



STAATSKOERANT

VAN DIE REPUBLIEK VAN SUID-AFRIKA

REPUBLIC OF SOUTH AFRICA

GOVERNMENT GAZETTE

REGULASIEKOERANT No. 2527

As 'n Nuusblad by die Poskantoor Geregistreer

PRYS 20c PRICE

OORSEE 30c OVERSEAS

POSVRY — POST FREE

REGULATION GAZETTE No. 2527

Registered at the Post Office as a Newspaper

VOL. 147]

PRETORIA, 9 SEPTEMBER 1977

[No. 5735

GOEWERMENSKENNISGEWING

DEPARTEMENT VAN ARBEID

No. R. 1780 9 September 1977

WET OP VAKLEERLINGE, 1944

STAATSVAKLEERLINGSKAPKOMITEE. — VOOR-
GENOME INTREKKING EN VOORSKRYWING VAN
LEERVOORWAARDES

Ek, Stephanus Petrus Botha, Minister van Arbeid,
handelende kragtens artikel 16 van bogemelde Wet, is
voornemens om—

(a) Goewermentskennisgewing R. 663 van 19 April
1974, soos toegepas by Goewermentskennisgewing
R. 1195 van 12 Julie 1974, in te trek;

(b) ondergenoemde ambagte as ambagte waarop die
Wet van toepassing is aan te wys vir die ondernemings
en gebied waarvoor bogemelde Komitee ingestel is by
Goewermentskennisgewing 1738 van 19 Oktober 1923,
soos herpubliseer by Goewermentskennisgewing R. 1811
van 19 November 1965:

Ambagte

1. Dieselpasser; (10)
2. Dieselwerktuigkundige; (11)
3. Draaier (met inbegrip van Masjinerie); (47)
4. Elektrisiën; (15)
5. Elektriese Draadwerker; (14)
6. Elektroniese Passer; (13)
7. Elektronika-meganikus; (16)
8. Gereedskap- en Setmaatmaker; (46)
9. Grofsmid; (4)
10. Instrumentmaker; (19)
11. Instrumentmeganikus; (20)
12. Kopersmid; (20)
13. Letterskilder; (45)
14. Loodgieter; (35)
15. Masjien- en Gereedskapsteller; (22)
16. Messelaar; (5)
17. Meulmaker (Elektromeganies); (25)
18. Modelmaker; (30)
19. Motorelektrisiën; (2)
20. Motorvoertuigmasjineerder en -passer; (3)
21. Motorwerktuigkundige; (26)

GOVERNMENT NOTICE

DEPARTMENT OF LABOUR

No. R. 1780 9 September 1977

APPRENTICESHIP ACT, 1944

GOVERNMENT APPRENTICESHIP COMMITTEE.—
PROPOSED WITHDRAWAL AND PRESCRIPTION
OF CONDITIONS OF APPRENTICESHIP

I, Stephanus Petrus Botha, Minister of Labour, acting
in terms of section 16 of the above-mentioned Act,
propose to—

(a) withdraw Government Notice R. 663 of 19 April
1974 as applied by Government Notice R. 1195 of
12 July 1974;

(b) designate for the undertakings and area for which
the above-mentioned Committee was established under
Government Notice 1738 of 19 October 1923 as
republished under Government Notice R. 1811 of 19
November 1965, the undermentioned trades as trades to
which the Act shall apply:

Trades

1. Armamant Fitter; (46)
2. Automotive Electrician; (19)
3. Automotive Machinist and Fitter; (20)
4. Blacksmith; (9)
5. Bricklayer; (16)
6. Carpenter; (42)
7. Carpenter and Joiner; (43)
8. Construction Plant Mechanic; (47)
9. Coppersmith; (12)
10. Diesel Fitter; (1)
11. Diesel Mechanic; (2)
12. Die Sinker and Engraver; (39)
13. Electrical Fitter; (6)
14. Electrical Wireman; (5)
15. Electrician; (4)
16. Electronics Mechanician; (7)
17. Fitter and Turner; (23)
18. Fitter (including Machining); (24)
19. Instrument Maker; (10)
20. Instrument Mechanician; (11)
21. Joiner; (38)

22. Paneelklopper (met inbegrip van Spuitverfwerk); (29)
23. Passer en Draaier; (17)
24. Passer (met inbegrip van Masjinerie); (18)
25. Plaatmetaalwerker; (43)
26. Plaatwerker; (32)
27. Plaatwerker/Ketelmaker; (33)
28. Plaatwerker (met inbegrip van Sweiswerk); (34)
29. Pleisteraar; (31)
30. Radio- en Televisiemeganikus; (36)
31. Radiotrisiën (Oudio); (37)
32. Radiotrisiën (Kommunikasie); (38)
33. Seilmaker en Bekleder; (41)
34. Skeepsbouer; (42)
35. Skeepspasser; (23)
36. Skeepsypasser; (24)
37. Skilder en Versierder; (28)
38. Skrynwerker; (21)
39. Stempelsnyer en Graveerder; (12)
40. Sweiser; (48)
41. Takelaar; (40)
42. Timmerman; (6)
43. Timmerman en Skrynwerker; (7)
44. Verkoelingsmeganikus; (39)
45. Vormgieter; (27)
46. Wapenmonteur; (1)
47. Werktuigkundige (Aanlegmasjinerie); (8)
48. Winkeluitruster (Hout); (44)

(c) die voorwaardes hieronder uiteengesit, as leervoorwaardes voor te skryf ten opsigte van die ambagte gemeld in paragraaf (b) in die gebied daarin genoem; en

(d) te bepaal dat klousules 2 tot 6 van die leervoorwaardes hieronder uiteengesit, vanaf die datum van voorskrywing daarvan, ook van toepassing is op vakleerlinge wat in diens is in enige ambag wat 'n aangewese ambag is of was in die ondernemings en gebied waarvoor gemelde komitee ingestel is.

VOORWAARDES

1. Kwalifikasies om met vakleerlingskap te begin

Die minimum ouderdom en opvoedkundige kwalifikasies om met vakleerlingskap te begin, is 16 jaar en standaard 7.

2. Leertyd

Die leertyd is—

(1) drie jaar in die volgende aangewese ambagte:

Letterskilder, Messelaar, Pleisteraar, Skilder en Versierder, Skrynwerker en Timmerman;

(2) vier jaar in die volgende aangewese ambagte:

Dieselpasser, Dieselwerktuigkundige, Draaier (met inbegrip van Masjinerie), Gereedskap- en Setmaatmaker, Grofsmid, Kopersmid, Loodgieter, Masjien- en Gereedskapsteler, Modelmaker, Motorelektrisiën, Motorvoertuigmasjineerder en -passer, Motorwerktuigkundige, Paneelklopper (met inbegrip van Spuitverfwerk), Passer en Draaier, Passer (met inbegrip van Masjinerie), Plaatmetaalwerker, Plaatwerker, Plaatwerker/Ketelmaker, Plaatwerker (met inbegrip van Sweiswerk), Seilmaker en Bekleder, Skeepsbouer, Skeepspasser, Skeepsypasser, Stempelsnyer en Graveerder, Sweiser, Takelaar, Timmerman en Skrynwerker, Verkoelingsmeganikus, Vormgieter, Wapenmonteur, Werktuigkundige (Aanlegmasjinerie), en Winkeluitruster (Hout); en

(3) vyf jaar in alle ander aangewese ambagte.

(4) (a) Die leertyd van 'n vakleerling wat, hetsy voor of gedurende sy leertyd, die eerste tydperk van ononderbroke diens voltooi het wat hy kragtens artikel 21 van die Verdedigingswet (Wet 44 van 1957) verplig is om in die Burgermag te doen, word met vier maande verkort.

22. Machine and Tool Setter; (15)
23. Marine Fitter; (35)
24. Marine Pipe Fitter; (36)
25. Millwright (Electromechanical); (17)
26. Motor Mechanic; (21)
27. Moulder; (45)
28. Painter and Decorator; (37)
29. Panelbeater (including Spraypainting); (22)
30. Patternmaker; (18)
31. Plasterer; (29)
32. Plater; (26)
33. Plater/Boilermaker; (27)
34. Plater (including Welding); (28)
35. Plumber; (14)
36. Radio and Television Mechanician; (30)
37. Radiotrician (Audio); (31)
38. Radiotrician (Communication); (32)
39. Refrigeration Mechanician; (44)
40. Rigger; (41)
41. Sail maker and Upholsterer; (33)
42. Shipbuilder; (34)
43. Sheetmetal Worker; (25)
44. Shopfitter (Wood); (48)
45. Signwriter; (13)
46. Tool- and Jigmaker; (8)
47. Turner (including Machining); (3)
48. Welder; (40)

(c) prescribe the conditions set out hereunder as conditions of apprenticeship in respect of the trades specified in paragraph (b) in the area therein mentioned; and

(d) determine that clauses 2 to 6 of the conditions of apprenticeship set out hereunder shall, from the date of prescription thereof, also apply to apprentices who are employed in any trade which is or was a designated trade in the undertakings and area for which the said Committee was established.

CONDITIONS

1. Qualifications for commencing apprenticeship

The minimum age and educational qualifications for commencing apprenticeship shall be 16 years and Standard 7.

2. Period of apprenticeship

The period of apprenticeship shall be—

(1) three years in the following designated trades:

Bricklayer, Carpenter, Joiner, Painter and Decorator, Plasterer, and Signwriter;

(2) four years in the following designated trades:

Armament Fitter, Automotive Electrician, Automotive Machinist and Fitter, Blacksmith, Carpenter and Joiner, Construction Plant Mechanic, Coppersmith, Diesel Fitter, Diesel Mechanic, Die Sinkers and Engraver, Fitter and Turner, Fitter (including Machining), Machine and Tool Setter, Marine Fitter, Marine Pipe Fitter, Motor Mechanic, Moulder, Panelbeater (including Spraypainting), Patternmaker, Plater, Plater/Boilermaker, Plater (including Welding), Plumber, Refrigeration Mechanician, Rigger, Sailmaker and Upholsterer, Sheetmetal Worker, Shipbuilder, Shopfitter (Wood), Tool- and Jigmaker, Turner (including Machining), and Welder; and

(3) five years in all other designated trades.

(4) (a) The period of apprenticeship of an apprentice who, whether before or during his apprenticeship, has completed the first period of continuous service which he is compelled to render in the Citizen Force in terms of section 21 of the Defence Act (Act 44 of 1957), shall be reduced by four months.

(b) Die leertyd van 'n vakleerling wat hom kragtens artikel 3 (1) (b) van die Wysigingswet op Verdediging, 1974 (Wet 8 van 1974), vrywillig verbind het om diens in die Burgermag te doen en wat, hetsy voor of gedurende sy leertyd, diens vir 'n enkele tydperk doen wat, tesame met die ononderbroke diens wat hy kragtens artikel 21 van gemelde Wet verplig is om in gemelde Mag te doen, ongeveer 18 maande of ongeveer 24 maande, na gelang van die geval, beloop, word met onderskeidelik *ses maande* en *agt maande* verkort.

(c) Enige verkorting van die leertyd ooreenkomstig paragraaf (a) of (b) tree in werking met ingang van die datum waarop die vakleerling met sy leerlingskap begin of dit hervat na sy terugkeer van militêre diens.

(5) Die werkgever van 'n vakleerling in subklousule (4) vermeld, moet binne 14 dae na die vakleerling se terugkeer van militêre diens die Sekretaris van die Komitee in kennis stel van die tydperk wat die vakleerling in die Burgermag diens gedoen het.

3. Tegniese studies

(1) 'n Vakleerling wat nie reeds ten opsigte van vakke wat betrekking het op die ambag waarvoor hy ingeboek is in besit is van die sertifikaat of een van die alternatiewe kwalifikasies in subklousule (2) vermeld nie, moet tegniese klasse bywoon wat met sodanige ambag in verband staan en wat ooreenkom met die leerplanne wat deur die Departement van Nasionale Opvoeding, die Departement van Indiërsake of die Administrasie van Kleurlingsake, na gelang van die geval, voorgeskryf word vir die Nasionale Tegniese Sertifikaat, Deel I en Deel II, of gelykwaardige tegniese sertifikate of diplomas, en dié klasse moet bygewoon word aan die naaste tegniese inrigting wat uitsluitlik of gedeeltelik uit openbare fondse in stand gehou word en wat bedoel is vir die rassegroep waaraan die vakleerling behoort: Met dien verstande dat indien fasiliteite vir die bywoning van klasse in 'n kursus of 'n gedeelte daarvan nie beskikbaar is nie binne 20 km vanaf die vakleerling se woning of binne 20 km van sy werkplek waar daar van hom vereis word om klasse gedurende gewone werkure by te woon, hy in plaas van sodanige bywoning 'n korrespondensiekursus mag volg wat deur die Witwatersrandse Kollege vir Gevorderde Tegniese Onderwys vir genoemde kursus of 'n gedeelte daarvan aangebied word.

(2) 'n Vakleerling moet tegniese klasse bywoon of 'n korrespondensiekursus volg totdat hy die Nasionale Tegniese Sertifikaat, Deel II, of gelykwaardige tegniese sertifikaat of diploma verwerf het: Met dien verstande dat van 'n vakleerling wat in die eksamen vir genoemde sertifikaat of diploma druipe maar wat wel slaag in drie vakke of in die ambagsteorie wat betrekking het op die ambag waarvoor hy ingeboek is, nie vereis word om verdere klasse by te woon of verder 'n korrespondensiekursus te volg nie, na gelang van die geval.

(3) (a) Waar fasiliteite vir die bywoning van tegniese klasse by wyse van 'n aaneenlopende studiekursus bestaan, moet 'n vakleerling sodanige klasse op vyf dae van die week gedurende sy gewone werkure bywoon vir die duur van die eerste volledige kursus wat hy, behalwe vir afwesigheid van die aard in subklousule (6) bedoel, in staat is om by te woon.

(b) Waar daar nie fasiliteite van die aard in paragraaf (a) bedoel bestaan nie, moet 'n vakleerling binne 30 dae na die datum van registrasie van sy kontrak of, as hy op daardie datum militêre opleiding ondergaan, binne 30 dae na sy terugkeer van sodanige opleiding, vir klasbywoning of 'n korrespondensiekursus, na gelang van die geval, inskryf en moet hy die klasse begin bywoon of die kursus begin volg

(b) The period of apprenticeship of an apprentice who, in terms of section 3 (1) (b) of the Defence Amendment Act, 1974 (Act 8 of 1974), has voluntarily bound himself to render, and who, whether before or during his apprenticeship, renders service in the Citizen Force for a single period which, together with the continuous service he is compelled to serve in the said Force in terms of section 21 of the said Act, totals approximately 18 months or approximately 24 months, as the case may be, shall be reduced by *six months* and *eight months*, respectively.

(c) Any reduction in the period of apprenticeship in terms of paragraph (a) or (b) shall operate with effect from the date upon which the apprentice commences or resumes his apprenticeship after returning from military service.

(5) The employer of an apprentice referred to in subclause (4) shall notify the Secretary of the Committee within 14 days after the apprentice returns from military service, of the period served by the apprentice in the Citizen Force.

3. Technical studies

(1) An apprentice who is not already in possession of the certificate or one of the alternative qualifications referred to in subclause (2) in subjects relevant to the trade in which he is indentured, shall attend technical classes relevant to such trade and in accordance with the syllabuses prescribed by the Department of National Education, the Department of Indian Affairs, or the Administration of Coloured Affairs, as the case may be, for the National Technical Certificate, Parts I and II, or equivalent technical certificates or diplomas, and such classes shall be attended at the nearest technical institution maintained wholly or partly from public funds and catering for the racial group to which the apprentice belongs: Provided that where facilities for class attendance in any course or part thereof do not exist within 20 km of the apprentice's residence or within 20 km of his place of work where attendance is required of him during ordinary working hours, he may, in lieu of attendance, take a correspondence course conducted by the Witwatersrand College for Advanced Technical Education for the said course or part thereof.

(2) An apprentice shall attend technical classes or take a corresponding course until he obtains the National Technical Certificate, Part II, or equivalent technical certificate or diploma: Provided that an apprentice who fails in the examination for the said certificate or diploma but obtains a pass in three subjects or in the trade theory relevant to the trade in which he is indentured shall not be required to attend further classes or take a further correspondence course, as the case may be.

(3) (a) Where facilities for technical class attendance by continuous course of study exist, an apprentice shall attend such classes on five days per week, during his ordinary hours of work, for the duration of the first complete course which, but for absence of the nature referred to in subclause (6), he is able to attend.

(b) Where facilities of the nature referred to in paragraph (a) do not exist, an apprentice shall, within 30 days of the date of registration of his contract, or, if he is at that date undergoing military training, within 30 days of his return from such training, enrol for class attendance or a correspondence course, as the case may be, and shall commence class attendance or take the course from such date as may be determined by the

vanaf die datum wat die betrokke inrigting bepaal. Sodanige bywoning moet geskied vir een akademiese jaar gedurende die vakleerling se gewone werkure so na as doenlik—

(i) vir agt uur op een dag per week; of

(ii) vir vier uur op elk van twee dae per week: Met dien verstande dat bywoning in geen geval tot later as 19h15 mag duur nie.

(c) Verpligte bywoning van klasse nadat 'n vakleerling aan die vereistes van paragraaf (a) of (b) voldoen het, moet buite die gewone werkure geskied: Met dien verstande dat, as die vakleerling die volle sertifikaat of diploma verwerf waarvoor hy eksamen afgelê het of in 75 persent van die vakke slaag, hy daartoe geregtig is om nog die klasse gedurende gewone werkure by te woon op die grondslag voorgeskryf in paragraaf (a) of (b), na gelang van die geval.

(d) 'n Werkgewer mag nie van 'n vakleerling wat klasse ooreenkomstig paragraaf (a) bywoon, vereis om hom vir die duur van sodanige kursus vir werk aan te meld nie.

(4) 'n Vakleerling wat 'n korrespondensiekursus ooreenkomstig subklousules (1) en (2) volg, moet, waar die Registrateur van Vakleerlinge 'n studieplek vir sodanige korrespondensiekursus bepaal het, by sodanige plek studeer en subklousule (3) is *mutatis mutandis* op sodanige vakleerling van toepassing.

(5) Ondanks subklousule (2), word daar nie van 'n vakleerling vereis om verdere klasse by te woon of verder 'n korrespondensiekursus te volg, na gelang van die geval, indien hy nie binne twee jaar vanaf die datum van die aanvang van sy tegniese studies die sertifikaat of diploma waarvoor hy oorspronklik ingeskryf het, verwerf het of in drie van die vakke vir daardie sertifikaat of diploma geslaag het nie.

(6) Van 'n vakleerling wat, as gevolg van afwesigheid vir militêre opleiding ingevolge die Verdedigingswet, 1957, nie in staat is om tegniese klasse vir die duur van 'n aaneenlopende studiekursus by te woon of om vir minstens die helfte van 'n akademiese jaar tegniese klasse by te woon of 'n korrespondensiekursus te volg nie, na gelang van die geval, word daar nie vereis om sy studies gedurende sodanige jaar voort te sit nie.

(7) Subklousules (3) en (4) is *mutatis mutandis* van toepassing op 'n vakleerling wat aan subklousule (2) voldoen het of wat reeds in besit is van 'n hoër tegniese kwalifikasie en wat sy studies in verband met die ambag waarvoor hy ingeboek is, vrywillig voortsit: Met dien verstande dat hierdie subklousule nie van toepassing is op 'n vakleerling wat nie in minstens 75 persent van die vakke vir die sertifikaat of diploma waarvoor hy ingeskryf het, geslaag het nie.

4. Betaling van klas- of kursus- en eksamengeld

'n Werkgewer moet aan die betrokke tegniese inrigting die klas- of kursus- en registrasiegeld en die eksamengeld voorskiet wat betaalbaar is deur 'n vakleerling van wie daar vereis word of wat ingevolge klousule 3 (7) verkies om klasse by te woon of 'n korrespondensiekursus te volg of om vir 'n eksamen in te skryf, en mag die bedrag aldus voorgeskiet van die loon van die vakleerling aftrek in gelyke maandelikse paaielemente gedurende 'n tydperk van 12 maande vanaf die datum waarop die voorskot gemaak is: Met dien verstande dat—

(i) indien die vakleerling in 'n eksamen die sertifikaat of diploma verwerf waarvoor hy ingeskryf het of in 75 persent van die vakke vir daardie sertifikaat of diploma slaag, die volle bedrag wat ten opsigte van klas- of kursus- en registrasiegeld en geld wat vir daardie eksamen afgetrek is deur die werkgewer aan hom terugbetaal moet word;

(ii) indien die vakleerling nie daarin slaag om aan (i) te voldoen nie, die terugbetaling van klas- of kursus- en registrasiegeld en van eksamengeld geskied slegs ten opsigte van daardie vakke waarin die vakleerling in die betrokke eksamen geslaag het;

institution concerned. Such attendance shall be for one academic year during the apprentice's ordinary hours of work, as nearly as practicable either—

(i) for eight hours on one day per week; or

(ii) for four hours on each of two days per week:

Provided that attendance shall in neither case extend beyond 19h15.

(c) Compulsory attendance of classes after an apprentice has complied with the requirements of paragraph (a) or (b) shall be outside working hours: Provided that if the apprentice obtains the full certificate or diploma for which he has written examination or a pass in 75 per cent of the subjects, he shall be entitled to continue attending classes during ordinary working hours on the basis prescribed in paragraph (a) or (b), as the case may be.

(d) An apprentice who attends classes in terms of paragraph (a) shall, for the duration of such course, not be required by his employer to report for work.

(4) An apprentice taking a correspondence course in terms of subclauses (1) and (2) shall, where the Registrar of Apprenticeship has fixed a place of study for such correspondence course, study at such place, and subclause (3) shall *mutatis mutandis* apply to such apprentice.

(5) Notwithstanding subclause (2), an apprentice who does not obtain the certificate or diploma for which he originally enrolled or who does not obtain a pass in three of the subjects for that certificate or diploma within two years of the date of commencement of his technical studies, shall not be required to attend further classes or take a further correspondence course, as the case may be.

(6) An apprentice who, because of absence on military training in terms of the Defence Act, 1957, is unable to attend technical classes for the duration of a continuous course of study, or to attend technical classes or to take a correspondence course for at least half an academic year, as the case may be, shall not be required to pursue his studies during such year.

(7) Subclauses (3) and (4) shall *mutatis mutandis* apply to an apprentice who has complied with subclause (2) or who is already in possession of a higher technical qualification and voluntarily pursues studies relevant to the trade in which he is indentured: Provided that this subclause shall not apply to an apprentice who has not obtained a pass in 75 per cent of the subjects for the certificate or diploma for which he has enrolled.

4. Payment of class or course and examination fees

An employer shall advance to the technical institution concerned the class or course and registration fees and the examination fees payable by an apprentice who is required, or who, in terms of clause 3 (7) elects, to attend classes or to take a correspondence course or to enter for an examination, and may deduct the amount so advanced from the wages of the apprentice in equal monthly instalments during a period of 12 months from the date on which the advance was made: Provided that—

(i) if, at an examination, the apprentice obtains the certificate or diploma for which he has enrolled or obtains a pass in 75 per cent of the subjects for that certificate or diploma the full amount deducted in respect of class or course and registration fees and the fees for such examination shall be refunded to him by the employer;

(ii) if the apprentice fails to comply with (i), the refund of class or course and registration fees and the examination fees shall be made only in respect of those subjects in which the apprentice obtained a pass at the examination concerned;

(iii) geen terugbetalings geskied ten opsigte van aanvullende eksamens nie.

5. Ambagstoetse

(1) 'n Vakleerling moet, in die stadium in die Bylae hieronder vermeld, 'n kwalifiserende ambagstoets wat deur die Departement van Arbeid en die Departement van Nasionale Opvoeding afgeneem word, aflê in die praktyk van die ambag waarvoor hy ingeboek is:

BYLAE

- (i) In driejaarambagte... So kort moontlik voor die aanvang van die laaste ses maande van die leertyd of so spoedig moontlik daarna.
- (ii) In vierjaarambagte... So kort moontlik voor die einde van die derde jaar van die leertyd of so spoedig moontlik daarna.
- (iii) In vyfjaarambagte... So kort moontlik voor die einde van die vierde jaar van die leertyd of so spoedig moontlik daarna.

(2) Ondanks subklousule (1) word daar nie van 'n vakleerling vereis om 'n kwalifiserende ambagstoets af te lê indien hy voornemens is om sy studies ten opsigte van hoër tegniese kwalifikasies vrywillig voort te sit nie: Met dien verstande egter dat die vakleerling 'n kwalifiserende ambagstoets so spoedig moontlik na voltooiing van sodanige kursus of so kort moontlik voor die verstryking van sy leertyd moet aflê op 'n datum wat deur gemelde Departemente bepaal word.

