## 4. TECHNICAL SCHEDULES

#### SCHEDULE G

#### Section (a) General

Applicable to certain classes of work and/or operations throughout the Industries, including the Electrical Engineering Industry, General Engineering, Structural Metal Work and Manufacturing Engineering (n.e.s):

(1) For the purposes of this section—

**'controlled machines'** means machines controlled by numerical, digital, electronic and similar control systems, and where the operation and/or attending of such machines complies with the definition of any of the machining operations contained in this Schedule, such operations shall be held to apply throughout all divisions of this Agreement (n.e.s);

## 'Electrical Engineering Industry' means the industry concerned with—

- (a) the manufacture and/or assembly from component parts of electrical equipment in the Republic of South Africa, namely generators, motors, convertors, switch and control gear (including relays, contactors, electrical instruments and equipment associated therewith), electrical lighting, heating, cooking, refrigeration and cooling equipment, transformers, furnace equipment, signalling equipment, radio or electronic equipment, including monitors, and other equipment utilising the principles used in the operation of radio and electronic equipment, the latter equipment to include, but not to be limited to television, incandescent lamps, electric cables and domestic electrical appliances, and includes the manufacture of component parts of the aforementioned equipment;
- (b) the installation, maintenance and repair of the equipment referred to in paragraph (a) above in the Provinces of the Transvaal and Natal (excluding any portion of that area falling within the self-governing territory of KwaZulu), but does not include the Electrical Contracting Industry;

**'Electrical Contracting Industry'** means the Electrical Contracting Industry as defined in clause 3 of this Agreement;

'general engineering' means the maintenance, fabrication, erection or assembly, construction, alteration, replacement or repair of any machine, vehicle (other than a motor vehicle) or article consisting mainly of metal (other than precious metal) or parts or components thereof and structural metalwork, including the finishing of metal goods, and the building and/or alteration and/or repair of boats and/or ships, including the scraping, chipping and/or scaling and/or painting of the hulls of boats and/or ships and general wood work undertaken in connection with ship repairs, but does not include work defined as 'manufacturing engineering' in clause 25 of Part I of this Agreement;

**'structural metalwork'** means the fabrication, erection or assembly, construction, alteration, replacement or repair of metal structures (including metal structures of boats and/or ships) and/or pressure vessels and/or components made in whole or in part of metal plate and/or metal sections (n.e.s).

- (2) No person, other than a journeyman or an apprentice or a trainee, shall be employed on work classified at Rate A in this Agreement.
- (3) For the purposes of this Agreement, 'trainee' includes persons under training in terms of any contract issued or recognised by the Council, including contracts issued in terms of clause 30 of the Manpower Training Act, 1981, and/or the Artisan Training and Recognition Agreement for the Metal and Engineering Industries, enabling such persons to be trained on work classified at Rate A in this Agreement.

# WAGE RATES APPLICABLE TO OPERATIONS SCHEDULED IN SCHEDULE G ARE PRESCRIBED IN CLAUSE 3(a) OF PART II OF THIS AGREEMENT

#### **RATE A** (n.e.s)

- 1. Angle and plate smithing.
- 2. Architectural and/or ornamental metal working.
- 3. Armature winding.
- 4. Automotive machining and fitting.
- 5. Blacksmithing.
- 6. Bricklaying and/or refractory bricklaying and/or masonry work.

- 7. Carpentry and/or joinery (excluding the preparation of packaging and rough crating).
- 8. Can making
- 9. Constructional boilermaking.
- 10. Constructional pipe fitting.
- 11. Constructional steelworking.
- 12. Coppersmithing.
- 13. Die and/or jig and/or tool and/or gauge making and/or repairing.
- 14. Die-sinking and/or engraving.
- 15. Diesel fitting.
- 16. Domestic appliance mechanic's work.
- 17. Electrical fitting.
- 18. Electrical maintenance work and/or installation and/or repair work.
- 19. Electrician's work.
- 20. Electroplating.
- 21. Erecting and/or assembling (supervisory work on site).
- 22. Electronics mechanician's work.
- 23. End making.
- 24. Fitting and turning.
- 25. Fitting (including machining).
- 26. Inspecting when performed by inspectors having journeyman qualifications.
- 27. Instrument making and/or repairing.
- 28. Instrument mechanician's work (industrial instrumentation and process control).
- 29. Lift and/or escalator mechanic's work.
- 30. Lithography (metal decorating)
- 31. Locksmithing.
- 32. Machine tool setting up and/or toolsetting.
- 33. Marking out and/or marking off.
- 34. Millwrighting (electromechanical).
- 35. Motor vehicle repairing.
- 36. Moulding and/or coremaking.
- 37. Operating arc and/or gas welding machines on pressure vessels.
- 38. Patternmaking.
- 39. Plating and/or boilermaking.
- 40. Plumbing.
- 41. Radio communications serviceman's work.
- 42. Radio and/or television repairer's work, etc.
- 43. Radio and television mechanician's work.
- 44. Radiotrician's work.
- 45. Refrigeration mechanic (commercial and industrial).
- 46. Rigging and/or splicing.
- 47. Riveting and/or caulking pressure vessels.
- 48. Roll tool and templet making.
- 49. Roll turning.
- 50. Scale making and/or repairing.
- 51. Sheetmetal working.
- 52. Shipwrighting and boatbuilding.
- 53. Outboard/Inboard Engine Mechanic.
- 54. \*Ship's plumbing.
  - 'Ship's plumbing' means work on ships for all sanitary purposes and/or water services and/or domestic heating, washing or drinking purposes.
- 55. Signwriting.
- 56. Steel Erector
- 57. Telecommunications electrician's work.
- 58. Telephone communications electrician's work.
- 59. Templet making.
- 60. Testing (pressure vessels).

- 61. Turning (including machining).
- 62. Universal milling and/or universal grinding and/or universal machining.
- 63. Vehicle body building and/or repairing composite and/or metal.
- 64. Welding and/or brazing.
- 65. Woodmachining and/or woodworking (excluding the preparation of packaging and rough crating).
- 66. Tool and cutter grinding.
- 67. Forklift mechanic's work.
- 68. Telecommunication mechanician's work.
- 69. Tractor mechanic's work.

(schedule substituted by Government Notice R.59 of 28 January 2005)

(Occupation "56. Steel Erector" inserted by GN R.531 of 18 June 2010)

## RATE AA

1. \*Assembling and/or erecting overhead power lines in field or on site (linesmen):

\*First six months of experience: Rate C.

Second six months of experience: Rate B.

Thereafter: Rate AA.

- 2. Building up by metal spraying.
- 3. Cropping and/or punching and/or shearing and/or guillotine shearing (n.e.s).
- 4. Ferrous welding in a finished run involving no change in procedure in respect of amperage or rate of deposition or size and type of rod.
- 5. \*Intercommunication telephone installing (excluding electronic equipment):

\*First six months of experience: Rate D.

Second six months of experience: Rate C.

Third six months of experience: Rate B.

Thereafter: Rate AA

- 6. \*Machinist's work (n.e.s), viz. shaping, slotting, planing, milling (excluding universal milling), grinding (excluding universal grinding) and the operation of gear cutting and rotary machine tools, excluding centre lathes (with or without copying and/or profiling attachments), boring mills (vertical, horizontal and turret type, with or without copying and/or profiling attachments), die-sinking machines and universal machining.
  - \*Employees employed on machinist's work shall be permitted to set up their own work, grind and set their own tools and work to and with precision measuring instruments including rules, calipers and the like.
- 7. Metal spinning.
- 8. Pattern filing and/or mounting.
- 9. Pressbrake operating (n.e.s).
- 10. Sailmaking.
- 11. Saw doctoring.

## RATE B

- 1. Boiler tube fitting and/or expanding, excluding repair.
- 2. Cold sawing where the sawyer marks direct from cutting list.
- 3. Drilling machine work (n.e.s).
- 4. Down-hand ferrous welding in a finished run involving no change in procedure in respect of amperage or rate of deposition or size and type of rod.
- 5. Operating scarfing and/or ending machine.
- 6. Operating broaching machine (n.e.s).
- 7. Platelaying to SAR gauge.
- 8. Relining where original marking is done by a journeyman or apprentice (structural metal work).
- 9. Supervisory work (n.e.s).

## RATE C

- 1. Flattening and/or straightening only (n.e.s).
- 2. Marking off to (machine shop work).
- 3. Operating multi-head oxyacetylene cutting machine and/or profiling and/or flame planing and/or bevel cutting machine (including setting up).
- 4. Operating power-driven or hydraulic press (n.e.s), including the affixing and/or removal of dies.
- 5. Repetition cutting and/or cropping and/or shearing and/or punching to jigs and/or stops and/or templets (n.e.s) (guillotines and cropping machines).

- 6. Riveting and/or caulking (metal) (excluding pressure vessels) (n.e.s).
- 7. Sheeting.

#### RATE D

- 1. Arc and/or gas cutting (n.e.s).
- 2. Bending of tubes and/or clauses in manually operated machines to templets.
- 3. Bending and/or forming to jigs and/or stops in power operated press brake and/or folding machine.
- 4. Chipping for welding and/or caulking.
- 5. Drilling and/or countersinking and/or reaming (n.e.s), including the use of adjustable reamers provided they are preset by a Rate A or AA employee, including the sharpening of drills.
- 6. Hand welding by mechnically-fed electrodes (excluding pressure vessels)
- 7. Hydraulic and/or pneumatic gap machine riveting.
- 8. Machining on repetition work by means of fixtures and/or jigs and/or stops (excluding the requirement of stops for parting off) where the work cycle is manually operated (excluding setting up but including checking with fixed gauges) (including the replacing and/or repositioning of throwaway tips only on throwaway tipped tooling) (excluding machine tool setting up and/or tool setting and/or adjusting).
- 9. Metal spraying for decorative purposes.
- 10. Operating roll forging machine.
- 11. Operating automatic arc and/or gas welding machine (excluding setting up).
- 12. Operating cold circular saw to marks and/or stops (structural metal work) (n.e.s) (excluding marking and/or setting of stops).
- 13. Operating drop forging machine, including the removal and/or affixing of dies where there is positive location (n.e.s).
- 14. Operating power saw (n.e.s), including marking off with rule and/or tape only, and including setting of stops.
- 15. Operating single head gas profile cutting machine and/or single and/or multi-head straight line cutting machine, including setting up.
- 16. Preliminary welding for positioning of jobs prior to welding, riveting or bolting up (runs of not more than 25 mm in length).
- 17. Press operating (n.e.s), including the affixing and/or removal of dies where there is positive location (excluding press brake).
- 18. Repetition drill sharpening by machine (other than in tool room).
- 19. \*Repetition welding and/or brazing in fixtures.
  - \*Repetition welding and/or brazing in fixtures means that the fixture must be made in such a manner as to allow the maximum amount of welding and/or brazing on the article in the fixture and thereafter the same employee or a Rate B employee or an employee at a higher rate than Rate B may complete the weld on the article when it is removed from the fixture.
- 20. Rough painting of deck and/or bulkheads.
- 21. Silver soldering.
- 22. Tool grinding in jigs.
- 23. Grinding on repetition work by means of fixtures and/or jigs and/or stops where the work cycle is manually operated, excluding setting up but including checking with fixed gauges and self-compensating wheel dressing.

