

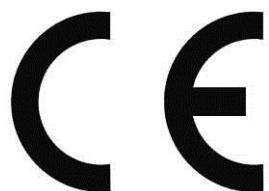
JRD-460

radial arm drill press machine

Original:

GB

Operating Instructions



CE-Conformity Declaration

CE-Konformitätserklärung

Déclaration de Conformité CE

Product / Produkt / Produit:

Radial arm drilling machine

Radialarmbohrmaschine

Perceuse à bras radial

JRD-460

Brand / Marke / Marque:

PROMAC

Manufacturer / Hersteller / Fabricant:

TOOL FRANCE SEAL

9 Rue des Pyrénées, 91090 LISSES, France

We hereby declare that this product complies with the regulations

Wir erklären hiermit, dass dieses Produkt der folgenden Richtlinie entspricht

Par la présente, nous déclarons que ce produit correspond aux directives suivantes

2006/42/EC

Machinery Directive

Maschinenrichtlinie

Directive Machines

2014/30/EU

electromagnetic compatibility

elektromagnetische Verträglichkeit

compatibilité électromagnétique

designed in consideration of the standards

und entsprechend folgender zusätzlicher Normen entwickelt wurde

et été développé dans le respect des normes complémentaires suivantes

EN ISO 12100:2010

EN 12717:2001+A1:2009

EN 60204-1:2006+A1:2009

EN 61000-6-2:2005

EN 61000-6-4:2007+A1:2011

Responsible for the Documentation / Dokumentations-Verantwortung / Responsabilité de Documentation:

Head Product-Mgmt. / Leiter Produkt-Mgmt. / Resp. Gestion des Produits

TOOL FRANCE SEAL

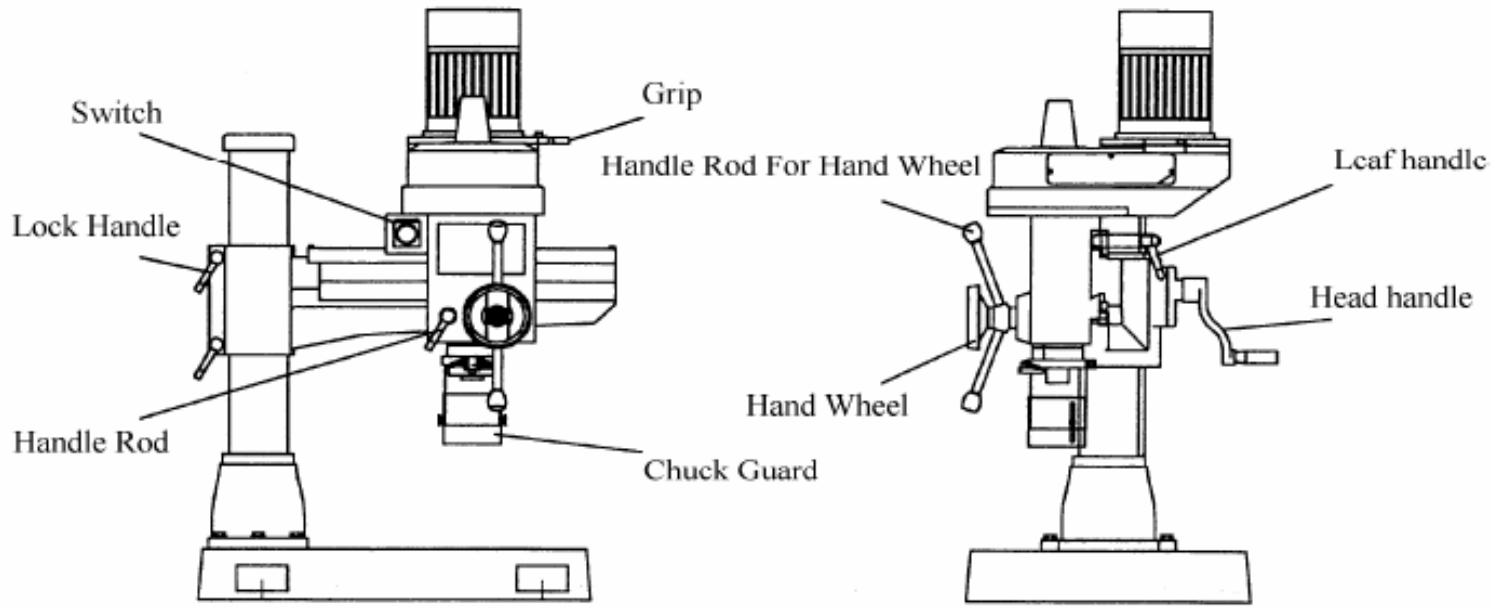


2018-10-30 Christophe SAINT SULPICE, General Manager

TOOL FRANCE SEAL

9 Rue des Pyrénées, 91090 LISSES, France

| Table Of Contents | Page No |
|---|----------------|
| 1 Overall Aspec..... | 2 |
| 2 Safety Rules For tools | 3 |
| 3 Specification | 4 |
| 4 Basic & optional features | 5 |
| 5 Delivery & Installation | 5 |
| 6 Minimum Room Space For Machine Operation | 6 |
| 7 Use Of Main Machine Parts | 7 |
| 8 Precaution For Operation | 7 |
| 9 Speed Changing And Adjust Belt | 8 |
| 10 To Change Tools | 9 |
| 11 Ordering Replacement Parts | 9 |
| 12 Tapping Equipment | 10 |
| 13 Specification Of T Slot | 11 |
| 14 Maintaining | 11 |
| 15 Cleaning & Lubricating | 11 |
| 16 Trouble Shooting | 12 |
| 17 Circuit Diagram | 14 |
| 18 Electrical Specification Chart | 14 |
| 19 Parts Breakdowns | 16 |
| 20 Parts Lists | 18 |



WARNING: FAILURE TO FOLLOW THESE RULES MAY RESULT IN SERIOUS PERSONAL INJURY

As with all machinery there are certain hazards involved with operation and use of the machine. Using the machine with respect and caution will considerably lessen the possibility of personal injury. However, if normal safety precautions are overlooked or ignored, personal injury to the operator may result.

This machine was designed for certain applications only. We strongly recommends that this machine NOT be modified and/or used for any application other than for which it was designed. If you have any questions relative to its application DO NOT use the machine until you contact with us and we have advised you.

Your machine might not come with a power socket or plug. Before using this machine, please do ask your local dealer to install the socket or plug on the power cable end.

SAFETY RULES FOR ALL TOOLS

A. USER:

(1). **WEAR PROPER APPAREL.** No loose clothing, gloves, rings, bracelets, or other jewelry to get caught in moving parts.

Non-slip foot wear is recommended. Wear protective hair covering to contain long hair.

(2). **ALWAYS WEAR EYE PROTECTION.** Refer to ANSLZ87.1 standard for appropriate recommendations.

Also use face or dust mask if cutting operation is dusty.

(3). **DON'T OVERREACH.** Keep proper footing and balance at all times.

(4). **NEVER STAND ON TOOL.** Serious injury could occur if the tool is tipped or if the cutting tool is accidentally contacted.

(5). **NEVER LEAVE TOOL RUNNING UNATTENDED. TURN POWER OFF.** Don't leave tool until it comes to a complete stop.

(6). **DRUGS, ALCOHOL, MEDICATION.** Do not operate tool while under the influence of drug, alcohol or any medication.

B. USE OF MACHINE:

(1). **DON'T FORCE TOOL.** It will do the job better and be safer at the rate for which it was designed.

(2). **USE RIGHT TOOL.** Don't force tool or attachment to do a job for which it was not designed.

