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basic education

Department:
Basic Education
REPUBLIC OF SOUTH AFRICA

SENIORSERTIFIKAAT-EKSAMEN/ NASIONALE SENIORSERTIFIKAAT-EKSAMEN

INGENIEURSGRAFIKA EN -ONTWERP V2

2021

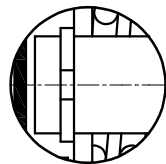
NASIENRIGLYNE

PUNTE: 100

Hierdie nasienriglyne betaan ut 7 bladsye.

ANTWOORDE		
1	AGTERONTSPOORDER-SAMESTELLING	1
2	SPOEDSTRAAT	1
3	3	1
4	MAFIKA	1
5	VBJW031	1
6	DEURSNEE-REGTERAANSIG	2
7	<i>Sien hieronder</i>	1
8	3	1
9	B: R5 C: 16 D: 20 E: 98	4
10	135°	1
11	17	1
12	KARTELING	1
13	OORKANTS	1
14	GEWENTELDE SNIT	1
15	<i>Sien hieronder</i>	3
16	GERIGTE SNIT	1
17	1.64	2
18	<i>Sien hieronder</i>	3
19		3
TOTAL		30

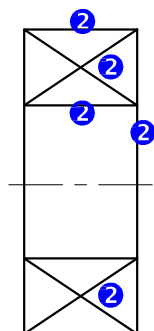
ANTWOORD 7



