

SCHEDULE D
DIVISION D/O
LIGHT FABRICATING AND/OR LIGHT MANUFACTURING
DIVISION (N.E.S.)

The following operations in manufacturing activities, which activities are not specifically listed in the D Divisions of this Agreement, wherein any plate utilised does not exceed 5 mm thickness and any metal sections utilised do not exceed 7 mm thickness and any bar and/or tube and/or pipe utilised does not exceed 55 mm diameter and/or any light castings and/or forgings and/or stampings utilised do not exceed 5 kg in mass.

WAGE RATES APPLICABLE TO OPERATIONS SCHEDULED IN
DIVISION D/O ARE PRESCRIBED IN CLAUSE 3(a) OF PART II OF
THIS AGREEMENT

Section (a): General

RATE D

1. Assembling of metal sections and/or plate to jigs (n.e.s.).
2. Bending and/or forming (n.e.s.).
3. Bending of tubes and/or sections in manually operated machine to sketch (n.e.s.).
4. Galvanising (supervisory work).
5. Welding and/or brazing and/or bronze welding in fixtures and/or parts so formed and/or located as to obviate the need for a fixture.

RATE E

1. Repetition operation of or attending machines permanently adapted for semi-automatic operations (including programme controlled copying lathes), where the work cycle is power driven and the end point is controlled by automatically operating stops, so that manual operations are limited to setting the machine in motion, loading, stopping, unloading, advancing or retracting the tools before and after the power driven cycle takes over (excluding setting up) (excluding any machining during the advancement and/or retraction of the tools).

RATE F

1. Feeding centreless grinding machine for batch production work, where the setting is done by a Rate AA employee, including gauging by fixed gauges and/or comparator gauges.
2. Repetition measuring by fixed gauges and/or comparators where the setting is done by a Rate A employee.
3. Repetition production machining of bar and/or tube and/or pipe on capstan lathes to stops, where the work is held by devices not necessitating any centralising or truing (excluding setting up). (This operation is limited to a machine not exceeding a 55 mm nominal bore diameter.)
4. Repetition soft soldering and/or sweating by hand (n.e.s.).

RATE G

1. Assembling of pre-manufactured components from stock requiring no fitting or adjustment, but including deburring.
2. Repetition blanking and/or piercing on presses, using guides and/or jigs and/or stops and/or dies.
1. Repetition countersinking with twist drill and/or rosebit to stops.
4. Repetition drilling to dimples and/or marks and/or fixtures and/or gauges and/or excluding radial drilling machine.
5. Repetition operation of or attending machines designed 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.
6. Repetition reaming, using non-adjustable reamers.
7. Repetition roll marking
8. Repetition roller bending.
9. Repetition soft soldering of material not exceeding 4 mm in thickness and/or badges and/or medals.
10. Repetition threading and/or tapping.
11. Stripping and/or punching forgings and/or stampings, using dies.

RATE H

1. Baling of scrap.
2. Cutting of scrap.
3. Metal coating by dipping under instruction of a Rate A to D employee.
4. Packing of manufactured articles for despatch or sale.

Section (b): Precision engineering and cutting tool manufacture

Subject to the conditions set out hereunder, the provisions of *Section (a): General* of Division D/O shall *mutatis mutandis* apply for any work undertaken in precision engineering and/or cutting tool manufacture not scheduled in this section.

RATE F

1. Repetition thread grinding.

RATE G

1. Heat treatment under the supervision of a Rate C employee.
2. Repetition backing-off grinding, single purpose machine.
3. Repetition broaching of die nuts in jigs.
4. Repetition drill sharpening by machine.
5. Repetition drill and/or tap point grinding.
6. Repetition drill and/or tap and/or shear blade straightening.
7. Repetition grinding slits in dies on special purpose machine, using jigs (excluding setting or adjustment).

DIVISION D/1

**AGRICULTURAL IMPLEMENT AND/OR IRRIGATION MACHINERY
(INCLUDING WINDMILLS) AND/OR ENGINES MANUFACTURING,
ERECTING AND ASSEMBLING DIVISION**

The following operations in the manufacture and/or assembling and/or erecting in the factory of agricultural implements and/or irrigation machinery and/or windmills and/or engines, but does not include General Engineering as defined:

**WAGE RATES APPLICABLE TO OPERATIONS SCHEDULED IN
DIVISION D/1 ARE PRESCRIBED IN CLAUSE 3(a) OF PART II OF
THIS AGREEMENT**

RATE AA

1. Assembling of premanufactured components from stock where fitting is required.
2. *Marking out.
***Marking out**' means the marking out with instruments of the centres and working lines of articles and/or material preparatory to machining and/or processing and/or fabricating.
3. Repetition filing of keys
4. Repetition measuring with precision instruments (n.e.s.).
5. *Setting out.
***Setting out**' means the setting out of work on the floor or on the bench to sketch and/or drawings and/or dimensions.
6. Toolsetting for machining on repetition work by means of jigs and/or stops and/or fixtures and/or trips and/or cut-outs on turret and/or capstan lathes and/or milling and/or planing and/or slotting machines and/or semi-automatic copying machines.
7. Working supervisor, supervising two or more sectional supervisors.

RATE B

1. Repetition measuring of agricultural discs with precision measuring instruments.
2. Repetition measuring of batch machined components by means of verniers and/or rules and/or tape measures to drawings and/or samples.
3. Supervision (sectional) (n.e.s.).

RATE C

1. Repetition drill sharpening by hand.
2. Repetition measuring of batch unmachined components by means of verniers and/or rules and/or tape measures to drawings and/or samples.
3. Repetition operation of multi-head oxyacetylene profiling and/or cutting machine (including setting up) (n.e.s.).
4. Repetition shearing and/or trimming of angle shares to marks after forging.
5. Repetition swaging under hammer without dies.
6. Straightening and resetting of machined components using machines fitted with dial gauges and/or templets.

RATE D

1. Arc air and/or arc and/or gas cutting.
2. Drill sharpening by machine.
3. Galvanising (supervisory work).
4. Heat treatment (supervisory work).
5. Machining (n.e.s.) 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 the use of fixed gauges) (n.e.s.).
6. *Marking off.
 ***Marking off** means marking off material to given lengths for cutting off purposes only, by means of length gauges and/or rule and/or tape measure and marking material.
7. Operating radial drilling machine to jigs and/or fixtures and/or marks (n.e.s.).
8. Production electric welding in jigs and/or assemblies already partly welded in jigs so as to minimise the effect of distortion and where the amperage, size or type of rod or rate of deposition is predetermined (n.e.s.).
9. Production gas welding and/or brazing in jigs and/or assemblies already partly gas welded and/or brazed in jigs so as to minimise the effect of distortion and where a Rate A employee sets the regulators and jets.
10. Repetition machine punching (n.e.s.).
11. Repetition operation of single and/or double headed oxyacetylene profiling and/or cutting machines operating with magnetised followers to templets.
12. Repetition sizing of keys on keygrinding machines in assembling of components from stock.
13. Repetition hardness testing by machine.
14. Repetition operation of multi-head oxyacetylene and/or gas profiling and/or cutting machines to jigs and/or fixtures and/or templets and/or stops (excluding setting up and operation of optical tracing machines).

RATE DD

1. Operating semi-automatic continuous gas-shielded and/or flux cored wire arc-welding machines (including setting).
2. Repetition operation of single-headed oxyacetylene and/or gas profiling and/or cutting machine to jigs and/or fixtures and/or templets and/or stops (excluding setting up and operation of optical tracing machines).

RATE E

1. Operating side and/or vertical head grinders to gauges and/or and/or stops.
2. Operating semi-automatic, continuous, gas-shielded and/or flux cored wire arc welding machine (excluding setting).
3. 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.

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

4. Supervising employees employed on classes of work scheduled below Rate E when so appointed.

RATE F

1. Operating hand portable and/or pedestal grinding machine to and/or fixed gauges.
2. Repetition batch checking of components by means of fixed gauges and/or samples and/or jigs and/or checking fixtures.
3. Repetition drilling, using jigs on radial drills.
4. Resetting and/or straightening of unmachined components to and/or jigs and/or fixtures, using presses (other than by the original process).
5. Soldering and/or sweating by hand.
6. Functional checking of engine sets to pre-set limits, under supervision of a Rate A employee.

RATE G

1. Attending electroplating bath when appointed as electroplating bath attendant.
2. Automatic straightening and/or rounding and/or reducing and/or expanding and/or extracting (n.e.s.).
3. Assembling of premanufactured components from stock requiring no fitting or adjustment but including deburring.
4. Cutting off to jigs and/or stops and/or length gauges and/or marks and/or cutting off scrap by machine.
5. Circular cutting and/or flanging and/or slitting by machine.
6. Driving power hammer.
7. Drop forging and/or stamping, using pre-set dies (excluding setting of dies).
8. Fly and/or treadle and/or manual pressing and/or notching, where the work is operated upon with pre-set dies, other than setting of dies and/or stops.
9. Hot dip coating and/or galvanising.
10. Jennying (by machine).
11. Operating upset forging machine.
12. Power pressing, where the work is operated upon with pre-set dies, other than setting of dies.
13. Repetition operation of flash and/or butt and/or spot and/or arc spot welding and/or seam welding machines.
14. Repetition drilling and/or countersinking and/or reaming, using jigs and/or marks and/or gauges and/or stops.
15. Repetition hot and/or cold bending and/or forming to jigs and/or dies and/or stops.
16. Repetition hot and/or cold blanking and/or piercing on presses.
17. Repetition hot and/or cold riveting.
18. Repetition machine punching to jigs and/or dies and/or stops and/or gauges and/or marks and/or templets.
19. *Repetition marking off and/or out to jigs and/or templets.
 ****Templet marking*** means the marking of material with the aid of a templet and scriber or marking material.
20. Roller bending and/or forming by machine.
21. Repetition screwing with die heads and/or taps by machine and/or by hand.
22. Repetition fraizing and/or pointing and/or swaging machine work.
23. Removing and replacing dies and/or tools (excluding setting up) under the instruction of a Rate C setter.
24. Repetition bending of plough beams under supervision.
25. Repetition edge-forming of discs by machine.
26. Repetition shearing and/or trimming to pre-set dies of plough shares after forging.
27. Repetition hand riveting.
28. Straightening.
29. Striking by hand hammer under supervision of a Rate A or AA employee.
30. Stripping of and/or punching forgings and/or stampings, using dies.
31. Touching up with paint and/or prime coating.
32. Trimming and/or rolling and/or corrugating and/or body forming by machine.
33. Connecting preformed and/or prepared wires to predetermined points and/or connections.
34. Repetition crimping of terminals and/or stripping wires and/or cables on cables up to 13 mm diameter.
35. Repetition cutting and/or preforming sets of wires to jigs and/or fixtures and/or templets and/or length gauges.
36. Repetition mounting of engine sets on test beds, including connecting of self-locating couplings, and starting.

DIVISION D/2

CHAIN MANUFACTURING DIVISION

The following operations in the manufacture and/or fabrication and/or assembling of round link chains and/or attachments, viz:

**WAGE RATES APPLICABLE TO OPERATIONS SCHEDULED IN
DIVISION D/2 ARE PRESCRIBED IN CLAUSE 3(a) OF PART II OF
THIS AGREEMENT**

RATE AA

1. Forge welding of chains and/or links and/or rings and/or attachments.
2. Manufacture of links and/or rings and/or hooks and/or attachments by hand and/or under power hammer without using any pre-set dies.
3. Supervising and/or setting up of fully automatic chain forming and/or chain welding machines, including operations

incidental thereto.

RATE B

1. Setting up of fully automatic twisting and/or multislide forming and/or straightening and/or knotted chain and/or calibrating and/or stamping and/or weld trimming machines, including operations incidental thereto.
2. Setting up of semi-automatic hot and/or cold link bending and/or shaping and/or link studding and/or stretching and/or gauging machines, including operations incidental thereto.
3. Setting up of semi-automatic butt and/or flash and/or projection and/or spot welding machines, including operations incidental thereto.

RATE C

1. Supervising inspection and/or testing of chain and/or chain attachments.
2. Supervising and/or presetting and/or adjusting endothermic generators and/or heat-treatment furnaces and/or link heaters.

RATE D

1. Welding of chain links and/or rings and/or attachments on manually operated arc and/or shielded arc and/or atomic hydrogen welding machines.

RATE F

1. Feeding automatic grinding machine for batch production work, including gauging by fixed gauges and/or comparator gauges, but excluding setting up.

RATE G

1. Operating fully automatic twisting and/or multislide forming and/or chain link bending and/or chain link welding and/or knotted chain and/or wire chain and/or gauging and/or calibrating and/or straightening machines.
2. Repetition production drilling to jigs.
3. Assembling of grip trips and/or chain components and/or attachments, including the finishing by pneumatic tools (n.e.s.).
4. Repetition threading and/or tapping of chain components and/or attachments.
5. Routine testing and/or visual inspection of chain and/or attachments.

RATE H

1. Operating automatic flash trimming machines.
2. Operating resistance bar heater.
3. Operating and/or feeding links and/or rings and/or attachments and/or blanks to pre-set hand operated and/or semi-automatic studding and/or forming and/or butt and/or flash and/or projection and/or spot welding machines.
4. Operating upsetting machines.
5. Power pressing where the work is operated upon with pre-set dies (other than setting of dies).
6. Repetition cutting-off to stops with friction and/or power saw and/or band saw and/or bar cropping and/or shearing machine and/or power press.
7. Repetition sawing of rings and/or attachments by hand and/or power saw and/or band saw, using jigs and/or pre-set dies.
8. Stretching and/or gauging of chain and/or attachments in semi-automatic machines to predetermined stops and/or length gauges.
9. Stripping and/or punching drop forgings and/or drop stampings and/or pressings and/or attachments by machine, using dies.
10. Operating link opening and/or closing machine.
11. Assembling of chain and/or chain attachments.
12. Hand mending of chain links and/or rings and/or hooks and/or attachments to jigs.
13. Marking of chains and/or attachments and/or of packing materials under supervision of Rate AA to D employee.
14. Attending tumblers and/or vibrators and/or coppering plant.
15. Operating pointing and/or wire welding and/or wire drawing machines under supervision of Rate AA to D employee.
16. Packing and/or reeling and/or loading of chains and/or attachments.
17. Preparing and/or assembling packing materials.

DIVISION D/3
CYCLE MANUFACTURING DIVISION

The following operations in the manufacture of cycles and/or components and/or accessories thereof:

**WAGE RATES APPLICABLE TO OPERATIONS SCHEDULED IN
DIVISION D/3 ARE PRESCRIBED IN CLAUSE 3(a) OF PART II OF
THIS AGREEMENT**

Section (a): General

RATE A (n.e.s.)

1. Bricklaying and/or refractory bricklaying and/or masonry work.
2. Carpentry and/or joinery (excluding the preparation of packaging and rough crating).
3. Die and/or jig and/or tool and/or gauge making and/or repairing.
4. Die-sinking and/or engraving.
5. Diesel fitting.
6. Electrical maintenance work and/or installation and/or repair work.
7. Fitting and turning.
8. Fitting, including machining.
9. Inspection when performed by inspectors having journeyman qualifications.
10. Machine tool setting up and/or tool setting.
11. Motor vehicle repairing.
12. Sheetmetal work.
13. Turning, including machining.
14. Welding and/or brazing.

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.

2. Supervisory work (n.e.s.):

First six months of experience	Rate B
Thereafter	Rate AA

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. Drilling and/or countersinking/(n.e.s.).
2. 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, but excluding machine tool setting up and/or tool setting and/or adjusting).
3. 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 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.

RATE E

1. Supervising employees employed on classes of work scheduled below Rate E (when so appointed).

RATE F

1. Brazing pre-loading forks and/or handle-bars.
2. Dip and/or ring brazing, including patching and/or the replacement of burnt bricks, but excluding re-building.
3. Final adjustment to finished cycles.
4. Repetition lining with paint and/or synthetic material.
5. Repetition gas profile cutting or rear plate working to.
6. Repetition operating special purpose machines (n.e.s.) designed for or permanently adapted for multiple operations in the production of cycle components and/or accessories where no centralising or trueing of the tools is required, excluding setting up, but including the positioning of fixtures.
7. Repetition production machining of cycle components not exceeding 5 kg in mass, to stops where the work is held by devices not necessitating any centralising or trueing, 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). (This operation is limited to a machine not exceeding a 55 mm nominal bore diameter).
8. Repetition welding and/or brazing of cycle component parts and/or accessories, using fixtures and/or parts so located as to obviate the need for a fixture.
9. Supervising employees employed on classes of work scheduled below Rate F (when so appointed).
10. Trueing wheels to fixtures and/or on special purpose machine.
11. Operating and/or attending a special purpose machine designed for or adapted for a single operation where the operator only has to load, operate and unload, including positioning of stops to fixed gauges.

RATE G

1. Application of enamel and/or paint and/or powder and/or lacquer.
2. Assembling (n.e.s.).
3. Lacing of spokes into wheels.
4. Operating automatic grinding machine.
5. Operating cold heading machine.
6. Operating continuous rolling machines for mudguards and/or wheel rims.
7. Operating fly and/or treadle and/or manual press to pre-set dies and/or stops, including the positioning of stops.
8. Operating forging machine.
9. Operating power press to pre-set dies and/or guides and/or stops.
10. Repetition butt and/or flash and/or projection and/or resistance and/or spot and/or arc spot and/or seam and/or stud welding by machine.
11. Repetition cutting and/or cropping and/or sawing and/or shearing to stops and/or length gauges and/or templets and/or marks and/or jigs, including setting of stops and use of rule and/or tape only (excluding power-driven guillotine).
12. Repetition drilling and/or countersinking and/or reaming, using jigs and/or fixtures and/or pops in the mass production of cycle components and/or accessories, including the positioning of fixtures and/or stops and including the use of fixed gauges, provided the adjustable reamers are pre-set by a Rate A or Rate AA employee.
13. Repetition induction brazing of cycle components and/or accessories.
14. Repetition machine swaging and/or doming.
15. Repetition operation of cycle axle profiling machine where the operator's duties are confined to loading and unloading and stop/start, including repositioning of stops controlling the length of the axle, 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), and including the use of fixed gauges.
16. Repetition operation of spring coiling and/or forming machine.
17. Repetition threading and/or tapping by machine (including positioning of fixtures).
18. Repetition welding of seat pillars in fixtures.
19. Riveting (10 mm diameter or less).
20. Running of nipples and tensioning of spokes in jigs and/or fixtures.
21. Sub-assembling:
 - (a) Assembly of saddle and/or mudguard components and/or brake work and/or hubs and/or pedals;
 - (b) pegging of frames and/or forks and/or handlebars in jigs.
22. Tack welding of frame tubing and/or bottom bracket shell and/or back plate, using fixtures.
23. Tube bending to formers and/or stops (including positioning of stops to fixed gauges).
24. Buffing and/or mopping and/or abrasive polishing by machine and/or by hand.

25. Dressing and/or deburring by hand and/or by grinding and/or portable power tools, including changing of tools.
26. Fettling and/or filing and/or removing surplus brass by machine and/or by hand.

RATE H

1. Affixing name plates.
2. Application of transfers.
3. Crating and/or packing and/or wrapping for despatch.
4. Grinding ends of spokes in jigs.
5. Inserting metal liners.
6. Plating bath attendant.
7. Random checking with fixed gauges.
8. Repetition stamping of manufacturer's numbers in sequence.
9. Shot blasting.
10. Spraying of enamel and/or paint and/or lacquer.
11. Tumbling barrel attendant.
12. Assembling and/or nailing of crates.
13. Cleaning and/or degreasing and/or rinsing and/or fluxing and/or etching in baths.
14. Cleaning frames for enameling.
15. Debrassing and/or electrolytic cleaning vat attendant.
16. Dip enamelling and/or phosphating and/or stove attendant.
17. Fitting tyres and/or tubes and/or inflating.
18. Frame flattening (first and second coats).
19. Furnace loading and/or unloading and/or quenching.
20. General labouring.
21. Loading and/or unloading of plating and/or anodising racks.
22. Wiring and/or unwiring of articles for immersion in baths.

*Section (b): Plastics operations***RATE G**

1. Assisting chemical compounding of plastic materials and the application of such compounds.
2. Automatic machine operating.
3. Mass-measuring and issuing of scrap and/or raw plastic materials, including pigments to predetermined quantities.
4. Operating plastic production machine (n.e.s.) (including injection or compression or transfer or blow moulding, vacuum coating, vacuum forming, extrusion, casting, calendaring and/or H F Heat sealing machines), including machine running adjustments when necessitated by the manufacturing process.
5. Operating plastic scrap grinding machine.
6. Removing and/or replacing dies and/or moulds and/or tools under instruction of a Rate C setter.
7. Trimming plastic components and/or parts by hand and/or by power tools.

RATE H

1. Buffing and/or finishing and/or polishing of plastic parts and/or components by hand and/or by power tools.
2. Operating plastic materials mixing and/or blending machine.
3. Cleaning by hand, including removal of flash.
4. Colour filling embossed or impressed plastic mouldings.

DIVISION D/4

**EDGE HAND AND/OR SMALL TOOLS (OTHER THAN PRECISION
AND/OR MACHINE TOOLS) AND/OR SAW MANUFACTURING
DIVISION**

The following operations in the manufacture of edge hand and/or small tools and/or saws other than precision and/or machine tools:

**WAGE RATES APPLICABLE TO OPERATIONS SCHEDULED IN DIVISION D/4 ARE PRESCRIBED IN
CLAUSE 3(a) OF PART II OF THIS AGREEMENT**

RATE B

1. Smithing and/or blocking of saws:
 - First six months' experience.....
 - Second six months' experience Refer to table
 - Third six months' experience of wage rates
 - Fourth six months' experience
 - Thereafter Rate B

RATE C

1. Grinding of circular saws to fixed gauges.
2. Repetition sharpening of drills by hand.
3. Setting of dies and/or fixtures and/or guides and/or jigs and/or knives and/or woodworking cutters on production machines, excluding tool setting and rotary and/or reciprocating machines, but including drilling machines.

RATE D

1. Heat treatment (supervisory work).
2. Drawing of edge hand and/or small tool under mechanised hammer.
3. Drill sharpening by machine.

RATE E

1. Repetition production hand tack welding of edge hand and/or small tools.
2. Repetition operation of attending machines permanently adapted for semi-automatic operations (including programme controlled copying lathes) where the work cycle is power-driven and the end point is controlled by automatically operating stops, so that manual operations are limited to loading, setting the machine in motion, advancing or retracting the tools before and after the power cycle takes over, stopping and unloading, excluding setting up.

RATE F

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.
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 where the 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 tools before and after the power cycle takes over and stopping and unloading the machine.
1. Repetition production machining of bar on capstan lathes to stops where the work piece is held by devices not necessitating any centralising or trueing, excluding setting up. (This operation is limited to a machine not exceeding 52 mm nominal bore diameter.)
3. Soft soldering and/or sweating by hand (n.e.s.).

RATE G

1. Operating routers to templets, excluding setting up.
2. Production checking with or without fixed gauges.
3. Repetition cutting and/or cropping and/or shearing to marks and/or length gauges and/or stops.
4. Repetition enlarging of holes in circular saws by drilling and/or nonadjustable reamers.
5. Repetition drilling and/or countersinking to jigs and/or stops and/or fixtures.
6. Repetition reaming, using non-adjustable reamers.
7. Repetition drilling to dimples and/or fixtures and/or marks and/or gauges and/or jigs and/or stops and/or pops and/or templets, excluding radial drill.
8. Repetition hot and/or cold bending and/or forming by machine to dies and/or jigs (n.e.s.).
9. Repetition machine swaging and/or forging, using dies on beater picks.
10. Repetition stage loading of forging dies, excluding free-hand manipulation.
11. Repetition marking to jigs and/or templets.
12. Repetition hot and/or cold blanking and/or piercing and/or slitting, using guides and/or jigs and/or stops and/or dies.
13. Repetition hot and/or cold punching, using guides and/or jigs and/or stops and/or dies and/or marks and/or gauges and/or templets.
14. Repetition manual and/or automatic setting and/or sharpening of all types of wood working saws.
15. Repetition hot and/or cold straightening by hand.

16. Stretching and/or rough straightening of bars by hand and/or by machine.

RATE H

1. All tool assembling operations.
2. All wood handle-making operations.
3. Grinding and/or polishing, excluding precision grinding.
4. Pin fixing in saw blades.
5. Marking of trade symbols.
6. All packaging operations, including and incidental to addressing, labelling and marking for transport.
7. Scrap cutting.
8. Application of anti-corrosive and/or protective coatings.
9. Sand and/or shot and/or hydro and/or grit blasting.
10. Boiler stoking and/or attending.

