

Doosan Power Systems Limited

Inspection report

Unique reference number: 53404

Name of lead inspector: Tim Hanson HMI

Last day of inspection: 24 August 2012

Type of provider: Employer

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Information about the provider

1. Doosan Power Systems Limited (Doosan) is a mechanical engineering company operating in the engineering construction industry sector. The primary route for skills development within Doosan is the advanced apprenticeship programme. Doosan employs approximately 4,000 people in the UK. The company's corporate head office is situated in Crawley. The office in Tipton in the West Midlands provides service support for site and branch activities and is the administrative and technical centre for training. The Skills Funding Agency contracts with Doosan to provide advanced apprenticeships in the engineering and manufacturing technologies subject area. The advanced apprenticeship craft subjects include welding, pipe fitting, mechanical fitting and rig erection. Within the last three years the company has introduced additional advanced apprenticeships in project control, design and draft and non-destructive testing.
2. Some aspects of provision are subcontracted through colleges of further education. The operational training team comprises the craft skills development manager and the training office manager, development coordinator, chief instructor welding, chief trade instructor and the training staff. At the time of the inspection 193 learners were following advanced apprenticeship programmes.
3. The following organisations provide training on behalf of Doosan:
 - Hull College (Engineering)
 - Warwickshire College (Engineering)
 - Selby College (Engineering)

Type of provision	Number of enrolled learners in 2010/11
Employer provision: Apprenticeships	272 apprentices

Summary report

Grades: 1 is outstanding; 2 is good; 3 is satisfactory; 4 is inadequate

Overall effectiveness of provision	Grade 2
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Capacity to improve	Grade 2
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	Grade
Outcomes for learners	2
Quality of provision	2
Leadership and management	2
Safeguarding	1
Equality and diversity	2

Subject Areas	Grade
Engineering and manufacturing technologies	2

Overall effectiveness

- Learners at Doosan achieve well and they particularly enjoy their learning both in the training centre and on site. The level of training received far exceeds the required qualification standard. Most learners progress to on site full-time employment within the organisation. Learners gain high levels of skill across a range of engineering disciplines and they become productive workers very early in their training programme. Doosan works very effectively in partnership with a range of organisations to gain and share good practice and develop national standards. The apprenticeship programme forms the foundation of the organisation's long-term strategy to ensure the availability of a skilled workforce.
- Health and safety are particularly well managed and are reinforced strongly when learners are working on site. Safeguarding is a high priority for Doosan, particularly relating to the block release aspects of the training programme which involve young people staying away from home for long periods. Inspectors identified good examples of the sensitive resolution of safeguarding issues. Equality and diversity is embedded within the Doosan organisational culture and is promoted and reinforced well to learners. The organisation has been particularly successful in recruiting women into engineering disciplines. Recruitment of minority ethnic groups has not been as successful. Quality

improvement is well managed and particularly good use is made of feedback from learners to promote improvements. However, some aspects of internal verification and assessment planning are not being applied systematically.

Main findings

- Outcomes for learners are consistently good over time. Apprenticeship success rates have remained significantly above the national rate for three consecutive years. In-year figures indicate a continuation of this trend. Most apprentices complete within their planned timescale.
- Learners' work is of a particularly high standard. Learners progress well, enjoy their work and demonstrate good skills development. They gain an impressive range of additional awards and skills during their apprenticeship. Learners' personal and social development is good.
- Learners feel safe and have an exceptionally good level of knowledge and understanding of the safe working arrangements associated with a variety of hazardous environments. They meticulously follow safety instructions and work in ways that ensure their own safety and that of their co-workers. The health and well-being of learners is well promoted and reinforced.
- Teaching and learning are good and are instrumental in enabling learners to progress to high levels of responsibility at work. Lessons are well planned. Teachers maintain learners' interest well through group activities. On-the-job training allows learners to gain new skills and knowledge, whilst maintaining their roles as valuable members of the workforce.
- Assessment is generally good. Learners at level 3 are observed undertaking real work and this is accredited to national standards. The majority of assessment for level 3 learners takes place toward the end of the programme and, on occasion, some learners, particularly those on pipefitting, are not able to complete within planned timescales.
- Although internal verification processes and procedures are robust, internal verifiers' visits to sites to observe assessment practice are insufficiently frequent and in some cases too much verification is left to the end of the programme. The standardisation of assessment is at times made less effective, as verifiers are not always available to attend planned meetings.
- Information advice and guidance are very effective in helping learners' choose the right trade or profession. Prospective learners and their parents receive good guidance. All learners are well informed about the details of their training programme and opportunities for progression in the industry. However, information gathered during this process is not always used to plan activities and take account of learners' prior qualifications and experiences.
- Highly effective work with partners has enabled Doosan to be very influential in the development of qualifications to meet its business needs and the needs of the industry. Extensive work with standards-setting bodies, industry-training organisations and other sector-based companies is ensuring the availability of a skilled workforce for the sector's future skill requirements.