DETAIL Z

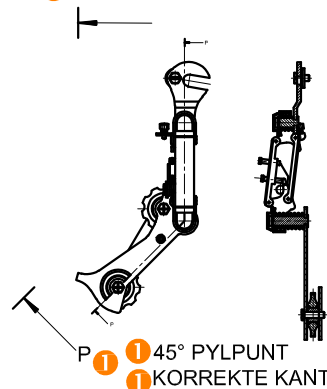
ANTWOORD 18

② VRYHAND



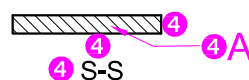
ANTWOORD 15

① 0° PYLPUNT
① KORREKTE KANT

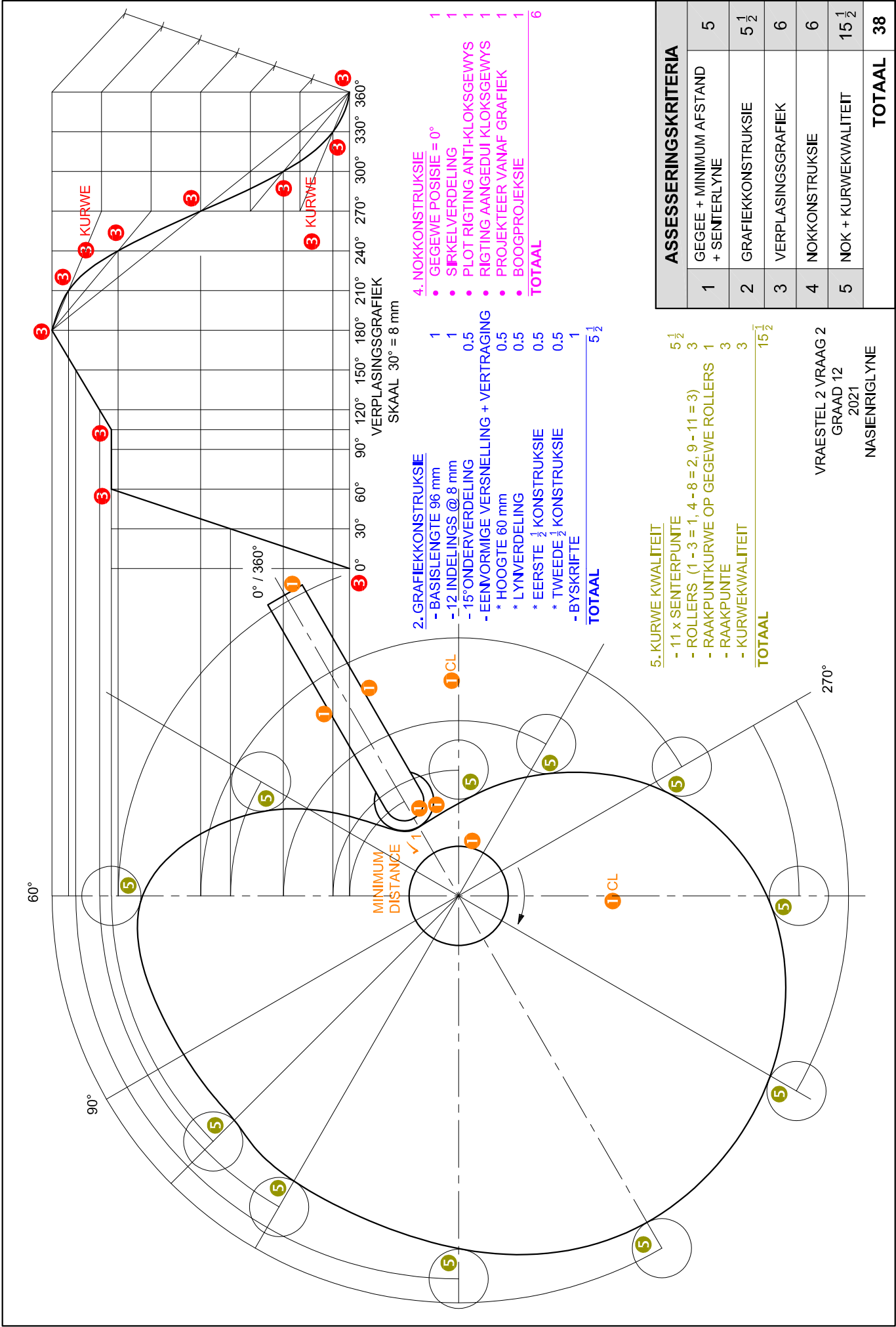


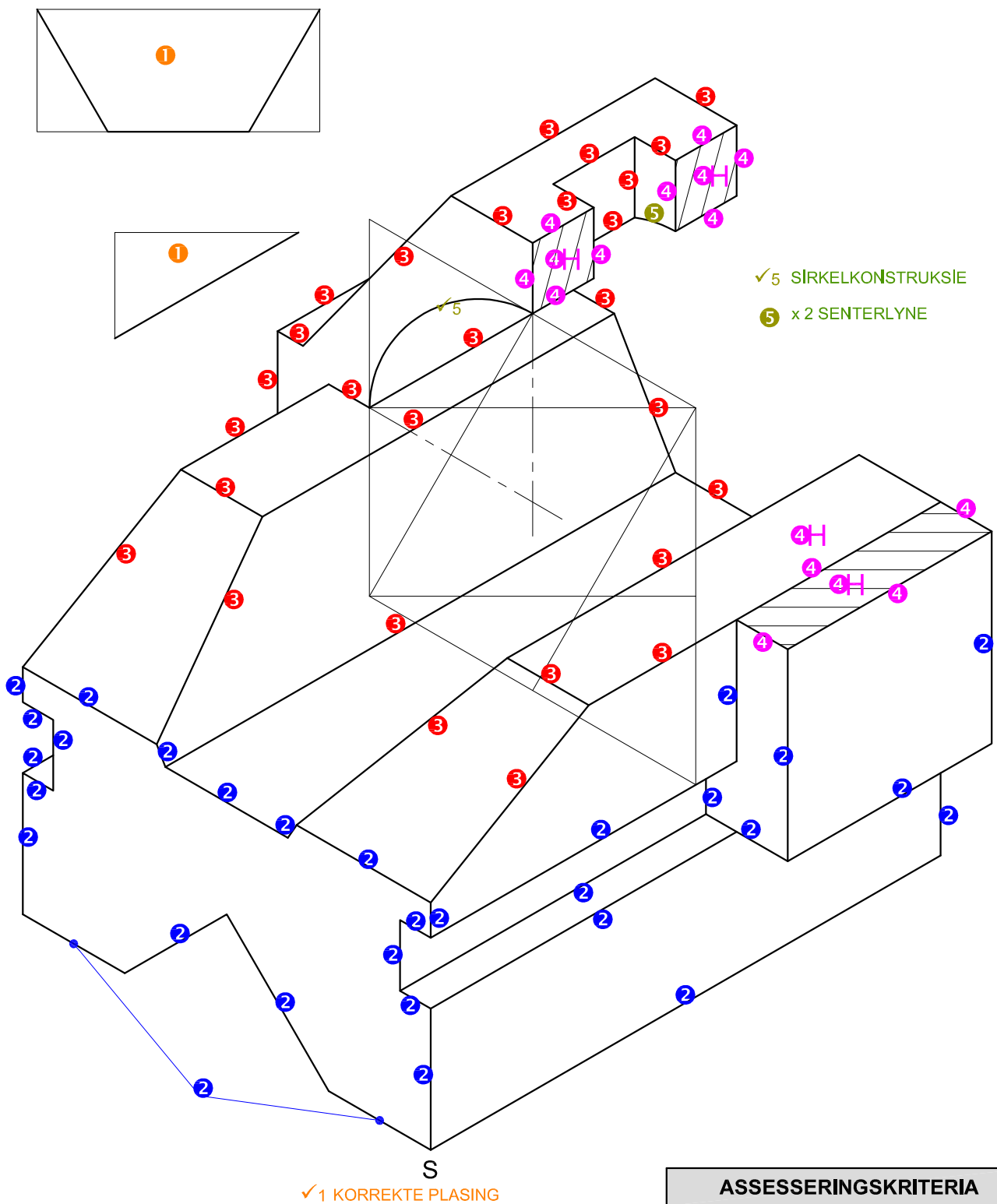
ANTWOORD 19

④ VRYHAND
④ VERHOUDING



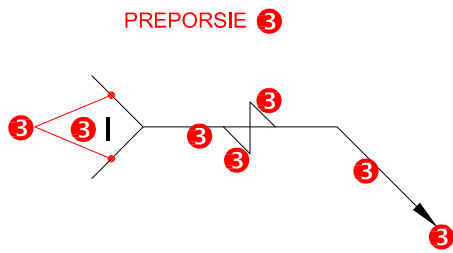
VRAESTEL 2 VRAAG 1
GRAAD 12
2021
NASIENRIGLYNE



