MECHANICAL GRADING DEFINITIONS

MECHANICAL CRAFT

1.1 Grade: Craftsperson

Qualifications and Training

Must satisfy the following conditions:

(1) Must have successfully completed an apprenticeship or undergone some equivalent method of training and have had practical training in mechanical installations work as approved by the JIB, or

(2) Must have completed a recognised training program as a Ductwork Installation Trainee, or

(3) Must have obtained formal industry accreditation of prior learning for industry acquired skills and experience, and

(4) Must have obtained a NVQ3 level in H & V Installation (whether Industrial and Commercial, Domestic or Ductwork options) or approved equivalent.

Duties

A Craftsperson must be able to carry out without supervision all kinds of mechanical installation work appropriate to the grade, efficiently, and in accordance with the JIB Agreement and all relevant regulations, British Standards and Health and Safety regulations.

Craftspersons must be able to weld when required by their employer and must ensure that their welding competencies remain up to date and suitably certified.

A Craftsperson must be able to set out jobs from drawings and specifications and requisition the necessary installation materials; ensure compliance with all relevant standards, quality control requirements; commission and test systems; interact with other trades and related personnel for the efficient completion of the work.

Work on gas systems must comply with necessary regulations and standards. Craftspersons working on gas systems must be certified in accordance with the nationally accredited scheme for gas safety.

1.2 Grade: Advanced Craftsperson

Qualifications and Training

(1) Must have had 2 years working as a Craftsperson subsequent to the satisfactory completion of training and immediately prior to the application for this grade and

(2) Must have the same (or better) qualifications as a Craftsperson.

Duties

Advanced Craftspersons must possess particular practical, productive and building services engineering skills with adequate technical supervisory knowledge so as to be able to work on their own and carry out mechanical installation work without immediate supervision in the most proficient and economical manner.
These skills shall be evident at a higher level than a Craftsperson by virtue of efficiency, productivity, capability and the range of skills available.

Advanced Craftspersons must be able to supervise other operatives and larger work groups (greater than 3 operatives) and apply at least 2 welding skills when required by the employer. Payment for these responsibilities and additional skills are included in the hourly rate. Advanced Craftspersons must be able to set out jobs from drawings and specifications and requisition the necessary installation materials; and be able to accept responsibility for the proper completion of jobs. They must also have a thorough working knowledge of: the JIB Agreement as it applies to mechanical operatives; all pertinent regulations dealing with safe mechanical installation practices; consumer installations and consumer safety; relevant British Standards and codes of practice; health and safety and construction industry safety regulations; and environmental legislation.

1.3 Grade: Mechanical Technician

Qualifications and Training

Must satisfy the following 3 conditions:

1. Must have obtained the NVQ/SVQ Level 3 Building Services Engineering supervision qualification (or approved equivalent) and

2. Must have obtained the NVQ/SVQ Level 3 in the H & V Installation (whether in Industrial and Commercial, Domestic or Ductwork options) or must have the support of his present employer for Grading as a Mechanical Technician

3. Must have at least 5 years’ experience as an Advanced Craftsperson with responsibility for supervision, including at least 3 years in a supervisory capacity in charge of mechanical installations of such complexity and dimension as to require wide technical experience and organisational ability.

Where an operative can, subject to confirmation, demonstrate exceptional practical site supervisory skills and experience, the requirement for formal qualifications set out in (1) and (2) above may be varied by the appropriate Regional JIB (or the Mechanical Grading Panel).

Duties

Mechanical Technicians must have knowledge of the most effective and economical layout of mechanical installations together with the ability to achieve a high level of productivity in the work they control. They must also be able to apply: a thorough working knowledge of the JIB Agreement as it applies to Mechanical operatives; all pertinent regulations dealing with safe mechanical installation practices; consumer installations and consumer safety; relevant British Standards and codes of practice; health and safety and construction industry safety regulations; and environmental legislation.

INSTRUMENTATION GRADING DEFINITIONS

2.1 Grade: Instrument Artificer

(1) An Instrument Artificer either:

(a) Must have completed an approved apprenticeship course, have qualified as an Approved Instrument Electrician or an Approved Instrument Pipefitter with at least two years’ practical experience in all aspects of instrumentation installation ie mechanical electrical, electronic and pneumatic and have obtained Instrument Maintenance Craft Certificate Part 2 (City and Guilds).

or
(b) Must have technical skill, ability and experience beyond that expected of an Approved
Grade craftsman and whose value to the employer would be as if he were qualified as an
Instrument Artificer under (a) above, and, with the support of his present employer,
granted this Grade by the JIB.

(2) Must have the ability to work proficiently without detailed supervision, be able to interpret
instrumentation drawings and requisitions and be familiar with instrumentation installation
techniques.

Rate of pay

This grade will be an endorsement on the Grade Card of an Approved Instrument Electrician or
an Approved Instrument Pipefitter and there is a corresponding additional payment equivalent to
the maximum Responsibility Money contained within the JIB Agreements.

However, whether or not an operative who has this endorsement is entitled to receive the
additional payment will be determined by the job title engagement terms in his Contract of
Employment, ie:

(i) If he is engaged as an Instrument Artificer, or his job title is subsequently changed to
Instrument Artificer, he will be entitled to receive the additional payment which will not
fluctuate from job to job. (When an operative’s job title is changed to Instrument Artificer
after his employer has given him written particulars of the terms of his employment, the
employer shall, not more than one month after the change, inform the operative of the
change by a further written statement.)