(3). **SECURE WORK.** Use clamps or a vise to hold work when practical. It's safer than using

your hand frees both hands to operate tool.

(4). **USE RECOMMENDED ACCESSORIES.** Consult the owner's manual for recommended accessories. The use of improper accessories may cause hazards.

(5). **AVOID ACCIDENTAL STARTING.** Make sure switch is in "OFF" position before plugging in power cord.

C. ADJUSTMENT :

MAKE all adjustments with the power off. In order to obtain the machine. precision and correct ways of adjustment while assembling, the user should read the detailed instruction in this manual.

D. WORKING ENVIRONMENT:

(1). **KEEP WORK AREA CLEAN.** Cluttered areas and benches invite accidents.

(2). **DON'T USE IN DANGEROUS ENVIRONMENT.** Don't use power tools in damp or wet locations, or expose them to rain. Keep work area well-lighted.

(3). **KEEP CHILDREN AND VISITORS AWAY.** All children and visitors should be kept a safe distance from work area.

(4). **DON'T** install & use this machine in explosive, dangerous environment.

E. MAINTENANCE

(1). **DISCONNECT** machine from power source when making repairs.

(2). **CHECK DAMAGED PARTS.** To read every details of trouble shooting, repair it very carefully and make sure the operator won't get injure and damage the machine.

Thank you for purchasing the **JRD-460** Mini Radial Mill/ Drill Machine. If properly cared and operated, this machine can provide you with years of accurate service. Please read this manual carefully before using your machine.

1.SPECIFICATION

| MODEL | JRD-460 |
|-------------------------------------|-----------------|
| Drilling capacity | 32mm(1-1/4") |
| Swing | 1050mm(41-1/4") |
| Max. distance spindle nose to table | 424mm(16-3/4") |
| Spindle taper | MT-3 |
| Spindle travel | 130mm(5") |
| Quill diameter | 75mm(3") |
| Head swivel | 360° |

| | | | |
|---|--|--------------|--|
| Diameter of column | 115mm(4-1/2") | | |
| Overall height (w/o stand) | 1092mm(43") | | |
| Machine stand height | 610mm(24") | | |
| Length | 813mm(32") | | |
| Width | 559mm(22") | | |
| Motor | 1-1/2HP | | |
| Spindle speed (r.p.m.) | 5S | 50Hz 60Hz | 140~2500(8P) ; 280~2500(4P) 170~3000(8P) ; 340~3000(4P) |
| Right and left travel of table | 525mm | | |
| Working area of table | 280x228mm(Horizontal)280x200mm(Vertical) | | |
| Gross weight | 290kgs (640 lbs) | | |
| Machine overall dimension | 813 x 559 x 1092 | | |
| Standard accessories : <u>Chuck arbor, Drill chuck, Punch key</u> | | | |

2. BASIC & OPTIONAL FEATURES

- (1). Wide range of applications: Milling, Drilling
- (2). Sturdy construction and not limited to skilled operators
- (3). Standard forward and reverse switch
- (4). Convenient control for arm
- (5). Radial head movement
- (6). Tapping is optional by request
- (7). Step-pulley head
- (8). Deluxe stand is optional by request

3. DELIVERY & INSTALLATION

Unpacking

1. **Transportation to desired location before unpacking, please use lifting jack.(Fig. B)**
2. **Transportation after unpacking, please use heavy duty fiber belt to lift up the machine.**

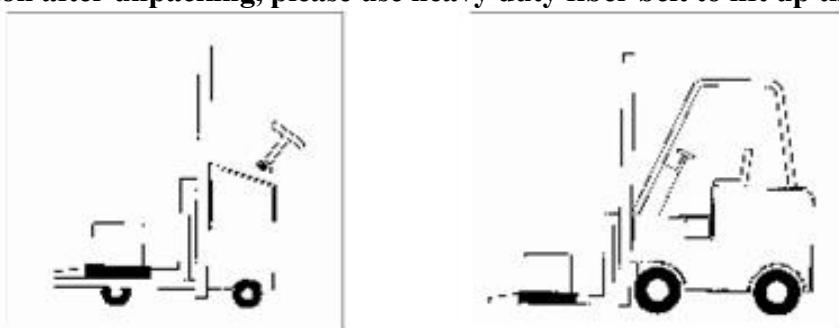
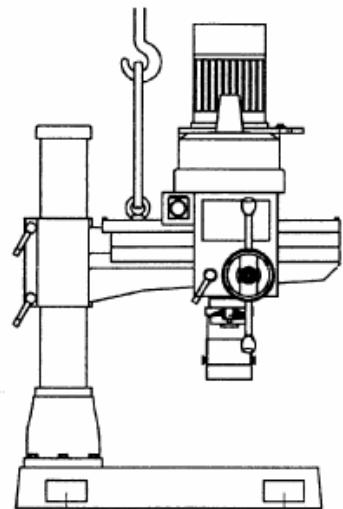


Fig. B

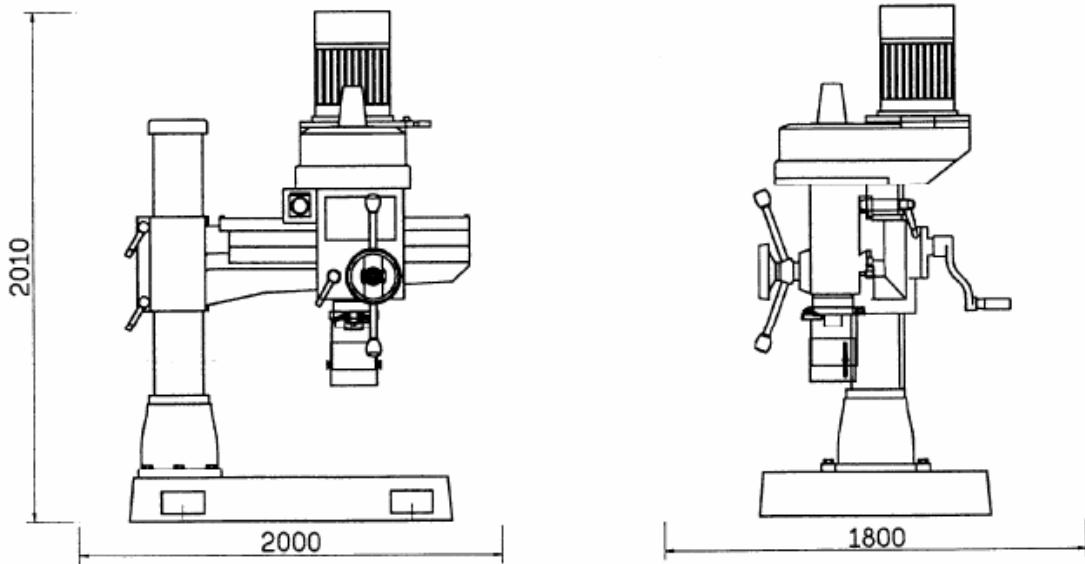
ALLWAYS KEEP PROPER FOOTING & BALANCE WHILE MOVING THIS MACHINE.

Installation:

- (1). Be sure to fix the head on the column and put the hanger or the head before moving machine. While moving machine, please keep its balance and safety.
- (2). Do not mount machine at the sunshine place to avoid the deformity of machine and the loss of accuracy.
- (3). Check to see if the motor turning in clockwise direction before connecting the electric distribution line.
- (4). Mount machine to a sturdy table or base. It is advisable that the table you choose be well constructed to avoid any vibration during operation.
- (5). Four holes are provided on the machine base for mounting. Before tightening bolts make sure the work table on the machine is level lengthwise and crosswise. Use shims if necessary.