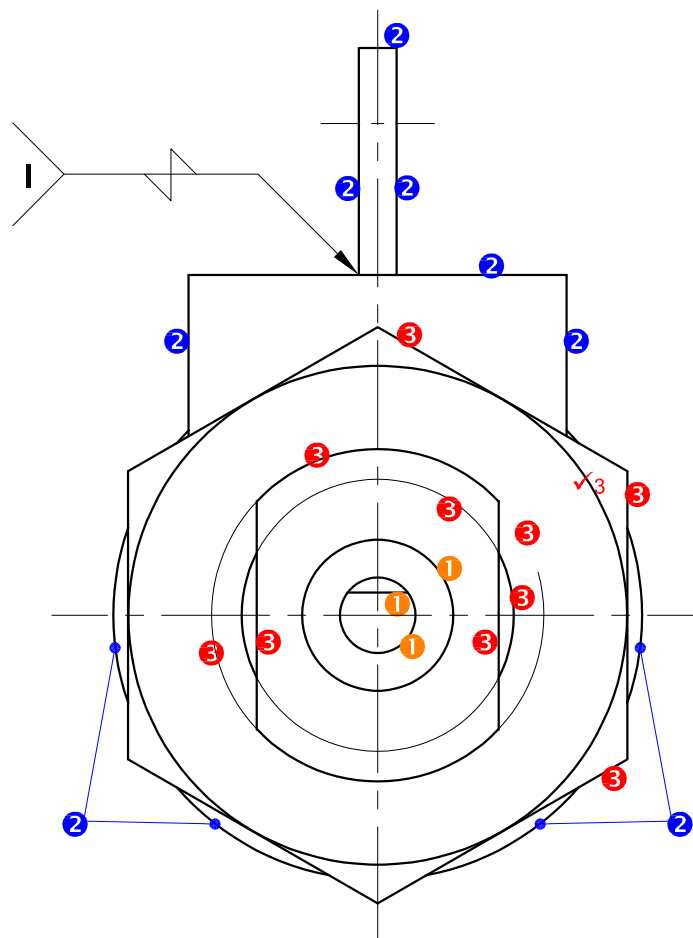


VRAESTEL 2 VRAAG 3
GRAAD 12
2021
NASIENRIGLYNE

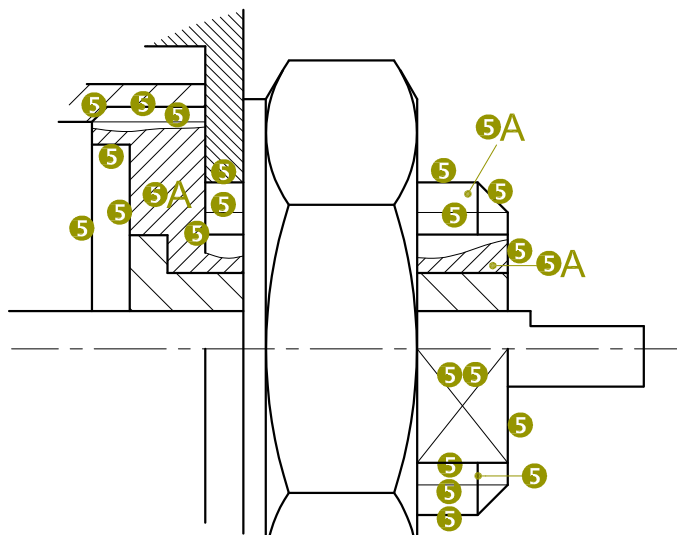
ASSESSERINGSKRITERIA		
1	HULPAANSIG + PLASING	2
2	ONDERSTE GEDEELTE	15
3	BOONSTE GEDEELTE	14
4	SNIT	8
5	ISO-SIRKELS + SIRKEL-KONSTR' + SENTERLYNE	3
TOTAAL		42



REGTERAANSIG		
		POSSIBLE
1	AS + BUS	1 $\frac{1}{2}$
2	SILINDER + KLAMP + HAAK	4
3	M44-MOER + GIDS	6
SUBTOTAAL		11 $\frac{1}{2}$