DIVISION D/5

PRESS KNIFE AND CUTTER AND FOOTWEAR TACK AND NAIL MANUFACTURING DIVISION

**WAGE RATES APPLICABLE TO OPERATIONS SCHEDULED IN
DIVISION D/5 ARE PRESCRIBED IN CLAUSE 3(a) OF PART II OF
THIS AGREEMENT**

RATE A

1. Forging and/or welding (n.e.s.).

RATE B

1. Supervisory work (n.e.s.).
2. Supervisory work, including setting up, in the manufacture of footwear tacks and nails:

First year's learnership	Rate D
Second year's learnership	Rate C
Thereafter	Rate B

RATE C

1. Supervisory work (Heat treatment)

First six months	Rate D
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RATE D

1. Making and/or marking metal patterns and/or templets.
2. Milling and/or routing of steel to profile, by machine.
3. Final edging and/or sharpening to templets.
4. Final checking of knives to pattern.

RATE E

1. Brazing and/or silver soldering of knife steel at joints.
2. Sawing of knife steel.
3. Welding of knife steel and bracing steel (n.e.s.).
4. Pedestal and/or hand drilling to patterns for perforating tubes and/or prickers.
5. Jigging of plywood or other substance to pattern, and insertion of knife steel, punches and prickers into the jugged material.

RATE F

1. Random drilling of knife steel.
2. Surface grinding by machine to obtain a flat surface.
3. Making and/or marking metal patterns under supervision of a Rate D employee.

RATE G

1. Butt and/or spot and/or stitch welding by machine.
2. Bending knife steel to patterns and/or templets.
3. Grinding, sanding and/or filing of knife steel prior to final edging.
4. Marking and/or cutting of knife and/or bracing steel.

5. Operating tack and/or nail making machines.
6. Oxidizing of finished articles.
7. Punching of identifying symbols onto knives and/or cutters.
8. Insertion of prickers and/or perforating tubes by press.

RATE H

1. Application of protective paint coating.
2. Buffing and/or polishing.
3. Cleaning and/or pickling.
4. Furnace loading and/or unloading and/or stoking and/or quenching.
5. General labouring.

DIVISION D/6

FOUNDRY AND/OR CASTINGS DIVISION

No person under the age of 18 years and six months shall be employed on work scheduled at Rate AI, AA or AB.

OVERRIDING PROVISIONS

- (1) In the event of vacancies occurring for Rate AI or AA work hereinafter set out, Rate AA or AB employees within the establishment shall be considered for promotion in the first instance for such work.
- (2) Coring up and/or corelaying and/or making up and/or closing of permanent metal moulds where there are sand inclusions, including core and/or cores, shall be done by a Rate A, Rate AI, Rate AA, Rate AB or Rate B employee.

WAGE RATES APPLICABLE TO OPERATIONS SCHEDULED IN DIVISION D/6 ARE PRESCRIBED IN CLAUSE 3(a) OF PART II OF THIS AGREEMENT

RATE A

1. Moulding and/or coremaking (n.e.s.).
Moulds made by Rate A employees may include hand or machine-made cores made by Rate AI and Rate AA employees: Provided that the coring up and/or corelaying and/or closing of the mould is done by a Rate A employee.

RATE A1

1. Moulding by machine and/or by hand by special application to the job (n.e.s.).
'Special application to the job' means the utilisation of purpose-made moulding boxes having machined pins and drilled lug holes and adapted to the moulding machine and purpose-made plate patterns, so constructed that the patterns, ingates and runners other than downgates are mounted and fixed to the plates or are an integral part of the plates and includes plate moulding.
Moulds made by Rate AI employees may include machine-made cores made by Rate AA, Rate AB or Rate B employees: Provided that the coring up and/or corelaying and the closing of the mould is done by Rate AI employees.
2. Coremaking by hand and/or by machines (n.e.s.).
3. Moulding and/or coremaking by hand/machine where the moulds/cores are cured in the box and/or loose frames and where the area of the pattern plate in contact with the mould exceeds 1,5 m² and where the pattern plates are so constructed that the patterns, ingates and runners, other than downgates, are mounted and fixed to the plates or are an integral part of the plates and includes plate moulding (n.e.s.).

Note: Wage rates applicable to Rate A1 to be the same as Rate A above.

RATE AA

1. Moulding by machine and/or by hand by special application to the job (n.e.s.).
'Special application to the job' means the utilisation of purpose-made moulding boxes (such moulding boxes not to exceed an internal area of 1 m² in contact with the pattern plate where the cope and drag make a complete mould) having machined pins and drilled lug holes and adapted to the moulding machine and purpose-made plate patterns, so constructed that the patterns, ingates and runners other than downgates are mounted and fixed to the plates or are an integral part of the plates, and includes plate moulding and the use of boxes of an internal area exceeding 1 m² in contact with the pattern plate in respect of the production of agricultural and irrigation parts, sewerage pipes and/or

sewerage fittings, stoves and wheels for rolling stock; and shall include the use of multiple patterns for moulds made in moulding boxes exceeding an internal area of 1 m² in contact with the pattern plate and where no one casting would exceed 1 m² in area.

2. Coremaking by machine (n.e.s.) and/or by hand not exceeding core sizes capable of being inserted into moulds made in boxes not exceeding the limitation specified in 3 above.
3. Moulding and/or coremaking by hand/machine where the moulds/cores are cured in the box and/or loose frames and where the area of the pattern plate in contact with the mould exceeds 1 m² but does not exceed 1,5 m² and where pattern plates are so constructed that the patterns, ingates and runners, other than downgates, are mounted and fixed to the plates or are an integral part of the plates and includes plate moulding (n.e.s.).
4. Supervising spin-casting machines where sand is included.
5. Teeming of castings in steel foundries.

RATE AB

1. Moulding by machine by special application to the job and including the operation of fully automatic moulding machines.
2. Coremaking by machine, including the operation of fully automatic coremaking machines (n.e.s.) cores capable of being inserted into moulds made in boxes not exceeding the dimensions specified hereunder.

Repetition operation limited to the use of boxes of an internal area not exceeding 0,7 m² in contact with pattern plate where the cope and drag make the complete mould.

For the purposes of work classified at Rate AB above, 'special application to the job' means the utilisation of purpose-made moulding boxes having machined pins and drilled lug holes and adapted to the moulding machine and purpose-made plate patterns so constructed that the patterns, ingates and runners other than downgates are mounted and fixed to the plates or are an integral part of the plates, and includes plate moulding.

3. Moulding by hand/machine where the moulds are cured in the box and/or loose frames and where the area of the pattern plate in contact with the mould does not exceed 1 m² and where the pattern plates are so constructed that the patterns, ingates and runners, other than downgates, are mounted and fixed to the plates or are an integral part of the plates and includes plate moulding (n.e.s.).
4. Coremaking by hand/machine where the cores are cured in the box and/or loose frames for insertion into moulds made in moulding boxes of an integral area exceeding 0,7 m² but not exceeding 1 m² when the mould was in contact with the pattern plate.

RATE B

1. Corelaying (n.e.s.) — laying of cores into moulds made in moulding boxes of an internal area not exceeding 1 m² when the mould was in contact with the pattern plate.
2. Coremaking by hand/machine where the cores are cured in the box and/or loose frames for insertion into moulds made in moulding boxes of an internal area not exceeding 0,7 m² when the mould was in contact with the pattern plate.
3. Supervising of melting and/or smelting operations (other than in steel works).
4. Welding defective castings (n.e.s.).

For the purposes of the above, a defective casting is a casting which becomes defective through the process of moulding and/or casting and/or fettling.

RATE C

1. Supervising operations of die-casting and/or spin-casting machines where sand is excluded.

RATE D

1. Application of refractory coatings to cores and/or moulds by dipping and/or spraying only.
2. Arc and/or gas cutting by hand (n.e.s.).
3. Filling of visible blow holes only by means of welding and where no preparation is necessary prior to welding.
4. Joining of cores.
5. Rubbing-off of machine-made hardened core fins, including patching and inspection.
6. Supervising annealing heat treatment furnace.
7. Supervising cupola attendants.

RATE DDD

1. Making of exothermic sleeves and/or feeding pads.
2. Making of runner cups (n.e.s.).

RATE E

1. Bending and/or shaping of core irons other than moulding of core irons.
2. Operating carbon electrode arc air machine for fettling.
3. Attending sand plant, under supervision.

RATE G

1. Affixing slings (employees exclusively so employed) under the direct supervision of a Rate A, A I, AA or AB employee.
2. Cupola patching, i.e. repairing of the inner lining of cupolas in the area between the base and the top of the melting zone.
3. Fettling and/or dressing operations by hand and/or machine.
4. Making of runner and/or riser loose collar cups by special-purpose machine, excluding core-making machines and excluding the placing of the cup on the mould.
5. Operating cupola automatic and/or semi-automatic hoist.
6. Operating pressure die-casting machine and/or spincasting machine, excluding setting up.
7. Polishing and/or buffing.
8. Pouring and/or casting:
 - (a) Hand shank pouring and/or casting under supervision, where metal contents of the ladle do not exceed 1 00 kilograms;
 - (b) pouring and/or casting from ladles strung from fixed overhead rails under supervision, excluding cranes;
 - (c) pouring and/or casting of metal into permanent metal mould, including coating of the metal mould where no sand is used and there are no sand inclusions.
9. Removal of fins from machine-made hardened cores only by hand rubbing and/or the use of abrasives and/or files, excluding patching.
10. Repetition arc and/or gas cutting-off of runners, and/or risers (for castings which are produced on a quantity production basis).
11. Repetition inserting of metal cores into metal moulds, using fixed locating devices.
12. Sand and/or shot and/or hydro blasting.

RATE H

1. Closing of moulding boxes fitted with self-locating pins under supervision (moulds made by a Rate AI, AA or Rate AB employee).
2. Placing of down-gates and/or risers where definite locating devices are employed and so constructed as to ensure that down-gates and/or risers are selfsupporting.
Locating devices protruding above the pattern plate shall be not less than 50 mm in height and not less than 25 mm in depth when the device is below the level of the pattern plate.
3. Placing of loose pieces and/or chills and/or screws and/or cores on the pattern where definite locating devices are employed for the positioning of same prior to the sand being added to the box, under supervision, excluding tucking.
4. Tightening of clamps, including the use of spacing wedges under direct supervision of the Rate A employee who made the job or a Rate A employee appointed to core up and/or to close the mould.
5. Tightening of purpose-made clamps under supervision, excluding the use of spacing wedges (moulds made by a Rate AI, AA or AB employee).
6. Torch drying of moulds and/or cores under direct instruction of a Rate A, AI, AA or Rate AB employee.
7. General labourer's work, including the following:
Assembling of special-purpose moulding boxes under supervision;
knockout operation;

stacking (but excluding cleaning, dressing and fin removal and patching) and/or transporting and/or carrying away of cores other than by crane, under supervision;
 scraping off of moulding boxes, including the use of the straight edge;
 scrap cutting for re-melting purposes other than in workshop;
 and including the following operations in shell moulding and/or coremaking:
 Backing up.
 Closing of biscuits under supervision.
 Investing.
 Placing of plates in oven.
 Removing of plates from oven.
 Turning of dump boxes.

For the purposes of this Division—

- (a) **‘coremaking by machine’** includes one or more of the following operations in regard to a coremaking machine:
 Operating, attending, starting, stopping, stripping, unloading of core;
- (b) **‘dressing’** or **‘fettling’** means the stripping and removal of adherent runners and risers and adherent sand and cores, flash and other surplus metal from a casting and the production of a reasonably clean smooth surface, but does not include—
 - (i) the removal of metal from a casting when performed incidentally in connection with the machining or assembling of castings after they have been dressed or fettled; or
 - (ii) any operation which is a knock-out operation; and
- (c) **‘knock-out operations’** means all methods of removing castings from moulds and the following operations when done in connection therewith, namely stripping, removal of cores and the removal of runners and risers (n.e.s.).
- (d) **‘moulding’** or **‘coremaking’** as provided for in this Division at Rates A, Al, AA, AB or B shall include the application of any liquid parting agents;
- (e) **‘moulding by machine’** includes one or more of the following operations in regard to a moulding machine:
 Operating, attending, starting, compacting, vibrating, stripping, stopping;
- (f) **‘supervision’** means that the operation to be supervised must be performed in the vicinity of a Rate A, Al, AA and AB employee or chargehand or person specifically so appointed to exercise the supervision, so that the person who has to exercise the supervision is able to sight the operation in question.

DIVISION D/7

GATE AND FENCE MANUFACTURING DIVISION

The following operations in the manufacturing and/or fabricating of wrought iron and/or wire and/or tubular gates and/or frames and/or fencing and/or domestic and/or garden railings and/or burglar-proofing and/or prison bars and/or wire screenings and/or garden furniture and/or wash-line equipment and/or components and/or parts associated with the aforementioned articles:

WAGE RATES APPLICABLE TO OPERATIONS SCHEDULED IN DIVISION D/7 ARE PRESCRIBED IN CLAUSE 3(a) OF PART II OF THIS AGREEMENT

Section (a) – Manufacturing of fencing, railings, gates, burglar-proofing and wash-line components

RATE B

1. Supervisory work where so appointed, including attending and setting continuous tube welding plant (maximum of 76 mm diameter and 2 mm wall thickness).

RATE C

1. Operating continuous tube welding plant, including roll changing (maximum of 76 mm diameter and 2 mm wall thickness).

RATE D

1. Down-hand ferrous welding and assembly, in or outside of jigs, including marking out and setting up, of fencing and burglar-proofing components, posts, stays, gates, window guards, security gates and wash-line equipment.

RATE E

1. Cutting, bending, drilling, punching, threading, tapping and forming of fencing and burglar-proofing components, wash-line equipment, gate frames, scrolls, fencing posts and stays and the like.

RATE F

1. Chain link and/or diamond mesh machine operating (including machine running adjustments when necessitated by the manufacturing process).

RATE G

1. Automatic chain link and/or diamond mesh and/or barbed wire and/or crimping machine operating (including machine running adjustments when necessitated by the manufacturing process).

RATE H

1. Cleaning, painting, wiring and finishing-off of fencing, gates, burglar-proofing, wash-line equipment and components.
2. General labouring.

Section (b) — Miscellaneous manufacturing

Note: Subject to the preamble to this Division, excluding gates, fence, railing, burglar-proofing and wash-line manufacture.

RATE D

1. Galvanising (supervisory work).

RATE E

1. Repetition marking off material to given lengths for cutting purposes, using rule and/or tape measure and/or marking off material, under supervision of a Rate A to D employee.
2. Setting of stops on production cutting machines, using pre-cut bars and other materials and/or positively located holes and/or pre-marked bench and/or track.

RATE H

1. Bolting up of garden furniture and/or playground equipment.
2. Cutting off waste wire and/or locking and/or clinching (screening and/or diamond mesh).
3. Hot dip coating and/or galvanising under supervision.
4. Making screens to size already drawn up by a Rate B employee.
5. Operating crimping machine.
6. Operating straightening machine.
7. Operating wire butt welding machine.
8. Square and/or other mesh screen weaving on manual and/or treadle and/or power-operated machines.
9. Weaving square and/or other mesh screening by hand.

DIVISION D/8

INDUSTRIAL FASTENERS MANUFACTURING DIVISION

The following operations in the assembling and/or manufacturing of bolts and/ or nuts and/or screws and/or rivets and/or nails and/or gang nails and/or tacks and/or pins and/or cotters and/or studs and/or shackles and/or turnbuckles and/ or staples and/or rail track fasteners and/or rope clamps and/or parts and/or components of the aforementioned and/or any other fastener and/or related ancillaries:

**WAGE RATES APPLICABLE TO OPERATIONS SCHEDULED IN
DIVISION D/8 ARE PRESCRIBED IN CLAUSE 3(a) OF PART II OF
THIS AGREEMENT**

RATE A

The Rate A operations of Schedule G of this Agreement shall apply. (No person other than a journeyman or apprentice may be employed on work classified as Rate A without the prior permission of the Council.)

RATE AA

1. Dismantling and/or assembling and/or replacement and/or adjustment of parts or burners.
2. Dismantling and/or assembling and/or replacement of parts of die and/or roller heads.
3. Dismantling and erecting of single purpose woodscrewmaking machine and attachments, including complete setting up and changeover for new batch runs.
4. Departmental quality assurance supervisor (n.e.s.) including:
 - (a) Ensuring that quality control standards are being observed.
 - (b) Evaluation of product defects and/or faults.
 - (c) All other quality assurance functions and related activities.
 - (d) Supervising employees employed in quality control and scheduled below Rate AA (n.e.s.)
 - (e) Training of subordinates.
5. Heat treatment department supervisor (n.e.s.) who is responsible for the following, *inter alia*:
 - (a) Heat treatment and testing of products.
 - (b) Allocation of work.
 - (c) Furnace changeover.
 - (d) Temperature and belt speed adjustments.
 - (e) Sample selection and destructive testing as prescribed under the quality control procedures and/or by verbal instruction.
 - (f) Mechanical and/or metallurgical documentary control.
6. Replacing and/or changing of pin-type brick furnace frame assembly, excluding furnace bricklaying.
7. The diagnosis and/or fault analysis of production machines and/or products being produced, including the following:
 - (a) Production machine setting and assembling of composite tooling and/or dies required within the production section so allocated.
 - (b) Interpretation of production tool drawings.
 - (c) Interpretation of component drawings.
 - (d) Interpretation of engineering standards and the use of precision measuring instruments.
 - (e) Recording of data as prescribed under quality control procedures and/ or statistical process control.
 - (f) Supervision of employees employed as setters scheduled below Rate AA (n.e.s.).
8. 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 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.

RATE B

1. Stationary engine plant attendant responsible for compressors over 7,5 kW installed in process plant.
2. Quality assurance (n.e.s.) with the use of the required measuring instruments and testing equipment, including the following:
 - (a) Recording and reporting destructive test results.
 - (b) Interpretation of component drawings.
 - (c) Evaluating defects and faults on components.
 - (d) Work to rewritten and/or verbal measuring procedures.

- (e) Ensure that quality control procedures are being adhered to.
 - (f) Recording of data as prescribed under quality control procedures and/ or statistical process control.
 - (g) Supervision of employees within quality control department scheduled below Rate B (n.e.s.).
3. Wire drawing supervisory works (n. e. s.), including setting up and operation of wire drawing machines, including the use of precision measuring instruments.

RATE C

1. Setting up and/or adjusting on special purpose fastener manufacturing machines, including the following:
 - (a) Periodic checking and inspection with precision measuring instruments.
 - (b) Interpretation of component drawings.
 - (c) Interpretation of engineering standards and the use of precision measuring instruments.
 - (d) Fault analysis on products being manufactured.
 - (e) Recording of data as prescribed under quality control procedures and/or statistical process control.
 - (f) Supervision of employees scheduled below Rate C who form part of the team within the same section.
2. Inspection and/or testing, during the production process, of products and recording of results so prescribed under quality control procedures and/or statistical process control at the workplace.
3. Supervising employees on heat treatment work scheduled below Rate C, including the following:
 - (a) Selection of sample products for testing.
 - (b) Documentary control as prescribed under quality control.
 - (c) Checking furnace temperatures.
4. Supervising employees on galvanising work scheduled below Rate C, including the following:
 - (a) Selection of sample products for testing.
 - (b) Documentary control as prescribed under quality control.
 - (c) Checking tank temperatures.

RATE D

1. Repetition production welding in jigs and/or parts so formed and/or located as to obviate the need for a jig.
2. Destructive testing of products and/or raw material including the recording of test results.
3. Preparation of sample products required for testing by cutting and/or grinding and/or buffing and/or polishing and/or mounting.
4. Supervising employees on work scheduled at Rate D and below.
5. Repetitive drill and/or tap sharpening by machine (other than in tool rooms).
6. Operating power saw (n.e.s.) including marking off with rule and/or tape and including setting of stops.
7. Crane driving (n.e.s.) floor operated power cranes powered in all three directions and controlled by one man so employed.
8. 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 stockyard and/or fettling and/or service gantry and/or scrapyard areas.
9. 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 tool setting and/or adjustment).

RATE E

1. Operating and/or feeding the following machines:
 - (a) Nicking and/or profiling machines;
 - (b) forging and/or trimming and/or punching machines;
 - (c) upsetting machines, excluding changing the machine over from one component to a similar component and/or the complete setting up of the machine, but including the following:
 - (i) Affixing and/or removal of dies and/or tooling where there is a positive location.
 - (ii) Making compensating adjustments only on the employee's own type of machine.

- (iii) Carrying out periodic checks with the use of fixed gauges and adhering to the laid down quality procedures and recording of inspection and/or test results.
2. Repetition operating or attending of machines adapted for semi-automatic operations where the work cycle is power-driven and the end point is controlled by automatically operating stops, so that manual operations are limited to loading, unloading, setting the machine in motion, stopping and advancing or retracting the tools before and after the power driven cycle takes over (excluding setting up) (n.e.s.), including carrying out periodic checks with the use of fixed gauges and adhering to the laid down quality procedures and recording of inspection and/or test results. Where because of the nature of the operation, the tool may have a tendency to dig in at the final stop the operator may, without further setting of the machine, conclude the machining operation manually, this cut not to exceed 10 mm.
 3. Patrol inspection, including the following:
 - (a) Use of measuring instruments confined to fixed gauges, and/or testing equipment where the work is of a repetitive nature.
 - (b) Working to standard written measuring procedures.
 - (c) Recording of inspection and/or test results.
 4. Supervising employees employed on classes of work scheduled at Rate E and below.
 5. Heat treatment furnace operator (n.e.s.) including making the compensating adjustments on belt speeds, gas flows and/or selection of samples for destructive testing and/or recording of documentation as specified under the quality control procedures.
 6. Raw material stockyard attendant, including encoding of raw materials and the receiving and issuing of stocks.

RATE F

1. Operating and/or feeding the following machines:
 - (a) Bolt and/or nut washerfacing machines;
 - (b) rivet assembling machines;
 - (c) thread forming machines;
 - (d) screw cutting machines;
 - (e) slot cutting machines;
 - (f) combined drawing and cropping machines;
 - (g) bar cropping machines;
 - (h) box forming machines;
 - (i) wire drawing machines,

Excluding changing the machine over from one size of product to another size of product and/or the complete setting up of the machine, but including the following:

 - (i) Affixing and/or removing dies and/or tooling where there is a positive location.
 - (ii) Performing compensating adjustments only on the employee's own type of machine.
 - (iii) Periodic checking with the use of fixed gauges and recording results as laid down by quality control procedures.
2. Operating woodscrew worming machine, including removal and/or replacement of tools and including compensating adjustments where necessitated by the manufacturing process under instruction of a Rate AA to C employee.
3. Repetition operation of, or attending machine(s) designed 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 workpiece into the chuck or holding device of the machine, starting, operating and/or attending, stopping and unloading the machine(s).
4. 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).

'Semi-automatic machine' is a machine on which it is not necessary to centralise or true the work by hand and where the manual operations are limited to loading the workpiece into the chuck or holding device of the machine, setting the machine in motion, advancing or retracting tools before and after the power cycle takes over and stopping and unloading the machine.

5. Repetition production machining of fasteners on capstan lathes where the workpiece is held by devices not necessitating any centralising or trueing up but including loading the workpiece between centres. (This operation is limited to a machine not exceeding a 55 mm nominal bore diameter.)
6. Sharpening of woodscrew and/or nail and/or pointing and/or chaser form cutting tools, using a single-purpose jig-located machine.
7. Acid neutralising and/or recovery plant attendant.
8. Cutting of raw material samples for test analysis, from coils and/or bar by gas and/or hacksaw and/or hydraulic cutter.
9. Picking and/or stacking, including the following:
 - (a) Stacking and/or removal of finished goods packed in bags and/or boxes.
 - (b) Driving forklift trucks and/or stacker lift trucks.
 - (c) Checking and recording warehouse release slips for despatch.
10. Manual and/or automatic setting and/or gulleting and/or sharpening of slitting saws.
11. Assistant to compressor plant supervisor including lubricating, stopping and starting of compressors.
12. Crane driving of non-slewing jib cranes.

RATE G

1. Operating and/or feeding the following machines:
 - (a) Thread tapping machines;
 - (b) frazing and/or pointing machines, excluding changing the machine over from one size of component to another and/or the complete setting up of the machine, but including the following:
 - (i) Affixing and/or removing tooling where there is a positive location.
 - (ii) Making compensating adjustments only on the employee's own type of machine.
 - (iii) Carrying out periodic checks with the use of fixed gauges and adhering to the laid down quality procedures and recording of inspection and/or test results.
2. Operating and/or feeding the undermentioned fastener manufacturing machines (excluding setting up and/or running compensating adjustments):
 - (a) Bolt and/or nut and/or washer facing machines;
 - (b) combined drawing and cropping machines;
 - (c) forging and/or trimming and/or punching machines;
 - (d) nicking and/or profiling machines;
 - (e) slot cutting machines;
 - (f) rivet assembling machines;
 - (g) screw cutting machines;
 - (h) upsetting machines;
 - (i) wire drawing machines.

