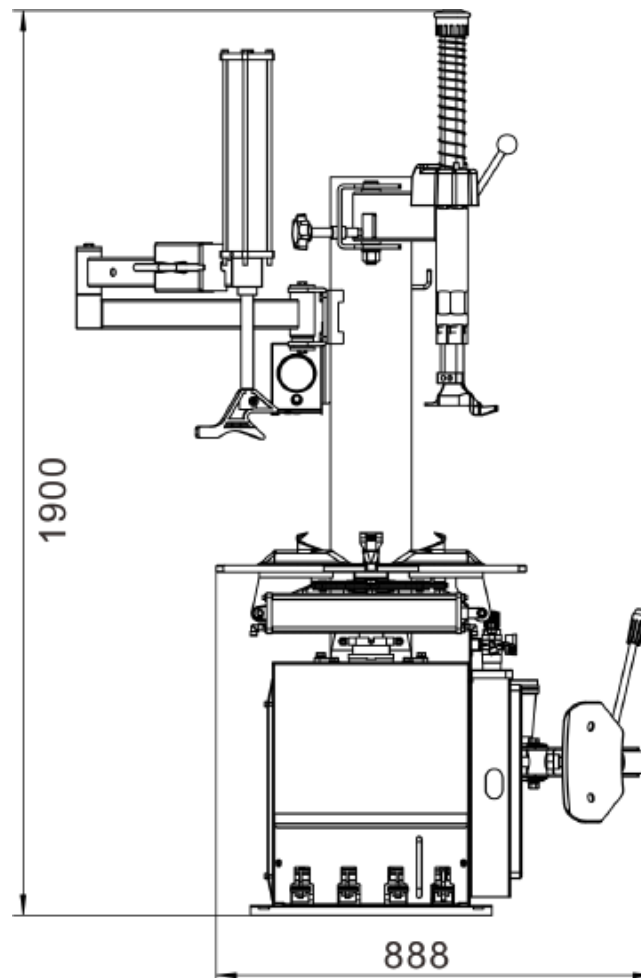


Operating instructions

CTC 10"-24"

HPL 825



English

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About this manual

HAMMER TOOLS CTC 10"-24" with HPL 825 helper arm. Installation, operation and maintenance. Based on supplied manual version JH202401.1.0 LNV. The source is titled CTC 12-24 HPL 825; this edition uses the shop product name. Read completely before first use and keep with the machine. Only trained operators may use it. Do not operate in a potentially explosive atmosphere.

Specifications in this edition follow the offered shop product. The source table reverses the external/internal clamping labels; the shop values used here are external 10"-22" and internal 12"-24". Before working near the limits, verify against the machine markings and jaw position. The source width of 340 mm does not extend the shop range of 3"-12". Never connect an electrical variant solely on the basis of a drawing; the rating plate and actual machine configuration govern.

Illustrations retain the source numbering; colours and construction details may vary. Duplicate Figure 26 is identified as "connection" or "bead breaking". Some source procedures incorrectly call the turntable pedal 12; the parts list and function test identify it as 15. Pedal 12 is for inflation. This has been corrected here. Warning-label content is explained in the text; original label images aid recognition.

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1. Application and specifications

This semi-automatic tyre changer mounts and demounts compatible tyres on cars, vans, light commercial vehicles and motorcycles. Use suitable approved fixtures or adapters for special wheels. Do not use for other purposes. The source excludes damage caused by misuse or operation beyond the intended scope from warranty coverage.

Shop specifications: external clamping 10"-22"; internal clamping 12"-24"; maximum tyre diameter 1040 mm; tyre width 3"-12"; bead-breaking force listed as 2700 kg; operating pressure 8-10 bar; supply 220 V / 50 Hz / single phase; motor 1.1 kW. HPL 825 helper arm. Always verify the rating plate before electrical connection.

Source dimension drawings: height 1900 mm and width 888 mm (Figure 1); another view shows height 1503 mm and width 1000 mm (Figure 2). These depict different arrangements, not the complete operating clearance. Source net weight: 186 kg. A 380 V / 0.75 kW variant is also included in the source; this does not authorise converting the offered 220 V machine.