## RATE DD

- 1. Repetition operation of or attending semi-automatic machines where the work cycle is power-driven and the end point is controlled by automatically operating stops (excluding setting up) (including the replacing and/or repositioning of throwaway tips only on throwaway tipped tooling, excluding machine tool setting up and/or tool setting and/or adjusting).
  - For the purposes of the above, 'semi-automatic machine' is a machine on which it is not necessary to centralise or true the work by hand and manual operations are limited to loading the work piece into the
  - chuck or holding device of the machine, setting the machine in motion, advancing or retracting the tools (excluding any machining during the advancement and/or retraction of the tools) before and after the power cycle takes over and stopping and unloading the machine and includes random checking with fixed gauges.
- 2. Repetition operation of or attending semi-automatic grinding machines (n. e. s.) where the work cycle is power driven and the end point is controlled by automatically operating stops, excluding setting up but including checking with fixed gauges and self-compensating wheel dressing.

For the purposes of the above, semi-automatic machine is a machine on which it is not necessary to centralise or true the work by hand and manual operations are limited to self-compensating wheel dressing, loading the work piece into the chuck or holding device of the machine, setting the machine in motion, advancing or retracting the grindstone, stopping and unloading the machine.

#### RATE DDD

- 1. Drilling and/or countersinking to jigs and/or metal templets and/or stops and/or reaming, using non-adjustable reamers, excluding radial drilling machines-size of drilled holes not exceeding 30 mm.
- 2. Operation of or attending on machines designed for or permanently adapted for a single tool operation where it is not necessary to centralise or true the work by hand and where the manual operations are limited to loading the work piece into the chuck or holding device of the machine, starting, operating and/or attending, stopping and unloading the machine (excluding setting up) including random checking with fixed gauges and including the replacing and/or repositioning of throwaway tips only on throwaway tipped tooling (excluding machine tool setting up and/or toolsetting and/or adjusting).

#### RATE E

- 1. Metal spraying for protective purposes.
- 2. Production broaching on automatic machine where the operations prior to and after ramming are limited to loading, setting the machine in motion, stopping and unloading the machine (excluding setting up).
- 3. Rough grinding to templets and/or marks and/or gauges (structural metal work).
- 4. Dismantling, cleaning and assembling, from component parts, of single stage, centrifugal or helical rotor pumps up to 250 mm discharge diameters, requiring no fitting or adjustment, but including deburring.
- 5. Dismantling, cleaning and assembling, from component parts, of multi-stage pumps with no hydraulic balancing discs, requiring no fitting or adjustment, but including deburring:

Provided that where employees undertake work specified in operations 4 and/or 5 a ratio of one Rate A employee for every three such employees shall be maintained.

#### RATE F

- 1. Manual and/or automatic setting and/or gulleting and/or sharpening of saws.
- 2. Sharpening and/or straightening of used agricultural implement parts.
- 3. Supervising employees employed on classes of work scheduled below Rate F (when so appointed).

## RATE G

- 1. Affixing slings under instruction of a Rate A to D employee.
- 2. Application of anti-corrosive and/or anti-fouling and/or protective coatings.
- 3. Attending cleaning and/or degreasing and/or acid and/or rinsing and/or fluxing bath.
- 4. Attending fully-automatic machine, including random checking with fixed gauges.

For the purposes of the above, 'fully-automatic machine' is a bar-fed machine or a machine fitted with an automatic chucking device (i.e. magazine and/or table and/or mechanical-arm fed) and the manual operations are limited to setting the machine in motion, feeding a new bar into the machine or loading the magazine, as the case may be, and stopping the machine.

- 5. Boiler stoking and/or attending.
- 6. Dressing and/or deburring by hand and/or by grinding and/or portable power tools.
- 7. Fly and/or treadle and/or manual pressing and/or notching and/or power pressing where the work is operated upon with preset dies, excluding press brakes and the setting of dies.
- 8. Heat treatment furnace loading and/or unloading and/or stoking and/or quenching under instruction of a Rate A to D employee.
- 9. Hot dip coating and/or galvanising under supervision of a Rate A to D employee.
- 10. Hydraulic testing and/or testing by air, other than the preparatory work.
- 11. Metal buffing and/or polishing.
- 12. Metal cleaning by degreasing and/or pickling.
- 13. Metal coating by dipping.
- 14. Operating tumbling barrel.
- 15. Operation of and/or attending special purpose machine, including the use of fixed gauges, where the manual operations are limited to loading, setting the machine in motion, stopping and unloading the machine, excluding setting up.

- 16. Operating drop hammer (drop hammer driving).
- 17. Operating power hammer (hammer driving) under instruction of a Rate A to D employee.
- 18. Operating manual machine designed for or permanently adapted for one only operation, where it is not necessary to centralise or true the work by hand.
- 19. Operating power saw for repetitive cutting off to stops and/or length gauges, excluding setting of stops (machine shop work) (other than in tool room).
- 20. Operating butt and/or flash and/or projection and/or resistance and/or spot welding machine.
- 21. Operating hand portable and/or pedestal grinding machine where the operator is not required to grind to marks and/or gauges and/or sizes and/or templets.
- 22. Repetition cutting and/or cropping and/or shearing to stops, excluding setting up (machine shop work).
- 23. Repetition roller bending of material not exceeding 4 mm.
- 24. Repetition tapping by machine.
- 25. Repetition cutting to stops on reciprocating and/or friction saws (structural metal work).
- 26. Repetition marking off to jigs and/or length gauges.
- 27. Rethreading and/or re-tapping and/or reclaiming of nuts and/or bolts.
- 28. Riveting (10 mm diameter or less).
- 29. Rough straightening and/or rough flattening of material, excluding the use of rules and straight edges.
- 30. Sand and/or shot and/or hydro and/or grit blasting.
- 31. Screwing machine operating, excluding setting up.
- 32. Spraying of non-decorative paint.
- 33. Striking by hand hammer under instruction of a Rate A to D employee.
- 34. Straightening and/or flattening of gussets and/or cleats.
- 35. Stripping and/or punching of forgings and/or stampings, using preset dies.
- 36. Operating power operated internal transporters and/or stackers and/or handling equipment.

## RATE H

- 1. Baling and/or cutting of scrap, other than in workshop.
- 2. Descaling by chipping and/or scraping of ships and/or boilers.
- 3. Dipping in enamel and/or lacquer and/or paint.
- 4. Holding up for riveting.
- 5. Rivet heating.
- 6. Stamping and/or fixing metal labels and/or name plates.

1. First three months of experience ......

- 7. General labouring.
- 8. Oiling and/or greasing.
- 9. Removal of rust and/or coatings.

#### (i) Learners

Rate D

## RATE C

Thereafter	Rate C
RATE D	
1. First three months of experience	Refer to table
Second three months of experience of	of wage rates
Thereafter	Rate D

## Provided that-

- (a) no employee may be engaged upon incentive bonus work during the learner-ship period;
- (b) an employer who wishes to train an employee for any of the classes of work for which no learnership period is provided may do so only with the prior approval of the Council, which shall prescribe the conditions under which permission for such employment is granted.

#### (ii) Juveniles

Wage rates payable according to ages of juveniles (n.e.s.).

	Class of work	Rates per hour	
RA	TE C		
1.	Sixteen years and over but not exceeding 17 years	Rate DD	
	Seventeen years and over but not exceeding 19 years	Rate D	
	Thereafter	Rate C	
	Class of work	Rates per hour	

#### RATE D

Rate DDD Sixteen years and over but not exceeding 17 years ...... Seventeen years and over but not exceeding 19 years.... Rate DD Thereafter ..... Rate D

Provided that-

- (a) no juvenile may be employed without the prior consent of the Council (see clause 19 of Part I of the Agreement);
- (b) no juvenile may be engaged upon incentive bonus work.

#### (iii) Cranes and hoists

#### RATE AA

1. Crane driving-cab-operated overhead cranes handling liquid metal.

## RATE B

1. Crane driving-power-operated jib cranes and/or cab-operated overhead cranes (n.e.s.).

#### RATE D

- 1. Crane driving-floor operated power cranes powered in all three directions and controlled by one man so employed.
- 2. Crane driving (n.e.s.) power operated jib cranes and/or cab-operated overhead cranes and/or floor-operated power cranes, powered in all three directions and controlled by one man so employed in stores and/or stockyards and/or fettling and/or service gantry and/or scrapyard areas.

For the purposes of the above, 'stores and/or stockyards and/or fettling and/or service gantry and/or scrapyard areas' means that such areas shall be exclusively used for such purposes and shall not include the performance of work and/or other activities extraneous to functions conducted in such areas.

Further, the duties of crane driving as specified in Rate D shall be confined to work within the areas as above specified. If the crane driving does not fall within the above provisions and/or if it extends beyond the areas above mentioned, the wage provisions relating to Rate AA or Rate B, as the case may be, shall obtain and have preference.

1. Crane driving — non-slewing jib cranes.

#### RATE G

- 1. Crane operating (n.e.s.).
- Operating power-driven hoist fixed or moved by hand or power (not under supervision).

For the purposes of this subclause, manually, mechanically or hydraulically operated loaders attached or fitted to a vehicle as defined in subclause (iv) hereof shall not be regarded as a crane or hoist.