The above operation includes the following:

 - (i) The removal and replacement of dies and/or tools (excluding setting).
 - (ii) Periodic checking of components with the use of fixed gauges and adhering to the laid down quality procedures and recording of inspection and/or test results.
3. Operating draw bench under instruction of a Rate A to C employee, viz loading the rod, passing the rod through the die, gripping the rod, starting, stopping and unloading the machine.
4. Operating nail and/or tack and/or wire and/or staple making machines, including cutting off by wire cutters and random checking with fixed gauges.
5. Operating reducer rolling machine to pre-set rolls.
6. Operating wire forming and/or serrating machine.
7. Repetition cutting to stops on reciprocating and/or friction saws and/or band and/or power saws, excluding the setting of stops.

8. Operating projection and/or resistance and/or spot and/or arc spot welding machine.
9. Dressing and/or deburring by hand and/or grinding and/or by portable power tool.
10. Soldering and/or sweating by hand and/or machine and/or induction heating unit.
11. Operating box stapling machine.
12. Sand and/or shot and/or hydro and/or grit blasting.
13. Spraying of enamel and/or paint and/or epoxy powder.
14. Boiler stoking and/or attending.
15. Heat treatment furnace operator, including the recording of belt speeds and/ or furnace temperature, excluding any adjustments and/or setting.
16. Operating special purpose bagging crane operating in three directions limiting the control in two directions by pre-set stops.

RATE H

1. Assembly of pre-manufactured components from stock requiring no fitting or adjustment, but including deburring.
2. Attending hot dip coating and/or galvanising bath and/or plating by dipping and/or spraying and/or tumbling under supervision of Rate C employee.
3. Batch sorting, including the use of fixed gauges.
4. Bar and/or pin heating.
5. Butt welding by machine.
6. Hand riveting of fastener components.
7. Loading and/or unloading of components into and/or out of heat treatment furnace.
8. Loading and/or unloading of components into and/or out of centrifuges.
9. Loading hoppers of automatic machines.
10. Mass measuring, packing and preparing dispatch containers, including shrink-wrapping.
11. Putting nuts on bolts.
12. Removing and replacing dies and/or tools (excluding setting up) under instruction of a Rate C setter.
13. Repetition bending and/or forming to jigs and/or stops and/or templets.
14. Repetition cropping and/or cutting off by machine to stops and/or length gauges.
15. Repetition drilling and/or countersinking to jigs and/or fixtures and/or stops (excluding radial drilling machines).
16. Dipping in enamel and/or lacquer and/or paint and/or plastisol mixture.
17. Baling and/or cutting of scrap and/or attending scrap removal.
18. Operating steam cleaner and/or scarifying floor cleaning unit.
19. Lubricating and/or greasing.
20. Preparing and/or stamping and/or affixing product labels and/or name plates.
21. Cleaning and/or degreasing and/or acid dipping and/or rinsing operations.
22. Operating tumbling barrels.
23. General labouring.
24. Watchman's work.

VEHICLE AND FORKLIFT DRIVING

RATE C

1. Driving of a load-carrying or hauling vehicle which requires a Code 13 or 14 heavy articulated motor vehicle licence to be held by the driver.

RATE DD

1. Driving of a load-carrying or hauling vehicle which requires a Code 11 extra heavy motor vehicle licence or a code 10 heavy motor vehicle licence to be held by the driver.

RATE E

1. Driving of a load-carrying or hauling vehicle which requires a Code 08 light motor vehicle licence to be held by the driver.

RATE F

1. Forklift driving of power-operated forklift controlled from on board by the operator.

DIVISION D/9

LEAD PRODUCTS MANUFACTURING DIVISION

The following operations in the manufacture of lead products:

**WAGE RATES APPLICABLE TO OPERATIONS SCHEDULED IN DIVISION D/9 ARE PRESCRIBED IN
CLAUSE 3(a) OF PART II OF THIS AGREEMENT**

RATE C

1. Operating power-driven mill rolling sheet lead from slabs, including the setting of edge trimming rolls, using tape and/or rule only.

RATE DD

1. Operating multi-die wire drawing machine, including removal and replacement of self-locating attachments, adjusting predetermined spool speed control and joining and feeding-through of wire.

RATE E

1. Operating trap extrusion press.

RATE F

1. Hand wiping of lead joints in the manufacture of standard lines rotated by machine.
2. Lead lining of vessels (excluding lead-burning).
3. Operating pressure die-casting machine.
4. Repetition fusing, other than by soldering bolt, of components in fixtures in the manufacture of lead products.
5. 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).

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 before and after the power cycle takes over (but excluding all other manual machining) and stopping and unloading the machine.

6. Operating bull block type wire drawing machine, including removal and replacement of attachments under supervision.

RATE G

1. Assembly of pre-manufactured components from stock requiring no fitting or adjustment, but including deburring.
2. Cutting of scrap.
3. Hand and/or power pressing (excluding setting up of dies).
4. Jig drilling of lead products.
5. Metal buffing and/or polishing.
6. Operating extrusion press to pre-set dies (excluding setting up of dies).
7. Permanent mould casting, wherein sand is entirely excluded.
8. Rectification of surface defects with lead filling, using gas torch.
9. Repetition lead soldering by soldering bolt and/or assembling components in the manufacture of lead products.
10. Trimming and/or cutting to stops and/or fixtures (excluding setting of stops) by power saws and/or hand shears.

DIVISION D/10

MANUFACTURE OF CARBON PRODUCTS DIVISION

The following operations in the manufacture of carbon products:

**WAGE RATES APPLICABLE TO OPERATIONS SCHEDULED IN
DIVISION D/10 ARE PRESCRIBED IN CLAUSE 3(a) OF PART II OF
THIS AGREEMENT**

RATE DDD

1. Carbon grinding by machine to stops, including adjustments to compensate for wear and including the use of fixed gauges.

RATE E

1. Repetition operating milling machine on carbon products to stops and/or fixtures.
2. Repetition carbon cutting by bandsaw and/or power saw and/or abrasive disc, using rule and/or tape and/or fixed gauges.

RATE F

1. Repetition drilling and/or countersinking to jigs and/or fixtures and/or stops, including compensating adjustments for wear on drills.
2. Repetition production machining of carbon products on capstan lathes to stops where the work piece is held by devices not necessitating any centralising or trueing, excluding setting up. (This operation is limited to a machine not exceeding a 52 mm bore diameter.)

RATE G

1. Production broaching of carbon products on hand and/or automatic machines, where manual operations are limited to setting the machine in motion, stopping, loading and unloading the machine (excluding setting up).
2. Repetition batch checking and/or inspecting, using fixed gauges.
3. Repetition operation of or attending 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 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).
4. Shaping of carbon on special-purpose tool.
5. Spinning of rivets.
6. Tamping by hand and/or machine.
7. Winding brush pressure springs by hand on a manual machine to length gauges.
8. Winding of insulation spirals by hand on a manual machine to length gauges.

RATE H

1. Assembly of pre-manufactured components from stock requiring no fitting or adjustment, but including deburring.
2. Cutting and/or cropping flexible connections by manual guillotine, including use of length gauges.
3. Dressing and/or deburring by hand and/or by grinding and/or by portable power tool.
4. Fixing flexible insulation and/or springs and/or terminal ends and/or connectors.
5. Metal coating of brushes.
6. Packing of manufactured products for sale and dispatch.
7. Sweating of terminals by dipping.
8. Trade symbol and grade marking.

DIVISION D/11

ELECTRICAL ELEMENT MANUFACTURE DIVISION

The following operations in the manufacture of electrical elements:

**WAGE RATES APPLICABLE TO OPERATIONS SCHEDULED IN
DIVISION D/11 ARE PRESCRIBED IN CLAUSE 3(a) OF PART II OF THIS AGREEMENT**

RATE C

1. Setting tube swaging and/or rolling machines.
2. Setting up of presses for elements.

RATE DDD

1. Routine electrical continuity testing up to 380 volts and 50 amps.
2. Soldering and/or sweating by hand (n.e.s.).

RATE F

1. Repetition drilling to dimples.
2. Repetition production machining on capstan lathes of bar not exceeding 52 mm nominal bore diameter where the work is held by devices not necessitating any centralising or trueing, 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.
3. Repetition voltage, insulation and/or ohm and/or wattage testing to pre-set values.
4. Hard soldering by pre-set or non-adjustable hand torch.

RATE G

1. Assembling and/or wiring resistance onto or into insulated bases.
2. 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 setting of the dies.
3. Repetition drilling and/or counter-sinking to jigs and/or fixtures and/or stops.
4. Repetition gas welding and/or brazing and/or soldering by machine to pre-set settings, including use of filler rods (loading, starting and unloading the machine and visual weld examination).
5. Setting of safety devices to predetermined limits.
6. Soft soldering.
7. Winding resistances direct onto predesigned spaced ceramic and/or porcelain and/or mandrel.

RATE H

1. Assembling of pre-manufactured components from stock requiring no fitting or adjustment, but including deburring.
2. Filling and/or topping of insulating material into and/or onto preformed housing by gauge.
3. Metal buffing and/or polishing and/or dressing by hand and/or grinding and/or by portable power tool.
4. Mixing of ceramic constituents to gauge under instruction of a Rate A to D employee.
5. Repetition cutting and/or cropping and/or shearing to stops and/or length gauges, excluding setting up.
6. Repetition machine swaging and/or rolling of tubes, using dies and/or rolls (other than by power hammer).
7. Repetition operation of and/or attending machines designed or permanently adapted for one only 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, operating, stopping and unloading the machine (excluding machine tool setting up and/or toolsetting and/or adjusting).
8. Repetition threading and/or tapping by machine.
9. Stamping and/or affixing identification plates and labels.
10. Straightening and/or cleaning of tubes.
11. Loading and/or attending heat treatment furnace.
12. Packing.

DIVISION D/12

**WINDOWS AND/OR DOORS AND/OR FLYSCREENS AND/OR LOUVRES AND/OR BURGLAR BARS
MANUFACTURING DIVISION**

Scope: The word 'doors' in the above heading is restricted to doors made from standard rolled and/or roll-formed metal sections and/or extruded sections.

The Division is also intended to cover window walling and/or curtain walling made mainly of rolled and/or roll-formed metal or extruded sections.

**WAGE RATES APPLICABLE TO OPERATIONS SCHEDULED IN
DIVISION D/12 ARE PRESCRIBED IN CLAUSE 3(a) OF PART II OF THIS AGREEMENT**

RATE AA

1. Inspecting and/or supervising (n.e.s.).
2. Setting out and/or marking off (n.e.s.).

RATE B

1. Assembling universal windows and assembling doors.
2. Final straightening and/or adjusting by use of hammer and/or dolly and/or wrench bar.
3. Repairing and/or altering and/or adjusting and/or erecting on site or built in (n.e.s.).

RATE C

1. Arc welding (n.e.s.).
2. Operating router.

RATE D

1. Assembling (n.e.s.).
2. Assembling finished component parts into complete flyscreens, including inserting gauze by hand.
3. Coupling completed windows and/or bays (n.e.s.), including setting out and/or marking off when necessary.
4. Drilling and/or countersinking (n.e.s.).
5. Erection of burglar proofing in the field or on site.
6. Fitting of glazing beads and all operations incidental thereto, including marking for mitreing and pop marking prior to drilling.
7. Marking off material to given lengths for cutting-off purposes, using only length gauges and/or rule and/or tape measure and marking material.
8. Operating automatic and/or semi-automatic welding machine (n.e.s.).
9. Operating cold and/or power saw including marking off with tape and/or rule only and including setting of stops.
10. Operating power driven press-brake (excluding setting).
11. Press operating (n.e.s.), including the affixing and/or removal of dies where there is positive location (excluding setting).
12. Recessing for cup pivots by hand.
13. Removing and/or inserting of glazing bars in completed windows, including riveting by hand.
14. Setting and/or adjusting of margins of vents and/or sashes of cottage windows and/or cliscoe surrounds prior to arc welding.
15. Squaring frames and/or vents and/or sashes before positioning.

RATE E

1. Inserting pre-cut glazing beads, including pop marking and drilling.
2. Metal spraying for decorative and/or protective purposes under effective supervision.
3. Recessing for cup pivots by machine.

RATE F

1. Operating automatic and/or semi-automatic welding machines (n.e.s.); welding of standard metal window and/or sash sections only.

RATE G

1. Affixing burglar bars by hand, including pop marking using component as a and/or positioning and/or drilling under effective supervision, excluding arc welding.
2. Affixing and/or positioning of ventilators into industrial windows and/or windows into surrounds and/or screwing and/or riveting, including clamping and/or positioning under effective supervision, excluding arc welding.
3. Coupling of standard windows previously prepared.
4. Cutting gauze by hand to and/or frames.
5. Inserting gauze by press.

6. Inserting glass into frame bar by machine.
7. Joining corners of aluminium windows and/or doors where no adjustment is required.
8. Manually operating machines, other than power-driven, designed for or permanently adapted for one only operation where the operator is not called upon to centralise or true the work by hand.
9. Operating power-driven press-brake to jigs and/or length gauges and/or stops and/or templets for the sole purpose of gang-punching and when the stroke of the press is uncontrolled (excluding setting up).
10. Operating tenon riveting machine.
11. Positioning and puttying of kicking plates to cottage windows.
12. Recessing for cup pivots by automatic machine where manual operations are limited to loading, setting the machine in motion, stopping and unloading the machine (excluding setting up).
13. Repetition drilling and/or countersinking to jigs and/or fixtures and/or stops on pedestal drill only.
14. Repetition hand drilling under effective supervision.
15. Roll forming of metal sections.
16. Screwing on and/or riveting and/or clipping of assembled louvre stiles into metal frames.
17. Springing in only, under effective supervision, of glazing bars and/or meeting rails, excluding fitting and/or adjusting and excluding universal windows.

RATE H

1. Attaching fittings to windows already prepared and/or removing and/or replacing fittings on sites or built in, under effective supervision, but excluding remote control gearing.
2. Cutting gauze to jigs and/or stops by machine.
3. Hot dip coating and/or galvanising under effective supervision.
4. Repetition cutting through of faulty mitre joints after welding.
5. Bending of wires and/or forming same to jigs and/or stops and/or fixtures in fly screen manufacture.
6. Inserting weather strips.
7. Labelling.
8. Lifting and placing of stops into position where positive location is provided (excluding setting).
9. Pinning up and/or crimping of hinge pins to cottage and industrial windows under effective supervision, excluding lining up of hinge leaves.
10. Puttying and/or wood and/or other filling of frames and/or surrounds previously prepared.
11. Removing rust and/or scale by wire wheels and/or abrasives and/or sand and/or shot blasting.
12. Screwing on of burglar bars and/or weather bars.
13. Sorting of scrap material.
14. Stretching and/or rough straightening of bars by hand and/or by machine.
15. Threading and/or closing of fenestra joints, excluding universal windows.

Learnership periods and rates of pay therefor

RATE B

Newcomers:

First two months	Refer to table of wage rates
Second two months	Rate D
Third two months	Rate C
Thereafter	Rate B

Employees promoted from Rate C:

First two months	Rate C
Thereafter	Rate B

Employees promoted from Rate D:

First two months	Rate D
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Second two months	Rate C
Thereafter	Rate B

RATE C

Newcomers:

First two months	Refer to table of wage rates
Second two months	Rate D
Thereafter	Rate C

Employees promoted from Rate D:

First two months	Rate D
Thereafter	Rate C

RATE D

Newcomers:

First two months	Refer to table of wage rates
Thereafter	Rate D

Provided that—

- (a) learnership periods and rates of pay as set out above shall apply on condition that where an employee has had not less than two years' continuous service with the same employer, he shall not be required to serve any learnership period of more than three months;
- (b) any employee employed at and qualified for a stated rate shall suffer no reduction in the rate he is receiving on promotion as a learner when the rate indicated in the foregoing table for the new occupation is lower than the rate he is receiving at the time.

DIVISION D/13

NEON SIGNS AND/OR ELECTRIC AND/OR FLUORESCENT LAMP MANUFACTURING AND ASSEMBLING DIVISION

The following operations in the assembling and/or manufacturing of neon signs and/or fluorescent lamps and/or fittings and/or components and/or hot and/or cold cathode fluorescent signs:

WAGE RATES APPLICABLE TO OPERATIONS SCHEDULED IN DIVISION D/13 ARE PRESCRIBED IN CLAUSE 3(a) OF PART II OF THIS AGREEMENT

RATE A

- 1. Assembling and/or wiring of signs (n.e.s.).

RATE AA

- 1. Bending glass tubes.
- 2. Layout work.

Learnership in respect of the above AA operations:

First eight months of experience	Rate D
Second eight months of experience	Rate C
Third eight months of experience.....	Rate B
Thereafter	Rate AA

RATE C

- 1. Operating power-driven press-brake, including setting (n.e.s.).
- 2. Roller bending and/or forming, other than repetition roller bending and/or forming.
- 3. Setting of dies and/or fixtures and/or jigs and/or stops and/or trips on production machines, excluding rotary and/or reciprocating machines, but including drilling machines.

4. Setting and gas setting of electric lamp making machines, including running adjustments during the manufacturing process.
5. Setting of trips and/or stops on coil forming machines for ballasts and/or chokes and/or sodium transformers.

RATE D

1. Assembling (n.e.s.).
2. Bending of metal tubes and/or sections in manually operated machine to sketch.
3. Marking off material to given lengths for cutting-off purposes, using only length gauges and/or rule and/or tape measure and marking material.
4. Welding in fixtures and/or of parts so formed and/or located as to obviate the need for a fixture.

RATE DD

1. Bending of glass tubes to jigs and/or moulds.
2. Sign face masking.
3. Tracing in the layout department.

RATE DDD

1. Routine electrical testing up to 380 volts and 50 amps.

RATE G

1. All operations in the making of cable forms for light fittings and/or signs from prepared running out lists and/or templets.
2. Assembling and/or soldering of premanufactured components into lighting units and/or signs (n.e.s.).
3. Assembling and/or soldering of premanufactured components requiring no fitting or adjustment but including deburring (n.e.s.).
4. Assembly of caps to globes/tubes and feeding onto automatic capping machine.
5. Attending automatic assembly machines.
6. Bending and/or forming by machine to dies and/or jigs and/or length gauges and/or marks and/or stops, excluding press-brake.
7. Broaching, by press, using fixed broaches, of ballasts and/or chokes and/or sodium transformer cores.
8. Circular cutting and/or flanging and/or slitting by machine.
9. Component assembly of electric filament and discharge lamps by hand.
10. Connecting preformed and/or sealed and/or prepared wires to predetermined points and/or connections (n.e.s.).
11. Cutting and/or cropping and/or shearing to marks and/or stops and/or jigs and/or length gauges.
12. Cutting glass tubes to length.
13. Cutting up insulating material to stops.
14. Evacuating and/or filling glass tubes.
15. Feeding and/or attending automatic sealing and/or capping machine.
16. Finding and preparing of ballast coil ends.
17. 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 and/or to stops (excluding setting up).
18. Fusing by hand of electrodes to glass tubes (n.e.s.).
19. Inspection and testing of electric lamps (n.e.s.).
20. Repetition clamping and/or fusing and/or welding of cathodes to electrodes by automatic machine.
21. Repetition fluorescent and/or illumination testing.
22. Repetition ohm testing to pre-set setting on ohmmeters.
23. Repetition operation of a drilling machine.
24. Repetition operation of power-driven press-brake to jigs and/or stops for purpose of fluorescent lighting fittings and/or fluorescent signs produced on a quantity basis where the thickness of the material does not exceed 1,6 mm.
25. Repetition production winding of ballasts and/or chokes and/or sodium transformer coils with wire on formers

and/or spools by machine to a predetermined numbers of turns.

26. Repetition punching to gauges and/or jigs and/or stops and/or templets and/or dies and/or marks.
27. Repetition threading and/or tapping by machine.
28. Repetition tracing to jigs and/or layouts and/or templets, excluding layout department.
29. Routine setting of air gaps in ballasts to predetermined limits by means of comparators and/or deviation meters and/or oscilloscopes where the adjustments of instruments are made by a Rate A employee.
30. Sealing by hand of ballast containers after filling with compound.
31. Stencilling by hand.
32. Soft soldering and/or sweating by hand.
33. Visual inspection of electric lamps including resoldering of cap connections and removal of flash.
34. Wiring of signs and/or fittings to instructions and where the course of wires is marked by cleats and/or lines and/or saddles and/or fixtures and/or where no wiring diagram is used during manufacture.

RATE H

1. Assembling connector blocks.
2. Cutting wiring connection to set lengths and fitting eyelets.
3. Dipping and/or impregnating in insulating medium and/or enamel and/or paint and/or varnish.
4. Dismantling of old signs (in shop).
5. Fixing ballasts to wiring channels.
6. Mixing and milling of phosphor for coating glass tubes under instruction of a Rate A to D employee.
7. Mixing and milling paste for caps.
8. Packing of manufactured articles for despatch or sale.
9. Preparing and/or stapling boxes for packing of manufactured articles.
10. Preparing and/or spraying of sign boxes for reception of sign faces.
11. Washing and/or rinsing and/or drying and/or coating and/or baking of glass tubes by automatic or semi-automatic processes.

DIVISION/14

CONVERSION OF PLASTIC POLYMER, INCLUDING THE MANUFACTURE OF ARTICLES OR PARTS OF ARTICLES WHOLLY OR MAINLY MADE OF PLASTIC, INCLUDING THE IN-HOUSE PRINTING OF SUCH ARTICLES BY THE MANUFACTURER.

The conversion of thermoplastic and/or thermosetting polymers, including the compounding or recycling thereof, or the manufacture of articles or parts of articles wholly or mainly made of such polymers into rigid, semi-rigid or flexible form, whether blown, moulded, extruded, cast, injected formed, calendered, coated, compression moulded or rotational moulded including in-house printing on such plastics by the manufacturers, and all operations incidental to these activities.

WAGE RATES APPLICABLE TO OPERATIONS SCHEDULED IN DIVISION D/14 ARE PRESCRIBED IN SECTION 3(a) OF PART II OF THIS AGREEMENT.

The following operations, viz.:

RATE A

The Rate A operations of Schedule G of this Agreement shall apply.

RATE B

1. Sectional supervisor of lower rated employees.

RATE C

1. Setting up of machinery and/or equipment.

RATE DD

1. Scaling clerk

RATE E

1. Receiving, locating, preparing and issuing materials, tools and/or stock from requisition lists, in tool and/or stock and/or material stores directly linked to the shopfloor and/or production processes, including:
 - Selection of stock;
 - Checking and recording of stock; and
 - Operation of materials handling equipment.
2. Materials handler and mixer (works under supervision.) Identifies and mixes material according to specified formulae. Granulates scrap material. Carries out colour changes. Assists with material stock counts. Utilises materials handling equipment.
3. Palletiser (works under supervision.) Operates materials handling equipment to move finished product from production machines. Checks carton quantities and seals cartons. Stacks cartons on pallets. Operates stretch-film wrapping machinery. Checks stock.

RATE F

1. Embossing machine operator (works under supervision.) Makes running adjustments. Performs minor maintenance and lubrication. Carries out simple quality checks. Completes production documentation.
2. Forklift driving.
3. Flexographic/gravure printing.
4. Photopolymer plate mounting.
5. Printer's assistant.
6. Ink technician.
7. Quality control inspector.

RATE G

1. Baling machine operator. Works under supervision, operates one machine and makes running adjustments. Carries out simple quality checks. Completes production documentation.
2. Carton maker (works under supervision) including visual checks on carton quality.
3. Chemical compounding of plastic materials and the application of such compounds.
4. Laminating by hand in reinforced plastics manufacture and gel coating.
5. Mass measuring and issuing of scrap and/or raw materials, including pigments, to pre-determined quantities.
6. Operating closure-lining machine.
7. Operating compounding and/or sheeting and/or rolling mill.
8. Operating eyeletting machine.
9. Operating laminating machine.
10. Production machine operator. Operates plastic production machine including, machine running adjustments when necessitated by the manufacturing process, visual checking, assisting with mould changes and documentation.
11. Operating scrap grinding machine.
12. Removing and/or replacing dies and/or moulds and/or tools under instruction of a Rate C setter.
13. Repetition batch checking of plastic parts and/or components.
14. Repetition cutting by machine and/or machining of plastic materials (including reinforced fibres.)
15. Repetition marking and/or tracing to templates.
16. Seaming and/or jointing by hand and/or by machine.
17. 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. Marking of trademarks and/or symbols.
3. Operating coating head and/or glue spraying machine.
4. Operating fibreglass spray-up machine.
5. Operating guillotine, band saw and/or slitting machine (excluding setting up.)
6. Operating mixing and/or blending machine.
7. Operating power press.
8. Operating title-blanking press.
9. Packer. Works under supervision. Does visual check on product. Packs product in specified quantities or by weight. Trims product if necessary.
10. Repetition drilling and/or tapping and/or thread clearing.
11. Assembling components and/or affixing with rivets and/or screws.
12. Cementing.
13. Cleaning by hand including removal of flash.

