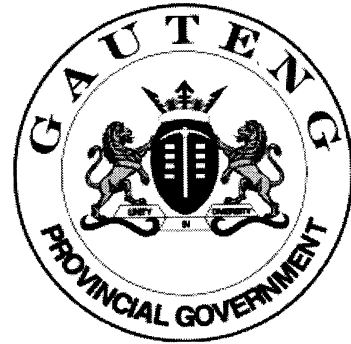


GAUTENG DEPARTMENT OF EDUCATION
GAUTENGSE DEPARTEMENT VAN ONDERWYS



SENIOR CERTIFICATE EXAMINATION
SENIORSERTIFIKAAT-EKSAMEN

OCTOBER / NOVEMBER
OKTOBER / NOVEMBER

2006

TECHNICAL DRAWING
TEGNIESE TEKENE

(Second Paper : Drawings)
(Tweede Vraestel : Tekene)

HG

711-1/2

Cover + 6 pages
Voorblad + 6 bladsye



QUESTION 1.1

ANSWER THIS QUESTION ON ANSWER SHEET 1.

Figure 1.1 shows a manufacturing drawing of a PULLEY TENSIONER drawn in Third-Angle Orthographic Projection.

Study the drawing and answer the following questions.

QUESTIONS	ANSWERS	MARKS
1.1.1. What size nut is shown on the bolt B ?	1	
1.1.2. Calculate the length of the arm A.	2	
1.1.3. Determine the number of components.	2	
1.1.4. Which projection system was used ?	1	
TOTAL	6	

VRAAG 1.1

BEANTWOORD HIERDIE VRAAG OP ANTWOORDVEL 1.

Figuur 1.1 toon 'n werkstekening van 'n SPANKATROL geteken in Derdehoekse Ortografiese Projeksie.

Bestudeer die tekening en beantwoord die volgende vrae.

VRAE	ANTWOORDE	PUNTE
1.1.1. Wat grootte moer word op bout B getoon ?	1	
1.1.2. Bereken die lengte van arm A.	2	
1.1.3. Bepaal die hoeveelheid komponente.	2	
1.1.4. Watter projeksiesistiem is gebruik ?	1	
TOTAAL	6	

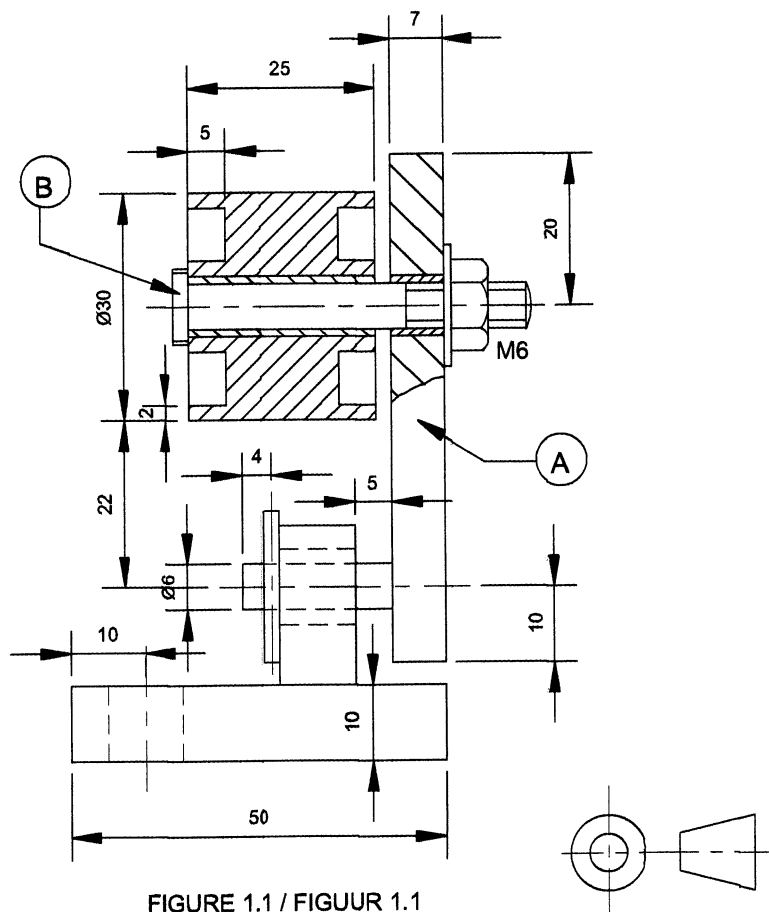


FIGURE 1.1 / FIGUUR 1.1

EXAMINATION NUMBER / EKSAMENNUMMER

A	B								
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QUESTION 1.2

ANSWER THIS QUESTION ON ANSWER SHEET 1.