4. MINIMUM ROOM SPACE FOR MACHINE OPERATION



MINIMUM ROOM SPACE FOR MACHINE OPERATION

5. USE OF MAIN MACHINE PARTS (See Fig. 1)

- (1) Grip
- (2) Switch
- (3) Handle rod for hand wheel
- (4) Hand wheel
- (5) Indicator
- (6) Lock handle
- (7) Rack handle rod

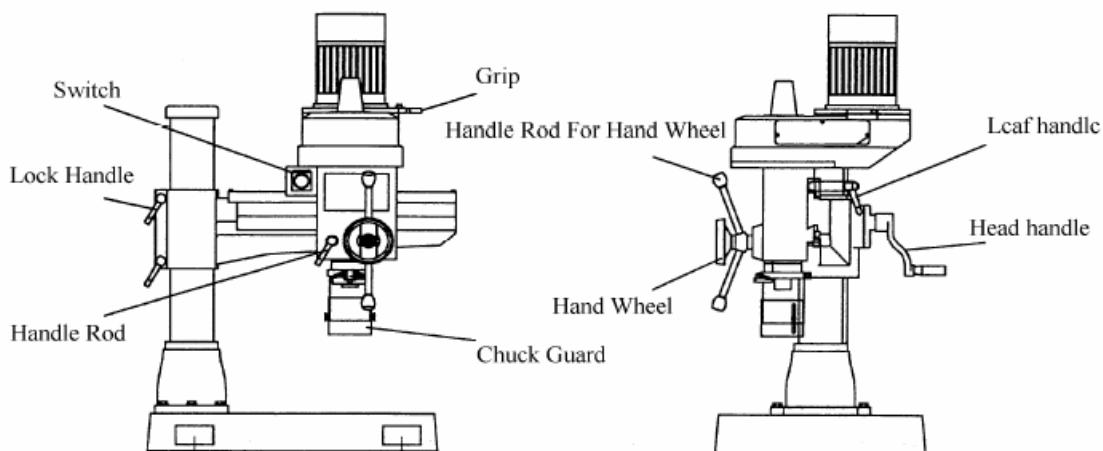
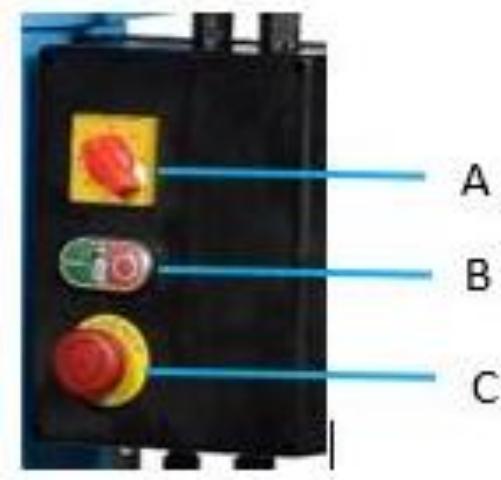


Fig. 1

- (8) Switch button function description.

- (a) Before starting the machine turn the selection knob (A) to (right for clockwise running, left for counter-clockwise)
- (b) Push button (B) to start the machine.
- (c) Push button (B) to stop the machine.
- (d) When in emergency push (C) to stop the machine. after clearing the trouble, release emergency button, re-start the machine by pushing the start button.



6. PRECAUTION FOR OPERATION

Check all parts for proper condition before operation; if normal safety precautions are noticed carefully, This machine can provide you withstanding of accurate service.

- (1) Before Operation

- (a) Fill the lubricant.

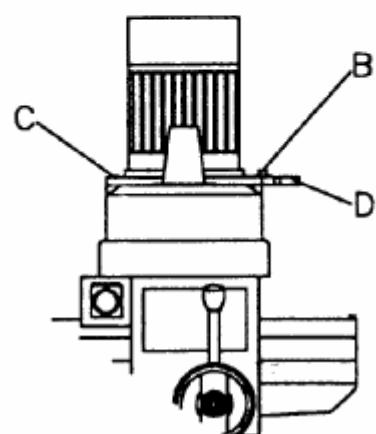
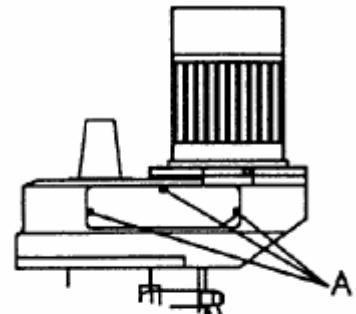
- (b) In order to keep the accurate precision, the table must be free from dust and oil deposits.
 - (c) Check to see the tools are correctly set and the work-piece is set firmly.
 - (d) Be sure the speed is not set too fast.
 - (e) Be sure everything is ready before use.
- (2) After Operation
- (a) Turn off the electric switch.
 - (b) Turn down the tools.
 - (c) Clean the machine and coat it with lubricant.
 - (d) Cover the machine with cloth to keep out the dust.

7. PREPARING FOR DRILLING

- (1) To raise and lower the head, loosen the two lock handle, rotate the head handle to desired height. Then lock the lock handle well.
- (2) To travel and backward the machine head, loose the leaf handle (for head locking) at the back side of the arm. Rotate the hand wheel for moving the machine head to desired position. Then lock the leaf handle well.
- (3) When machine head is in fixed position, turn on the power. Spindle will go down for drilling by rotating handle rod for hand wheel in clockwise direction. Spindle will go back to original position by loosing the handle rod for hand wheel, or rotating handle rod in counter-clockwise.

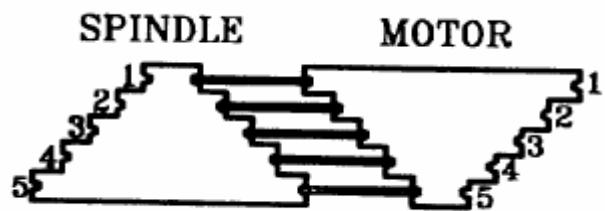
8. SPEED CHANGING AND BELT ADJUSTMENT

1. Turn off the power.
2. Remove motor side plate (right & left) by loosing set screw A .
3. Loose motor base screw B & C, move the grip D by clockwise direction to loose the motor belt.
4. Select the suitable R. P. M. According to speed chart (Table1). Then place the belt on desired pulley step. Hold the grip D toward counter-clockwise direction for pulling belt to tight.
5. Tighten two screw B & C.
6. Cover the side plates, tighten the screw A.



| BELT | m/min | | | |
|------|-------|------|------|------|
| | 50Hz | | 60Hz | |
| | 4P | 8P | 4P | 8P |
| 1-1 | 2500 | 1250 | 3000 | 1500 |
| 2-2 | 1385 | 640 | 1665 | 830 |
| 3-3 | 880 | 440 | 1060 | 530 |
| 4-4 | 550 | 275 | 660 | 330 |
| 5-5 | 280 | 140 | 340 | 170 |

Table.1



9. TO CHANGE TOOLS

(1). Removing Face Mill or Drill Chuck Arbor.

Loosen the arbor bolt at the top of the spindle shaft approximately 2 turns with a wrench. Rap the top of the arbor bolt with a mallet.

After taper has been broken loose, holding chuck arbor on hand and turn detach the arbor bolt with the other hand.

(2). To Install Face Mill or Cutter Arbor

Insert cutter and cutter arbor into the taper of spindle. Tighten arbor bolt detach securely, but do not over-tighten.

(3) Removing Taper Drills

(a) Turn down the arbor bolt and insert the taper drill into the spindle shaft.

(b) Turn the rapid down handle rod down until the oblong hole in the rack sleeve appears. Line up this hole with the hole in the spindle. Insert key punch key through holes and strike lightly with a mallet. This will force the taper drill out.