## (iv) Vehicle driving-external transport including forklift driving

- 1. (a) Forklift driving of power-operated forklift controlled from on board by the operator..... Job Rate F
  - (b) Driving of a load-carrying or hauling vehicle which

b Rate E
b Rate DD
b Rate C
are listed in clause $3(b)$ of Part II of this Agreement.
which a vehicle may carry or haul in terms of any ssued in respect of such vehicle by a Local Road nsportation Act, 1930, including any trailer while by such certificate, the load specified in a certificate
ving
to be responsible for duties of traffic control) (n. e.
te AA
te C te B
rs (n.e.s.): ate B
ate C
ines
and/or compressor plant or plants over 7,5 kW:
ate B
ate C
ate B
proved students
ate D
ate C
ate B
work
efer to table of wage rates
o o a intra

## (ix) Electrolytic Finishing

Electroplating and/or electrolytic finishing and/or finishing of ferrous, non-ferrous and/or other substrates.

For purposes of this technical schedule, "electroplating and/or electrolytic finishing and/or finishing of ferrous, non-ferrous, and/or other substrates" includes electroplating, anodizing, electrolysis metal deposition, wet electrostatic or electrophoretic coatings, hard chroming, vacuum coating, chemical and electrochemical brightening, powder coating, lacquering, metal finishing and operations associated with these processes.

## Rate "B"

Supervisory work.

## Rate "D"

Manufacturing of plating racks and frames.

#### Rate "DD"

Maintenance and/or repairing of plating racks and frames by brazing and/or silver soldering.

## Rate "F"

- 1. Decorative plating.
- 2. Supervising employees employed on classes of work scheduled below Rate "F" (when so appointed).

## Rate "G"

- 1. Industrial plating (e.g. zinc, tin, cadmium, copper, anodizing etc).
- 2. Application of powder and other coatings.
- 3. Polishing and/or grinding (after 24 months).
- 4. Lacquer spraying or dipping.
- 5. Polish wheel making.
- 6. Cleaning on plating line.
- 7. Colour anodizing.
- 8. All electrolytic and/or non-electrolytic processes carried out by a bath / vat attendant.
- 9. All other coatings that use alternative application methods.
- 10. Brightening.
- 11. Gas burning of jigging or wire holes.

### Rate "H"

- 1. Jigging and/or wiring.
- 2. Pickling and/or stripping.
- 3. Stripping and/or coating of jigs.
- 4. Barrel loading.
- 5. Inspection.
- 6. Polishing (First 7 to 24 months).
- 7. Attending drier and/or oven.

#### **Electroplating sector job creation initiative:**

The parties to this agreement have agreed, in an attempt to create new job opportunities in the electroplating sector and subject to the qualifications set out in the note, that Rate "H" less 30% will apply to the following operations:

- 1. Any form of general manual labour, including wrapping and/or packing, loading and/or unloading of vehicles, visual inspection etc.
- 2. Jigging and/or wiring of articles to be electroplated or similarly finished.
- 3. Polishing.

## **Important notice:**

- 1. The above special wage structure only applies to new employees engaged on a permanent basis (i.e. excluding any employees engaged on a limited duration contract of employment and/or temporary and/or casual basis).
- 2. The above special wage structure may not be applied in respect of employees supplies by a Temporary Employment Service (TES / Labour Broker).
- 3. The special wage rates will only apply in respect of qualifying employees during their first 6 months of employment with an employer, after which period the applicable Collective Main Agreement will apply.
- 4. The South African Electroplating Industries Association undertakes to report to the Bargaining Council, in January of each year, declaring the number of employees engaged on this basis during the course of the preceding year and the Bargaining Council and the trade union parties reserve the right to withdraw the special

wage dispensation, should it be found that the wage structure has not resulted in the creation of new job opportunities in the sector.

(schedule G(a)(ix) substituted by G.N R.899 of 11 September 2009)

#### (x) Vitreous enamelling

4	A 1	C	1 1	C 1			. 1 . 1	
	Annlication	of ename	I by means	of dusting	or sieving d	rv enamel	onto heated wa	re v17.
1.	1 ipplication	or chame	i by incans	or austing	or sicving a	i y Ciiaiiici	onto neated wa	IC, VIZ.

(a) First duster	Refer to table
(b) Second duster	of wage rates

## RATE B

1. Vitreous enamelling (general supervisory work):

First year of experience	Rate D
Second year of experience	
Thereafter	

2. Mill-room supervisor.

## RATE C

1. Furnaceman (supervisory work).

#### RATE D

1. Overseeing any of the following operations:

Pickling and/or degreasing and/or de-enamelling plant; brushing, dipping, and/or slushing; spraying; sign brushing; silk screening.

#### RATE F

1. Individual sign brushing (removal of surplus material on edges) and/or silk screening.

#### RATE G

- 1. Charging fork operating.
- 2. Repetition edge brushing.
- 3. Spraying under supervision.
- 4. Stoning and/or filling of enamel ware in process.

## RATE H

- 1. Application of ground and/or cover coating by dipping and/or slushing, brushing and/or beading hollowware.
- 2. Dipping and/or slushing enamel ware to be finished in ground coat only.
- 3. Metal cleaning by pickling and/or degreasing.
- 4. Furnace loading and/or unloading.

## (xi) Machine engraving

The following operations in engraving by machine under the supervision of a Rate A employee:

## RATE E

Operating pantograph engraving machine for surface engraving from stock patterns and/or templets, including the lettering and/or layout of plates and/or tablets and including the setting of the pantograph to the ratio required:
 First 12 months of experience
 Rate F
 Thereafter
 Rate E

. Sharpening of single lip cutters for use on pantograph engraving machines using equipment specially designed for that purpose where the setting is done by a Rate A employee:

First 12 months of experience	Rate F
Thereafter	Rate E

## RATE H

1. Metal buffing other than die cleaning and/or polishing.

(xii) Metal and/or ceramic spraying

The following operations in metal and/or ceramic spraying:

#### RATE A

1. Turning (including machining) (n.e.s.).

#### RATE AA

1. Metal or ceramic spraying for subsequent machining purposes (n.e.s.). Employees engaged on this operation shall be permitted to determine type of deposition, technique to be used, and shall be permitted to set up metal or ceramic spraying machines for lower-rated employees.

#### RATE D

1. Hand spraying of metal or ceramic coatings where there is no machining required or no change in rate of flow of metal or ceramic and the flame setting is predetermined and set by a Rate AA employee (n.e.s.).

#### RATE DD

1. Attending and/or minding automatic or semi-automatic metal or ceramic spraying machines under the supervision of a Rate AA employee, including the use of pre-set measuring instruments to determine the thickness of the coating, excluding setting up (n.e.s.).

#### RATE E

1. Application of anti-corrosive metal coatings by flame spraying.

#### RATE

1. Fusing of powdered metal coatings under the supervision of a Rate AA employee.

#### RATE G

- 1. Preheating of work pieces prior to metal or ceramic spraying by oxyacetylene torch.
- 2. Preparation of work pieces prior to metal or ceramic spraying by shot blasting and/or similar metal cleaning techniques.

## Section (b): Electrical engineering (installation/maintenance/repair in the Provinces of the Transvaal and Natal)

Applicable to the installation and/or maintenance and/or repair of electrical equipment (n.e.s.), namely, generators, motors, convertors, switch and control gear (including relays, contactors, electrical instruments and equipment associated therewith), refrigeration and cooling equipment, transformers and furnace equipment in the Provinces of the Transvaal and Natal.

## RATE A (n.e.s.)

- 1. Armature winding (n.e.s.) including the winding of all DC motors.
- 2. Electrical fitting.
- 3. Electrical maintenance work and/or installation and/or repair work.
- 4. Electrician's work.
- 5. Rotor and/or armature balancing work where the mass of the article being balanced exceeds 250 kg.

#### RATE AA

- 1. All operations (n.e.s.) in the assembling of transformers, other than a yoke above 1 000 kVA, including wiring to predetermined points on or attached to the transformer (excluding fitting adjustments).
- 2. \*All winding operations in repair work using preformed coils (excluding connecting up on line and/or testing) in the re-winding of stators and/or rotors of A C machines rated at up to and including 600

volts as scheduled below:

Two-pole	100 kW
Four-pole	
Six-pole	50 kW
Eight-pole	30 kW

\*Ratio: Employees may be employed on operation AA2 provided that a ratio of one Rate A employee engaged on armature winding is employed for each Rate AA employee employed. Where an employer utilises the services of employees in contravention of the ratio requirement herein contained, such employees shall be remunerated at not less than the minimum rate applicable to Rate A.

- 3. High potential testing when performed by persons normally engaged in operative processes.
- 4. Winding disc and/or spiral and/or helical windings with two or more conductors in parallel, including loading and unloading by the same employee of self-locating mandrels and/or formers.

## RATE B

- 1. Cold sawing where the sawyer marks direct from cutting list.
- 2. Commutator undercutting (n.e.s.).
- 3. Wire drawing, including supervisory work and setting up of wire drawing machines.
- 4. Rotor and/or armature balancing work where the mass of the article being balanced does not exceed 250 kg.

#### RATE C

- 1. All operations (n.e.s.) in the assembling of transformers, other than a yoke up to 1 000 kVA, including wiring to predetermined points on or attached to the transformer (excluding fitting adjustments).
- 2. Connecting and/or sweating of leads and/or ends of transformers above 500 kVA (n.e.s.)
- 3. Final machining of slip rings on completed rotors (by means of special purpose machine).
- 4. Setting of trips and/or stops on coil forming machines.
- 5. Winding disc and/or spiral windings with single conductor, including loading and unloading by the same employee of self-locating mandrels and/or formers.

#### RATE D

- 1. All operations (n.e.s.) in the dismantling and assembling (excluding sub-assembly, motor fielding and fitting) of motors and generators having a rotating core diameter exceeding 500 mm under the instruction of a Rate A employee.
- 2. \*All winding operations in repair work using preformed coils (excluding connecting up on line and/or testing) in the re-winding of stators and rotors of A C machines rated at up to and including 600 volts as scheduled below:

Two-pole	30 kW
Four-pole	22 kW
Six-pole	15 kW
Eight-pole	11 kW

- 3. Brazing of leads and/or located parts.
- 4. \*Marking off material (n.e.s.).
  - \*'Marking off' means marking off material to given lengths for cutting off purposes only, using only length gauges and/or rule and/or tape measure and marking material.
- 5. Marking out insulation material for transformers from drawings and/or schedules under instruction of a Rate A to D employee.
- 6. Setting of stops on guillotine for cutting insulation only.
- 7. Setting of stops on manually operated guillotine.
- 8. Wrapping of high voltage paper bushings (foiled synthetic bonded) by machine.