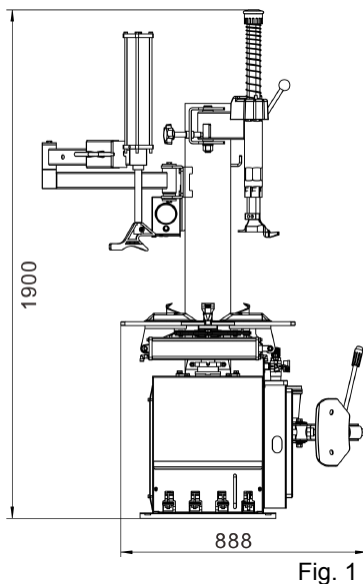


Fig. 1

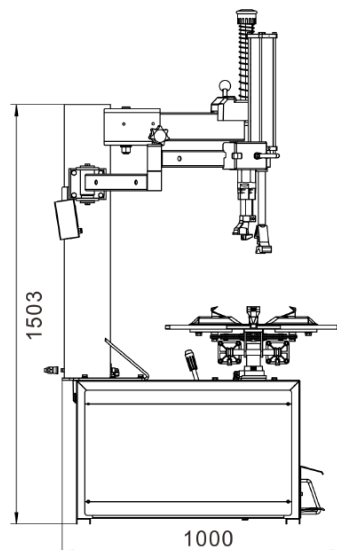


Fig. 2

1.4 Components and controls

Figure 3: 1 horizontal arm; 2 vertical slide; 3 inflation gauge; 4 vertical-slide locking handle; 5 mounting/demounting head; 6 clamping jaw; 7 turntable; 8 column; 9 cylinder; 10 air-service unit; 11 mounting-paste cup; 12 inflation pedal; 13 jaw opening/closing pedal; 14 bead-breaker pedal; 15 turntable pedal; 16 rubber support pad; 17 bead-breaker shoe; 18 bead-breaker arm; 19 HPL 825 helper arm.

Crushing hazard: stand clear of the bead-breaker arm. Never put a hand on the tyre while the mounting head is in its working position. Keep hands out of the gap between tyre and jaws and between bead breaker and cabinet. Close the clamping jaws before side bead breaking. Operate controls only with hands and body clear of all pinch points.

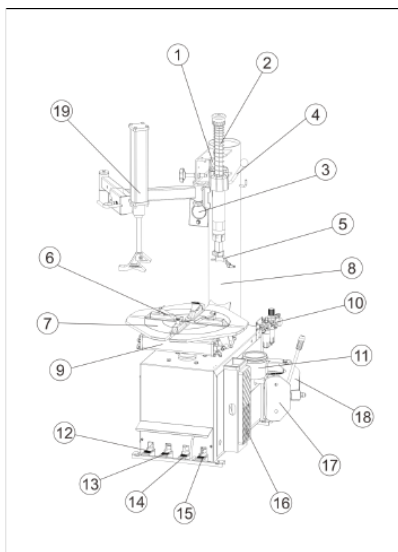


Fig. 3

1.5 Safety signs and warning labels

Wear eye protection, suitable gloves and close-fitting work clothing. Escaping compressed air, dirt, fluids and flying debris can injure eyes. Electrical voltage is present inside the cabinet: operators must not open covers or tamper with components. Internal work is for qualified personnel. Protect from rain, water and wet conditions. The maximum machine supply pressure of 10 bar is not a permitted tyre inflation pressure.

Read and follow all warnings before work. Never cover labels. Replace missing or unreadable labels immediately; do not operate until replaced. Improper use can cause serious or fatal injury.

Explosion hazard during inflation: never exceed 40 psi (about 2.75 bar) while seating beads; any lower tyre/rim manufacturer limit takes priority. Once seated, never exceed the tyre manufacturer's recommended pressure. Never lean or reach over the tyre or rim. The machine does not restrain an exploding tyre or wheel.

Tyre and rim sizes must match exactly; check sidewall and rim markings. Do not mount if the size is unknown. Never use damaged or defective tyres/rims. Fully deflate and remove the valve core before bead breaking. Remove all wheel weights before mounting/demounting. Use proper mounting lubricant. Inflate in short bursts while continuously checking pressure. Keep bystanders clear. Overpressure, mismatched sizes, defects or ignoring these rules may cause an explosion.

1.6 Warning-label locations

The drawing shows labels on the column, mounting head, clamping area, bead breaker and cabinet. Check that all are present and legible before use. Their meanings are explained in the preceding section. Follow the labels and guards on the actual machine; have missing labels replaced.

