



basic education

Department:
Basic Education
REPUBLIC OF SOUTH AFRICA

**NATIONAL
SENIOR CERTIFICATE**

GRADE 12

ENGINEERING GRAPHICS AND DESIGN P2

NOVEMBER 2011

MEMORANDUM

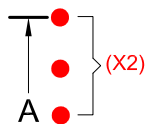
MARKS: 100

This memorandum consists of 6 pages.

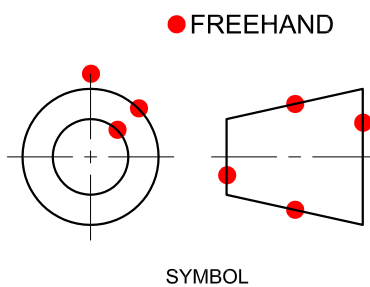
ANSWERS		
1	2011/07/24	½
2	A MOKOENA	½
3	SCALE 1 : 2	½
4	N BOOTH	½
5	3	½
6	REMOVE WASHER	½
7	4	1
8	0,8	1
9	THREAD/SCREW THREAD	1
10	THREADED PIN	1
11	CIRCLE/CYLINDRICAL	1
12	FULL SECTION/REMOVED SECTION	1
13	M73	1
14	8	1
15	RIGHT VIEW	1
16	A. A/F97 B. A/F79 C. 16 D. 30 E. Ø50	5
17		3
18		2
19		4
20		4

