



JCB

The JCB Agricultural Service Technician Apprenticeship Scheme.

Your road to a great career begins here.

At JCB, we have always put the customer first. It is therefore not a surprise that we are committed to offering the **very best customer support** in the industry.

Our dealers need the best service technicians, trained to **world-class levels**, in order to service and maintain our customer's machines. That is where you come in!



As you start your career in the service department you will be given specialist training on JCB products. You will be ultimately responsible for the service, maintenance and diagnostics of the range of JCB agricultural machinery.

The service department offers a clear development route from Apprentice to Service Manager.

- Apprentice Technician
- Service Technician
- Senior Service Technician
- Master Service Technician
- Service Manager

JCB Global Learning and Reaseheath College in Cheshire, have worked together to develop a **bespoke Service Technician Apprenticeship programme** to support the JCB network of agricultural dealers.

As an apprentice, you will have an **amazing opportunity** to train on the latest JCB machinery and get your career off to a flying start.

Your future.

The Agricultural sector has changed significantly in the last two decades with rapid advancement in machine technology.

The levels of technology used on modern agricultural machinery is more advanced than those seen in the automotive, commercial and industrial equipment markets.

You will be working with the latest technology to maximise machine uptime and will develop your skills to provide our dealers and customers with world-class customer support.

Innovation is at the heart of JCB and we are constantly striving to improve our machines and move forward with the times. You will provide a crucial role in supporting JCB products as we continue to advance our machine range.

Throughout your career you will develop the skills, knowledge and experiences required to become a JCB Master Service Technician, which will form the basis of your future.



Why wouldn't you want...

- Job satisfaction
- Job security
- High earning potential
- Clear progression routes
- A wide range of career opportunities



Course overview.

You will study towards a nationally recognised apprenticeship whilst being employed by a JCB dealer. You will learn through a combination of on the job training and formal college based education.

Course duration: 3 years

Apprenticeship awarded: Land Based service engineering Technician Level 3 apprenticeship.

Structure: **3 blocks of 4 weeks training per year:**

- **12 weeks** annually at Reaseheath College
- **2 weeks** training per year at Global Learning focusing on JCB products and systems throughout your apprenticeship program.



“*Paxton’s provided all the support I needed through my apprenticeship and being offered the chance to complete a college course was important to me. It’s good to have an engineering qualification. Reaseheath College was a really good choice, the course is really interesting with a balance of practical and theory work and you’re treated more like an adult and given your own independence.*”

Bradley Allcock, Service Engineer, J.G. Paxton & Sons Ltd.
Graduated Apprenticeship 2017.

Reaseheath College.



Just outside Nantwich in Cheshire, around 35 miles from the JCB Worldwide Headquarters in Rocester, Reaseheath College has been training young people in every aspect of the land-based industry for nearly a century.

The college has an excellent reputation for its agricultural engineering courses. It is the perfect partner for JCB Global Learning in delivering the JCB Agricultural Service Technician Apprenticeship Scheme and the perfect place for you to develop your career.

Reaseheath College have recently invested £7 million in a brand new Advanced Agricultural Engineering Academy which is one of the most sophisticated education centres of its type in Britain.





JCB UK and Republic
of Ireland Agriculture
Dealer Locations

How do I apply?

- Visit JCB.com and 'click' find a dealer to locate one near to you
- Visit your local dealer website, or contact them directly
- Look for apprenticeship vacancies on the Reaseheath College website by visiting www.reaseheath.ac.uk

Course structure.



“ *The apprenticeship scheme has opened up a huge variety of opportunities for me. I have learned everything I need to carry out my job and also the adaptability to take on a variety of engineering tasks. The scheme motivated me to learn new skills and to strive for excellence in the workplace. By completing the scheme I have strengthened our service team meaning we can be more adaptable to our customer needs. I really enjoyed my time as an apprentice, especially the training courses delivered by JCB Instructors during which we learnt about JCB products and systems.* ”

Jordan Evans, Service Engineer, Oliver Landpower.
Graduated Apprenticeship 2015.