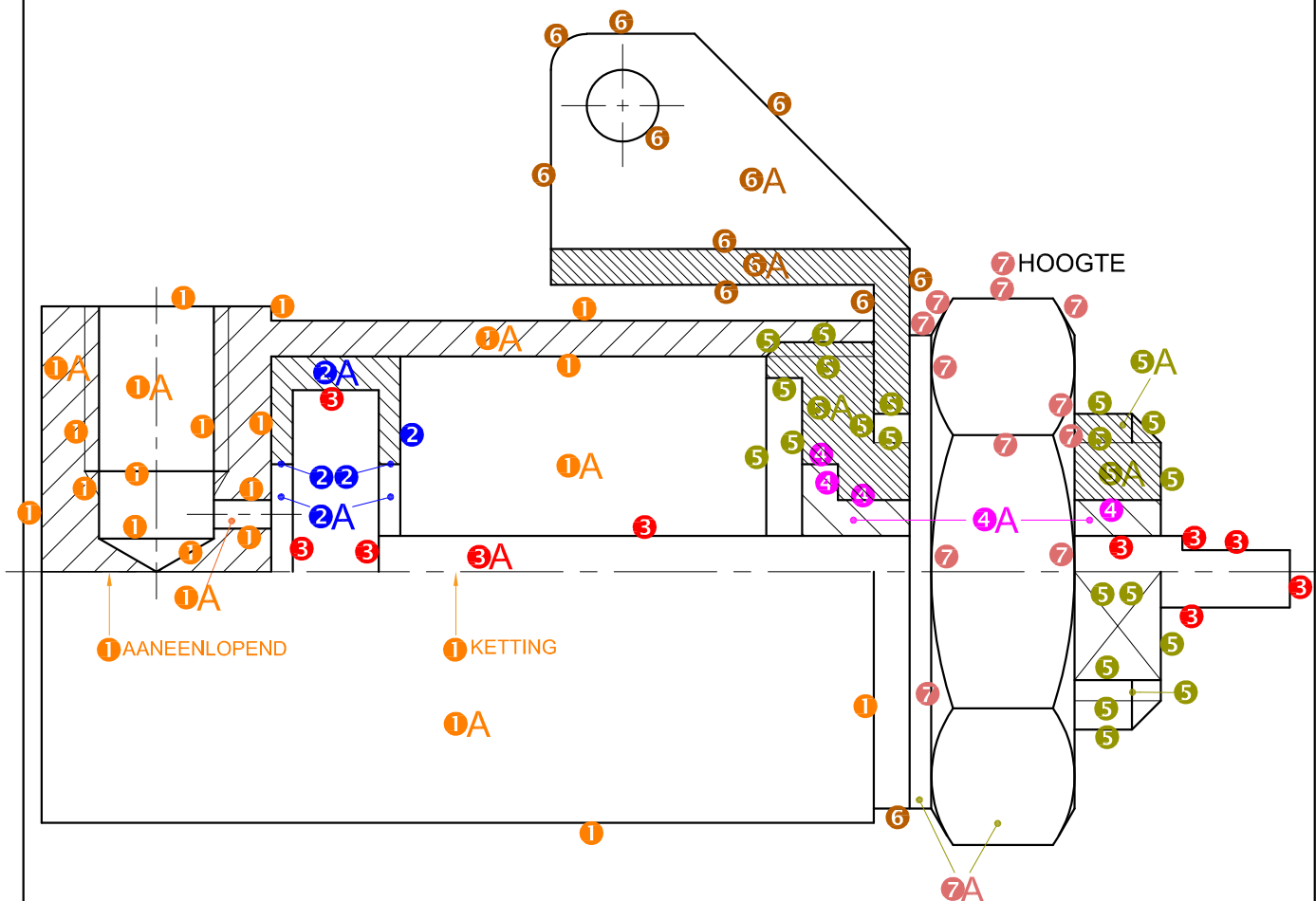
VRAESTEL 2 VRAAG 4
 GRAAD 12
 2021
 NASIENRIGLYNE



ALTERNATEWE ANTWOORD
MET GEDEELTELIKE SNIT

HALFDEURSNEE- VOORAANSIG

1	SILINDER	12
2	RUBBERSEËL	$2\frac{1}{2}$
3	PLUNJER	5
4	BUS	$2\frac{1}{2}$
5	GIDS	$11\frac{1}{2}$
6	KLAMP + HAAK	6
7	M44-MOER + WASTER	$6\frac{1}{2}$
SUBTOTAAL		46



VRAESTEL 2 VRAAG 4
GRAAD 12
2021
NASIENRIGLYNE

1. SENTERLYN PUNTTOEKENING

VOLDOEN AAN SANS (LYNTIPE)