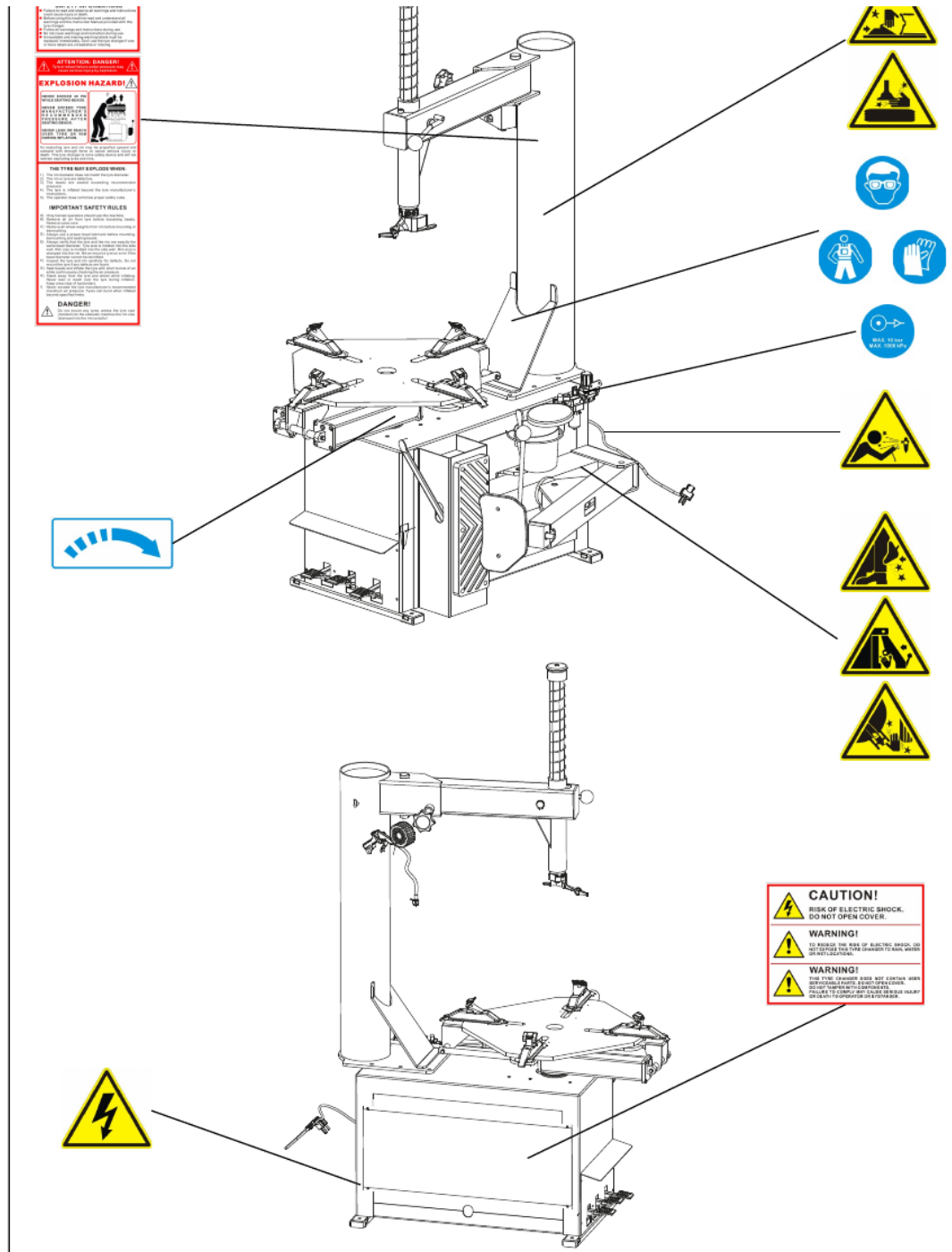


Fig. 1.6

2. Transport, installation site and unpacking

Transport in the original packaging and follow its handling marks. Use a forklift with sufficient capacity; insert forks as in Figure 4. Source transport temperature: -25 to +55 °C. Protect from moisture, vibration and impact.

Choose a site meeting local safety requirements near suitable electrical and compressed-air supplies. Allow full operating and movement clearance. Figure 5 specifies 500 mm to the left, 700 mm to the right and 600 mm behind. Observe any additional local requirements. Although the source mentions a canopy for outdoor installation, the safety labels prohibit rain, water and wet conditions. Use a dry, adequately protected site.

After unpacking, inspect the machine and accessories for transport damage and completeness. Report problems to the dealer. Dispose of packaging, nails, screws, wood, plastic and cardboard safely under local rules. Wear gloves when unpacking.

The column is shipped detached. Unpack the accessory boxes, bead-breaker arm and column assembly ready for installation.

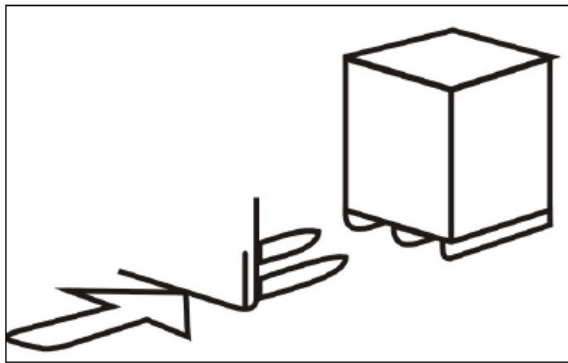


Fig. 4

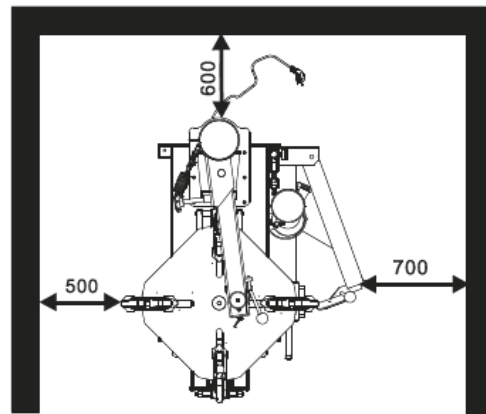


Fig. 5

2.2.3.1 Installing the column

1. Position the cabinet as in Figure 6. Remove the mounting bolts, spring washers and flat washers.
2. Place the column on the cabinet with the warning label facing forward. Align the base-plate holes with the threaded holes. Refit bolts and washers and tighten to 70 N·m with a torque wrench (Figure 7).
3. Before loosening screw 8-2, secure vertical slide 8-3 with its locking handle. Only then remove the screw and cap 8-1. An unsecured slide can fall, injuring people or damaging the machine.
4. Fit the spring over the slide (Figure 9). Refit the cap and screw. Screw the locking handle into the threaded bushing of the horizontal arm (Figure 10).