(3) 'n Vakleerling wat op die peil van die Nasionale Tegniese Sertifikaat, Deel II, of gelykwaardige of hoër kwalifikasie, geslaag het in die teorie van die ambag waarvoor hy ingeboek is, kan vrywillig 'n kwalifiserende ambagstoets aflê na voltooiing van die leertyd in die Bylae hieronder vermeld. Nog 'n kwalifiserende toets of toetse kan afgelê word op 'n datum of datums wat deur gemelde Departemente bepaal word:

BYLAE

- (i) In driejaarambagte... Na twee jaar.
- (ii) In vierjaarambagte... Na twee en 'n half jaar.
- (iii) In vyfjaarambagte... Na drie jaar.

(4) 'n Vakleerling wat in 'n ambagstoets ingevolge subklousule (1) druipt, kan gedurende die laaste jaar van sy leertyd of, in die geval van 'n vakleerling wat vir 'n driejaarambag ingeboek is, gedurende die laaste ses maande van sy leertyd, vrywillig 'n kwalifiserende ambagstoets aflê op 'n datum wat deur gemelde Departemente bepaal word, ongeag of hy in besit is van die kwalifikasie in subklousule (3) vermeld of nie.

(5) 'n Bedrag van R6 is deur 'n vakleerling betaalbaar ten opsigte van die tweede of enige daaropvolgende ambagstoets wat op 'n vrywillige grondslag ingevolge hierdie klousule afgelê word.

(6) 'n Vakleerling wat 'n ambagstoets ingevolge hierdie klousule aflê, moet ten opsigte van die tydperk wat bestee word in verband met een vrywillige toets en die verpligte toets, sy gewone besoldiging deur sy werkgever betaal word ten opsigte van sodanige tydperk van afwesigheid van werk.

(7) 'n Tydperk van afwesigheid van werk vir die doel om 'n ambagstoets ingevolge hierdie klousule af te lê, word vir die toepassing van artikel 26 van die Wet nie geag afwesigheid van werk te wees nie.

6. Opleidingskursusse

'n Werkgever moet 'n vakleerling die praktiese opleiding in die ambag waarvoor hy ingeboek is, gee ooreenkomstig en, vir sover prakties, in die volgorde in die Bylae hieronder aangedui. 'n Vakleerling moet, sover prakties moontlik, opgelei word onder die gereelde toesig van 'n ambagsman of tegnikus wat bevoeg is om hom op te lei in die ambag waarvoor hy ingeboek is.

(iii) no refunds shall be made in respect of supplementary examinations.

5. Trade tests

(1) An apprentice shall undergo a qualifying trade test conducted by the Departments of Labour and of National Education at the stage indicated in the Schedule hereunder in the practice of the trade in which he is indentured:

SCHEDULE

- (i) In three-year trades... As shortly as practicable before the commencement of the final six months of the period of apprenticeship or as soon as possible thereafter.
- (ii) In four-year trades... As shortly as practicable before the end of the third year of the period of apprenticeship or as soon as possible thereafter.
- (iii) In five-year trades... As shortly as practicable before the end of the fourth year of the period of apprenticeship or as soon as possible thereafter.

(2) Notwithstanding the provisions of subclause (1), an apprentice shall not be required to undergo a qualifying trade test if he intends to continue his studies in respect of higher technical qualifications voluntarily: Provided, however, that an apprentice shall undergo a qualifying trade test as soon as practicable after completing such course or as shortly as practicable before the expiration of his period of apprenticeship on a date to be determined by the said Departments.

(3) An apprentice who has obtained a pass at National Technical Certificate, Part II, or equivalent or higher level, in the theory of the trade in which he is indentured, may voluntarily undergo a qualifying trade test after completion of the period of apprenticeship indicated in the Schedule hereunder. A further qualifying test or tests may be undertaken on a date or dates to be determined by the said Departments.

SCHEDULE

- (i) In three-year trades... After two years.
- (ii) In four-year trades... After two and a half years.
- (iii) In five-year trades... After three years.

(4) An apprentice who fails a trade test in terms of subclause (1) may, whether or not he is in possession of the qualification referred to in subclause (3), voluntarily undergo a qualifying trade test during the final year of his period of apprenticeship, or in the case of an apprentice who is indentured in a three-year trade, during the final six months of his period of apprenticeship, on a date to be determined by the said Departments.

(5) A fee of R6 shall be payable by an apprentice in respect of the second or any subsequent trade test undertaken on a voluntary basis in terms of this clause.

(6) An apprentice undergoing a trade test in terms of this clause shall, in respect of the period spent in connection with one voluntary test and the compulsory test, be paid his ordinary wage by his employer in respect of such period of absence from work.

(7) A period of absence from work for the purpose of undergoing a trade test in terms of this clause shall for the purposes of section 26 of the Act, not be deemed to be absence from work.

6. Courses of training

An employer shall provide an apprentice with practical training in the trade in which he is indentured in accordance with and as far as practicable in the sequence indicated in the Schedule hereunder. An apprentice shall, as far as practicable, be trained under the regular supervision of an artisan or technician qualified to train him in the trade in which he is indentured.

OPLEIDINGSPROGRAM BYLAE		PROGRAMME OF TRAINING SCHEDULE	
Logboek- simbool	Praktiese opleiding	Logboek symbol	Practical training
(1) AMBAG: DIESELPASSER (10)		(1) TRADE: ARMAMENT FITTER (46)	
1.	Veiligheidsmaatreëls wat in die werkwinkel nagekom moet word.	1.	Safety measures and first aid generally applicable to the trade.
2.	Identifisering, hantering, regte gebruik en versorging van gereedskap, uitrustings en alle soorte sleutels, met inbegrip van—	2.	Care and use of hand tools.
(a)	wringsleutel;	3.	Basic instruction in fitting, including filing, sawing, cutting, threading (internal and external) of various metals, and drilling.
(b)	ponse en dryfysters;	4.	Marking off.
(c)	staalliniale, verdeelpassers en meetpassers;	5.	Machining on lathe and planing.
(d)	mikrometers (binne en buite), wysermeters en silindermeters;	6.	Checking and repair of armament, including—
(e)	slypmasjiene; en	(a)	breech mechanisms;
(f)	sluittoestelle.	(b)	journals; and
3.	Versiening—	(c)	gearboxes and racks.
(a)	gebruik van verskillende grade en soorte olie; en	7.	Repairing and servicing of—
(b)	aftap, uitspoel, versien en-byvul van enjinoliebakke.	(a)	depth-bomb droppers;
4.	Hantering en versorging van masjiene terwyl hulle herstel word.	(b)	mortar breech mechanisms; and
5.	Inspeksie en vasstelling van slytasie—	(c)	remote control valves.
(a)	in silinders;	8.	Repairing and servicing of armament casing on board and on test bench.
(b)	aan krukas;	9.	Checking, repairing and servicing of armament, including torpedo tubes, sights and depth-discharge gear.
(c)	aan hoof- en grootkopastappe;	10.	Repair and maintenance of hydraulic and pneumatic armament systems.
(d)	aan nokas-astappe;	11.	Repair and maintenance of mechanical armament equipment, propulsion motors and gearboxes.
(e)	aan nokvolgers;	12.	Repair and maintenance of electronic remote control equipment <i>under supervision of special artisans</i> .
(f)	aan kleppe en klepleiers;	13.	Experience in general functioning of pneumatic and hydraulic torpedo equipment (not less than three months).
(g)	aan suiers en suierpenne; en		
(h)	aan tuimelaars en asse.		
6.	Ontkoling; inslyp van kleppe; terugsit van silinderkoppe (met gebruik van wringsleutel en regte vasdraai-volgorde) en stel van klepspelings.		
7.	Afhaal en terugsit van—		
(a)	enjinsamestelling;		
(b)	enjintoebehore; en		
(c)	uitlaateenhede.		
8. (A)	Enjineenhede: Uitmekaarhaal en volledige inmeekaarsit van enjin, met inbegrip van opknapping en terugsit van—		
(a)	suiers, ringe en suierpenne;	1.	Handling, correct use and care of tools and equipment.
(b)	hoof- en grootkoplaers;	2.	Safety precautions to be observed in workshop and protection of upholstery and paint work.
(c)	klepleiers en kleppe;	3.	Mixing of electrolyte.
(d)	vliegwielerkrans.	4.	Fitting of batteries, battery and starter cables.
(B)	Vernuwing van beddings en klepvlakke; klepvere vir spanning nagaan; en	5.	Soldering cable terminals, lugs and jointing.
(C)	Suierstange nagaan en in lyn bring.	6.	Removal and replacement of electrical components.
9.	Tydreëling:	7.	Battery maintenance:
(a)	Kleppe; en	(a)	Servicing, charging, testing, sealing;
(b)	ontsteking.	(b)	diagnosis and internal examination; and
10.	Verkoelingsstelsels:	(c)	fast chargers (effect of temperature).
(a)	Nagaan vir lekkes en verstoppings; verkoelers en enjinblokke skoonmaak; nuwe verkoelerslange aansit;	8.	Uses of and precautions in connection with electrical measuring instruments.
(b)	waaiervand vir toestand en spanning nagaan; en	9.	Overhauling and testing of starter motors and drives.
(c)	algehele versiening, herstel en onderhoud van verkoelingsstelsels, met inbegrip van olie-verkoeling; skoonmaak en nagaan vir verroesting.	10.	Spark plugs: Servicing and testing.
11.	Vertrouwdmaking met die werking van binnebrandenjins en opspoor en herstel van foute.	11.	Use of torque wrench.
12.	Enjins en komponente herstel, opknop en toets, met inbegrip van—	12.	Servicing, testing and timing of magnetos.
(a)	uitlaatturbineblaasstelsels of drukaanjaers en rataangedrewe afsluitblaasstelsels;	13.	Overhauling, testing and polarising of generators.
(b)	oliedrukpompe; en	14.	Care and operation of equipment used in diagnosis and testing of automotive electrical components.
(c)	waterpompe.	15.	Battery and coil ignition systems; testing coil and condenser and ballast resistance.
13.	Herstelwerk aan brandstofinspuitpompe en spuitstukke, met inbegrip van kalibrering.	16.	Distributor:
14.	Pas, rig en stel van alle komponente.	(a)	Checking shaft, bushes and cam for wear; and
15.	Transmissie: Afhaal, herstel en vervanging van—	(b)	installation of bushes; servicing and aligning contact points; checking dwell and synchronising points.
(a)	skyfkoppelings;	17.	Setting ignition timing and adjusting for engine condition and altitude.
(b)	hidrouliese aandrywings; en	18.	Use of—
(c)	ratkaste.	(a)	timing lights;
		(b)	tachometer; and
		(c)	vacuum gauge.
		19.	Rewiring of motor vehicles and reading wiring diagrams.
		20.	Trouble shooting: Checking for open circuits, short circuits, earths, resistance and voltage drop.
		21.	Testing, servicing, repair and adjustment of—
		(a)	cut-outs;
		(b)	regulators;
		(c)	centrifugal governors;
		(d)	solenoid switches;
		(e)	vacuum controls;
		(f)	panel instruments;
		(g)	circuits, switches, lamps and horns;
		(h)	heater fans;
		(i)	relays;
		(j)	rheostats;
		(k)	traffic indicators;
(2) AMBAG: DIESELWERKTUIGKUNDIGE (11)			
1.	Veiligheidsmaatreëls wat in werkwinkel nagekom moet word.		
2.	Versorging van voertuie.		
3.	Veilige dryfgewoontes.		
4.	Identifisering, hantering, regte gebruik en versorging van gereedskap, uitrustings en alle soorte sleutels, met inbegrip van—		
(a)	wringsleutels;		
(b)	ponse en dryfysters;		

[illegible]

Logboek-simbool	Praktiese opleiding	Logboek symbol	Practical training
21.	Waar geriewe bestaan—	26.	Angle iron smithing.
(a)	onderhoud en opknapping van brandstofinspuitstelsels;	27.	Spring work (coil and leaf).
(b)	toets, diagnoseer en herstel van foute in kragange-drewe eenhede en outomatiese transmissie; en	28.	Galvanising.
(c)	onderhoud en opknapping van alternatorlaaistelsels.		
	(3)		(5)
	AMBAG: DRAAIER (MET INBEGRIJ VAN MASJINERING) (47)		TRADE: BRICKLAYER (16)
1.	Veiligheidsmaatreëls op die ambag van toepassing.	1.	First aid.
2.	Versorging en gebruik van sny- en profielbeitels.	2.	Safety precautions generally applicable to the trade.
3.	Versorging en gebruik van meetgereedskap en -instrumente.	3.	Use, upkeep and storage of tools.
4.	Slyp van bore en gereedskap.	4.	Handling of and properties of material, including cement, lime, sand, aggregates and bricks.
5.	Eenvoudige werk op senterdraaibank.	5.	Preparation of mortars.
6.	Bediening van boor- en sterkarmskaafmasjiene.	6.	Use of different bonds.
7.	Lees van tekenings en gebruikmaking daarvan.	7.	Joints of brickwork.
8.	Die korrekte gebruik van toevoer en spoed vir verskillende materiale en werksaamhede.	8.	Simple scaffolding.
9.	Gevorderde werk op die senterdraaibank.	9.	Reading of drawings and technical terms.
10.	Skroefdraaisnywerk binne en buite.	10.	Setting out from plans.
11.	Meervoudige skroefdrade.	11.	Mixing of mortars and concretes for different purposes such as—
12.	Verskillende soorte skroefdrade.	(a)	footings;
13.	Gebruik van spesiale gereedskap en setmate.	(b)	foundations; and
14.	Opstel van werk en gebruik van stelplaat.	(c)	brickwork.
15.	Tapsdraaiwerk binne en buite.	12.	Building in of—
16.	Bediening van freemasjiene, met gebruikmaking van hegstukke.	(a)	window frames; and
	(4)	(b)	door frames.
	AMBAG: ELEKTRISIËN (15)	13.	Laying of concrete floors.
1.	Veiligheidsmaatreëls en eerstehulp normaalweg op die ambag van toepassing.	14.	Face brick work.
2.	Versorging en gebruik van handgereedskap.	15.	Piers.
3.	Algemene basiese paswerk, met inbegrip van—	16.	Reinforced concrete construction.
(a)	vyfwerk;	17.	Coping and sill tiling.
(b)	saagwerk;	18.	Arch construction.
(c)	skroefdraadsny met stok en snymoere en snytappe; en	19.	Fireplaces, furnaces and flues.
(d)	beginsels van afmerk, boorwerk en soldeerwerk.	20.	Methods of cleaning down face brick work.
4.	(a) Eenvoudige installasies;	21.	Brickwork: Quantities and measurements of.
(b)	gleuwe kap;	22.	Plastering of walls, ceilings and skirtings.
(c)	leipype en aanbring van skakelaars, proppe en ligte;	23.	Lay down, screed and finish granolithic floors.
(d)	bedrading en diagramme;	24.	Rough cast plastering and pebble dashing.
(e)	beveiliging deur middel van aarding;	25.	Wall tiling.
(f)	een- en tweewegskakelaars; en	26.	Underpinning, screeding and granolithic work.
(g)	kolkies en aanwysers (beide gelyk- en wisselstroom).	27.	Fixing precast concrete and reconstructed stone blocks.
5.	Konstruksie en installering van verdeelborde.	28.	Laying of—
6.	Bedrading van skakelaars (driehitte) en termostate en onderhoud en herstel van huishoudelike toestelle.	(a)	paving;
7.	Kontinuiteit, isolering en toetsing van aardes.	(b)	slabs;
8.	Gebruik van megger.	(c)	large-diameter pipes; and
9.	(a) Kragverdeelborde;	(d)	storm-water drains.
(b)	meetinstrumente;	29.	Building of manholes.
(c)	pasmaakwerk;	30.	Random stone walling.
(d)	skakelborde; en		
(e)	konstruksie van meters en kontrole-uitrusting.		
10.	(a) Installering en onderhoud van gelyk- en wisselstroom-motore;		
(b)	generators;		
(c)	konvertors;		
(d)	reostate;		
(e)	skakelaars;		
(f)	aansitters;		
(g)	drukknop-afstands- en nabyheidsbeheerskakelaars; en		
(h)	versorging en onderhoud van batterye.		
11.	Bedrading van bogenoemde vanaf en na verdeelbord.		
12.	Afheg van kables.		
13.	Aarding van skakelborde en materiaal wat gebruik word.		
14.	Toetsing van installasies en motore.		
15.	Opsporing en herstel van foute.		
16.	Werk volgens diagramme en tekenings.		
17.	Transformators en hoogspanningskakeltuig—installering en onderhoud.		
18.	Beginsels van ankerwikkeling.		
19.	Oprigting van hoog- en laagspanningslyne.		
	(5)		(6)
	AMBAG: ELEKTRIESE DRAADWERKER (14)		TRADE: CARPENTER (42)
1.	Veiligheidsmaatreëls op die ambag van toepassing.	1.	Safety precautions generally applicable to the trade.
2.	Kennis, versorging en gebruik van gereedskap.	2.	Knowledge and care of hand tools.
3.	Kennis, versorging en gebruik van instrumente.	3.	Knowledge and use of materials.
4.	Apparaat wat by bedrading gebruik word.	4.	Measuring of timber.
		5.	Technical terms.
		6.	Various types of joints.
		7.	Making of simple joints.
		8.	Knowledge, care and maintenance of machine tools.
		9.	Reading and setting out from drawings.
		10.	Fitting and fixing of joinery.
		11.	Carrying out building repairs, renovations and alterations.
		12.	Erecting all types of scaffolding.
		13.	Measuring up for order of materials required.
		14.	Heavy timber structures and their maintenance.
			TRADE: CARPENTER AND JOINER (43)
		1.	First aid.
		2.	Safety precautions generally applicable to the trade.
		3.	Handtools:
		(a)	Knowledge, care and use of; and
		(b)	sharpening and maintenance of.
		4.	Knowledge of and use of various timbers, plywood and composition boards.
		5.	Defects in timber.
		6.	Measuring up timber by hand.
		7.	Truing timber by hand.

Logboek-simbool	Praktiese opleiding	Logbook symbol	Practical training
5.	Bedrading van eenvoudige kringe.	8.	All types of simple joints:
6.	Gleuwe in mure kap.	(a)	Setting out; and
7.	Tegniese terme.	(b)	making.
8.	Bou, aanwending en stroomdravermoëns van die verskillende soorte skakelaars en uitskakelaars.	9.	Glueing.
9.	Lengte van onderbreking wat by eenhede onder agt vereis word.	10.	Nailing.
10.	Bou en aanwending van die verskillende soorte verdeelborde.	11.	Screwing.
11.	Verskillende soorte geleidings- en isoleermateriaal wat gebruik word by verdeelborde en -panele.	12.	Glass-paperying flat surfaces and mouldings.
12.	Skakeling en beheer van elektrisiteit by sy aanwending op verskillende apparate en bybehore wat in die ambag gevind word.	13.	Making and fixing concrete shutterings.
13.	Installering en gebruik van motore.	14.	Reading drawings.
14.	Installering en gebruik van transformators.	15.	Technical terms.
15.	Installering en gebruik van ammeters en voltmeters.	16.	Machine tools:
16.	Installering en gebruik van isolators, plafonrosette, muursokke en -proppe.	(a)	Knowledge, care and use of; and
17.	Installering en gebruik van verskillende soorte lampe, met inbegrip van gasontladingslampe.	(b)	sharpening and maintenance of.
18.	Installering en gebruik van lamphouers en leipype.	17.	Making—
19.	Algemene opleiding in die gebruiksmetodes by bedrading.	(a)	window frames;
20.	Gebruiksmetodes by die elektriese balansering van installasies.	(b)	door frames;
21.	Gebruiksmetodes by oop en bedekte soorte bedrading.	(c)	doors;
22.	Verskillende soorte kringe wat by verskillende installasies gebruik word, byvoorbeeld by verligting en by motore.	(d)	sashes; and
23.	Aardingbeginsels, veral weerstande tussen aarde en installasies.	(e)	cupboards.
24.	Verskillende metodes om vir foute te toets, met spesiale klem op aarding.	18.	Panelling and better class joinery.
25.	Voorsorgmaatreëls teen en behandeling vir elektriese skok.	19.	Working from setting-out rods.
26.	Praktiese toepassing van standaardbedradingsregulasies.	20.	Working from drawings.
(6)		21.	Setting out of work from drawings.
AMBAG: ELEKTRIESE PASSER (13)		22.	Taking out quantities and preparing cutting lists.
1.	Veiligheidsmaatreëls en eerstehulp normaalweg op die ambag van toepassing.	23.	Assembling, fitting and fixing moulding.
2.	Basiese paswerk, met inbegrip van vyl-, saag- en beitelwerk, met besondere aandag aan koper en brons.	24.	Sandpapering.
3. (a)	Skroefdraadsny (binne en buite);	25.	Woodwork: Internal and external finishing of buildings.
(b)	afmerkwark; en	26.	Laying wood floors.
(c)	alle soorte soldeerwerk.	27.	Fitting and/or fixing—
4.	Eenvoudige draaiwerk met verskillende metale.	(a)	door frames;
5.	Laers soos gebruik by elektriese motore en die uithaal en terugsit daarvan.	(b)	window frames;
6.	Herstelwerk aan dryfmeganismes, met inbegrip van bandkatrolle en direkte koppelings.	(c)	picture rails;
7.	Eenvoudige herstelwerk aan elektriese uitrusting op skepe.	(d)	skirtings;
8.	Herstel en onderhoud van verwarmers.	(e)	architraves and mouldings;
9.	Opknapping, herstel en onderhoud van waaiermotor-aansitters, M-tipe motors, met inbegrip van wikkeling van spoel.	(f)	furniture; and
10.	Uitmekaarhaal, herstel en montering van gelyk- en wisselstroommotore.	(g)	fittings and ironmongery.
11.	Gebruik en versorging van ampéremeters, voltmeters, ohmeters en megameters.	28.	Hanging—
12.	Herstel en toets van radarlugdrade en -kabels.	(a)	doors; and
13. (a)	Installering en onderhoud van skeepsverligting; en	(b)	window sashes.
(b)	Onderhoud van skeepskabels.	29.	Setting out and erecting—
14.	Installering van ontwikkeluitrusting in dieselseksies.	(a)	wood and iron structures; and
15.	Installering van hoofkragstelsels; bedrading van masjienkamer en ketelkamers op skepe.	(b)	all types of roofs.
16.	Installering en bedrading van radiokamers, sonaruitrusting en kapteinskwartiere op skepe.	30.	Fixing corrugated roofing materials and weather-board-ing.
17.	Installering van rigters en ander uitrusting op wapentuig.	31.	Renovating, altering and repairing buildings.
18.	Afmerk, versiening en onderhoud van MF-, HF-, BHF-, en UHF-geleiers op uitrusting en bogronde drade.	32.	Erecting all types of scaffolding.
19.	Installering van girokompas en alle verwante beheeruitrusting.	33.	Measuring up for order of materials required.
(7)		34.	Construction and maintenance of heavy timber structures.
AMBAG: ELEKTRONIKA-MEGANIKUS (16)		35.	Training in drawing office.
1.	Veiligheidsmaatreëls en eerstehulp normaalweg op die ambag van toepassing.	(8)	
2.	Versorging en gebruik van gereedskap en uitrusting.	TRADE: CONSTRUCTION PLANT MECHANIC	
3.	Basiese paswerk: Boor, vyl, moerdraadsny, skroefdraadsny, slyp, afmerk en inmeekaarsit van komponente. (Onderwinding in verband met geelkoper, aluminium en sagte staal).	(47)	
		1.	Safety precautions and first aid generally applicable to the trade.
		2.	Care of vehicles and equipment.
		3.	Use and care of all hand tools.
		4.	Where facilities exist, the towing and recovery of vehicles.
		5.	Lubrication and ordinary servicing of vehicles and equipment.
		6.	Maintenance and repair of—
		(a)	generators; and, if possible,
		(b)	alternators.
		7.	Dismantling and assessment of wear on parts such as—
		(a)	cylinders;
		(b)	crankshaft;
		(c)	bearings;
		(d)	camshaft bearings;
		(e)	push rods;
		(f)	valves and guides; and
		(g)	pistons and gudgeon pins.
		8.	Decarbonising; grinding of valves; replacing cylinder head, with special attention to specifications and use of torque wrench and adjusting valve clearances.
		9.	Removal and replacement of wheels, including puncture repairing and replacement of tyres and tubes.