10. ORDERING REPLACEMENT PARTS

Complete parts list is attached. If parts are needed, contact your local distributor.

11. OPTIONAL ACCESSORIES

Each of machines is equipped with a MT # 3 spindle taper or a R-8 spindle taper (examples below). Contact your local distributor or a major cutting tool distributor to obtain any of these accessories.

| | | |
|--------------|-----------------------|---------------------|
| Taper Drills | Deluxe Stand | Inverter Switch |
| Reamers | 52 Pcs Clamping Kit | Work Lamp |
| End Mills | Face Milling Cutter | Collect Chuck |
| Cutter Arbor | 7 Pcs Milling Chuck | Cooling System |
| Taps | K-Type Milling Vise | 3 1/2" Angle Vise |
| Collets | NT # 30 Spindle Taper | 3" Face Mill Cutter |

Adapters and Sleeves
Box Working Table
Cross Working Table

Tapping Switch For 3 Ph Motor
Emergency Switch For 3Ph Motor
Magnetic Switch For 1 or 3 Ph

3-Way Angle Milling Vise
1/2" Drill Chuck

12. TAPPING EQUIPMENT(OPTIONAL)

This machine can be equipped with an electric switch for tapping operation clockwise or Counter-clockwise, And the working depth also can be adjusted by the limit switch. (Electric switch will be installed according to your requirement, and there will be a extra cost as well.)

OPERATION FOR TAPPING SWITCH:

- (1) Turn the select switch A (see Fig. 3) to " TAPPING " position when you want to do tapping work.
- (2) Handling down the quill and setting up the stroke of tapping depth by graduated rod.
- (3) Check the proper speed of spindle for your tapping condition.
- (4) Push down the start button B (see Fig. 3) and begin to tap.
- (5) If anything fails, put down the emergency stop D (see Fig. 3) and the machine will stop immediately.
- (6) Release the emergency stop D and the push down the reversing button C, the tap will go reverse back out.
- (7) After finishing your tapping work, Remember to turn the select switch A to " NEUTRAL " position.
- (8) Push E to stop the machine.
- (9) Power light F .

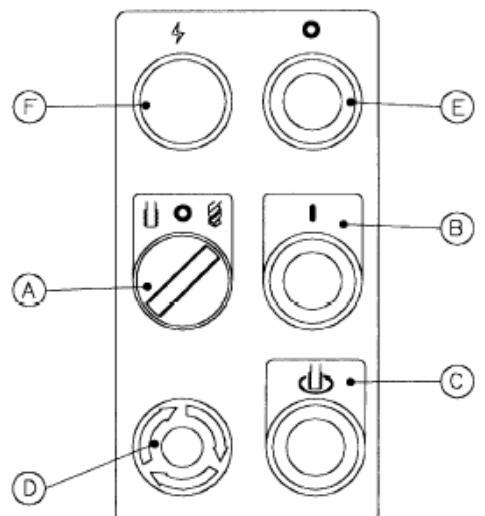


Fig.3

13. SPECIFICATION OF T-SLOT

The size of T-Slot on table as Fig 6:

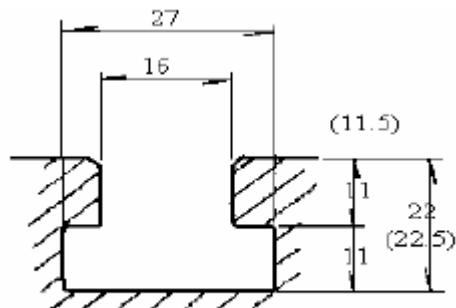


Fig. 6.

14. MAINTENANCE

That's easier to keep machine in good condition or best performance by means of maintaining it at any time than remedy it after it is out of order.

(1) Daily Maintenance (by operator)

- (a) Fill the lubricant for starting machine everyday.
- (b) If the temperature of spindle caused overheating or strange noise, stop machine immediately to check it for keeping accurate performance.
- (c) Keep work area clean; release vise, cutter, workpiece from table; switch off power source; take chip or dust away from machine and follow instructions lubricating or coating rustproof oil before leaving.

(2) Weekly Maintenance

Check to see if sliding surface and turning parts lack of lubricant. If the lubricant is insufficient, fill it.

(3) Monthly Maintenance

- (a) Adjust the accurate gap of slide both on cross and longitudinal feed.
- (b) Lubricate bearing, and worm shaft to avoid wear.

(4) Yearly Maintenance

- (a) Adjust table to horizontal position for maintenance of accuracy.
- (b) Check electric cord, switches at least once a year to avoid loosening or wearing.

15. CLEANING & LUBRICATING

- (1). Your machine has been coated with a heavy grease to protect it in shipping. This coating should be completely removed before operating the machine. Commercial degreaser, kerosene or similar solvent may be used to remove the grease from the machine, but avoid getting solvent on belts or other rubber parts.
- (2). After cleaning, coat all possible rusted surface with a light lubricant. Lubricate all points with a medium consistency machine oil.

16. TROUBLE SHOOTING

(1) No running after switch on :

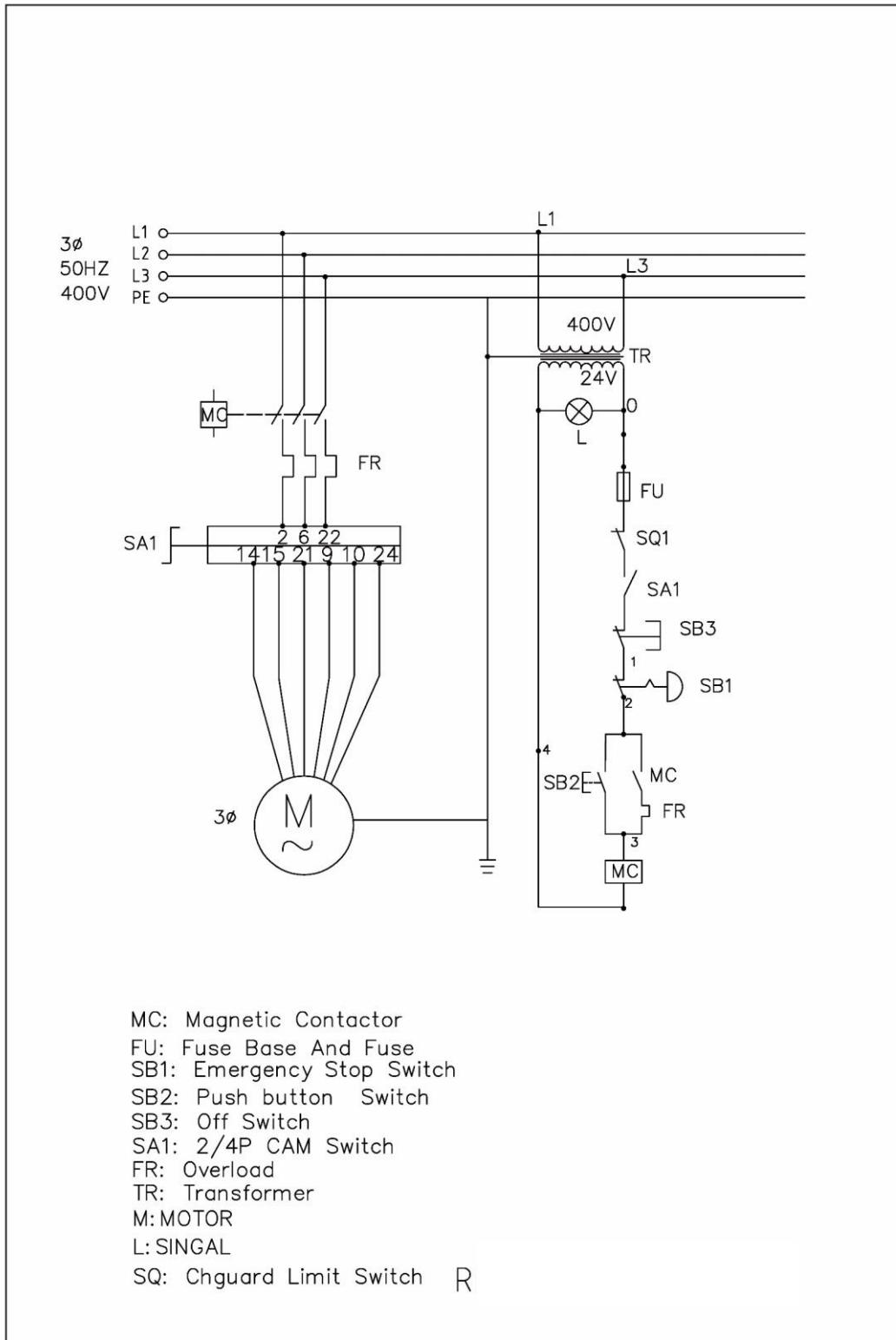
- (a) Main switch interruption while volts irregular - Adjust input voltage and draw back the main switch.
- (b) Break down of fuse in switch box - Replace with new one.
- (c) In case of too much current, the overload relay jumps away automatically - Press the overload relay, and it will return to the correct position.