Fig. 6

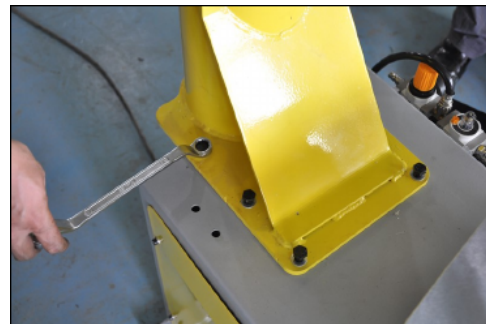


Fig. 7

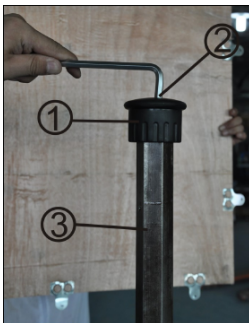


Fig. 8



Fig. 9

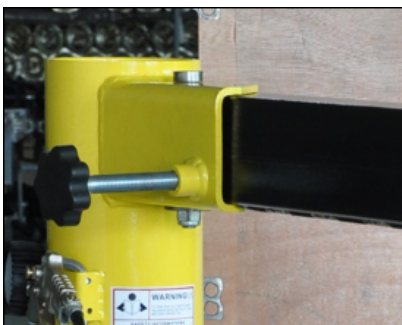


Fig. 10

2.2.3.2 Installing the bead-breaker arm

Remove the locknut from the front end of the bead-breaker cylinder rod (Figure 11). Undo the arm pivot nut and remove the bolt; retain the spring for refitting.

Align the arm bushing with the cabinet support. Insert the pivot bolt and secure its nut (Figure 12). Pass the piston rod through the sliding bushing, with the bushing face shown in Figure 13 directed outward. Refit the nut at the rod end (Figure 14). Set the gap between the shoe edge and rubber support to 30-40 mm.

Attach the spring (Figure 15). Loosen the shoe locknut (Figure 16), set the shoe to the correct position and retighten (Figure 17 on the following page).



Fig. 11



Fig. 12



Fig. 13



Fig. 14



Fig. 15

2.2.3.3 Air-service unit

Installation is for qualified personnel only. Excessive pressure can injure people and damage the machine. The unit is supplied in the accessory box.

Prepare a crosshead screwdriver and two M4 screws. Inspect the unit and clean its connecting surfaces (Figure 18). Fix it level on the machine with the M4 screws and tighten them (Figure 19).

Connect the main air hose first. Remove the retaining strap that prevents the hose dropping inside the cabinet. Connect the hose to port A of the service unit. Connect the inflation-gauge hose to port B and tighten the union (Figure 20 on the following page).



Fig. 16



Fig. 17

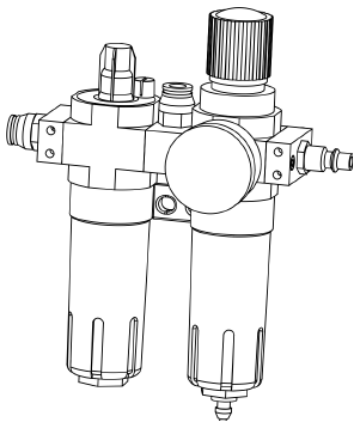


Fig. 18

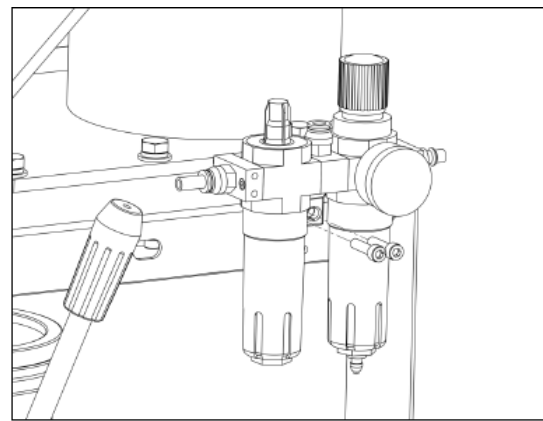


Fig. 19

2.2.3.4 Paste cup / 2.2.4 Helper arm

Before connecting air, keep everyone clear and remove all objects from the turntable. After fitting the hoses, connect air and check for leaks (Figure 21). Continue only with leak-free connections. Pressure and oil delivery are factory set; do not make arbitrary changes.

