

Defence Munitions (Gosport)

Employer

Inspection dates		19–23 November 2012
Overall effectiveness	This inspection:	Outstanding-1
	Previous inspection:	Satisfactory-3
Outcomes for learners		Outstanding-1
Quality of teaching, learning and assessment		Outstanding-1
Effectiveness of leadership and management		Outstanding-1

Summary of key findings for learners

This provider is outstanding because:

- Almost all apprentices achieve their qualifications within the expected time, and they gain increased confidence and extremely good skills for employment.
- All apprentices progress into engineering employment in the defence industries or with prestigious employers.
- Apprentices demonstrate exceptional engineering skills. They enter and many win national engineering competitions by demonstrating their skills through complex and intricate work.
- Apprentices successfully complete an exceptional range of relevant additional qualifications and activities.
- Apprentices are highly aware of health and safety issues, and demonstrate robust safe working practices in a potentially hazardous environment.
- Teaching, learning and assessment are outstanding, and trainers make very effective use of exceptionally high-quality resources to develop apprentices' independent learning skills.
- The personal and academic support for apprentices is excellent.
- Management of subcontracted provision is very effective and productive, ensuring that training meets the needs of all apprentices and the additional expectations of the work environment.
- Managers are quick to respond to concerns from apprentices, and actions for improvement are made effectively and energetically.
- Self-assessment and quality assurance processes are rigorous, make very effective use of data to monitor trends and improvement, and involve all apprentices and staff.
- There are some minor weaknesses in the way observations of assessors are planned and recorded.

Full report

What does the provider need to do to improve further?

- Ensure that all assessors are observed frequently conducting assessments with apprentices, that they always receive written feedback on their performance, and that any follow-up activities resulting from the observations are fully completed.

Inspection judgements

Outcomes for learners	Outstanding
<ul style="list-style-type: none"> ▪ Success rates are outstanding; nearly every apprentice completes the programme successfully and within the time expected. ▪ Apprentices develop excellent engineering skills and significantly exceed the requirements of the qualifications. Apprentices demonstrate high levels of engineering expertise in project work and in the workplace. They frequently make complex models and win prestigious national engineering competitions. ▪ All apprentices make very rapid progress in learning and in the workplace. All apprentices gain employment in Defence Munitions or other defence-related industries. The few who leave the defence environment are highly sought after and quickly find employment in major national engineering companies. ▪ Apprentices quickly take responsibility for their learning. As they mature as engineers they work independently and alongside experienced engineers, completing complex engineering manufacturing and maintenance tasks of delicate weaponry; for example, dismantling, maintaining and rebuilding complex missiles and defensive weaponry. ▪ Apprentices develop excellent social and interpersonal skills. They mature quickly in a demanding work environment where there is little scope for error. They quickly become confident, capable employees demonstrating good analytical and discussion skills and high standards in written and verbal communication. ▪ Apprentices gain relevant additional qualifications in first aid, fire safety, security, specialist inert gas welding and gantry crane operations; many also complete a higher national certificate (HNC) in engineering. These valuable additional qualifications enable apprentices to work in a wider range of settings and offer flexibility in working roles. ▪ Apprentices' attention to health and safety is excellent, as is their maintenance of safe working practices. Staff and apprentices demonstrate a considerable knowledge and understanding of the significance of health and safety in this specialist environment, and promote this particularly well to all visitors at all sites. 	
The quality of teaching, learning and assessment	Outstanding
<ul style="list-style-type: none"> ▪ Teaching, learning and assessment are inspiring and highly effective for all apprentices, supporting the outstanding outcomes. Managers, tutors and apprentice masters have high expectations of apprentices. Tutors encourage apprentices to work independently, challenge themselves and improve their self-reliance, which encourages them to recognise their potential early in training. Lessons are characterised by high levels of challenge and enjoyment yet sustained development of skills, particularly when using hand tools and machining turning equipment. ▪ Tutors and apprentice masters plan training very well. Training is well organised, brisk and sharply focused, and demanding for all apprentices. In a typical example, a practical activity on steam engine operation and related thermodynamics provided assessments at different levels of 	

difficulty to stretch and challenge learners. Staff are very well qualified, using their skills and engineering expertise to deliver interesting and very well informed teaching; they use their excellent subject knowledge and industrial experience to support and enhance learners' understanding well. Apprentices enjoy learning and participate enthusiastically in professional discussions.