14. Coating by brush and/or by dipping and/or by spraying.
15. Colour filling embossed or impressed mouldings.
16. Inserting linings in enclosures.
17. Operating dryer.
18. Operating hand press.
19. Operating pelleting machine.
20. Operating tumbling barrel.
21. Vehicle driver assistant.
22. Cleaner.
23. Chipper and/or recycling sorter.

NOTE:

- (i) Supervisors to be graded at least one level above the highest job grade which they supervise.
- (ii) The Schedule G vehicle driving grades apply to drivers falling under this Division.
- (iii) All managerial positions shall fall outside this technical schedule (eg. Shift foremen, shift managers etc.)
- (iv) A committee comprising employer and trade union representatives from the plastics sector has been appointed to:
 - (a) Consider any interpretational issues or disputes arising from this technical schedule;
 - (b) Make recommendations to the Metal and Engineering Industries Bargaining Council (MEIBC) on any exemptions received from plastics industry companies; and
 - (c) Determine any demarcation issues which may arise between the MEIBC and the National Bargaining Council for the Chemical Industry.”
(new D/14 inserted by GN. R.1128 of 17 November 2000)

DIVISION D/15**SPRING MANUFACTURING DIVISION**

**WAGE RATES APPLICABLE TO OPERATIONS SCHEDULED IN
DIVISION D/15 ARE PRESCRIBED IN CLAUSE 3(a) OF PART II OF THIS AGREEMENT**

The following operations in the manufacture of springs:

***RATE AI**

1. Forging under the hammer, other than tapering and spear-pointing and/or scarfing and/or bending and/or joggling with dies.

***Note:** Wage rates applicable to Rate AI to be the same as Rate A.

RATE AA

1. Supervisory work.

RATE C

1. Spring making (n.e.s.):

Learnership:

First six months of experience Rate D

Thereafter Rate C

RATE D

1. Operating and/or attending buckle facing machine.
2. Repetition bending and/or joggling and/or scarfing and/or spear-pointing and/or tapering, using spring and/or pneumatic hammers with dies.
2. Repetition coiling and/or opening and/or eye rolling to jigs and/or dies and/or stops, including running compensating adjustments only on the employee's own type of machine, including the use of preset fixed gauges, excluding setting up.

RATE G

1. Assembling of pre-manufactured components from stock requiring no fitting or adjustment but including deburring.

2. Assisting in removing and replacing dies and/or tools (excluding setting up) under effective supervision.
3. Attending fully-automatic machine, including random checking with fixed gauges.
For the purposes of the above, 'fully-automatic machine' is a bar-fed or coil-fed machine or a machine fitted with an automatic chucking device (i.e. magazine and/or table and/or mechanical arm fed) the manual operations of which are limited to setting the machine in motion and stopping and feeding a new bar or coil into the machine or loading the magazine, as the case may be.
4. Operating rod and/or wire straightening and/or cutting machine, including the use of rule and/or tape and the setting of stops for cutting to length (n.e.s.).
5. Operating slitting machine under effective supervision, excluding setting up.
6. Operating spring end grinding machine.
7. Repetition bending to dies and/or jigs and/or length gauges and/or stops and/or templets using gas torch.
8. Repetition coiling and/or opening and/or eye rolling to jigs and/or dies and/or stops.
9. Repetition cutting and/or cropping and/or shearing to and/or marks and/or stops and/or templets length gauges.
10. Repetition drilling and/or countersinking to marks and/or fixtures and/or pops and/or templets and/or jigs (other than radial drilling).
11. Repetition looping and/or opening and/or trimming by manually operated machines or tools to jigs and/or fixtures and/or dies.
12. Repetition marking to jigs and/or templets.
13. Repetition operation of or attending 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 manual operations are limited to loading the workpiece into the holding device of the machine, starting, operating and/or attending, stopping and unloading the machine (excluding setting up).
14. Repetition operation of pre-set reducing rolls.
15. Repetition tapering of hot springs using rolls.
16. Routine checking and/or testing to pre-set fixed gauges.

RATE H

1. Repetition operation of and/or attending scragging machines.
2. Repetition operation of automatic straightening machine.
3. Reshaping and/or resetting of springs damaged or distorted in production.
4. Shot peening by machine.
5. Striking by hand hammer under effective supervision.
6. All packaging operations, including and incidental to addressing, labelling and marking for transport.

DIVISION D/16

STEEL REINFORCEMENT DIVISION

**WAGE RATES APPLICABLE TO OPERATIONS SCHEDULED IN DIVISION D/16 ARE PRESCRIBED IN
CLAUSE 3(a) OF PART II OF THIS MANUAL**

RATE AA

1. Fixing-supervisory work (n.e.s.):

First six months of experience.....	Rate D
Second six months of experience	Rate C
Thereafter	Rate AA:

Provided that no employer shall employ any person at a rate of pay less than Rate AA per hour in the occupation set out above without obtaining the prior consent of the Council, which shall prescribe the conditions under which permission for such employment is granted.

RATE B

- 1. Cutting and/or bending – supervisory work (n.e.s.):
 - First six months of experience..... Rate D
 - Second six months of experience Rate C
 - Thereafter Rate B:

Provided that no employer shall employ any person at a rate of pay less than Rate B per hour in the occupation set out above without obtaining the prior consent of the Council, which shall prescribe the conditions under which permission for such employment is granted.

RATE DDD

- 1. Bending (n.e.s.) to schedules (including marking and/or setting of stops) of bars exceeding 12 mm in diameter under supervision of a Rate B employee.
- 2. Supervising employees employed on classes of work scheduled at Rate E and below.

RATE E

- 1. Bending (n.e.s.) to schedules (including marking and/or setting of stops) of bars not exceeding 12 mm diameter, under supervision of a Rate B employee.
- 2. Cutting (n.e.s.) to schedules and/or lists (including marking and/or setting of stops) under supervision of a Rate B employee.
- 3. Tack welding for assembly (excluding structural welds).

RATE G

- 1. Feeding of tendon wires in prestressed and/or post-tensioned operations and elementary tying (with wire) under direct supervision of Rate DDD employees so designated and under the overall supervision of a Rate AA employee.
- 2. Operating bending and/or spiralling machines for reinforcement (manual or power operated) under the supervision of a Rate DDD employee of bars not exceeding 12 mm diameter.
- 3. Operating spot and/or butt welding machines for reinforcement.
- 4. Straightening of wire and/or rod by machine.
- 5. Assembly and/or elementary tying (with wire) of reinforcing steel on site and/or at works under direct supervision of Rate DDD employees so designated and under the overall supervision of a Rate AA employee.

DIVISION D/17

TUNGSTEN CARBIDE TIPPED DRILLING EQUIPMENT MANUFACTURING DIVISION

**WAGE RATES APPLICABLE TO OPERATIONS SCHEDULED IN
DIVISION D/17 ARE PRESCRIBED IN CLAUSE 3(a)
OF PART II OF THIS AGREEMENT**

The following operations in the manufacture of tungsten carbide tipped drilling equipment:

RATE AA (n.e.s.)

- 1. General supervisory work, including setting up of production machines (at least one supervisor must be employed in each establishment and be in charge of operations on each shift).
- 2. Machine tool grinding for production machines.

RATE B

- 1. Heat treatment — supervisory work.

RATE C

- 1. Supervising forging operations, including setting up (at least one supervisor to be employed in each establishment on each shift) (n.e.s.):
 - First six months of experience..... Rate D
 - Thereafter Rate C

RATE D

1. Metal drill sharpening by machine.
2. Machining 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 the use of fixed gauges) (n.e.s.).

RATE F

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).
 *‘Semi-automatic machine’ is a machine on which 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, setting the machine in motion, advancing or retracting tools before and after the power cycle takes over and stopping and unloading the machine.
2. Repetition production machining of bar on capstan lathes to stops where the work piece is held by devices not necessitating any centralising or trueing, (excluding setting up). (This operation is limited to a machine not exceeding a 52 mm nominal bore diameter.)

RATE G

1. Bonding of tip to shank by pre-set static heating unit.
2. Operating butt and/or spot welding machine.
3. Operating forging machine.
4. Operating machine set up for and performing one operation (excluding setting up).
5. Repetition grinding off of excess brazing from drill points to fixed gauges.
6. Removing and/or replacing forging dies, excluding setting up, under the instruction of a Rate A to C employee.
7. Repetition drilling of the flush or water hole on angle, horizontal or pedestal machines.
8. Repetition drilling and/or countersinking and/or reaming by non-adjustable reamers to fixtures and/or jigs and/or templets.

RATE H

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 (i.e. magazine and/or table and/or mechanical arm fed) and where the manual operations are limited to setting the machine in motion and stopping and feeding a new bar into the machine or loading the magazine, as the case may be.
2. Dressing and/or deburring by hand and/or by grinding and/or by portable power tool.
3. Operating power saw for repetitive cutting off to stops and/or length gauges (excluding setting of stops), other than tool room.
4. Repetition threading and/or tapping by machine.
5. Application of anti-corrosive and/or protective coatings.
6. Heat treatment under instruction of a Rate B employee.
7. Loading and/or unloading of furnaces.
8. Marking trade symbols.
9. Metal buffing and/or polishing and/or cleaning.
10. Operating hand portable and/or pedestal grinding machine where the operator is not required to grind to marks and/or and/or gauges and/or sizes.
11. Operating sand and/or shot blasting machine.
12. Repetition inserting of tips into head, prior to bonding.
13. Repetition rough straightening by machine or by hand and/or rough checking.
14. Spray and/or dip painting.

DIVISION D/18

WIRE DRAWING AND/OR WORKING AND/OR WEAVING AND/OR FORMING MANUFACTURING DIVISION

WAGE RATES APPLICABLE TO OPERATIONS SCHEDULED IN

**DIVISION D/18 ARE PRESCRIBED IN CLAUSE 3(a) OF PART II OF
THIS AGREEMENT**

The following operations in wire drawing and/or working and/or weaving and/or forming manufacture:

Section (a): Wire drawing

RATE B

1. Supervisory work, including setting up and final checking of the adjustments and changing of attachments.
‘Supervisory work’: Not less than one employee with supervisory knowledge to be employed in each department on each shift.

RATE G

1. Operating rod and/or wire straightening and/or cutting machine.
2. Operating rod and/or wire testing machine.
3. Operating wire covering extrusion machine.
4. Operating wire draw bench, including butt welding of wire by machine and brazing of wire and removal and replacement of attachments.

Section (b): Wire drawing die manufacture

RATE B

1. Supervisory work, including repetition measuring of test wire with micrometer, including the sizing of new dies.
2. Operating waxing machine, including grinding of outside diameter of die cases, including the use of fixed gauges.

RATE F

1. Repetition loading and/or unloading starting and/or stopping die ripping and/or re-grinding machines.
2. Repetition re-sizing of dies using wooden sticks and paste, including the use of sizing wire.
3. Repetition rough grinding of die cases for waxing.
4. Repetition rough grinding of needles and wooden sticks.

RATE G

1. Operating die battering hammer and/or fly pressing.

Section (c): Wire working and/or weaving and/or forming and/or fabrication

RATE B

1. Marking out and/or setting up of bench work from drawings and/or dimensional sketch.
2. Supervisory work, including setting up and/or adjusting.

RATE D

1. Marking out and/or setting up of bench work to templets.

RATE F

1. Operating chain link and/or diamond mesh machine (including machine running adjustments when necessitated by the manufacturing process).

RATE G

1. Assembling of pre-manufactured components requiring no fitting or adjusting, but including deburring.
2. Operating automatic chain link and/or diamond mesh machine (including machine running adjustments when necessitated by the manufacturing process).
3. Operating barbed wire plant.
4. Operating loom.
5. Operating wire forming machine.
6. Operating wire netting plant.
7. Repetition drilling to pops and/or jigs and/or templets.
8. Repetition marking off to jigs and/or templets and/or lengths gauges.
9. Spot and/or butt and/or arc spot welding.

RATE H

1. Bending and/or forming to jigs and/or dies and/or stops and/or marks.

2. Coiling and reeling.
3. Cropping and/or shearing and/or cutting to templets and/or marks and/or stops and/or jigs and/or length gauges.
4. Cutting off waste wire and/or locking and/or clinching.
5. Making screens to size already drawn by a Rate B employee.
6. Minding of swifts for crimping, including stopping and/or starting machine for semi-automatic and/or hand-operated looms.
7. Operating automatic straightening machine.
8. Operating braiding machine.
9. Operating wire and strand winding and measuring machine and/or butt welding of wire by machine, including brazing of wire.
10. Repetition wire working and/or fabricating to jigs.
11. Square and/or other mesh screen weaving into rolls and/or sheets on hand-operated machine, i.e. feeding machine.
12. Weaving square and/or other mesh screening by hand.
13. Attending automatic crimping machine.
14. Bobbin filling.
15. Pirn filling.
16. Stitching of pot scourers and/or final binding of pot scourers by methods other than stitching.
17. Wrap beam filling.
18. Wrap beam minding.

DIVISION D/19

WIRE AND ROPE MANUFACTURING DIVISION

**WAGE RATES APPLICABLE TO OPERATIONS SCHEDULED IN
DIVISION D/19 ARE PRESCRIBED IN SECTION 1(1) OF PART II OF
THIS MANUAL**

Section (a): Cable stranding plant

RATE AA

1. *Supervisory work, including setting up and the final checking of the adjustments and changing of attachments.
*‘Supervisory work’: Not less than one employee with supervisory knowledge to be appointed in each department on each shift.

RATE C

1. Assisting in supervisory work.

RATE F

1. Supervising of employees employed on classes of work below Rate F, including repetition ‘in process’ checking of wire (not final checking).

RATE H

1. Operating an automatic wire winding machine, including butt welding of wire by machine and brazing of wire.
2. Operating a wire stranding machine, including butt welding of wire by machine and brazing of wire and removal and replacement of attachments, under supervision.
3. Operating hand-fed wire winding machine..

Section (b): Fibre core making plant

RATE B

1. *Supervisory work, including setting up and/or adjusting and changing of attachments.
*‘Supervisory work’: Not less than one employee with supervisory knowledge to be appointed in each department on each shift.

RATE F

1. Supervising of employees employed on classes of work below Rate F, including repetition ‘in process’ checking of wire (not final checking).

RATE H

1. Operating a fibre sliver preparing machine.
2. Operating a fibre yarn spinning-machine and/or stranding machine and/or closing machine.
3. Operating a fibre yarn winding machine.

Section (c): Wire drawing plant

RATE AA

1. *Supervisory work, including setting up and the final checking of adjustments and changing attachments.
*‘Supervisory work’: Not less than one employee with supervisory knowledge to be appointed in each department on each shift.

RATE C

1. Assisting in the supervision of wire drawing, cleaning, heat treatment and wire testing.

RATE F

1. Supervising of employees employed on classes of work below Rate F, including repetition ‘in process’
2. Checking of wire (not final checking).

RATE G

1. Attending and/or minding heat treatment and/or cleaning and/or pickling and/or lime slaking and/or spent acid plant under the supervision of a Rate AA or C employee.
2. Operating a wire covering extrusion machine.
3. Operating rod and/or wire straightening and/or cutting machine.
4. Operating rod and/or wire testing machine.
5. Operating wire drawing bench, including butt welding of wire by machine and brazing of wire and removal and replacement of attachments, under the instructions of a Rate AA or C employee.

Section (d): Wire drawing die manufacture

RATE AA

1. Supervisory work, including repetition measuring of test wire with micrometers.
2. Operating waxing machine, including grinding of the outside diameter of die-cases, including the use of fixed gauges.

RATE F

1. Supervising of employees employed on classes of work below Rate F including repetition ‘in process’ checking of wire (not final checking).
2. Repetition resizing of dies, using wooden sticks and paste, including the use of sizing wire.
3. Repetition rough grinding of die cases for waxing.
4. Repetition rough grinding of needles and wooden sticks.
5. Repetition loading and/or unloading, starting and/or stopping die ripping and/or re-grinding machines (excluding setting up).

RATE G

1. Operating die battering hammer and/or fly press.

RATE H

1. Stamping data on die case.

Section (e): Wire galvanizing plant

RATE B

1. *Supervisory work, including, setting up and/or adjusting and/or changing attachments.
*‘Supervisory work’: Not less than one employee with supervisory knowledge to be appointed in each department on each shift:
First three months of experience..... Rate C

Thereafter Rate B

RATE F

1. Supervising of employees employed on classes of work below Rate F, including repetition 'in process' checking of wire (not final checking).

RATE G

1. Attending galvanizing plant when appointed as galvanizing plant attendant.

Section (f): Wire rope making plant

RATE A1

1. Ropemaking, including supervisory work, setting up and/or adjusting and/or changing attachments.
 Not less than one employee with supervisory knowledge to be appointed in each department on each shift:
 First year of experience Refer to table
 Second year of experience of wages
 Thereafter Rate A1

RATE F

1. Supervising of employees employed on classes of work below Rate F, including repetition 'in process' checking of wire (not final checking).

RATE G

1. Operating stranding or closing machine, including butt welding of wire by machine and brazing of wire and removal and replacement of attachments under supervision.
2. Operating a strand and rope covering extrusion machine.

RATE H

1. Assisting operator of a stranding or closing machine.
2. Operating an automatic wire winding machine, including butt welding of wire by machine and brazing of wire.
3. Operating a hand-fed wire winding machine.
4. Operating a strand winding machine.
5. Application of rope dressing.
6. Attending grease plant, when appointed as grease plant attendant.

Section (g): Wire rope splicing plant

RATE B

1. *Supervisory work including setting up.
 *'Supervisory work': Not less than one employee with supervisory knowledge to be appointed in each department on each shift.

RATE F

1. Supervising of employees employed on classes of work below Rate F.

RATE G

1. Assisting in rope splicing.
2. Swaging, using dies.
3. Repetition operation of power saw to stops.

Section (h): Drum-making plant

RATE AA

1. Cutting of timber for drums, battens, segments and flanges on woodworking machines (including setting up) (n.e.s.):
 First year of experience Rate B
 Thereafter Rate AA

(Corrected by Government Notice R.941 of 6 august 1999)

RATE F

1. Supervising of employees employed on classes of work below Rate F.

RATE G

1. Repetition cutting off to stops and/or jigs and/or fixtures.
2. Repetition rounding of spar ends on single-purpose machine.
3. Repetition drilling to templets and/or marks and/or jigs and/or fixtures.
4. Repetition marking to templets.

RATE H

1. Assembling, reconditioning, painting and spraying of drums under supervision.
2. Dressing by hand or by grinding and/or by portable power tool.
3. Punching and shearing of drum washers.
4. Repetition countersinking with twist drill and/or rosebit and/or reaming to stops.
5. Repetition bolt and/or rod screwing by machine and/or by hand.

Section (i): Miscellaneous

RATE H

1. Operating a scrap material baling press and/or bundling machine.
2. Stamping labels and stencilling.
3. General labouring including loading and/or unloading and transporting of materials by hand and/or mechanical appliances, including tractors.

DIVISION D/20

TUBE AND/OR PIPE MANUFACTURING DIVISION

**WAGE RATES APPLICABLE TO OPERATIONS SCHEDULED IN
DIVISION D/20 ARE PRESCRIBED IN CLAUSE 3(a) OF PART II OF
THIS AGREEMENT**

This following operations in the manufacture of tubes and/or pipes and/or flanges and/or accessories (excluding valves), viz.:

RATE AA

1. Assembly of pre-manufactured components from stock, where fitting is required.
2. Hand bending of tubes (n.e.s.):

First six months of experience	Rate B
Thereafter	Rate AA

3. Marking out.

‘**Marking out**’ means the marking out with instruments of the centres and working lines of articles and/or material preparatory to machining and/or processing and/or fabricating.

4. Reconditioning of mandrel bars and/or press punches.
5. Reconditioning and radiusing of reducing mill and/or push bench rolls on machine specially designed therefore.
6. Repetition polishing of draw dies on machine specially designed therefore and using gauges, vernier scales and micrometers.
7. Rough grinding of push bench dies in machines specially designed therefore and using vernier scales.

8. Setting out.

‘**Setting out**’ means the setting out of work on the floor or on the bench to sketch and/or drawings and/or dimensions.

9. Setting up and setting out on cold tube bending machines

RATE B

1. Attending continuous tube welding plant, including roll changing and/or setting and/or grinding and/or scarfing and/or parting tools (n.e.s.).
2. Attending ring bed, using vernier scales and including roll changing.
3. Tube and/or pipe inspection including the use of precision measuring instruments (n.e.s.).

Learnership for Rate B operations and supervisory work:

First six months of experience	Rate C
Thereafter	Rate B

RATE C

1. Annealing boiler tubes (supervisory work).
2. Attending pumphouse (employees employed as pumphouse attendants).
3. Billet heating furnace supervisor.
4. Case and/or tool hardening and/or heat treatment (supervisory work).
5. Non-ferrous smelting and/or melting (chargehand and/or supervisory work).
6. Push bench driving under supervisor.
7. Repetition metal spinning as applied to tubular products (n.e.s.).
8. Supervision of weld inspection (n.e.s.) of pipes and/or fittings.
9. Supervisory work (draw bench), using precision measuring instruments.
10. Supervisory work (drop hammer, including tool changing).
11. Supervisory work (hydraulic presses), including tool changing.
12. Supervisory work (reducing mills), including roll changing.
13. Supervisory work-supervising operations classified below Rate C.
14. Supervising strip slitting plant, including blade changing and/or spacing of blades.

RATE D

1. Acid recovery plant supervisor.
2. Assembling by means of jigs and/or templets (n.e.s.).
3. Assembling of expansion joints for hydraulic testing.
4. Assistant supervisory work in respect of the following plants and/or operations:
 - (a) Billet furnace heating.
 - (b) Butt welding of flange collars and/or metal sections by machine.
 - (c) Continuous tube welding machines, including positioning of stops on cut-off equipment.
 - (d) Dipping of steel pipes in hot or cold bitumastic solution.
 - (e) Draw and/or push bench.
 - (f) External sheathing of steel pipes with hot bitumastic coating, including changing of sheathing ends.
 - (g) Extrusion presses.
 - (h) Galvanising.
 - (i) Hydraulic and/or mechanical press work and/or roll forming of pipe ends and/or collar type joints.
 - (j) Hydraulic testing machine work including changing of test ends.
 - (k) Preparation of pipes for welding by means of pneumatic tools.
 - (l) Reducing mills.
 - (m) Screwing and/or cutting tubes and/or tapping of tube fittings (including mounting of dies and/or cutters and/or stops during size changeover).
 - (n) Spun lining with bitumen, including changing of lining ends.
 - (o) Spun lining with concrete.
 - (p) Slinging.
 - (q) Tube straightening machine.
5. Bending of tubes in manually and/or power operated machines to sketch, other than marking out and setting out.
6. Effluent disposal plant supervisor.

7. Finishing the run of seam welds in pipe or tube manufactured on continuous automatic gas and/or electric welding machine prior to ultrasonic and/or X-ray inspection.
8. Operating flanged pipe facing machine (excluding setting up).
9. Operating hydraulic tube expanding machine, including checking.
10. Operating plate edge planing machine (excluding setting up, but including the positioning of stops).
11. Operating repetitive and/or continuous automatic welding machines, including adjustment owing to voltage variation.
12. Operating continuous semi-automatic gas shielded and/or flux cored wire arc welding machine, excluding setting up.
13. Operating single and/or double-head oxyacetylene profiling machine and/or single and/or multi-head straight line cutting machine, including setting up.
14. Punching and/or shearing and/or cropping to jigs and/or stops.
15. Repetition forming of plates and/or strips and/or bars and/or sections in rolls and/or press-brake.
16. Tool grinding in jigs, excluding tool room.
17. Setting up of bevelling and/or facing machines, including mounting cutters and setting of stops (tubes and/or pipes only).
18. Supervising semi-automatic tube spraying plant (paint and/or lacquer and/or oil), including varying of speed and/or adjusting of nozzles and/or temperature.

RATE DD

1. Assisting Rate AA employee by repetition hand dressing of bends not exceeding 150 mm nominal bore.
2. Attending fully automatic saw sharpening machine, excluding setting up, including loading, starting, stopping and unloading the machine.