Paste cup: insert the holder into the two holes on the right-hand side (Figure 22), then place the cup in it (Figure 23).

HPL 825 helper arm: position on the column bracket and secure with the four screws (Figure 24). Connect its air hose to the service unit using the T-piece (Figure 25 on the next page). The source calls this assembly JTC820+JAL310; this edition uses the shop name HPL 825. Mounting points and configuration must match the delivered machine. Never force incompatible parts into place.

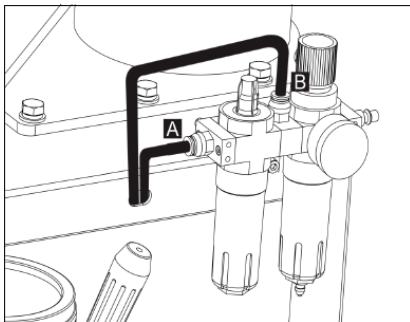


Fig. 20



Fig. 21



Fig. 22



Fig. 23

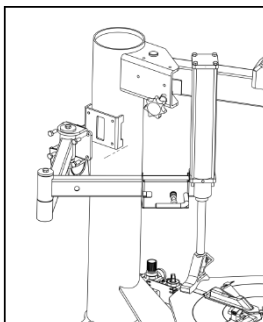


Fig. 24

3. Commissioning and function test

Place the machine fully and stably on the floor and secure against movement. Check fasteners. Have a qualified person make the electrical connection according to the rating plate and local rules. Clear the work area and empty the turntable before energising.

All pedals must be at rest. Connect air, inspect for leaks (Figure 26, connection) and check 8-10 bar working pressure. Factory settings cause the jaws to open automatically when air is connected: keep pinch points clear.

Press pedal 15 down: clockwise turntable rotation. Lift it: reverse rotation. Press pedal 13: jaws close; gentle tapping allows step movement. Press again: jaws open. Press pedal 14: bead-breaker shoe moves; release: it returns. Press pedal 12: air flows from the inflation nozzle. If functions differ, stop and have the cause investigated.

Check lubricator operation: the source specifies about one drop per five to six pedal operations. Qualified personnel may correct the adjustment screw if necessary; never alter pressure or safety valves arbitrarily. Before maintenance disconnect electricity and air and release residual pressure.

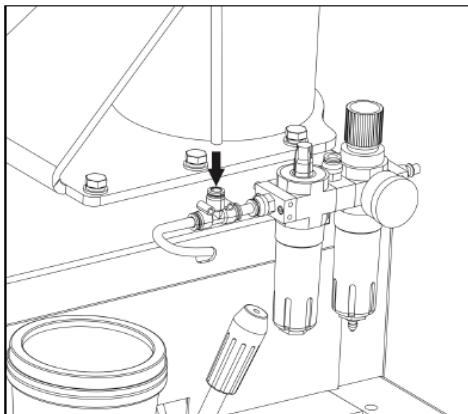


Fig. 25



Fig. 26

4. Preparation / 4.1 Bead breaking

Keep the workplace clean and well lit. Keep necklaces, bracelets, loose clothing and unsecured long hair away from moving parts. Wear eye protection and suitable gloves. Read all warnings before work. Keep hands and body clear of danger zones during movement.

Clean and inspect the rim; remove all weights including adhesive weights. Tyres must be clean and dry with undamaged beads. Replace rubber valves, or replace the O-ring of a metal valve. If a tube is required, check that it is dry and in good condition. Use only suitable tyre mounting lubricant. Tyre and rim sizes must match exactly.

Fully deflate and remove the valve core before bead breaking. Close the jaws. Position the wheel between shoe and rubber pad. Place the shoe on the bead about 2 cm from the rim edge without contacting the rim. Keep the valve clear of the shoe. Press pedal 14 to release the bead (Figure 26, bead breaking). Keep hands away. Repeat at several points on both sides until the beads are completely released.



Fig. 26

4.1 Demounting / 4.2 Mounting

Secure the wheel correctly on the turntable. Move the vertical slide into position. Set the mounting-head roller about 2 mm from the rim to avoid scratches (Figure 27) and secure the locking handle.

Lift the bead over the head with a suitable tyre lever. Use pedal 15 for clockwise rotation until the upper bead is free (Figure 28). For tubed tyres, the source recommends locating the head about 10 mm to the right of the valve to protect the tube. Carefully remove the tube, if fitted. Present and remove the second bead as in Figure 29. Reposition a wheel only with the machine stopped and securely reclamp before proceeding.

Mounting: recheck matching tyre size and rim condition. Clamp the rim and lubricate the beads with suitable mounting lubricant. Guide the bead over the rear part of the head and beneath its opposite side, keeping the opposite bead area in the rim well (Figure 30). Rotate clockwise using pedal 15 to fit the lower bead.