Logboek-simbool	Praktiese opleiding	Logboek symbol	Practical training
4.	Versorging en onderhoud van Servo- en motoraangedrewe potensiometers.	10.	Removal and replacement of—
5.	Soldeerwerk, bedrading en harnaswerk. Ondervinding in verband met etiketborde, etiketstroke, verobord en gedrukte stroombaanborde. Kennis van ontwerpkins en vervaardiging van gedrukte stroombaanborde.	(a)	clutches;
6.	Kennis, gebruik en basiese herstel van toetsapparate, dit wil sê multimeters, syfervoltmeters, funksie- en seingenerators, ossilloskope, vakmansbuisvoltmeters, induktansie-, kapasitansie- en weerstandsbrûe, frekwensietellers, vervormingsfaktormeters, elektroregistreerpenne, ens.	(b)	gear-boxes;
7.	Basiese kennis van elektroniese komponente en simbole. Die toets en identifisering van komponente, kleurkodes, ens.	(c)	differentials;
8.	Kennis en konstruksie van monostabiele, bistabiele, astabiele, Schmitt-snellers, dubbele T-ossillators, eenvoudige ossillators, Wienbrugossillators, faseverskuiwingsossillators, tydreeëlbane, versterkerbane en ander toepaslike bane.	(d)	driving shafts;
9.	Kalibrering van instrumente en uitrusting soos in item 6 deur gebruik te maak van bedieningshandleidings.	(e)	rear-axle system;
10.	Opsporing en uitleg van foute in elektroniese bane, deur toepassing van ondervinding in bogenoemde seksies.	(f)	front-axle system;
11.	Kennis van kragtoevoer (regulering), beveiliging teen oorspanning en oorstroom, koevoetaksie (crowbar action), toevoer van die onderbrekertipe.	(g)	engine parts;
12.	Die gebruik van oordraers om die volgende te meet: Tyd, vervorming, dikte, druk, hoeveelheid, ens.	(h)	engine units;
13.	Deeglike kennis en algehele begrip van konfigurasies van gemeenskaplike basis, gemeenskaplike kollektor en gemeenskaplike emittor; asook kennis van waar en wanneer dit in die tegnologie van toepassing is.	(i)	steering systems;
(a) (i)	Stabiliteit van temperatuurwisseling, wisselstroom- en gelykstroomparameters.	(j)	braking systems;
(ii)	Spanningswinste, stroom- en kragwinste.	(k)	exhaust systems;
(iii)	Ingangs- en uitgangs-impedansie-aanpasbane.	(l)	hydraulic units; and
(iv)	Toestel- en baanparameters.	(m)	"power take-off" systems.
(v)	Koppeling tussen trappe soos by weerstandskoppeltransformator, direkte, Zener- en diodekoppeling.	11.	Engine units, petrol and diesel; dismantling and assembling after complete repair of all parts, including—
(b)	Begrip van die volgende tipes versterkerklasse: A, B, C en A-B.	(a)	pistons, rings, and gudgeon pins;
(c)	Die meet en begrip van die soorte afwykings, soos derdebofrefrekwensievervorming, intermodulasie, fase- en parasiet-ossillasie.	(b)	all bearings;
(d)	Deeglike begrip van negatiewe terugkoppeling soos op versterkers toegepas.	(c)	valve guides and valves, valve springs and valve seats;
(e)	Impedansie-aanpassing, belasting en frekwensieweergawe (Bode-uitstipping).	(d)	connecting rods;
(f)	Die elevasie van impedansie soos byvoorbeeld gelystying en die gebruik van veldeffektransistors en Darlingtontkonfigurasie.	(e)	ring gears; and
(g)	Differensiaalversterkers, konfigurasies en konstantestroom-bronne soos gebruik by differensiaalversterkers.	(f)	timing gears.
14.	Basiese begrip van die beginsels van ossillators.	12.	Sparkling and opening sequence of valves and ignition system.
15.	Lineêre geïntegreerde bane en tegnieke.	13.	Complete servicing, repair and maintenance of cooling systems, including oil cooling.
(a)	Eienskappe:	14.	Engine tune-up without instruments.
(i)	Oopluseienskap;	15.	Complete repairing of, assessment of wear, mounting and alterations to—
(ii)	bandbreedte;	(a)	clutches;
(iii)	swaaitempo;	(b)	transmissions;
(iv)	kompensasie; en	(c)	propeller shafts and joints;
(v)	in- en uitgangseienskappe.	(d)	rear-axle units;
(b)	Basiese baanwerk met operasionele versterkers soos—	(e)	front-axle units;
(i)	spanningsvolger;	(f)	steering units;
(ii)	wisselrigter;	(g)	suspension units;
(iii)	reëlbare versterkers;	(h)	brake systems;
(iv)	spanningteller;	(i)	petrol pumps;
(v)	differensieer-integreerbaan;	(j)	carburettors;
(vi)	aktiewe filters;	(k)	ignition systems;
(vii)	ossillators en multivibrators; en	(l)	hydraulic systems; and
(viii)	toetsing van versterkers.	(m)	wheel balancing systems.
16.	Syfertegnieke:	16.	Checking and adjusting—
(a)	Hekke en hekkombinasies;	(a)	toe-in;
(b)	minimaliseringstegnologie (Boole se kartering);	(b)	castor;
(c)	wipbane: tipes RS, J-K en D;	(c)	camber;
(d)	enkodeerders en dekodeerders;	(d)	king-pin inclination; and
(e)	binêre rekenkunde;	(e)	toe-out.
(f)	skuiftoets, ringtellers, ens.	17.	Elementary gas and electrical welding; brazing and soldering.
(g)	kennis van vertoning (7-segment-, nixiebuis- en matriksvertonings);	18.	Testing, faults diagnosis and remedying of—
(h)	konstruksie van halwe en vol tellers, asook basiese matrikse;	(a)	ignition faults;
(i)	basiese geheuebane; en	(b)	fuel faults;
(j)	basiese kennis van tussenvlakke.	(c)	engine faults;
17.	Basiese kennis van opto-elektronika.	(d)	clutch faults;
		(e)	gear-box faults;
		(f)	propeller shaft faults;
		(g)	differential faults;
		(h)	brake faults;
		(i)	steering faults;
		(j)	suspension faults;
		(k)	electrical faults;
		(l)	faults in engine components; and
		(m)	faults in power take-off systems.
		19.	Electrical equipment—
		(a)	battery (servicing and charging);
		(b)	generator (bushes, bearings, brushes and cleaning of commutator); and
		(c)	starter motor (same as for generator).
		20.	Correct use of—
		(a)	compression tester;
		(b)	vacuum gauge;
		(c)	ammeter and voltmeter;
		(d)	tachometer;
		(e)	fuel pump pressure gauge;
		(f)	timing light;
		(g)	exhaust gas analysers;
		(h)	condenser and coil testers; and
		(i)	spark plug cleaners and testers.

Logboek-simbool	Praktiese opleiding	Logbook symbol	Practical training
	(8) AMBAG: GEREEDSKAP- EN SETMAATMAKER (46)	21.	Handling and use of lifting equipment.
			(9) TRADE: COPPERSMITH (12)
1.	Veiligheidsmaatreëls normaalweg op die ambag van toepassing.	1.	Safety precautions and first aid generally applicable to the trade.
2.	Name van gereedskapstukke.	2.	Identification, use and upkeep of hand tools.
3.	Versorging en gebruik van gereedskap.	3.	Reading of drawings.
4.	Versorging en gebruik van meetinstrumente.	4.	Instruction in the methods of—
5.	Bankwerk met besondere aandag aan—	(a)	soldering;
(a)	vylwerk;	(b)	brazing; and
(b)	saagwerk;	(c)	tinning.
(c)	skraapwerk;	5.	Knowledge and use of materials.
(d)	boorwerk;	6.	Developing and making of simple sheetmetal shapes.
(e)	ruimwerk;	7.	Methods of flanging, pipe bending and making of copper branch pieces.
(f)	skroefdraadsny; en	8.	Methods of oxy-acetylene and electric welding.
(g)	snywerk.	9.	Methods of laying of pipework by use of wires and moulds.
6.	Lees van planne en toepassing daarvan.	10.	Learning the use of all machines in coppersmith's workshop.
7.	Sterkte en eienskappe van materiale.	11.	Learning of methods of tinning and metalling of bearings.
8.	(a) Elementêre paswerk;	12.	Making of complicated sheetmetal shapes.
(b)	masjinerie; en	13.	Specialised training in the welding of ferrous and non-ferrous metals.
(c)	afmerk, wat deel uitmaak van die maak van gereedskap, patrone, meetinstrumente en meters.		(10) TRADE: DIESEL FITTER (1)
9.	(a) Opleiding in werk op alle soorte masjiengereedskap en bankwerk met inbegrip van die maak van—	1.	Safety precautions to be observed in the workshop.
(b)	meters; en	2.	Identification, handling, correct use and care of tools, equipment and all types of spanners, including—
(c)	gevoerde afmerkwerk wat gewoonlik deel uitmaak van vereistes in verband met die gereedskapkamer.	(a)	torque wrench;
10.	Hittebehandeling van metaal en kennis van die eienskappe van materiale.	(b)	punches and drifts;
11.	Lees en toepassing van tekenings.	(c)	steel rules, dividers and calipers;
12.	Inspeksie van vervaardigingsproses en van klaargemaakte artikel.	(d)	micrometers (inside and outside), indicators and cylinder gauges;
13.	Gebruik van spesiale masjiene wat nie voortdurend in die ambag gebruik word nie.	(e)	grinding machines; and
		(f)	locking devices.
	(9) AMBAG: GROFSMID (4)	3.	Servicing:
1.	Eerstehulp en veiligheidsmaatreëls normaalweg op die ambag van toepassing.	(a)	Use of different grades and types of oil; and
2.	Vure in oop herde maak en in stand hou.	(b)	draining, flushing, servicing and topping up of engine sumps.
3.	Steenkool, kooks en klinkers sorteer.	4.	Handling and care of machines while undergoing repairs.
4.	Oonde reguleer.	5.	Inspection and assessment of wear—
5.	Regte manier om voorslaanwerk te doen.	(a)	in cylinders;
6.	Gebruik van—	(b)	on crankshafts;
(a)	voorhamers;	(c)	on main and big-end shaft journals;
(b)	saals; en	(d)	on camshaft journals;
(c)	vormysters.	(e)	on cam followers;
7.	Maak van eenvoudige smidsgereedskap en smeestukke.	(f)	on valves and valve guides;
8.	Onderskei tussen yster, staal en gietyster volgens korrel en splyting.	(g)	on pistons and gudgeon pins; and
9.	Kennis van ysterhoudende metale en hul eienskappe.	(h)	on rockers and shafts.
10.	Lees van tekenings.	6.	Decarbonising; grinding of valves; replacing cylinder heads (using torque wrench and correct tightening sequence) and adjusting valve clearances.
11.	Maak van klein smeestukke soos—	7.	Removing and replacing of—
(a)	pypklampe;	(a)	engine assemblies;
(b)	U-boute;	(b)	engine fittings; and
(c)	haakspykers; en	(c)	exhaust units.
(d)	vloerpenne.	8.	(A) Engine units: Dismantling and complete assembling of engine, including overhauling and replacing of—
12.	Onderrig in korrekte temperatuur vir smee- en smee-laswerk, klein smeestukke en smeerwerk oor die algemeen.	(a)	pistons, rings and gudgeon pins;
13.	Werkstukke temper op grond van kleurwaarneming.	(b)	main and big-end bearings;
14.	Oksiasetileensnywerk.	(c)	valve guides and valves;
15.	Hantering van en smee met stoom- of kraghamers.	(d)	fly wheel ring gears.
16.	Buig van—	(B)	Reconditioning of seatings and valve faces; checking valve springs for tension; and
(a)	staalpype; en	(C)	Checking and aligning connecting rods.
(b)	stawe.	9.	Timing:
17.	Berekening van hoeveelheid materiaal wat nodig is.	(a)	Valves; and
18.	Alle soorte aambeeldwerk.	(b)	ignition.
19.	Wielbande aankrimp en soortgelyke werk, met onderrig betreffende korrekte toleransies.		
20.	Maak en temper van gereedskap soos—		
(a)	klipbeitels;		
(b)	beitels; en		
(c)	bylkoppe.		
21.	Snelgereedskap en alooistaal smee en temper waar beheerde temperatuur nodig is.		
22.	Uitgloeïing en normalisering.		
23.	Valsmeewerk.		
24.	Ankers en kables opmeet.		
25.	Toets van hystoestelle (boottoe, toe en staaltoe).		
26.	Hoekystersmidwerk.		
27.	Veerwerk (kronkel- en blad-).		
28.	Galvanisering.		

Logboek-simbool	Praktiese opleiding	Logboek symbol	Practical training
	(10) AMBAG: INSTRUMENTMAKER (19)	10.	Cooling systems:
1.	Eerstehulp en veiligheidsmaatreëls normaalweg op die ambag van toepassing.	(a)	Checking for leaks and stoppages; cleaning radiators and engine blocks; fitting new radiator hoses;
2.	Onder toesig van of 'n instrukteur of 'n ambagsman—gebruik, hantering en versorging van meetinstrumente; gebruik en slyp van bore;	(b)	checking fan belt for condition and tension; and
(a)	vyl; en	(c)	complete servicing, repairing and maintenance of cooling systems, including oil cooling; cleaning and checking for rust formation.
(b)	sag- en hardsoldeerwerk.	11.	Familiarisation with working of internal combustion engines and tracing and repairing of faults.
(c)	Gebruik van die bandsaag.	12.	Repairing, overhauling and testing of engines and component parts, including—
(d)	Ligte draaiwerk.	(a)	exhaust turbine blower systems or superchargers and gear-driven scavenging blower devices;
3.	Kennis van die sterkte en gebruik van verskillende soorte materiale;	(b)	oil pressure pumps; and
(a)	lees van tekenings.	(c)	water pumps.
4.	Gebruik en slyp van gereedskap.	13.	Repairs to fuel injection pumps and jets, including calibrating.
5.	Draaiwerk op draaibank.	14.	Fitting, aligning and adjusting of all component parts.
6.	Fatsoenering.	15.	Transmission: Removing, repairing and replacing of—
7.	Freeswerk; en	(a)	disc couplings;
8.	graveerwerk.	(b)	hydraulic drives; and
9.	Handsoldeerwerk.	(c)	gear-boxes.
10.	Ratte en wurmwiele maak.		(11) TRADE: DIESEL MECHANIC (2)
11.	Versilwering.	1.	Safety precautions to be observed in workshop.
12.	Lakverniss- en spuitverfwerk.	2.	Care of vehicles.
13.	Vervaardiging van en herstelwerk aan—	3.	Safe driving habits.
14.	elektriese;	4.	Identification, handling, correct use and care of tools, equipment and all types of spanners, including—
(a)	optiese; en	(a)	torque wrench;
(b)	alle ander wetenskaplike instrumente.	(b)	punches and drifts;
(c)	Reguit en ronde graadindielings.	(c)	drills, reamers, stocks and dies and taps;
15.	Tekenings van sketse af maak.	(d)	steel rules, dividers, calipers and scribes;
16.		(e)	hacksaws;
	(11) AMBAG: INSTRUMENTMEGANIKUS (20)	(f)	feeler gauges, micrometers (inside and outside), dial gauges and cylinder gauges;
1.	Veiligheidsmaatreëls wat normaalweg op die ambag van toepassing is.	(g)	hydraulic jacks, trestles, creepers and hoists;
2.	Versorging en gebruik van gereedskap.	(h)	compressors;
3.	Gereedskap:	(i)	grinding machines; and
(a)	Skerpmaak van; en	(j)	locking devices.
(b)	slyp en kennis van gereedskapshoeke.	5.	Where facilities exist, towing and recovery of vehicles.
4.	Gedrag en identifisering van materiale wat normaalweg gebruik word.	6.	Lubrication and servicing of vehicles:
5.	Opleiding in—	(a)	Use of different grades and types of oils and greases;
(a)	afmerk;	(b)	methods of draining, flushing, servicing and filling engine sumps, gearboxes and rear axle housings; and
(b)	boor;	(c)	battery servicing: Top-up electrolyte, clean battery case, terminal posts and cables.
(c)	moerdraadsny;	7.	Instruction in generator charging systems.
(d)	saag;	8.	Inspection and assessment of wear—
(e)	kap;	(a)	in cylinders;
(f)	vyl; en	(b)	on crankshafts;
(g)	skroefdraadsny.	(c)	on main and big-end journals;
6.	Kennis van verskillende soorte skroefdraad.	(d)	on camshaft journals;
7.	Met meganiese presisie-instrumente werk.	(e)	on cam followers;
8.	Elementêre draaiwerk.	(f)	on valves and valve guides;
9.	Met nou toleransies van tekenings af werk en met materiaal wat gewoonlik in meganiese instrumente gebruik word.	(g)	on pistons and gudgeon pins; and
10.	Elementêre sweis-, sweissoldeer- en plaatmetaalwerk soos op die ambag van toepassing.	(h)	on rockers and shafts.
11.	Kennis van werk met materiale en komponente wat gewoonlik in elektriese instrumente gebruik word, soos—	9.	Decarbonising; grinding-in valves; replacing cylinder heads (using torque wrench and correct tightening sequence) and adjusting valve clearances.
(a)	gelei- en isoleermateriale;	10.	Road wheels: Removal and replacement of wheels, tyres and tubes; rotation of wheels.
(b)	sagte en harde soldeersel;	11.	Removal and replacement of—
(c)	weerstande;	(a)	clutches;
(d)	spoel; en	(b)	gear-boxes;
(e)	kapasitors.	(c)	propeller shafts and universal joints;
12.	Met elementêre meetinstrumente werk.	(d)	springs and hangers;
13.	Bedrading van elementêre elektriese en elektroniese stroomkringe soos op die ambag van toepassing.	(e)	front axle assemblies;
14.	Herstelwerk aan en die insit van die nodige vervangdele in elementêre instrumente (met inbegrip van kalibrering), byvoorbeeld—	(f)	rear axle assemblies;
(a)	drukmeters; en	(g)	shock absorbers and damper systems;
(b)	vloeistofmanometers.	(h)	engine assemblies;
15.	Instrumentkomponente:	(i)	engine accessories;
(a)	Algemene paswerk; en	(j)	steering boxes and linkages;
(b)	draaiwerk.	(k)	suspension units;
16.	Hittebehandeling van klein gereedskap en instrumentkomponente.	(l)	brake shoe assemblies; and
17.	Lees van gevorderde tekenings.	(m)	exhaust units.
18.	Opleiding in—		
(a)	installering;		
(b)	verwydering;		
(c)	herstel;		
(d)	onderhoud;		

Logboek-simbool	Praktiese opleiding	Logboek symbol	Practical training
(e) (f)	instelling; en kalibrering van visiese, veral meganiese (met inbegrip van druk-) en elektriese (met inbegrip van elektroniese) instrumente wat vir meet- en kontrole-doeleindes gebruik word. (Die werk moet die vervanging van verslete of beskadigde komponente deur nuwes en die maak van nuwe komponente insluit.)	12.	Engine units: Dismantling and complete assembling of engine, including overhauling and fitting of—
19.	Bedrading van instrumentkringe, met inbegrip van die bedrading van instrumentpanele.	(a)	pistons, rings and gudgeon pins;
20.	Opsporing van elementêre elektriese en elektroniese kringe van bedradings- en skematiese diagramme af.	(b)	main and big-end bearings;
21.	Foutopsporing in—	(c)	valve guides and valves—recondition seats and valve faces; check valve springs for tension;
(a)	elektriese instrumente;	(d)	connecting rods (where facilities exist—check and align), and
(b)	elektroniese instrumente; en	(e)	flywheel ring gears.
(c)	kontrolekringe.	13.	Timing:
	(12)	(a)	Valves; and
	AMBAG: KOPERSMID (9)	(b)	ignition.
1.	Veiligheidsmaatreëls en eerstehulp normaalweg op die ambag van toepassing.	14.	Cooling systems:
2.	Identifisering, gebruik en onderhoud van handgereedskap.	(a)	Check for leaks or blockages; cleaning radiators and engine blocks; fit new radiator hoses;
3.	Lees van tekenings.	(b)	check thermostats;
4.	Onderrig in die metodes van—	(c)	overhaul water pumps; and
(a)	soldeerwerk;	(d)	check fan belts for condition and tension.
(b)	sweis soldeerwerk; en	15.	Overhaul, assess for wear, reassemble and adjust where necessary—
(c)	vertinning.	(a)	clutches;
5.	Kennis en gebruik van materiale.	(b)	gear-boxes;
6.	Eenvoudige plaatmetaalvorms ontwerp en maak.	(c)	propeller shafts;
7.	Metodes van omflensing, pybuiing en die vervaardiging van kopertakstukke.	(d)	final drive assemblies;
8.	Metodes van sweis met 'n oksiasetileenvlam en elektriesiteit.	(e)	front axle assemblies;
9.	Metodes van pypaanleg deur gebruikmaking van drade en vorms.	(f)	rear axle assemblies;
10.	Gebruik van alle masjiene in die kopersmidswinkel aanleer.	(g)	compressor units; and
11.	Metodes van vertinning en metallisering van laers aanleer.	(h)	suspension systems.
12.	Ingewikkelde plaatmetaalvorms maak.	16.	Brake systems: Repair and overhaul of component parts:
13.	Gespesialiseerde opleiding in die sweis van ysterhoudende en nie-ysterhoudende metale.	(a)	Vacuum power; and
	(13)	(b)	hydraulic.
	AMBAG: LETTERSKILDER (45)	17.	Testing, diagnosis and rectification of faults with emphasis on adjustment and repair of units and component parts.
1.	Eerstehulp en veiligheidsmaatreëls normaalweg op die ambag van toepassing.	18.	Maintenance and repair of fuel pump systems.
2.	Gebruik en versorging van gereedskap en materiale.	19.	Front end correction; wheel balancing; tyre faults.
3.	Bereiding van oppervlakke:	20.	Frame alignment.
(a)	Gebruik van pigmente;	21.	Where facilities exist—
(b)	gebruik van verdunners; en	(a)	maintenance and overhaul of fuel injector systems;
(c)	gebruik van droogmiddels.	(b)	testing, diagnosis and rectification of faults on power operated units and automatic transmission; and
4.	Metodes om verf aan te wend.	(c)	maintenance and overhaul of alternator charging systems.
5.	Ou verf verwyder.		(12)
6.	Verf meng en aanwend.		TRADE: DIE SINKER AND ENGRAVER (39)
7.	Primêre en sekondêre kleure.	1.	Safety precautions generally applicable to the trade.
8.	Alle soorte oppervlakke verf en vernis.	2.	Care and use of hand tools.
9.	Gevorderde verfwerk.	3.	Care and use of measuring instruments, viz. vernier, depth gauge and micrometer.
10.	Vernis en kleurvermenging en algemene kennis van skilderwerk.	4.	Elementary chipping, drilling, reaming, sawing, scraping, screwing and tapping.
11.	Alle soorte letters afmerk en fatsoeneer, met inbegrip van bladgoudwerk.	5.	Sharpening of drills and cutters.
12.	Oprigting van steiers en lere.	6.	Reading of drawings and art work and application thereof.
	(14)	7.	Knowledge of physical properties of material used in the trade.
	AMBAG: LOODGIETER (35)	8.	Preparation of masters.
1.	Eerstehulp.	9.	Elementary modelling in clay and casting.
2.	Veiligheidsmaatreëls normaalweg op die ambag van toepassing.	10.	Knowledge of reproduction of dies.
3.	Versorging en gebruik van gereedskap.	11.	Simple letter cutting.
4.	Materiale en masjiene.	12.	Hand punching and layout of letters on dies.
5.	Elementêre plaatmetaalwerk.	13.	Elementary heat treatment.
6.	Gebruik van—	14.	Preparation of dies.
(a)	pyptoebehore; en	15.	Hand and machine engraving of block, script and fancy lettering.
(b)	verskillende soorte wasters en pakkings.	16.	Hand finishing of metal dies in relief.
7.	Eenvoudige patrone uitsny.	17.	Preparation of sketches for customer. (Presentation drawing, beginning with object drawing).
8.	Pype afsny en skroefdraad insny.	18.	Precision work with hand tools.
9.	Maak van—	19.	Marking off.
(a)	geute; en	20.	Operating machines applicable to the trade.
(b)	geutpype.	21.	Die cleaning and polishing.
10.	Van planne af werk.	22.	Modelling and preparation of masters.
11.	Soldeer.	23.	Lettering and manuscript (pure).
12.	Vertin.	24.	Elementary commercial art, including layouts, design applicable to the trade, lettering and design of trade-marks and badges.
		25.	Figure drawing, including portraiture.