- Particularly well informed business planning and long-term strategies are utilising the apprenticeship programme to aid business growth. Continued expansion of the programme into a wider range of engineering-based disciplines is part of a succession strategy to ensure the workforce will be able to meet future business needs.
- Very well focused performance management of staff aids the successful performance of the apprenticeship programme. Particularly relevant targets and objectives are set and are regularly achieved. Appraisal meetings take place annually; however, the provider does not formally record on-going interim reviews.
- Safeguarding is outstanding and ensures learners are well protected while living away from home and while working on sites with high-risk environments. Comprehensive risk assessments on all activities are carried out and reinforcement of safeguarding and health and safety is a clear priority.
- Doosan promotes and monitors equality and diversity well. Senior management promote and support initiatives including the encouragement of women into engineering which have been particularly successful. Initiatives to increase the participation of minority ethnic groups on the apprenticeship programmes have not worked as well.

What does Doosan need to do to improve further?

- Better plan the timing of assessments by carrying out more assessment earlier in the process to ensure all learners finish their programmes within the planned time.
- Ensure that teachers receive learning plans, which include the results of initial assessment, so they are better able to understand the abilities and experiences of learners when they start the programme.
- Define more clearly the role of verifiers, whilst also allocating them sufficient time to visit sites, attend consistency meetings and validate the quality of assessment.
- Review promotion of the apprenticeship programme to improve the participation of minority ethnic groups. Identify providers who have been particularly successful in this area to share their good practice.
- Introduce formal and recorded interim reviews as part of the staff performance management process.

Summary of the views of users as confirmed by inspectors

What users like:

- working at different sites
- the outstanding opportunities to progress within the company
- gaining knowledge, respect and taking on increased responsibility

- living away from home and gaining new experiences while staying with host families
- learning and developing problem-solving skills
- the high expectations placed upon them by working for a company with a good reputation
- the progress they make compared with other young people
- putting their training into practice in the workplace
- the good relationships with assessors
- the high levels of health and safety that everyone works to
- the good facilities and resources at the training centre.

What users would like to see improved:

- training that provides opportunities to visit other sites – for example nuclear stations
- the provision of set times for working on log books
- the opportunity for revision lessons at Tipton in apprentices' final year of training
- the range of assessment opportunities where specific tasks that do not occur naturally on site are addressed
- the planning and teaching of functional skills training at one college
- more feedback on the learner surveys undertaken during the programme.

Summary of the views of supervisors as confirmed by inspectors

What supervisors like:

- the site skills apprentices gain following their time at the training school
- apprentices who bring new skills and added value to the operations team
- apprentices demonstrating a good focus on health and safety
- having apprentices on the team.

What supervisors would like to see improved:

- none stated.

Main inspection report

Capacity to make and sustain improvement

Grade 2

6. Learners continue to achieve at a high-level overall and gain excellent results at college. Issues identified at the previous inspection have been a focus for improvement. The subcontracted college provision is very well managed with clear levels of expected performance demanded by Doosan. Learners progress well in their chosen discipline, sustain employment and take higher-level qualifications leading to more senior positions within the organisation. Regular feedback from learners leads to significant improvements. Data management clearly identifies any individual learner performance issues and processes are in place for remedial action if required. Staff meet regularly for quality improvement purposes; however, inspectors' identified some regional differences in practices.
7. Doosan manages staff performance well using clear and measurable targets and objectives to improve programme performance. The provider manages its quality processes well and uses them to drive improvement very effectively. Internal verification systems and processes are robust; however, some observation activity has not taken place within the planned timescales. Self-assessment is an inclusive process and inspectors found the judgements in the self-assessment report to be accurate.