YEAR ONE

BLOCK ONE

Reaseheath College

Health and safety

Introduction to agricultural machinery and equipment

Fundamentals of electrics and electrical principles

Machine servicing and daily checks

Introduction to compression ignition engines

Training delivered at JCB Global Learning

Introduction to JCB

Welcome to the apprentice programme

The importance of the JCB brand and our global dealers

Structured factory tours and presentations

Machine familiarisation and overview of the JCB product range

BLOCK TWO

Reaseheath College

Engine lubrication systems

Engine cooling systems

Introduction to common rail fuel systems

Engine compression and cylinder leakage testing

PDI process and use of dynamometer to test engine performance

Introduction to hydraulic control valves

Principles of electric motors

Training delivered at JCB Global Learning

JCB engine introduction

Introduction to JCB engines

Overview of JCB engine range

Principles of diesel engines

Dismantle and rebuild of JCB engines

Introduction to engine emission control

Exhaust gas recirculation systems

Variable geometry turbochargers

Engine after treatment systems

BLOCK THREE

Reaseheath College

Vehicle transmissions and drivelines

Mechanical transmissions systems

JCB 4WD axle systems

4WD axle repair, set-up and adjustment

Introduction to hydraulic systems

Vehicle electrical schematics

Electrical and electronic components



Course structure.

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Our tie up with JCB and Reaseheath College for the last twelve years has helped us develop our own technicians to a higher level, we find our apprentices are capable of working independently a lot earlier by having a college qualification behind them.

The training they receive at Reaseheath College along with specific manufacturer training is a real benefit. Once they have completed their apprenticeship we can send them on a higher level of Technician Training at JCB at an earlier part in their career, which in turn benefits the dealer by having dedicated and loyal technicians.

Neil Tiplady, Group Service Manager, J.G. Paxton & Sons Ltd.

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YEAR TWO

BLOCK FOUR

Reaseheath College

Welding and fabrication exercises

Engineering materials

Principles of steering systems

Introduction to hydraulic schematics

Hydraulic pressure relief valves

Load sensing hydraulic systems

Vehicle suspension systems

Principles of CAN bus systems

Training delivered at JCB Global Learning

Introduction to JCB hydraulic systems

Principles of hydraulic systems used on JCB machines

JCB hydraulic schematics and symbols

Function and operation of hydraulic components

Hydraulic fault finding, pressure and flow testing and circuit testing on a JCB machine

BLOCK FIVE

Reaseheath College

Transmission systems

Semi and full power-shift gearboxes

JCB transmission disassemble, setup and rebuild

Continuously Variable Transmission (CVT) systems

Hydrostatic transmissions

Vehicle braking systems

Oil immersed braking systems

Welding and fabrication exercises

Training delivered at JCB Global Learning

Introduction to JCB transmissions

Principles of JCB's drivetrains and components

Function of torque convertors

Synchro shuttle and power-shift gearboxes, JCB axles and braking systems

Dismantle and rebuild JCB gearboxes

Transmission stall testing

Hydraulic clutch pack pressure testing

Disassemble, rebuild and setup of JCB axles and driveheads

BLOCK SIX

Reaseheath College

Electrical and electronic systems

Service department procedures and practices e.g. warranty reporting and customer service skills

Precision planting machinery

Application machinery

Cultivation machinery

Thermal cutting

Arc and MIG welding



Course structure.

YEAR THREE

BLOCK SEVEN

Reaseheath College

Forage harvesters and baling machinery

Harvesting machinery

Applications of ISOBUS precision farming systems

ISOBUS communication

GPS auto guidance applications in agriculture

Engineering calculations

Training delivered at JCB Global Learning

Introduction to JCB electrics

Principles of basic electrical circuits

Function of batteries

Starting circuits

Charging circuits

JCB CAN bus systems

Reference voltage circuits

ECU fault finding

Use of JCB Servicemaster diagnostic tool

Use of JCB wiring diagrams to fault find basic electrical circuits

“*Reaseheath College has been working with JCB and their Dealers for over 10 years to develop highly trained technicians.*

The apprentices receive essential technical training on vehicle systems as well as in depth diagnostic systems, all of which is backed by brand specific information whilst working on machines and resources supplied by JCB.

The college receives outstanding feedback from both our students and employers, our partnership with JCB goes from strength to strength and we are proud to support their Dealer Network.

Simon Keen, Engineering Apprenticeships Manager, Reaseheath College.

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BLOCK EIGHT

Reaseheath College

GPS auto guidance setup and use

ISOBUS electronic system operation and fault finding

Hydraulic system diagnostics and fault finding

CAN bus fault finding

Electro-hydraulic systems

Common rail fuel system fault finding

Training delivered at JCB Global Learning

JCB Tier 4 Final engines

Principles of emission regulation on JCB diesel engines

Selective Catalyst Reduction (SCR) system DEF dosing system operation and testing

Engine de-rate regulations

Use of JCB Servicemaster to monitor and diagnose emission system faults

BLOCK NINE

Reaseheath College

Preparation for end-point assessments

End-point assessments









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