 1: ANALYTICAL (MECHANICAL)

ANSWERS		
1	HONING DEVICE	1
2	SHOP 11	1
3	hd207b.dwg	1
4	2021/03/15	1
5	NAIKER	1
6	FAKU	1
7	AUTOCAD 2021	1
8	10	1
9	$11\ 000 \times 2 = 22\ 000$	2
10	2	1
11	TOP VIEW	1
12	LEFT VIEW	1
13	8 cm	2
14	TO KEEP THE KNOB IN PLACE	2
15	DIAMOND KNURLING	1
16	$26 - R7 - 13 = 6$	1
	120°	1
	$24 - (R5 \times 2) = 14$ OR $34 - (\varnothing 10 \times 2)$	1
	$\varnothing 14$	1
	$M6 - (M6 \times 0.1 \times 2) = \varnothing 4.8$	2
17		4
18		4
		32

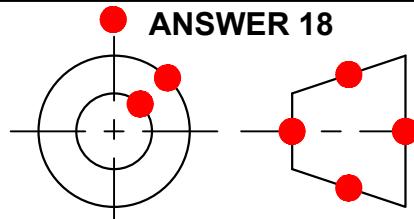
ANSWER 17

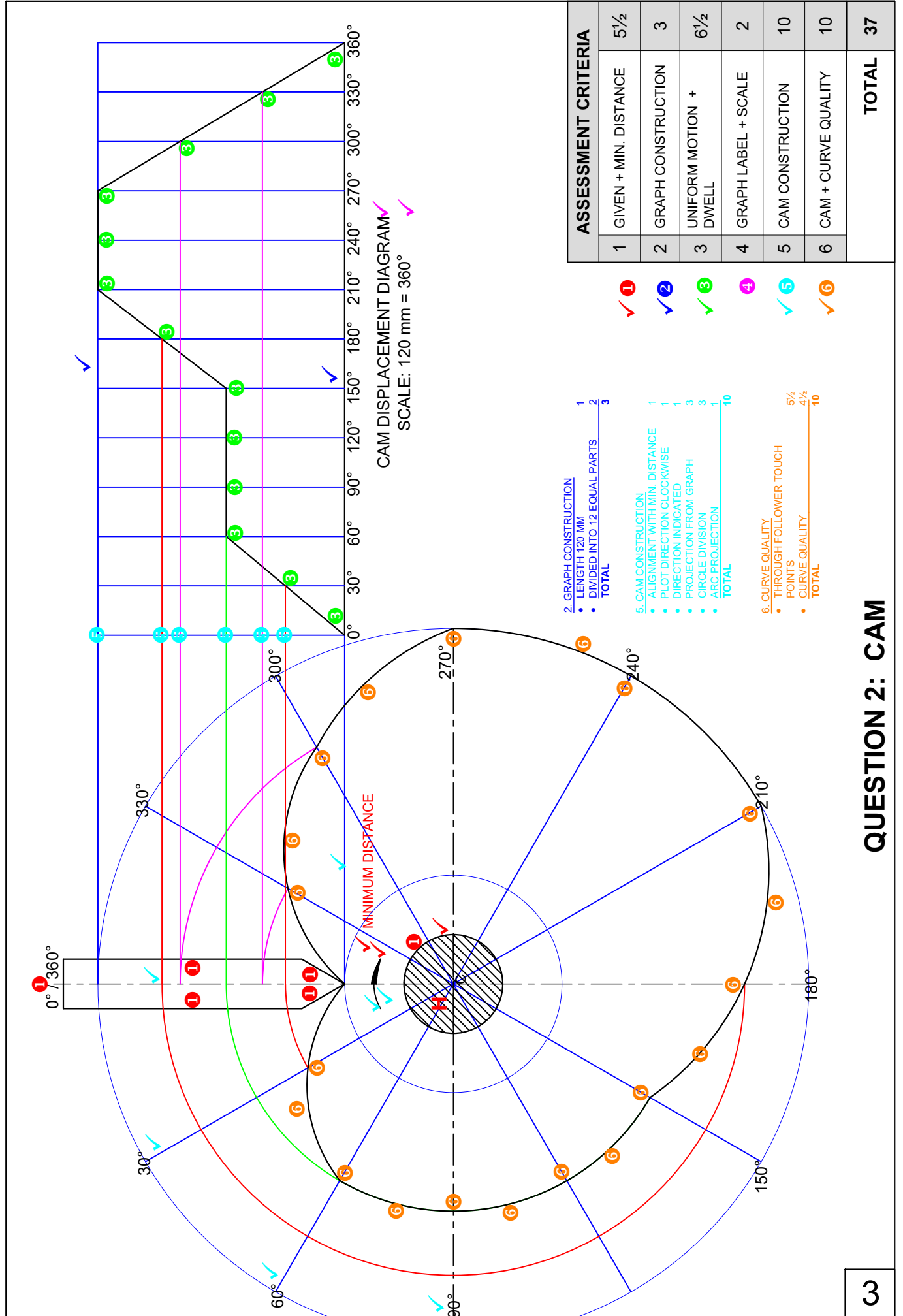
FH ●



ANSWER 18

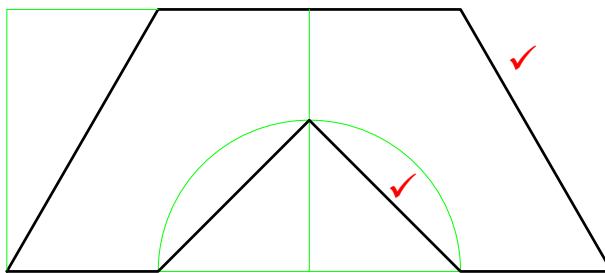
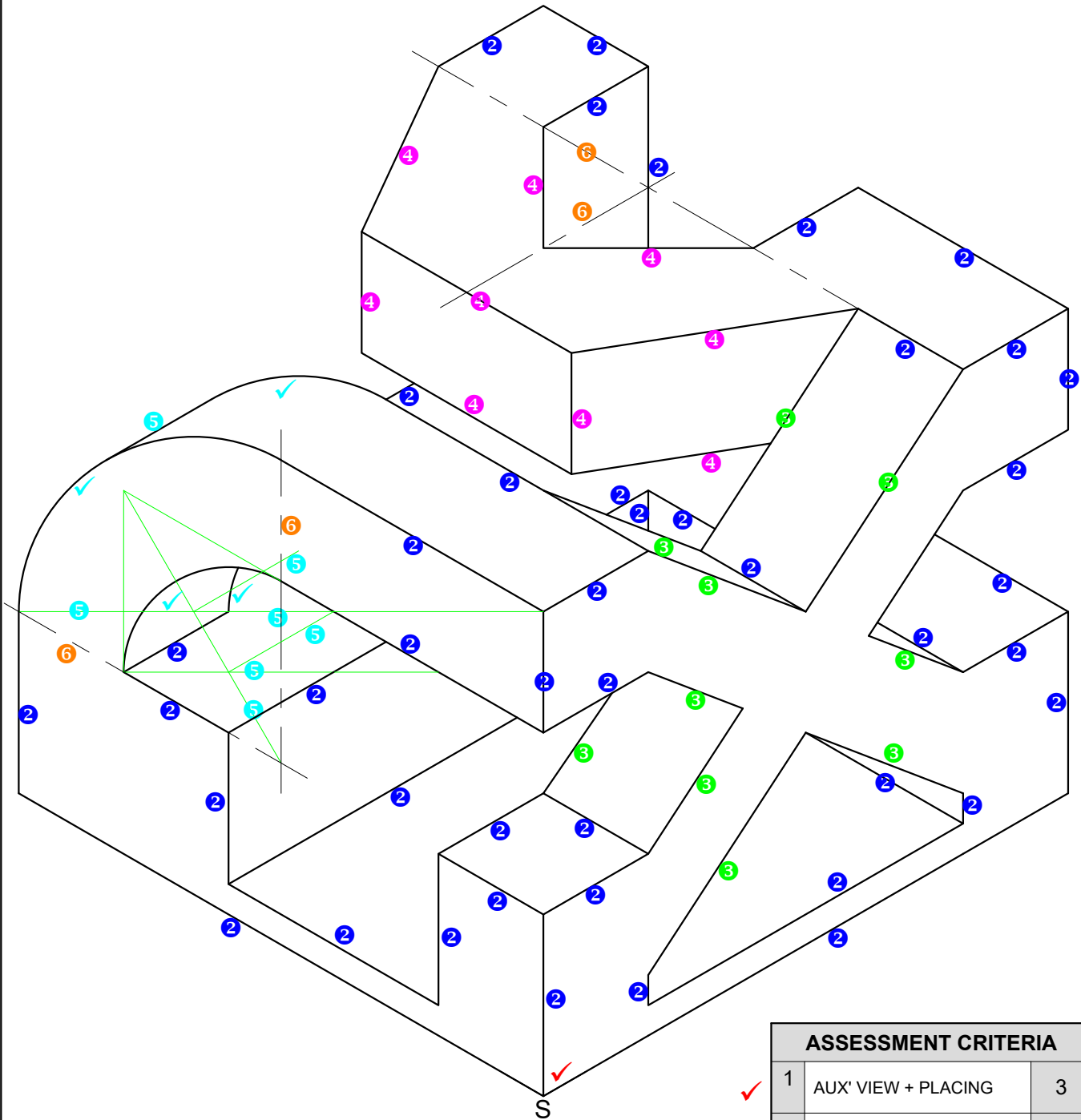
FH ●