## RATE DD

- 1. Cleaning of commutator slots prior to testing.
- 2. Commutator undercutting where the armature is located in a jig and the cutting tool is pre-set to stops and is moved by hand.
- 3. \*Winding and/or connecting of stators and/or armatures for AC machines with a rating not exceeding 2 kW.
  - \*Ratio: Employees may be employed on operations D2 and DD3 only provided that a ratio of not less than four Rate A and Rate AA employees and all apprentice armature winders taken together engaged on the operations to which the ratio applies are employed for each Rate D and/or Rate DD employee employed, and where at least one Rate A employee is engaged on armature winding: Provided that where employees are engaged on armature winding solely in respect of machines rated at not more than 2 kW, and that this is in a clearly demarcated area and such employees are supervised by at least one Rate A armature winder to every five Rate DD employees so engaged, the ratio need not be observed.

Where an employer utilises the services of employees in contravention of the ratio requirements herein contained, all employees engaged in the operations to which the ratio provisions apply shall be remunerated at not less than the minimum rates applicable to Rate A or Rate AA work, as the case may be.

## RATE DDD

- 1. Field coil winding, using insulated strip.
- 2. Taping and/or wrapping of stator and/or rotor and/or armature coils and/or field coils and/or transformer leads and/or coils and/or conductors and/or tubes by hand.

## RATE F

- 1. All operations in the dismantling and/or assembling of motors and generators (excluding fitting adjustments) having a rotating core diameter not exceeding 500 mm under the instruction of a Rate A employee.
- 2. Filing by hand of coil bars for rotors to go and no-go gauges.
- 3. Inserting bars in squirrel-cage rotors.
- 4. Mounting of covers and/or fittings and/or terminals and/or pipe work, including straightening of studs where necessary and the use of jointing material.
- 5. Removing top yoke prior to assembling of coils, under instruction of a Rate A to D employee.
- 6. Stacking and/or banding and/or securing of laminations and the positioning of clamps, including the use of fixed gauges.
- 7. Stator and/or rotor and/or armature coil forming by hand, using formers, or by power-driven machine (excluding setting of trips).
- 8. Yoke assembly.

#### RATE G

- 1. Attending cleaning and/or degreasing and/or acid and/or rinsing and/or fluxing baths and/or drying out and/or oil filling plant.
- 2. Checking core stacks, using pre-set gauges.
- 3. Cutting of non-metallic gaskets by hand.
- 4. Cutting up insulating material to stops and/or templets by guillotine.
- 5. Filing by hand of coil slots in rotors and/or stators and/or armatures to go and no-go gauges.
- 6. Forming insulations by machine.
- 7. Forming of mica insulation plates and/or mica sheets.
- 8. Making connector clips by hand in jigs.
- 9. Making up of connection strips.
- 10. Manual straightening of conductors.
- 11. Operating wire covering machine.
- 12. Packing and/or ironing of insulating material on to the armature to form a seat for the armature coils.
- 13. Pressing winding insulation into moulds, including preparatory wrapping.
- 14. Stripping of windings for repair of motors and generators.
- 15. Winding and/or pulling of stator and/or rotor loops by hand and/or by power-driven machines (excluding setting up).
- 16. Winding coils for motors, using wire on formers and/or spools by machine, including changing of self-locating mandrels and/or formers.

#### RATE H

- 1. Cleaning and/or tinning conductors.
- 2. Compound filling.
- 3. Dismantling for repair of motors and generators of a rating not exceeding 2 kW.
- 4. Furnace loading and/or unloading and/or stoking and/or attending.
- 5. Minding wire drawing machine.
- 6. Packing in prepared crates of repaired articles for despatch and/or sale.
- 7. Stamping and/or affixing metal labels and/or nameplates.
- 8. Varnishing machine attendant.
- 9. Waxing coils to ease insertion into slots.

Section (c): Saw doctoring and/or sharpening and/or reconditioning and/or repairing all types of cutting tools (excluding machine tools)

## RATE AA

- 1. Machine tool setting up and/or toolsetting.
- 2. Smithing and/or blocking and/or tensioning of saws (saw doctoring).

## RATE C

1. Replacing parts from stock and/or adjusting of lawnmowers and/or grass cutters, excluding the power units.

#### RATE D

- 1. Drilling and/or countersinking and/or reaming and/or enlarging circular saw centres (n.e.s.).
- 2. Operating lawnmower cutting cylinder and/or bottom blade sharpening machine.

#### RATE G

- 1. Assembling components requiring no fitting or adjustment under supervision of a Rate A to D employee.
- 2. Attending special purpose machine, including the use of fixed gauges where the manual operations are limited to loading, setting the machine in motion, stopping and unloading the machine.
- 3. Countersinking to stops.
- 4. Cutting off to stops and/or jigs by hand shears.
- 5. Dismantling lawnmowers and/or grass cutters, excluding dismantling of the power units.
- 6. Drilling to jigs and/or centre pop marks.
- 7. Grinding and/or buffing and/or polishing.
- 8. Manual and/or automatic setting and/or gulleting and/or sharpening of saws.
- 9. Manual reaming of circular saw centre holes to go and no-go gauges and/or pre-set stops, using tapered fixed reamers.
- 10. Operating butt and/or spot welding machine.
- 11. Removing welding burrs and/or annealing of bandsaws.
- 12. Repetition fly and/or treadle and/or manual pressing, where the work is operated upon with pre-set dies, other than the setting of dies and/or tools.

#### RATE H

- 1. Application of anti-corrosive and/or protective coatings by brush.
- 2. Etching saw blades.
- 3. Pin fixing in saw blades.
- 4. Loading and unloading in oil stiffening operations.

## Section (d): Structural engineering

For the purposes of this section—

**'Structural metal work'** means the fabrication, erection or assembly, construction, alteration, replacement or repair of metal structures (including metal structures of boats and/or pressure vessels and/or components made in whole or in part of metal plate and/or metal sections.)

The operations in the manufacturing and/or erection and/or installation of structural metal work are detailed in the schedules below.

For the purposes of this schedule the letter appearing in the middle of each job operation number is the code that links the operation to the relative subsection:

The 'M' relates to mechanical and structural operation.

The 'E' relates to electrical operations.

The 'I' relates to instrumentation operations.

The 'R' relates to rigging operations.

The 'W' relates to welding operations.

Special provisions shall apply in respect of Construction Sites covered by a Project Labour Agreement and details are set out in Annexure A. (Annotation substituted by G.N. R.77 dated 2 February 2007)

\* Throughout these schedules wherever a job description prescribes supervision by a Category 5 employee, such Category 5 employee shall be in a trade or a discipline similar to the task being performed.

## INSTRUMENTATION WORK

Where supervision is not specified for an operation then general supervision by a Category 5 Employee will apply.

## Category 5

- 5.I.1 Instrument assembly.
- 5.I.2 Instrumentation mechanicians work (industrial instrumentation and process control), including repairs.

- 5.I.3 Instrumentation maintenance work.
- 5.I.4 Instrument calibration.
- 5.I.5 Instrument repair work.
- 5.I.6 Loop checking and continuity testing.
- 5.I.7 Plant commissioning.

## Category 4

- 4.I.1 Installation of control panels under instruction and supervision of Category 5 employee.
- 4.I.2 Installation of copper and stainless steel small bore tubing under instruction and supervision of Category 5 employee.
- 4.I.3 Installation of instruments under instruction and supervision of Category 5 employee.

## Category 3

- 3.I.1 Installation of galvanised conduits and air supply tubing.
- 3.I.2 Installation of mineral insulated cables and/or steam tracing under instruction and supervision of Category 5 employee.
- 3.I.3 Installation of PVC Tubing maximum 20 mm O.D.
- 3.I.4 Manufacture and installation of mild steel brackets and frame works under supervision of Category 5 employee.
- 3.I.5 Termination of cables according to connection schedules and/or samples under instruction and supervision of Category 5 employee.

## Category 2

- 2.I.1 Supervision over Category 1 employees.
- 2.I.2 The running of pre-prepared harnesses to instruments and equipment including termination of ends by means of preprepared connection schedules and including installation of terminal blocks in junction boxes and panels as marked out by, and under supervision of Category 5 employee.

## Category 1

1.I.1 General labouring.

## Category 1 (a)

1.I.1 (a) Basic labouring during first nine months' service.

## RIGGING

## Category 5

5.R.1 Rigging and splicing, including supervisory work involving the use of cranes and/or power driven hoists.

## Category 4

4.R.1 Erection of structural steel components, including use of power hoists and/or cranes, utilising general arrangement and/or location drawings under supervision of Category 5 employee.

### Category 3

3.R.1 Splicing of slings and/or wire ropes, under 20 mm diameter under supervision of Category 5 employee.

## Category 2

- 2.R.1 Affixing and securing of slings under supervision.
- 2.R.2 Operating power-driven hoists and/or winches.

## Category 1

- 1.R.1 Assisting in splicing of wire rope.
- 1.R.2 Lifting goods by manilla/nylon rope, including affixing and securing of slings, under supervision.
- 1.R.3 General labouring.

#### Category 1 (a)

1.R.1 (a) Basic labouring during first nine months' service.

## MECHANICAL AND GENERAL STRUCTURAL WORK

## Category 5

- 5.M.1 Assembling (n.e.s.).
- 5.M.2 Constructional boilermaking and/or constructional pipe fitting and/or constructional steelwork (n.e.s.), including:
  - 5.M.2.1 Setting out, setting up, levelling, aligning of steelwork, pipe-work and machinery using theodolites and/or dumpy gauges and/or micrometers.
  - 5.M.2.2 Marking-off and marking-out.
  - 5.M.2.3 Fabrication, modification and/or rectification of steelwork and/or pipework.
- 5.M.3 Internal combustion engine fitting.
- 5.M.4 Jig and/or template making and/or repairing.
- 5.M.5 Mechanical fitting (n.e.s.).
- 5.M.6 Structural plating.