(2) Motor Overheat and No Power:

- (a) Overload - decrease the load of feed.

- (b) Lower voltage –adjust to accurate voltage.
 - (c) Spoiled contact point of magnetic switch - Replace with new one.
 - (d) Break down of overload relay - Connect it or replace with new one.
 - (e) Motor is poor - Replace with new one.
 - (f) Break down of fuse or poor contact with wire (it is easily to spoil motor while short circuit)-
Switch off power source at once and replace fuse with new one.
 - (g) The tension of pulley V-belt too tight - Adjust for proper tension of V-Belt.
 - (h) If this machine with the tapping attachment, there is an aid plum screw fix on the motor mount in order to avoid the motor pulleys shake while turning.
- (3) The temperature of spindle bearing is too hot:
- (a) Grease is insufficient - Fill the grease.
 - (b) The spindle bearing is fixed too tight - Turning with no speed and feel the tightness with hand.
 - (c) Turning with high speed for a long time - Turn it to lightly cutting.
- (4) Lack of power with main spindle revolving:
- (a) The tension of V-belt too loose - Adjust for proper tension of V-belt.
 - (b) Motor has burned out - Change a new motor.
 - (c) Fuse has burned out - Replace with new one.
- (5) Shake of spindle and roughness of working surface has taken place during performance:
- (a) The gap of spindle bearing too wide - Adjust the gap in proper or replace bearing with new one.
 - (b) Spindle loosening up and down - Make two of inner bearing covers on the top tight each other.
Do not over-tighten two inner bearing covers with the taper bearing; it is ok as long as no gap between them.
 - (c) The gap of taper sliding plate too Wide - Adjust the tension of bolt in proper.
 - (d) Loosening of chuck - Fasten chuck.
 - (e) Cutter is dull - Resharpen it.
 - (f) Workpiece has not hold firmly - Be sure to tighten workpiece.
- (6) Without accuracy in performance:
- (a) The balance of the workpiece - must be considered as the principle balance while holding workpiece.
 - (b) Often use of hammer to strike workpiece - Forbidden to use hammer to strike workpiece.
 - (c) Inaccurate horizontal check and maintain table for keeping accurate horizontal after a period of use.

Wiring Diagram:





This symbol indicates separate collection for electrical and electronic equipment required under the WEEE Directive (Directive 2012/19/EC) and is effective only within the European Union.

10. Umweltschutz

Schützen Sie die Umwelt!

Ihr Gerät enthält mehrere unterschiedliche, wiederverwertbare Werkstoffe.
Bitte entsorgen Sie es nur an einer spezialisierten Entsorgungsstelle.



Dieses Symbol verweist auf die getrennte Sammlung von Elektro- und Elektronikgeräten, gemäß Forderung der WEEE-Richtlinie (2012/19/EU). Diese Richtlinie ist nur innerhalb der Europäischen Union wirksam.

10. Protection de l'environnement

Protégez l'environnement !

Votre appareil comprend plusieurs matières premières différentes et recyclables. Pour éliminer l'appareil usagé, veuillez l'apporter dans un centre spécialisé de recyclage des appareils électriques.



Ce symbole indique une collecte séparée des équipements électriques et électroniques conformément à la directive DEEE (2012/19/UE). Cette directive n'est efficace que dans l'Union européenne.



Warranty / Garantie

TOOL FRANCE SEAL guarantees that the supplied product(s) is/are free from material defects and manufacturing faults.

This warranty does not cover any defects which are caused, either directly or indirectly, by incorrect use, carelessness, damage due to accidents, repairs or inadequate maintenance or cleaning as well as normal wear and tear.

Further details on warranty (e.g. warranty period) can be found in the General Terms and Conditions (GTC) that are an integral part of the contract.

These GTC may be viewed on the website of your dealer or sent to you upon request.

Tool France PROMAC, JPW Industries-Europe reserves the right to make changes to the product and accessories at any time.

TOOL FRANCE SEAL garantiert, dass das/die von ihr gelieferte/n Produkt/e frei von Material- und Herstellungsfehlern ist.

Diese Garantie deckt keinerlei Mängel, Schäden und Fehler ab, die - direkt oder indirekt - durch falsche oder nicht

sachgemäße Verwendung, Fahrlässigkeit, Unfallschäden, Reparaturen oder unzureichende Wartungs- oder

Reinigungsarbeiten sowie durch natürliche Abnutzung durch den Gebrauch verursacht werden.

Weitere Einzelheiten zur Garantie können den allgemeinen Geschäftsbedingungen (AGB) entnommen werden.

Diese können Ihnen auf Wunsch per Post oder Mail zugesendet werden.

Tool France PROMAC, JPW Industries-Europe behält sich das Recht vor, jederzeit Änderungen am Produkt und am Zubehör vorzunehmen.

TOOL FRANCE SEAL garantit que le/les produit(s)fourni(s) est/sont exempt(s) de défauts matériels et de défauts de fabrication.

Cette garantie ne couvre pas les défauts, dommages et défaillances causés, directement ou indirectement, par l'utilisation incorrecte ou inadéquate, la négligence, les dommages accidentels, la réparation, la maintenance

ou le nettoyage incorrects et l'usure normale.

Vous pouvez trouver de plus amples détails sur la garantie dans les conditions générales (CG).