TOTAL: 30

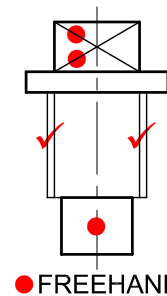
ANSWER 17



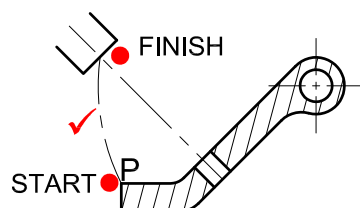
ANSWER 19



ANSWER 20

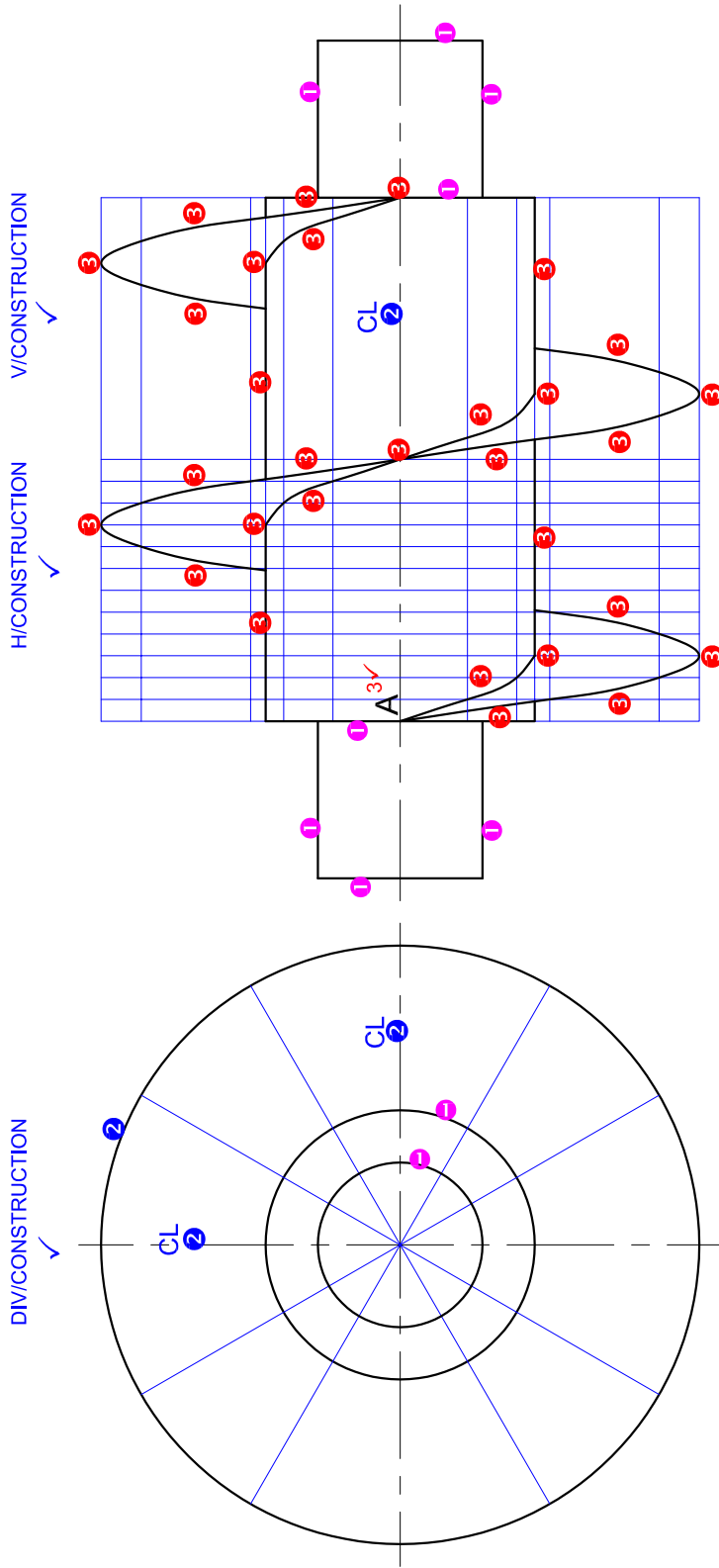