## Category 4

- 4.M.1 Alignment of machinery using straight edge.
- 4.M.2 Assembly of preprocessed and/or pre-marked items forming the following finished components, where no adjustments or modifications are required, under supervision of Category 5 employee:
  - 4.M.2.1 Rolled clauses and profiles (as supplied by mills) with welded and/or bolted end connections and stiffeners, shelf angles and plates.
  - 4.M.2.2 Plate girders, with welded and/or bolted end connections and stiffeners, shelf angles and plates.
  - 4.M.2.3 Latticed structural components, with welded and/or bolted fittings and/or connections including latticed columns.
  - 4.M.2.4 Built up clauses, with welded diaphragms, stiffeners and end connections.
  - 4.M.2.5 Pipes: Assembling of pre-prepared piping and/or pre-manufactured pipe fittings.
  - 4.M.2.6 Plate work: Assembly of pre-assembled parts for the final assembly of bins, tanks or ducting.
- 4.M.3 Installation and/or expanding of boiler tubes.
- 4.M.4 Installation of pre-assembled mechanical components limited to mass of 5 tonnes, using power hoists and/or cranes including utilising general arrangement and/or location drawings, under supervision of Category 5 employee.
- 4.M.5 Installation of pre-prepared piping and/or pipe fittings (n.e.s.) under supervision of Category 5 employee.
- 4.M.6 Levelling and alignment of steelwork, pipework and machinery with lines and spirit levels from predetermined beacons.
- 4.M.7 On site modification, excluding marking off or out, under supervision of Category 5 employee.
- 4.M.8 Roller bending.
- 4.M.9 Scarfing and/or ending by machine.
- 4.M.10 Supervising employees employed in classes of work below Category 4.

#### Category 3

- 3.M.1 All operations in dismantling, cleaning and re-assembly of welding machines under supervision of Category 5 employee.
- 3.M.2 Arc and/or gas cutting (n.e.s.).
- 3.M.3 Assembly to jigs and/or fixtures requiring no modifications and/or adjustments (confined to workshops).
- 3.M.4 Attending and/or operating sawing machines including marking off and/or setting of stops.
- 3.M.5 Bending and/or forming of tubes and/or clauses.
- 3.M.6 Dismantling of steelwork and/or structures and/or pipe installations and/or mechanical components including use of gas and/or electric torch.
- 3.M.7 Drilling and/or counter-sinking and/or reaming including sharpening of drills.
- 3.M.8 Installation of pre-manufactured galleries, casings, handrails, kickplates, flooring and stairtreads where no alteration is required.
- 3.M.9 Installation of pre-prepared flanged and screwed pipes and/or pipe fittings, including making of joints, under supervision of Category 5 employee.
- 3.M.10 Marking off and/or out to templates and/or template sketches.
- 3.M.11 Operating power driven or hydraulic press (n.e.s.) including affixing and/or removal of dies.
- 3.M.12 Operating single and/or multi-head oxyacetylene cutting machines and/or profiling and/or flame planing and/or bevel cutting machines including measuring and setting up (n.e.s.).
- 3.M.13 Repetition roller bending and/or forming of plate using pre-set rolls (excluding setting of rolls) (n.e.s.).

- 3.M.14 Riveting and/or caulking (n.e.s.).
- 3.M.15 Sawing and/or cropping and/or shearing and/or guillotine shearing and/or punching, including measuring and/or setting up.
- 3.M.16 Setting and aligning pipe and plate joints, using jigs and/or fixtures, prior to welding.
- 3.M.17 Straightening and/or flattening (n.e.s.).
- 3.M.18 Supervising employees employed in classes of work below Category 3.
- 3.M.19 Supervising sheeting work, including marking off.
- 3.M.20 Supervising the torqueing of bolts.

## Category 2

- 2.M.1 Affixing sheeting under supervision.
- 2.M.2 Cutting and/or grinding to marks and/or gauges, using abrasive discs or wheels.
- 2.M.3 Heating and holding for riveting.
- 2.M.4 Installation and tightening of bolts in accordance with specification requirements, including torqueing of bolts.
- 2.M.5 Operating gas cutting equipment for trimming materials.
- 2.M.6 Operating mechanical bevelling machine.
- 2.M.7 Reaming, using handheld machines.
- 2.M.8 Rough straightening and/or bending steel members under supervision. Where heat is required for straightening such operations shall be done under supervision of Category 5 employee.
- 2.M.9 Sand and/or shot and/or hydro and/or grit blasting.
- 2.M.10 Stamping and/or affixing metal labels and/or nameplates.
- 2.M.11 Stripping and cleaning of mechanical components as instructed by, and under supervision of Category 5 employee.
- 2.M.12 Threading and/or tapping.
- 2.M.13 Receiving, locating, preparing and issuing materials, tools and/or stock and/or consumables from requisition lists in stock and/or materials stores on a construction site.

#### Category 1

- I.M.1 Application of anti-corrosive and anti-fouling and/or protective coatings (n.e.s.).
- I.M.2 Attending a cleaning and/or degreasing and/or acid and/or rinsing bath.
- I.M.3 Cutting, dressing and/or deburring by hand and/or by grinding and/or portable power tools and/or rotary wire brush and/or wire brushing by hand to marks and/or gauges.
- I.M.4 Descaling by chipping and/or scraping.
- 1.M.5 Gas cutting of scrap.
- I.M.6 Rough straightening.
- 1.M.7 Installation and tightening of bolts under supervision, excluding tor-queing.
- I.M.8 Oiling and/or greasing.
- I.M.9 Operating a hoist and pendant controlled lifting equipment, eg semi-goliath cranes, etc.
- I.M.10 Operating hand hoist.
- I.M.11 Removal of rust and/or coatings.
- 1.M.12 General labouring, including packing, stocking, loading, unloading and cleaning duties in a stock and/or materials store on a construction site.

## Category 1(a)

I.M.1(a) Basic labouring during first nine months' service.

## **ELECTRICAL WORK**

Where supervision is not specified for an operation, general supervision by a Category 5 employee will apply.

#### Category 5

- 5.E.1 Electrical fitting.
- 5.E.2 Electrical maintenance and/or installation and/or repair.
- 5.E.3 Electrician's work.

## Category 4

4.E.1 Repetition terminating of cables and/or wires and/or conductors to junction boxes and/or connecting blocks

and/or terminals by means of pre-prepared connection schedules, including soldering and/or fitting of lugs and harnessing of wires under supervision of Category 5 employee, provided no testing is done.

## Category 3

3.E.1 The surface mounting of junction boxes and subsidiary and auxiliary equipment and/or cable trays and/or cable racks and/or panels by means of bolts and/or screws, including drilling of holes into positions identified and indicated by and under the supervision of Category 5 employee.

## Category 2

- 2.E.1 Removing outer cable sheathing and stripping of individual conductors in preparation for termination, under supervision.
- 2.E.2 Supervision of Category 1 employees.

## Category 1

- 1.E.1 Cleaning and/or tinning of conductors.
- 1.E.2 Compound filling of end or joint boxes.
- 1.E.3 Running in and/or laying of cables in pre-prepared routes and/or trenches and/or ducts including binding and strapping.
- 1.E.4 General Labouring.

## Category 1(a)

1.E.1 (a) Basic labouring during first 9 months' service.

#### WELDING

## Category 5

5.W.1 Welding and/or brazing (n.e.s.).

## Category 4

- 4.W.1 Manual welding on pre-prepared structural steel and/or pipework parts and components, in all positions, including:
  - 4.W.1.1 Butt welding carbon steel pipe joints and/or structural joints, in all positions, subject to non-statutory radiographic and/or ultrasonic tests.
  - 4.W.1.2 Fillet welding carbon steel pipe joints and/or structural joints, in all positions, subject to non-statutory radiographic and/or ultrasonic tests.
- 4.W.2 Manual fillet welding of non-pressure parts attached to boilertubes, in all positions, where mandatory coding requirements must be met.

## Category 3

- 3.W.1 Semi-automatic welding, including pressure vessels where mandatory coding requirements are to be met, including:
  - 3.W.1.1 Semi-automatic flux cored wire arc welding.
  - 3.W.1.2 Semi-automatic gas-shielded wire arc welding.
  - 3.W.1.3 Semi-automatic submerged arc welding.
  - Manual ferrous welding in down hand position, including:
    - 3.W.2.1 Butt welding steel pipe joints and/or structural steel joints in down hand position.
    - 3.W.2.2 Fillet welding steel pipe joints and/or structural steel joints in down hand position.

## Category 2

3.W.2

- 2.W.1 Pre-set automatic welding, including pressure vessels where mandatory coding requirements are to be met, including:
  - 2.W.1.1 Operating pre-set automatic submerged arc welding machines.
  - 2.W.1.2 Operating pre-set automatic flux cored wire arc welding machines.
  - 2.W.1.3 Operating pre-set automatic gas shielded wire arc welding machines.
  - 2.W.1.4 Operating automatic butt and/or flash and/or projection and/or spot and/or arc spot and/or stud welding machines.
  - 2.W.1.5 Repetition brazing by pre-set automatic machines not involving the use of filler rods.
- 2.W.2 Preliminary welding of runs not exceeding 50 mm in length for positioning of jobs prior to welding, riveting

or bolting up.

#### Category 1

1.W.1 General labouring.

## Category 1(a)

1.W.l(a) Basic labouring during first nine months' service.

## Section (e): Fibre-glass boatbuilding

#### RATE G

- 1. Assisting chemical compounding of plastic materials and the application of such compounds.
- 2. Laminating by hand in reinforced plastics manufacture and gel coating.
- 3. Mass-measuring and issuing of scrap and/or raw materials, including pigments, to predetermined quantities.
- 4. Operating laminating machine.
- 5. Repetition cutting by machine and/or machining of plastic materials (including reinforcing fibres).
- 6. Repetition marking and/or tracing to templets.
- 7. Trimming by hand and/or by power tools.

#### RATE H

- 1. Buffing and/or finishing and/or polishing by hand and/or by power tools.
- 2. Operating fibre-glass spray-up machine.
- 3. Operating guillotine (excluding setting up).
- 4. Repetition drilling and/or tapping and/or thread clearing.
- 5. Assembling components and/or affixing with rivets and/or screws.
- 6. Cementing.
- 7. Cleaning by hand, including removal of flash.
- 8. Coating by brush and/or dipping and/or by spraying.