Logboek-simbool	Praktiese opleiding	Logboek symbol	Practical training
13.	Klink.		(13)
14.	Gebruik van smeltmiddels.		TRADE: ELECTRICAL FITTER (6)
15.	Tegniese terme.		
16.	Pype—	1.	Safety measures and first aid generally applicable to the trade.
(a)	afsnij;	2.	Basic fitting, including filing, sawing and chiseling, with particular attention to copper and bronze.
(b)	skroefdraad insny;	3.	(a) Threading (internal and external);
(c)	las; en	(b) marking off; and	(c) all types of soldering.
(d)	aanlê.	4.	Simple tining of various metals.
17.	Aansit van—	5.	Bearings used in electrical motors and removing and replacing thereof.
(a)	afsluitkrane;	6.	Repairing driving mechanisms, including belt pulleys and direct coupling.
(b)	kleppe;	7.	Simple repairs to electrical equipment on ships.
(c)	uitsitvoë;	8.	Repair and maintenance of heaters.
(d)	koperpype;	9.	Overhauling, repairing and maintenance of fan motor starters, M-type motors, including winding of coils.
(e)	afvoer- en uitlaatpype;	10.	Dismantling, repairing and assembling direct and alternating current motors.
(f)	sperders;	11.	Use and care of ammeters, voltmeters, ohmmeters and megameters.
(g)	luggype;	12.	Repair and testing of radar aerials and cables.
(h)	geute;	13.	(a) Installation and maintenance of ship's lighting; and
(i)	geutpype; en	(b) maintenance of ship's cables.	
(j)	oorslaglasse.	14.	Installation of generating equipment in diesel sections.
18.	Installering van warmwaterstelsels.	15.	Installation of main systems; wiring of ship's engine and boiler rooms.
19.	Uitlê van rioolstelsels.	16.	Installation and wiring of ship's radio rooms, sonar equipment and captain's quarters.
20.	Verskillende soorte rioolpype lê en las.	17.	Fitting sighting fixtures and other equipment on armament.
21.	Installering van—	18.	Marking off, servicing and maintenance of MF, HF, VHF and UHF conductors on equipment and overhead wires.
(a)	gemak- en urinaalstelle;	19.	Installation of gyro compass and all related control equipment.
(b)	spoelbakke en sperders; en		
(c)	gietysterpypwerk (algemeen).		
22.	Lees van planne en spesifikasies.		(14)
23.	Praktiese toepassing van munisipale regulasies, waar van toepassing.		TRADE: ELECTRICAL WIREMAN (5)
24.	Gevorderde plaatmetaalwerk.	1.	Safety precautions applicable to the trade.
25.	Meters—	2.	Knowledge, care and use of tools.
(a)	insit; en	3.	Knowledge, care and use of instruments.
(b)	lees.	4.	Apparatus used in wiring work.
26.	Gebruik van oksiasetileenuitrusting.	5.	Wiring of simple circuits.
27.	Sweissooldeer.	6.	Chasing of walls.
28.	Sweis.	7.	Technical terms.
29.	Loodpype las en lê.	8.	Construction, application and current carrying capacities of the various types of switches and cut-outs.
30.	Verdikking van plaatlood.	9.	Length of break required in units under 8.
31.	Putriole:	10.	Construction and application of the various types of distribution boards.
(a)	Installering; en	11.	The various types of conducting and insulating materials used in distribution boards and panels.
(b)	onderhoud.	12.	Switching and control of electricity in its application to various apparatus and accessories found in the trade.
32.	Bou van mangate.	13.	Installation and use of motors.
33.	Loodlaswerk.	14.	Installation and use of transformers.
		15.	Installation and use of ammeters and voltmeters.
		16.	Installation and use of insulators, ceiling roses, wall sockets and plugs.
		17.	Installation and use of various types of lamps, including gaseous discharge lamps.
		18.	Installation and use of lampholders and conduits.
		19.	General training in methods used in wiring.
		20.	Methods used in electrical balancing of installations.
		21.	Methods of open and concealed types of wiring.
		22.	Various types of circuits for various installations such as lighting and motors.
		23.	Earthing principles, especially resistances between earth and installations.
		24.	Various methods of testing for faults, with specific emphasis on earthing.
		25.	Precautions against and treatment for electric shock.
		26.	Practical application of standard wiring regulations.
			(15)
			TRADE: ELECTRICIAN (4)
		1.	Safety measures and first aid generally applicable to the trade.
		2.	Care and use of hand tools.

Logboek-simbool	Praktiese opleiding	Logboek symbol	Practical training
16.	Besondere aandag aan stel van setmate.	3.	General basic fitting, including—
17.	Metodes van stel en vervanging van gereedskap.	(a)	filing;
18.	Stel van spesiale masjiene wat nie voortdurend in die ambag gebruik word nie.	(b)	sawing;
19.	Gevorderde stelwerk onder toesig van 'n gereedskap-steller.	(c)	threading by means of stocks and dies and taps; and
		(d)	principles of marking off, drilling and soldering.
		4. (a)	Simple installations;
		(b)	chasing;
		(c)	conduits and fixing of switches, plugs and lights;
		(d)	wiring and diagrams;
		(e)	protection by means of earthing;
		(f)	one- and two-way switches; and
		(g)	bells and indicators (both direct and alternating current).
		5.	Construction and installation of distribution boards.
		6.	Wiring of switches (three-heat) and thermostats and maintenance and repairs to domestic appliances.
		7.	Continuity, insulation and testing of earths.
		8.	Use of megger.
		9. (a)	Power distribution boards;
		(b)	measuring instruments;
		(c)	fitting;
		(d)	switch boards; and
		(e)	construction of meters and controlling equipment.
		10. (a)	Installation and maintenance of direct and alternating current motors;
		(b)	generators;
		(c)	converters;
		(d)	rheostats;
		(e)	switches;
		(f)	starters;
		(g)	push-button remote and proximity control switches; and
		(h)	care and maintenance of batteries.
		11.	Wiring of the above from and to distribution board.
		12.	Making-off of cables.
		13.	Earthing of switch boards and materials used.
		14.	Testing of installations and motors.
		15.	Tracing of faults and repairs.
		16.	Working according to diagrams and drawings.
		17.	Transformers and high-voltage switch gear—installation and maintenance.
		18.	Principles of armature winding.
		19.	Erection of high- and low-tension lines.
	(16)		(16)
	AMBAG: MESSELAAR (5)		TRADE: ELECTRONICS MECHANICIAN (7)
1.	Eerstehulp.	1.	Safety precautions and first aid generally applicable to the trade.
2.	Veiligheidsmaatreëls normaalweg op die ambag van toepassing.	2.	Care and use of tools and equipment.
3.	Gebruik, onderhoud en berging van gereedskap.	3.	Basic fitting: drilling, filing, tapping, threading, grinding, marking off and assembly of component parts. (Experience in brass, aluminium and mild steel).
4.	Hantering en eienskappe van materiaal, met inbegrip van sement, kalk, sand, toeslag en stene.	4.	Care and maintenance of Servo and motor driven potentiometers.
5.	Bereiding van dagha.	5.	Soldering, wiring and harnessing. Experience with tag-boards, tagstrips, veroboard and printed circuit boards. Knowledge of artwork design and manufacture of printed circuit boards.
6.	Gebruik van verskillende verbande.	6.	Knowledge, use and basic repair of test equipment, i.e. multimeters, digital voltmeters, function and signal generators, oscilloscopes, vacuum tube voltmeters, inductance, capacitance and resistance bridges, frequency counters, distortion factor meters, pen recorders, etc.
7.	Voegstrykwerk.	7.	Basic knowledge of electronic components and symbols. Testing and identification of components, colour codes, etc.
8.	Eenvoudige steierwerk.	8.	Knowledge and construction of monostables, bistables, astables, Schmitt triggers, twin T oscillators, unijunction oscillators, Wien bridge oscillators, phase shift oscillators, timing circuits, amplifier circuits and other applicable circuits.
9.	Lees van tekenings en tegniese terme.	9.	Calibration of instruments and equipment as in item 6 making use of service manuals.
10.	Van planne af afmerk.	10.	Tracing of faults in electronic circuits, interpretation using experience from sections above.
11.	Dagha en beton vir verskillende doeleindes meng soos vir—	11.	Knowledge of power supplies (regulation), overvoltage and overcurrent protection, crowbar action, chopper type supplies.
(a)	voetlae;	12.	Use of transducers to measure: Time, distortion, thickness, pressure, quantity, etc.
(b)	fondamente; en		
(c)	steenwerk.		
12.	Inbou van—		
(a)	vensterkosyne; en		
(b)	deurkosyne		
13.	Lê van betonvloere.		
14.	Siersteenwerk.		
15.	Pylers.		
16.	Gewapendebetonbouwerk.		
17.	Deklae en vensterbankteëlwerk.		
18.	Boogkonstruksie.		
19.	Vuurherde, oonde en rookgange.		
20.	Metodes om siersteenwerk skoon te maak.		
21.	Steenwerk: Hoeveelhede en metings.		
22.	Pleister van mure, plafonne en vloerlyste.		
23.	Granolitiese vloere lê, afvlak en afwerk.		
24.	Rofkaspleister- en grinstrooiwerk.		
25.	Beteëling van mure.		
26.	Onderstutting, afvlakking en granolitiese werk.		
27.	Voorafgegiete beton- en fineerklipblokke vassit.		
28.	Lê van—		
(a)	plaveie;		
(b)	plaatblokke;		
(c)	grootdiameterpipe; en		
(d)	stormwaterriole.		
29.	Bou van mangate.		
30.	Rugelaagde klipmure bou.		
	(17)		
	AMBAG: MEULMAKER (ELEKTRO-MEGANIES)		
	(25)		
1.	Veiligheidsmaatreëls en eerstehulp normaalweg op die ambag van toepassing.		
2.	Basiese opleiding onder toesig van geskikte persone in die volgende:		
(a)	Elektrotegniese werk (vyf maande) (slegs handgereedskap):		
(i)	Gebruik van handgereedskap wat nie by elektrotegniese werk gebruik word nie;		
(ii)	sagsoldeer- en sweissoldeerwerk;		
(iii)	las van drade;		
(iv)	werk in verband met spoel, weerstande en komponente van aansitters, rels en kontakters; en		
(v)	kennis en gebruik van geleiers en isoleerders wat algemeen gebruik word.		
(b)	Paswerk (vyf maande) (slegs handgereedskap):		
(i)	Afmerkwerk;		
(ii)	vylwerk en skraapwerk;		
(iii)	splinter- en saagwerk;		
(iv)	gebruik van meetinstrumente;		
(v)	skroefdraadsny—binne en buite;		
(vi)	basiese paswerk; en		
(vii)	kennis en gebruik van verskillende metale wat algemeen gebruik word.		
(c)	Algemeen:		
(i)	Algemene ondervinding in onderhoudswerkwinkel, met inbegrip van lees van tekenings (vier maande); en		
(ii)	algemene ondervinding in elektrotegniese werkwinkel (vier maande).		

Logboek-simbool	Praktiese opleiding	Logboek symbol	Practical training
3. (a) (b) (c)	Onderhoud; oprigting; en installering van masjinerie (meganies), met inbegrip van hyskrane.	13.	Thorough knowledge and complete understanding of the following: Common base, common collector, common emitter configurations and knowledge of when and where these are applied in technology.
4. (a) (b) (c)	Onderhoud; oprigting; en installering van bewegende en beheeruitrusting (elektries), met inbegrip van hyskrane.	(a) (i) (ii) (iii) (iv) (v)	Stability of temperature variations, AC and DC parameters; voltage gains—current gains and power gains; input and output impedance matching circuits; device parameters and circuit parameters; and coupling between stages such as resistance coupling transformer, direct, zener and diode coupling.
5.	Algemene elektrotegniese werk.	(b)	Understanding of types of amplifier classes A, B, C and A-B.
6. (a) (b)	Intensiewe opleiding, onder toesig in— onderhoud van alle soorte beheeruitrusting; en lees en toepassing van beheeruitrustingdiagramme (70 per sent van die opleidingstyd moet, waar moontlik, aan elektrotegniese werk gewy word).	(c) (d) (e) (f) (g)	Measurement and understanding of the types of aberrations such as—third-harmonic distortion, intermodulation, phase and parasitic oscillation. Thorough understanding of negative feedback applied to amplifiers. Impedance matching, loading and frequency response (Bode plotting). Elevation of impedance such as bootstrapping, use of field effect transistors and Darlington configuration. Differential amplifiers, configurations and constant-current sources used in differential amplifiers.
	(18) AMBAG: MODELMAKER (30)	14.	Basic understanding of the principles of oscillators.
1.	Eerstehulp.	15.	Linear Integrated Circuits and Techniques.
2.	Veiligheidsmaatreëls normaalweg op die ambag van toepassing.	(a)	Characteristics:
3.	Gereedskap:	(i) (ii) (iii) (iv) (v)	Open loop characteristics; bandwidth; slew-rate; compensation; and input and output characteristics.
(a) (b)	Gebruik van; en skerpmaak en onderhoud van.	(b)	Basic circuitry with operation amplifiers, such as—
4.	Gebruik van verskillende soorte timmerhout, laaghout en hardhout.	(i) (ii) (iii) (iv) (v) (vi) (vii) (viii)	voltage follower; inverter; variable gain amplifier; voltage summer; differentiator integrator; active filters; oscillators and multivibrators; testing of amplifiers.
5.	Defekte in timmerhout.	16.	Digital techniques:
6.	Alle soorte lasse en die gebruik daarvan.	(a) (b) (c) (d) (e) (f) (g)	Gates and gate combination; minimisation technology (Boolean mapping); flip-flops: RS, J-K, D types; encoders and decoders; binary arithmetic; shift register, ring counters, etc.;
7.	Lymwerk.	(h)	knowledge of display (7 segment, nixie tubes, matrix displays);
8.	Spykerwerk.	(i) (j)	construction of half and full adders, as well as basic matrixes; basic memory circuits; and basic knowledge of interfacing.
9.	Skroefwerk.	17.	Basic knowledge of Opto electronics.
10.	Tappenwerk.		(17) TRADE: FITTER AND TURNER (23)
11.	Vernis van—	1.	Safety precautions to be observed in the workshop.
(a) (b)	modelle; en kernbakke.	2. (a) (b) (c) (d) (e) (f) (g) (h)	Handling, correct use, care and bench use of tools and equipment, including: Filing; sawing, scraping and drilling; reaming; screw cutting; blade measurements, micrometers, (inside and outside), dial meters and cylinder meters; reading of drawings and application thereof; and handling and care of all tools.
12.	Modelle bêre.	3.	Care and use of grindstones, drills and tipped tools, with special emphasis on cutting angles and clearances.
13.	Metaalpatrone afwerk.	4.	Elementary turning.
14.	Gietlopers—	5.	Fitting of parts.
(a) (b)	sny; en maak van.	6.	Manufacturing of parts from drawings.
15.	Met skuurpapier skuur.	7.	Fitting of keys and keyways.
16.	Was- en leerstroke aanwend.	8.	Fitting of bearings and bushes.
17.	Tekenings lees.	9.	General training in—
18.	Gebruik van houtwerkmasjiene (na eerste ses maande).	(a) (b) (c)	assembly; repair; and maintenance of machinery and mechanical equipment.
19.	Algemene hout- en skrynwerk.		
20.	Spelings bereken vir—		
(a) (b) (c) (d)	krimp; skeef trek; masjinerie; en voorkoming van barste in gietstukke.		
21.	Werktekenings van monsters en bloudrukke af maak.		
22.	Onderrig in die gebruik van—		
(a) (b) (c) (d) (e) (f) (g)	afstrykers; plaatgietwerk; skeletwerk; modelmaak; kernbakke; kilgietvorms; en bekisting.		
23.	Opleiding in gietwerk (vir minstens drie maande).		
24.	Heelmaak en onderhoud van modelle en kernbakke.		
25.	Raming.		
	(19) AMBAG: MOTORELEKTRISIËN (2)		
1.	Hantering, regte gebruik en versorging van gereedskap en uitrusting.		
2.	Veiligheidsmaatreëls wat in die werkwinkel nagekom moet word en beveiliging van bekledings- en verfwerk.		
3.	Meng van elektroliet.		
4.	Insit van battery, battery- en aansitterkabels.		
5.	Soldeer van kabelaansluiters, -ore en -lasse.		
6.	Verwydering en terugsit van elektriese komponente.		
7.	Onderhoud van battery:		
(a) (b) (c)	Versiening, laai, toets, verseëling; diagnose en inwendige ondersoek; en vinnige laaiers (uitwerking van temperatuur).		
8.	Gebruik van en voorsorgmaatreëls in verband met elektriese meetinstrumente.		
9.	Opknop en toets van aansitmotore en -aandrywings.		
10.	Vonkproppe: Versiening en toetsing.		
11.	Gebruik van wringsleutel.		
12.	Versiering, toetsing en tydreëling van magneto's.		
13.	Opknop, toets en polariseer van generators.		

Logboek-simbool	Praktiese opleiding	Logboek symbol	Practical training
14.	Versorging en bediening van uitrusting wat by diagnoseer en toets van motor-elektriese komponente gebruik word.	10.	Advanced turning on centre lathe, including— (a) internal; and (b) external screwing; (c) setting up of work; (d) determination of special procedures; and (e) face plate work.
15.	Battery- en spoelontstekingsstelsels; toets van spoel- en kondensator- en ballasweerstand.	11.	(a) Internal; and (b) external turning.
16.	Verdelers: (a) As, busse en nok vir slytasie nagaan; en (b) installering van busse; versiening en in lyn bring van kontakpunte; nagaan van nokrushoek en punte sinchroniseer.	12.	(a) Turning of bushes; and (b) linings for push, press and shrinking fits.
17.	Ontstekingstyd stel vir enjintoestand en hoogte verstel.	13.	General pipework; low- and high-pressure pipe systems.
18.	Gebruik van— (a) tydreëlligte; (b) tagometer; en (c) vakuummeter.		(18) TRADE: FITTER (INCLUDING MACHINING) (24)
19.	Herbedrading van motorvoertuie en lees van bedradingsdiagramme.	1.	Safety precautions generally applicable to the trade.
20.	Foutspeuring: Nagaan vir oop kringe, kortsluitings, aarding, weerstand en spanningsval.	2.	Care and use of hand tools.
21.	Toets, versiening, herstel en verstelling van— (a) uitskakelaars; (b) reëlaars; (c) sentrifugale reëlaars; (d) solenoïedskakelaars; (e) vakuumpontroles; (f) paneelinstrumente; (g) kringe, skakelaars, lampe en toeters; (h) verhitte waaiers; (i) relës; (j) reostate; (k) rigtingwysers; (l) ruitveermotore; (m) elektriese brandstoppompe; (n) elektriese transmissiekontroles; en (o) alternators en reëlaars.	3.	Drilling (hand and machine).
22.	Instel van kopligte.	4.	Chipping, filing, sawing, scraping, reaming, tapping and screwing.
23.	Instellings.	5.	Reading of drawings and application thereof.
24.	Klepspelinge gee.	6.	Care and use of marking-off and measuring instruments.
25.	Nagaan van koelstelsels.	7.	Care and use of cutting and forming tools.
26.	Waar geriewe bestaan—onderhoud en toets van koud-aansitstelselle.	8.	Grinding of drills and cutting tools.
27.	Diagnoseer van foute. (20) AMBAG: MOTORVOERTUIGMASJINEERDER EN -PASSER (3)	9.	Simple centre lathe work.
1.	Hantering, regte gebruik en versorging van gereedskap, uitrusting en motorvoertuigenjinonderdele.	10.	The correct use of feeds and speeds for different materials and operations.
2.	Veiligheidsmaatreëls wat in die werkwinkel nagekom moet word.	11.	Fitting of components.
3.	Enjins uitmekaarhaal.	12.	Making of parts to drawings.
4.	Eenvoudige werk met eendoelmasjiene.	13.	General fitting practice, including assembly.
5.	Hermetalliseer van laers en suierstange.	14.	Repair and maintenance of machinery and equipment.
6.	Eenvoudige draaibankwerk.	15.	Operation of shaping machines.
7.	Herboring van silinders en insit van hulse.	16.	Operation of slotting machines.
8.	Lyn- en suierstangboorwerk.		(19) TRADE: INSTRUMENT MAKER (10)
9.	Hervlakkings van klepbeddings en kleppe; maak en insit van klepinlaatbeddings.	1.	First aid and safety measures generally applicable to the trade.
10.	Insit van klepleiers en kleppe.	2.	Under supervision of either an instructor or an artisan— (a) use, handling and care of measuring instruments; (b) use and grinding of drills (bits); (c) filing; and (d) soft and hard soldering.
11.	Inmekaarsit van subsamestellinge.	3.	Use of band saw.
12.	Suiers slyp.	4.	Light turning.
13.	Suierpenne insit.	5.	(a) Knowledge of strength and use of various materials; and (b) reading of drawings.
14.	Herbepaling van grootte en in lyn bring van suierstange.	6.	Use and grinding of tools.
15.	Slyp van krukas en nokasse.	7.	Lathe turning.
16.	Waar geriewe bestaan— (a) uitrusting bedien om enjinoonderdele te balanseer; (b) barste opspoor; en (c) dinamometers toets.	8.	Shaping.
	(21) AMBAG: MOTORWERKTUIGKUNDIGE (26)	9.	(a) Milling, and (b) engraving.
1.	Veiligheidsmaatreëls wat in die werkwinkel nagekom moet word.	10.	Hand soldering.
2.	Versorging van voertuie.	11.	Making gear and worm wheels.
3.	Veilige dryfgewoontes.	12.	Silvering.
4.	Identifisering, hantering, regte gebruik en versorging van gereedskap, uitrusting en alle soorte sleutels, met inbegrip van— (a) wringsleutels; (b) pons- en dryfysters; (c) bore, ruimers, stok en snymoere en snytappe; (d) staalliniële, verdeelpassers, meetpassers en kraspenne; (e) metaalsae; (f) lemmate, mikrometers (binne en buite), wysersplaatmeters en silindermeters;	13.	French polishing and spray painting.
		14.	Making and repairing— (a) electrical; (b) optical; and (c) all other scientific instruments.
		15.	Straight and circular graduation.
		16.	Making drawings from sketches.
			(20) TRADE: INSTRUMENT MECHANICIAN (11)
		1.	Safety precautions generally applicable to the trade.
		2.	Care and use of tools.
		3.	Tools: (a) Sharpening; and (b) grinding and knowledge of tool angles.
		4.	Behaviour and identification of materials normally used.
		5.	Training in— (a) marking-off; (b) drilling; (c) tapping; (d) sawing; (e) chipping; (f) filing; and (g) threading.
		6.	Knowledge of various types of thread.
		7.	Working with mechanical precision instruments.
		8.	Elementary turning.
		9.	Working with close tolerances from drawings and with materials commonly used in mechanical instruments.

Logboek-simbool	Praktiese opleiding	Logbook symbol	Practical training
(g)	hidrouliese domkragte, bokke, rolmatte en hystoe-stelle;	10.	Elementary welding, brazing and sheetmetal working applicable to the trade.
(h)	kompressors;	11.	Knowledge of work with materials and component parts commonly used in electrical instruments, such as—
(i)	slypmasjiene; en	(a)	conducting and insulating materials;
(j)	sluittoestelle.	(b)	soft and hard solders;
5.	Waar geriewe bestaan, insleep van voertuie, gewoon en met takelwa en herwinning van voertuie.	(c)	resistors;
6.	Smeer en versiening van voertuie:	(d)	coils; and
(a)	Gebruik van verskillende grade en soorte olie en ghries;	(e)	capacitors.
(b)	metodes van aftap, uitspoel, versiening en volmaak van enjinoliebakke, ratkaste en agterassomhulsels; en	12.	Working with elementary measuring instruments.
(c)	versiening van batterye: Elektroliet byvul; batterykas, aansluitpenne en kables skoonmaak.	13.	Wiring of elementary electrical and electronic circuits applicable to the trade.
7.	Onderrig in—	14.	Repairing and fitting of the necessary replacement parts in elementary instruments (including calibrating) e.g.—
(a)	generatorlaaistelsels; en	(a)	pressure meters; and
(b)	waar geriewe bestaan, alternatorlaaistelsels.	(b)	liquid manometers.
8.	Inspeksie en vasstelling van slytasie—	15.	Instrument component parts:
(a)	in silinders;	(a)	General fitting; and
(b)	aan krukasse;	(b)	turning.
(c)	hoof- en grootkopastappe;	16.	Heat treatment of small tools and instrument component parts.
(d)	nokas-astappe;	17.	Reading of advanced drawings.
(e)	nokvolgers;	18.	Training in—
(f)	kleppe en klepleiers;	(a)	installation;
(g)	suiers en suierpenne; en	(b)	removing;
(h)	tuimelaars en asse.	(c)	repairing;
9.	Ontkoling; inslyp van kleppe; terugsit van silinderkop (met gebruik van wringsleutel en regte vasdraai-volgorde) en stel van klepspeling.	(d)	maintenance;
10.	Padwiele: Afhaal en terugsit van wiele, buite- en binne-bande; rotasie van wiele.	(e)	adjusting; and
11.	Afhaal en terugsit van—	(f)	calibrating of physical, particularly mechanical (including pressure) and electrical (including electronic instruments used for measuring and control purposes (The work must include the replacement of worn or damaged components by new ones and the making of new components.)
(a)	koppelaars;	19.	Wiring of instrument circuits, including the wiring of instrument panels.
(b)	ratkaste;	20.	Tracing elementary electrical and electronic circuits from wiring and schematic diagrams.
(c)	dryfasse en kruiskoppelings;	21.	Tracing faults in—
(d)	vere en hangers;	(a)	electrical instruments;
(e)	voorassamestels;	(b)	electronic instruments; and
(f)	agterassamestels;	(c)	control circuits.
(g)	skokbrekers;		
(h)	enjinsamestels;		
(i)	enjinbybehore;		
(j)	stuurkaste en skakelings;		
(k)	veringeenhede;		
(l)	remskoensamestels; en		
(m)	uitlaateenhede.		
12.	Enjineenhede: Uitmekaarhaal en volledige inmeekaarsit van enjin, insluitende opknop en insit van—		(21) TRADE: JOINER (38)
(a)	suiers, ringe en suierpenne;		
(b)	hoof- en grootkoplaers;		
(c)	klepleiers en kleppe—vernuwing van beddings en klepvlakke; klepvere vir spanning nagaan;	1.	Safety precautions generally applicable to the trade.
(d)	suierstange (waar geriewe bestaan, nagaan en in lyn bring); en	2.	Use and maintenance of hand tools.
(e)	vliegwieleranse.	3.	Knowledge and use of various types of material, including timber, plywood and composition board.
13.	Tydreëling—	4.	Defects in timber.
(a)	kleppe; en	5.	Truing up timber by hand.
(b)	ontsteking.	6.	Setting out and making elementary joints.
14.	Verkoelingstelsels:	7.	Glueing.
(a)	Nagaan vir lekke of verstoppings; verkoelers en enjinblokke skoonmaak;	8.	Nailing.
(b)	termostate nagaan;	9.	Screwing.
(c)	waterpompe opknop; en	10.	Sandpapering.
(d)	waaierbande vir toestand en spanning nagaan.	11.	Reading of drawings.
15.	Kleiner instellings uitvoer.	12.	Technical terms.
16.	Opknapping, vasstelling van slytasie, weer inmeekaarsit en stel, waar nodig, van—	13.	Making of—
(a)	koppelaars;	(a)	windowframes;
(b)	ratkaste;	(b)	doorframes;
(c)	dryfasse;	(c)	doors;
(d)	einddryfamestels;	(d)	sashes; and
(e)	voorassamestels;	(e)	cupboards.
(f)	agterassamestels;	14.	Panelling and other joinery.
(g)	stuurkaste en skakelings;	15.	Setting out of work from drawings and the use of setting-out rods.
(h)	veringeenhede;		
(i)	remstelsels;	16.	Taking off quantities and preparing cutting lists.
(j)	brandstoppompe;	17.	Assembling, fitting and fixing mouldings.
(k)	vergassers; en	18.	Fitting and fixing of—
(l)	ontstekingstelsels.	(a)	aluminiumware;
17.	Nagaan en stel van—	(b)	ironmongery;
(a)	toesporing;	(c)	hardware; and
(b)	nasporing;	(d)	fittings.
(c)	wielvlug;	19.	Executing woodwork for internal and external finishings of buildings.
(d)	krinkspilhellings; en	20.	Use of portable power tools.
(e)	uitsporing.	21.	Working knowledge of wood-working machinery.
18.	Uitvoer van—		
(a)	groot instellings; en		
(b)	wielbalansering.		