ANSWER 18



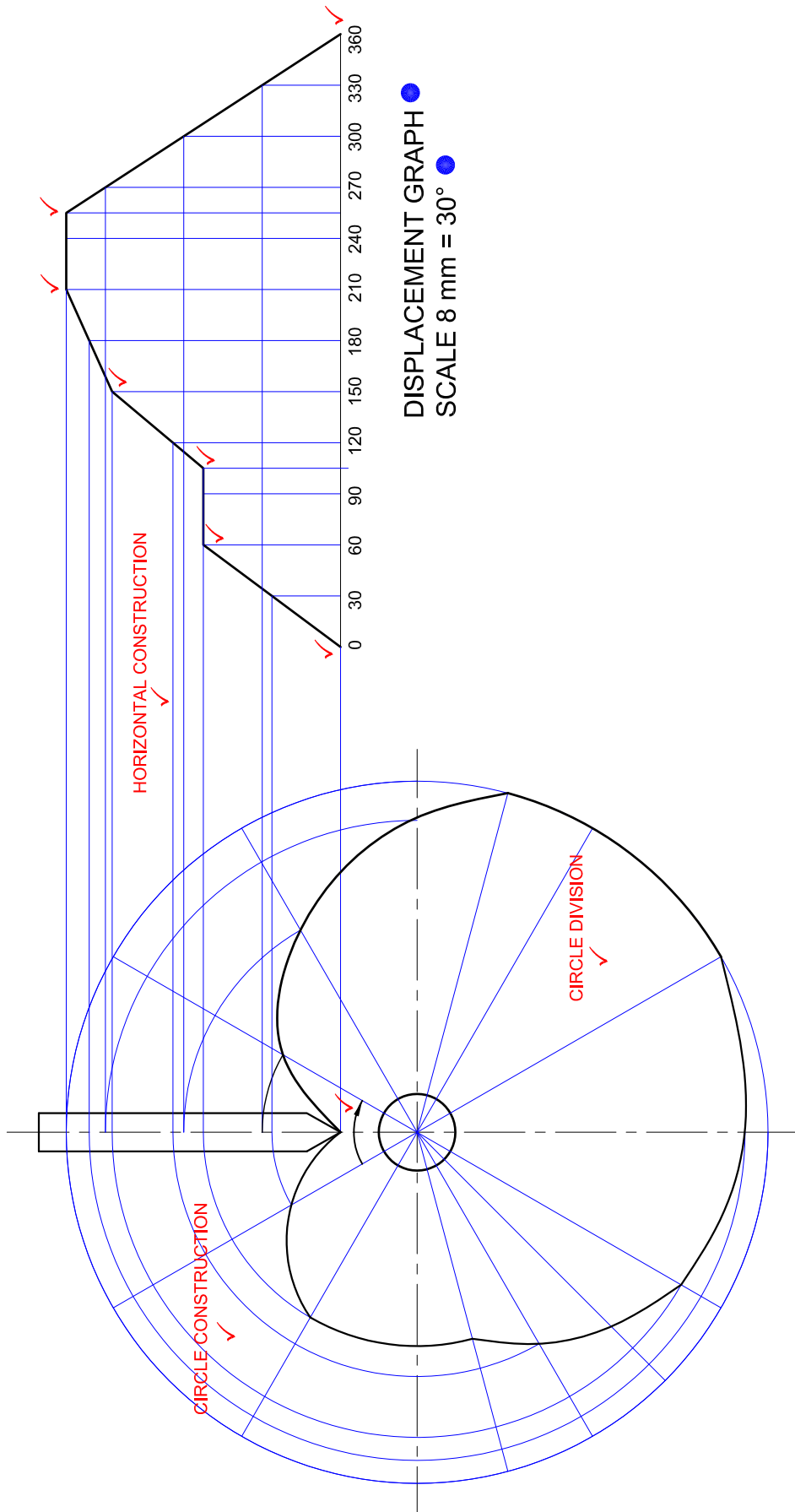
PAPER 2 QUESTION 1
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RIGHT-HAND TURN ✓
3