RATE DDD

1. Adjusting welding head on spiral tube machine to follow line of seam.
2. Repetition operation of an automatic submerged arc welding machine where the operations are confined to loading, positioning the head, starting, stopping and unloading the machine, excluding setting up.

RATE E

1. Metal spraying for anti-corrosive purposes.
2. Repetition operation of weld test equipment under supervision of a Rate C supervisor.

RATE F

1. Repetition drilling and/or countersinking to jigs and/or stops and/or fixtures and/or popmarks.
2. *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), but including the use of 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 where the manual operations are limited to loading the workpiece into the chuck or holding device of the machine, setting the machine in motion, advancing or retracting tools before and after the power cycle takes over and stopping and unloading the machine.
3. Repetition operation of or attending semi-automatic or special purpose machine for machining of flanges and/or sockets and/or stub ends, including the use of fixed gauges.

RATE G

1. Assembling of pre-manufactured components from stock requiring no fitting or adjustment, but including deburring.
2. Assisting in heat treatment of welded joints.
3. Assisting in hot and/or cold forming of flat bars into flanges and/or rings, including hand peak trueing, but excluding setting up.
4. Driving power hammer.
5. Feeding cold draw bench, including removing, cleaning and replacing of dies, including the use of fixed gauges.
6. Hand buffing and/or polishing of tungsten carbide dies, using wooden sticks and paste, excluding sizing.
7. Hydraulic and/or pneumatic and/or mechanical staving.
8. Operating flux coating machine.

9. Operating mandrel bar extractor.
10. Operating mandrel bar tunnel.
11. Operating mandrel bar turntable.
12. Operating a power-driven cone plate stretching machine manually.
13. Operating pipe lining machine under instruction of a Rate A to D employee.
14. Operating pipe wrapping machine under instruction of a Rate A to D employee.
15. Operating power saw for repetitive cutting off to stops and/or length gauges.
16. Operating reeling mill.
17. Operating seam forming machine.
18. Operating tagger hammer.
19. Operating tube cutting machine, excluding setting up.
20. Paraffin testing.
21. Piercing press work using pre-set dies.
22. Preparation of pipes for patching by means of pneumatic and/or hand tools.
23. Repetition bevelling and/or facing of pipe ends.
24. Repetition boring and/or bevelling and/or facing and/or trepanning of flanges and/or sockets, excluding setting up.
25. Repetition expanding of flanges.
26. Repetition marking of material to jigs and/or templets with the aid of a templet and scriber or marking material.
27. Repetition operating cold bending machine where the machine is set up by a Rate AA to D employee.
28. Repetition reaming using non-adjustable reamers.
29. Repetition screwing and/or cutting of pipes and/or tubes with die-heads and/or taps and/or cutters by machine, including the mounting of screwing and/or cutter heads, including the use of fixed gauges, excluding resetting and/or size changing.
30. Rounding of pipe ends and/or sections to gauges.
31. Screeding in the application of bitumastic sheathing.
32. Setting sections on automatic submerged arc welding machine.
33. Skimming of non-ferrous billets, excluding setting up.
34. Attending strip bundling equipment.
35. Attending strip slitting plant, including machines for the uncoiling, levelling, shearing and recoiling of slit strips up to 10 mm thickness.

RATE H

1. Attending automatic straightening and/or rounding and/or reducing and/or extracting and/or reaming machine.
2. Draw bench operating (including the use of fixed gauges).
3. Dressing and/or deburring by hand and/or by grinding and/or by portable power tools for inspection.
4. Gasket cutting, using templets.
5. Hot stripping and punching of drop forgings.
6. Rough straightening of tubes.
7. Assisting the operator of a tacking machine.
8. Charging pots for the melting of bitumen.
9. Dismantling of assembly rings.
10. Flux drying.
11. Metal coating by dipping and/or galvanising.
12. Opening and/or closing dies in socket forming.
13. Sand and/or shot blasting.
14. Striking by hand hammer for blacksmith's work.

DIVISION D/21

THE MANUFACTURE, INCLUDING REMANUFACTURE AND/OR ASSEMBLY OF DOMESTIC AND/OR PORTABLE APPLIANCES DIVISION

'Remanufacture' means the correction of faults in items of equipment in a manufacturing establishment prior to sale and which items are returned to the production line, and/or the correction of faults in items of equipment returned to the original manufacturing establishment by the purchaser whilst under a guarantee.

WAGE RATES APPLICABLE TO OPERATIONS SCHEDULED IN DIVISION D/21 ARE PRESCRIBED IN CLAUSE 3(a) OF PART II OF THIS AGREEMENT**RATE A**

1. Rectification of operational faults which occur in the manufacturing process and where the articles are not returned to the production lines.

RATE D

1. Assembling (n.e.s.).
2. Charging appliances manually with refrigerant and/or oil (n.e.s.).

RATE DDD

1. Fan speed checking, using pre-set stroboscope (excluding setting of the stroboscope).
2. Repetition adjusting of electrical control devices to predetermined limits.
3. Soldering and/or sweating by hand (n.e.s.).

RATE F

1. Operating manually-operated folding machine and/or hand brake and/or hand folder and/or finger brake to marks (excluding setting up).
2. Operating power-driven folding machine to stops and/or jigs and/or fixtures (excluding setting up).
3. Repetition high voltage 'no load' (neon type tester) earth testing.
4. Repetition reaming, using adjustable reamers, provided they are pre-set by a Rate A or Rate AA employee.
5. Repetition voltage, insulation and/or ohm and/or wattage testing to pre-set values.

RATE G

1. Assembling of pre-manufactured components from stock requiring no fitting and/or adjusting, but including deburring.
2. Bending and/or forming wire to jigs.
3. Charging appliances with refrigerant and/or oil, using semi-automatic processes.
4. Connecting preformed and/or prepared wires to predetermined points and/or connections.
5. Crimping hose ends.
6. Cutting flexible hose and/or pipe.
7. Drilling to jigs and/or stops and/or fixtures and/or predetermined pop marks and/or countersinking (excluding radial drill).
8. Refrigerant leak detection (excluding rectification of leaks).
9. Repetition crimping of terminals and/or stripping wires.
10. Repetition cutting and/or preforming sets of wires to jigs and/or fixtures and/or templets and/or length gauges.
11. Repetition ohm testing of elements to pre-set setting of ohmmeter.
12. Repetition operating press-brake to stops and/or jigs and/or length gauges where the stroke is not controlled (excluding setting up).
13. Repetition testing of pre-manufactured components from stock to predetermined limits where the test is confined to acceptance or rejection.
14. Stitching of cardboard by hand and/or machine.

15. Winding resistances direct onto predesigned spaced ceramic and/or mica and/or porcelain and/or mandrel.
16. Packing and/or filling cavities of double-walled sections with heat-insulating material.

DIVISION D/22

SHEETMETAL MANUFACTURING DIVISION

All operations in the assembling and/or manufacturing and/or fabricating (as defined) of sheetmetal articles and/or tubular furniture involving the use of metal of 4 mm and thinner and which may include integral light metal sections of material not exceeding 7 mm thickness and up to and including 16 mm round attachments to hollowware.

For the purposes of this Division, 'fabricating' includes the manufacturing of non-standard and/or custom-built articles when performed conjointly with manufacture as defined, and is confined to operations scheduled in this Division.

The classes of work scheduled in Division D/21 of this Agreement shall *mutatis mutandis* apply to any such work undertaken in Electrical Wiring operations not scheduled in this Division.

WAGE RATES APPLICABLE TO OPERATIONS SCHEDULED IN DIVISION D/22 ARE PRESCRIBED IN CLAUSE 3(a) OF PART II OF THIS AGREEMENT

Section (a): General

RATE AA

1. *Marking out.

*For the purposes of the above, 'marking out' means the marking out with measuring instruments of the centres and working lines of articles and/or material preparatory to machining and/or processing.

2. Setting out.

RATE B

1. Final knocking out of dents and/or final straightening by use of hammer, spoon, dolly or wrench bar (n.e.s.).
2. Preparing completed doors and/or door frames and/or window surrounds for non-standard fittings.
3. Repairing and/or altering and/or adjusting and/or erecting on site or building of doors and/or door frames, window surrounds and curtain walling (n.e.s.) (outwork only).

RATE C

1. Arc and/or gas welding by hand.
2. Operating power-driven guillotine (n.e.s.).
3. Operating press-brake (n.e.s.).
4. Roller bending and/or forming, other than repetition roller bending and/or forming (n.e.s.).

RATE D

1. Assembling (n.e.s.).
2. Automatic welding where the welding head is automatically fed and speed of weld mechanically controlled.
3. Fitting of glazing beads and all operations incidental thereto, including marking for mitreing and pop marking prior to drilling.
4. *Marking off (n.e.s.).
***Marking off** means marking off material to given lengths for cutting-off purposes, using only rule and/or tape measure and marking material.
5. Operating power-driven folding machine (n.e.s.), including setting-up.
6. Operating turret punching machine to stops and/or templets (n.e.s.) (including setting).
7. Press operating (n.e.s.), excluding setting.
8. Welding and/or brazing, including hard and/or silver soldering, of parts located in jigs and/or parts so located as to obviate the need for a jig (n.e.s.).

RATE DD

1. Gas brazing on hot water geysers of copper components in fixtures, or so formed as to obviate the need for fixtures, using fluxless brazing rods.

2. Operating press brake to stops and/or jigs and/or length gauges where the stroke is controlled (excluding setting up).
3. Positioning and bolting down of die sets in pre-located positive guides on presses of capacity up to 50 tons, prior to setting by a Rate C setter.
4. Welding and/or brazing to fixtures or parts so located as to obviate the need for a fixture (weld length not to exceed 55 mm, and material thickness not to exceed 2,5 mm).

RATE E

1. Metal spraying for anti-corrosive purposes under effective supervision.

RATE F

1. Operating manually-operated folding machine and/or hand brake and/or hand folder and/or finger bending brake to marks (excluding setting up).
2. Operating power-driven folding machine to stops and/or jigs and/or fixtures (excluding setting up).
3. Operating power-driven guillotine to stops (excluding setting up).
4. 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).
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 before and after the power cycle takes over and stopping and unloading the machine.
5. Repetition production machining of bar and/or tube on capstan lathes to stops where the work is held by devices not necessitating any centralising or trueing (excluding setting up). (This operation is limited to a machine not exceeding a 52 mm nominal bore diameter).

RATE G

1. Affixing and/or positioning of ventilators into industrial windows and/or of windows into surrounds and/or screwing and/or riveting, including clamping and/or positioning under effective supervision, excluding arc welding.
2. Assembling of pre-manufactured components from stock requiring no fitting and/or adjusting, but including deburring.
3. Attaching fittings on prepared door frames and/or window surrounds.
4. Beading and/or seaming and/or grooving and/or trimming and/or curling and/or wiring and/or dishing and/or flanging and/or locking double side top and bottom.
5. Bending to stops and/or marks of piping and/or tubing marked to size by manual pipe and/or tube bending machine.
6. Bending to stops of piping and/or tubing by power-operated pipe and/or tube bending machine, excluding setting.
7. Leak-testing of finished products, other than by pressure testing.
8. Loading of rolled sheet coils onto uncoiler and setting of uncoiler release under supervision of a Rate A to D employee.
9. Operating manually operated folding machine and/or hand brake and/or hand folder and/or finger bending brake to stops and/or jigs and/or fixtures, excluding setting up.
10. Operating press-brake to stops and/or jigs and/or length gauges where the stroke is not controlled (excluding setting up).
11. Operating tube and/or rod and/or wire straightening machine.
12. Operating wire fed stitching machine.
13. Random drilling where the location of the hole is not critical or is immaterial (in the manufacture of tanks and/or reservoirs only).
14. Repetition application of insulating materials, including cutting and/or marking to templets under effective supervision.
15. Repetition bending and/or forming by machine to jigs and/or dies and/or stops and/or length gauges (excluding press-brake and excluding setting up).
16. Repetition butt and/or spot and/or flash and/or seam and/or projection and/or resistance and/or percussion welding by machine.
17. Repetition coiling of tubes under the instruction of a Rate AA to D employee.

18. Repetition cutting and/or cropping and/or shearing to stops and/or and or jigs and/or length gauges and/or fixtures and/or marks (excluding power-driven guillotines and excluding setting up).
19. Repetition drilling to jigs and/or prelocated parts and/or templets and/or pops and/or fixtures and/or marks (excluding radial drilling machines).
20. Repetition hot and/or cold blanking and/or piercing by press, using guides and/or jigs and/or stops.
21. Repetition machine punching and/or slotting and/or notching to jigs and/or guides and/or stops.
22. Repetition marking to templets and/or jigs.
23. Repetition operating nibbling machine and/or nibbling shears to jigs and/or stops and/or templets and/or marks in sheet of 4 mm and thinner.
24. Repetition popmarking to jigs and/or templets.
25. Repetition reaming with non-adjustable reamers.
26. Repetition roller bending and/or roller forming and/or re-rolling.
27. Repetition rolling and/or corrugating and/or forming of tank bodies.
28. Repetition soft soldering and/or sweating.
29. Repetition spinning, using formers, including the use of fixed gauges but excluding setting.
30. Repetitive countersinking to stops.
31. Repetitive threading and/or tapping.
32. Rough straightening of components and/or materials using tinman's hammer and/or mallet and/or pliers only.
33. Screwing on and/or riveting and/or clipping of assembled louvre stiles into metal frames.

RATE H

1. Application of adhesive and/or anti-corrosive and/or protective coatings.
2. Cutting timber by hand and/or machine for crating purposes and/or crate making.
3. Dressing and/or deburring by hand and/or by grinding and/or by portable power tools.
4. Hand trueing of tubular frames to jigs and/or and/or fixtures.
5. Lifting and/or placing of stops into position where positive location is provided (excluding setting of stops).
6. Operating baling press.
7. Operating tumbling barrel.
8. Re-threading and/or re-tapping.
9. Sand and/or shot blasting.
10. Scrap cutting and/or baling.
11. Preparing work for painting and/or soldering and/or brazing.

Section (b): Hollowware manufacturing operations

1. Welding and/or silver soldering of stainless steel products (n.e.s.) Refer to table of wage rates

RATE DD

1. Free-hand gas welding of seams of milkcans (n.e.s.).
2. Welding and/or silver soldering of stainless steel products (attachment of spouts and/or handles and/or hoops and/or legs).

RATE F

1. Attaching handles and/or spouts and/or hoops and/or fittings by welding.
2. Drop testing of finished enamelled hollowware under supervision of a Rate AA to D employee.
3. Repetition fusion welding of containers not exceeding 1,6 mm in thickness, in fixtures, not involving the use of filler rods.
4. Welding in manufacture of spouts and/or handles.
5. Welding of hoop seams.
6. Welding of milk-can neck to body.

RATE G

1. Automatic welding, where the welding head is automatically fed and the speed of the weld mechanically controlled.
2. Operating guillotine to jigs and/or stops and/or marks and/or fixtures, excluding for pressed metal door frames, pressed metal window surrounds, transformer doors and pressed metal sub-economic housing doors and curtain walling manufactured mainly from pressed metal (excluding setting up).
3. Operating machine designed for or permanently adapted for one only operation where it is not necessary to centralise or true the work (non-machining operation).
4. Repetition bending and/or forming by machine to jigs and/or dies and/or stops (excluding press-brake).
5. Repetition operation of or attending machines designed 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.
6. 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).

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 where the 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 before and after the power cycle takes over and stopping and unloading the machine.

7. Reshaping and/or straightening articles and/or components damaged or distorted in production.
8. Visual inspection.

RATE H

1. Application of anti-corrosive and/or protective coatings.
2. Degreasing and/or polishing by hand rubbing.
3. Dipping in enamel and/or paint and/or lacquer.
4. Dressing and/or deburring by hand and/or by grinding and/or by portable power tools.
5. Fitting handles to hollowware, excluding welding.
6. Holding up for riveting.
7. Loading and/or unloading of plating and/or anodising racks under the instruction of a Rate A to D employee.
8. Operating hand portable or pedestal grinding machines where the operator is not required to grind to marks, templates, gauges or sizes.
9. Operating wire-fed stitching machine.
10. Pressing and/or bending and/or forming and/or rolling in the manufacture of handles and/or spouts and/or fittings.
11. Repetition spot and/or projection welding of fittings to main components by machine.
12. Stoning and/or filling of hollowware in enamelling process under the instruction of a Rate A to D employee.
13. Wiring and/or unwiring of articles for immersion in plating baths under the instruction of a Rate A to D employee.

Section (c): Woodworking operations when performed conjointly with metal furniture manufacture

REFER TO TABLE OF WAGE RATES

1. Finishing and/or polishing and/or veneering of wood (n.e.s.).
2. Marking and/or setting out, including measuring (n.e.s.).
3. Operating a multiple drum sandpapering machine.
4. Sharpening woodworking tools (n.e.s.).
5. Wood machining in furniture making, including setting up and including the use of hand tools (n.e.s.).
6. Marking for boring machine only by means of pronged jigs.
7. Rubbing with an abrasive paste and/or abrasive liquid by machine and/or mechanical appliance.
8. Setting up and/or operating and/or performing any work with any one or more of the following machines:
 - (a) Mortice machine;
 - (b) boring machine;
 - (c) hinge recessing machine when used for the purpose of cutting recesses for locks and/or hinges;

- (d) dowel inserting machine;
 - (e) single drum sandpapering machine;
 - (f) bobbin sandpapering machine;
 - (g) belt sandpapering machine;
 - (h) disc sandpapering machine;
 - (i) portable sandpapering machines other than those specified in No. 18 hereof.
9. Bending solid timber.
 10. Filling in holes and/or crevices with substances other than plugs and/or slivers.
 11. Making and/or pointing of dowels.
 12. Painting and/or filling in of edges of laminated board and/or plywood.
 13. Preparing sandpaper and affixing of same.
 14. Removing doors and/or fittings from articles of furniture.
 15. Reviving by hand only.
 16. Rubbing with an abrasive paste and/or abrasive liquid by hand only, and expressly excluding the use of any machine and/or mechanical appliance.
 17. Sandpapering by hand regardless of whether the article papered is stationary or rotating.
 18. Setting up and/or operating any type of rotating and/or vibrating-reciprocating sandpapering machine with a papering surface of not more than 0,323 m².
 19. Spreading flock on adhesive surface and/or applying adhesive for flock by hand.
 20. Stripping polished surfaces.
 21. Waxing, bleaching, staining and/or oiling by hand.
 22. Dipping of solid timber into softening solution.
 23. Knocking in dowels.
 24. Marking out by templet.
 25. Mixing and/or mass-measuring and/or preparing glue.
 26. Operating and/or attending presses of any kind.
 27. Setting up and/or operating dowel squeezing or tennon squashing machine.
 28. Spreading glue.
 29. Tapeless joining.
 30. Taping and/or stapling and/or tacking veneers and/or plywood and/or hardboard into position for pressing.
 31. Taping veneers.
 32. Trimming away excess veneer after affixing of veneer.
 33. Washing off and/or removing gum and/or tapes and/or paper.

DIVISION D/23

**ELECTRONIC, RADIO COMMUNICATIONS AND/OR TELE-
COMMUNICATION MANUFACTURING DIVISION (INCLUDING
ASSEMBLY AND/OR ERECTION)**

All operations in the assembly and/or erection in the manufacturing establishment and/or manufacture and/or re-manufacture and/or modification of telecommunication equipment and/or any other equipment employing the principles of electronics and/or radio and/or any components used in the electronics and/or radio industry, including:

- Telephone, telegraph and data transmission equipment, including cellular telephones;
- HF, VHF, UHF, and microwave radio communication equipment;
- automatic and manual telephone switching systems;
- land mobile radio equipment;
- 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 broadcasting radio equipment;
 closed circuit television equipment;
 interference suppression equipment;
 electrical and/or electronic test apparatus;
 industrial electronic equipment;
 computer equipment integral to communication and/or process control;
 radar and allied equipment;
 electronic distance measuring equipment;
 modems;

but does not include the assembly and/or manufacture of domestic articles, i.e. car, home and portable radios, television, tape recorders and gramophone equipment, loudspeakers, together with sub-assemblies made solely for the use in the aforementioned equipment by the manufacturers of that equipment.

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;

‘re-manufacture’ means the correction of faults in items of equipment returned to the original manufacturing establishment and processed on the normal production line.

**WAGE RATES APPLICABLE TO OPERATIONS SCHEDULED IN
DIVISION D/23 ARE PRESCRIBED IN CLAUSE 3(a) OF PART II OF
THIS AGREEMENT**

RATE A

1. Telecommunication electrician’s work.
2. Telecommunication mechanic’s work.
3. Calibrating of electrical instruments and/or dials and/or measuring equipment.

RATE AA

1. Electrical functional testing and/or fault localising to schematic drawings and/or specifications (n.e.s.).
2. High potential functional testing and/or fault localising when performed by persons normally engaged in operative processes (n.e.s.).

RATE B

1. Edge lapping of crystal blanks by hand, excluding calibration.

RATE C

1. All wiring and/or cable forming operations (including the preparation of) involving reference to schematic drawings (n.e.s.).
2. Cutting of raw quartz and/or crystal blanks by semi-automatic machine, including setting of angles to predetermined settings (n.e.s.).
3. Assembling of cabinets and/or frameworks where no fitting adjustments are required.

RATE D

1. Assembling (n.e.s.) where no fitting adjustments are required.
2. Mechanical and/or electrical checking of equipment involving predetermined electrical measurements and/or

drawings prior to or where no functional testing is involved, excluding rectification or repairs of such equipment.

3. Complete sequential adjustment of two-motion selectors to predetermined limits.
4. Hand contouring and checking of crystal blanks to pre-set limits of frequency.
5. Repetitive visual and/or electrical testing of system discs under stereomicroscope.
6. Semi-automatic lapping and/or polishing of crystal blanks to predetermined frequency limits, including checking of frequency (n.e.s.).
7. Setting of stops on guillotine for cutting insulation only.
8. Setting of stops on tube and/or pipe bending machine.

RATE DD

1. Testing and alignment of crystal filters against predetermined limits using printout results from automatic test equipment, alignment being achieved by suitable changes of components in filter.
2. Checking and/or adjusting of crystals and/or crystal blanks to predetermined limits of frequency by evaporation and/or by etching and/or by hand.
3. Checking the cutting angle and/or correction factor of raw quartz and/or crystal blanks to predetermined limits during the process of manufacture.
4. Operating nibbling machines (n.e.s.) for batch and/or mass production on material 4 mm thickness or less.
5. Repetitive production lapping and/or checking of quartz crystal blanks to predetermined limits of time and thickness, using pre-set gauges.
6. Repetitive visual checking of system discs by comparison under standard microscope.
7. Supervision of Rate DDD to E employees.
8. Assembly and/or modification of sample printed circuit boards to instructions and/or sketches and/or photographs and/or diagrams.

RATE DDD

1. Adjustments to predetermined limits of electrically and/or mechanically operated assemblies.
2. All operations in the making of cable forms without reference to drawings (n.e.s.).
3. Assembly to sample and/or instructions and/or pictorial sketches and/or planning cards of telephone assemblies and/or selector assemblies and/or teleprinter and/or capacitors (n.e.s.).
4. Bonding of wires from transistor dice contact areas to terminal posts by means of a jig under microscopic vision (n.e.s.).
5. Friction alloying and/or wafer bonding and/or ultrasonic bonding of dice to headers by means of a jig under microscopic vision (n.e.s.).
6. Micro welding and/or nail-head bonding and/or ultrasonic bonding of gold wire to transistor leads under microscopic vision (n.e.s.).
7. Operating engraving machine, including the changing of type but excluding tool setting.
8. Repetition high potential insulation testing with foolproof testing instrument.
9. Repetitive batch checking of equipments and/or subunits and/or components to running out lists and/or samples and/or planning cards and/or pictorial sketches and/or photographs, including buzzing.
10. Repetitive batch mechanical and/or electrical checking and/or adjusting of equipments and/or subunits and/or components by comparison with fixed standards with predetermined limits by means of comparators and/or deviation meters and/or special purpose test gear (n.e.s.).
11. Soldering by hand (n.e.s.).
12. Visual checking of crystal and/or crystal blanks during the manufacturing cycle.
13. Winding on hand and/or semi-automatic machines to planning cards and/or sketches and/or diagram, including changing of self-locating mandrels and/or formers (n.e.s.).
14. Wiring to instructions and/or running out lists and/or planning cards and/or pictorial sketches and/or samples and/or audio aids and/or photographs of equipment racks and/or shelves and/or panel details and/or units, including soldering and/or wrapping of wires (n.e.s.).
15. Colouring of wires, using semi-automatic machines.