Logboek-simbool	Praktiese opleiding	Logboek symbol	Practical training
19.	Toets, foutdiagnosering en verbetering van— (a) ontstekingsfoute; (b) brandstoffsoute; (c) enjinfoute; (d) koppelaaroute; (e) ratkasfoute; (f) dryfasfoute; (g) ewenaaroute; (h) einddryffoute; (i) remfoute; (j) stuurfoute; (k) veringfoute; en (l) elektriese foute.		(22) TRADE: MACHINE AND TOOL SETTER (15)
20.	Elektriese uitrusting: (a) Battery: Toets met hidrometer en snelontlaaitoets; battery laai; (b) generator: Borsels, laers en busse terugsit; kommutator skoonmaak; en (c) aansitmotor: Borsels, busse, Bendix- of koppelaar-aandrywing terugsit; kommutator skoonmaak.	1. Safety measures to be observed in the workshop. 2. Names and identification of tools, machines and machine equipment used in the trade. 3. Use and care of tools and equipment. 4. Use and care of measuring instruments. 5. Bench work with special attention to— (a) marking-off; (b) filing; (c) sawing; (d) drilling; and (e) reaming.	
21.	Regte gebruik van— (a) vakuummeter; (b) druktoets; en (c) ammeter en voltmeter; (d) tagometer en nokrushoekmeter (waar geriewe bestaan); (e) brandstoppompdrukmeter; (f) tydreëlligte; (g) uitlaatgasontleders (waar geriewe bestaan); (h) kondensator- en spoeltoetsers (waar geriewe bestaan); (i) vonkpropskoonmakers en -toetsers; en (j) ossilloskoop en ander uitrusting (waar geriewe bestaan).	6. Reading of drawings and working instructions and application thereof, with special attention to tolerances and allowances. 7. Strength and quality of products and tool materials and workability thereof. 8. Elementary machine work. 9. Elementary setting of tools for— (a) turning with capstan and/or copying and/or automatic lathe; (b) milling with horizontal and/or vertical milling machine; (c) drilling with single and/or multi-spindle drilling machine; (d) grinding with surface and/or round and/or centreless grinding machine; and (e) pressing with pressure and/or draw press. 10. Basic grinding of tools in tool section. 11. Training in repair and/or making of production jigs and equipment. 12. Heat treatment and properties of production materials. 13. Training in quality control and inspection procedures. 14. Use and application of cutting and drawing oils. 15. Setting of production machines, with special attention to— (a) cutting speeds; (b) feeding speeds; (c) cycle periods; and (d) operational sequences.	
	(22) AMBAG: PANEELKLOPPER (MET INBEGRIJ VAN SPUITVERFWERK) (29)		
1.	Veiligheidsmaatreëls wat in die werkwinkel nagekom moet word.		
2.	Hantering en versorging van gereedskap.		
3.	(a) Werkwinkeluitrusting; (b) motorvoertuigbakonderdele; (c) uitmekaarhaal van motorvoertuie; (d) onderrig oor eienskappe en gebruik van verskillende plaatmetale en legerings; en (e) eenvoudige paneelherstelwerk.	16. Special attention to setting of jigs. 17. Setting-up methods and replacement of tools. 18. Setting-up special machines not used continuously in the trade. 19. Advanced setting-up under supervision of toolsetter.	
4.	Alle soorte herstelwerk: (a) Kennis van sweis; (b) maak van patrone; (c) onderstelle reguitmaak; (d) algemene kennis van motorvoertuigbakbou; en (e) elementêre spuitverfwerk.		
	(23) AMBAG: PASSER EN DRAAIER (17)		(23) TRADE: MARINE FITTER (35)
1.	Veiligheidsmaatreëls wat in die werkwinkel nagekom moet word.		1. Safety measures and first aid generally applicable to the trade.
2.	(a) Hantering, regte gebruik, versorging en bankgebruik van gereedskap en uitrusting, met inbegrip van— (b) vylwerk; (c) saag-, skraap- en boorwerk; (d) ruimwerk; (e) skroefdraadsny; (f) lemmate, mikrometers (binne en buite), wyserplaatmeters en silindermeters; (g) tekenings lees en die toepassing daarvan; en (h) hantering en versorging van alle gereedskap.	2. Use and care of hand tools and bench work including splintering, filing, sawing, scraping, drilling, reaming and threading including marking off. 3. Reading and application of plans. 4. Use and care of measuring instruments. 5. Grinding of bits and tipped chisels, including cutting angles and clearances. 6. Simple turning. 7. Simple component-part making and fitting keys and keyways. 8. Preparing bearings after remounting. 9. Servicing boiler mountings, valves and piping. 10. Advanced turning, including— (a) internal and external threading; and (b) conical turning.	2. Use and care of hand tools and bench work including splintering, filing, sawing, scraping, drilling, reaming and threading including marking off. 3. Reading and application of plans. 4. Use and care of measuring instruments. 5. Grinding of bits and tipped chisels, including cutting angles and clearances. 6. Simple turning. 7. Simple component-part making and fitting keys and keyways. 8. Preparing bearings after remounting. 9. Servicing boiler mountings, valves and piping. 10. Advanced turning, including— (a) internal and external threading; and (b) conical turning.
3.	Versorging en gebruik van slypstene, bore en gepunte beitels, met besondere aandag aan snyhoeke en vryruimtes.	11. Practical work with workshop machinery generally used in fitting. 12. Instruction in repair and maintenance of main and auxiliary motors (turbine and reciprocal). 13. Lubricating systems; maintenance of equipment and filtering systems. 14. Methods of determining top and bottom dead centre on piston motors and determining of piston tolerances. 15. Adjustment of all types of valves, especially steam inlet and outlet valves. 16. Dismantling and servicing steam and water packing glands. 17. Servicing of steering and telemotor systems. 18. Fitting of fire fighting and hull pumps, fresh water pumps and flooding equipment. 19. Servicing insulating valves in air conditioning systems. 20. Servicing remote control equipment in respect of valves, driving shafts and side gear systems.	11. Practical work with workshop machinery generally used in fitting. 12. Instruction in repair and maintenance of main and auxiliary motors (turbine and reciprocal). 13. Lubricating systems; maintenance of equipment and filtering systems. 14. Methods of determining top and bottom dead centre on piston motors and determining of piston tolerances. 15. Adjustment of all types of valves, especially steam inlet and outlet valves. 16. Dismantling and servicing steam and water packing glands. 17. Servicing of steering and telemotor systems. 18. Fitting of fire fighting and hull pumps, fresh water pumps and flooding equipment. 19. Servicing insulating valves in air conditioning systems. 20. Servicing remote control equipment in respect of valves, driving shafts and side gear systems.
4.	Elementêre draaiwerk.		
5.	Pas van onderdele.		
6.	Maak van onderdele van tekenings af.		
7.	Pas van spy en spygleuwe.		
8.	Pas van laers en busse.		
9.	Algemene opleiding in— (a) aanmeekaarsit; (b) herstel; en (c) onderhoud van masjinerie en meganiese uitrusting.		
10.	Gevorderde draaiwerk op senterdraaibank, met inbegrip van— (a) binne-, en (b) buiteskroefdraadsny;		

Logboek-simbool	Praktiese opleiding	Logboek symbol	Practical training
(c) (d) (e) 11. (a) (b) 12. (a) (b) 13.	opstel van werkstukke; vasstel van spesiale prosedures; en stelplaatwerk. Binne-, en buitedraaiwerk. Draai van busse; en voerings vir druk-, pers- en krimppassings. Algemene pypwerk; lae- en hoëdrukpypstelsels.	21. 22. (a) (b) (c) (d) 23. 24. 25. 26. 27. 28.	Servicing underwater valves and equipment. Removing and replacing sonar hull systems; servicing stabilisers; servicing hydraulic systems; and servicing rudder and steering gear. Complete servicing of winches and capstans. Complete repair of all internal combustion engines used (diesel, two and four stroke). Assembling and servicing gear boxes. Servicing turbine cooling fans. Knowledge of rusting of metals and rust preventive measures. Servicing of fuel injection systems.
	(24) AMBAG: PASSER (MET INBEGRIJ VAN MASJINERING) (18)		(24) TRADE: MARINE PIPE FITTER (36)
1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13. 14. 15. 16.	Veiligheidsmaatreëls normaalweg op die ambag van toepassing. Versorging en gebruik van handgereedskap. Boorwerk (hand en masjien). Afbeitel, vyl, saag, skraap, ruim, moerdraad- en skroef- draadsny. Lees van tekenings en gebruikmaking daarvan. Versorging en gebruik van afmerk- en meetinstrumente. Versorging en gebruik van sny- en profielbeitels. Slyp van bore en snygereedskap. Eenvoudige werk op die senterdraaibank. Die korrekte gebruik van toevoer en spoed vir ver- skillende materiale en werksaamhede. Pas van komponente. Maak van onderdeel volgens tekenings. Algemene paswerkpraktyk, met inbegrip van montering. Herstel en onderhoud van masjinerie en uitrusting. Werk met sterkarmskaafmasjiene. Werk met gleufmasjiene.	1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13. 14. 15. 16. 17. 18. 19. 20. 21. 22. 23.	Safety measures and first aid generally applicable to the trade. Use and care of hand tools and machines applicable to the trade. Identification and selection of correct materials for the repair of pipes for the different services in ships and shipyard. Identification and use of materials, sheetmetal and alloys used in the manufacture of articles applicable to the trade. Precautions in handling melted materials such as lead, white metal and resin and white-metalling bearings. Precautions in handling oxy-acetylene equipment. Identification and use of soft solders and fluxes for soldering and tinning of metals. Measuring and cutting pipes for domestic use and use of pipe fittings and connections. Uses of different types of tap washers and packing material for hot and cold water systems. Technical terms used in the trade. Fabricating steel metal plating for pipe laying in ships. Selecting of right type of filling for use in bending various materials. Bending of copper, copper-nickel (cupro-nickel), gal- vanised and black metal pipes by application of the following methods: (a) Machine, mandrel and other methods; (b) machine or hydraulic bending press with radial shapers for large cross-section pipes; and (c) hot and cold bending. Purpose of fitting various types of stop cocks, valves, fittings and expanding capacity. Installation of ship's urinal sets, wash basins, baths, slop hoppers, ventilation of waste and sludge pipes, flushing valves installed in the place of ship's flushing cisterns, shower cubicle wall fittings and hot and cold water mixing valves. Use of oxy-acetylene equipment for hard soldering, silver soldering, welding, lead jointing and retinning. Use of argon arc welding for aluminium and stainless steel and electrical welding equipment. Installation of electrical and oil heating water systems. Fabricating, repair and fitting of pipes for the following systems: (a) Steam—high and low pressure; (b) refrigeration—high and low pressure; (c) hydraulic—high pressure; (d) compressed air—high and low pressure; (e) salt water—fire fighting mains and refrigeration sys- tems; (f) freshwater—domestic and engine cooling systems; (g) lubricating oils—ship's propelling and auxiliary machinery; (h) ship's sanitary systems—soil and flushing; (i) bilge—suction and discharge; and (j) diesel engines—exhaust pipes and water cooled cased exhausts. Fabricating of various angle branch pipes of copper, copper-nickel, iron and steel. Coupling of pipes and finishing by means of brazing, silver soldering and electrical welding. Reading of drawings and specifications. Lead lining of battery boxes and acid baths. Repair, making and installation of waveguides for various radar aerials.
	(25) AMBAG: PLAATMETAALWERKER (43)		
1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13. 14. 15.	Veiligheidsmaatreëls normaalweg op die ambag van toepassing. Versorging en gebruik van gereedskap en masjiene. Soldeerwerk en gebruik van smeltmiddels. Klinkwerk. Uitmerk van eenvoudige werk. Eenvoudige plaatmetaaldele maak. Lees van tekenings. Uitmerk, ontwikkeling en maak van meer gevorderde plaatmetaaldele. Platpatroonwerk. Plaatmetaalkomponente van tekenings af maak. Bereiding van staal- en legeringplate vir roeswerende behandeling. Versorging en gebruik van sny-, sweissoldeer- en sweis- -uitrusting. Rek en krimp van materiaal tydens verwerking. Gebruik van kragmasjinerie. Gesoldeerde en geklinkte samestelling maak.		
	(26) AMBAG: PLAATWERKER (32)		
1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13.	Veiligheidsmaatreëls normaalweg op die ambag van toe- passing. Versorging en gebruik van gereedskap. Basiese beginsels van die ambag, naamlik pons, skuins- knip, afknip, met guillotine afsny, boor, klink en kalfater. Lees van tekenings. Uitmerk van tekenings van patrone af. Elementêre weekstaalsweidwerk. Oksiasetileenvlamsnywerk. Pons, skuinsknip, afknip, met guillotine afsny, klink en kalfater. Werk met metaalplate en profielysters 1,6 mm en dikker. Aanmekeer van werk wat in die ambag gedoen word. Ontwikkeling van metaalplate. Maak van patrone. Lees van gevorderde tekenings en die uitmerk van strukturele komponente en metaalplate daarvan af.	(a) (b) (c) (d) (e) (f) (g) (h) (i) (j)	
	(27) AMBAG: PLAATWERKER/KETELMAKER (33)		
1. 2. 3.	Veiligheidsmaatreëls normaalweg op die ambag van toe- passing. Versorging en gebruik van gereedskap. Basiese beginsels van die ambag, naamlik pons, skuins- knip, afknip, met guillotine afsny, boor, klink en kalfater.	21. 22. 23.	Reading of drawings and specifications. Lead lining of battery boxes and acid baths. Repair, making and installation of waveguides for various radar aerials.

Logboek-simbool	Praktiese opleiding	Logboek symbol	Practical training
4.	Lees van eenvoudige tekenings en eenvoudige uitmerk-werk.		(25)
5.	Elementêre weekstaalsweiswerk.		TRADE: MILLWRIGHT (ELECTROMECHANICAL) (17)
6.	Oksiasetileenvlamsnywerk.		
7.	Werk met metaalplate en profielysters 1,6 mm en dikker.	1.	Safety measures and first aid generally applicable to the trade.
8.	Afknip, pons, skuinsknip, met guillotine afsny, klink en kalfater.	2.	Basic training under the supervision of suitable persons in the following:
9.	Aanmeekaarsit van werk wat in die ambag gedoen word.	(a)	<i>Electrical work</i> (five months) (hand tools only):
10.	Lees van gevorderde tekenings, en die uitmerk van strukturele komponente en metaalplate daarvan af.	(i)	Use of hand tools not used in electrical work;
11.	Uitmerk van tekenings en patrone af.	(ii)	soft soldering and brazing;
12.	Ontwikkeling van metaalplate.	(iii)	jointing of wires;
13.	Maak van patrone.	(iv)	work in connection with coils, resistances and component parts of starters, relays and contactors; and
14.	Reguitmaak, afplatting, uitrol en buig van profielysters en metaalplate.	(v)	knowledge and use of conductors and insulators in general use.
15.	Oksiasetileensnywerk.	(b)	<i>Fitting</i> (five months) (hand tools only):
16.	Hoekystersmidswerk.	(i)	Marking-off;
17.	Maak en herstel van drukhouers.	(ii)	filing and scraping;
18.	Onderhoud en herstel van ketels.	(iii)	splintering and sawing;
19.	Hidrouliese toetsing van ketels en voorsorgmaatreëls wat getref moet word terwyl ketels aan druktoetse onderwerp word.	(iv)	use of measuring instruments;
20.	Identifisering van verskillende vorms van roes in ketels en oorsake daarvan.	(v)	threading (internal and external);
21.	Toets van ketelwater.	(vi)	basic fitting; and
22.	Messelwerk (vuurvaste stene).	(vii)	knowledge and uses of various metals in general use.
	(28)	(c)	<i>General:</i>
	AMBAG: PLAATWERKER (MET INBEGRIIP VAN SWEISWERK) (34)	(i)	General experience in maintenance workshop, including reading of drawings (four months); and
		(ii)	general experience in electrical workshop (four months).
1.	Veiligheidsmaatreëls normaalweg op die ambag van toepassing.	3. (a)	Maintenance;
2.	Versorging en gebruik van gereedskap.	(b)	erection; and
3.	Basiese beginsels van die ambag, naamlik pons, skuinsknip, afknip met guillotine afsny, boor, klink en kalfater.	(c)	installation of machinery (mechanical), including cranes.
4.	Lees van tekenings.	4. (a)	Maintenance;
5.	Uitmerk van tekenings en patrone af.	(b)	erection; and
6.	Elementêre weekstaalsweiswerk.	(c)	installation of moving and control equipment (electrical), including cranes.
7.	Oksiasetileenvlamsnywerk.	5.	General electrical work.
8.	Pons, skuinsknip, afknip, met guillotine afsny, klink en kalfater.	6.	Intensive training under supervision in—
9.	Werk met metaalplate en profielysters 1,6 mm en dikker.	(a)	maintenance of all kinds of control equipment; and
10.	Aanmeekaarsit van werk wat in die ambag gedoen word.	(b)	reading and application of equipment diagrams (70 per cent of training time to be devoted to electrical work where possible).
11.	Ontwikkeling van metaalplate.		(26)
12.	Maak van patrone.		TRADE: MOTOR MECHANIC (21)
13.	Lees van gevorderde tekenings en die uitmerk van strukturele komponente en metaalplate daarvan af.	1.	Safety precautions to be observed in the workshop.
14.	Reguitmaak, afplatting, uitrol en buig van profielysters en metaalplate.	2.	Care of vehicles.
15.	Hoekystersmidswerk.	3.	Safe driving habits.
16.	Elektriese sweising van—	4.	Identification, handling, correct use and care of tools, equipment and all types of spanners, including—
(a)	weekstaal;	(a)	torque wrench;
(b)	gietyster;	(b)	punches and drifts;
(c)	gietsaal;	(c)	drills, reamers, stock and dies and taps;
(d)	aluminium en die legerings daarvan;	(d)	steel rules, dividers, calipers and scribes;
(e)	koper en koperlegerings; en	(e)	hacksaws;
(f)	vlekvrye staal.	(f)	feeler gauges, micrometers (inside and outside), dial gauges and cylinder gauges;
17.	Opleiding in oksiasetileensweis van metale in 16 genoem.	(g)	hydraulic jacks, trestles, creepers and hoists;
18.	Sweis van laagdrukhouers.	(h)	compressors;
19.	Beheer van voorverhittingstemperatuur en voorkoming van vervorming.	(i)	grinding machines; and
	(29)	(j)	locking devices.
	AMBAG: PLEISTERAAR (31)	5.	Where facilities exist, towing and recovery of vehicles.
1.	Veiligheidsmaatreëls en eerste hulp normaalweg op die ambag van toepassing.	6.	Lubrication and servicing of vehicles:
2.	Gebruik en versorging van gereedskap.	(a)	Use of different grades and types of oils and greases;
3.	Hantering en eienskappe van materiaal soos sement, kalk en sand.	(b)	methods of draining, flushing, servicing and filling engine sumps, gear-boxes and rear axle housings; and
4.	Bereiding van dagha.	(c)	battery servicing: Top-up electrolyte; clean battery case, terminal posts and cables.
5.	Eenvoudige steierwerk.	7.	Instruction in—
6.	Lees van tekenings en tegniese terme.	(a)	generator charging systems; and
7.	Leer om alle soorte pleister wat nodig is vir—	(b)	where facilities exist, alternator charging systems.
(a)	mure en plafonne, met inbegrip van kroonlyste en spatlyste aan te wend; en		
(b)	dit goed af te werk.		
8.	Beton-, granolitiese of komposisievloere afvlak en afwerk.		
9.	Spesiale kompopleister-, akoestiek- en mosaïekwerk.		
10.	Gevorderde pleisterwerk.		
11.	Gietvorms maak vir profile en die giet van kunsklipwerk.		
12.	Draagbare slyp- en ander masjiene bedien.		