Fit the tube correctly if required, preventing pinching, then mount the upper bead similarly. Never put hands between tyre and jaws. Do not alter the internal pressure-regulating valve. The helper arm assists according to its fitted configuration; the source does not contain a separate complete operating sequence for it. Follow practical training on the actual HPL 825.



Fig. 27

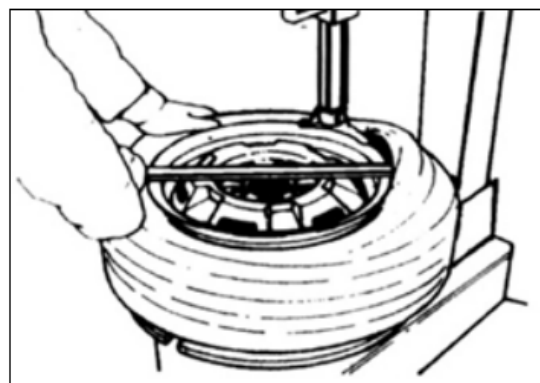


Fig. 28

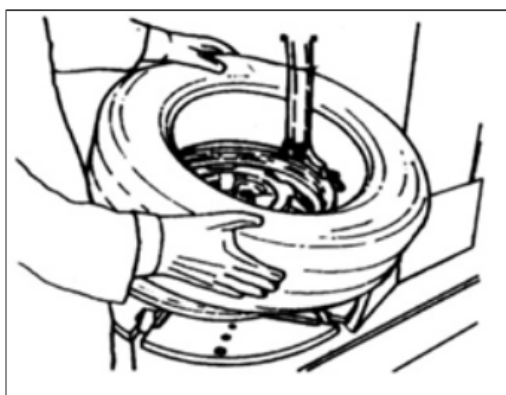


Fig. 29



Fig. 30

4.3 Inflation / 5. Maintenance

Explosion hazard: the machine has no protective restraint for a bursting tyre or rim. Keep hands and body clear and never lean over the wheel. Check size, condition, bead seating and pressure limits. Follow all section 1.5 rules: at most 40 psi (about 2.75 bar) when seating beads, or any lower manufacturer limit. Do not confuse supply pressure with tyre pressure.

Release the wheel from the turntable jaws and position it securely. Connect the inflator to the valve (Figure 31). Use short, gentle bursts and continuously read the gauge. Never exceed tyre manufacturer limits. Stop if seating is uneven or anything abnormal occurs; deflate and have the cause checked properly.

Maintenance is for trained personnel. Before any work disconnect electricity and air and completely release residual pressure. Regular maintenance is necessary for reliable operation. Keep machine and workplace clean to prevent dirt entering moving parts.

Check air-lubricator oil regularly. Shut off air and depressurise before topping up; the source specifies SAE 30 for this lubricator. This is not a hydraulic-oil specification. Clean and lubricate moving turntable parts (Figure 32). Check connections and fasteners regularly and tighten as needed. Keep the horizontal arm clean and lubricated (Figure 33, next page).



Fig. 31

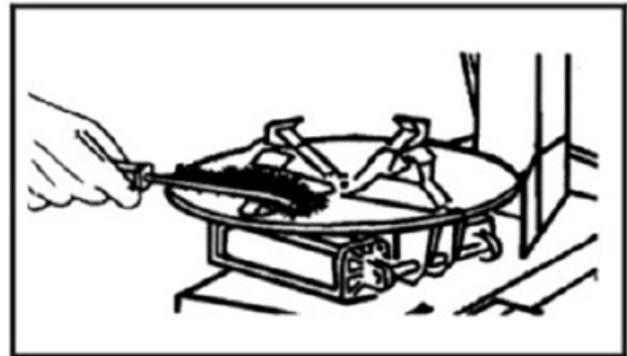


Fig. 32

5. Maintenance and adjustments

Oil sliding and friction surfaces weekly as specified by the source. Provide a water separator near the compressor to reduce moisture in the air supply. Never clean or adjust an energised or pressurised machine.

Drive belt: check tension. Disconnect electricity and air and release residual pressure. Remove screws and left-hand cover. Adjust belt tension with the motor adjustment nut (Figure 34). The source gives no numerical tension value; do not invent one. Adjustment requires competent personnel; refit the cover before operation.

If the vertical slide fails to lock securely: isolate electricity and air, depressurise and remove the top cover. Qualified personnel should adjust the nut near the threaded rod or the screw behind the clamping plate, according to the actual assembly and instructions. Secure covers, clear the danger area and restore supplies for a function test. The source specifies a vertical-slide rise of 3-4 mm during locking. Do not use the machine if locking remains insecure.

Contact: Hammer AG, Schnydersäcker 453, 8262 Ramsen, Switzerland. +41 52 345 00 00 · info@hammer-tools.ch · hammer-tools.ch.