## Section (f): Pattern-Making

#### RATE A

1. Pattern-making.

#### RATE AA

- 1. Forming of epoxy-resin moulds from master pattern.
- 2. Making of flat pattern boards to fixtures.
- 3. Pattern filing and/or mounting.

## RATE DD

- 1. Assisting a Rate AA operator in laminating and/or filling-in of epoxy-resin moulds (A maximum of two assistants to one Rate AA operator).
- 2. Sandpapering of pattern equipment under supervision and at the discretion of a Rate A pattern-maker.

## RATE DDD

- 1. Cleaning of used pattern equipment under supervision of a Rate A pattern-maker.
- 2. Filleting of pattern equipment under supervision of a Rate A pattern-maker, excluding the use of leather fillets.
- 3. Mixing and/or pouring of plaster of paris under supervision of a Rate A pattern-maker.
- 4. Painting of pattern equipment under supervision of a Rate A pattern-maker.

## Section (g): Metal service centres

- 'Metal Service Centre' means an establishment undertaking activities confined to the supply of metal products to customer requirements, including profile cutting, but does not include establishments exclusively engaged in the sale of or cutting to length of metal products on a non-repetitive basis to customer requirements and further does not include the following:
- (a) manufacture: and/or
- (b) construction; and/or
- (c) assembly; and/or

(d) erection of any article consisting mainly of metal when undertaken at such Metal Service Centre.

For the purposes of this section –

"metal products" mean billets, plates, sheets, strips, bars, rods, angles, flats, sections extrusions, pipes, tubes, wire and wire rod;

"manufacturing" means the production of articles or parts or components thereof by means of tools and/or equipment and/or methods specifically adapted and/or designed for production by repetitive processes (including the rectification of faults in the course of such processes), in separate manufacturing establishments or departments or annexures, separated from General Engineering and activities by effective closures.

## RATE A (N.E.S)

**Note:** No person other than a journeyman or an apprentice may be employed on work classified at Rate A in Schedule G without prior permission of the Council.

#### RATE C

- 1. Supervisory work, including setting up and/or changing attachments on machines.
- 2. Laser cutting.
- 3. Setting (n.e.s.) (excluding machine tool setting up and/or tool setting) of dies and/or fixtures and/or stops and/or jigs and/or guides and/or trips on production machines.
- 4. Quality control inspection.

#### RATE D

- 1. Operating multihead oxyacetylene cutting machines, including setting up.
- 2. Guillotining to cutting lists, including the setting of the guillotine only.
- 3. Press brake bending and/or forming to customer requirements, including setting up of press brake only.
- 4. Plasma and profile cutting (argon gas) and slitting of rolled coils by machine, including changing of spacers and blades.
- 5. Eccentric press operating, including setting of eccentric press only.
- 6. Radial arm drilling machine operating.

## RATE DD

- 1. Operating single-head oxyacetylene cutting machines, including setting up.
- 2. Band and/or power hacksawing (n.e.s.)

## RATE DDD

- 1. Repetition marking of material for cutting purposes to templates and/or length gauges and/or tape only.
- 2. Pedestal drilling on radial arm machine.
- 3. Roll straightening and/or flattening of steel / metal strips by machine, including setting.
- 4. Belt sanding of steel sheets, including changing of belts.
- 5. Quality control checking.

## RATE F

- Moving and/or stacking and/or wrapping and/or strapping and/or loading and/or unloading and/or raising and/or lowering materials by machine other than general labouring.
- 2. Guillotining to stops.
- 3. Repetition picking, checking and quality control.

#### RATE G

- 1. Mass measuring and/or dispatch of materials.
- 2. Operating power / bandsaw to stops.
- 3. Eccentric press operating where the machine is pre-set.
- 4. Polishing and/or scotch briting steel pipes by machine.
- 5. Assisting the operator to load blades and/or spaces on a slitter machine.
- 6. Operating basic aluminium coiling machine.

## RATE H

- 1. General labouring.
- 2. Loading and/or unloading of coils.

Except for the provisions of subsections (iv) and (viii) dealing with vehicle driving and watchman's work no other provisions of Schedule G shall apply.

(Substituted by G.N. R.941 of 9 August 1999)

(Substituted by G.N. R.77 of 2 February 2007)

(Substituted by Government Notice R.899 of 11 September 2009)

#### Section (h): Electronics and/or Telecommunication Division

(Erection, installation, maintenance and repair in the Provinces of the Transvaal and Natal.)

All operations in the erection and/or installation and/or maintenance and/or repair of telecommunication equipment and/or any other equipment utilising the principles of electronics and/or radio, such as—

- telephone, telegraph and data transmission equipment;
- UHF and VHF radio links;
- automatic and manual telephone switching systems;
- supervisory and control systems; signalling systems;
- fault detection and alarm equipment; public address and paging systems; scientific, ultrasonic measuring and electro-medical equipment; navigation aids;
- mobile, marine, aircraft and broadcast radio equipment; closed circuit television equipment; interference suppression units; electrical and/or electronic test apparatus; industrial electronic equipment; radar and allied equipment;
- electronic distance measuring equipment.

This Division does not include the installation, maintenance or repair of domestic articles, i.e. car, home and portable radios, television, tape recorders, gramophone equipment and loudspeakers.

For the purposes of this Division—

**'electronics'** means equipment where the primary circuits are based on the conductance of electricity through a vacuum, gas or semi-conductor;

'radio' means equipment where the primary function is to transmit and/or receive intelligence without the aid of a physical conductor.

#### RATE A

- 1. Electronics mechanician's work (n.e.s.).
- 2. Telecommunication electrician's work (n.e.s.).

#### RATE AA

1. Sectional supervision of lower-rated operatives, including the preparation of wiring harness boards.

#### OPERATIVE GRADE 1 — RATE B

- 1. Adjustment to predetermined limits of electrically and/or mechanically operated assemblies.
- $2. \quad Complete \ sequential \ adjustment \ of \ two-motion \ selectors \ and/or \ uniselectors \ to \ predetermined \ limits \ (n.e.s.).$
- 3. Forming-out of cable ends to colour codes and/or pictorial sketches and/or in fixtures without reference to schematic drawings, and the terminating of cables and/or wires and/or conductors to instructions and/or samples to main equipment and/or junction boxes and/or connecting blocks and/or terminals, including soldering and/or wrapping of wires, under supervision of a Rate A employee (n.e.s.).

## OPERATIVE GRADE 2 — RATE C

- 1. Cleaning and/or lubricating and/or changing ribbons on recorders.
- 2. Cleaning and/or topping up secondary cells and/or replacing primary and/or secondary cells for time recording and similar equipment, under supervision of a Rate A employee.
- 3. Oiling and greasing of motor uniselectors according to verbal instructions of a Rate A or AA employee.

4. Suspending of cables between poles and/or walls and the surface mounting of subsidiary and auxiliary equipment, namely, telephone switchboards and/or telephones and/or master and/or slave clocks and/or time recorders and/or amplifiers and/or loudspeakers and/or sound signals and/or fire alarm breakpoints and/or fire detectors and/or production recording dials and/or control units and/or watchman protection points and/or signalling equipment and/or junction boxes and/or connection frames and/or connection blocks, including the fixing to walls, floors and ceilings by means of bolts and/or screws of control panels and/or racks, under supervision of a Rate A employee.

## OPERATIVE GRADE 3 — RATE DD

- 1. Making of wire harnesses on pre-prepared nail boards to running-out lists using colour codes and/or pictorial sketches.
- 2. Removing outer cable sheathing and stripping of individual conductors, in preparation for termination.
- 3. Repetition soft soldering on tags already wired and/or repetition wire wrapping.
- 4. Repetition testing with accept/reject testing equipment.

## OPERATIVE GRADE 3A — RATE DDD

1. Assembly on site of pre-prepared apparatus racks where no fitting adjustments are required, using hand tools under supervision of a Rate A employee.

#### OPERATIVE GRADE 4 — RATE F

- 1. Application of anti-corrosive and/or protective coatings by brush.
- 2. Bolting up of pre-prepared steel work.
- 3. Cutting and/or grinding of metal-strip material already marked off.
- 4. Drilling of pre-marked holes by portable drilling machines, hole diameter not to exceed 30 mm.
- 5. Running in of cables in pre-prepared routes, including binding and/or fastening, but excluding wiring (n.e.s.).

## OPERATIVE GRADE 5 — RATE G

- 1. Compound filling under supervision of a Rate A employee.
- 2. Laying of cables in pre-prepared trenches.
- 3. Spraying of paint and/or insulating medium and/or anti-corrosive coatings under supervision, other than blending.

## Section (i): Radio, Television, Refrigeration and Related Equipment and Domestic Electrical Appliances Section (installation, repair and servicing)

The provisions of this section shall be applicable throughout the Provinces of the Transvaal and Natal to employers and employees engaged in the installation and/or repair and/or servicing of radios and/or refrigeration and/or domestic electrical appliances and/or television sets and/or monitors (excluding monitors that are primarily intended for use in accounting and/or business procedures) and/or video recorders and/or decoders, together with all components and/or equipment made for use in and with such equipment.

For the purpose of this section—

'domestic appliance mechanic's work', 'radio and television communications serviceman's work', 'radiotrician's work', 'refrigerator mechanic's work', and 'radio and television repairer's work' mean one or more of the following classes of work:

Diagnosing of faults in, or directing or executing repairs or adjustments to, or servicing, erecting and/or installing or supervising the erection and/ or installation of, ranges, refrigerators and domestic electrical appliances, radio and/or wireless instruments, electrical sound reproducing apparatus, television sets and/or monitors and/or video recorders and/or decoders, and the carrying out of final tests or the supervision of such operations, but does not include connecting up to (or disconnecting from) existing outlets and/ or the erection of radio aerials or work done in connection with the manufacture of such appliances, apparatus and instruments;

'domestic electrical appliance' means any appliance designed to be used mainly for domestic household purposes, and operating by or using electricity.