Logboek-simbool	Praktiese opleiding	Logboek symbol	Practical training
13.	Planne, spesifikasies en hoeveelhede vir pleisterwerk.	8.	Inspection and assessment of wear—
	(30)	(a)	in cylinders;
	AMBAG: RADIO- EN TELEVISIEMEGANIKUS (36)	(b)	on crankshafts;
1.	Basiese veiligheidsmaatreëls van toepassing in die ambag wat die hele leertyd deur nagekom moet word, met besondere aandag aan die veilige hantering en versorging van handgereedskap, skadelike en vlbare gasse, vloeistowwe en gasse onder druk, warm- en gesmelte metaal, elektriese installasies, masjienbeveiliging, masjien- en drukluggereedskap, slypwiele, bewegende en oorhoofse masjinerie en die gebruik van draagbare brandblussers. Behandeling vir elektriese skok.	(c)	main and big-end journals;
2.	Die versorging en gebruik van gereedskap. Die maak van werkstukke en/of onderdele, met inbegrip van elementêre plaatmetaalwerk, met gebruikmaking van die tegnieke boor, vyl, saag en moerdraadsny. Snygereedskap skerpmaak.	(d)	camshaft journals;
3.	Van tekeninge en monsters af afmerk, met gebruikmaking van afmerkgereedskap, byvoorbeeld senterponse, verdeelpassers, gradeboë, liniale, kraspenne en winkelhake.	(e)	cam followers;
4.	Tekeninge en sketse maak van elementêre elektroniese bane en van meganiese onderdele. Tekeninge, met inbegrip van simbole, lees en begryp.	(f)	valves and guides;
5.	Die gebruik van elektriese/elektroniese meetinstrumente, byvoorbeeld ammeters, brûe, ohmmeters en voltmeters. Lesings interpreteer en evalueer.	(g)	pistons and gudgeon pins; and
6.	Die gebruik van uitrustings en metodes van soldeer- en lossoldeerwerk.	(h)	rockers and shafts.
7.	Bedrading en montering volgens spesifikasies. Die gebruik van gedruktebaanborde.	9.	Decarbonising; grinding-in valves; replacing cylinder head (using torque wrench and correct tightening sequence) and adjusting valve clearances.
8.	Die installering, foutspeuring, onderhoud, smering en herstel van klein WS- en GS-motore.	10.	Road wheels: Removal and replacement of wheels, tyres and tubes; rotation of wheels.
9.	Die oprigting van radio- en TV-antennas, -maste en -weerligbeveiligers. Die gebruik van die korrekte vashegtingsmetodes. Weerligbeveiliging en beskerming van klante se eiendom.	11.	Removal and replacement of—
10.	Wyserplaatkoorde span. Die regstelling van koppelaars en outomatiese instemtoestelle.	(a)	clutches;
11.	Versigtigheid en noukeurigheid by die hantering van golfbandskakeltoestelle. Die versiening, skoonmaak en regstel daarvan.	(b)	gear-boxes;
12.	Die gebruik van seingenerators en leweringsmeters. Lesings evalueer.	(c)	propeller shafts and universal joints;
13.	Die herstel, onderhoud en versiening van oudioversterkers en kragbronne. Foutopsporing op stelselmatige wyse.	(d)	springs and hangers;
14.	Die toets van katodestraalbuise, transistors en ander komponente, met gebruikmaking van geskikte uitrustings.	(e)	front axle assemblies;
15.	Die gebruik van geskikte instrumente om foute op stelselmatige wyse op te spoor.	(f)	rear axle assemblies;
16.	Die gebruik van ossilloskope en frekwensiemodulators.	(g)	shock absorbers;
17.	Die instelling van radio-ontvangers volgens fabriekstandaarde.	(h)	engine assemblies;
18.	Die gebruik van patroongenerators vir die instel van monochroomteleviesietoestelle.	(i)	engine accessories;
19.	Die instelling van monochroomontvangers.	(j)	steering boxes and linkages;
20.	Die gebruik van instrumente om foute te diagnoseer en op te spoor in kragbronne, instemmer, tussenfrekwensie-, outomatiese versterkingsreëling-, video- en aftas-, sinchroniseerskeidings-, vliegwielen- en ossilatortrappe vir tydbasisse in monochroomtelevisie-ontvangers, met behulp van versieningsinligting. Die versiening en herstel van ontvangers en bane.	(k)	suspension units;
21.	Die instel van monochroom- en kleurtussenfrekwensie-trappe, deur middel van die punt- en die aftasmetode, met inbegrip van die gebruik van die demp- en die outomatiese versterkingsreëling-onderbrekingstelsel.	(l)	brake shoe assemblies; and
22.	Die gebruik van kleurseingenerators.	(m)	exhaust units.
23.	Die instel van kleurstelvertonings. Alle gewone instellings plus statiese en dinamiese konvergensie, gryskaalvolgting, kleursuiwerheid en degaussering, met gebruikmaking van patroongenerators.	12.	Engine units: Dismantling and complete assembling of engine, including overhauling and fitting of—
24.	Die gebruik van instrumente om foute in kleurontvangers stelselmatig te diagnoseer en op te spoor met behulp van versieningsinligting.	(a)	pistons, rings and gudgeon pins;
25.	Insluitende die herstel en onderhoud van huisvideo-opnemers en kamerabronne, waar daar die nodige fasiliteite bestaan.	(b)	main and big-end bearings;
		(c)	valve guides and valves—recondition seats and valve faces; check valve springs for tension;
		(d)	connecting rods (where facilities exist, check and align); and
		(e)	flywheel ring gears.
		13.	Set timing—
		(a)	valve; and
		(b)	ignition.
		14.	Cooling systems:
		(a)	Check for leaks or blockages; cleaning radiators and engine blocks;
		(b)	check thermostats;
		(c)	overhaul water pumps; and
		(d)	check fan belts for condition and tension.
		15.	Carry out minor tune-ups.
		16.	Overhaul, assess for wear, reassemble and adjust where necessary—
		(a)	clutches;
		(b)	gear-boxes;
		(c)	propeller shafts;
		(d)	final drive assemblies;
		(e)	front axle assemblies;
		(f)	rear axle assemblies;
		(g)	steering boxes and linkages;
		(h)	suspension units;
		(i)	brake systems;
		(j)	fuel pumps;
		(k)	carburettors; and
		(l)	ignition systems.
		17.	Check and adjust—
		(a)	toe-in;
		(b)	castor;
		(c)	camber;
		(d)	king-pin inclination; and
		(e)	toe-out.
		18.	Carry out—
		(a)	major tune-ups; and
		(b)	wheel balancing.
		19.	Testing, fault diagnosis and remedying of—
		(a)	ignition faults;
		(b)	fuel faults;
		(c)	engine faults;
		(d)	clutch faults;
		(e)	gear-box faults;
		(f)	propeller shaft faults;
		(g)	differential faults;
		(h)	final drive faults;
		(i)	brake faults;
		(j)	steering faults;
		(k)	suspension faults; and
		(l)	electrical faults.
		20.	Electrical equipment:
		(a)	Battery: Testing with hydrometer and high-rate discharge tester; battery charging;
		(b)	generator: Replace brushes, bearings and bushes; clean commutator; and
		(c)	starter motor: Replace brushes, bushes, Bendix or clutch drive; clean commutator.

Logboek-simbool	Praktiese opleiding	Logbook symbol	Practical training
	(31) AMBAG: RADIOTRISIËN (OUDIO) (37)		
1.	Veiligheidsmaatreëls en eerste hulp normaalweg op die ambag van toepassing.	21.	Correct use of—
2.	Name en gebruike van handgereedskap.	(a)	vacuum gauge;
3.	Versorging en onderhoud van werkwinkeluitrusting.	(b)	compression tester;
4.	Saamgroepering van komponente.	(c)	ammeter and voltmeter;
5.	Beginsels van afwerking.	(d)	tachometer and dwell meter (where facilities exist);
6.	Boor- en soldeerwerk.	(e)	fuel pump pressure gauge;
7.	Gebruik van eenvoudige volt-ohmmeters.	(f)	timing lights;
8.	Oprigting en onderhoud van lugdrade en weerligafleiers.	(g)	exhaust gas analysers (where facilities exist);
9.	Lees van stroomkringdiagramme en interpretasie van versieningsinstruksies.	(h)	condenser and coil testers (where facilities exist);
10.	Herstel en onderhoud van wyserplaatdryfmeganismes.	(i)	spark plug cleaners and testers; and
11.	Kennis van stroomkringbane wat by frekwensiebeheer gebruik word.	(j)	oscilloscope and other equipment (where facilities exist).
12.	Lees van planne en spesifikasies.		(27)
13.	Foutspeuring.		TRADE: MOULDER (45)
14.	Praktiese toepassing van WS- en GS-teorie.	1.	First aid.
15.	Gebruik en onderhoud van impedansiebrûe, buistoets-apparaat, elektroniese voltmeters, ossilloskope en instrumente vir die herstel van radio-ontvangstelle.	2.	Safety precautions during—
16.	Herstel en onderhoud van motore in ontvangstelle en seinapparaat.	(a)	moulding;
17.	Herstel en onderhoud van oudioklankversterkers.	(b)	casting;
18.	Instelling van ontvang- en sendtoestelle en die gebruik van ossilloskoop by die lynrigting van stroomkringdiagramme.	(c)	skimming; and
19.	Kennis van uitrusting wat gebruik word by en in verband met ontvangstoestelle, outomatiese frekwensiebeheeruitrusting en sturingsonderdrukkers.	(d)	feeding operations.
20.	Algehele versiening van ontvangs- en sendtoestelle en onderhoud daarvan.	3.	Simple cores—
21.	Kennis van en werk volgens planne en diagramme.	(a)	making of;
22.	Kennis van installering en onderhoud van frekwensieversterkers.	(b)	venting of;
	(32)	(c)	blackening of; and
	AMBAG: RADIOTRISIËN (KOMMUNIKASIE)	(d)	drying of.
	(38)		4. Care of core boxes.
1.	Veiligheidsmaatreëls en eerste hulp normaalweg op die ambag van toepassing. Basiese opleiding in handvaardigheid.	5.	Use of tools, appliances and materials.
2.	Radio-installering en onderhoud van skakelaars en relés.	6.	Mixing of core sands.
3.	Kennis en gebruik van toetsapparate:	7.	Shaping of core reinforcements.
(a)	Multimeters.	8.	Making of simple green sand moulds and coring and closing thereof.
(b)	Wattmeters (lowering, oudio- en radiofrekwensie).	9.	Making of simple cast core irons.
(c)	Seingenerators (0–300 MHz).	10.	Making more advanced types of moulds in green and dry sands requiring—
(d)	Millivoltmeters.	(a)	cutting of joints;
(e)	Meggers.	(b)	hooking;
(f)	Ossilloskope (0–300 MHz).	(c)	coring; and
(g)	Universele brûe.	(d)	closing and casting thereof.
(h)	Frekwensietellers.	11.	Mixing of moulding sands.
(i)	Buistoetsers.	12.	Care of patterns.
(j)	Transistortoetsers.	13.	Experience on melting units.
4.	Praktiese kennis van die konstruksie van gedrukte-baanborde en konstruksie van elementêre bane op verobord met gebruikmaking van semi-geleiers en algemene komponente en identifisering van genoemde komponente, byvoorbeeld weerstande, kapasitansies, transistors en induktors.	14.	Training on moulding machines (for a period not exceeding four months).
5.	Onderhoud van multimodus-senders en -ontvangers, asook mikrofone en kopstukke.	15.	Advanced core making and moulding, including—
6.	Kennis van wisselstroomteorie, buis-, transistor- en logika-teorie.	(a)	skeleton;
7.	Samestelling van buigsame veelkernkabels, asook swaardiens-aansluitore.	(b)	strickle; and
8.	Nasien en toets van kragvoorsieningsuitrusting, byvoorbeeld radio-generatoreenhede en vastestaatomkeerders en wisselstroom na gelykstroom omsetters.	(c)	loam moulding.
9.	Nasien en die toets van bedradingsaansluitings ens. in MF-, HF-, MHF-, UHF-, SHF- en rigtingpeileruitrusting.	16.	Making of cast core irons.
10.	Uitvoer van diensbaarheidstoetse op MF-, HF-, BHF-, UHF-, SHF- en rigtingpeileruitrusting, sowel as antenne-installasies, die gebruik en begrip van toetsspesifikasies en handleidings.	17.	Independent moulding on general jobbing floor.
11.	Radio-komponente verwyder en toets.	18.	Oxy-acetylene cutting applicable to the trade.
12.	Roetine-onderhoud en kalibrering van algemene toetsuitrusting.	19.	Experience in foundries with more than one department i.e.—
13.	Opknapping van alle MF-, HF-, BHF-, UHF-, SHF- en rigtingpeileruitrusting sowel as antennes. (Daar moet klem gelê word op stelselmatige toetswerk.)	(a)	iron;
14.	Basiese radarwerk (die vermoë om handleidings te gebruik ten einde basiese toetse uit te voer) en algemene kennis van golfleerteorie, mikrogolftegniese en bybehorende uitrusting.	(b)	steel; and
		(c)	brass.
		20.	Instruction in use of synthetic sands, including CO ₂ sands.
			Note.—Apprentices must spend six months in the pattern shop during third year of apprenticeship.
			(28)
			TRADE: PAINTER AND DECORATOR (37)
		1.	First aid.
		2.	Safety precautions generally applicable to the trade.
		3.	Care and use of materials and tools.
		4.	Preparation of surfaces and rustproofing.
		5.	Undercoating.
		6.	Use of pigments, thinners and driers.
		7.	Methods of applying—
		(a)	paints (rustproof paint);
		(b)	lime washes; and
		(c)	distempers.
		8.	Cleaning off old paint.
		9.	Simple scaffolding.
		10.	Elementary mixing and blending of paints.
		11.	Cleanliness.
		12.	Technical terms.
		13.	Use and care of spray-painting equipment.
		14.	Glazing.
		15.	Mixing, preparing and applying paints.
		16.	Various methods of cleaning off stains.
		17.	Staining.
		18.	Lining.

Logboek-simbool	Praktiese opleiding	Logboek symbol	Practical training
	(33) AMBAG: SEILMAKER EN BEKLEDER (41)		
1.	Veiligheidsmaatreëls en eerste hulp normaalweg op die ambag van toepassing.	19.	Preparing of and painting of metal surfaces.
2.	Handnaaiwerk.	20.	Varnishing.
3.	Die gebruik van tou en seilband vir—	21.	Advanced colour mixing.
(a)	omsoomwerk;	22.	Decorative painting.
(b)	lasse;	23.	Plastic paintwork.
(c)	soorte nate;	24.	Knowledge of working quantities and working measurements.
(d)	besettings; en	25.	Frosting; wood graining.
(e)	die algemene gebruik van tou, knope, gate en kouse.	26.	Paperhanging.
4.	Klein seiloortreksels en -matte sny en ontwerp.	27.	Elementary signwriting (where facilities exist).
5.	Gebruik van swaar naaimasjiene.	28.	Stencilling.
6.	Skeepstente ens. maak en afwerk; draadsplits en bindsel.	29.	Bridge painting.
7.	Seiloortreksels en tente vir skepe meet en ontwerp.	30.	Use of—
8.	Bootseile en skeepstente, wapenoortreksels, windasoor-treksels, vlotskerms, ens.—	(a)	long ladders;
(a)	afmeet;	(b)	duck ladders;
(b)	teken; en	(c)	boatswain's chairs; and
(c)	uitsprei.	(d)	suspended scaffolding.
9.	Kennis opdoen in verband met seinvlae en beskermende kleding.		(29) TRADE: PANELBEATER (INCLUDING SPRAYPAINTING) (22)
10.	Uitmekaarhaal van—	1.	Safety precautions to be observed in the workshop.
(a)	kappe;	2.	Handling and care of tools.
(b)	sitplekke;	3.	Workshop equipment;
(c)	koepelvoerings; en	(a)	auto body parts;
(d)	deurbekledingspaneel.	(b)	stripping of motor vehicles;
11.	Opstop van—	(c)	instruction in qualities and use of various sheetmetals and alloys; and
(a)	sitplekke; en	(d)	elementary panel repairs.
(b)	insit van sitplekvere.	(e)	All kinds of repairs:
12.	Gebruik van regte materiaal vir, maak en heelmaak van—	4.	(a) Knowledge of welding;
(a)	sitplekke;	(b)	making of patterns;
(b)	stopkussings;	(c)	straightening of chassis;
(c)	kapvoerings; en	(d)	general knowledge of vehicle body building; and
(d)	deurbekleedsels.	(e)	elementary spraypainting.
13.	Alle glas afhaal en insit.		(30) TRADE: PATTERNMAKER (18)
14.	Stof- en waterdig maak.	1.	First aid.
	(34) AMBAG: SKEEPSBOUER (42)	2.	Safety precautions generally applicable to the trade.
1.	Onderrig in skeepswerfprosedure, -reëls en -regulasies, en -bevelsweeg.	3.	Tools:
2.	Vertroudmaking met die skeepswerfwerkwinkels en -kantore en hul omgewing en verduideliking van hul onderskeie funksies.	(a)	Use of; and
3.	Onderrig in eerste hulp en veiligheidsmaatreëls.	(b)	sharpening and upkeep of.
4.	(a) Verskaffing van 'n stel skeepsbouersgereedskap en onder- rig in die gebruik daarvan; en	4.	Use of various types of timber, plywoods and hardwoods.
(b)	verduideliking van die omvang van die skeepsbouvak-leerling se opleiding en die verskille en ooreenkomste tussen die skeepsbouambag en ander ambagte in die skeepswerf, en onderrig in die gebruik van terme wat eie is aan die ambag.	5.	Timber defects.
5.	Onderrig in praktiese meetkunde en die toepassing daarvan op ontwikkeling, uitleë, afmerk, ens., gevolg deur eenvoudige praktiese oefeninge vir ondervinding en om die aangeleerde vaardigheid te toets.	6.	All types of joints and their uses.
6.	Gebruik van verskillende materiale wat deur skeepsbouers gebruik word, hul eienskappe, hoe hulle gevorm en bewerk word, lasmetodes, met besonderhede aangaande die verskillende hegstukke, en hoe hulle uitgekane kan word.	7.	Glueing.
7.	Onderrig in die lees van tekeninge, met inbegrip van die maak van items van eenvoudige tekeninge af.	8.	Nailing.
8.	Onderrig in ligte plaatwerk—ontwikkeling van ligte plate en pype; toebehore vir skepe; klein produksietake.	9.	Screwing.
9.	(a) Algemene skeepswerk: Die maak en herstel van toebe- hore—ventilasie; draagplate en alle soorte stutte; waterdigte skotte en ander deure en luuke; buite- boordse patrys-poorte; skutrelings en tentstutte;	10.	Dowelling.
(b)	praktiese gebruik van die matrys-winkel en spanbord vir uitleëwerk en om patroonvorme te lig, leglyne aan boord op te stel vir veranderings en/of byvoegings tot struktuur, wat die gebruik van die reël van Simpson en kennis van struktuursteuring behels;	11.	Varnishing of—
(c)	onderrig in die prosedure en die voorsorgmaatreëls wat nodig is vir die toets, skoonmaak en behandeling van olie- en watertenks in skepe;	(a)	patterns; and
(d)	onderrig in die verskillende wyses waarop kraanbalk-toetse, stabiliteitstoetse, skeepsopmeting en materiaal-toetse uitgevoer word; en	(b)	core boxes.
		12.	Storing patterns.
		13.	Dressing metal patterns.
		14.	Runner sticks—
		(a)	cutting; and
		(b)	making of.
		15.	Sandpapering.
		16.	Applying wax and leather fillets.
		17.	Reading drawings.
		18.	Use of woodworking machines (after first six months).
		19.	General woodworking and joinery.
		20.	Calculating allowances for—
		(a)	contraction;
		(b)	warping;
		(c)	machining; and
		(d)	prevention of cracking in casting.
		21.	Making working drawings from samples and blue-prints.
		22.	Instruction in the use of—
		(a)	strickles;
		(b)	platemoulding;
		(c)	skeleton work;
		(d)	pattern construction;
		(e)	core boxes;
		(f)	chills; and
		(g)	boxing-up.
		23.	Training in moulding (for at least three months).
		24.	Repair and maintenance of patterns and core boxes.
		25.	Estimating.

Logboek-simbool	Praktiese opleiding	Logboek symbol	Practical training
(e)	droogdokprosedure: Onderrig in die gebruik van dokplanne, gereedheid van die vaartuig, dokbodemroetine, boeg- en kimstutte, dokgebiedvereistes, droogdokdeurbewegings en vol- en leegpompprocedure.		(31) TRADE: PLASTERER (29)
10.	Praktiese onderrig in die gebruik van swaar plate vir die bou van skotte, dekke, buitebodem, spante en lêers. Voorbereiding van bogenoemde in die plaatwerk-winkel en die oprigting daarvan daarna op die skeepsbouhelling. Voorafvervaardiging en ander metodes van konstruksie. Voorbereiding van plate, pas, lynrigting en behoud van vormer op die skeepsbouhelling.	1.	Safety precautions and first aid generally applicable to the trade.
11.	Bootkonstruksie: Bankwerk, herstelwerk, uitgebreide veselglaswerk wat nuwe konstruksie behels.	2.	Use and care of tools.
12.	Onderrig in die gebruik van oksiasetileen- en elektriese boogswaiswerk, tesame met die nodige voorsorgmaatreëls.	3.	Handling and properties of materials such as cement, lime and sand.
13.	Drie maande opleiding in die tekenkamer.	4.	Preparation of mortars.
	(35) AMBAG: SKEEPSPASSER (23)	5.	Simple scaffolding.
1.	Veiligheidsmaatreëls en eerste hulp wat normaalweg op die ambag van toepassing is.	6.	Reading of drawings and technical terms.
2.	Gebruik en versorging van handgereedskap en bankwerk, met inbegrip van splinterwerk, vylwerk, saagwerk, skraapwerk, boorwerk, ruimwerk en skroefdraadsny, asook afmerkwark.	7.	Learning to apply and to finish to a good surface, all plastering required for—
3.	Lees en toepassing van planne.	(a)	walls and ceilings, including;
4.	Gebruik en versorging van meetinstrumente.	(b)	cornices and skirtings.
5.	Slyp van bore en gepunte beitels, met inbegrip van snyhoeke en vry ruimtes.	8.	Screeding and finishing of floors of concrete, granolithic or composition.
6.	Eenvoudige draaiwerk.	9.	Special compo plaster, acoustic and mosaic.
7.	Eenvoudige komponente maak en spy en spygleuwe pas.	10.	Advanced plaster work.
8.	Voorbereiding van laers na hermetisering.	11.	Forming of moulds for profiles and casting of artificial stone work.
9.	Versiening van ketelmonterings, kleppe en bepyping.	12.	Operating portable grinders and other machines.
10.	Gevorderde draaiwerk, met inbegrip van—	13.	Plans, specifications and quantities for plaster work.
(a)	skroefdraadsny, binne en buite; en		(32) TRADE: PLATER (26)
(b)	koniese draaiwerk.	1.	Safety precautions generally applicable to the trade.
11.	Praktiese werk op werkwinkelmassjinerie wat normaalweg vir paswerk gebruik word.	2.	Care and use of tools.
12.	Onderrig in die herstel en onderhoud van hoof- en hulpmotore (turbine- en suierenjins).	3.	Basic principles of the trade, viz. punching, shearing, cropping, guillotine shearing, drilling, riveting and caulking.
13.	Smeeroliestelsels; onderhoud van uitrusting en filtreerstelsels.	4.	Reading of drawings.
14.	Metodes om presiese bo- en onderdooiepunke op suiermotore te bepaal en bepaling van suiertoleransies.	5.	Marking out from drawings and templates.
15.	Regstelling van alle soorte kleppe, veral stoominlaat- en -uitlaatkleppe.	6.	Elementary mild steel welding.
16.	Uitmekaarhaal en versiening van stoom- en waterpakkingsdrukstukke.	7.	Oxy-acetylene gas cutting.
17.	Versiening van stuur- en telemotorstelsels.	8.	Punching, shearing, cropping, guillotine shearing, riveting and caulking.
18.	Paswerk aan brandbestrydings- en romppompe, vars-waterpompe en oorstromingsuitrusting.	9.	Work with metal plates and sections 1,6 mm and thicker.
19.	Versiening van isoleerkleppe in lugversorgingstelsels.	10.	Assembling of work produced by the trade.
20.	Versiening van afstandbeheeruitrusting ten opsigte van kleppe, dryfasse en syratstelsels.	11.	Development of metal plates.
21.	Versiening van onderwaterkleppe en -uitrusting.	12.	Template making.
22.	(a) Afhaal en terugsit van sonarrompstelsels;	13.	Reading of advanced drawings and the marking out of structural components and metal plates therefrom.
(b)	versiening van stabiliseerders;		(33) TRADE: PLATER/BOILERMAKER (27)
(c)	versiening van hidrouliese stelsels; en	1.	Safety precautions generally applicable to the trade.
(d)	versiening van roer- en stuuruitrusting.	2.	Care and use of tools.
23.	Algehele versiening van windasse en kaapstanders.	3.	Basic principles of the trade, viz. punching, shearing, cropping, guillotine shearing, drilling, riveting and caulking.
24.	Algehele herstelwerk aan alle binnebrandmasjiene in gebruik (diesel, twee- en vierslag).	4.	Reading of simple drawings and simple marking out.
25.	Aanmeekaarsit en versiening van ratkaste.	5.	Elementary mild steel welding.
26.	Versiening van turbine-koelwaaiers.	6.	Oxy-acetylene gas cutting.
27.	Kennis van roes van metale en roeswerende maatreëls.	7.	Working of metal plates and sections 1,6 mm and thicker.
28.	Versiening van brandstofinspuitstelsels.	8.	Cropping, punching, shearing, guillotine shearing, riveting, caulking.
	(36) AMBAG: SKEEPSPYPPASSER (24)	9.	Assembling of work produced by the trade.
1.	Veiligheidsmaatreëls en eerste hulp normaalweg op die ambag van toepassing.	10.	Reading of advanced drawings; marking out structural components and metal plates therefrom.
2.	Gebruik en versorging van handgereedskap en masjiene op die ambag van toepassing.	11.	Marking out from drawings and templates.
3.	Identifisering en keuse van regte materiale vir die herstel van pype vir verskillende dienste in skepe en skepswerwe.	12.	Development of metal plates.
4.	Identifisering en gebruik van materiaal, plaatmetaal en legerings wat gebruik word by die vervaardiging van artikels wat op die ambag van toepassing is.	13.	Template making.
5.	Voorsorgmaatreëls by die hantering van gesmelte materiaal soos lood, witmetaal en hars en witmetallisering van laers.	14.	Straightening, flattening, rolling and bending of sections and metal plates.
6.	Voorsorgmaatreëls by die hantering van oksiasetileen-uitrusting.	15.	Oxy-acetylene cutting.
		16.	Angle-iron smithing.
		17.	Making and repair of pressure vessels.
		18.	Maintenance and repair of boilers.
		19.	Hydraulic testing of boilers and necessary precautions to be taken while under pressure.
		20.	Identification of various forms of corrosion in boilers and their causes.
		21.	Testing of boiler water.
		22.	Bricklaying (refractory).