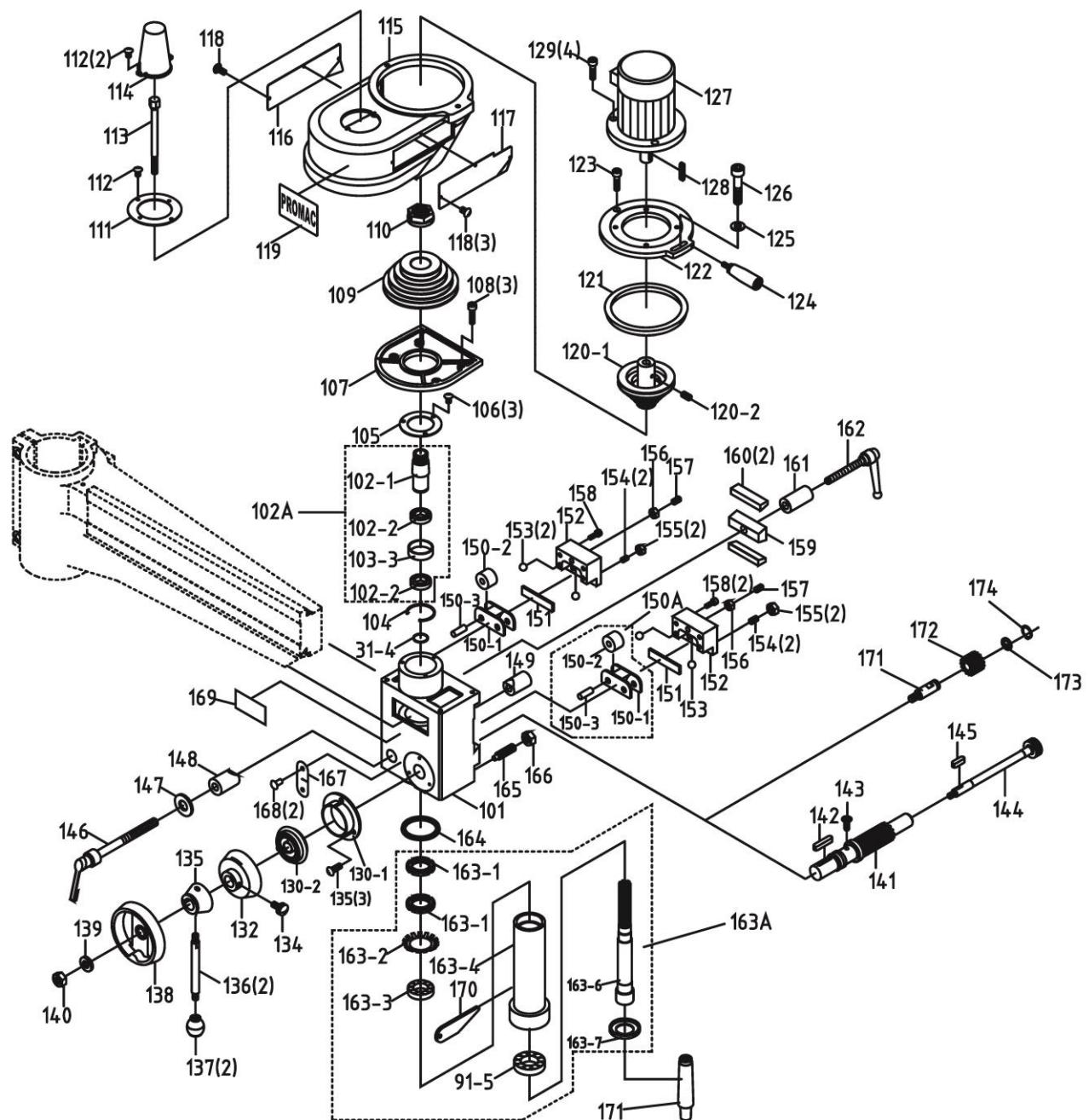
Les CG peuvent être envoyées sur demande par poste ou par e-mail .

Tool France PROMAC, JPW Industries-Europe se réserve le droit d'effectuer des changements sur le produit et les accessoires à tout moment.

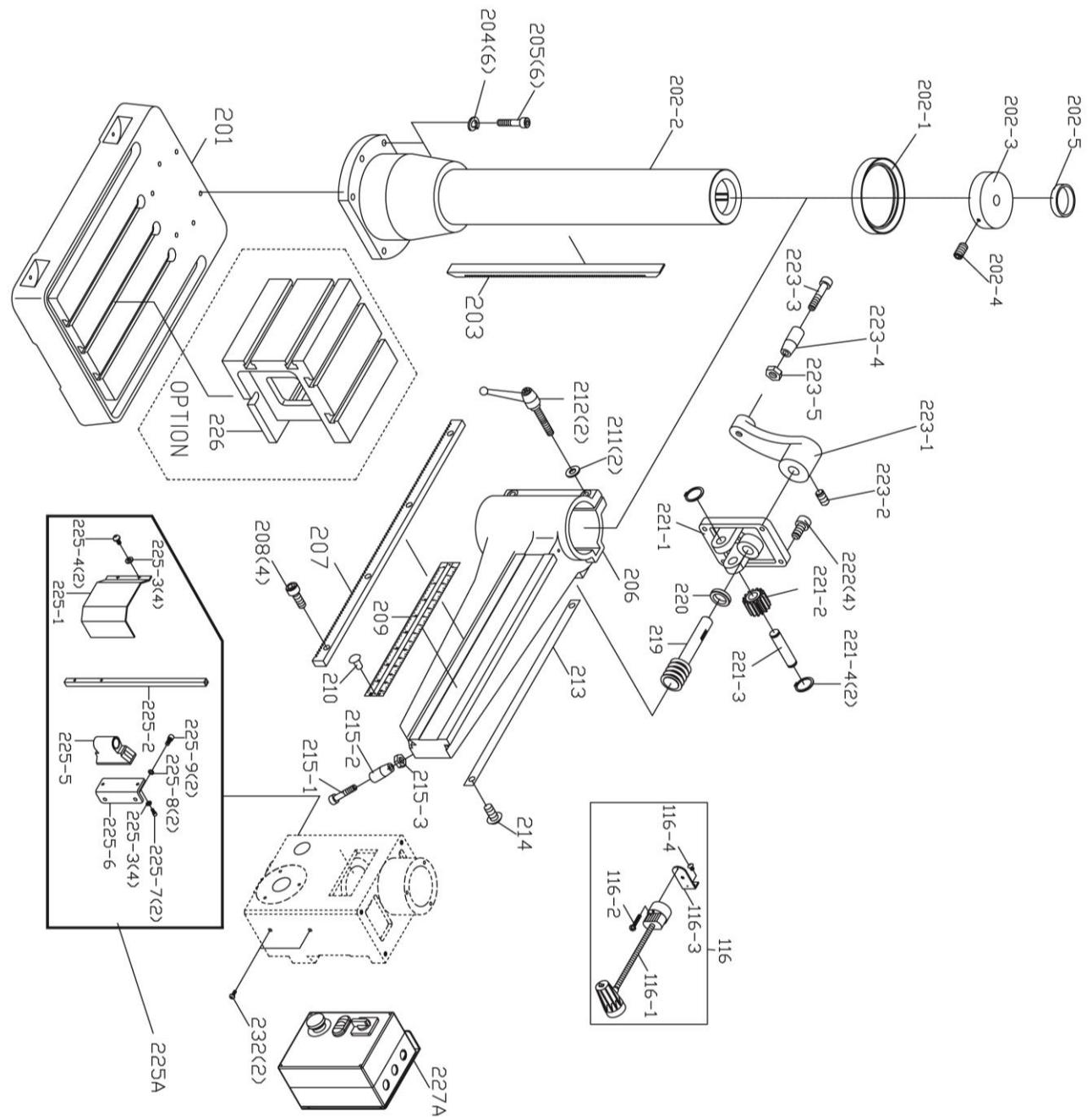


TOOL FRANCE SARL
Rue des Pyrénées, 91090 LISSES, France
www.promac.fr

**Breakdown for the JRD-460 Radial arm drilling machine
Head Assembly**



Breakdown for the JRD-460 Radial arm drilling machine Table, Arm and Column Assembly