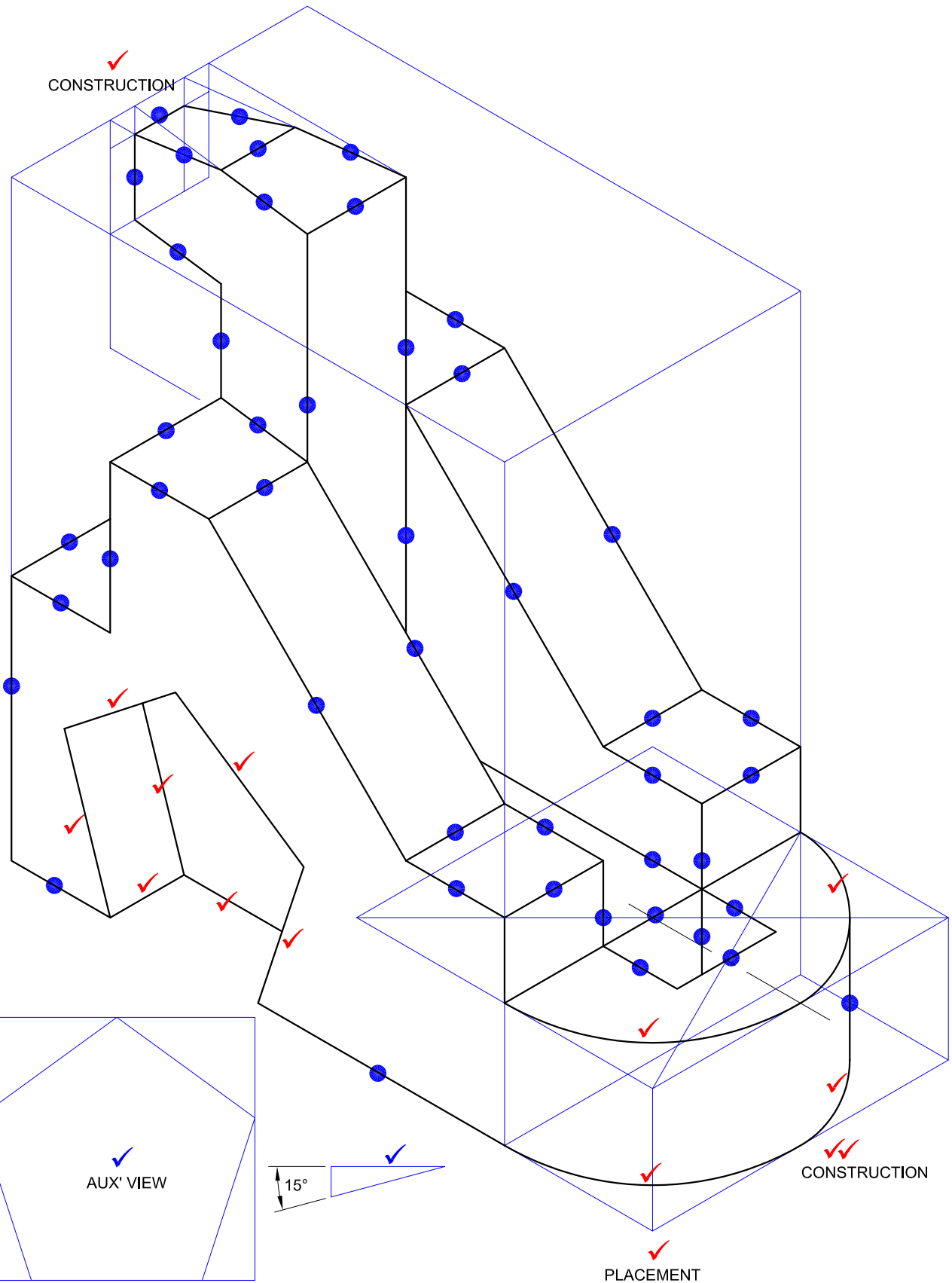


ASSESSMENT CRITERIA	
1. GIVEN	5
2. CENTRE LINES + CONSTR'	5
3. HELIX/AUGER	17
SUBTOTAL	27

PAPER 2 QUESTION 2.1
GRADE 12
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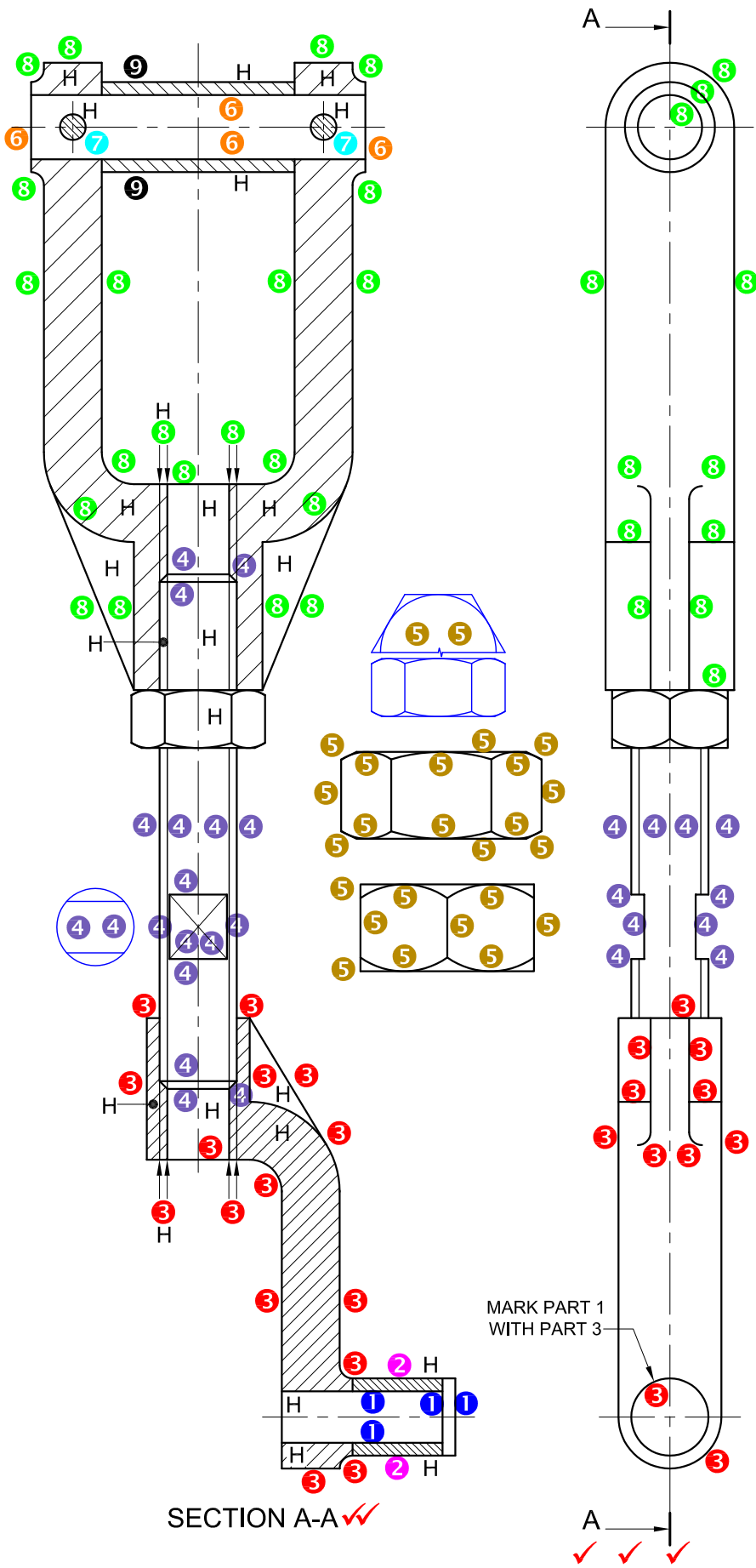