- Apprentices benefit from comprehensive coaching and training in the workplace from experienced apprentice masters. They become very skilful in a short time and carry out extremely complex engineering manufacturing and maintenance tasks to a high standard with minimum supervision, for example dismantling and assembling electro-mechanical units on sophisticated missile weaponry. Apprentices understand, from their off-the-job training, how components are designed and made, enabling them to better work with those components in the workplace.
- Initial assessment is very effective in enabling trainers appropriately and effectively to structure the apprenticeship to meet individual needs, and establishes positive expectations for apprentices in learning and at work. Apprentices complete appropriate initial skills assessment tests and the outcomes are used effectively to plan learning. These results confirm apprentices' starting points and their support needs in college and the workplace. For example, some apprentices want more hands-on engineering whilst others are more interested in project management. Staff work closely with apprentices to ensure purposeful learning plans confirm readiness for assessment and continually challenge progress in learning and at work.
- Assessment overall is very good. Workplace assessors are very well qualified and experienced and successfully use a variety of assessment methods, including observation, witness testimony, oral and written questioning. Assessors are available to meet apprentices' needs when the apprentices are ready for assessment. Assessors provide constructive, logical feedback which concentrates on detail. Learning plans build on feedback, providing apprentices with focused challenges.
- Managers and apprentice masters place a strong emphasis of health and safety, which is well treated during induction and continually promoted throughout learning. Apprentices have an excellent understanding of health and safety and embrace very safe working practices at all times; for example, the wearing of harnesses when working at height to service and maintain weapons equipment and awareness of the dangers of explosions when working with munitions.
- Apprentices improve their English and mathematics skills significantly during training in functional skills and at work. All apprentices recognise that their skills in English and mathematics have improved. Apprentices frequently apply skills developed in the classroom at work to calibrate machinery, set lathes, carry out complex calculations to assemble and test refurbished weapons, and to write inspection reports or National Vocational Qualification (NVQ) assignments.
- Managers purposefully select apprentices with an aptitude for engineering through the robust recruitment and selection process. Potential apprentices complete an extensive range of aptitude, dexterity and mechanical engineering tests when invited for interview. Parents are involved at an early stage of recruitment and kept informed of their child's progress throughout training. Apprentices investigate, with staff support, the various roles they could move to. For example, those who decide to leave Defence Munitions receive very good support to ensure they quickly gain employment in related engineering roles.
- Managers review apprentices' progress thoroughly, providing good support and challenge. Reviewers use information from apprentice masters, and from off-the-job trainers at college, very well to create an overview of an apprentice's progress and the standard of their work. Apprentices have a very clear understanding of their academic and workplace progress. Staff work with apprentices to set precise, well-defined targets to ensure they make good progress towards timely completion of their NVQ.
- Apprentices receive comprehensive academic and personal support which helps them to make excellent progress. They value highly the support that helps them with housing, money management and personal concerns.

- Managers pay purposeful attention to equality and diversity at induction, building on apprentices' existing knowledge. Annual e-learning training effectively reinforces and reminds apprentices about their own expectations and the behaviour expected of them. Apprentices have a clear understanding of their responsibilities and how they should behave, although records of questioning during reviews in a small minority of cases are not completed with the same level of detail as progress and performance records.

The effectiveness of leadership and management

Outstanding

- Leaders and managers demonstrate high ambition, and ensure apprentices are extremely well motivated and committed to developing engineering skills and expertise. Progress for all apprentices is excellent. Focused target setting and considerable independent learning ensure most projects are completed ahead of time. Apprentices produce very high quality work and demonstrate high levels of complex skills that relate well to their work.
- Operational and strategic management arrangements are comprehensive, involve all staff, and are highly effective in training engineers for the business. Defence Munitions has a very clear strategy to produce motivated, well-trained and educated specialist weapons engineers to maintain an appropriate supply of personnel to the Ministry of Defence.
- Operational managers are approachable and responsive to apprentices' requests for support. Frequent and detailed individual performance reviews ensure managers know how each apprentice is progressing. Managers robustly and relentlessly monitor and manage apprentices' performance, focusing on outcomes and improving the apprentices' experience, using information collected from the workplace and college to bring together a comprehensive picture of individual performance.
- Managers frequently monitor the quality of off-the-job teaching and learning at the college, challenging the learning experience for the apprentices. For example, to extend their access to training across the year, apprentices continue training and use the college workshops during college holidays to further develop their skills.
- Excellent planning of learning is highly effective in developing apprentices' outstanding skills and competencies. The college training provides excellent background skills to enable apprentices to understand how components are made, so they can dismantle and reassemble complex weapon systems in the workplace. Extra skills training over and above the requirements of the technical certificate further enhances their capabilities. All apprentices complete extra training in inert gas welding; many also complete an HNC in engineering to advance their engineering and management skills.
- Apprentice masters and workplace managers meet frequently to ensure the consistency of workplace activities and to plan assessment based on the specific work apprentices will complete. Internal verifiers complete observations of assessors; however, the planning of these observations is not routine and feedback to assessors is not always written down or completion of actions confirmed. Portfolio sampling records identify actions required. Although they are always completed, the records are not detailed enough to show when actions were completed.
- Training resources are very good, and are used very well to promote outstanding attainment and learning. Access to computers and the college Moodle is good, and these are used well to promote independent study. Apprentices make very good use of the high quality engineering equipment, in off-the-job training at college and at work, to produce outstanding artefacts that frequently win national engineering competitions. Apprentice masters in the workplace ensure apprentices pay attention to detail and cultivate the skills they require to overhaul detailed electro-mechanical components.
- Apprentice and subcontractor performance is reviewed carefully at bi-monthly apprenticeship board meetings, which are used very effectively to challenge the apprentices' learning experience. The apprentice representative attends the meetings along with an appropriate range of other staff involved in the apprenticeship. Comprehensive monitoring of improvement actions