7 SENTERLYNE (1 - 2 = 0, 3 - 5 = 1, 6 - 7 = 2)

TOTAAL

1

2

3

2. SAMESTELLING

1 PUNT VIR ELKE ONDERDEEL

KORREK SAAMGESTEL

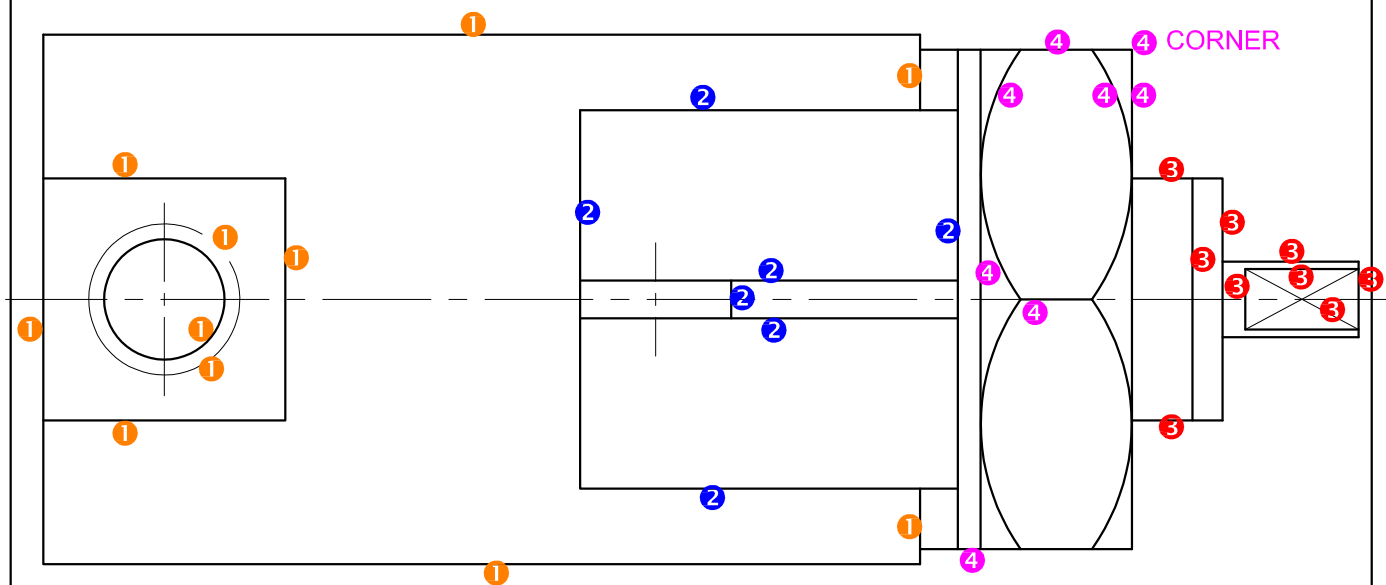
(9 ONDERDELE -1) = 8