16. Preparing of bobbins and/or formers, i.e. deburring, facing, painting and varnishing.
17. Installation of radio communication equipment into vehicles under Rate A supervision.
18. Wiring of radio shelters under Rate A supervision.
19. Operating flow-solder machine, including checking of solder temperature and maintaining solder-bath levels.
20. Performing of the ends of electronic components to instructions and/or sketches on machines, including the cutting of the ends and the adjustment of the machines by means of a calibrated dial.
21. Changing and/or replacing of components on printed circuit boards to specific instructions.
22. Operating a resin dispensing unit, including the filling of pressure chambers, and adjusting pressure according to laid-down instructions. Checking of resin and hardener mixture by weighing on a gram scale and adjusting of dispensary unit. Filling of prepared ring core coils with resin and loading into vacuum chamber.
23. Selection of marked dice under microscope.
24. Mirror loading of dice, using vacuum pencil under microscope.

RATE E

1. Assembling and/or soldering of electrical components to mountings.
2. Assembling and/or soldering and/or strapping of components to printed circuit boards, using samples and/or pre-marked boards.
3. Marking of system discs by automatic machine where manual operations are limited to loading, aligning the disc and unloading, excluding setting up of machine.
4. Production assembly and/or wiring to samples and/or planning cards and/or audio aids in jigs and/or fixtures and/or self-locating parts, including soldering and/or wrapping of wires.
5. Repetitive preparation of job description cards for cutting preformed cables to lengths.
6. Slitting system discs on semi-automatic machine, excluding setting up of machine.
7. Spotting and/or burnishing and/or wiring and/or sputtering and/or lining and/or edge cleaning and/or pasting and/or damping mass assembly and/or wire forming and/or corner dipping and/or mounting of crystal blanks by use of jigs and/or fixtures and/or machines.
8. Strapping, including sleeving and/or soldering.
9. Visual checking and/or touching up of printed circuit boards during the process of manufacture.
10. Wiring of relay bars and/or frames and/or terminal blocks to instructions and/or running out lists and/or samples and/or audio aids, including wrapping of wires.
11. Touching-up of paintwork on main and/or sub-assemblies.
12. Transferring of data to EPROMS, using automatic programmable apparatus.
13. Winding of ring core coils by hand, including tinning of wire-ends and fitting into casings and cutting wires to length.

RATE F

1. Cutting and/or trimming of components, using jigs, by power saw and/or hand press.
2. Cutting of printed circuit boards to marks.
3. Laying and binding of cable forms from prepared running out lists on prepared cable form boards not exceeding 1 m x 1,25 m.
4. Loading of components into, and unloading from, automatic test gear.
5. Mirror loading of dice, using vacuum pencil, excluding use of a microscope.
6. Operating coding machines and/or press and/or fixtures, including change of type.
7. Pen writing to samples and/or instructions and/or pictorial sketches and/or photographs.
8. Repetition production machining of bar and/or tube on capstan lathes to stops where the work piece is held by devices not necessitating any centralising or trueing, excluding setting up. (This operation is limited to a machine not exceeding a 52 mm nominal bore diameter.)
9. Repetition production winding by machine of prepared bobbins to predetermined number of turns, using round wire, including changing of bobbins (maximum length of bobbin 150 mm).
10. Selection of components and/or piece parts into work trays as per selection lists.
11. Separating and/or breaking of system discs, excluding setting of machine.

12. Washing and/or cleaning and/or packing of wafers/blanks.
13. Operating of a semi-automatic transfer printing machine, including the preparation and mixing of printing ink.
14. Operating a semi-automatic wire cutting and stripping machine, including the changing of wire lengths by operating of pre-set dials and removal and affixing of pre-set dies for differing wire diameters.

RATE G

1. Coding and/or silk screening to samples and/or instructions and/or pictorial sketches and/or photographs.
2. Dip and/or flow soldering of printed circuit boards.
3. Dipping and/or impregnation in insulating medium and/or enamel and/or paint and/or varnish and/or wax and/or resins.
4. 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 (excluding setting of dies).
5. Hand bending and/or forming to jigs and/or formers and/or stops.
6. Operating nibbling machine to templates and/or stops and/or marks (plate not exceeding 4 mm in thickness).
7. Operating power saw and/or band saw for repetitive cutting off to stops and/or length gauges (excluding setting of stops).
8. Repetition crimping of terminals.
9. Repetition cutting and/or slicing of raw quartz and/or crystal blanks on fully automatic machines, where the work cycle is confined to loading and/or unloading of work piece.
10. Repetition drilling to pre-marked pops and/or dimples and/or jigs and/or fixtures and/or stops, including countersinking and/or reaming by non-adjustable reamers, excluding radial drill.
11. Repetition hot and/or cold blanking and/or piercing by press, using guides and/or jigs and/or stops and/or dies.
12. Repetition machine punching to jigs and/or stops and/or gauges and/or marks.
13. Repetition marking to templates and/or jigs.
14. Repetition preparation of coil bobbins, including the application of shunt windings.
15. Repetition production assembly in jigs and/or fixtures and/or of self-locating parts from stocks where no fitting or adjustment is required, but including deburring.
16. Repetition production tinning and/or soldering of crystal cans.
17. Repetition spot and/or seam and/or projection and/or stud and/or butt and/or flash welding.
18. Repetition tinning of coil bobbin terminals.
19. Repetitive batch checking of piece parts and/or components by means of pre-set fixed gauges under supervision.
20. Riveting not exceeding 10 mm diameter rivets and/or eyeletting.
21. Routine air leak testing.
22. Spraying of enamel and/or paint and/or insulating medium and/or anticorrosive coatings, under supervision, other than blending.
23. Sticking and/or unsticking of raw quartz and/or stacking and/or bonding of crystal blanks to carriers prior to and/or after subsequent machining.
24. Stripping and/or etching of crystal blanks during the process of manufacture.
25. Washing and/or cleaning and/or coating and/or exposing and/or developing and/or etching of printed circuit boards and/or blanks.

RATE H

1. Application of insulating medium (n.e.s.).
2. Repetition cutting and pre-forming sets of wire to jigs and/or fixtures.
3. Repetition stripping of insulated wire and/or cable by pre-set tools.
4. Attending electroplating bath under instruction of a Rate A employee.
5. Attending oven.
6. Compound filling.
7. Despatch packing.
8. Dipping and/or impregnating in insulating medium and/or enamel and/or paint.

9. Dip tinning in solder pot.
10. Metal buffing and/or polishing and/or finishing.
11. Metal cleaning by pickling and/or degreasing.
12. Metal coating by dipping.
13. Rethreading and/or retapping by hand.
14. Sand and/or shot blasting.

Manufacturing of electrical and/or electronic components for sale in bulk.

Rate A

1. Artisan's work.

Rate C

1. Setter. Setting, maintaining and servicing of metalised capacitors and suppression manufacturing equipment.

Rate DD

1. Supervisors. Supervising section leaders.

Rate E

1. Section leaders. Monitoring of feeders and/or core winders, including supervision of preliminary preparation of production equipment by Rate H employees.

Rate H

1. Feeders. Repetition loading and/or feeding of equipment, magazines, wheels or bowls with components, including simple preliminary preparation of production equipment under supervision.
2. Core winders. Repetitive automatic and/or manual winding of wire onto cores or bobbins.”
(subsection inserted by G.N. R.1374 of 3 October 2003)

Surface Mount Technology Operations

1. Rate B

Surface mount technology supervisor, supervising surface mount technology operators and surface mount technology inspectors.

2. Rate AA

Surface mount technology production assistants, engaged in the following types of activities:

- Programming, setting, servicing and maintenance of surface mount technology machines (including printers, ovens, and pick and place machines and inspection equipment);
- Supervision of the machine operations done by surface mount technology operators; and
- File handling and back up of product data.

3. Rate DDD

Surface mount technology inspectors, engaged in the following types of activities:

- Visual inspection and verification of “first-off” printed circuit boards using parts lists and printed circuit board layout drawing and microscope; and
- Repetitive visual inspection of assembled printed circuit boards according to pre-defined standards (using microscopes or automatic inspection equipment).

4. Rate F

Surface mount technology operators, engaged in the following types of activities:

- Printing of solder paste onto printed circuit boards (manual and automated printing);
- Loading of printed circuit boards in pick and place machines;
- Loading and monitoring of component feeders on pick and place machines;
- Loading and unloading of magazines;
- Basic operation of various production machines;
- Placing components on printed circuit boards
- Touch-up printed circuit boards, including single-component hand soldering;
- Counting of printed circuit boards and components; and
- De-panelising of printed circuit boards

(Section inserted by G.N.R.542 of 30 April 2004)

TRAINING PERIODS AND RATES OF PAY THEREFOR
(Applicable to operations scheduled in this division only)
(Not applicable to machining operations and setting up)

Experience				
Class of work	First four months (rate per hour)	Second four months (rate per hour)	Third four months (rate per hour)	Thereafter
Rate AA:	Rate	Rate	Rate	Rate
Newcomers.....	D	C	B	AA
From Rate B.....	B	AA	AA	AA
Rate B:				
Newcomers.....	D	D	C	B
From Rate C.....	C	B	B	B
From Rate D.....	D	C	C	B
Experience				
Rate C:				
Newcomers.....	DD	DD	D	C
From Rate D.....	D	C	C	C
Rate D:				
Newcomers.....	DDD	DD	DD	D
From Rate DD.....	DD	D	D	D
Rate DD:				
Newcomers.....	DDD	DDD	DD	DD
From Rate DDD.....	DDD	DD	DD	DD

Note:

RATE DDD:

Newcomers to Rate DDD shall be paid not less than (refer to table of wage rates) cents per hour for the first four months, and thereafter at Rate DDD.

RATE E:

Newcomers to Rate E shall be paid not less than (refer to table of wage rates) cents per hour for the first four months, and thereafter at Rate E.

DIVISION D/24

TUNGSTEN CARBIDE TOOL MANUFACTURE DIVISION

**WAGE RATES APPLICABLE TO OPERATIONS SCHEDULED IN DIVISION D/24 ARE PRESCRIBED IN
CLAUSE 3(a) OF PART II OF THIS AGREEMENT**

The following operations, viz:

RATE AA

1. General supervisory work, including setting up of production machines (at least one supervisor must be employed in each establishment and be in charge of operations on each shift).
2. Machine tool grinding (excluding universal grinding):

First six months' experience.....	Rate C
Second six months' experience.....	Rate B
Thereafter.....	Rate AA
3. Milling of tungsten carbide tools (excluding universal milling).
4. Operating centre lathe for tungsten carbide tools.

RATE D

1. Hand torch brazing:

First three months' experience.....	Refer to table of wage rates
Thereafter	Rate D

RATE E

1. Machining of shanks for seating, viz:

Repetition operation of or attending 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).

RATE F

1. Repetition grinding on automatic cycle machines under the instruction of a Rate A to C employee.

RATE G

1. Bending of pre-heated shanks by machine to jigs.

2. Machining of shanks for seating on a special purpose machine, where the manual operations are limited to loading the work piece into the chuck or holding device of the machine and unloading.

3. Machining clearance angles on tools by special purpose machines to pre-set angles (excluding setting up).

4. Off-hand buffing and/or polishing.

5. Operating manual machines designed for or permanently adapted for one only operation, where it is not necessary to centralise or true the work by hand.

6. Rough forming by grinding of brazed tools.

7. Seating of tips by induction heating.

RATE H

1. Cutting to stops and/or length gauges in power and/or friction saws (excluding setting up).

2. Operating hand portable and/or pedestal grinding machine, where the operator is not required to grind to marks, templets, gauges or sizes.

3. Sand and/or shot blasting.

4. Stencilling and/or marking and/or colour marking and/or labelling.

DIVISION D/25

MOTOR VEHICLE PARTS AND COMPONENTS MANUFACTURING DIVISION

(1) Wage provisions applicable to the manufacturing and/or assembling of parts and/or spares and/or accessories and/or components of motor vehicles, viz:

**WAGE RATES APPLICABLE TO OPERATIONS SCHEDULED IN DIVISION D/25 ARE PRESCRIBED IN
CLAUSE 3(a) OF PART II OF THIS AGREEMENT****RATE C**

1. Repetition drill sharpening by hand (n.e.s.).

RATE D

1. Galvanising (supervisory work).

2. Machining (n.e.s.) 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 (including the use of fixed gauges and/or comparators and/or indicators for dimensional purposes only – such instruments to be set by a Rate A employee), and including the replacing and/or repositioning of throwaway tips only on throwaway tipped tooling, but excluding machine tool setting up and/or tool setting and adjusting.

3. *Marking off material (n.e.s.).

***Marking off** means marking off material to given lengths for cutting-off purposes, using only length gauges

and/or rule and/or tape measure and marking material.

4. Preliminary welding for positioning of jobs prior to welding or riveting or bolting up (runs of not more than 40 mm in length).
5. Press operating (n.e.s.), including the affixing and/or removal of dies where there is positive location, but excluding setting up.
6. Production electric welding in jigs and/or assemblies already partly welded in jigs so as to minimise the effect of distortion and where the ampereage, size or type of rod or rate of deposition is predetermined (n.e.s.).

RATE E

1. Repetition balancing of motor components on special purpose machines, excluding calibration of the machines.

RATE F

1. Reaming, using bridge reamers.
2. *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, but including the use of fixed gauges and/or comparators and/or indicators for dimensional purposes only – such instruments to be set by a Rate A employee).

*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 before and after the power cycle takes over and stopping and unloading the machine.
3. Repetition production machining of bar and/or tube on capstan lathes to stops where the work is held by devices not necessitating any centralising or trueing (excluding setting up).

(This operation is limited to bar not exceeding 52 mm diameter and/or tube up to 80 mm diameter).
4. Soldering and/or sweating by hand (n.e.s.).

RATE G

1. Assembling of pre-manufactured components from stock requiring no fitting or adjustment, but including deburring.
2. *Attending fully-automatic machine (including checking with fixed gauges and/or comparators and/or indicators for dimensional purposes only – such instruments to be set by a Rate A employee).

*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 where 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.
3. 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 (excluding setting of dies) and/or stops.
4. Heat treatment under instruction of a Rate AA to D employee.
5. Repetition countersinking with twist drill and/or rose bit to fixtures and/or stops, and/or reaming, using non adjustable reamers.
6. Repetition drilling to fixtures and/or gauges and/or jigs and/or stops and/or templets (excluding radial drill).
7. Repetition hot and/or cold bending and/or forming to dies and/or jigs and/or stops.
8. Repetition hot and/or cold blanking and/or piercing on presses, using guides and/or jigs and/or stops and/or dies.
9. Repetition machine punching to jigs and/or stops and/or dies and/or marks, including random checking with fixed gauges.
10. *Repetition marking to jigs and/or templets.

***Marking to templets**' means the marking of material by means of a templet and scriber or marking material.
11. Repetition operation of and/or attending machine designed or permanently adapted for a single 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.
12. Repetition operation of vehicle rim rolling machines where the power cycle is automatic and where operations are limited to loading, starting, stopping and unloading, and where no gauging is required.

13. Repetition rolling in forging rolls.

RATE H

1. Automatic and/or semi-automatic machine nutting.
 2. Bending to stops of pipes and/or tubes in manually and/or power-operated bending machines.
 3. Cold forming and/or trimming and/or punching by machine.
 4. Dressing and/or deburring by hand and/or by grinding and/or by portable power tool.
 5. Metal coating by dipping under supervision of a Rate A to D employee.
 6. Operating automatic thread forming machine.
 7. Operating bolt and/or nut facing machine.
 8. Operating fraizing and/or pointing machine.
 9. Operating tube and/or rod and/or wire straightening machine.
 10. Repetition cutting and/or cropping and/or shearing to length gauges and/or marks and/or stops.
 11. Repetition hydraulic testing and/or air testing, excluding preparatory work.
 12. Repetition roller bending of material not exceeding 4 mm in thickness.
 13. Re-threading and/or re-tapping.
 14. Sand and/or shot and/or hydro and/or grit blasting.
 15. Screwing machine operating excluding setting up.
 16. Baling of scrap.
 17. Dipping in enamel and/or paint and/or lacquer.
 18. Feeding a forming machine.
 19. Feeding and/or minding special purpose nicking and/or profiling and/or slotting machine.
 20. Holding up for riveting.
 21. Straightening and/or flattening of gussets and/or cleats.
 22. Stretching and/or rough straightening of bars by hand and/or by machine.
 23. Stripping forgings and/or stampings, using dies.
- (2) Notwithstanding any operation or wage rate scheduled in this Division or in Schedule G and/or Schedule M of this Agreement no operation or wage rate scheduled in this Division or in Schedule G and/or Schedule M of this Agreement shall apply to the following operations in the manufacture of motor vehicle parts and/or spares and/or accessories and/or components for motor vehicles, viz:
- Repetition operation of or attending machines adapted for semi-automatic operations (including programme controlled copying lathes), where the work cycle is power-driven and the end point is controlled by automatically operating stops, so that manual operations are limited to loading, unloading, setting the machine in motion, stopping and advancing or retracting the tools before and after the power-driven cycle takes over (excluding setting up).
- Repetition welding and/or brazing and/or bronze welding in jigs or of parts so formed and/or located as to obviate the need for a jig, and/or tack welding of pre-assembled units. Semi-automatic welding by machine (excluding setting up).

DIVISION D/26

ELEVATOR AND/OR ESCALATOR MANUFACTURING DIVISION

The following operations in the manufacture and/or assembly of elevators and/or escalators:

**WAGE RATES APPLICABLE TO OPERATIONS SCHEDULED IN
DIVISION D/26 ARE PRESCRIBED IN CLAUSE 3(a) OF PART II OF THIS AGREEMENT**

RATE A

1. Assembly requiring fitting adjustments.
2. Electrical fitting (n.e.s.).

RATE AA

1. All wiring operations involving reference to wiring diagrams.

2. Electrical functional testing, including earth potential testing and/or fault localising to schematic drawings and/or specifications.

RATE B

1. Visual checking of signal fixture equipment to drawings and/or specifications (excluding electrical functional testing).

RATE C

1. Assembling of cabs from preformed sheet-metal components (non-electrical) where no fitting is required but repetitive adjustment is necessary, and a rule, scribe and square are used for aligning purposes only, including tack and/or spot welding (n.e.s.).
2. Straightening or flattening (n.e.s.).

RATE D

1. Drilling and/or countersinking and/or reaming and/or spot facing (n.e.s.), including the use of adjustable reamers, provided they are pre-set by a Rate A or Rate AA employee (including sharpening drills).
2. Operating semi-automatic argon arc welding machine.
3. Press operating (n.e.s.), including the affixing and/or removal of dies where there is positive location.
4. Repetitive electrical assembly work on cabs (n.e.s.), where no fitting is required, including connecting up and/or pulling through of cables and/or wires.
5. Wood machining for platforms and/or shaft templates under supervision of a Rate A employee.

RATE DD

1. Final assembly of capacitor and/or resistor and/or relay units, including the wiring and soldering to connections.
2. Operating mechanical bevelling machine, excluding setting of cutters.

RATE DDD

1. Functional testing of relays and/or switches.
2. Repetition electrical checking and/or adjusting of sub-units and/or components by comparison with fixed standards with predetermined limits by means of special-purpose test gear and/or fixed gauges and/or samples and/or checking of fixtures.
3. Operating engraving machine, including the changing of type, but excluding tool setting.
4. Forming of wiring-harness for hoistways, including fitting of plugs to wire ends, using schedule for determining of wire lengths.

RATE E

1. Assembly of components and/or piece parts into unit boxes to samples and/or specimens prepared by a Rate A employee.
2. Mechanical connections in units of preformed and/or prepared wires to predetermined points and running out lists (n.e.s.).
3. Repetition wiring of control panels where the terminal connections are numbered and the sequence of wiring operations is performed to a schedule.
4. Repetition wiring to specimens, prepared by a Rate A employee.
5. Assembling of electrical components to mountings.
6. Strapping of components to printed circuit boards, using samples and/or pre-marked boards including soldering.

RATE F

1. Repetition production machining of bar and/or tube on capstan lathes to stops, where the work piece is held by devices not necessitating any centralising or trueing, excluding setting up. (This operation is limited to machines not exceeding a 52 mm nominal bore diameter.)

RATE G

1. Application of sealing compounds and/or adhesives.
2. Application of sound-deadening materials and/or insulating medium under supervision of a Rate A to D employee.
3. Assembling of self-locating parts pre-manufactured and taken from stock, where no fitting or adjustment is required or reference to sketches and/or drawings, but including deburring.

4. Assembling sub-panel components into controller panels to sketches under supervision.
5. Repetition crimping of terminals and/or stripping of wires (including eyeletting).
6. Repetition cutting and/or preforming sets of wires to jigs and/or fixtures and/or templets and/or length gauges.
7. Repetition hot and/or cold blanking and/or piercing on presses, using guides and/or jigs and/or stops and/or dies.
8. Repetition operating pressbrake and/or folding machine to stops and/or jigs and/or length gauges, where the stroke is not controlled and material does not exceed 4 mm in thickness (excluding setting up).
9. Repetition soft soldering on indicator panel lights.
10. Reshaping and/or straightening of components damaged or distorted in production, excluding panel work.
11. Rough straightening of guiderails and/or bars by hand and/or machine, excluding the use of rule and/or straight edge.
12. Operating fully automatic NC punching machine, excluding setting of stops.
13. Silk screening to samples and/or pictorial sketches and/or photographs.
14. Repetition drilling to pre-marked pops and/or dimples and/or jigs and/or fixtures and/or stops, including counter-sinking and/or reaming by nonadjustable reamers, but excluding radial drilling machine.
15. Repetition machine punching to jigs and/or stops and/or gauges and/or marks, including changing of blanking tool.
16. Sand and/or shot and/or hydro and/or grit blasting.

RATE H

1. Metal buffing and/or polishing.
2. Applying transfers.
3. Bonderising and/or preparing for painting and/or soldering and/or brazing.
4. Packing of manufactured articles for despatch or sale.
5. Pouring of liquid plastic into moulds and pre-engraved plates.
6. Stencilling and/or marking and/or colour marking and/or labelling.
7. Wet rubbing.
8. General labouring.

DIVISION D/27

LOCOMOTIVE MANUFACTURING DIVISION

For the purposes of this Division, 'locomotives' shall comprise propulsion/ traction units.

The following operations in the manufacture and/or assembly of locomotives, including design modification within the warranty period where the work performed falls within the operations listed:

**WAGE RATES APPLICABLE TO OPERATIONS SCHEDULED IN
DIVISION D/27 ARE PRESCRIBED IN CLAUSE 3(a) OF PART II OF THIS AGREEMENT**

Section (a): Electrical work and related activities

RATE A

1. Electrical fitting.

RATE AA

1. Repetition making up of cable harnesses where the course of the wire is marked by cleats and/or lines and/or saddles and/or fixtures and where no wiring diagram is used.

RATE C

1. Repetition electrical assembly work (n.e.s.) under the supervision of a Rate A employee.

RATE D

1. Bending of conduits by pipe bending machine to data sheets and/or sketches (n.e.s.).

RATE DDD

1. Soft soldering and/or sweating.

RATE F

1. Bending of conduits to templet and/or stops by pipe bending machine (excluding setting of stops).
2. Repetition crimping of terminals and/or stripping ends of wires.
3. Repetition pulling through only of cables and/or wires pre-cut to predetermined lengths.
4. Repetition tinning of earth straps connecting the frame of the bogie to the roller bearing housing pad and/or inter-connecting battery busbars and/or sweating of the battery lugs.
5. Tinning by hand.

RATE G

1. Repetition cutting of conduits and/or pipes and/or tubes to templets and/or fixture and/or to stops and/or to length gauges.
2. Repetition cutting and/or identification of wire to length gauges under the supervision of Rate A to B employee.
3. Screwing machine operating excluding setting up.

Section (b): Mechanical work and related activities

RATE A

1. Machine tool setting up.
2. Marking out (n.e.s.).
 ‘**Marking out**’ means the marking out with measuring instruments of the centres and working lines of articles and/or material.
3. Panel beating.
4. Setting out (n.e.s.).
 ‘**Setting out**’ means the setting out of work on the floor or on the bench to sketches and/or drawings and/or dimensions.

RATE AA

1. Assembly of traction motors and/or gear cases to bogies.
2. *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.
3. Straightening of coach body side panels (free-hand work).
4. Straightening of superstructure panels (free-hand work).

RATE B

1. Cold sawing where the sawyer marks direct from cutting list.
2. Drilling machine work (n.e.s.).
3. Riveting pressure vessels.
4. Supervisory work (n.e.s.), including marking off when making adjustments to the components of underframes and/or bogies.