Note: Notwithstanding the provisions of Part I, clause 19(4), of this Agreement, employees who are in possession of

documentary proof that they have three or more year's practical and theoretical experience in the radio and/or television mechanician field and/or similar such artisan activity shall, for the purposes of this Schedule, be entitled to apply for and obtain a certificate of recognition of artisan status from the Council as provided for under clause 19(4): Provided that should an employee be unable to support the application with documentary proof of practical and/or theoretical experience satisfactory to the Council, the employee shall be entitled to request an ATRAMI test by an establishment nominated by the Council. Upon successful completion of the test, the employee shall be issued with the certificate of recognition as provided for in clause 19(4).

(corrected by Government Notice R.941 of 6 August 1999)

#### RATE A

- 1. Domestic appliance mechanic's work.
- Radio and television communications serviceman's work.
- 3. Radio and television repairer's work.
- 4. Refrigerator mechanic's work (commercial and industrial).

#### RATE AA

1. Workshop assistant's work.

#### RATE D

1. Installation of aerial on user's premises:

First six months of experience	Rate DD
Thereafter	Rate D

### RATE DD

- 1. Installation of temporary public address systems but excluding final testing, under supervision of a Rate A employee.
- 2. Mechanical and electrical installation of radios and/or television and similar equipment.

#### RATE DDD

The following operations, when performed in the workshops of an establishment in connection with the repair of heating and/or drying and/or personal care appliances of a load not exceeding 5 amperes except in the case of domestic heating appliances where the load does not exceed 15 amperes:

- 1. Repair and/or replacement of heating elements on appliances.
- 2. Repair and/or replacement of ceramic or other insulating spacers and/or formers used for heating elements, including fixing.
- 3. Repair and/or re-assembly of heating element containers.
- 4. Removing and/or replacing of motors not exceeding 750 watts at the direction of a Rate A employee, excluding final testing.

## RATE F

- 1. Stripping and cleaning of appliances under supervision of a Rate A or AA employee.
- Removal from and/or fitting into cabinets of assembled radiogram and/or television and/or radio chassis and/or television chassis.

## RATE G

- 1. Preparation of wire ends under supervision.
- 2. Buffing and/or polishing.
- 3. Spraying of paint for protective purposes.
- 4. Re-assembly of panels onto cabinets and/or other outer casings.
- 5. Inserting batteries in portable radios, tape recorders, gramophones, televisions and/or personal care appliances, including plugging in the battery connections.

## RATE H

1. General labouring, including preparing surfaces for painting and/or soldering.

For the purposes of this section—

'workshop assistant's work' means routine stripping of radios and/or appliances, replacement of components taken from stock and fitting adjustments confined to working within predetermined limits, including acceptance testing,

undertaken in the workshop.

### Section (j): Stores operations

#### RATE AA

1. Inventory and stores control, including supervision of Rate E employees in tool and/or stock and/or materials stores directly linked to the shopfloor and/or production process.

#### RATE E

1. Receiving, locating, preparing and issuing materials, tools and/or stock from requisition lists, in tool and/or stock and/or materials stores directly linked to the shopfloor and/or production process (n.e.s.), including—selection of stock;

checking and recording of stock; and operation of materials handling equipment.

#### RATE H

 General labouring, including packing, stocking, loading, unloading and cleaning duties in tool and/or stock and/or materials stores directly linked to the shopfloor and/or production process.

#### **SCHEDULE M**

Wage Schedule applicable to manufacturing where the employer has applied for and been granted a Certificate of Registration for his establishment or part thereof as a manufacturing engineering establishment as specified in clause 25 of Part 1 of the Agreement. For the purposes of this Schedule—

**'manufacturing'** means the production of articles or parts or components thereof by means of tools and/or equipment and/or methods specifically adapted and/or designed for production by repetitive processes (including the rectification of faults in the course of such processes) in separate manufacturing establishments or departments or annexes separated from general engineering activities by effective enclosures.

This Schedule comprises operations in general manufacturing activities not elsewhere specified in the D Divisions and grouped under the following headings:

- I Machining operations.
- II Forming and/or bending and/or pressbrake operations.
- III Cutting and punching operations.
- IV Drilling operations.
- V Welding and soldering operations.
- VI Miscellaneous operations.
- VII Inspecting and/or checking operations.

# WAGE RATES APPLICABLE TO OPERATIONS SCHEDULED IN SCHEDULE M ARE PRESCRIBED IN CLAUSE 3(a) OF PART II OF THIS AGREEMENT

## I. Machining operations

#### RATE A

1. Machine tool setting up and/or tool-setting.

## RATE AA

1. \*Machinist's work (n.e.s.), viz shaping, slotting, planing, milling (excluding universal milling), grinding (excluding universal grinding) and the operation of gear cutting and rotary machine tools, including vertical turret machine with built-in mono-slide turret and with a table diameter not exceeding 1 250 mm, but excluding centre lathes (with or without copying and/or profiling attachments), boring mills (vertical and horizontal type with or without copying and/or profiling attachments), die-sinking machines and universal machines.

\*Employees employed on machinist's work shall be permitted to set up their own work, grind and set their own tools and work to and with precision measuring instruments, including rules, calipers and the like.

#### RATE B

1. Operating broaching machine (n.e.s.).

## RATE C

1. Setting (n.e.s.) (excluding machine tool setting up and/or tool setting) of dies and/or fixtures and/or stops and/or jigs and/or guides and/or trips on production machines.

#### RATE D

- 1. Machining on repetition work by means of fixtures and/or jigs and/or stops (excluding the requirements of stops for parting off) where the work cycle is manually operated (excluding setting up but including checking with fixed gauges) (including the replacing and/or repositioning of throwaway tips only on throwaway tipped tooling, excluding machine tool setting up and/or toolsetting and/or adjustment).
- 2. Repetition operation of or attending a semi-automatic pull broaching machine where the work cycle is power-driven and the end point is controlled by automatically operating and/or fixed stops, excluding setting up. For the purposes of the above, a 'semi-automatic pull broaching machine' is one on which it is not necessary to centralise or true the work by hand and manual operations are limited to loading the work piece into the holding device, passing the broaching tool through the work piece, attaching the broach to the ram, setting the machine in motion for the power cycle to take over and unloading the machine.
- 3. Tool grinding in jigs.
- 4. Grinding on repetition work by means of fixtures and/or jigs and/or stops where the work cycle is manually operated, excluding setting up but including checking with fixed gauges and self-compensating wheel dressing.

#### RATE DD

- 1. Repetition operation of or attending semi-automatic machines (n.e.s.) where the work cycle is power-driven and the end point is controlled by automatically operating stops (excluding setting up) but including checking with fixed gauges and including the replacing and/or repositioning of throwaway tips only on throwaway tipped tooling, excluding machine tool setting up and/or tool-setting and/or adjusting.
  - For the purposes of the above, 'semi-automatic machine' is a machine on which it is not necessary to centralise or true the work by hand and manual operations are limited to loading the work piece into the chuck or holding device of the machine, setting the machine in motion, advancing or retracting the tools (excluding any machining during the advancement and/or retraction of the tools) before and after the power cycle takes over and stopping and unloading the machine.
- 2. Repetition operation of or attending semi-automatic grinding machines (n.e.s.) where the work cycle is power driven and the end point is controlled by automatically operating stops, excluding setting up but including checking with fixed gauges and self-compensating wheel dressing.
  - For the purposes of the above, 'semi-automatic machine' is a machine on which it is not necessary to centralise or true the work by hand and manual operations are limited to self-compensating wheel dressing, loading the work piece into the chuck or holding device of the machine, setting the machine in motion, advancing or retracting the grindstone, stopping and unloading the machine.

## RATE DDD

1. Repetitive operating of a fully automatic machine on quantity production where the operations are confined to loading the machine, where it is not necessary to centralise or true the work by hand, setting the machine in motion and unloading the work piece, including random checking with fixed gauges (n.e.s.).

## RATE F

- 1. Repetition operation of or attending machine designed for or permanently adapted for a single tool operation where it is not necessary to centralise or true the work by hand and where manual operations are limited to loading the work piece into the chuck or holding device of the machine, starting, operating and/or attending, stopping and unloading the machine (excluding setting up).
- 2. Repetition operation of a facing and centering machine where the manual operations are limited to loading the work piece into the chuck or holding device of the machine, starting, stopping and unloading the machine (excluding setting up).
- 3. Repetition operation of or attending semi-automatic machine where the work cycle is power driven and the end point is controlled by automatically operating stops and the mass of the work pieces loaded does not exceed a mass limitation of 12 kg (excluding setting up but including random checking with fixed gauges).
  - For the purposes of the above, 'semi-automatic machine' is a machine on which it is not necessary to centralise or true the work by hand and manual operations are limited to loading the work piece into the chuck or holding device of the machine, setting the machine in motion, advancing or retracting the tools (excluding any machining

during the advancement and/or retraction of the tools) before and after the power cycle takes over and stopping and unloading the machine.

#### RATE G

- 1. Attending fully-automatic machine, including random checking with fixed gauges.
  - For the purposes of the above, 'fully-automatic machine' is a bar-fed machine or a machine fitted with an automatic chucking device (ie magazine and/or table and/or mechanical arm fed) and the manual operations are limited to setting the machine in motion, feeding a new bar into the machine or loading the magazine, as the case may be, and stopping the machine.
- 2. Operating manual machine designed for or permanently adapted for one only operation where it is not necessary to centralise or true the work by hand.
- 3. Production broaching on automatic machine, where the operations prior to and after ramming are limited to loading, setting the machine in motion, stopping and unloading the machine (excluding setting up).
- 4. Repetition operation and/or attending special purpose machine, including the use of fixed gauges, where the manual operations are limited to loading, setting the machine in motion, stopping and unloading the machine (excluding setting up).
- 5. Repetition threading and/or tapping by machine (n.e.s.).
- 6. Operating screwing machine, excluding setting up.

## II. Forming and/or bending and/or press-brake operations

### RATE AA

1. Operating press-brake (n.e.s.).

#### RATE C

1. Roller bending other than repetition roller bending.

#### RATED

- 1. Bending of tubes and/or clauses in manually operated machine to sketch (n.e.s.).
- 2. Bending and/or forming to jigs and/or stops in press-brake and/or folding machine.
- 3. Press operating (n.e.s.) including the affixing and/or removal of dies where there is positive location (excluding press brake).
- 4. Repetition roller bending and/or forming of plate with pre-set rolls.

