

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

**NATIONAL  
SENIOR CERTIFICATE**

**GRADE 12**

**ENGINEERING GRAPHICS AND DESIGN P2**

**SEPTEMBER 2015**

**MEMORANDUM**

**MARKS: 200**

**TIME: 3 hours**

**This memorandum consists of 6 pages.**

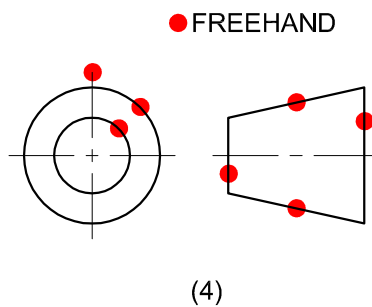
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ANSWERS		
1	30/07/14	1
2	CENTAUR	1
3	CAD	1
4	3	1
5	0.25	1
6	1:2	1
7	6	1
8	S-BREAK	1
9	BLIND TAPPED HOLE	1
10	WEB / RIB	1
11	HALF SECTION	1
12	A) 104 ✓ B) Ø42 ✓ C) 14,4 ✓✓	4
13	GRUB SCREW	1
14	1	1
15		3
16		4
17		3
	<b>TOTAL</b>	<b>27</b>

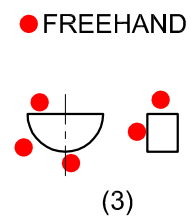
ANSWER 15

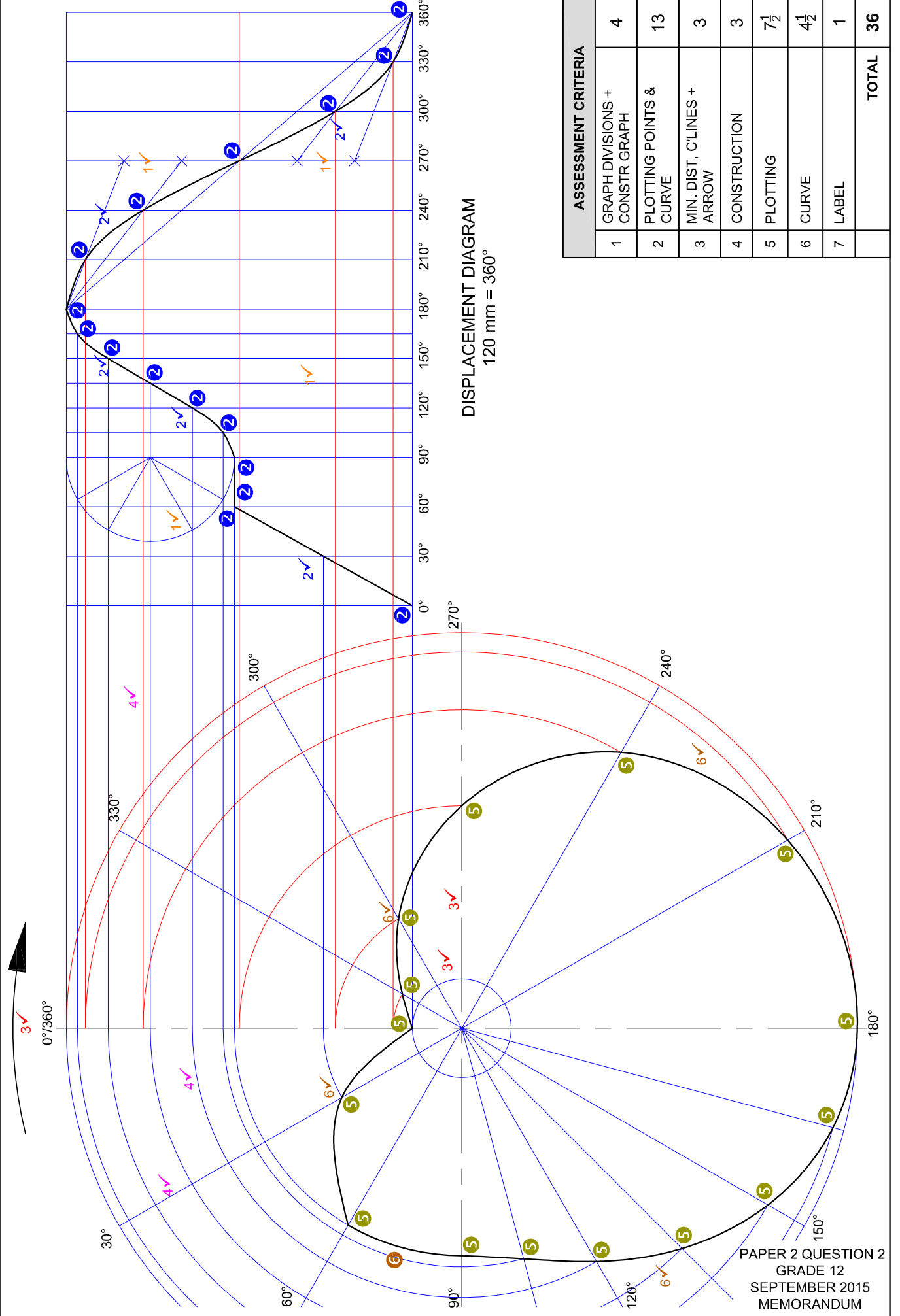


ANSWER 16



ANSWER 17

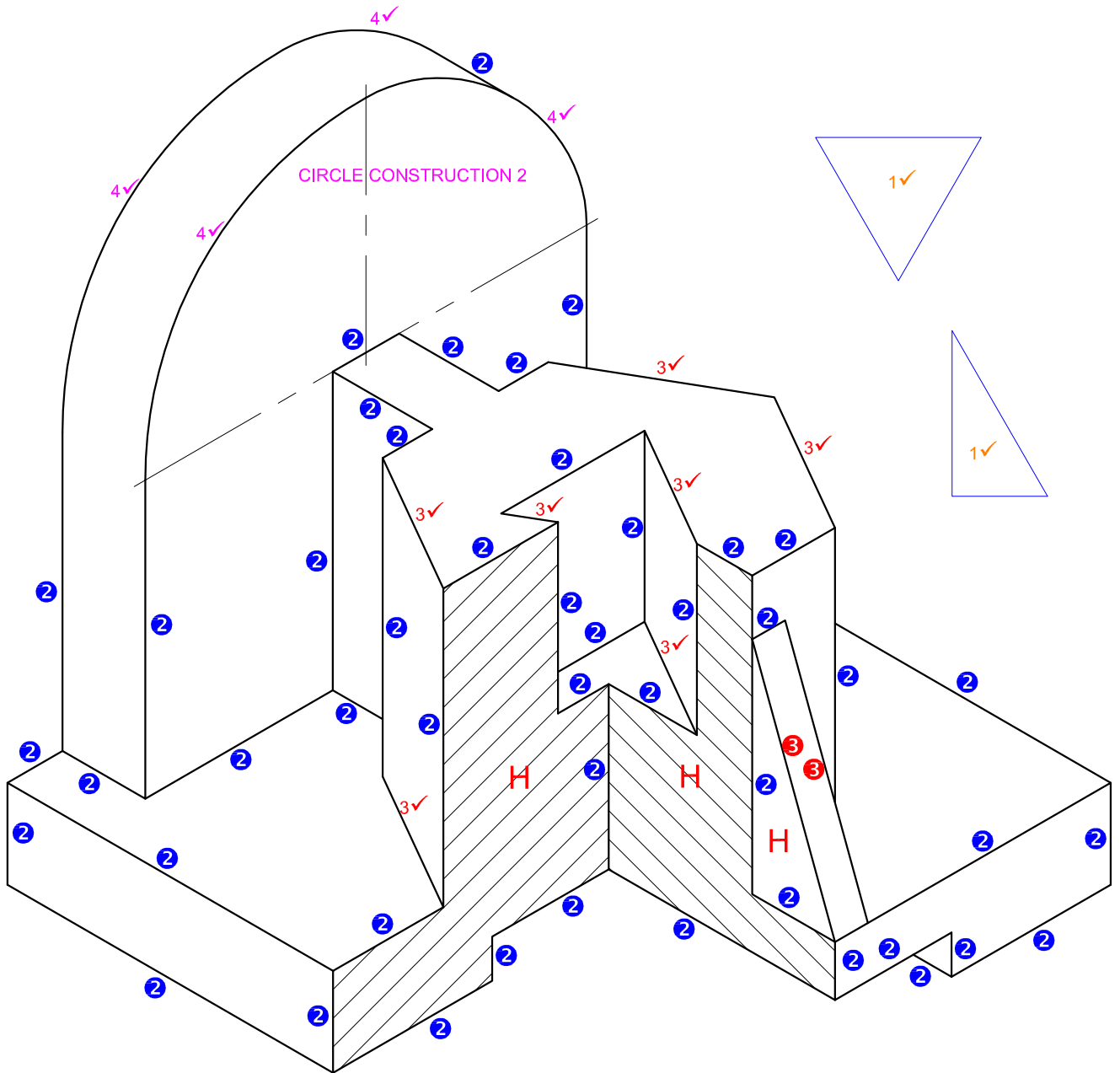




ASSESSMENT CRITERIA	
1	GRAPH DIVISIONS + CONSTR GRAPH
2	PLOTTING POINTS & CURVE
3	MIN. DIST. C'LINES + ARROW
4	CONSTRUCTION
5	PLOTTING
6	CURVE
7	LABEL
	<b>TOTAL</b>