RATE C

1. Operating multi-head oxyacetylene cutting machines and/or flame planing and/or flame bevel cutting machines (including setting up).
2. Riveting and/or caulking (n.e.s.).
3. Roller bending, other than repetition roller bending (n.e.s.).
4. Setting (n.e.s.) (excluding tool setting) of dies and/or fixtures and/or stops and/or jigs and/or guides on production machines.

RATE D

1. Arc and/or gas cutting (n.e.s.).

2. Assembling of complete subassemblies and/or units where there is positive location and no fitting and/or adjustment is required, including positional adjustment under the supervision of a Rate A employee, but excluding traction motors, gear cases and/or diesel engines.
3. Bending and/or forming to jigs and/or stops in press-brake and/or power folding machine (excluding setting up).
4. Bending of pipes and/or tubes to data sheets or templets.
5. 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.
6. Drilling on radial drilling machines to jigs and/or fixtures and/or marks, excluding setting (n.e.s.).
7. Hand welding by mechanically fed electrodes.
8. Machining 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 the use of fixed gauges).
9. *Marking off material (n.e.s.).
 ***Marking off** means marking off material to given lengths for cutting off purposes using only length gauges and/or rule and/or tape measure and marking material.
10. Operating automatic arc and/or gas and/or foil welding machine.
11. Operating power saw (n.e.s.), including marking off with rule and/or tape measure only and including setting of stops (n.e.s.).
12. Operating single head oxyacetylene profiling and/or straightline cutting machine to templets.
13. Press operating (n.e.s.), including the affixing and/or removal of dies where there is positive location, excluding setting-up (excluding press-brake).
14. Preliminary shrinking and/or straightening of interior panels by hand tools.
15. Preliminary shrinking of body ends by hand tools.
16. Preliminary welding for positioning of jobs prior to welding or riveting or bolting up (runs of not more than 40 mm in length).
17. Repetition assembly of prepared sets of pipes and/or tubes and/or conduits.
18. Repetition cutting and/or cropping and/or shearing to stops and/or templets and/or length gauges.
19. Repetition operation of templet copying punch machine.
20. Repetition roller bending and/or forming involving the use of metal not exceeding 4 mm in thickness.
21. Repetition roller forming of plate with pre-set rolls.
22. *Repetition welding and/or brazing in jigs.
 ***Repetition welding and/or brazing in jigs** means that the jig 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 jig and thereafter an employee at the same rate may complete the weld on the article when it is removed from the jig.
23. Riveting (10 mm diameter or less).

RATE DD

1. Operating mechanical bevelling machine, excluding setting of cutters.

RATE F

1. Assisting a Rate D employee in the loading of premanufactured components and/or subassemblies into jigs and/or underframes and/or shells and bolting up, excluding fitting and/or adjustment but including deburring. Employees may only be employed on the operation set out at Rate F of this Schedule provided that the ratio of employees in the establishment is not less than one Rate D employee to three Rate F employees.
2. Attending automatic submerged arc and/or gas shielded wire and/or flux cored wire arc welding machines 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 to B employee.
3. Repetition bending of conduits and/or pipes and/or tubes in manual operated machines to templates and/or stops (excluding setting of stops).
4. Supervising employees employed on classes of work scheduled below Rate F (when so appointed).

RATE G

1. Application of anti-corrosive and/or anti-fouling and/or protective coatings.
2. Attending, cleaning and/or degreasing of acid and/or rinsing and/or fluxing baths.
3. Fly and/or treadle and/or manual pressing and/or notching where the work is operated upon with pre-set dies (excluding setting of the dies) and/or to stops.
4. Hand bending and/or forming to jigs and/or stops.
5. Huck type fastening.
6. Metal buffing and/or polishing.
7. Oiling and/or greasing machinery.
8. 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.
9. Operating power hammer (hammer driving) under instruction of a Rate A to D employee.
10. Operating power saw for repetitive cutting off to stops and/or length gauges and/or graduated scales (other than the setting of stops and other than in toolroom).
11. Reaming, using non-adjustable reamers.
12. Repetition arc spot and/or butt and/or flash and/or projection and/or resistance and/or seam and/or spot and/or stud welding by machine.
13. 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.
14. Repetition drilling of fixing holes up to 16 mm holes with portable drilling machines in connection with body sides and/or roofs and/or gutters and/or ends and/or underframes, using jigs and/or fixtures and/or templets.
15. Repetition drilling and/or countersinking to fixtures and/or gauges and/or jigs and/or stops and/or templets and/or predrilled holes, excluding radial drill.
16. Repetition forging under power hammer, using pre-set forming dies, excluding hand manipulation.
17. Repetition threading and/or tapping by machine (excluding setting up).
18. Rethreading and/or retapping.
19. Rough straightening and/or rough flattening of material, excluding the use of rules and straight edges and excluding structural metal work.
20. Sand and/or shot and/or hydro and/or grit blasting.
21. Screwing machine operating, excluding setting up.
22. Shrinking of coach body sides in a heating jig under supervision of a Rate A to AA employee.
23. Straightening and/or flattening of gussets and/or cleats.
24. Striking by hand hammer under instruction of a Rate A to D employee.
25. Stripping and/or punching forgings and/or stampings, using preset dies.

RATE H

1. Affixing slings under supervision of Rate A to D employee.
2. Dipping in enamel and/or lacquer and/or paint.
3. Holding up and/or backing up for riveting.
4. Lagging of pipes and/or securing of lagging by clips.
5. Repetition deburring and/or fettling by hand and/or by machine.
6. Rivet heating.
7. Stamping and/or affixing metal labels and/or nameplates.
8. Baling of scrap.
9. Descaling by chipping.
10. General labouring.

*Section (c): Painting and related activities***RATE A**

1. Painting and/or signwriting and/or polishing and/or staining and/or varnishing and/or veneering for finishing and

decorating (n.e.s.).

RATE AA

1. Applying transfers.

RATE D

1. Application of last two coats of paint and/or enamel prior to the finishing coat (n.e.s.) and final stopping.

RATE F

1. Masking for painting.
2. Preliminary stopping by trowel of body sides and ends.

RATE G

1. Application of prime and/or anticorrosive coatings.
2. Application of sealing compounds and/or adhesives.
3. Application of sound-deadening materials.
4. Rough masking for spinning only.
5. Spraying of enamel and/or paint to bogie and/or underframe and/or pre-manufactured components under supervision of a Rate A to D employee.
6. Stencil painting.
7. Wet and/or dry rubbing.

Section (d): Woodworking and related activities

RATE A

1. Carpentry (n.e.s.).
2. Positioning, identification and fixing of timber furrings.

RATE C

1. Carpentry and/or woodworking in connection with assembly and/or finishing under supervision of a Rate A employee. Employees may only be employed on the operations set out at Rate C of this Schedule provided that the ratio of employees in the establishment is not less than one carpenter and/or wood machinist at Rate A to one employee employed on carpentry and/or wood-machining operations under Rate C.

RATE F

1. Floor sanding.
2. Repetition drilling of mouldings to jigs and/or templets and/or stops and/or length gauges and/or marks on pedestal drill.
3. Repetition sawing of mouldings to stops and/or templets and/or length gauges and/or marks.

RATE G

1. Cutting lino to templets.
2. Placing of pre-cut glass into apertures under supervision of Rate A to B employee.
3. Sandpapering of wooden parts by hand.

DIVISION D/28

RAILWAY WAGON MANUFACTURING

The following operations in the manufacture and/or assembly of railway freight wagons, including guard's vans, including modification and/or rectification within the warranty period where the work performed falls within the operations listed:

**WAGE RATES APPLICABLE TO OPERATIONS SCHEDULED IN
DIVISION D/28 ARE PRESCRIBED IN CLAUSE 3(a) OF PART II OF THIS AGREEMENT**

Section (a): Electrical work and related activities

RATE A

1. Electrical fitting.

RATE AA

1. Repetition making up of cable harnesses where the course of the wire is marked by cleats and/or lines and/or saddles and/or fixtures and where no wiring diagram is used.

RATE C

1. Repetition electrical assembly work (nes) under supervision of a Rate A employee.

RATE D

1. Bending of conduits by pipe bending machine to data sheets and/or sketches (n.e.s.).

RATE F

1. Bending of conduits to templet and/or stops by pipe bending machine (excluding setting of stops).
2. Repetition pulling through only of cables and/or wire pre-cut to predetermined lengths.
3. Repetition crimping of terminals and/or stripping ends or wires.

RATE G

1. Repetition cutting of conduits and/or pipes and/or tubes to templates and/or fixtures and/or to stops and/or to length gauges.
2. Repetition cutting and/or identification of wires to length gauges under the supervision of a Rate A to C employee.
3. Screwing machine operating, excluding setting up.

Section (b): Mechanical work and related activities

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.
3. Machine tool setting up and/or tool setting, including tool grinding.

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, excluding centre lathe (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.
2. Operating cranking and/or straightening machine (repetition work) (n.e.s.).

RATE B

1. Drilling machine work (n.e.s.).
2. Riveting pressure vessels.
3. Supervisory work (n.e.s.).

RATE C

1. Flattening and/or straightening only (n.e.s.).
2. 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.).

3. Repetition assembly of pre-prepared interior and exterior fittings and/or components and/or subassemblies, including adjustments under supervision.
4. Roller bending other than repetition roller bending (n.e.s.).
5. Setting (n.e.s.) (excluding machine tool setting up and/or toolsetting) of dies and/or fixtures and/or stops and/or jigs and/or guides and/or trips on production machines.

RATE D

1. Arc and/or gas cutting (n.e.s.).
2. Assembly work, where the components and/or sub-assemblies are positively located, including adjustments, but excluding marking off of components and/or sub-assemblies to drawings and/or the use of precision measuring instruments.
3. Bending and/or forming to jigs and/or stops in press-brake and/or folding machine (n.e.s.).
4. Bending of pipes and/or tubes to data sheets or templets.
5. Drilling and/or countersinking and/or reaming (n.e.s.), including the use of adjustable reamers, providing they are pre-set by a Rate A or AA employee, including the sharpening of drills.
6. Drilling on radial drilling machines to jigs and/or fixtures and/or marks (n.e.s.).
7. Hand welding by mechanically fed electrodes.
8. Machining on repetition work by means of fixtures and/or jigs and/or stops where the work cycle is manually operated (excluding the requirements of stops for parting off and excluding setting but including the use of fixed gauges).
9. *Marking off material (n.e.s.).
 ***Marking off** means marking off material to given lengths for cutting-off purposes, using only length gauges and/or rule and/or tape measure and marking material.
10. Operating automatic arc and/or gas and/or foil welding machine (excluding setting up).
11. Operating cold circular saw to marks and/or stops.
12. Operating power saw, including marking off with rule and/or tape only and including the setting of stops (n.e.s.).
13. Operating single-head gas profile cutting machine and/or single and/or multi-head straight line cutting machine including setting up.
14. Preliminary shrinking and/or straightening of panels by hand tools of material not exceeding 4 mm.
15. Press operating (n.e.s.), including the affixing and/or removal of dies where there is positive location, excluding setting up (excluding press brake).
16. Repetition cutting and/or cropping and/or shearing and/or punching to jigs and/or stops and/or templets and/or marks (n.e.s.) (guillotines and cropping machines).
17. 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 broach-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.
18. Repetition operation of templet copying punch machine.
19. Repetition roller forming of plate with pre-set rolls (n.e.s.).
20. *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.
21. Riveting and/or caulking (n.e.s.).

RATE DD

1. Operating mechanical bevelling machine excluding setting of cutters.
2. 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), including checking by use of fixed gauges and including the replacing and/or repositioning of throwaway tips only on throwaway tipped tooling, but excluding machine tool setting up and/or toolsetting 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.

RATE F

1. Drilling and/or countersinking to jigs and/or fixtures and/or templets 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 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 article loaded does not exceed a mass limitation of 12kg (excluding setting up), but including random checking by the use of 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.
3. Repetition operating of a facing and centreing 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).
4. Supervising employees employed on classes of work scheduled below Rate F (when so appointed).

RATE G

1. Application of anti-corrosive and/or anti-fouling and/or protective coatings.
2. Application of sound deadening materials.
3. Assisting Rate D employee in the loading of pre-manufactured components and/or subassemblies into jigs and/or underframes and/or shells and bolting up, excluding fitting and/or adjustment, but including deburring.
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. Cold hand bending and/or forming to jigs and/or dies and/or stops.
6. Cutting lino to templates.
7. Dressing and/or deburring by hand and/or by grinding and/or by portable power tools.
8. 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 the dies).
9. Huck type fastening.
10. Metal buffing and/or polishing.
11. Metal cleaning by degreasing and/or pickling.
12. Operating drop hammer (drop hammer driving).
13. 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.

14. Operating arc spot and/or butt and/or flash and/or projection and/or resistance and/or seam and/or spot welding machine.
15. Operating power hammer (hammer driving) under instruction of a Rate A to D employee.
16. Operating power saw for repetitive cutting off to stops and/or length gauges and/or fixed graduated scales (other than the setting of stops and other than in tool room) (excluding cold sawing).
17. Operating tumbling barrel.
18. Reaming, using non-adjustable reamers.
19. 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.
20. Repetition drilling and/or countersinking to fixtures and/or gauges and/or jigs and/or stops and/or templets, excluding radial drilling machine.
21. Repetition drop forging and/or stamping, using pre-set dies (excluding setting up and/or swaging).
22. Repetition forging under power hammer, using pre-set dies, excluding hand manipulation.
23. Repetition fraizing and/or pointing machine work.
24. Repetition blanking and/or piercing by press, using guides and/or jigs and/or stops and/or dies (excluding press-brake).
25. Repetition machine swaging, using dies, excluding power hammer.
26. Repetition operating nibbling machine and/or nibbling shears to jigs and/or templets of material not exceeding 4 mm in thickness.
27. Repetition 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, but excluding setting up.
28. Repetition roller bending and/or forming of material not exceeding 4 mm in thickness.
29. Repetition threading and/or tapping by machine.
30. Re-threading and/or re-tapping.
31. Rough straightening and/or rough flattening of material, excluding the use of rules and straight edges and excluding structural metal-work.
32. Sand and/or shot and/or hydro and/or grit blasting.
33. Screwing machine operating, excluding setting up.
34. Spraying of enamel and/or paint.
35. Straightening and/or flattening of gussets and/or cleats.
36. Striking by hand hammer under instruction of Rate A to D employee.
37. Stripping and/or punching forgings and/or stampings using pre-set dies.

RATE H

1. Affixing slings under supervision of a Rate A to D employee.
2. Baling and/or cutting of scrap other than in workshop.
3. Dipping in enamel and/or lacquer and/or paint.
4. Holding up and/or backing up for riveting.
5. Lagging of pipes and/or securing of lagging by clips.
6. Repetition deburring and/or fettling by hand and/or machine.
7. Rivet heating.
8. Stamping and/or affixing metal labels and/or nameplates.
9. Furnace loading and/or unloading and/or stoking and/or quenching.
10. General labouring.
11. Oiling and/or greasing.

DIVISION D/29

ELECTRICAL ENGINEERING (N.E.S.) DIVISION

Applicable to the Electrical Engineering Industry other than activities elsewhere specified in this Agreement.

For the purposes of this Division—

- (a) the Electrical Engineering Industry means the industry concerned with the manufacture, including remanufacture, 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 and other equipment, utilising the principles used in the operation of radio and electronic equipment, incandescent lamps and electric cables and domestic electric appliances, and shall further include the manufacture of component parts of the aforementioned equipment;
‘Remanufacture’ means the correction of faults in items of equipment in a manufacturing establishment prior to sale and which items are returned to the production line, and/or the correction of faults in items of equipment returned to the original manufacturing establishment by the purchaser whilst under a guarantee;
- (b) a pictorial drawing is a drawing which is not a wiring, a schematic, or a circuit diagram, and has not been altered by the use of pictorial symbols, but is a diagram which shows only outlines of components and where the circuit connections from component to component are contained, in either a wiring schedule or physically shown in a pictorial drawing;
- (c) in the subsequent schedules, the headings of the different groups of products concerned shall be construed as provided solely for ease of reference, and any operation in any group may be used by any undertaking in the Electrical Engineering Industry.

**WAGE RATES APPLICABLE TO OPERATIONS SCHEDULED IN DIVISION D/29 ARE PRESCRIBED IN
 CLAUSE 3(a) OF PART II OF THIS AGREEMENT**

Section (a): Transformers

RATE AA

1. All operations (n.e.s.) in the assembling of transformers other than yoke above 1 000 kVA, including wiring to predetermined points on or attached to the transformer (excluding fitting adjustments).
2. Repetition marking and/or guillotine shearing of material for manufacture of transformer end clamps and/or frames, including assembling and welding.
3. Winding continuous disc windings with two or more strip conductors in parallel, including loading and unloading by the same employee of self-locating mandrels and/or formers.

RATE B

1. Winding helical windings with one or more conductors in parallel, including loading and unloading by the same employee of self-locating mandrels and/or formers.

RATE C

1. Connecting and/or sweating of leads and/or ends of transformers above 500 kVA (n.e.s.).

RATE D

1. All operations (n.e.s.) in the assembling of transformers, other than yoke, above 500 kVA up to and including 1 000 kVA.
2. Marking out insulation material for transformers from drawings and/or schedules under instruction of a Rate A to C employee.

RATE DD

1. Winding disc windings wound with single strip conductor, including loading and unloading by the same employee of self-locating mandrels and/or formers.
2. Routine turns testing of transformer coils.
3. Winding spiral windings with one or more conductors in parallel, including loading and unloading by the same employee of self-locating mandrels and/or formers.

RATE DDD

1. Taping and/or wrapping of transformer leads and/or coils and/or conductors and/or tubes by hand for transformers above 500 kVA (n.e.s.).

RATE E

1. All operations (n.e.s.) in the assembling of transformers, other than yoke, up to and including 500 kVA.
2. Connecting and/or sweating of leads and/or ends of transformers up to and including 500 kVA.

RATE F

1. Taping of leads on transformers up to and including 500 kVA.
2. Winding of windings with round or strip conductors on bobbins and/or reels, where the length of the coil does not exceed 200 mm, including the changing of bobbins and/or reels by the same employee.

RATE G

1. Assembling of yokes.
2. Checking core stacks, using pre-set gauges.
3. Mounting of covers and/or accessories (self-locating parts) and/or terminals and/or pipe work, including straightening of studs where necessary and the use of jointing material.
4. Removing top yoke prior to assembling of coils under instruction of a Rate A to D employee.
5. Stacking and/or banding and/or securing of laminations and the positioning of clamps, including the use of fixed gauges.
6. Stripping of windings for the purpose of remanufacture only.

*Section (b): Motors***RATE A**

1. Armature winding (n.e.s.).
2. Balancing work (n.e.s.).

RATE AA

1. Repetition balance work requiring the addition of mass (including by welding) where this necessitates drilling and/or tapping into the work piece and/or balance piece and where adjustments to the mass of the balance piece could be required.

RATE C

1. All operations (except preparation prior to winding, taping and banding and compound filling) in the winding of armatures, using preformed coils on machines rated in excess of 25 kW.
2. All operations, except taping and banding in the winding of stators in excess of 500 kW and/or rotors of machines rated in excess of 500 kW.
3. Final machining of slip rings on completed rotors (by means of special-purpose machine).

RATE D

1. All operations in the assembling (excluding sub-assembly, motor fielding and fitting) of motors and Generators having a rotating core diameter exceeding 500mm.
2. Banding of rotors and/or armatures.
3. Commutator undercutting (n.e.s.).
4. Field coil winding, using bare strip.
5. Repetition checking by routine testing of motors, motor coils and windings limited to the following operations (under direct supervision of a Rate A employee): Checking phase resistance and balance, flash testing at up to 2 kV, checking of speed and direction of rotation, checking of no-load and load power consumption and of torque (n.e.s.).
6. Routine mechanical coupling up with standard equipment of machines up to and including 260 kW on test beds (n.e.s.).

RATE DD

1. All operations (including connecting) in the winding of armatures, using preformed coils up to and including machines rated at 25 kW: After 12 months experience: At Rate D rate of pay.

2. All operations (n.e.s.) (including connecting and taping) in the winding of stators up to and including 500 kW and/or rotors up to and including machines rated at 500 kW:
 First two months of experience on this work at 90 per cent of the Rate
 Thereafter: Rate DD
3. Hard soldering of leads and/or connections on wire-wound stators and/or rotors.
4. Repetition balancing work requiring the addition of balance mass pieces, where the fixing of these balance pieces requires holes to be drilled, and where the masses of the balance pieces are predetermined.

RATE DDD

1. Field coil winding, using insulated conductors.
2. Forming and/or bending of stator and/or armature and/or rotor coils by hand.
3. Inserting of preformed coils and insulation into slots and taping of preformed coils above 4 kW up to and including 20 kW.
4. Repetition checking of motors assembled and rated to run only at up to 1,5 kW limited to the following operations (under the direct supervision of a Rate A employee): Checking phase resistance and balance, flash testing at up to 2 kV, checking of speed and direction of rotation, checking of no-load power consumption and of torque.
5. Routine flash testing of motor windings up to 60 kW with flash testing unit, preset by Rate A to D employee up to 2 000 V.
6. Taping and/or wrapping of rotor and/or stator and/or armature coils and/or field coils and/or conductors and/or lead anchoring staples in frames by hand (n.e.s.).

RATE F

1. Checking by routine testing of motor coils and/or windings, on machines rated at up to and including 1,5 kW, where the operations are confined to connecting up to test apparatus and where the operating is limited solely to accept or reject by means of indicators.
2. Inserting of preformed coils and insulation into slots and taping of preformed coils up to and including 4 kW.
3. Repetition balancing work requiring the addition of balance mass pieces to preformed nipples, grooves, studs, holes, etc. or by the removal of specially provided fins or nipples by cutting.

RATE G

1. All operations in the assembling (excluding fitting adjustments) of motors and generators having a rotating core diameter not exceeding 500 mm.
2. Banding of rotors and/or armatures with resin coated tape on machines rated at up to 1,5 kW.
3. Bedding brushes in jigs to obtain profile.
4. Broaching by press of rotor cores and brush holder boxes (excluding setting up).
5. Checking core stacks, using pre-set gauges.
6. Commutator undercutting by automatic machine (excluding setting).
7. Filing by hand of coil bars for rotors to go and no-go gauges.
8. Filing by hand of coil slots in rotors and/or stators and/or armatures to go and no-go gauges.
9. Inserting bars in squirrel-cage rotors.
10. Motor fielding – the sub-assembling of pole pieces and/or washers and/or coils and/or the connecting of coil leads in a magnet frame.
11. Packing and/or ironing on of insulating material on to the armature to form a seat for the armature coils.
12. Reinforcing of armature coil evolutes by extra taping.
13. Routine mechanical coupling up with standard equipment of machines up to and including 265 kW on test beds where no alignment is required.
14. Stacking and/or banding and/or securing laminations and the positioning of clamps, including the use of fixed gauges.
15. Stator and/or rotor and/or armature coil forming by hand, using formers or by power-driven machine (excluding setting of trips).
16. Stripping of windings for the purpose of remanufacture only.

17. Swaging of special purpose rivets on pole pieces.
18. Taping and/or wrapping of stator and/or rotor and/or armature coils and/or field coils and/or conductors and/or tubes by machine where the machine is pre-set by a Rate AA to D employee.
19. Winding and/or pulling of stator and/or rotor loops by hand and/or by power-driven machines (excluding setting up).

RATE H

1. Deburring and/or dressing laminations by hand and/or machine (including use of files-stators and/or rotors).
2. Waxing coils to ease insertion into slots.

*Section (c): Switchgear and accessories***RATE A**

1. Electrical fitting, including wiring of switchgear panels and/or switchboards (n.e.s.).

RATE AA

1. Calibrating and/or adjusting electrical measuring devices, excluding the rectification of functional defects of the measuring devices.

RATE D

1. Marking out insulation material for switchgear from drawings and/or schedules under instruction of Rate A to C employee.
2. Wrapping of high-voltage paper bushings (foiled synthetic bonded) by machine.

RATE DD

1. Connecting of coil and contact leads to predetermined points and/or pictorial drawings of meters and/or relays and/or instruments.
2. Repetition wiring where the course of the wires is marked by cleats and/or lines and/or saddles and/or wiring channels and/or fixtures and/or pictorial drawings:
After 12 months' experience: At Rate D rate of pay.
3. Repetition preparation of wiring harnesses on peg boards, or fixtures determining the route of the wire and/or to samples and/or pictorial drawings where no wiring diagram is used under Rate A or AA supervision.

RATE DDD

1. Marking of meter and/or instrument dials using stencils.
2. Scaling of meters and/or electrical measuring instruments to pre-printed schedules.

RATE E

1. Connecting of meters, relays and instruments to pictorial drawings and/or predetermined points for testing.
2. Repetition testing of meters and/or relays and/or electrical measuring instruments, excluding adjustments.