(ii) If he is not engaged as an Instrument Artificer he will revert to his substantive grade of
Approved Instrument Electrician or Approved Instrument Pipefitter.

Note: There are no special grading requirements for Approved Instrument Electrician, Approved
Instrument Pipefitter, Instrument Electrician and Instrument Pipefitter:

A Graded Electrician and a qualified Pipefitter engaged upon Instrumentation work may with the
support of his employer, apply to the JIB for the appropriate Instrumentation Grade Card.

2.2 Grade: Instrument Mechanic

(1) An Instrument Mechanic either:

(a) Must have completed an approved apprenticeship course, have had adequate training in
instrumentation maintenance and servicing and have obtained Industrial Measurement

or

(b) Must have completed an approved craft apprenticeship course, have obtained an
equivalent academic qualification and have adequate practical training in instrumentation
maintenance and servicing.

(2) Must be able to carry out instrumentation maintenance and servicing work efficiently in
accordance with drawings and manufacturers’ instructions.

Rate of pay

Appropriate rate of pay for a JIB Graded Electrician.
2.3 Grade: Approved Instrument Mechanic

(1) An Approved Instrument Mechanic either:

(a) Must have completed an approved apprenticeship course and qualified as an Instrument Mechanic. Must have had two years’ experience working as an Instrument Mechanic subsequent to the completion of the apprenticeship.

or

(b) Must have an equivalent academic qualification and also have passed an approved manufacturer’s training course or other approved course such as at a Government Training Centre.

(2) Must have obtained practical experience in techniques of instrumentation maintenance and servicing on industrial process plant control systems. Must be able to work on his own proficiently and in accordance with associated safety codes and practices.

Rate of pay

Appropriate rate of pay for a JIB Graded Approved Electrician.

2.4 Grade: Senior Instrument Mechanic

(1) A Senior Instrument Mechanic either:

(a) Must have completed an approved apprenticeship course, have qualified as an Approved Instrument Mechanic with at least two years’ practical experience in all aspects of instrumentation maintenance and servicing, ie mechanical, electrical, electronic and pneumatic and have obtained Industrial Measurement and Control Technicians Certificate Part 2 (City and Guilds).

or

(b) Must have an equivalent academic qualification and have had a minimum of three years’ comparable experience in techniques of instrumentation maintenance and servicing after completing an approved instrumentation training course.

(2) Must be familiar with correct application of measurement and control systems, interpretation of drawings and associated safety codes and practices.

Rate of pay

This grade will be an endorsement on the Grade Card of an Approved Instrument Mechanic and there is a corresponding additional payment equivalent to the maximum Responsibility Money contained within the JIB Agreement.

However, whether or not an operative who has this endorsement is entitled to receive the additional payment will be determined by the job title engagement terms in his Contract of Employment, ie:

(i) If he is engaged as a Senior Instrument Mechanic, or his job title is subsequently changed to Senior Instrument Mechanic, he will be entitled to receive the additional payment which will not fluctuate from job to job. (When an operative's job title is changed to Senior Instrument Mechanic after his employer has given him written particulars of the terms of his employment, the employer shall, not more than one month after the change, inform the operative of the change by a further written statement.)
(ii) If he is not engaged as a Senior Instrument Mechanic he will revert to his substantive grade of Approved Instrument Mechanic.

2.5 Grade: Instrument Technician

(1) An Instrument Technician either:

(a) Must have completed an approved apprenticeship course, have had a minimum of five years’ experience as a Senior Instrument Mechanic or Instrument Artificer and have obtained Industrial Measurement and Control Technicians Certificate Part 3 (City and Guilds) or HNC in approved subjects.

or

(b) Must have technical skill, ability and experience significantly beyond that expected of a Senior Instrument Mechanic or Instrument Artificer and whose value to the employer would be as if he were qualified as an Instrument Technician under (a) above and, with the support of his present employer, is granted this grade by the JIB.

(2) Must be fully conversant with all aspects of erection and testing techniques of instrumentation systems in process and production control of industrial plant.

Must have a working knowledge of the legal requirements covering all aspects of site work, including the Health and Safety at Work Act 1974 and all relevant statutory provisions and in particular:

The Offices, Shops and Railways Premises Act, 1963
The Factories Act, 1961
Construction (Lifting Operations) Regulations, 1961
Construction (Head Protection) Regulations 1989
Electricity at Work Regulations 1989
Management of Health and Safety at Work Regulations 1992
Personal Protective Equipment at Work Regulations 1992
Control of Substances Hazardous to Health Regulations 1994
Construction (Design and Management) Regulations, 1994
Construction (Health, Safety and Welfare) Regulations, 1996

Must also have a working knowledge of:

The IEE Regulations for the Electrical Equipment of Buildings.
The Flameproof Enclosures of Apparatus BS 4683 Part 2.
Intrinsic Safety BS CP1003.
Electrical Equipment in Flammable Atmospheres BASEEFA.
Terms and Definitions of Automatic Control BS 1523.
Selection, Installation and Maintenance of Electrical Apparatus for use in potentially explosive atmospheres BS 5345.

Rate of pay

It is anticipated that the Instrument Technician will become a staff employee. (Attention is drawn to the Agreement of the N.J.C. for Environmental Engineering and Allied Staff.)

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