Figure 1.2 shows the front and top views of a model.

Determine, freehand, the right view of the model.	8	
TOTAL	8	

VRAAG 1.2

BEANTWOORD HIERDIE VRAAG OP ANTWOORDVEL 1.

Figuur 1.2 toon die voor- en boaansigte van 'n model.

Bepaal, vryhand, die regteraansig van die model.	8	
TOTAAL	8	

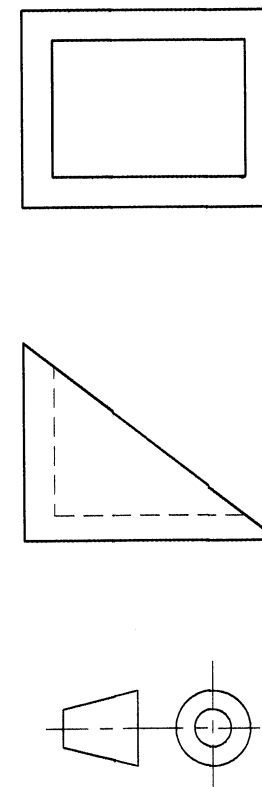


FIGURE 1.2 / FIGUUR 1.2

QUESTION 1 / VRAAG 1

TECHNICAL DRAWING 711-1/2 U HIGHER GRADE

TEGNIESE TEKENE 711-1/2 U HOËR GRAAD

3

QUESTION 1.3

ANSWER THIS QUESTION ON ANSWER SHEET 1.

Figure 1.3 shows the front and top views of a cover.

Project the sectioned left view on cutting plane R-R.	11	
TOTAL	11	

VRAAG 1.3

BEANTWOORD HIERDIE VRAAG OP ANTWOORDVEL 1.

Figuur 1.3 toon die voor- en boaansigte van 'n deksel.