by the board ensures activity is well managed and personnel held accountable for actions at the next meeting.

- Self-assessment is rigorous and has a strong focus on all aspects of the training and the impact it has on learning and skills development. The self-assessment report is suitably self-critical and carefully identifies improvements required. The reporting process fully includes all personnel involved in the learning. Managers use data very well to monitor and manage all aspects of the programme and to demonstrate improvements through self-assessment.
- Managers ensure a safe environment for apprentices, with frequent detailed risk assessments of complex work areas. Apprentices use, and are very aware of, safe practices in the workshops and when dealing with dangerous materials. All apprentices complete relevant additional training in first aid, fire safety, internet safety and security.
- Safeguarding is very strongly promoted and managers have developed a comprehensive welfare risk register to effectively record the help and support given to apprentices deemed vulnerable or at risk of not completing the course. Defence Munitions meets statutory requirements for safeguarding of apprentices.
- Equality and diversity are well promoted and integrated throughout training. Apprentices feel part of a caring organisation where staff deal with their concerns seriously and bullying and harassment are not tolerated. They have a good awareness of the appropriate systems to raise their grievances and appeals, and their overall appreciation of equality and diversity is good.

Record of Main Findings (RMF)**Defence Munitions (Gosport)**

Inspection grades are based on a provider's performance: 1: Outstanding 2: Good 3: Requires improvement 4: Inadequate	Overall	Apprenticeships
Overall effectiveness	1	1
Outcomes for learners	1	1
The quality of teaching, learning and assessment	1	1
The effectiveness of leadership and management	1	1

Subject areas graded for the quality of teaching, learning and assessment	Grade
Engineering	1

Provider details

Defence Munitions (Gosport)	
Type of provider	Employer
Age range of learners	16+
Approximate number of all learners over the previous full contract year	Full-time: 17
	Part-time: 0
Principal/CEO	Graham Jones
Date of previous inspection	19 September 2009
Website address	N/A

Provider information at the time of the inspection						
Number of apprentices by Apprenticeship level and age	Intermediate		Advanced		Higher	
	16-18	19+	16-18	19+	16-18	19+
	N/A	N/A	11	5	N/A	N/A
Funding received from	Skills Funding Agency					
At the time of inspection the provider contracts with the following main subcontractors:	<ul style="list-style-type: none"> Fareham College 					

Additional socio-economic information

Defence Munitions (Gosport) – DM – was previously known as Defence Storage and Distribution Agency DSDA (Gosport). DM provides work-based craft advanced apprenticeships in mechanical engineering. DM specifically employs and trains engineering apprentices in processing explosives and the maintenance of complex weapons systems. Six advanced apprentices are recruited annually in August, mainly from the local area, for the three-year course. All apprentices complete engineering skills training and functional skills at Fareham College, and in some cases apprentices also complete a higher national certificate (HNC) in their third year. Throughout the programme apprentices complete work placements in the various technical workshops and work areas, mostly on site in Defence Munitions where they are assessed for the NVQ.

Information about this inspection

Lead inspector	Martin Hughes HMI
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One of Her Majesty's Inspectors (HMI) and one additional inspector, assisted by the Apprentice Training Officer as nominee, carried out the inspection with short notice. Inspectors took account of the provider's most recent self-assessment report and development plans, and the previous inspection report. Inspectors also used data on learners' achievements over the last three years to help them make judgements. Inspectors used group and individual interviews, telephone calls and online questionnaires to gather the views of learners and employers; these views are reflected throughout the report. They observed learning sessions, assessments and progress reviews. The inspection took into account all of the provision at the provider. Inspectors looked at the quality of teaching, learning and assessment across all of the provision and graded the sector subject areas listed in the report above.

What inspection judgements mean

Grade	Judgement
Grade 1	Outstanding
Grade 2	Good
Grade 3	Requires improvement
Grade 4	Inadequate

Detailed grade characteristics can be viewed in the *Handbook for the inspection of further education and skills 2012*, Part 2:

<http://www.ofsted.gov.uk/resources/handbook-for-inspection-of-further-education-and-skills-september-2012>

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