Logboek-simbool	Praktiese opleiding	Logboek symbol	Practical training
7.	Identifisering en gebruik van sagte soldeersels en smeltmiddels vir die soldering en vertinning van metale.		(34)
8.	Pype meet en sny vir huishoudelike gebruik en gebruik van pyptoebehore en -verbindinge.		TRADE: PLATER (INCLUDING WELDING) (28)
9.	Gebruik van verskillende soorte kraanwasters en pakingsmateriaal vir warm- en kouewaterstelsels.	1.	Safety precautions generally applicable to the trade.
10.	Tegniese terme wat in die ambag gebruik word.	2.	Care and use of tools.
11.	Fabrisering van staalmetaalplate vir die lê van pype in skepe.	3.	Basic principles of the trade, viz. punching, shearing, cropping, guillotine shearing, drilling, riveting and caulking.
12.	Keuse van regte vulmiddel vir gebruik by die buig van verskillende materiale.	4.	Reading of drawings.
13.	Buig van koper-, kopernikkel-, gegalvaniseerde en swartmetaalpype deur die toepassing van die volgende metodes:	5.	Marking out from drawings and templates.
(a)	Masjien-, of drewel- en ander metodes;	6.	Elementary mild steel welding.
(b)	masjien- of hidrouliese buigpers met straalvormers vir pype met groot deursnee; en	7.	Oxy-acetylene gas cutting.
(c)	warm- en koudbuiging.	8.	Punching, shearing, cropping, guillotine shearing, riveting and caulking.
14.	Doel van installering van die verskillende soorte afsluitkrane, kleppe, toebehore en uitsitvermoë.	9.	Working of metal plates and sections 1,6 mm and thicker.
15.	Installering van skeepsurinaalstelle, wasbakke, baddens, vuilwatertregters, ventilering van vuilwater en slykpype, spoelkleppe wat die plek neem van skeepspoelbakke, storthokkiemuurmeublement en warm- en kouewatermengkleppe.	10.	Assembling of work produced by the trade.
16.	Gebruik van oksiasetieleenuitrusting vir hardsoldeer, silwersoldeer, sweis, loodlaswerk en hervertinning.	11.	Development of metal plates.
17.	Gebruik van argon-boogswearing vir aluminium en vlekvrystaal en elektriese sweisuitrusting.	12.	Template making.
18.	Installering van elektriese- en oliewarmwaterstelsels.	13.	Reading of advanced drawings and the marking out of structural components and metal plates therefrom.
19.	Fabrisering, herstel en installering van pype vir die volgende stelsels:	14.	Straightening, flattening, rolling and bending of sections and metal plates.
(a)	Stoomstelsel—hoë en lae druk;	15.	Angle-iron smithing.
(b)	koelingstelsel—hoë en lae druk;	16.	Electric welding of—
(c)	hidrouliese stelsel—hoë druk;	(a)	mild steel;
(d)	drukluigstelsel—hoë en lae druk;	(b)	cast iron;
(e)	soutwaterstelsel—brandbestrydingshoofpype en verkoelingstelsels;	(c)	cast steel;
(f)	varswaterstelsel—huishoudelike en enjinverkoelingstelsels;	(d)	aluminium and its alloys;
(g)	smeeroliestelsel—aandrywings- en hulpmasjinerie vir skepe;	(e)	copper and copper alloys; and
(h)	sanitêre stelsel op skepe—vuil en spoel;	(f)	stainless steel.
(i)	kim—suig en afvoer; en	17.	Training in oxy-acetylene welding of metals mentioned in 16.
(j)	dieselenjins—uitlaattipe en waterverkoelde koker-uitlaattipe.	18.	Welding of low pressure vessels.
20.	Fabrisering van verskillende hoekige takpype van koper, kopernikkel, yster en staal. Koppeling van pype aan mekaar en afwerking deur middel van sweissoldeer, silwersoldeer en elektriese sweising.	19.	Pre-heating temperature control and prevention of distortion.
21.	Lees van tekenings en spesifikasies.		(35)
22.	Loodvoering van batterijkaste en suurbaddens.		TRADE: PLUMBER (14)
23.	Herstel, maak en installering van golfleiers vir verskillende radarlugdrade.	1.	First aid.
	37	2.	Safety precautions generally applicable to the trade.
	AMBAG: SKILDER EN VERSIERDER (28)	3.	Care and use of tools.
1.	Eerstehulp.	4.	Materials and machines.
2.	Veiligheidsmaatreëls normaalweg op die ambag van toepassing.	5.	Elementary sheetmetal work.
3.	Versorging en gebruik van materiale en gereedskap.	6.	Use of—
4.	Bereiding van oppervlakke en roeswering.	(a)	pipe fittings; and
5.	Onderlae aanwend.	(b)	various kinds of washers and packings.
6.	Gebruik van pigmente, verdunners en droogmiddels.	7.	Cutting simple patterns.
7.	Metodes om die volgende aan te wend:	8.	Cuttings and threading of pipes.
(a)	Verf (roesvrye verf);	9.	Making of—
(b)	witkalk; en	(a)	gutters; and
(c)	distempers.	(b)	down pipes.
8.	Ou verf afhaal.	10.	Working from plans.
9.	Eenvoudige steierwerk.	11.	Soldering.
10.	Elementêre meng en vermenging van verf.	12.	Tinning.
11.	Sindelikheid.	13.	Riveting.
12.	Tegniese terme.	14.	Use of fluxes.
13.	Gebruik en versorging van spuitverfuitrusting.	15.	Technical terms.
14.	Ruite insit.	16.	Pipes—
15.	Meng, bereiding en aanwending van verf.	(a)	cutting;
16.	Verskillende metodes om vlekke uit te haal.	(b)	threading;
17.	Beits.	(c)	jointing; and
18.	Strepe verf.	(d)	laying.
19.	Bereiding en verf van metaaloppervlakke.	17.	Fitting—
20.	Verniswerk.	(a)	stop cocks;
21.	Gevorderde kleurmenging.	(b)	valves;
22.	Sierverfwerk.	(c)	expansion joints;
23.	Plastiekverfwerk.	(d)	copper piping;
24.	Kennis van werkhoeveelhede en werkafmetings.	(e)	waste and outlet pipes;
		(f)	traps;
		(g)	vent pipes;
		(h)	guttering;
		(i)	down pipes; and
		(j)	flashings.
		18.	Installation of hot water systems.
		19.	Setting out drainage systems.
		20.	Laying and jointing various drain pipes.
		21.	Installation of—
		(a)	closet and urinal suites;
		(b)	cisterns and traps; and
		(c)	cast iron pipe work (general).
		22.	Reading of plans and specifications.
		23.	Practical application of municipal regulations, where applicable.
		24.	Advanced sheetmetal work.
		25.	Meters—
		(a)	fitting; and
		(b)	reading.

Logboek-simbool	Praktiese opleiding	Logboek symbol	Practical training
25.	Matverfwerk; houtvlamskildering.	26.	Use of oxy-acetylene equipment.
26.	Muurplakwerk.	27.	Brazing.
27.	Elementêre letterskilderwerk (waar fasiliteite bestaan).	28.	Welding.
28.	Sjablonering.	29.	Jointing and laying of lead piping.
29.	Brûe verf.	30.	Bossing up of sheet lead.
30.	Gebruik van—	31.	Septic tanks—
(a)	lang lere;	(a)	installation; and
(b)	trapplanke;	(b)	maintenance.
(c)	hangstoele; en	32.	Building of manholes.
(d)	hangsteiers.	33.	Lead burning.
(38)		(36)	
AMBAG: SKRYNWERKER (21)		TRADE: RADIO AND TELEVISION MECHANICIAN (30)	
1.	Veiligheidsmaatreëls normaalweg op die ambag van toepassing.	1.	Basic safety precautions applicable in the trade to be practised throughout apprenticeship, with special reference to safe handling and care of hand tools, noxious and flammable gases, liquids and gases under pressure, hot and molten metal, electrical installations, machine protection, machine and pneumatic tools, grinding wheels, moving and overhead machinery and use of portable fire extinguishers. Treatment for electric shock.
2.	Gebruik en onderhoud van handgereedskap.	2.	Care and use of tools. Making of workpieces and/or parts, including elementary sheetmetal work, using the techniques of drilling, filing, sawing and tapping. Sharpening of cutting tools.
3.	Kennis en gebruik van verskillende soorte materiale, met inbegrip van timmerhout, laaghout en komposisie-bord.	3.	Marking off from drawings and samples using marking-off tools, e.g. centre punch, dividers, protractors, rules, scribes and squares.
4.	Defekte in hout.	4.	Making of drawings and sketches of elementary electronic circuits and of mechanical parts. Reading and understanding of drawings, including symbols.
5.	Timmerhout met die hand haaks maak.	5.	Use of electrical/electronic measuring instruments, e.g. ammeters, bridges, ohmmeters and voltmeters. Interpretation and evaluation of readings.
6.	Eenvoudige lasse afmerk en maak.	6.	Use of equipment and methods of soldering and desoldering.
7.	Lymwerk.	7.	Wiring and assembly according to specifications. Use of printed circuit boards.
8.	Spykerwerk.	8.	Installation, fault finding, maintenance, lubrication and repair of small AC and DC motors.
9.	Skroefwerk.	9.	Erection of radio and television aerials, masts and lightning protectors. Use of correct fixing methods. Lightning protection and care of customers' property.
10.	Skuurpapierwerk.	10.	Stringing of dial cords. Adjustment to clutches and automatic tuning devices.
11.	Lees van tekenings.	11.	Care and accuracy in handling wave change switching mechanisms. Servicing, cleaning and adjustment.
12.	Tegniese terme.	12.	Use of signal generators and output meters. Evaluation of readings.
13.	Die maak van—	13.	Repair, maintenance and servicing of audio amplifiers and power supplies. Tracing of faults in a systematic manner.
(a)	vensterkosyne;	14.	Testing of cathode ray tubes, transistors and other components, using appropriate equipment.
(b)	deurkosyne;	15.	Use of appropriate instruments to trace faults in a systematic manner.
(c)	deure;	16.	Use of oscilloscopes and wobblers.
(d)	vensterrame; en	17.	Alignment of radio receivers to the manufacturer's standards.
(e)	rakkaste.	18.	Use of pattern generator for monochrome television adjustments and checks.
14.	Paneelwerk en ander skrynwerk.	19.	Adjustment of monochrome receivers.
15.	Werk afmerk van tekenings af en gebruik van uitleplanke.	20.	Use of instruments to diagnose and trace faults in power supplies, tuner, IF, AGC, video and scan, sync separation, fly wheel and oscillator stages for time bases, in monochrome television receivers, using service information. Servicing and repair of receivers and circuits.
16.	Hoeveelhede bereken en snylyste saamstel.	21.	Alignment of monochrome and colour IF stages by spot and sweep methods, including use of damping and AGC disabling systems.
17.	Profiellyste saamvoeg, inpas en aanbring.	22.	Use of colour signal generators.
18.	Inpas en aanbring van—	23.	Adjusting of colour set displays. All usual settings plus static and dynamic convergence, grey scale tracking, colour purity and degaussing, using pattern generators.
(a)	aluminiumware;	24.	Use of instruments to diagnose and trace faults in a systematic manner in colour receivers, using service information.
(b)	ysterware;	25.	Including repair and maintenance of domestic video recorders and camera sources, where facilities exist.
(c)	hardeware; en		
(d)	toebehore.		
19.	Houtwerk vir binne- en buiteafwerking van geboue uitvoer.		
20.	Gebruik van draagbare kraggereedskap.		
21.	Gangbare kennis van houtwerkmasjinerie.		
(39)			
AMBAG: STEPELSNYER EN GRAVEERDER (12)			
1.	Veiligheidsmaatreëls normaalweg op die ambag van toepassing.		
2.	Versorging en gebruik van handgereedskap.		
3.	Versorging en gebruik van meetinstrumente, byvoorbeeld nonius, dieptemeter en mikrometer.		
4.	Elementêre kap-, boor-, ruim-, saag-, skraap-, skroef- en moerdraadsnywerk.		
5.	Bore en snybeitels skerpmaak.		
6.	Lees van tekenings en kunswerk en toepassing daarvan.		
7.	Kennis van fisiese eienskappe van materiaal wat in die ambag gebruik word.		
8.	Bereiding van meesters.		
9.	Elementêre modelleerwerk in klei en gietwerk.		
10.	Kennis van reproduksie van stempels.		
11.	Eenvoudige lettersnywerk.		
12.	Handponswerk en rangskikking van letters op stempels.		
13.	Elementêre hittebehandeling.		
14.	Bereiding van stempels.		
15.	Hand- en masjiengravering van blok-, skrif- en sierletters.		
16.	Handafwerking van metaalstempels in reliëf.		
17.	Bereiding van sketse vir klante. (Voorbeelde van tekenings, beginnende met die teken van voorwerpe).		
18.	Presisiowerk met handgereedskap.		
19.	Afmerk.		
20.	Bediening van masjiene wat in die ambag gebruik word.		
21.	Stempels skoonmaak en poleer.		
22.	Modellering en bereiding van meesters.		
23.	Letter- en manuskripwerk (suiwer).		
24.	Elementêre handelskuns, met inbegrip van uitleksetse, ontwerpe wat op die ambag van toepassing is, letterwerk en die ontwerp van handelsmerke en wapens.		
25.	Figuurtekening, met inbegrip van portrette.		

Logboek-simbool	Praktiese opleiding	Logboek symbol	Practical training
	(40) AMBAG: SWEISER (48)		(37) TRADE: RADIOTRICIAN (AUDIO) (31)
1.	Eerstehulp en veiligheidsmaatreëls normaalweg op die ambag van toepassing.	1.	Safety measures and first aid generally applicable to the trade.
2.	Werkwinkelroetine.	2.	Names and uses of hand tools.
3.	Versorging en gebruik van handgasvlamsnyer.	3.	Care and maintenance of workshop equipment.
4.	Algemene oksiasetileensnywerk.	4.	Grouping together of component parts.
5.	Eenvoudige sweiswerk op weekstaal.	5.	Principles of finishing off.
6.	Algemene sweis van eenvoudige gefabriseerde werk op weekstaal.	6.	Drilling and soldering.
7.	Sweis—	7.	Use of simple volt-ohmmeters.
(a)	plat;	8.	Erection and maintenance of aerials and lightning conductors.
(b)	hoek-;	9.	Reading of circuit diagrams and interpreting service instructions.
(c)	stuike; en	10.	Repair and maintenance of dial drive mechanisms.
(d)	oorslag.	11.	Knowledge of circuits used in frequency control.
8.	Algemene werk op profielsnymasjiene.	12.	Reading of plans and specifications.
9.	Lees van tekenings.	13.	Tracing of faults.
10.	Sweis—	14.	Practical application of AC and DC theory.
(a)	vertikaal; en	15.	Use and maintenance of impedance bridges, tube testing apparatus, electronic voltmeters, oscilloscopes and instruments for repair of radio receivers.
(b)	omhoog.	16.	Repair and maintenance of motors in receivers and signalling apparatus.
11.	Elektriese boogswearing.	17.	Repair and maintenance of audio sound amplifiers.
12.	Sweissoldeer van verskillende metale.	18.	Alignment of receiving and transmitting sets and use of oscilloscope in alignment of circuit diagrams.
13.	Swaar profiele sny.	19.	Knowledge of equipment used in and in connection with receiving sets, automatic frequency control equipment and interference suppressors.
14.	Uitgloeing.	20.	Complete servicing of receiving and transmitting sets and maintenance of same.
15.	Materiaal uitle om vervorming te voorkom.	21.	Knowledge and work according to plans and diagrams.
16.	Sweis van gefabriseerde pyptoebehore.	22.	Knowledge of installation and maintenance of frequency amplifiers.
17.	Elektriese sweising van—		(38) TRADE: RADIOTRICIAN (COMMUNICATION) (32)
(a)	weekstaal;	1.	Safety measures and first aid generally applicable to the trade. Basic training in hand skills.
(b)	gietyster;	2.	Radio installation and maintenance of switches and relays.
(c)	gietstaal;	3.	Knowledge and use of test equipment:
(d)	aluminium en sy legerings;	(a)	Multimeters.
(e)	koper en koperlegerings; en	(b)	wattmeters (output, audio and R.F.);
(f)	vlekvrye staal.	(c)	signal generators (0–300 MHz);
18.	Oksiasetileensweising van—	(d)	millivolt meters;
(a)	weekstaal;	(e)	meggers;
(b)	gietyster;	(f)	oscilloscopes (0–300 MHz);
(c)	gietstaal;	(g)	universal bridges;
(d)	aluminium en sy legering; en	(h)	frequency counters;
(e)	koper en koperlegerings.	(i)	valve testers; and
19.	Sweis van laagdrukhouers.	(j)	transistor testers.
20.	Gevorderde werk, met spesiale verwysing na beheer van voorverhittingstemperatuur.	4.	Working knowledge of printed board construction and construction of elementary circuits on vero board using semi-conductors and general components and identification of said components, e.g. resistances, capacitances, transistors and inductors.
21.	Ontspanning.	5.	Maintenance of multimode transmitters and receivers, as well as microphones and headpieces.
	(41) AMBAG: TAKELAAR (40)	6.	Knowledge of AC theory, valve, transistor and logic theory.
1.	Eerstehulp.	7.	Making up multicore flexible cables as well as heavy duty connecting lugs.
2.	Veiligheidsmaatreëls normaalweg op die ambag van toepassing.	8.	Checking and testing of power supply equipment, e.g. radio generating units and solid state inverters and AC to DC converters.
3.	Versorging en gebruik van—	9.	Checking and testing of wiring connections etc. in MF, HF, VHF, UHF, SHF and DF equipment.
(a)	gereedskap;	10.	Conducting serviceability tests on all MF, HF, VHF, UHF, SHF and DF equipment, as well as aerial installations; the use and understanding of test specifications and manuals.
(b)	oksiasetileensnyer;	11.	Removal and testing of radio component parts.
(c)	katrolblokke;	12.	Routine maintenance and calibration of general test equipment.
(d)	kettingblokke;	13.	Overhauling all MF, HF, VHF, UHF, SHF and DF equipment as well as aerials (systematic testing should be stressed).
(e)	windasse (hand en krag);	14.	Basic radar work (ability to use manuals in order to carry out basic tests) and general knowledge of microwave techniques and associated equipment.
(f)	domkragte (skroef en hidroulies);		
(g)	kraanarms (hand en krag); en		
(h)	krane (bobaan en mobiel).		
4.	Oprigting en gebruik van—		
(a)	steiers;		
(b)	steierwerk;		
(c)	hangstoele;		
(d)	driepote (katrolblokke); en		
(e)	laaibome en pale.		
5.	Gebruik en versorging van—		
(a)	ketting- en touslingers;		
(b)	veseltoue;		
(c)	staaldraadtoue;		
(d)	ankertoue;		
(e)	ankers; en		
(f)	harpe en oogbout.		
6.	Toue vasmaak.		
7.	Knope en splitslasse:		
(a)	Staaldraadtoue;		
(b)	veseltoue; en		
(c)	bedekking van splitslasse.		
8.	Hystoestelle en vasmaak—toepassing van veiligheidsmaatreëls.		
9.	Hake en verbindings—redes vir uitgloeing.		
10.	Toue (vir hys- en trekwerk):		
(a)	Versorging en inspeksie; en		
(b)	onderhoud, smeer en beveiliging.		
11.	Hystouwerk:		
(a)	Behoorlike opdraai aan hystromme;		

Logboek-simbool	Praktiese opleiding	Logboek symbol	Practical training
(b) (c) (d) (e) (f)	onderhoud van katrolwielloopvlakke; verwydering van kinkels; algemene hantering van hystoue; bereiding van toetsmonsters; en tekens en oorsake van deteriorasie van toue.		(39) TRADE: REFRIGERATION MECHANICIAN (44)
12.	Touaanhengings.	1.	Safety measures and first aid generally applicable to the trade.
13.	Lusringe.	2.	Fire prevention and use of fire extinguishers.
14.	Outomatiese ontkoppelhake.	3.	Use and care of hand tools, including filing, sawing, scraping, drilling, reaming and threading.
15.	Vervanging van wentoue, met inbegrip van pas vir lengte aan—	4.	Lapping of reed valves and crankcase seals for compressors.
(a)	koniese tromme; en	5.	Reading drawings and marking off.
(b)	parallele tromme.	6.	Use and care of marking-off instruments, internal and external calipers, micrometers and verniers.
16.	Slinger en hantering van swaar vragte.	7.	Strength and qualities of metals.
17.	Maak en oprigting van hangstoele.	8.	Refrigeration circuit;
18.	Maak van skutplate en veiligheidsnette.	(a)	qualities and uses of refrigerants and refrigerating oil;
19.	Takelwerk op skepe, met inbegrip van die in lyn bring van maste.	(b)	and
20.	Droogdok en hervlotting van vaartuie.	(c)	repairing and servicing all types of refrigerating apparatus, water cooled systems, freezing rooms and freezing units, including domestic and commercial refrigerators and heavy equipment used in large refrigerator rooms and air-conditioning systems.
21.	Vasmeer en uitsleep van vaartuie.		General lubricating;
22.	Afhaal en terugsit van die skroef, skroefasse en roer van 'n skip.	9.	welding and hard soldering; and
	(42) AMBAG: TIMMERMAN (6)	(b)	properties and uses of soldering materials.
1.	Veiligheidsmaatreëls normaalweg op die ambag van toepassing.	(c)	Pipe fitting in refrigeration plants.
2.	Kennis en versorging van handgereedskap.	10.	Use and adjusting of instruments used in testing and tracing of faults; and
3.	Kennis en gebruik van materiale.	11.	tracing and repair of faults in refrigerating systems.
4.	Die afmeet van timmerhout.	(b)	Installation, maintenance and repair of air-conditioning plant, including—
5.	Tegniese terme.	12.	fans;
6.	Verskillende soorte lasse.	(a)	air cleaners and filters;
7.	Die maak van eenvoudige lasse.	(b)	pumps;
8.	Kennis, versorging en onderhoud van masjiengereedskap.	(c)	evaporating condensers;
9.	Tekenings lees en daarvolgens afmerk.	(d)	cooling towers;
10.	Pas en aanbring van skrynwerk.	(e)	heaters;
11.	Herstelwerk, opknopwerk en veranderings aan geboue uitvoer.	(f)	self-contained air-conditioning units; and
12.	Die oprigting van alle soorte steierwerk.	(g)	dampers.
13.	Opmeting vir bestellings van benodigde materiaal.	(h)	Construction and servicing of automatic regulators; e.g.:
14.	Strukture van swaar timmerhout en die onderhoud daarvan.	13.	Expanding valves;
	(43) AMBAG: TIMMERMAN EN SKRYNWERKER (7)	(a)	solenoid valves;
1.	Eerstehulp.	(b)	thermostats; and
2.	Veiligheidsmaatreëls normaalweg op die ambag van toepassing.	(c)	servo-motors.
3.	Handgereedskap:	(d)	Electrical work, viz.:
(a)	Kennis, versorging en gebruik van; en	14.	Checking of circuits;
(b)	skerpmaak en onderhoud van.	(a)	adjusting and minor repairs to motors;
4.	Kennis en gebruik van verskillende soorte timmerhout laaghout en komposisiebord.	(b)	starters;
5.	Defekte in timmerhout.	(c)	heaters and regulators;
6.	Timmerhout met die hand opmeet.	(d)	electrostatic filters and fittings; and
7.	Timmerhout met die hand haaks maak.	(e)	reading of electric diagrams.
8.	Alle soorte eenvoudige lasse:	(f)	Note.—Not less than six months of the third year of apprenticeship should be devoted to item 14 and three months practical experience gained in fitting and turning workshop.
(a)	Afmerk; en		(40) TRADE: RIGGER (41)
(b)	maak.	1.	First aid.
9.	Lynwerk.	2.	Safety precautions generally applicable to the trade.
10.	Spykerwerk.	3.	Care and use of—
11.	Skroefwerk.	(a)	tools;
12.	Plat vlakke en lyste met glaspapier skuur.	(b)	oxy-acetylene cutting torch;
13.	Betonbekisting maak en oprig.	(c)	pulley blocks;
14.	Tekenings lees.	(d)	chain blocks;
15.	Tegniese terme.	(e)	winches (hand and power);
16.	Masjiengereedskap:	(f)	jacks (screw and hydraulic);
(a)	Kennis, versorging en gebruik van; en	(g)	jibs (hand and power); and
(b)	skerpmaak en onderhoud van.	(h)	cranes (overhead and mobile).
17.	Maak van—	4.	Erection and use of—
(a)	vensterkosyne;	(a)	scaffolding;
(b)	deurkosyne;	(b)	staging;
(c)	deure;	(c)	boatswain's chairs;
(d)	vensterrame; en	(d)	tripods (shear legs); and
(e)	rakkaste.	(e)	derricks and poles.
18.	Paneelwerk en beter klas skrynwerk.	5.	Use and care of—
19.	Van uittlêplanke af werk.	(a)	chain and rope slings;
20.	Van tekenings af werk.	(b)	fibre ropes;
21.	Werk van tekenings af afmerk.	(c)	steel wire ropes;
22.	Hoeveelhede opmeet en snylyste opstel.	(d)	guys;
23.	Lyste inmeakaarsit, pas en vassit.	(e)	anchors; and
24.	Met skuurpapier skuur.	(f)	shackles and eye bolts.
25.	Houtwerk: Buite- en binne-afwerking van geboue.	6.	Rope fastening.
26.	Houtvloere insit.	7.	Knots and splices:
		(a)	Steel wire ropes;
		(b)	fibre ropes; and
		(c)	covering splices.