Projekteer die deursnee-linkeraansig op snyvlak R-R.	11	
TOTAAL	11	

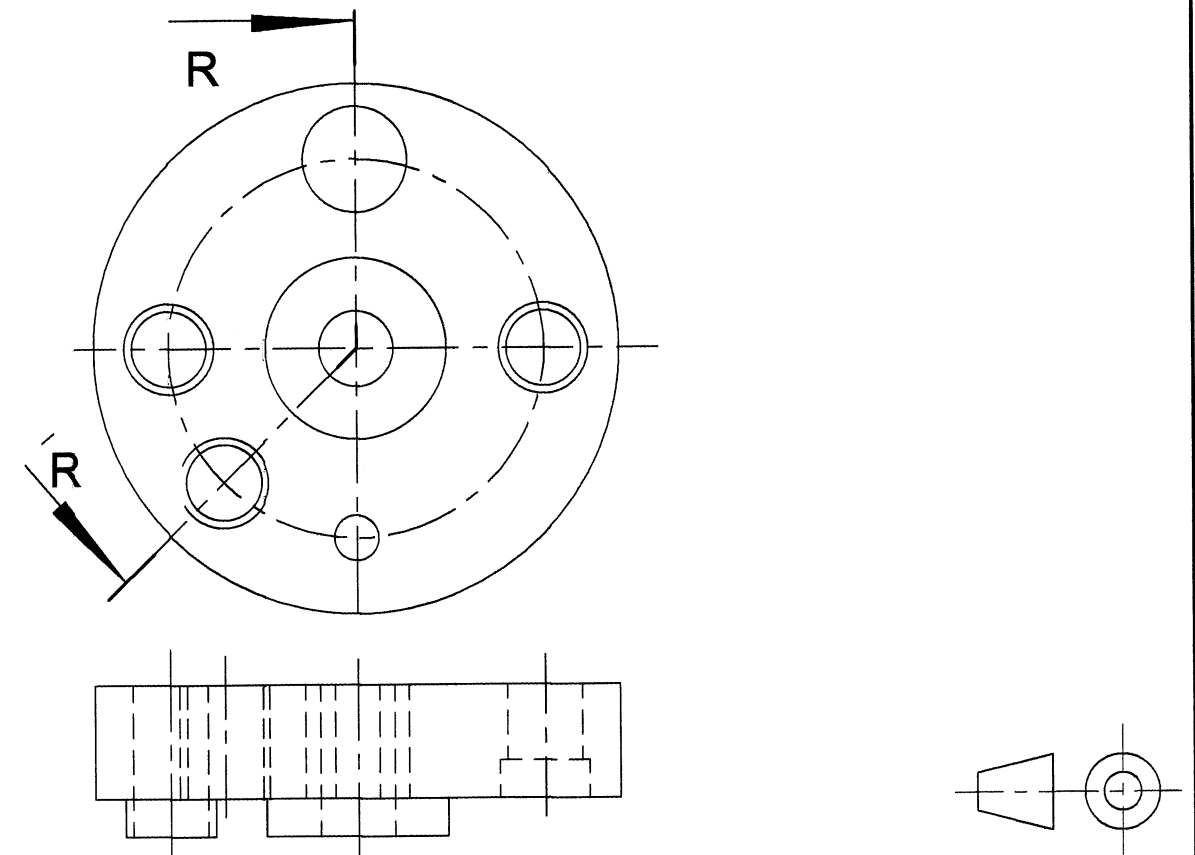


FIGURE 1.3 / FIGUUR 1.3

ANSWER SHEET 1

ANTWOORDVEL 1

QUESTION 1 / VRAAG 1		
QUESTION 1.1 / VRAAG 1.1	6	
QUESTION 1.2 / VRAAG 1.2	8	
QUESTION 1.3 / VRAAG 1.3	11	
TOTAL / TOTAAL	25	

QUESTION 2

ANSWER THIS QUESTION ON ANSWER SHEET 2.

Figure 2 shows in First-angle Orthographic Projection the front and top views of a SHACKLE AND PIN.

Produce to SCALE 1:1 a sectioned isometric view on cutting plane N-N.
Make use of the given centre lines.