Outcomes for learners

Grade 2

8. Overall success rates for apprentices have remained high for three successive years and are significantly above the national rate. In-year figures for 2011/12 indicate a further improvement in success rates. The large majority of apprentices complete within their planned timescale. In-year figures for 2011/12 are already significantly above the national rate. Performance of different groups of learners is monitored regularly and all groups progress at the same pace.
9. Learners enjoy their work and demonstrate good practical skills' development in their chosen trades. They are enthusiastic, progress well and quickly become economically productive. They respond well to the high expectations of their supervisors and training coordinators. Standards of learners' work are high particularly in specialist pipe fitting, welding, marine jetty steelwork and mechanical fitting. Learners routinely take on additional responsibility as they approach the end of their apprenticeship and demonstrate industry skills well above those required for their qualification. Learners gain an impressive range of additional skills and awards during their apprenticeship that enhance their employability for roles across the company. Examples include supervisory management training, confined space training, additional welding skills and lift truck driving. Learners' personal and social development is good. New apprentices integrate well into the local community and develop confidence and

self-reliance, talking knowledgeably about their work. They work particularly effectively with their colleagues. Learners value their employment and are good ambassadors for Doosan and the industry.

10. Learners feel safe and have an exceptionally good knowledge of safe working procedures. Extremely high priority is given to the promotion of safe working during learners' time on programme. Learners benefit from comprehensive additional safety training whilst working at power stations, oil refineries and pharmaceutical works. Each learner's safety training and experience is meticulously recorded and reinforced. When working, learners give the highest priority to ensuring their own safety and that of their co-workers. Learners have a good understanding of the choices affecting their personal health and well-being, particularly when working away from home for extended periods.

The quality of provision

Grade 2

11. Teaching and learning are good. Training schemes are well organised and this is reflected in the quality of lesson planning and delivery. Lessons in the training centre are particularly valued and enjoyed by learners. Teachers use a variety of strategies to engage learners and practical instruction is very good. This enables learners to rapidly develop hand-skills and background knowledge for the workplace. Site supervisors particularly value learners as an integral part of the workforce.
12. Assessment practice is good. The majority of assessment is by direct observation of learners' performance in the workplace. Assessors are well qualified and have good industry experience. Learners' progress reviews are regular, well carried out and drive progress forward. Learners confidently request assessment when they feel they have developed the necessary skills and know what is expected of them. However, much of the level 3 work is assessed towards the end of the programme and some learners continue beyond their planned end date. Internal verifiers, whilst conforming to awarding body standards, are not being used effectively to visit sites. In some cases too much of the verification is left to the end of the programme. Internal verifiers' availability does not always correspond with assessment activity and standardisation meetings.
13. Provision meets the needs and interests of learners and employers outstandingly well within this highly specialised sector. Employers significantly value the skills and knowledge apprentices bring to sites in a highly complex and safety-critical industry. All learners gain valuable additional and specialist qualifications and many progress onto university and gain promotion within the company.
14. Partnerships are good. Doosan has developed good partnerships with the relevant sector skills council and awarding body and has a significant input into standards setting. Partnerships with further education colleges are good. There

are frequent meetings to monitor the quality of the provision and teaching staff from the training centre visit colleges to share good practice and keep in touch with learners. As a result of feedback from learners, Doosan has recently changed one of the colleges which delivers aspects of the apprenticeship framework.

15. Guidance and support is highly effective in preparing learners for their programme. Rigorous interviews and assessments help ensure that learners are placed on the right programme. Parents are involved in the recruitment process and learners make informed choices about their career path. Many change their initial preferences following the assessment day when they sample the various trades and professions. Whilst the initial testing process is robust and helps ensure learners are placed on the right programme, the results of these tests are not always passed to teachers to enable them to plan activities to meet the wide range of abilities and experiences of the learners. Initial assessment is not always used effectively to exempt learners from the need to do functional skills. Some who have high GCSE and A level grades take functional skills exams below their level of ability.

Leadership and management

Grade 2

16. Clear strategies are in place within Doosan for development of the business through its people. The organisation invests heavily in developing a skilled workforce with a particular focus on succession planning. Managers successfully apply very clear strategies and use resources well to secure good value for money and maintain a trained and skilled workforce. Senior management have adopted a very clear strategic approach to the development of the apprenticeship programme and are using it very effectively to provide a foundation for future business needs. Highly effective management of the in-centre training ensures apprentices become productive very quickly.
17. Good management of both the training programme and training staff supports the successful outcomes achieved by learners. Clear and well-understood targets and objectives are set for staff with a range of development activities being provided. However, although informal discussion relating to objectives takes place, there is no formal interim review to monitor progress. A programme of regular meetings ensures both staff and learners' views are gathered and used to drive improvement and good practice is shared. Regular subcontractor meetings for programme review purposes ensure consistency in the quality of training being provided.
18. Safeguarding arrangements at Doosan are outstanding. Innovative methods to promote safeguarding to both apprentices and the overall workforce include onsite toolbox talks which raise awareness of the safeguarding concept. Information cards clearly identifying safeguarding issues and how to deal with them have been issued to all staff. Doosan focuses particular attention on ensuring the safety of apprentices while living away from home and inspectors