Breakdown for the JRD-460 Radial arm drilling machine Head Assembly

| Index | Part | | | |
|-------------|---------------------|-------------------------------------|--|------|
| No. | No. | Description | Size | Qty. |
| 101..... | PMJRD460-101..... | Head Body..... | | 1 |
| 102A | JRD460-102 | Spindle Taper Sleeve Assembly | | 1 |
| 102-1 | JRD460-102-1 | Spindle Taper Sleeves | | 1 |
| 102-2 | BB6009ZZ | Ball Bearing | 6009ZZ..... | 2 |
| 102-3 | JRD460-102-3 | Bushing | $\varnothing 74 \times \varnothing 68 \times 22L$ | 1 |
| 103..... | JRD460-103 | Fixed Ring | $\varnothing 2 \times \varnothing 41$ | 1 |
| 104..... | JRD460-104 | C-Retainer Ring..... | $\varnothing 3 \times \varnothing 80$ | 1 |
| 105..... | JRD460-105 | Outer Bearing Plate..... | | 1 |
| 106..... | TS-1534032 | Pan Head Machine Screw..... | M6x10 | 3 |
| 107..... | JRD460-107 | Cap | | 1 |
| 108..... | TS-1503051 | Socket Head Cap Screw | M6x20 | 4 |
| 109..... | JRD460-109 | Spindle Pulley..... | | 1 |
| 110..... | JRD460-110 | Spindle Locknut..... | | 1 |
| 111..... | JRD460-111 | Main Shaft Cover..... | | 1 |
| 112..... | TS-1533032 | Pan Head Machine Screw..... | M5x10 | 4 |
| 113..... | JMD18VS-0001E | Draw Bar | MT-3, M12 | 1 |
| 114..... | JRD460-114 | Shaft Cover | | 1 |
| 115..... | JRD460-115 | Belt Cover..... | | 1 |
| 116..... | JRD460-116 | Side Plate (left)..... | | 1 |
| 117..... | JRD460-117 | Side Plate (right)..... | | 1 |
| 118..... | JRD460-118 | Pan Head Machine Screw | M5x8 | 6 |
| 119..... | JRD460-119 | JET Logo | | 1 |
| 120A | JRD460-120MPA | Motor Pulley Assembly | | 1 |
| 120-1 | JRD460-120-1 | Motor Pulley | | 1 |
| 120-2 | TS-1524021 | Socket Set Screw | M8x10 | 1 |
| 121..... | JRD460-121 | Belt | 17-330 | 1 |
| 122..... | JRD460-122 | Motor Mount Plate | | 1 |
| 123..... | TS-1505021 | Socket Head Cap Screw | M10x20 | 1 |
| 124..... | JRD460-124 | Locking Handle..... | | 1 |
| 125..... | JRD460-125 | Flat Washer | $\varnothing 10.5 \times \varnothing 27 \times 3t$ | 1 |
| 126..... | TS-1505061 | Socket Head Cap Screw | M10x40 | 1 |
| 127..... | JRD460-127AE | Motor | 400V, 3ph, 1-1/2Hp | 1 |
| 128..... | JRD460-128 | Key | 8x7x45 | 1 |
| 129..... | JRD460-129 | Socket Head Cap Screw | M10x27 | 4 |
| 130A | JRD460-130SBA | Spring Base Assembly | | 1 |
| 130-1 | JRD460-130-1 | Spring Base | | 1 |
| 130-2 | JRD460-130-2 | Spring | | 1 |
| 131..... | TS-1533052 | Pan Head Machine Screw | M5x16 | 3 |
| 132..... | JRD460-132E | Scale Ring | | 1 |
| 134..... | JRD460-134 | Zero Set Screw | | 1 |
| 135..... | JRD460-135 | Rod Support Base | | 1 |
| 136..... | JRD460-136 | Handle Rod | | 2 |
| 137..... | JRD460-137 | Knob | | 2 |
| 138..... | JRD460-138 | Hand Wheel | | 1 |
| 139..... | JRD460-139 | Flat Washer | $\varnothing 10 \times \varnothing 27 \times 3t$ | 1 |
| 140..... | JRD460-140 | Anti-Loose Nut | M10 | 1 |
| 141..... | JRD460-141 | Pinion Shaft | | 1 |
| 142..... | JRD460-142 | Key | 5x5x30 | 1 |
| 143..... | TS-1534041 | Flat Head Machine Screw | M5x10 | 1 |
| 144..... | JRD460-144 | Movable Worm Shaft | | 1 |
| 145..... | JRD460-145 | Key | 5x5x15 | 1 |

**Breakdown for the JRD-460 Radial arm drilling machine
Transmission & Head Assembly**

| Index | Part | | | | |
|--------------|---------------------|--------------------------------------|----------|-------------|-------------|
| No. | No. | Description | | Size | Qty. |
| 146..... | JRD460-146 | Locking Lever | | | 1 |
| 147..... | TS-0680061 | Flat Washer | 1/2" | | 1 |
| 148..... | JRD460-148 | Fixed Tight Collar | | | 1 |
| 149..... | JRD460-149 | Fixed Tight Collar with Thread | | | 1 |
| 150A | JRD460-150RA | Roller Assembly | | | 2 |
| 150-1 | JRD460-150-1 | Sliding Wheel Base | | | 2 |
| 150-2 | JRD460-150-2 | Roller | | | 4 |
| 150-3 | JRD460-150-3 | Sliding Wheel Arbor | | | 4 |
| 151..... | JRD460-151 | Press Board | | | 2 |
| 152..... | JRD460-152 | Slide Block | | | 2 |
| 153..... | JRD460-153 | Steel Ball | Ø8 | | 4 |
| 154..... | TS-1523051 | Socket Set Screw | M6x16 | | 4 |
| 155..... | TS-1540041 | Hex Nut | M6 | | 4 |
| 156..... | TS-1540061 | Hex Nut | M8 | | 2 |
| 157..... | JRD460-157 | Socket Set Screw | M8x35 | | 2 |
| 158..... | TS-1503091 | Socket Head Cap Screw | M6x40 | | 4 |
| 159..... | JRD460-159 | Fixed Nut | | | 1 |
| 160..... | JRD460-160 | Moveable Fixed Block | | | 2 |
| 161..... | JRD460-161 | Lock Handle Bushing | | | 1 |
| 162..... | JRD460-162 | Leaf Handle Lever | | | 1 |
| 163A | JRD460-163RSA | Rack Sleeve Assembly | | | 1 |
| 163-1 | JMD18-014 | Lock Nut | | | 2 |
| 163-2 | JMD18-137 | Lock Washer | | | 1 |
| 163-3 | BB-30206 | Taper Roller Bearing | E30206J | | 1 |
| 163-4 | JMD18-016E | Rack Sleeve | MT-3 | | 1 |
| 163-5 | BB-30207 | Taper Roller Bearing | E302067J | | 1 |
| 163-6 | JMD18-017E | Spindle Shaft | MT-3 | | 1 |
| 163-7 | JMD18-019 | Bearing Cap | MT-3 | | 1 |
| 164..... | JMD18-012 | Rubber Flange | | | 1 |
| 165..... | JRD456-165 | Set Screw | 3/8"x38 | | 1 |
| 166..... | TS-0561031 | Hex. Nut | 3/8" | | 1 |
| 167..... | JRD460-167 | Indicator | | | 1 |
| 168..... | JMD18-204-2 | Rivet | Ø2 | | 2 |
| 169..... | JRD460-169 | Speed Chart | | | 1 |
| 170..... | JMD18-012E | Punch Key | | | 1 |
| 171..... | JRD460-171 | Gear Shaft | | | 1 |
| 172..... | JRD460-172 | Gear | | | 1 |
| 173..... | JRD460-173 | Washer | Ø5x22x1t | | 1 |
| 174..... | JRD460-174 | C-Retainer Ring | S-15 | | 1 |