ASSESSMENT CRITERIA	
DISPLACEMENT GRAPH	7
CONSTRUCTION	3
LABELS + ARROW	2
SUBTOTAL	12
TOTAL	39



ASSESSMENT CRITERIA	
AUXILIARY VIEWS + CIRCLE CONSTRUCTION + PLACE	6
ISO' ARCS + PENTAGONAL HOLE	11
ISO' + NON-ISO' LINES	23
TOTAL	40

PAPER 2 QUESTION 3
 GRADE 12
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SECTIONAL FRONT VIEW

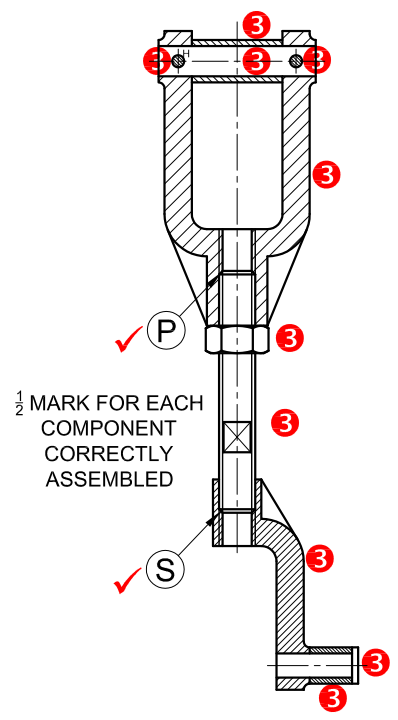
1	SHAFT A	2
2	BUSH A	1
3	OFFSET ARM	7½
4	TIE ROD	9
5	M12 NUT	8
6	SHAFT B	2
7	DOWEL	1
8	FORK	10½
9	BUSH B	1
H	HATCHING	12
SUBTOTAL		54

RIGHT VIEW

3	OFFSET ARM	5½
4	TIE ROD	5
5	M12 NUT	4½
8	FORK	6
SUBTOTAL		21

GENERAL

1	CENTRE LINES	4
2	CUTTING PLANE + TITLE	5
3	ASSEMBLY	7
SUBTOTAL		16
TOTAL		91



½ MARK FOR EACH COMPONENT CORRECTLY ASSEMBLED

MARK PART 1 WITH PART 3

SECTION A-A ✓✓

A ✓ ✓ ✓