Do not show hidden detail.

Presentation

33		
2		
TOTAL	35	

VRAAG 2

BEANTWOORD HIERDIE VRAAG OP ANTWOORDVEL 2.

Figuur 2 toon in Eerstehoekse Ortografiese Projeksie die voor- en boaansigte van BOEI EN PEN.

Teken volgens SKAAL 1:1 'n deursnee- isometriese aansig op snyvlak N-N.
Maak gebruik van die gegewe hartlyne.

Moet nie verborge detail toon nie.

Aanbieding

33		
2		
TOTAAL	35	

TECHNICAL DRAWING 711-1/2 U HIGHER GRADE

TEGNIËSE TEKENE 711-1/2 U HOËR GRAAD

4

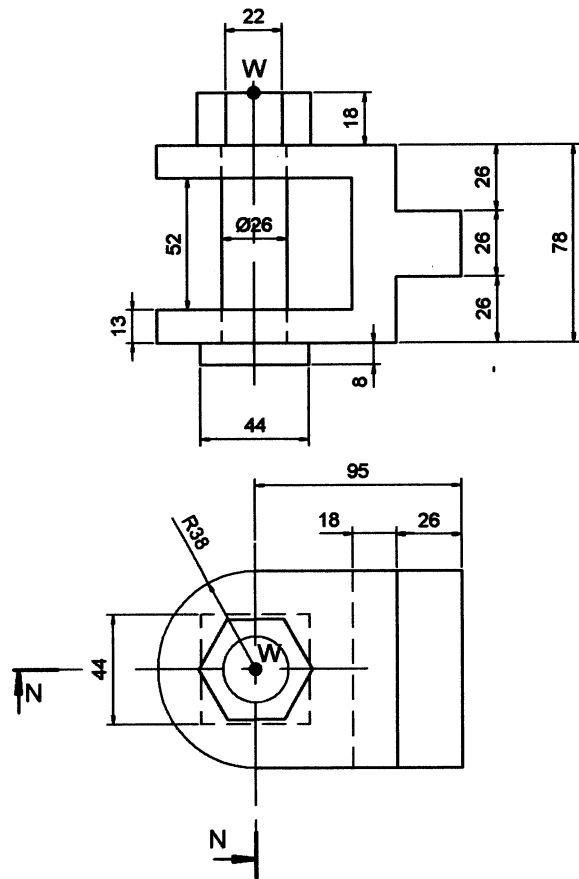
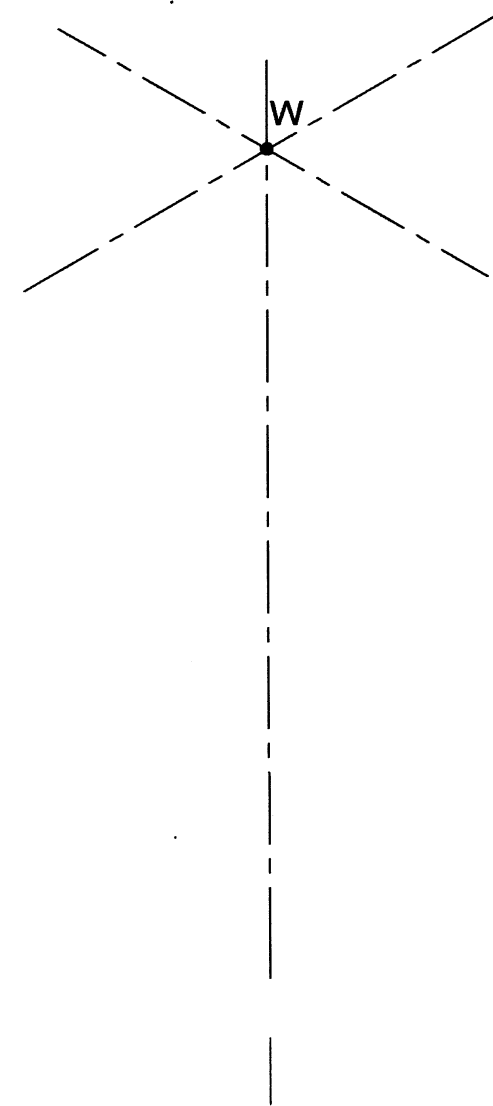