BOAANSIG

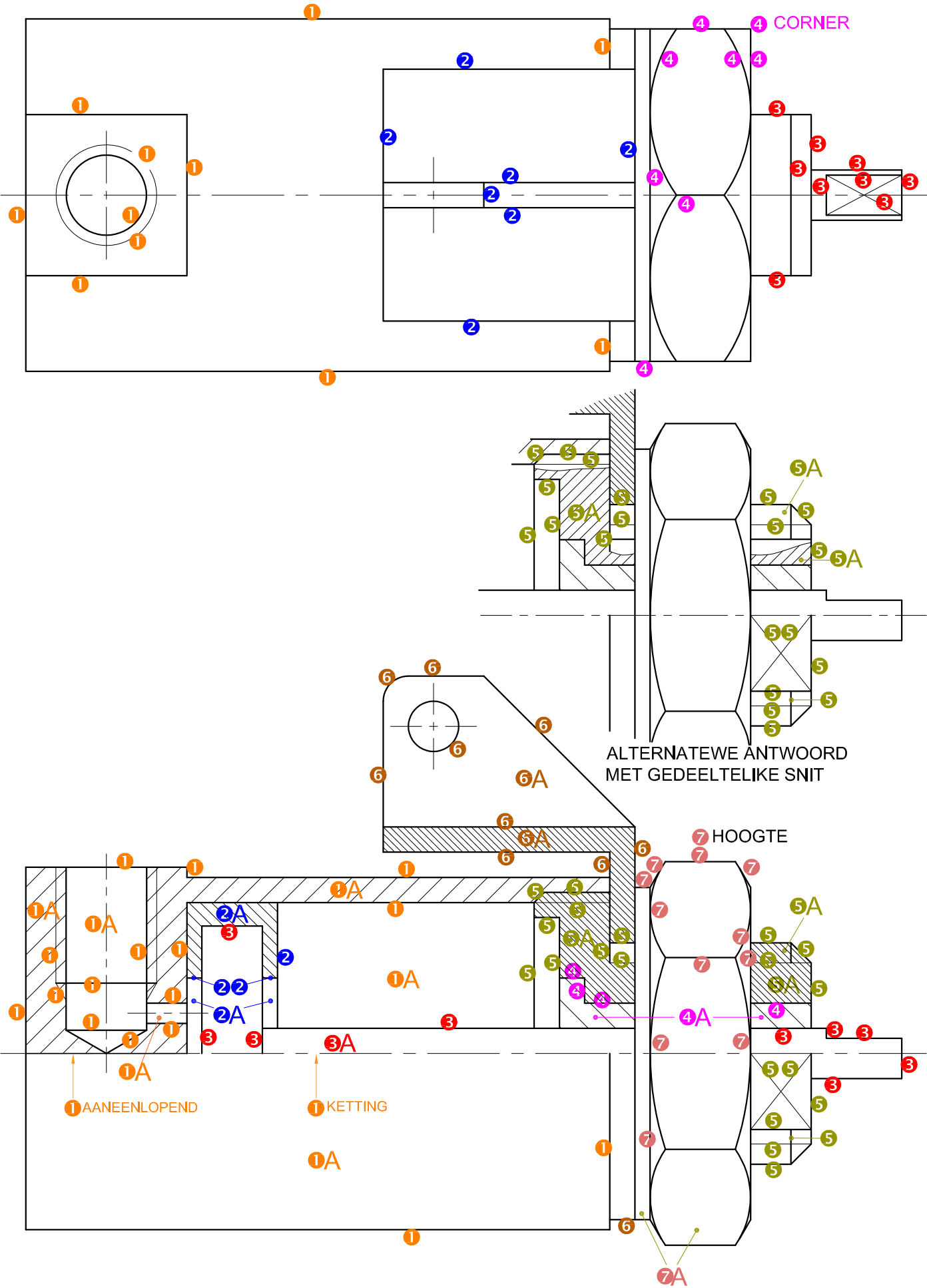
1	SILINDER	5 $\frac{1}{2}$
2	KLAMP + HAAK	3 $\frac{1}{2}$
3	GIDS + AS	4 $\frac{1}{2}$
4	M44-MOER + WASTER	4
SUBTOTAAL		17 $\frac{1}{2}$