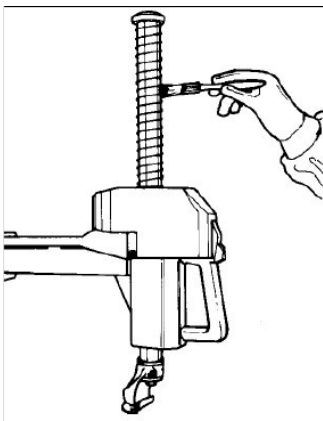


Fig. 33

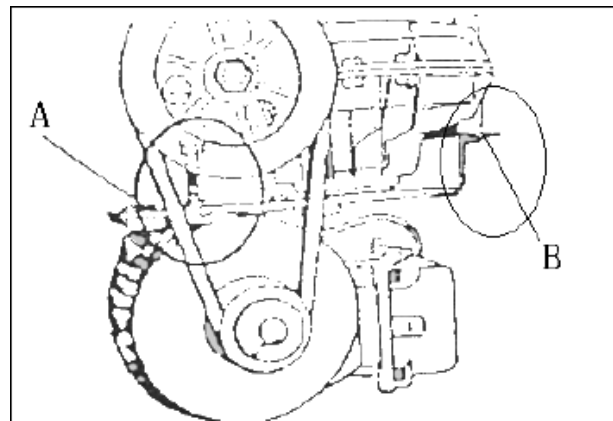


Fig. 34

Appendix A: 220 V wiring diagram

Original circuit for 220 V, 50/60 Hz, single phase, 1.1 kW. The shop version is specified as 220 V / 50 Hz. Connection, diagnosis and repair are for qualified electrical personnel only. Verify rating plate, actual wiring and local requirements. Isolate, prevent reconnection and verify absence of voltage before work.

Key: PE = protective earth; L = line; N = neutral; M = motor; motor reversing switch = direction switch. Terminal numbers, conductor details and circuitry remain as in the source. This diagram does not replace inspection of the actual machine.