QUESTION 2: CAM

QUESTION 3: ISOMETRIC



ASSESSMENT CRITERIA		
✓ 1	AUX' VIEW + PLACING	3
2	ISOMETRIC LINES	22
3	NON-ISOMETRIC LINES	5
4	HEXAGON + SQUARE	4½
5	CIRCLE + CIRCLE CONST.	7½
6	CENTRE LINES	2
TOTAL		44

4

QUESTION 4: MECHANICAL ASSEMBLY LEFTVIEW

ASSESSMENT CRITERIA		
LEFT VIEW		
1	BASE	3
2	BRACES	3
3	PULLEYS	1½
4	AXLES	1
5	AXLE HOLDERS	3½
6	M20 BOLTS AND WASHER	7
7	M8 SCREWS	5
TOTAL		24

1

2

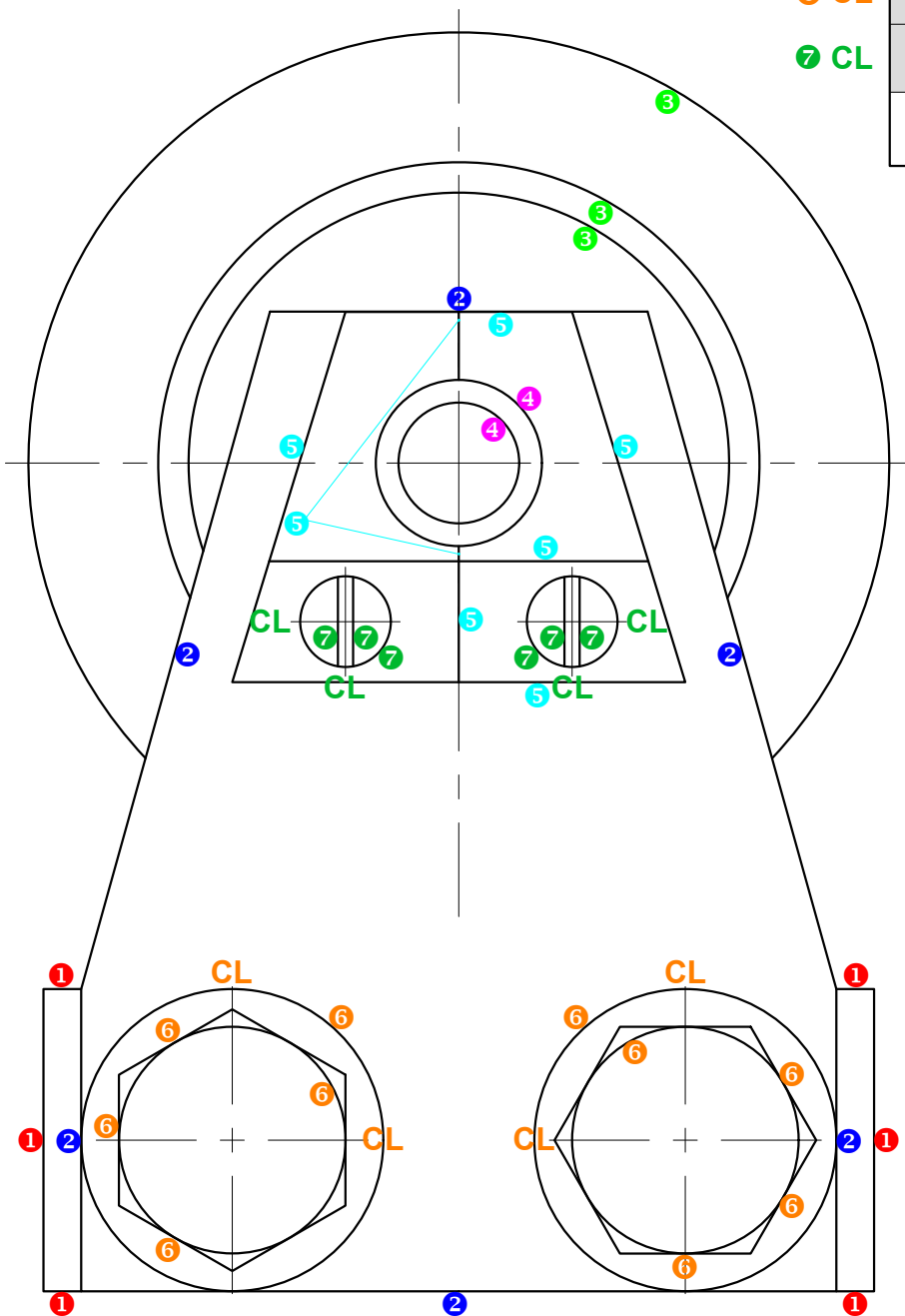
3

4

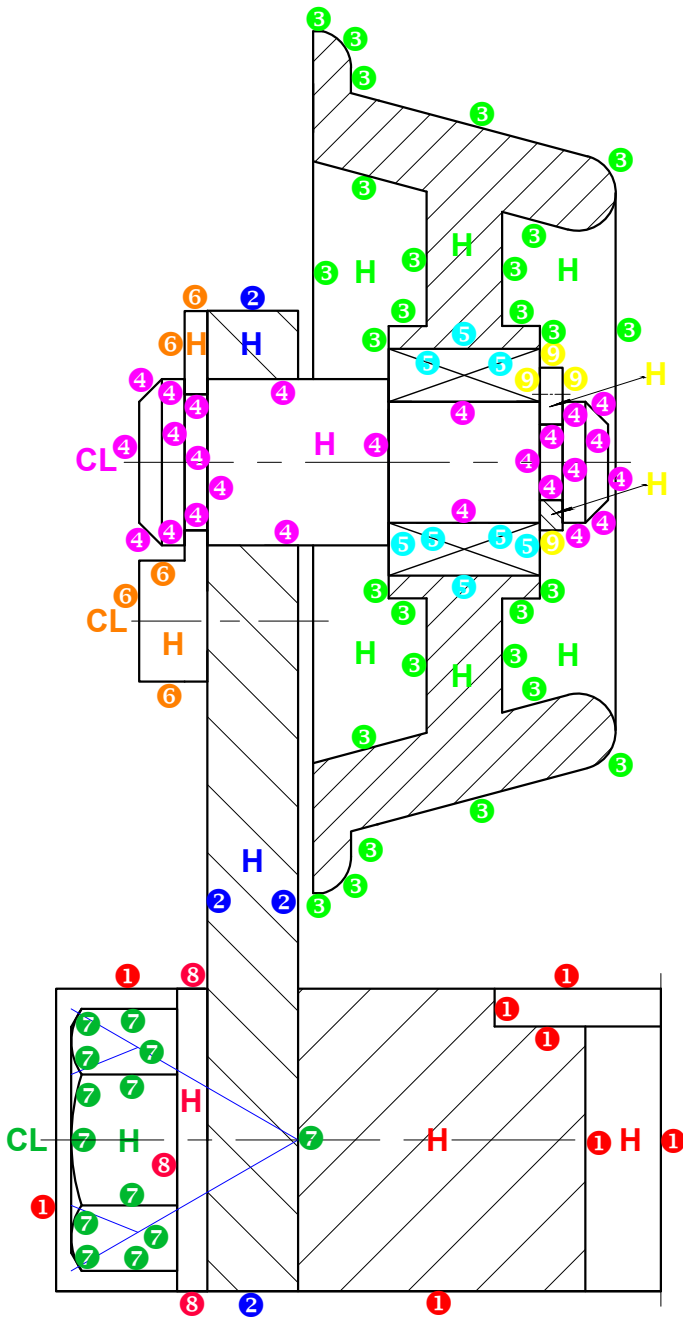
5

6 CL

7 CL



QUESTION 4: MECHANICAL ASSEMBLY LEFTSIDE OF THE HALF SECTIONAL FRONTVIEW



- ① H
- ② H
- ③ H
- ④ HCL
- ⑤
- ⑥ HCL
- ⑦ HCL
- ⑧ H
- ⑨ H

ASSESSMENT CRITERIA		
HALF SECTIONAL FRONT VIEW		
1	BASE	5
2	BRACES	3
3	PULLEYS	17
4	AXLES	13½
5	ROLLER BEARING	4
6	AXLE HOLDERS	4
7	M20 BOLT	7½
8	M20 WASHER	2
9	CIRCLIP	3
10	ASSEMBLY	4
TOTAL		63

6