FIGURE 2 / FIGUUR 2



START AT POINT W

BEGIN BY PUNT W

EXAMINATION NUMBER / EKSAMENNUMMER

A	B								
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QUESTION 2 / VRAAG 2

ANSWER SHEET 2

ANTWOORDVEL 2

QUESTION 3
ANSWER THIS QUESTION ON ANSWER SHEET 3.

Make use of the given diagram on answer sheet 3 to produce a two-point perspective drawing of a factory.

DO NOT SHOW HIDDEN DETAIL.

Presentation

38

2

TOTAL

40

VRAAG 3
BEANTWOORD HIERDIE VRAAG OP ANTWOORDVEL 3

Deur gebruik te maak van die gegewe diagram op antwoordvel 3 teken 'n tweepuntperspektief-tekening van 'n fabriek.

MOET NIE VERBORGE DETAIL TOON NIE.
Aanbieding

38

2

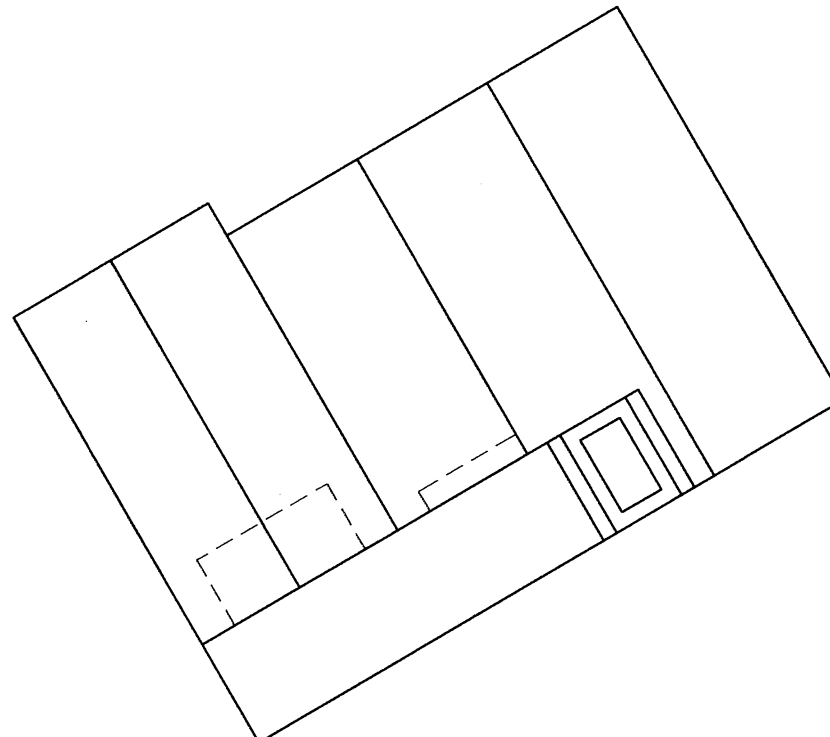
TOTAAL

40

TECHNICAL DRAWING 711-1/2 U HIGHER GRADE

TEGNIесе TEKENE 711-1/2 U HOER GRAAD

5

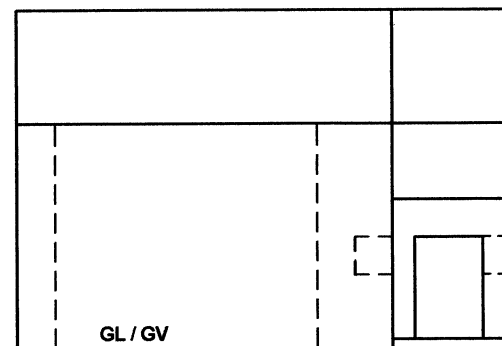


PP = PICTURE PLANE
HL = HORIZON LINE
SP = STATION POINT
GL = GROUND LINE

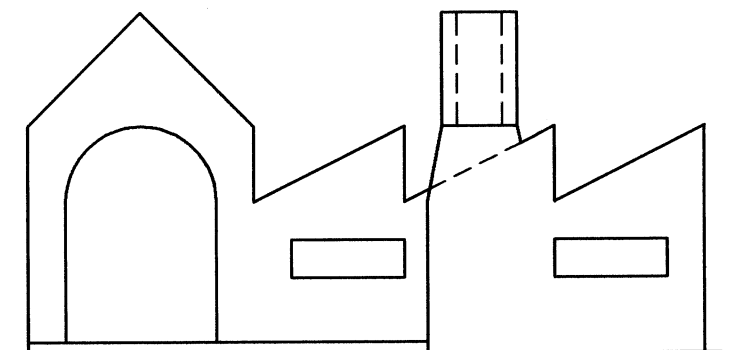
PV = PRENTVLAK
HL = HORIZONLYN
SP = STAANPUNT
GV = GRONDVLAK

PP / PV

HL



GL / GV



SP

EXAMINATION NUMBER / EKSAMENNOMMER

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QUESTION 3 / VRAAG 3

ANSWER SHEET 3

ANTWOORDVEL 3

QUESTION 4

ANSWER THIS QUESTION ON ANSWER SHEET 4. The Diagram Sheet for question 4 shows the components in First-Angle Orthographic Projection of a PRESSURE JOINT as well as a key to how the PRESSURE JOINT is to be assembled.

- 4.1 Draw to SCALE 2:1 a full sectional front view on cutting plane Q-Q of the assembled components. Do not show hidden detail.
- 4.2 Insert 5 dimensions on the drawing.
- 4.3 Show the projection system for Third Angle Orthographic Projection.
- 4.4 Print a Title and Scale.

(100)

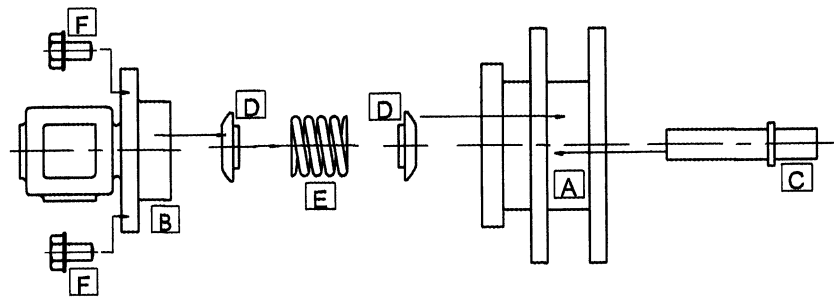
VRAAG 4

BEANTWOORD DIE VRAAG OP ANTWOORDVEL 4.

Diagramvel vir vraag 4 toon die komponente van 'n DRUKKOPPELLING in Eerstehoekse Ortografiese Projeksie asook 'n sleutel van hoe die komponente van die DRUKKOPPELLING saamgestel moet word.

- 4.1 Teken volgens SKAAL 2:1 'n volsnit-vooraansig op snyvlak Q-Q van die saamgestelde komponente. Moet nie verborge detail toon nie.
- 4.2 Voeg 5 afmetings by die tekening.
- 4.3 Toon die projeksiesisteem vir Derdehoekse Ortografiese Projeksie.
- 4.4 Drukskrif 'n Titel en Skaal.