ALGEMEEN

1	SETERLYNE	3
2	SAMESTELLING	8
3	SWEISSIMBOOL	4
SUBTOTAAL		15



VRAESTEL 2 VRAAG 4
 GRAAD 12
 2021
 NASIENRIGLYNE

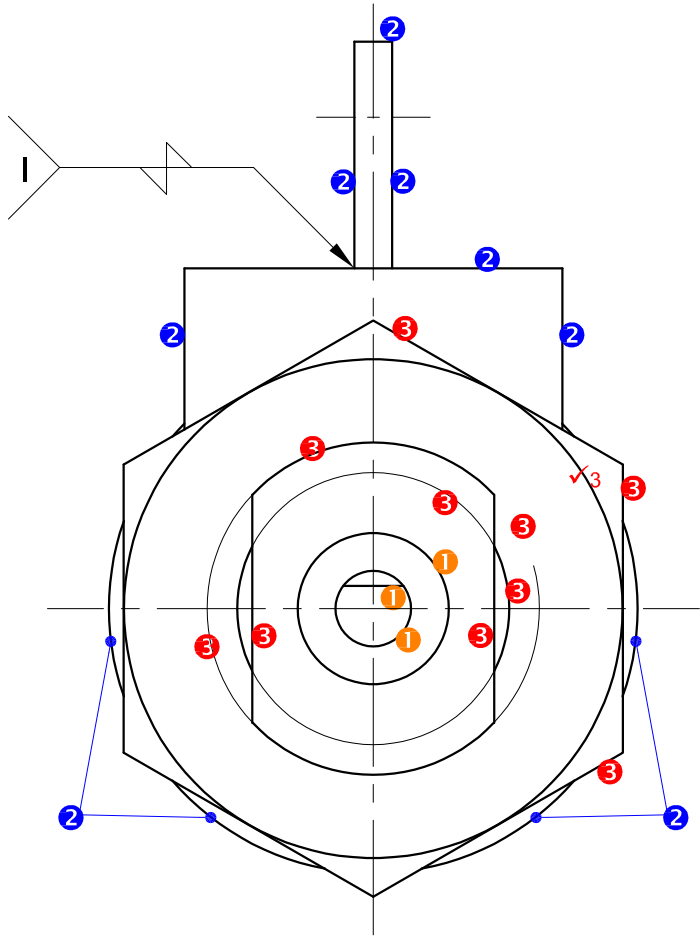
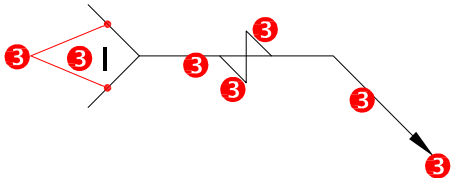


1. SENTERLYN PUNTTOEKENING
VOLDOEN AAN SANS (LYNTIPE)
7 SENTERLYNE (1 - 2 = 0, 3 - 5 = 1, 6 - 7 = 2)
TOTAAL

1
2
3

2. SAMESTELLING
1 PUNT VIR ELKE ONDERDEEL
KORREK SAAMGESTEL
(9 ONDERDELE - 1) = 8

PREPORSIE 3



SLEGS VIR AMPTELIKE GEBRUIK	
VERKEERDE ALGEHELE SKAAL	
VERKEERDE ARSERING	
ONDERDELE NIE SAAMGESTEL NIE	
PENALISERINGSTOTAAL (-)	

ASSESSERINGSKRITERIA					
REGTERAANSIG					
		MOONTLIK	BEHAAL	TEKEN	GEMODEREER
1	AS + BUS	1 ¹ / ₂			
2	SILINDER + KLAMP + HAAK	4			
3	M44-MOER + GIDS	6			
SUBTOTAAL		11 ¹ / ₂			
HALFDEURSNEE-VOORAANSIG					
1	SILINDER	12			
2	RUBBERSEËL	2 ¹ / ₂			
3	PLUNJER	5			
4	BUS	2 ¹ / ₂			
5	GIDS	11 ¹ / ₂			
6	KLAMP + HAAK	6			
7	M44-MOER + WASTER	6 ¹ / ₂			
SUBTOTAAL		46			
BOAANSIG					
1	SILINDER	5 ¹ / ₂			
2	KLAMP + HAAK	3 ¹ / ₂			
3	GIDS + AS	4 ¹ / ₂			
4	M44-MOER + WASTER	4			
SUBTOTAAL		17 ¹ / ₂			
ALGEMEEN					
1	SENTERLYNE	3			
2	SAMESTELLING	8			
3	SWEISSIMBOOL	4			
SUBTOTAAL		15			
TOTAAL		90			
PENALISERING (-)					
GROOTTOTAAL					
EKSAMENNOMMER					
EKSAMENNOMMER					6