

# CERTIFICATE SUPPLEMENT (\*)

## 1. TITLE OF THE CERTIFICATE (NL)

**Diploma Beroepsonderwijs**  
**Kwalificatie: Technisch specialist verbrandingsmotoren**  
**Kwalificatiedossier: Technisch specialist verbrandingsmotoren**  
In the original language

## 2. TRANSLATED TITLE OF THE CERTIFICATE (EN)

**Certificate Senior Secondary Vocational Education**  
**Qualification: Technical specialist combustion engines**  
**Qualification file: Technical specialist combustion engines**  
This translation has no legal status

## 3. PROFILE OF SKILLS AND COMPETENCES

The most important duties of a Technical specialist combustion engines are:

Core task 1: Analyzes complex technical failures on combustion engines and fixes them

- 1.1 Prepares technical failure assignment on combustion engine
- 1.2 Inspect combustion engine and detects technical failure
- 1.3 Fixes the technical failure on the combustion engine
- 1.4 Checks the working duties which have been carried out and rounds off the assignment
- 1.5 Reports and advices customer about the working duties which have been carried out

Core task 2: Starts up combustion engines

- 2.1 Does preparatory work for start-up
- 2.2 Supplies/coordinates testing of internal combustion engine/installation
- 2.3 Supplies/coordinates adjustments, start-up and delivery
- 2.4 Maintains contact with the clients and other internal and external specialists

Core task 3: Manages and gives instruction to a team of technicians

- 3.1 Plans and divides up the working duties
- 3.2 Supervises and coaches technical assistants
- 3.3 Monitors and evaluates processes and procedures
- 3.4 Takes care of sharing know how within the company

## 4. RANGE OF OCCUPATIONS ACCESSIBLE TO THE HOLDER OF THE CERTIFICATE

The Technical specialist combustion engines works as a technician on combustion engines for, for instance, ships, steam aggregates and other industrial complexes, district heating installations, green houses and large (mobile) machines. The Technical specialist combustion engines is an all-round technician, but could also master specialisms such as gas engines, engine management or alignment. There is an important distinction between office staff and field staff in relation to the execution of the job.

### \* Explanatory note

This document is designed to provide additional information about the specified certificate and does not have any legal status in itself. The format of the description is based on the following texts: Council Resolution 93/C 49/01 of 3 December 1992 on the transparency of qualifications, Council Resolution 96/C 224/04 of 15 July 1996 on the transparency of vocational training certificates, and Recommendation 2001/613/EC of the European Parliament and of the Council of 10 July 2001 on mobility within the Community for students, persons undergoing training, volunteers, teachers and trainers.

More information is available at: <http://www.europass.cedefop.europa.eu/>

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5. OFFICIAL BASIS OF THE CERTIFICATE																					
<p><b>Name and status of the body awarding the certificate</b> The certificate issued on completion of the programme is signed by the examination board at the school where the pupil attended the programme.</p>	<p><b>Name and status of the national/regional authority providing accreditation/recognition of the certificate</b> Ministry of Education, Culture and Science</p>																				
<p><b>Level of the certificate (national or international)</b> Qualification level 4 of the Dutch VET qualification structure Characteristics: non-job related skills such as tactical and strategic capacities. The professional bears his or her own responsibility, which is not only related to practical implementation in terms of monitoring and supervision, but also a more formal, organisational responsibility. The range of tasks also includes drafting new procedures. NLQF level 4 - EQF level 4 - ISCED 3A</p>	<p><b>Grading scale / Pass requirements</b></p> <table border="0"> <tr><td>10</td><td>excellent</td></tr> <tr><td>9</td><td>very good</td></tr> <tr><td>8</td><td>good</td></tr> <tr><td>7</td><td>very satisfactory</td></tr> <tr><td>6</td><td>pass</td></tr> <tr><td>5</td><td>fail</td></tr> <tr><td>4</td><td>unsatisfactory</td></tr> <tr><td>3</td><td>very unsatisfactory</td></tr> <tr><td>2</td><td>poor</td></tr> <tr><td>1</td><td>very poor</td></tr> </table>	10	excellent	9	very good	8	good	7	very satisfactory	6	pass	5	fail	4	unsatisfactory	3	very unsatisfactory	2	poor	1	very poor
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<p><b>Access to next level of education/professions</b> After senior secondary vocational education (mbo) there are transfer possibilities to higher professional education (hbo). Depending on interest and ambition there are several majors, for instance, mechanical engineering, Electro technics, Construction studies and Transport and logistics (hbo Sea and Air). According to the sector function structure there are career possibilities within the revision and diesel engine sector. Besides growing into positions such as (senior) service engineer, (damage) inspector, engineer and managerial positions such as team leader, workplace manager and service manager there are also transfers to commercial positions possible.</p>	<p><b>International agreements</b> The profession of Technical specialist combustion engines is not regulated in the Netherlands. However the education and training for this profession on qualification level 4 is regulated under the European directive 2005/36/EC, amended by directive 2013/55/EU. The regulated education and training gives access to regulated professions at the level of a diploma according to article 11 of this directive.</p>																				
<p><b>Legal basis</b> Act on Vocational Education and Training (WEB), registered number of qualification (crebo): 95722 The education and training for this qualification is offered as of August 1, 2012.</p>																					

6. OFFICIALLY RECOGNISED WAYS OF ACQUIRING THE CERTIFICATE	
<p>Senior secondary vocational education features two learning pathways: the school-based pathway (bol) and the training on the job pathway (bbl). In the school-based pathway, the majority of the course consists of theory at school. The extent of the practical component (vocational practice) is between 20% and 60%. In the training on the job pathway, the extent of vocational practice is at least 60% of the course. The participant works four days a week in a training company, and attends school for theory subjects just one day a week. In principle it is possible to follow both learning pathways, but which pathway is offered will depend on the individual educational institution.</p>	
<p><b>Average duration of the education/ training leading to the certificate</b></p>	<p><b>4 years (6400 study hours) (depending on previous education)</b></p>
<p><b>Entry requirements</b> The certificate preparatory vocational secondary education (vmbo) advanced vocational programme, combined programme, or theoretical programme, or a comparable level.</p>	

#### 7. ADDITIONAL INFORMATION

Dutch senior secondary VET is based on qualification files, that each contain one or more qualifications. The information included in part 3 and 4 is derived directly from the qualification file, that is composed by the Centre of Expertise. The complete qualification file can be found at <http://kwalificaties.s-bb.nl/>, only in Dutch.

Additional information, including a description of the Dutch national qualifications system, is available at the Netherlands National Reference Point (NRP): [www.s-bb.nl](http://www.s-bb.nl). The NRP is the information centre for vocational qualifications in the Netherlands. SBB has been appointed in this capacity by the Ministry of Education, Culture and Science.