Logboek-simbool	Praktiese opleiding	Logbook symbol	Practical training
27.	Pas en/of aan- of insit van—	8.	Lifting appliances and fastening—application of safety measures.
(a)	deurkosyne;	9.	Hooks and connections—reasons for annealing.
(b)	vensterkosyne;	10.	Ropes (hoist and haulage):
(c)	prentelyste;	(a)	Care and inspection; and
(d)	vloerlyste;	(b)	maintenance, lubrication and protection.
(e)	argitrawe en profiellyste;	11.	Hoist rope operation:
(f)	meubels; en	(a)	Proper coiling on hoist drums;
(g)	toebehore en ysterware.	(b)	sheave tread maintenance;
28.	Hang van—	(c)	removal of kinks;
(a)	deure; en	(d)	general hoist rope handling;
(b)	vensterrame.	(e)	preparation of test specimens; and
29.	Uitlê en oprigting van—	(f)	symptoms and causes of rope deterioration.
(a)	hout-en-sinkbouwerke; en	12.	Rope attachments.
(b)	alle soorte dakke.	13.	Thimbles.
30.	Gegolfde dakmateriaal en waterslagbeplanking vassit.	14.	Automatic detaching hooks.
31.	Geboue opknop, herbou en herstel.	15.	Renewal of winding ropes, including matching for length on—
32.	Alle soorte steiers oprig.	(a)	conical drums; and
33.	Vir bestellings van benodigde materiaal opmeet.	(b)	parallel drums.
34.	Swaar timmerhoutstrukture oprig en onderhou.	16.	Slinging and handling of heavy loads.
35.	Opleiding in tekenkantoer.	17.	Making and erecting boatswain's chairs.
	(44)	18.	Making guard plates and safety nets.
	AMBAG: VERKOELINGSMEGANIKUS (39)	19.	Rigging on ships, including aligning of masts.
1.	Veiligheidsmaatreëls en eerste hulp normaalweg op die ambag van toepassing.	20.	Dry-docking and refloating of vessels.
2.	Brandbeskerming en gebruik van brandblussers.	21.	Mooring and towing-out of vessels.
3.	Gebruik en versorging van handgereedskap, met inbegrip van vylwerk, saagwerk, skraapwerk, boorwerk, ruimwerk en skroefdraadsny.	22.	Removing and replacing of propellers, propeller shafts and rudders.
4.	Fynslyp van tongkleppe en krukkasafsluitings vir kompressors.		(41)
5.	Tekenings lees en werk afmerk.		TRADE: SAILMAKER AND UPHOLSTERER (33)
6.	Gebruik en versorging van afmerkinstrumente, binne- en buitemeetpassers, mikrometers en noniuses.	1.	Safety precautions and first aid generally applicable to the trade.
7.	Sterkte en eienskappe van metale.	2.	Hand sewing.
8.	(a) Die verkoelingskringloop;	3.	The use of rope and palms for—
(b)	eienskappe en gebruike van koelmiddels en verkoelingsolie; en	(a)	seaming;
(c)	herstel en versiening van alle soorte verkoelings-uitrusting, waterverkoelingstelsels, vrieskamers en vrieseenhede, met inbegrip van huishoudelike en handelskoelkaste en swaar uitrusting wat in groot koelkamers en lugversorgingstelsels gebruik word.	(b)	splices;
9.	(a) Algemene smering;	(c)	types of seams;
(b)	sweis en hardsoldeer; en	(d)	whippings; and
(c)	eienskappe en gebruike van soldeer middels.	(e)	the general use of rope, knots, holes and thimbles.
10.	Pyppaswerk in koelinstallasies.	4.	Cutting and designing small canvas covers and carpets.
11.	(a) Gebruik en instelling van instrumente wat gebruik word by toetswerk en foutspeuring; en	5.	Use of heavy sewing machines.
(b)	opspoor en herstel van foute in verkoelingstelsels.	6.	Manufacture and finishing of ship's awnings, etc.; wire splicing and wire seizings.
12.	Installering en onderhoud van en herstelwerk aan lugversorgingsinstallasies, met inbegrip van—	7.	Measuring and designing of canvas covers and awnings for ships.
(a)	waaiers;	8.	Boat sails and ships awnings, gun covers, winch covers, float screens, etc.—
(b)	lugreinigers en filters;	(a)	measuring;
(c)	pompe;	(b)	sketching; and
(d)	verdampingskondensators;	(c)	spreading.
(e)	koeltorings;	9.	Gain knowledge of signal flags and protective clothing.
(f)	verwarmers;	10.	Stripping of—
(g)	selfstandige lugversorgingseenhede; en	(a)	hoods;
(h)	bevoigtigers.	(b)	seats;
13.	Konstruksie en versiening van outomatiese reëlaars, byvoorbeeld:	(c)	dome linings; and
(a)	Uitsitkleppe;	(d)	door trimming panels.
(b)	solenoidkleppe;	11.	Padding of—
(c)	termostate; en	(a)	seats; and
(d)	servo-motore.	(b)	fitting of seatsprings.
14.	Elektrotegniese werk, byvoorbeeld:	12.	Use of correct materials, making and repair of—
(a)	Nasien van stroombane;	(a)	seats;
(b)	stel van en kleiner herstelwerk aan motore;	(b)	squabs;
(c)	aansitters;	(c)	hoodlinings; and
(d)	verwarmers en reëlaars;	(d)	door trimmings.
(e)	elektrostatische filters in toebehore; en	13.	Removal and fitting of all glass.
(f)	lees van elektriese diagramme.	14.	Dust- and waterproofing.
	<i>Opmerking.</i> —Minstens ses maande van die derde jaar van vakleerlingskap moet aan item 14 gewy word en drie maande praktiese ondervinding moet in pas- en draaiwerkwinkel opgedoen word.		(42)
	(45)		TRADE: SHIPBUILDER (34)
	AMBAG: VORMGIETER (27)	1.	Instruction in shipyard procedure, rules and regulations, and the shipyard chain of command.
1.	Eerstehulp.	2.	Familiarisation with the shipyard shops and offices and their environs and explanation of their various functions.
2.	Veiligheidsmaatreëls gedurende—	3.	Instruction in first aid and safety precautions.
(a)	vorm—;	4. (a)	Provision of a set of tools which a shipbuilder requires and instruction in the use of such.
(b)	giet—;	(b)	Explanation of the scope of the shipbuilder apprentices' training and the demarcation and relationship between shipbuilder's and other trades in the shipyard together with instruction in the use of terms peculiar to the trade.
(c)	afskuim—; en		

Logboek-simbool	Praktiese opleiding	Logbook symbol	Practical training
3.	(d) voerwerkzaamhede. Eenvoudige kerns— (a) maak; (b) ontlug; (c) swart maak; en (d) droogmaak.	5.	Instruction in practical geometry and its application to development, laying-out, marking out and the like, followed by simple practical exercises for experience and to test the proficiency attained.
4.	Versorging van kernbakke.	6.	The use of the various materials used by shipbuilders, their properties' how they are formed and worked, the methods used to join them together, with details of the various fastenings and fasteners used and how they can be recognised.
5.	Gebruik van gereedskap, toestelle en materiale.	7.	Instruction in how to read drawings, including the making of items from simple drawings.
6.	Meng van kernsand.	8.	Instruction in light plate work—development of light plates and pipes; fittings for ships; small production jobs.
7.	Vorming van kernversterkings.	9. (a)	General ship work: The making and repair of fittings; ventilation; carrier plate and supports of all kinds; water-tight and other doors and hatches; side scuttles; guard rail and awning stanchions;
8.	Maak van eenvoudige groensand- of natsandgielvorms, plasing van kerns en toemaak daarvan.	(b)	Practical use of the mould floor and scribe board for laying-out and for the lifting of templates, lining off aboard ship for alterations and/or additions to structure, entailing the use of Simpson's rule and knowledge of structural interference;
9.	Maak van eenvoudige gietkernysters.	(c)	instruction in the procedure and the precautions necessary for the testing, cleaning and treatment of oil and water tanks within ships;
10.	Maak van meer gevorderde tipes gietvorms uit groen (nat) en droë sand, waarby vereis word— (a) afsny van gietnate; (b) vashaak; (c) kernplasing; en (d) toemaak en giet van vorms.	(d)	instruction in the various means by which davit tests, inclining experiments, ship surveying and material tests are carried out; and
11.	Meng van gietsand.	(e)	dry-docking procedure: Instruction in the use of docking plans, the preparedness of the vessel, dock bottom routine, breast and bilge shores, dockside requirements, caisson movements, flooding and draining procedure.
12.	Versorging van patrone.	10.	Practical instruction in the use of heavy plate for the construction of bulkheads, decks, outer bottom and frames and girders. The preparation of these in the plate shop and subsequent erection on the building slip. Prefabrication and other methods of construction. Plate preparation, fitting, alignment and maintenance of former on the building slip.
13.	Ondervinding van smelteenhede.	11.	Boat construction: bench work; repair work, extensive fibre glass practice entailing new construction.
14.	Opleiding op gietmasjiene (hoogstens vier maande).	12.	Instruction in the use of oxy-acetylene and electric arc welding together with the safety precautions necessary.
15.	Gevorderde kernmaakwerk en gietwerk, met inbegrip van— (a) skeletvormwerk; (b) afstryk; en (c) leemvormwerk.	13.	Three months' training in drawing office.
16.	Maak van gietkernysters.		
17.	Selfstandige gietwerk op algemene werkvloer.		
18.	Oksiasetileensnywerk soos op die ambag van toepassing.		
19.	Ondervinding in gieterye met meer as een afdeling, dit wil sê— (a) yster; (b) staal; en (c) geelkoper.		
20.	Onderrig in die gebruik van sintetiese sandsoorte, met inbegrip van CO ₂ -sand. <i>Opmerking.</i> —Vakleerlinge moet gedurende hul derde jaar ses maande in die modelmaakwerkwinkel onderrig ontvang.		
	(46) AMBAG: WAPENMONTEUR (I)		(43) TRADE: SHEETMETAL WORKER (25)
1.	Veiligheidsmaatreëls en eerstehulp normaalweg op die ambag van toepassing.	1.	Safety precautions generally applicable to the trade.
2.	Versorging en gebruik van handgereedskap.	2.	Care and use of tools and machines.
3.	Basiese onderrig in paswerk, met inbegrip van vyl, saag, beitel, skroef- en moederdraadsny (binne en buite) van verskeie metale, en boorwerk.	3.	Soldering and use of fluxes.
4.	Afmerkwerk.	4.	Riveting.
5.	Masjinerig op draaibank en skaaf.	5.	Marking out of simple work.
6.	Nagaan en herstel van vuurwapens, met inbegrip van— (a) sluitstukmeganismes; (b) astappe; en (c) ratkaste en -rakke.	6.	Making of simple sheetmetal parts.
7.	Herstel en versiening van— (a) dieptebomwerpers; (b) mortiersluitstukmeganismes; en (c) afstandbeheerklappe.	7.	Reading of drawings.
8.	Herstel en versiening van wapenmonteerkokers aan boord en op toetsbank.	8.	Marking out, developing and making of more advanced sheetmetal parts.
9.	Nagaan, herstel en versiening van wapentuiguitrusting, met inbegrip van torpedobuise, visiere en diepte-ontladingsmeganismes.	9.	Flat pattern work.
10.	Herstel en onderhoud van hidrouliese en lugdrukwapenstelsels.	10.	Making of sheetmetal components from drawings.
11.	Herstel en onderhoud van meganiese wapentuiguitrusting, aandrywingsmotore en ratkaste.	11.	Preparation of steel and alloy sheet for anticorrosive treatment.
12.	Herstel en onderhoud van elektroniese afstandbeheeruitrusting onder toesig van spesiale ambagsmanne.	12.	Care and use of cutting, brazing and welding equipment.
13.	Ondervinding in die algemene werking van lugdruk- en hidrouliese torpedo-uitrusting (minstens drie maande).	13.	Stretching and shrinking of material during processing.
	(47) AMBAG: WERKTUIGKUNDIGE (AANLEGMA-SJINERIE) (8)	14.	Use of power-driven machinery.
1.	Veiligheidsmaatreëls en eerstehulp normaalweg op die ambag van toepassing.	15.	Making of soldered and riveted assemblies.
2.	Versorging van voertuie en uitrusting.		
3.	Gebruik en versorging van alle handgereedskap.		
4.	Waar fasiliteite bestaan, die insleep van voertuie, gewoon en met takelwa en herwinning van voertuie.		
5.	Smering en gewone versiening van voertuie en uitrusting.		
	(44) TRADE: SHOPFITTER (WOOD) (48)		
		1.	Safety precautions generally applicable to the trade.
		2.	Care and use of hand tools.
		3.	Knowledge and use of various materials, including— (a) hard and softwoods; (b) laminated boards; (c) composition boards; (d) plywood; and (e) plastic sheeting and fibre boards used in the trade.
		4.	Defects in timber.
		5.	Setting out and making of simple joints.

Logboek-simbool	Praktiese opleiding	Logboek symbol	Practical training
6.	Onderhoud en herstel van— generators; en waar moontlik, alternators.	6.	Making of simple fittings and fixtures in wood.
(a)		7.	Preparation of materials.
(b)		8.	Assembling and finishing of—
7.	Uitmekaarhaal en bepaling van slytasie op onderdele soos—	(a)	upper lights;
(a)	silinders;	(b)	window enclosures;
(b)	krukas;	(c)	counters;
(c)	laers;	(d)	fitments;
(d)	nokaslaers;	(e)	doors;
(e)	stootstange;	(f)	frames; and
(f)	kleppe en klepleiers; en	(g)	office screening etc., to received finishes such as french polish, lacquer and Duco.
(g)	suiers en suierpenne.	9.	Technical terms.
8.	Ontkoling; slyp van kleppe; terugsit van silinderkop, met besondere aandag aan spesifikasies en gebruik van wringsleutel en stel van klepopeninge.	10.	General training in—
9.	Afhaal en terugsit van wiele, met inbegrip van lekherstel en vervanging van bande en binnebande.	(a)	joinery;
10.	Afhaal en terugsit van—	(b)	setting out of jobs; and
(a)	koppelaars;	(c)	reading scale drawings and working from full-size set-outs.
(b)	ratkaste;	11.	Making and installation of—
(c)	ewenaars;	(a)	store, shop, office and bank fittings;
(d)	dryfasse;	(b)	shop fronts;
(e)	agterassstelsels;	(c)	window enclosures;
(f)	voorasstelsels;	(d)	showcases;
(g)	enjinonderdele;	(e)	counters; and
(h)	enjineenhede;	(f)	screens and interior fittings and fixtures in wood or metal or both.
(i)	stuurstelsels;	12.	Marking-off, cutting and assembling of drawn and extruded metal sections for welding.
(j)	remstelsels;	13.	Assembling and glazing of glass counters and showcases.
(k)	uitlaatstelsels;	14.	Handling and installation of all glassware used in shopfitting such as—
(l)	hidrouliese eenhede; en	(a)	bent, tinted and brilliant cut mirrors; and
(m)	kragtafstelsels.	(b)	sandblasted, ground, polished and coloured glass.
11.	Enjineenhede, petrol en diesel; uitmekaarhaal en montering na algehele herstel van alle onderdele, met inbegrip van—	15.	Knowledge of all outside fixing terms such as building line, "datum line" and "plus" and minus pavement levels".
(a)	suiers, ringe en suierpenne;	16.	Use and care of portable power tools.
(b)	alle laers;		(45)
(c)	klepleiers en kleppe, klepvere en klepbeddings;		TRADE: SIGNWRITER (13)
(d)	suierstange;	1.	First aid and safety precautions generally applicable to to trade.
(e)	kransratte; en	2.	Use and care of tools and materials.
(f)	tydreëlratte.	3.	Preparation of surfaces:
12.	Vonk- en openingsorde van kleppe en ontstekingsstelsel.	(a)	Use of pigments;
13.	Algehele versiening, herstel en onderhoud van verkoelersstelsels, met inbegrip van olieverkoeling.	(b)	use of thinners; and
14.	Instel van enjin sonder instrumente.	(c)	use of driers.
15.	Algehele herstelwerk aan, bepaling van slytasie, montering en verstellings aan—	4.	Methods of applying paint.
(a)	koppelaars;	5.	Cleaning off old paint.
(b)	oorbringstelsels;	6.	Mixing and applying paints.
(c)	dryfasse en voegstels;	7.	Primary and secondary colours.
(d)	agteraseenhede;	8.	Painting and varnishing of all types of surfaces.
(e)	voorasenehede;	9.	Advanced painting.
(f)	stuureenhede;	10.	Varnishing and colour mixing and general knowledge of painting.
(g)	veringenehede;	11.	Setting out and shaping of all types of lettering, including gold-leaf work.
(h)	remstelsels;	12.	Erection of scaffolding and ladders.
(i)	petrolpompe;		(46)
(j)	vergassers;		TRADE: TOOL- AND JIGMAKER (8)
(k)	ontstekingsstelsels;	1.	Safety measures generally applicable to the trade.
(l)	hidrouliesestelsels; en	2.	Names of tools.
(m)	wielbalanseerstelsels.	3.	Care and use of tools.
16.	Nasien en stel van—	4.	Care and use of measuring instruments.
(a)	toesporing;	5.	Bench work, with particular attention to—
(b)	nasporing;	(a)	filing;
(c)	wielvlug;	(b)	sawing;
(d)	krinkspilhellings; en	(c)	scraping;
(e)	uitsporing.	(d)	drilling;
17.	Elementêre gas- en elektriese sweiswerk; sweissoldeer- en soldeerwerk.	(e)	reaming;
18.	Toets, diagnoseer en herstel van—	(f)	threading; and
(a)	foute in ontstekingsstelsel;	(g)	cutting.
(b)	foute in brandstofstelsel;	6.	Reading of plans and application thereof.
(c)	foute in enjin;	7.	Strength and qualities of materials.
(d)	foute in koppelaars;	8.	Elementary fitting;
(e)	foute in ratkas;	(a)	machining; and
(f)	foute in dryfasse;	(b)	marking off which forms part of tool making, templates, gauges and meters.
(g)	foute in ewenaar;	(c)	Training in work on all types of machine tools and bench work, including the making of—
(h)	foute in remstelsel;	(a)	meters; and
(i)	foute in stuurstelsel;	(b)	advanced marking off which ordinarily forms part of requirements in connection with tool room.
(j)	foute in veringstelsel;	(c)	
(k)	foute in elektriese uitrusting;		
(l)	foute in enjinkomponente; en		
(m)	foute in kragtafstelsels.		
19.	Elektriese uitrusting—		
(a)	battery (versiening en laai);		
(b)	generator (busse, laers, borsels en skoonmaak van kommutator);		
(c)	aansitmotor (dieselfde as vir generator).		

Logboek-simbool	Praktiese opleiding	Logboek-simbool	Praktiese opleiding
20.	Regte gebruik van— (a) kompressietoetser; (b) vakuummeter; (c) ampère- en voltmeter; (d) tagometer; (e) brandstofpompdrukmeter; (f) tydreëlig; (g) uitlaatgasontleders; (h) kondensator- en spoeltoetsers; en (i) vonkpropskoonmakers en -toetsers.	10.	Heat treatment of metal and knowledge of properties of materials.
(a)		11.	Reading and application of drawings.
(b)		12.	Inspection of manufacturing process and of finished article.
(c)		13.	Use of special machines not continuously used in the trade.
(d)			(47)
(e)			TRADE: TURNER (INCLUDING MACHINING)
(f)			(3)
(g)		1.	Safety precautions applicable to the trade.
(h)		2.	Care and use of cutting and forming tools.
(i)		3.	Care and use of measuring tools and instruments.
21.	Hantering en gebruik van hysuitrusting.	4.	Grinding of drills and tools.
	(48)	5.	Simple centre lathe work.
	AMBAG: WINKELUITRUSTER (HOUT) (44)	6.	Operation of drilling and shaping machines.
1.	Veiligheidsmaatreëls normaalweg op die ambag van toepassing.	7.	Reading of drawings and application thereof.
2.	Versorging en gebruik van handgereedskap.	8.	The correct use of feeds and speeds for different materials and operations.
3.	Kennis en gebruik van verskillende materiale, met inbegrip van—	9.	Advanced centre lathe work.
(a)	harde- en sagtehoutsoorte;	10.	Internal and external screw cutting.
(b)	lamelbord;	11.	Multiple start threads.
(c)	komposisiebord;	12.	Different types of threads.
(d)	laaghout; en	13.	Use of special tools and jigs.
(e)	plastiekbladmateriaal en veselbord wat in die ambag gebruik word.	14.	Setting up of work and use of face plate.
4.	Defekte in hout.	15.	Internal and external taper turning.
5.	Afmerk en maak van eenvoudige lasse.	16.	Operation of milling machines, including the use of attachments.
6.	Eenvoudige los en vaste toebehore van hout maak.		(48)
7.	Bereiding van materiale.		TRADE: WELDER (40)
8.	Inmekaarsit en afwerk van—	1.	First aid and safety precautions generally applicable to the trade.
(a)	boligte;	2.	Workshop routine.
(b)	vensteromhullings;	3.	Care and use of hand torch.
(c)	toonbanke;	4.	General oxy-acetylene cutting.
(d)	muurmeublement;	5.	Simple welding work on mild steel.
(e)	deure;	6.	General welding of simple fabricated work on mild steel
(f)	kosyne; en	7.	Welding—
(g)	kantoorafskortings ens. vir afwerking byvoorbeeld met lakpolitoer, lakvernis en Duco.	(a)	flat;
9.	Tegniese terme.	(b)	fillet;
10.	Algemene opleiding in—	(c)	butt; and
(a)	skrynwerk;	(d)	lap.
(b)	uitlê van werkstukke;	8.	General work on profile cutting machines.
(c)	skaaltekenings lees en van volgroottekenings af werk.	9.	Reading of drawings.
11.	Maak en installering van—	10.	Welding—
(a)	stoor-, winkel-, kantoor- en banktoebehore;	(a)	vertical; and
(b)	winkelfronte;	(b)	overhead.
(c)	vensteromhullings;	11.	Electric arc welding.
(d)	vertoonkaste;	12.	Brazing of different metals.
(e)	toonbanke; en	13.	Heavy profile cutting.
(f)	afskortings en los en vaste binnetoehore van hout of metaal of beide.	14.	Annealing.
12.	Afmerk, sny en montering van profiele van getrokke en uitgedrukte metaal om gesweis te word.	15.	Setting out material to prevent distortion.
13.	Montering en beglasing van glastoonbanke en -vertoonkaste.	16.	Welding of fabricated pipe fittings.
14.	Hantering en installering van alle glasware wat by winkeluitrusting gebruik word, soos—	17.	Electric welding of—
(a)	gebuigde, getinte en facetgeslypte glas; en	(a)	mild steel;
(b)	spieëls van sandstraal-, geskuurde, gepoleerde en gekleurde glas.	(b)	cast iron;
15.	Kennis van alle buitewinkelbouterme soos "boullyn".	(c)	cast steel;
16.	Gebruik en versorging van draagbare kraggereedskap.	(d)	aluminium and its alloys;
		(e)	copper and copper alloys; and
		(f)	stainless steel.
		18.	Oxy-acetylene welding of—
		(a)	mild steel;
		(b)	cast iron;
		(c)	cast steel;
		(d)	aluminium and its alloys; and
		(e)	copper and copper alloys.
		19.	Welding of low pressure vessels.
		20.	Advanced work, with special reference to pre-heating temperature control.
		21.	Stress relieving.

Alle belanghebbende persone wat beswaar teen bogenoemde voorneme het, word aangesê om binne 30 dae vanaf die datum van publikasie van hierdie kennisgewing sodanige besware skriftelik in te dien by die Sekretaris, Staatsvakleerlingskapkomitee, Posbus 393, Pretoria, 0001.

S. P. BOTHA, Minister van Arbeid.

All interested persons who have any objections to the above proposals are called upon to lodge such objections, in writing, with the Secretary, Government Apprenticeship Committee, P.O. Box 393, Pretoria, 0001, within 30 days from the date of publication of this notice.

S. P. BOTHA, Minister of Labour.

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Militaria is 'n militêr-historiese tydskrif wat deur die Dokumentasiediens van die Suid-Afrikaanse Weermag op 'n kwartaalbasis uitgegee word.

Hierdie geïllustreerde tydskrif bevat artikels oor o.a.:

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Suid-Afrikaanse deelname aan beide Wêreldoorloë.

Eenheidsgeskiedenis.

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No.	Bladsy No.	Staats- koerant No.
Arbeid, Departement van		
<i>Goewermentskennisgewing</i>		
R.1780. Wet op Vakleerlinge, 1944: Voorgenome intrekking en voorskrywing van leervoor- waardes	1	5735

CONTENTS

No.	Page No.	Gazette No.
Labour, Department of		
<i>Government Notice</i>		
R.1780. Apprenticeship Act, 1944: Proposed with- drawal and prescription of conditions of apprenticeship	1	5735