## RATE G

- Assisting in removing and/or replacing dies and/or press tools (excluding setting up) under instruction of a Rate C setter.
- 2. Attending continuous automatic roller forming machine under instruction of a Rate A to D employee.
- 3. Beading and/or trimming and/or seaming and/or grooving and/or locking double side top or bottom.
- 4. Bending to stops of pipes and/or tubes (not exceeding 60 mm diameter) and/or clauses (not exceeding 7 mm thick) in manually and/or power operated bending machine.
- 5. Drop forging and/or stamping, using dies, excluding setting of dies.
- 6. Fly and/or treadle and/or manual pressing and/or notching and/or power pressing where the work is operated upon with pre-set dies (other than press-brake) (excluding the setting of dies).
- 7. Hand bending and/or forming to jigs and/or dies and/or stops.
- 8. Operating power press to preset dies and/or guides and/or length gauges and/or stops and/or templets (excluding setting up) (excluding press-brake).
- 9. Operating power hammer (hammer driving) under instruction.
- 10. Operating drop hammer (drop hammer driving).
- 11. Repetition operation of extrusion press (excluding setting up) where the manual operations are limited to loading, starting, stopping and unloading under instruction of a Rate A to D employee (excluding molten copper based alloys).
- 12. Repetition roller bending and/or forming of material not exceeding 4 mm.
- 13. Repetition forging under power hammer using preset forming dies, excluding hand manipulation.
- 14. Repetition machine forging using dies other than by power hammer.
- 15. Repetition machine swaging, using dies, excluding power hammer.
- 16. Repetition frazing and/or pointing machine work.

- 17. Repetition pointing by semi-automatic machine of flat and/or square bars requiring no dimensional accuracy prior to drawing.
- 18. Repetition rolling in forging rolls, using segmental rolls.
- 19. Repetition spinning, using formers.
- 20. Repetition cold flaring on tube ends (bundy tubing not exceeding 20 mm in diameter).
- 21. Stripping and/or punching forgings and/or stampings, using pre-set dies.
- 22. Attending fully automatic grinding machine, including random checking with fixed gauges.

For the purposes of the above, 'fully automatic machine' is a machine fitted with an automatic device, ie magazine and/or table and/or mechanical arm fed, and manual operations are limited to setting the

machine in motion, loading the magazine, as the case may be, activating the wheel dressing device and stopping the machine.

## III. Cutting and punching operations

#### RATE B

1. Cold sawing where the sawyer marks direct from cutting list.

#### RATE C

1. Operating multi-head oxyacetylene cutting machine and/or profiling and/or flame planing and/or flame bevel cutting machine (including setting up) (n.e.s.).

#### RATE D

- 1. Arc and/or gas cutting (n.e.s.).
- 2. Operating single-head gas profile cutting machine and/or single and/or multi-head straight line cutting machine, including setting up.
- 3. Operating power saw (n.e.s.), including marking off with rule and/or tape only and including the setting of stops.
- 4. Operating nibbling machine (n.e.s.).
- 5. Repetition cutting and/or cropping and/or shearing and/or punching to jigs and/or stops and/or templets (n.e.s.) (guillotines and/or cropping machines).

#### RATE G

- 1. Operating power saw for repetitive cutting off to stops and/or length gauges (excluding setting of stops) (other than in tool room).
- 2. Repetition cutting and/or cropping of bars and/or billets to stops and/or length gauges and/or repetition cutting and/or cropping of scrap.
- 3. Repetition cutting and/or cropping and/or shearing to templets and/or marks and/or stops and/or length gauges, of plate not exceeding 5 mm thick and/or clauses not exceeding 7 mm thick.
- 4. Repetition operating nibbling machine and/or nibbling shears to jigs and/or templets and/or marks (excluding marking out) of material not exceeding 4 mm.
- 5. Repetition machine punching to gauges and/or jigs and/or stops and/or templets and/or dies and/or marks of plates not exceeding 5 mm thick and/or clauses not exceeding 7 mm thick.
- 6. Repetition blanking and/or piercing by press, using guides and/or jigs and/or stops and/or dies (excluding pressbrake).

## IV. Drilling operations

#### RATE B

1. Drilling machine work (n.e.s.).

#### RATE D

- 1. Drilling and/or countersinking and/or reaming (n.e.s.), including the use of adjustable reamers, provided they are pre-set by a Rate A or AA employee, including the sharpening of drills.
- 2. Repetition drill sharpening by machine (other than in tool room).

#### RATE F

1. Drilling and/or countersinking to jigs and/or fixtures and/or and/or stops and/or dimples and/or for the completion of the drilling of holes pre-drilled as above and/or reaming, using non-adjustable reamers, excluding radial drilling

- machine-size of drilled holes not to exceed 40 mm nominal diameter (n.e.s.).
- 2. Repetition drill sharpening by automatic machine where the manual operations are limited to loading, starting, stopping and unloading the machine.

#### RATE G

1. Repetition spot facing by drill to fixtures and/or jigs and/or stops.

## V. Welding and soldering operations

#### RATE AA

1. Ferrous welding in a finished run involving no change in procedure in respect of amperage or rate of deposition or size and type of rod.

#### RATE D

- 1. Hand welding by mechanically fed electrodes.
- 2. Operating automatic arc and/or gas welding machine (excluding setting up).
- 3. Preliminary welding for positioning of jobs prior to welding, riveting or bolting up (runs of not more than 25 mm in length) (n.e.s.).
- 4. \*Repetition welding and/or brazing in fixtures.
  - \*Repetition welding and/or brazing in fixtures means that the fixture must be made in such a manner as to allow the employee to undertake the maximum amount of welding and/or brazing on the article in the fixture and thereafter the same employee or a Rate B employee or an employee at a higher rate than Rate B may complete the weld on the article when it is removed from the fixture.
- 5. Soldering (n.e.s.).

#### RATE E

1. Soft soldering and/or sweating by hand (n.e.s.).

#### RATE F

Operating automatic submerged arc and/or gas shielded wire and/or flux cored wire arc welding machine where
the operator is confined to loading, starting, stopping and unloading the machine and the setting up of which is
done by a Rate A or AA employee.

#### RATE G

- 1. Operating butt and/or flash and/or projection and/or resistance and/or spot and/or arc spot and/or seam and/or stud welding machine.
- 2. Repetition brazing and/or bronze welding by pre-set automatic machine not involving the use of filler rods.
- 3. Repetition soft soldering of material not exceeding 4 mm and/or badges and/or medals.
- 4. Soldering and/or sweating by dipping and/or by machine.

## VI. Miscellaneous operations

#### RATE A

- 1. \*Marking out.
  - \*'Marking out' means the marking out with measuring instruments of the centres and working lines of articles and/or material.
- 2. \*Setting out.
  - \*'Setting out' means the setting out of work on the floor or on the bench to sketches and/or drawings and/or dimensions.

#### RATE B

- 1. Riveting and/or caulking pressure vessels.
- 2. Supervisory work (n.e.s.).

#### RATE (

- 1. Heat treatment (supervisory work).
- 2. Galvanising (supervisory work).

#### RATE D

1. Riveting and/or caulking (n.e.s.).

## RATE E

- 1. Assembling, from component parts, of single-stage, centrifugal or helical rotor pumps up to 250 mm discharge diameter, requiring no fitting or adjustment, but including deburring.
- 2. Assembling, from component parts, of multi-stage pumps with no hydraulic discs, requiring no fitting or adjustment, but including deburring.

#### RATE F

1. Supervising employees employed on classes of work scheduled below Rate F, when so appointed.

#### RATE G

- 1. Dressing and/or deburring by hand and/or by grinding and/or portable power tools.
- 2. Hot dip coating and/or galvanising under supervision of a Rate A to D employee.
- 3. Metal coating by dipping.
- 4. Operating tube and/or rod and/or wire straightening machine.
- 5. Repetition hydraulic testing and/or testing by air, excluding setting up of testing equipment.
- 6. Repetition marking to jigs and/or length gauges.
- 7. Riveting (10 mm diameter or less).
- 8. Rough straightening and/or rough flattening of material, excluding the use of rules and straight edges and excluding structural metal work.
- 9. Rough grinding in jigs and/or to by hand portable and/or pedestal grinding machine.
- 10. Sand and/or shot and/or hydro and/or grit blasting.
- 11. Striking by hand hammer under instruction of a Rate A to D employee.

#### RATE H

- 1. Affixing slings under supervision (employees exclusively so employed).
- 2. Application of anti-corrosive and/or anti-fouling and/or protective coatings.
- 3. Attending paring and/or shaving and/or planing machine for steel wool manufacture.
- 4. Baling and/or cutting of scrap other than in workshop.
- 5. Boiler stoking and/or attending.
- 6. Dipping in enamel and/or lacquer and/or paint.
- 7. Holding up for riveting.
- 8. Loading of rolled sheet coils onto uncoiler and setting of uncoiler release, under supervision.
- 9. Metal buffing and/or polishing.
- 10. Metal cleaning by acid and/or by degreasing and/or by pickling and/or by rinsing and/or by fluxing.
- 11. Operating tumbling barrel.
- 12. Operating hand portable and/or pedestal grinding machine where the operator is not required to grind to marks and/or gauges and/or sizes and/or.
- 13. Rethreading and/or retapping and/or reclaiming of nuts and/or bolts.
- 14. Rivet heating.
- 15. Spraying of enamel and/or paint.
- 16. Straightening and/or flattening of gussets and/or cleats.
- 17. Stamping and/or affixing metal labels and/or nameplates.
- 18. Stretching and/or rough straightening by hand and/or by machine of bars.
- 19. Furnace loading and/or unloading and/or stoking and/or quenching.
- 20. General labouring.
- 21. Oiling and/or greasing.

## VII. Inspecting and checking operations

#### RATE G

1. Repetition visual batch checking of unmachined components.

## VIII. Stores Operations

#### RATE AA

1. Inventory and stores control, including supervision of Rate E employees in tool and/or stock and/or materials stores directly linked to the shopfloor and/or production process.

## RATE E

1. Receiving, locating, preparing and issuing materials, tools and/or stock from requisition lists, in tool and/or stock and/or materials stores directly linked to the shopfloor and/or production process (n.e.s.) including—selection of stock;

checking and recording of stock;

operation of materials handling equipment.

## RATE H

1. General labouring, including packing, stocking, loading, unloading and cleaning duties in tool and/or stock and/or materials stores directly linked to the shopfloor and/or production process.