(100)



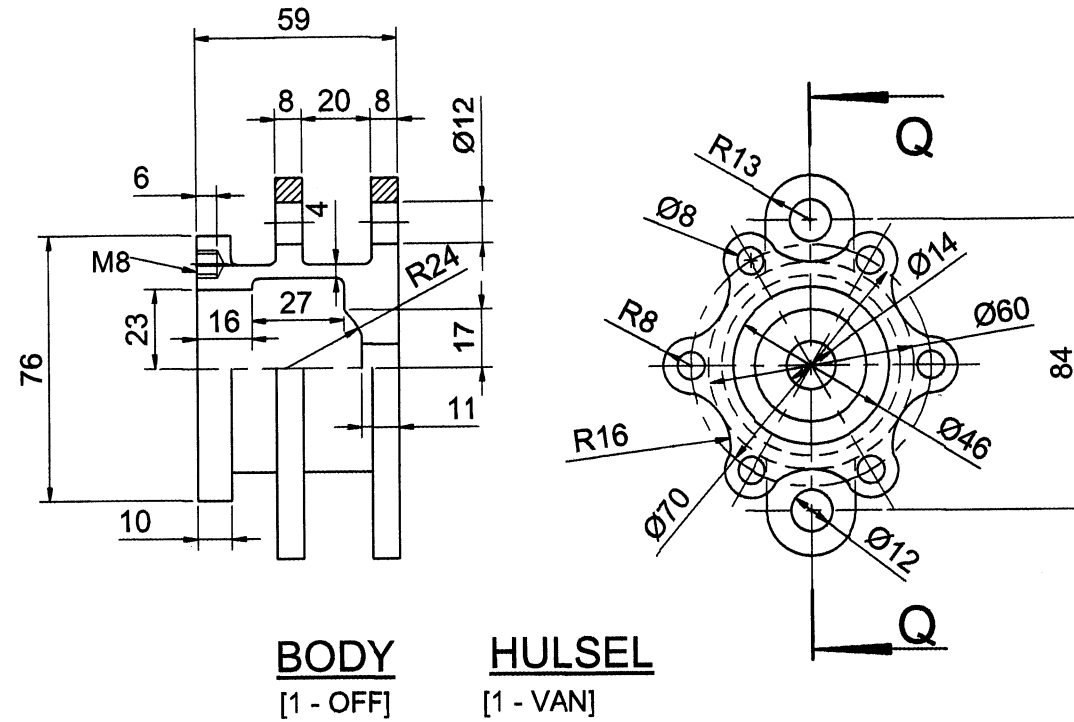
ASSEMBLY KEY

SAMESTELLING-SLEUTEL

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TEGNIËSE TEKENE 711-1/2 U HOËR GRAAD

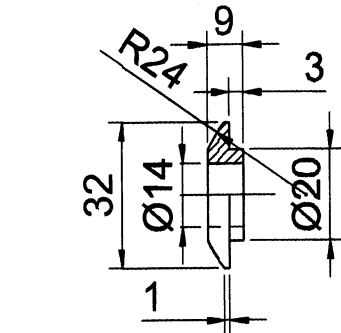
6



BODY
[1 - OFF]

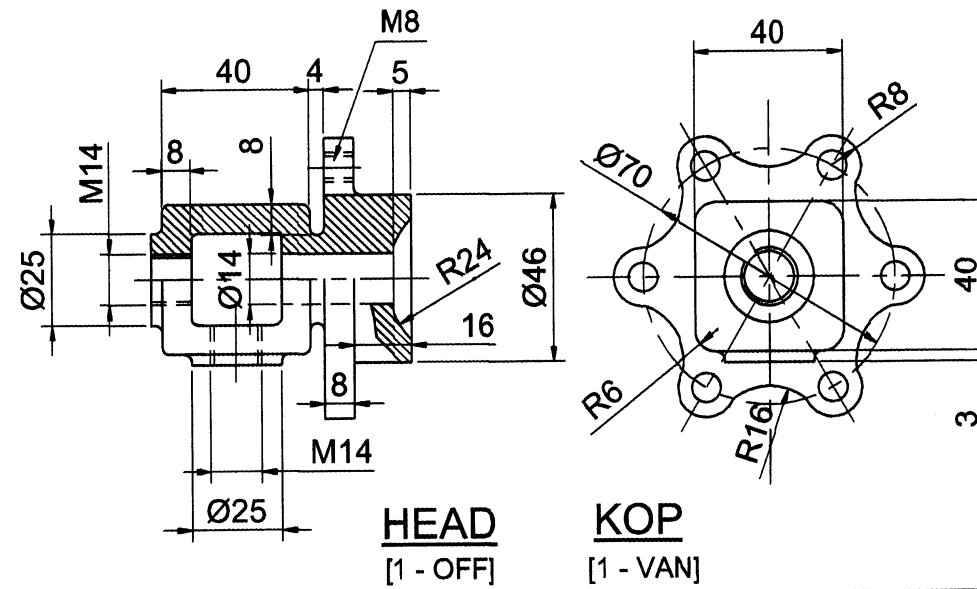
HULSEL
[1 - VAN]