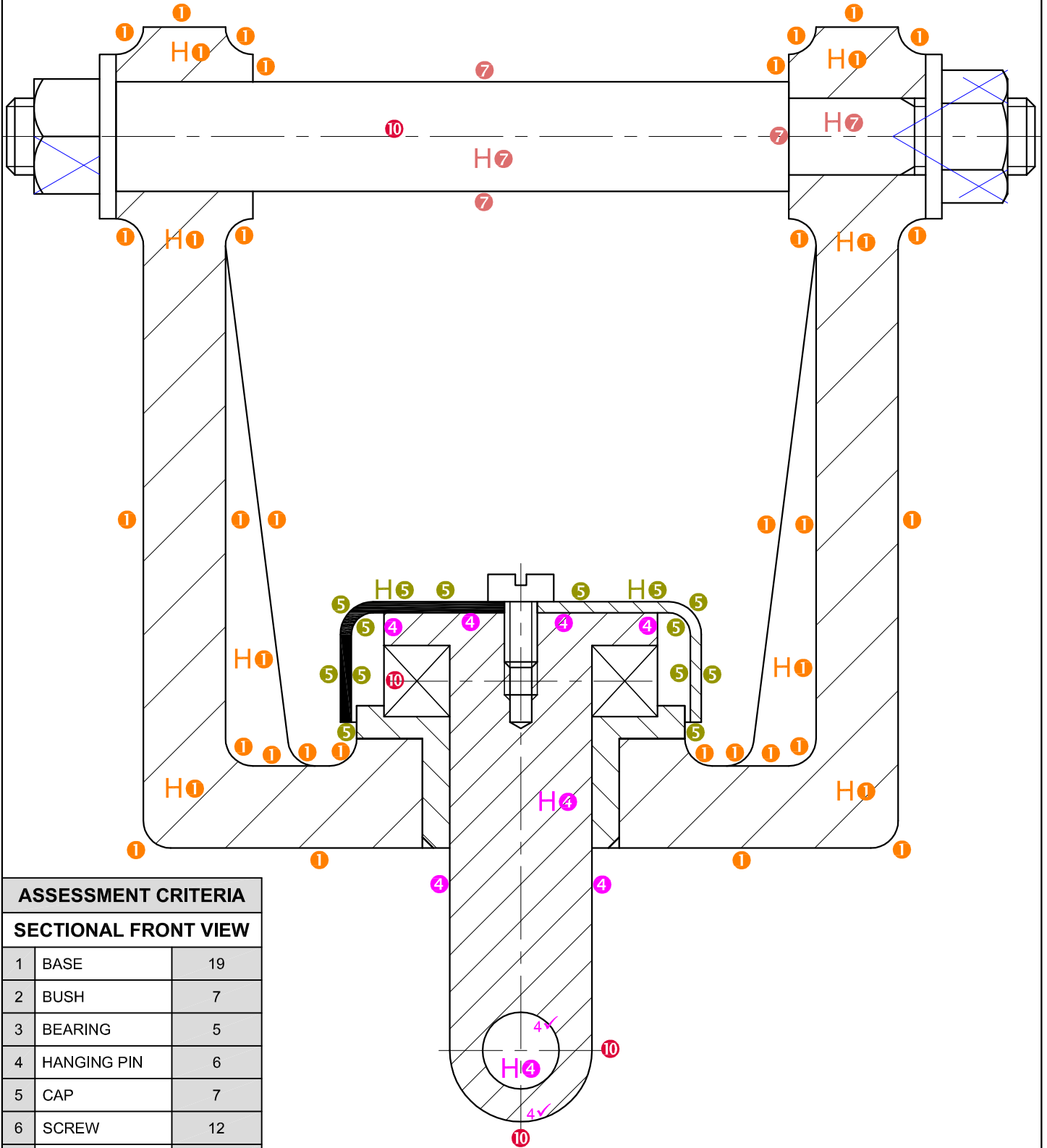
4
13
3
3
7½
4½
1
<b>36</b>

PAPER 2 QUESTION 2  
 GRADE 12  
 SEPTEMBER 2015  
 MEMORANDUM



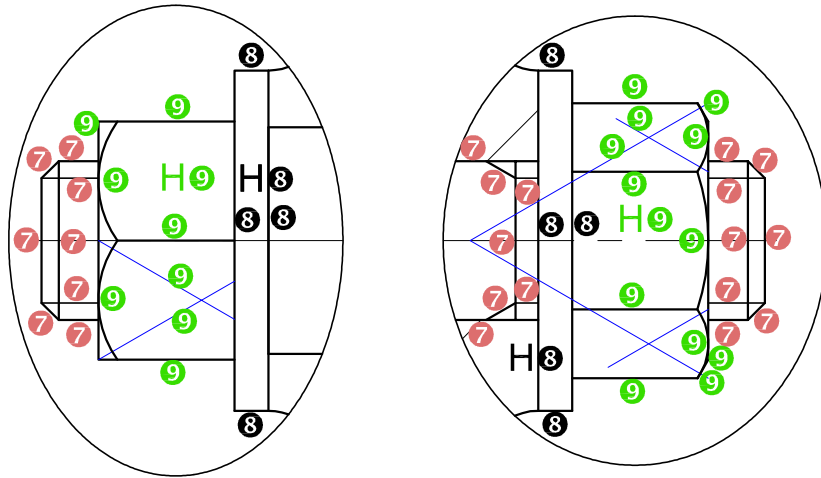
ASSESSMENT CRITERIA		
1	AUX' VIEWS + PLACING	3
2	ISO' LINES	24
3	NON ISO' LINES	8
4	CIRCLE + CONSTR	6
H	SECTIONING	3
<b>TOTAL</b>		<b>44</b>

PAPER 2 QUESTION 3  
 GRADE 12  
 SEPTEMBER 2015  
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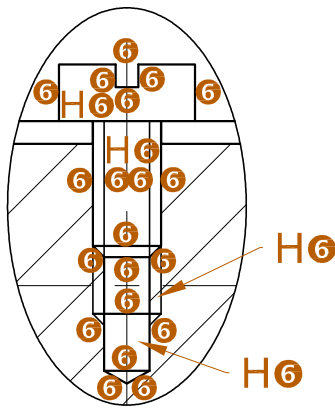
ASSESSMENT CRITERIA		
SECTIONAL FRONT VIEW		
1	BASE	19
2	BUSH	7
3	BEARING	5
4	HANGING PIN	6
5	CAP	7
6	SCREW	12
7	SHAFT	14