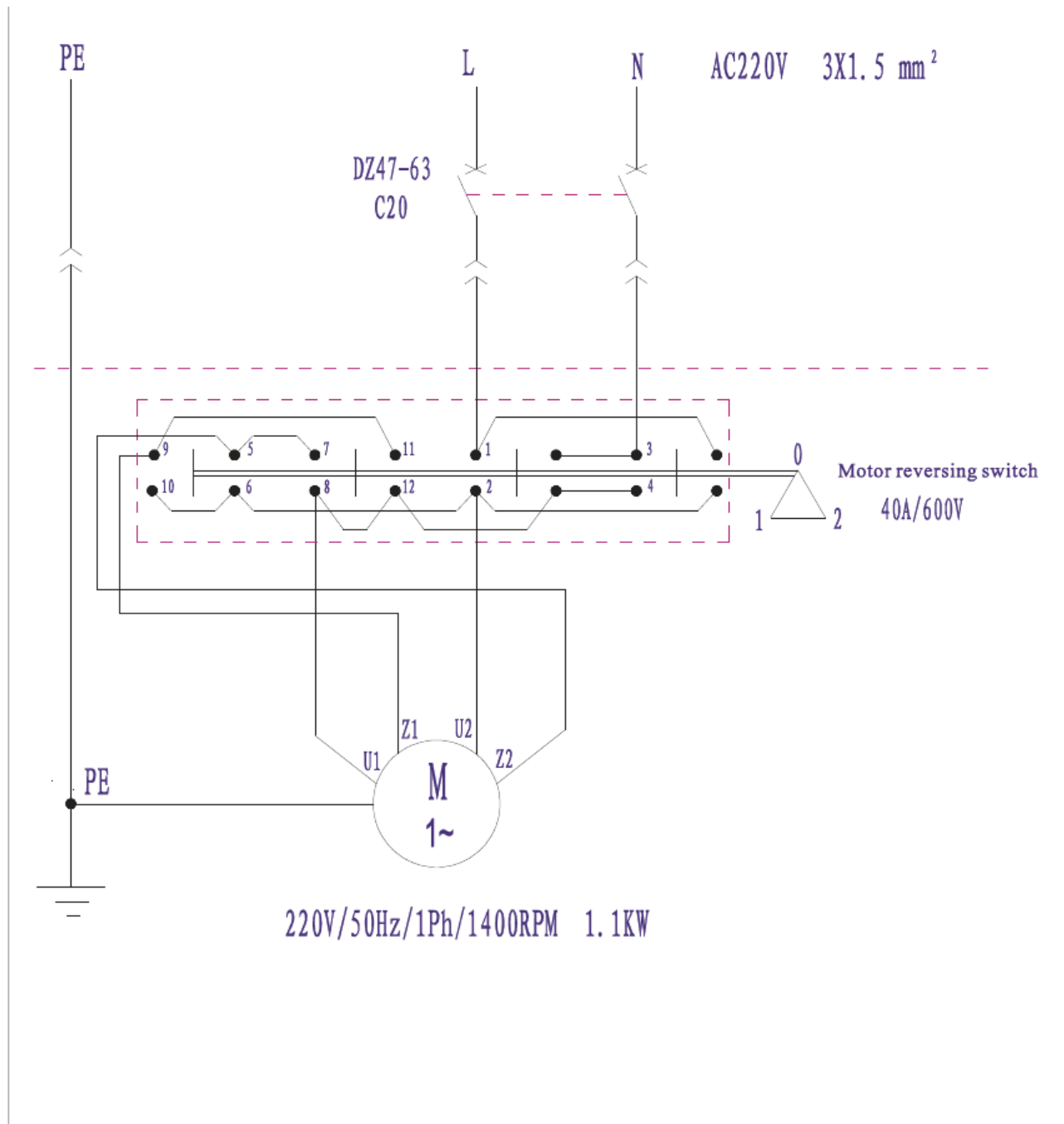


Fig. A

Appendix B: different 380 V variant

Original circuit for 380 V, 50/60 Hz, three phase, 0.75 kW. Included solely to retain the complete source appendix. It does not automatically apply to the offered 220 V machine and does not authorise conversion or a supply-voltage change. Use only if the rating plate and actual configuration expressly match.

PE = protective earth; L1/L2/L3 = line conductors; M = three-phase motor; motor reversing switch = direction switch. Work is restricted to qualified electrical personnel after secure isolation and verification of absence of voltage.

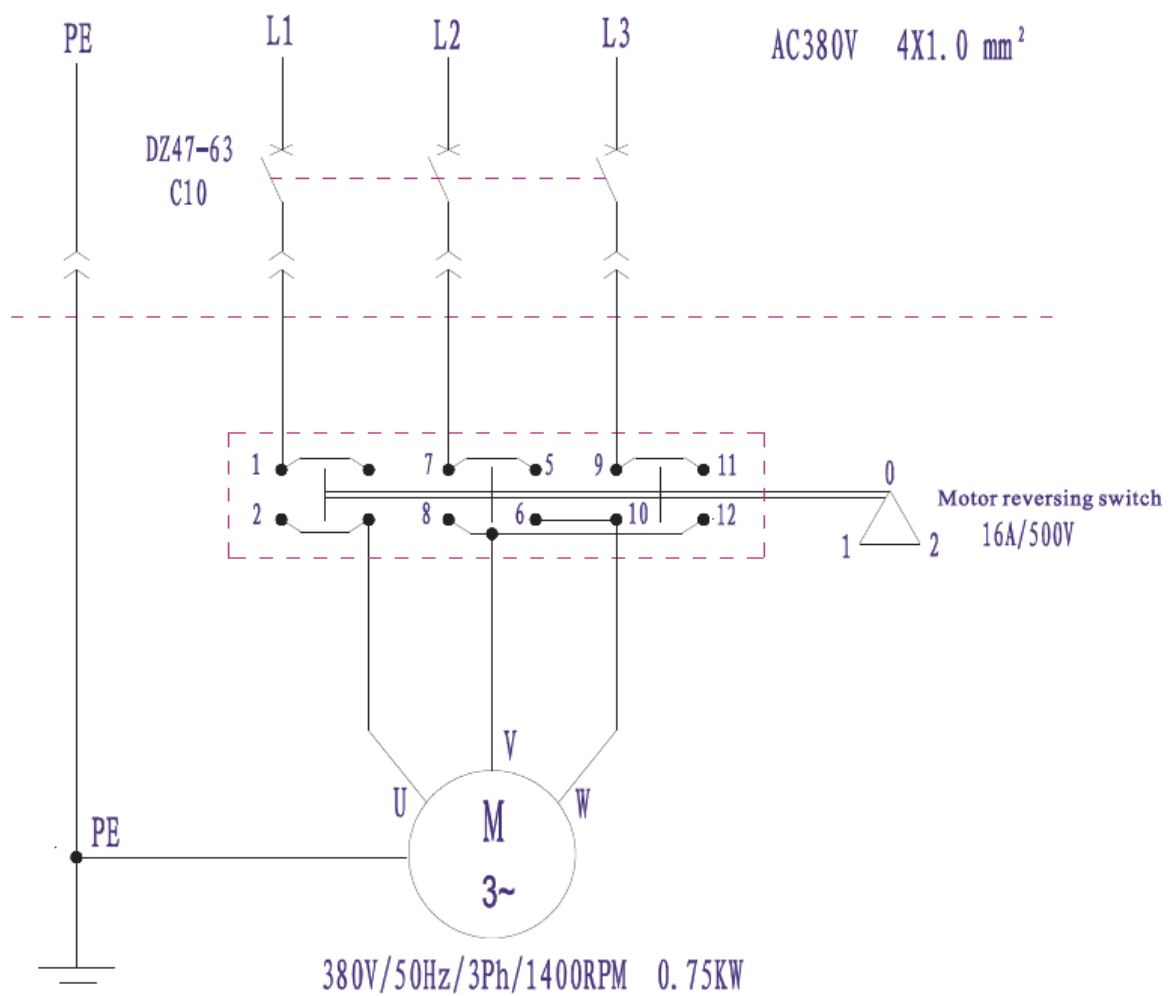


Fig. B