A



COLLAR KRAAG
[2 - OFF] [2 - VAN]

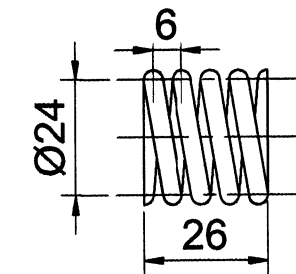
D



HEAD
[1 - OFF]

KOP
[1 - VAN]

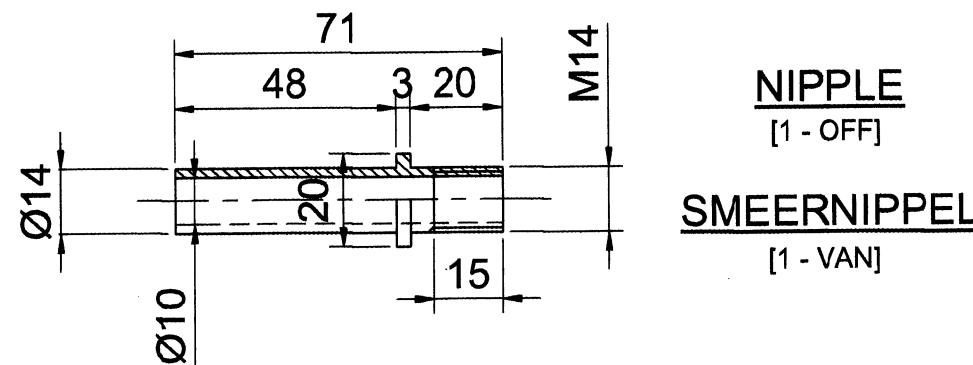
B



SPRING VEER
[1 - OFF] [1 - VAN]

E

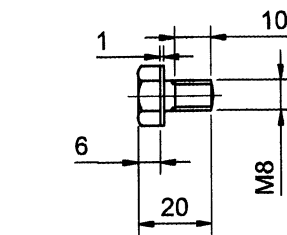
Ø 2 MM MATERIAL
Ø 2 MM-MATERIAAL



NIPPLE
[1 - OFF]

SMEERNIPPEL
[1 - VAN]

C



BOLT MOER
[6 - OFF] [6 - VAN]

F

EXAMINATION NUMBER / EKSAMENNOMMER

DIAGRAM SHEET FOR QUESTION 4
DIAGRAMVEL VIR VRAAG 4

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7

TEGNIËSE TEKENE 711-1/2 U HOËR GRAAD

MARK ALLOCATION
PUNTETOEKENNING

BODY HULSEL	24		
SECTIONING ARSERING	5		
COLLAR KRAAG	12		
SECTIONING ARSERING	2		
SPRING VEER	6		
SECTIONING ARSERING	2		
HEAD & BOLTS KOP & ROUTE	20		
SECTIONING ARSERING	7		
NIPPLE VEER	7		
SECTIONING ARSERING	2		
SUBTOTAL SUBTOTAAL	87		
DIMENSIONS AFMETINGS	3		
PROJECTION SYSTEM PROJEKSIESISTEEM	2		
TITLE & SCALE TITEL & SKAAL	1		
PRESENTATION AANBIEDING	3		
ASSEMBLY SAMESTELLING	4		
SUBTOTAL SUBTOTAAL	13		
TOTAL TOTAAL	100		

EXAMINATION NUMBER / EKSAMENNUMMER

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QUESTION 4 / VRAAG 4

ANSWER SHEET 4

ANTWOORDVEL 4

END / EINDE