8	WASHERS	5
9	NUTS	11
10	CENTRELINES	2
	ASSEMBLY	5
<b>TOTAL</b>		<b>93</b>

PAPER 2 QUESTION 4  
 GRADE 12  
 SEPTEMBER 2015  
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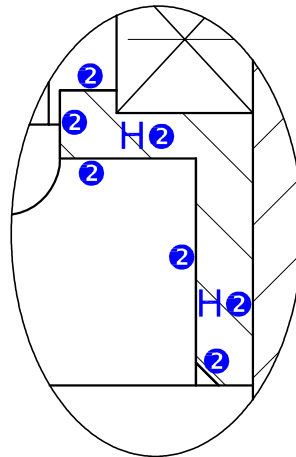


ASSESSMENT CRITERIA		
SECTIONAL FRONT VIEW		
1	BASE	19
2	BUSH	7
3	BEARING	5
4	HANGING PIN	6
5	CAP	7
6	SCREW	12
7	SHAFT	14
8	WASHERS	5
9	NUTS	11
10	CENTRELINES	2
ASSEMBLY		5
<b>TOTAL</b>		<b>93</b>

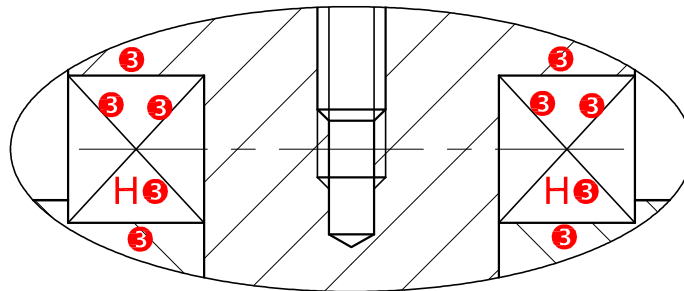
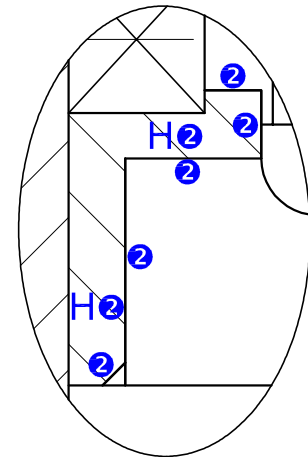
LEFT AND RIGHT NUTS WITH WASHERS AND SHAFT ENDS



SCREW



BUSH



BEARING