identified excellent examples of the resolution of safeguarding issues. All staff are trained in safeguarding requirements and designated safeguarding officers are present in each region. A peer review arrangement exists with a local training group to share best safeguarding practice. All staff are checked by the Criminal Records Bureau and registration is renewed on a three-yearly basis. Health and safety is particularly well managed and underpins all apprenticeship activity. Site supervisors value highly the levels of safety awareness learners bring to the various work environments.

19. Promotion of equality and diversity at Doosan is good. Initial marketing of the apprentice programme focuses on attracting underrepresented groups to engineering. Programme marketing has been particularly successful in encouraging female apprentices into a range of work disciplines including welding and project control. Thorough analysis of applications with regard to different groups of learners is carried out, but there has been a lack of success in recruiting to apprenticeship programmes. Learners receive a particularly good induction to equality and diversity and this is reinforced well through learners' progress reviews as they continue through their programmes. Subcontractors are closely monitored in respect of their promotion of equality and diversity. Doosan staff receive regular updating training on equality and diversity and share information through a peer group arrangement.
20. Quality improvement is underpinned by the self-assessment process and subsequent quality improvement plan. Staff and learners value the opportunity to influence programme development and they set quality objectives which Doosan closely monitors.

Information about the inspection

21. One of Her Majesty's Inspectors (HMI) and four additional inspectors, assisted by the provider's development manager (craft skills) as nominee, carried out the inspection. Inspectors also took account of Doosan's most recent self-assessment report and development plans, comments from the funding body, the previous inspection report and data on learners and their achievement over the period since the previous inspection.
22. Inspectors used group and individual interviews, and emails to gain the views of learners and employers. They also looked at questionnaires learners and employers had recently completed for the provider. They observed learning sessions, assessments and progress reviews. Inspectors collected evidence from programmes in the subject area offered by Doosan.

Record of Main Findings (RMF)

Doosan Power Systems Limited

Learning types: 14 – 16: Young apprenticeships; Diplomas; **16-18 Learner responsive:** FE full- and part-time courses, Foundation learning tier, including Entry to Employment; **19+ responsive:** FE full- and part-time courses; **Employer responsive:** Train to Gain, apprenticeships

Grades using the 4 point scale 1: Outstanding; 2: Good; 3: Satisfactory; 4: Inadequate	Overall	Employer responsive
Approximate number of enrolled learners		
Full-time learners	193	193
Part-time learners	0	0
Overall effectiveness	2	2
Capacity to improve	2	
Outcomes for learners	2	2
How well do learners achieve and enjoy their learning?	2	
How well do learners attain their learning goals?	2	
How well do learners progress?	2	
How well do learners improve their economic and social well-being through learning and development?	2	
How safe do learners feel?	1	
<i>Are learners able to make informed choices about their own health and well being?*</i>	2	
<i>How well do learners make a positive contribution to the community?*</i>	n/a	
Quality of provision	2	2
How effectively do teaching, training and assessment support learning and development?	2	
How effectively does the provision meet the needs and interests of users?	1	
How well partnerships with schools, employers, community groups and others lead to benefits for learners?	2	
How effective are the care, guidance and support learners receive in helping them to achieve?	2	
Leadership and management	2	2
How effectively do leaders and managers raise expectations and promote ambition throughout the organisation?	2	
<i>How effectively do governors and supervisory bodies provide leadership, direction and challenge?*</i>	n/a	
How effectively does the provider promote the safeguarding of learners?	1	
How effectively does the provider actively promote equality and diversity, tackle discrimination and narrow the achievement gap?	2	
How effectively does the provider engage with users to support and promote improvement?	2	
How effectively does self-assessment improve the quality of the provision and outcomes for learners?	2	
How efficiently and effectively does the provider use its available resources to secure value for money?	2	

*where applicable to the type of provision

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