RATE F

1. Winding of secondary coils for current transformers.

RATE G

1. Assembling of fuse cartridges not exceeding 660 volts and 1 200 amps.
2. Dishing of meter and/or instrument dials in a pre-set fly press.
3. Mechanical switchgear testing where no current is applied (excluding adjustments).
3. Packing with plastic compound of connections and/or joints and/or conductors, including taping by hand (after inspection of the joints by a Rate A employee).
5. Primary winding of current transformers, including insulating.
6. Repetition marking of fuse caps by machine.
7. Repetition testing and inspecting of fuse cartridges by means of an ohmmeter and/or fixed gauges.
8. Taping by hand of current transformer cores.

*Section (d): Field work***RATE AA**

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

2. *Intercommunication telephone installing (excluding electronic equipment).

*First six months of experience Rate B
Thereafter Rate AA

Section (e): General electrical

RATE A

1. Electrical fitting (n.e.s.).

RATE AA

1. High-potential testing when performed by persons normally engaged in operative processes.

RATE C

1. Setting of trips and/or stops on coil forming machine.

RATE D

1. Changing of self-locating mandrels and/or formers on coil-winding machines.

RATE DDD

1. Repetition wiring to pictorial drawings and/or specimens prepared by a Rate A employee.
2. Routine continuity testing and flash testing up to 2 kV.

RATE E

1. Soft soldering by hand.

RATE F

1. Repetition electrical checking of LV switches and/or LV circuit-breakers and/or electrical accessories where minor adjustments to indicators and/or fixed gauges are permitted and rejected articles are returned for remanufacture.

RATE G

1. Binding of coils.
2. Connecting preformed and/or prepared wires to predetermined points and/or connections.
3. Forming grooves in ceramic paste and/or covering by dies to jigs.
4. Forming insulations by machine.
5. Forming of mica insulation plates and/or mica sheets.
6. Making connector clips by hand in jigs.
7. Making up of connecting strips.
8. Manual straightening of conductors.
9. Operating wire covering machines.
10. Preparation and mixing of cements and/or pastes and/or ceramic constituents and the application thereof to components.
11. Pressing winding insulation into moulds including preparatory wrapping.
12. Repetition continuity testing of LV switches and/or LV circuit-breakers and/or earth leakage protection units where the operation is confined solely to acceptance or rejection.
13. Repetition crimping of terminals and/or stripping wires and/or cables on copper cables up to 13 mm and aluminium cables up to 25 mm diameter.
14. Repetition cutting and/or preforming sets of wires to jigs and/or fixtures and/or templets and/or length gauges.
15. Spraying of insulating medium.
16. Winding of coils on formers and/or spools not exceeding 150 mm in length and with wire not exceeding 20 mm² by machine, including loading and unloading by the same employee of self-locating mandrels and/or formers.

RATE H

1. Attending varnishing machine.
2. Attending resin casting machine.
3. Binding of two or more pieces of insulation together using tape.
4. Cementing of porcelain.

5. Cleaning and/or tinning conductors.
6. Compound filling.
7. Dipping and/or impregnating insulating medium.
8. Minding wire drawing machine.
9. Stripping of moulds from resin casting.

Section (f): General mechanical

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.

RATE AA

1. Operating press-brake (including setting up) (n.e.s.).
2. *Marking out of sheetmetal not exceeding 4 mm thickness.

*For the purposes of the above 'marking out' means the marking out with measuring instruments of centres and working lines on material preparatory to processing.

RATE B

1. Wire drawing, including supervisory work, and setting up of wire drawing machine (n.e.s.).

RATE D

1. Brazing of leads and/or located parts.
2. Changing of self-locating dies on die-casting machines.
3. Changing of self-locating dies on manually-operated presses.
4. Cutting and/or cropping and/or shearing and/or punching to jigs and/or length gauges and/or stops and/or templets, excluding oxyacetylene cutting (n.e.s.).
5. Drilling and/or reaming and/or tapping and/or spotfacing on radial drilling machine to jigs and/or fixtures and/or marks and/or pops (nes), including sharpening of drills.
6. Machining on repetition work by means of fixtures and/or jigs and/or stops (excluding 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 toolsetting up and/or tool-setting and/or adjusting).
7. *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.
8. Operating turret punching machine to stops and/or templets (n.e.s.) (including setting).
9. Preliminary welding for positioning only of jobs prior to welding, riveting or bolting up (runs of not more than 40 mm in length).
10. Repetition operating power-driven press-brake to stops and/or jigs, excluding setting up.
11. Repetition drill sharpening by machine (other than in toolroom).
12. Setting of stops on guillotine for cutting insulation only.
13. Setting of stops on manually-operated guillotine.
14. Setting of stops on tube and/or pipe bending machine.

RATE DD

1. Operating press-brake (n.e.s.) to stops and/or jigs and/or length gauges involving the use of sheetmetal not exceeding 4 mm thickness, excluding setting up.

RATE DDD

1. Repetition checking of parts and/or components and/or sub-assemblies by means of comparators and/or samples (n.e.s.).
2. Repetition drilling and/or tapping on radial drill to jigs with drills not exceeding 40 mm diameter, excluding setting up.

RATE E

1. Repetition operation of and/or attending machines adapted for semi-automatic operations (including programme controlled copying lathes) where the work cycle is power-driven and the end point is controlled by automatically operating stops, so that manual operations are limited to loading, 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-driven cycle takes over, stopping the machine and unloading (excluding setting up).
2. Rough grinding to marks.
3. Repetition assembling of self-locating pre-manufactured parts to samples and/or pictorial sketches, where no fitting or adjustment is required.

RATE F

1. Operating power-driven guillotine to stops, involving the use of sheetmetal not exceeding 4 mm thickness, excluding setting up.
2. Repetition batch checking of parts and/or components and/or subassemblies by means of fixed gauges and/or checking fixtures.
3. 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).
 'Semi-automatic machine' is a machine on which 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, 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.
4. Repetition production machining of bar and/or tube on capstan lathes to stops, where the work piece is held by devices not necessitating any centralising or trueing (excluding setting up). (This operation is limited to a machine not exceeding a 52 mm nominal bore diameter.)

RATE G

1. Assembling in jigs and/or fixtures of self-locating parts, pre-manufactured and taken from stock, where no fitting or adjustment, or reference is required to sketches and/or drawings, but including deburring.
2. Affixing slings under supervision of Rate A to D employee.
3. Attending die-casting machine.
4. Bending to stops of pipes and/or tubes in manually and/or power-operated tube and/or pipe bending machine.
5. Cutting of non-metallic gaskets by hand.
6. Cutting up insulating material to stops and/or templates by guillotine.
7. Hand tapping not exceeding 12 mm diameter (excluding machine shop work).
8. Hydraulic testing and/or testing by air (excluding setting up of testing equipment).
9. Operating press-brake to stops and/or jigs and/or length gauges where the stroke is not controlled, involving the use of sheetmetal not exceeding 4 mm thickness, excluding setting up.
10. Operating single-purpose machine other than machine tools.
11. Repetition drilling to dimples and/or jigs and/or fixtures and/or stops (excluding radial drill), including counter-sinking and/or reaming by non-adjustable reamers.
12. Repetition drilling to pops (excluding structural metal work and radial drilling machine).
13. Repetition machine punching to jigs and/or stops, including the positioning of self-locating stops and/or gauges.
14. Repetition marking to jigs and/or length gauges and/or templates.

RATE H

1. Applying transfers.
2. Attending oven.
3. Baling and cutting of scrap.
4. Flow coat painting.
5. Packing of manufactured articles for despatch and/or sale.

DIVISION D/30

BRIGHT BAR MANUFACTURING DIVISION**WAGE RATES APPLICABLE TO OPERATIONS SCHEDULED IN
DIVISION D/30 ARE PRESCRIBED IN CLAUSE 3(a) OF PART II OF THIS AGREEMENT****RATE F**

1. Feeding centreless grinding machines including gauging by snap gauges, fixed gauges and/or comparator gauges, including running compensating adjustments under supervision of a Rate C employee, but excluding setting up or machine tool setting.
2. Operating centreless bar peeling machine including running compensating adjustments under supervision of a Rate C employee, and the removal, cleaning and replacing of positively located pre-set tools on the employee's own type of machine only, including the use of gauges, but excluding setting up and/or machine tool setting.
3. Operating and/or feeding a combined coil drawing and/or straightening, cropping and polishing machine including the removal, cleaning and replacing of positively located pre-set dies, and including running compensating adjustments on the employee's own type of machine only, including the use of gauges, under the instruction of a Rate C employee, but excluding setting up and/or machine tool setting.

RATE G

1. Operating cold straight-line draw bench, including the removing, cleaning and replacement of positively located pre-set dies and/or grips.
2. Operating round bar and/or section straightening machine.

RATE H

1. Metal cleaning and lubrication by acid and/or by pickling and/or by rinsing and dipping in coating bath.
2. General labouring.

DIVISION D/31

FORGING DIVISION**WAGE RATES APPLICABLE TO OPERATIONS SCHEDULED IN
DIVISION D/31 ARE PRESCRIBED IN CLAUSE 3(a) OF PART II OF
THIS AGREEMENT**

The following operations in the forging of products through the process of open and closed die forging:

RATE A

1. Blacksmithing (n.e.s.).

RATE C

1. Descaling and/or removal of scores from dies, excluding polishing.

RATE G

1. Removing and/or replacement of dies, excluding setting up or lining up.

RATE H

1. Furnace operating, including loading and/or unloading.

*Section (a): Closed-Die Forging (Closed-Impression Forging)***RATE C**

1. Operating drop-forging machine with closed dies, including the setting of dies and/or fixtures and/or stops and/or jigs and/or guides (n.e.s.).
2. Operating electric upsetting machine, including the setting of dies and/or stops and/or guides (n.e.s.).
3. Operating extrusion press, including the setting of dies and/or stops and/or guides (n.e.s.).

4. Operating mechanical upsetting machine, including the setting of dies and/or stops and/or guides (n.e.s.).
5. Operating forging press using pre-set dies, including the setting up of the machine and dies (n.e.s.)
6. Repetition rolling in forging rolls using segmental rolls, including setting up of the machine and/or rolls (n.e.s.).
7. Stripping and/or punching of forgings, including setting up the machines and dies.

RATE G

1. Operating drop forging machines with closed dies, excluding setting up of the machines but including, under supervision of a Rate C employee, the securing of dies when necessitated by the operating process.
2. Operating electric upsetting machine, excluding setting up of the machine and/or dies but including, under supervision of a Rate C employee, running adjustments necessitated by the manufacturing process.
3. Operating extrusion press, excluding setting up of the machine and/or dies but including, under supervision of a Rate C employee, the securing of dies when necessitated by the manufacturing process.
4. Operating mechanical upsetting machine, excluding setting up of the machine and/or dies but including, under supervision of a Rate C employee, running adjustments when necessitated by the manufacturing process.
5. Operating forging press using pre-set dies, excluding setting up of the machine and/or dies but including, under supervision of a Rate C employee, running adjustments when necessitated by the manufacturing process.
6. Stripping and/or punching of forgings, excluding setting up of the machine and/or dies but including, under supervision of a Rate C employee, height adjustments when necessitated by the manufacturing process.
7. Repetition rolling in forging rolls using segmental forging rolls, excluding setting up of the machine or rolls.

Section (b)1: Open-Die Forging on Hammers

RATE D

1. Repetition hammer forging, including manipulation on hammers specifically set up for mass-produced forged articles.

RATE DD

1. Manipulator driving in conjunction with blacksmithing work on hammer.

RATE G

1. Hammer driving.

Section (b)2: Open-Die Press Forging

RATE DD

1. Manipulator driving in conjunction with blacksmithing work on hammer.

RATE G

1. Press operating.

DIVISION D/32

RADIO, TELEVISION AND RELATED EQUIPMENT MANUFACTURING DIVISION

Applicable to—

- (a) the manufacture and/or assembly of domestic (i.e. car, or home, or portable) radio and/or tape recorder or gramophone equipment, including loudspeakers, together with components and/or audio equipment made solely for use in and with such equipment made by the manufacturer of that equipment;
- (b) the manufacture and/or assembly of 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 made by the manufacturer of that equipment.

Note: Notwithstanding the provisions of Part I, clause 20(4), of this Agreement, employees who are in possession of documentary proof that they have three or more years' practical and theoretical experience in the radio and/or television mechanician field and/or similar such artisan activity shall, for the purposes of both this Division and television repair and servicing under Schedule G hereof, be entitled to apply for and obtain a certificate of recognition of artisan status from the Council as provided for under clause 20(4): Provided that should an employee be unable to support the application with documentary proof of practical and 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 20(4).

**WAGE RATES APPLICABLE TO OPERATIONS SCHEDULED IN DIVISION D/32 ARE PRESCRIBED IN
CLAUSE 3(a) OF PART II OF THIS AGREEMENT**

RATE A

1. Electrician's work.
2. Radiotrician's work.
3. Radio and television mechanic's and/or artisan's work.

RATE AA

1. Direct supervision of Rate B or lower-rated employees.
2. Location of electrical faults by predetermined symptom analysis, including repair of such faults by soldering or replacement of faulty components.

RATE B

1. Direct supervision of Rate C or lower-rated employees.

RATE C

1. Relief operating for Rates D to DDD employees.

RATE D

1. Final testing, electrical testing and mechanical alignment of circuits within predetermined limits, including immediate rectification of obvious faults.

RATE DD

1. Rectification and repair of major mechanical faults and defects on products.

RATE DDD

1. Operating all types of production machines, including adjustments and attachment of self-locating dies.
2. Electrical testing, including the use of jigs and instruments, of circuits to predetermined limits, but excluding repair work.
3. Relief operating for Rates E to H employees.
4. Operating soldering machines, including checking of solder temperature and maintaining solder-bath levels.

RATE E

1. Visual examination of products, including touching up of joints, cropping of leads, replacement of incorrect or damaged components and the rectification of minor mechanical defects.
2. Assembling and/or fixing and/or wiring in of components and/or wiring (using prepared wires) to set instructions and/or figures and/or model and/or sample, including soldering by hand.

RATE F

1. Operating all types of production machines, excluding setting and attachment of self-locating dies.
2. Functional checking of pre-tested components and assemblies.
3. Mounting and/or connecting of chassis and/or sub-assemblies and/or components and/or fitments into cabinets or chassis.
4. Inserting components into prepared printed circuit boards to set instructions and/or sample, including trimming of leads, but excluding soldering.
5. Operating a semi-automatic transfer printing machine, including the preparation and mixing of printing ink.

RATE G

1. Laying and binding of cable harnesses, including fitting terminations into housing and/or tinning by dipping.
2. Coding and/or silk screening to samples and/or instructions and/or pictorial sketches and/or photographs.

RATE H

1. Repetitive spray-painting or screening.

2. Product cleaning and packing.
3. General labouring.

“DIVISION D/33

METAL CONTAINER MANUFACTURING

The following operations in the manufacture and/or assembly of commercial plain and /or lithographed metal containers and/or metal container parts from sheet metal of a gauge not exceeding 2,108mm excluding all managerial positions (for example, shift foremen, shift managers, line leaders, controllers and all other salaried staff) *and further excluding the manufacture of such containers and/or parts and/or components by any person for the packaging of his own products and/or goods and/or merchandise.*

RATE A

1. Can making.
2. End making.
3. Lithography (metal decorating).
4. Die and/or jig and/or tool and/or gauge making and/or repairing.
5. Electrical maintenance and/or installations and/or repair work.
6. Fitting and Turning.
7. Fitting (including machining) in the mechanical maintenance of machinery and/or equipment.
8. Machine tool setting up and/or tool setting.
9. Mechanical fitting including running adjustments and maintenance in the operation of in-line bottle crown closure manufacturing lining machines.
10. Millwrighting (electromechanical).
11. Carpentry and/or joinery (excluding the preparation of packaging and rough crating).
12. Universal milling and/or universal grinding and/or universal machining.
13. Electronics mechanics work.
14. Grinding in the maintenance and/or repair and/or restoration and/or refurbishing of used dies.

RATE AA (n.e.s.)

1. Buffing and/or polishing of used drawing dies to establish possible re-sizing potential only (excluding any machining) including receiving of re-sized dies, checking, measuring, gauging, recording and storing.

RATE B

1. Operating and/or attending de-ionizing baths and/or affluent plants including adding and/or regulating deposition of additives, drawing and laboratory testing of samples and recording and advising results and completing documentation.
2. Sectional supervisor of lower rated employees.

RATE C

1. Tabulator and/or venting and/or peaking and/or high metal exposure testing of products including sleeve counting on pre-calibrated special purpose machines and/or equipment including recording and documenting data.
2. Inspection and/or testing of products during the production process including checking with adjustable measuring instruments and recording of data.
3. Setting up of production machinery and/or equipment (excluding machine tool setting up and/or tool setting).
4. Operating and/or attending a varnish and/or lacquer roller coat drying machine / oven including removing and/or replacing and/or adjusting and/or setting of rollers and regulating rate of flow including recording data.
5. 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. Automatic welding where the welding head is automatically fed and the speed of the weld automatically controlled.
2. Press operating (n.e.s.) excluding setting.
3. Tool grinding in jigs.

RATE DD

1. Positioning and/or bolting down of die sets in pre-located positive guides on presses of capacity up to 50 tons prior to setting by a Rate C setter.
2. Repetition operation of a semi-automatic plate edge grinding machine where the operator is not required to grind to marks and/or sizes (excluding setting up).
3. Welding and/or brazing to fixtures or parts so located as to obviate the need for a fixture (weld length not to exceed 55mm and material thickness not to exceed 1,208mm).
4. Repetition operation and/or attending a semi-automatic special purpose scrap sorting palletizing machine where the manual operations are limited to loading, starting, attending, visual checking and manual removal of defective products, positioning of layer pads, strapping, scanning, affixing labels, lowering production and completing documentation.

RATE DDD

1. Operating and/or feeding and/or off loading of material from fixed air and/or hydraulically operated stacking units preparatory to and/or after varnish and/or lacquer coating.

RATE E

1. Palletizer (works under supervision). Operates material handling equipment to move finished products from production machines. Checks carton quantities and seals cartons. Stacks cartons on pallets. Operates stretch-film wrapping machine *and/or strapping finished products by special purpose pre-set strapping machine* (excluding setting up).
2. Operating stretch-film wrapping machine.
3. Requisitioning, receiving, recording and positioning of materials, consumables, parts and/or components at work stations including completing documentation.

RATE F

1. Spoilage recorder including completion of documentation.
2. Drop testing of finished products under supervision of a Rate AA to D employee.
3. On-Line process inspection using pre-calibrated fixed non-adjustable go and/or no go gauges.
4. Operating power driven guillotine to stops (excluding setting up).
5. Mixing of ink to specified programmes and checking of stock.
6. Silk screening.

RATE G

1. Repetition operation and/or attending of a pre-set fully automatic magazine fed bottle crown closure machine where the manual operations are limited to switching on the machine, pre-heating, starting and stopping the machine.
2. Assembling of pre-manufactured components from stock requiring no fitting and/or adjusting but including deburring.
3. Beading and/or seaming and/or grooving and/or trimming and/or curling and/or wiring and/or dishing and/or flanging and/or locking double side top and bottom.
4. Carton maker (works under supervision) including visual checks on carton quality.
5. Leak testing of finished products other than by pressure testing.
6. Loading of rolled sheet coils onto uncoiler or de-reeler and setting release lever under supervision of a Rate A to D employee.
7. Operating pre-curling sealant dispensing machine where the manual operations are limited to starting, loading and stopping the machine (excluding setting up).
8. Repetition application of flow-in gasket insulating material by machine.
9. Repetition bending and/or forming and/or expanding by machine to jigs and/or dies and/or stops and/or length gauges (excluding press-brake and excluding setting up).
10. Repetition blanking and/or piercing by press using guides and/or jigs and/or stops and/or dies (excluding press-brake).

11. Repetition butt and/or spot and/or flash and/or seam and/or projection and/or resistance and/or percussion welding by machine.
12. Repetition corrugating of bodies to dies (excluding setting of dies).
13. Repetition cutting and/or slitting and/or shearing to stops and/or jigs and/or length gauges and/or fixtures and/or marks (excluding power driven guillotines and excluding setting up).
14. Repetition machine punching and/or slotting and/or notching and/or embossing and/or necking and/or quad-necking and/or drawing to dies and/or jigs and/or guides and/or stops (excluding press-brake).
15. Repetition roller bending and/or roller forming and/or re-rolling.
16. Repetition swaging to pre-set dies.
17. Touching up with paint and/or prime coating.
18. Visual inspection of parts and/or components on line in process.
19. Mass measuring of raw material to pre-determined limits.
20. Operating box stapling machine.
21. Assisting in removing and/or replacing of dies and/or press tools (excluding setting up) under instruction of a Rate C setter.
22. Repetition hydraulic testing and/or testing by air (excluding setting up of testing equipment).
23. Repetition operation and/or attending a special purpose strapping machine where the manual operations are limited to loading, setting machine in motion, stopping and/or unloading the machine.
24. Connecting of pipes and/or hoses, selecting valve positions and pumping of compound into holding tanks.

RATE H

1. Dressing and/or deburring by hand and/or by grinding and/or by portable power tools.
2. Operating bundle turning machine where the manual operations are limited to starting and stopping the machine.
3. Packing and/or hand wrapping and/or hand strapping and/or hand stapling and placing of finished goods onto pallets for dispatch.
4. Preparing and/or stamping and/or affixing of product labels and/or nameplates.
5. Spraying of enamel and/or paint.
6. Application of anti-corrosive and/or anti-fouling and/or protective coatings.
7. Oiling and/or greasing.
8. General labouring.
9. Scrap collecting, binning and removal by hand drawn trolley jacks.
10. Cleaning of used printers plates by hand using a solvent.
11. Metal cleaning by acid and/or by degreasing and/or by pickling and/or by rinsing and/or by fluxing.

VEHICLE DRIVING – EXTERNAL TRANSPORT INCLUDING FORKLIFT DRIVING

RATE F

Forklift driving of power-operated forklift controlled from on board by the operator .

RATE E

Driving of a load-carrying or hauling vehicle which requires a Code 08 light motor vehicle licence to be held by the driver.

RATE DD

Driving of load-carrying or hauling vehicle which requires a Code 10 heavy motor vehicle licence or a Code 11 extra-heavy motor vehicle licence to be held by the driver.

RATE C

Driving of a load-carrying or hauling vehicle which requires a code 13 or 14 heavy articulated motor vehicle licence to be held by the driver.

NOTES

1. The wages payable for vehicle driving and/or forklift driving are listed in clause 3(b) of Part II of the Agreement.
2. "Pay-load" means the nett Carrying capacity or nett load which a vehicle may carry or haul in terms of any Motor Carriers' Certificate or Certificate of Exemption issued in respect of such vehicle by a Local Road Transportation Board in terms of the Motor Carrier Transportation Act, 1930, including any trailer while attached thereto, or in the absence of such stipulation in any such certificate, the load specified in any certificate issued by the Council.

CRANES AND HOISTS**RATE B**

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 cranes, powered in all three directions and controlled by one man so employed in stores and/or stockyard and/or fettling and/or service gantry and/or scrap yard areas.

For the purpose of the above, "stores and/or stockyards and/or fettling and/or service gantry and/or scrap yard areas" means 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 abovementioned, the wage provisions relating to Rate B shall obtain and have preference.

RATE F

Crane driving – non slewing jib cranes.

RATE G

Crane operating (n.e.s.).

RATE G

Operating power-driven hoist fixed or moved by hand or power (not under supervision).

For the purpose of this sub clause, manually, mechanically or hydraulically operated loaders attached or fitted to a vehicle as defined above shall not be regarded as a crane or hoist.

STORES OPERATIONS**RATE AA**

Inventory and/or stores control including supervision of Rate E employees in tool and/or stock and/or material stores directly linked to the shop floor and/or production process.

RATE E

Receiving, locating, preparing and issuing materials, tools and/or stock from requisition lists in tool and/or stock and/or material stores directly linked to the shop floor and/or production process (n.e.s.) including:

- Selection of stock
- Checking and recording of stock
- Operation of material handling equipment

RATE H

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

NOTES:

1. No person other than a journeyman or an apprentice may be employed on work classified at Rate A in the Agreement without the prior permission of the Council.
2. A committee comprising employers and trade union representatives from the Metal Container Sector will be appointed to:
 - (a) Consider any interpretational issues or disputes arising from this technical schedule.
 - (b) Make recommendations to the Metal and Engineering Industries Bargaining Council (M.E.I.B.C.) on any exemptions received from a Metal Container Manufacturing company.”

(new D/33 inserted by Government Notice R.59 of 28 January 2005)