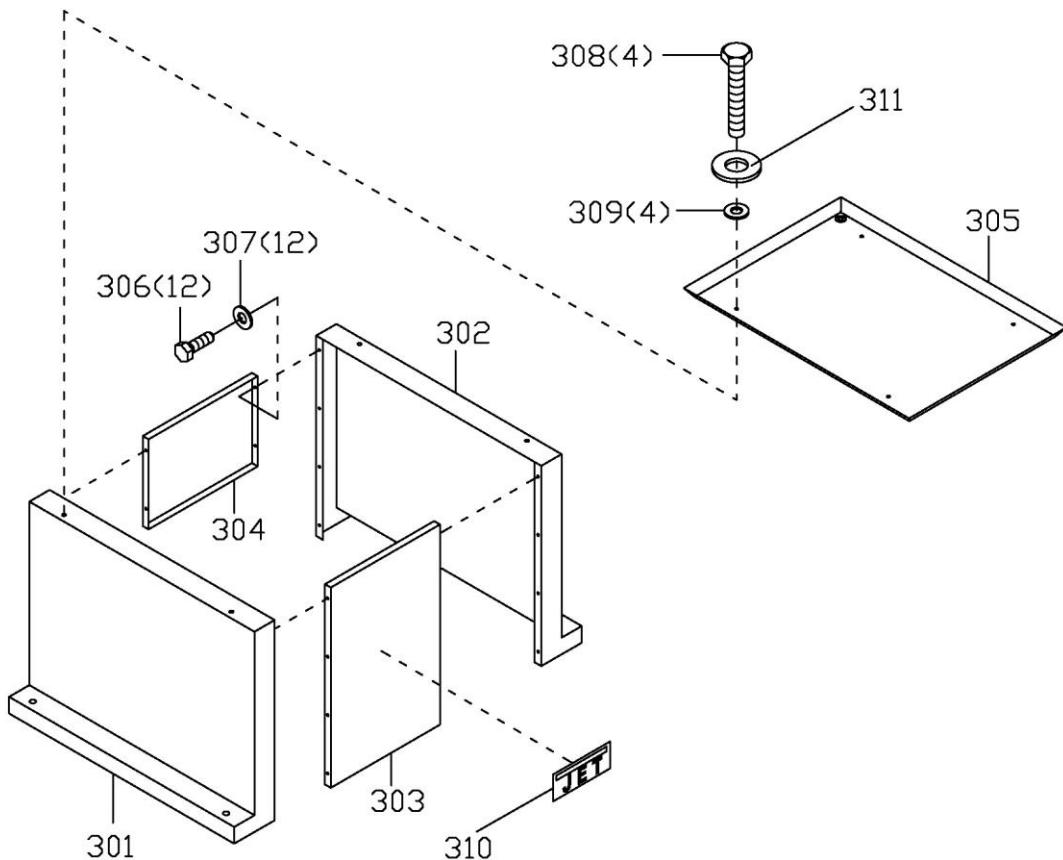
**Parts List for the JRD-460
Table, Arm & Column Assembly**

| Index | Part | | Description | Size | Qty. |
|--------------|---------------------|--|----------------------------------|---------------------|-------------|
| No. | No. | | | | |
| 201..... | JRD460-201 | | Swivel Base | | 1 |
| 202A | JRD460-202CA | | Column Assembly | | 1 |
| 202-1 | JRD460-202-1 | | Column Flange Ring | | 1 |
| 202-2 | JRD460-202-2 | | Column | | 1 |
| 202-3 | JRD460-202-3 | | Column Head | | 1 |
| 202-4 | TS-0270021 | | Socket Set Screw | 5/16"x5/16" | 1 |
| 202-5 | JRD460-202-5 | | House Bushing | | 1 |
| 203..... | JRD460-203 | | Rack | | 1 |
| 204..... | TS-2361121 | | Lock Washer | M12 | 6 |
| 205..... | TS-1506071 | | Socket Head Cap Screw | M12x50 | 6 |
| 206..... | JRD460-206 | | Radial Arm | | 1 |
| 207..... | JRD460-207 | | Moveable Rack | | 1 |
| 208..... | TS-1503041 | | Socket Head Cap Screw | M6x16 | 4 |
| 209..... | JRD460-209 | | Scale | | 1 |
| 210..... | JMD18-204-2 | | Rivet | ø2 | 2 |
| 211..... | JRD460-211 | | Flat Washer | ø10.5x ø27x3t | 2 |
| 212..... | JRD460-212 | | Locking Lever | | 2 |
| 213..... | JRD460-213 | | Band Steel | | 1 |
| 214..... | TS-1534041 | | Flat Head Machine Screw | M5x10 | 2 |
| 215A | JMD18-201HA | | Handle Assembly | | 1 |
| 215-1 | JMD18-201-1 | | Socket Head Cap Screw | 3/8"x3-1/2" | 1 |
| 215-2 | JMD18-201-2 | | Knob | | 1 |
| 215-3 | JMD18-201-3 | | Hex Nut | 3/8" | 1 |
| 219..... | JMD18-059 | | Worm Shaft | | 1 |
| 220..... | JMD18-114 | | Bushing | | 1 |
| 221..... | JRD460-221HRA | | Head Raise Assembly | | 1 |
| 221-1 | JRD460-221-1 | | Head Raise Bracket | | 1 |
| 221-2 | JRD460-221-2 | | Worm Gear | | 1 |
| 221-3 | JRD460-221-3 | | Worm Shaft | | 1 |
| 221-4 | JRD460-221-4 | | C-Retainer Ring | S-14 | 1 |
| 222..... | TS-1503061 | | Socket Head Cap Screw | M6x25 | 4 |
| 223..... | JRD460-223 | | Up-Down Handle Assembly | | 1 |
| 223-1 | JRD460-223-1 | | Head Handle | | 1 |
| 223-2 | TS-0271061 | | Socket Set Screw | 3/8"x1/2" | 1 |
| 223-3 | JMD18-201-1 | | Socket Head Cap Screw | 3/8"x3-1/2" | 1 |
| 223-4 | JMD18-022 | | Handle | | 1 |
| 223-5 | TS-0561031 | | Hex Nut | 3/8" | 1 |
| 225A | JMD45PF-044 | | Chuck Guard Assembly | | 1 |
| 225-1 | JMD45PF-044-1 | | Chuck Guard | | 1 |
| 225-2 | JMD45PF-044-2 | | Chuck Guard Supporting Rod | | 1 |
| 225-3 | TS-2361051 | | Lock Washer | M5 | 4 |
| 225-4 | TS-1502021 | | Socket Head Cap Screw | M5x10 | 2 |
| 225-5 | JMD45PF-044-5 | | Chuck Guard Bracket | | 1 |
| 225-6 | JMD45PF-044-6 | | Rotary Supporting Base | | 1 |
| 225-7 | TS-1502041 | | Socket Head Cap Screw | M5x16 | 2 |
| 225-8 | TS-2361061 | | Lock Washer | M6 | 2 |
| 225-9 | TS-1503041 | | Socket Head Cap Screw | M6x16 | 2 |
| 227A | PMJRD460-227A | | Electrical Box Assembly | | 1 |

- **Contents of the Accessory Package:**

| Part No. | Description | Size | Qty. |
|---------------------|--------------------------------|-----------------|-------------|
| JMD18-022..... | Handle | | 1 |
| JMD18-040..... | Knob | | 2 |
| 561704E..... | Drill Chuck w/ Chuck Key | MT-3/B-16 | 1 |
| JMD18-021E | Chuck Arbor (Installed) | MT-3/B-16 | 1 |
| JMD18-012E | Punch Key..... | | 1 |
| TS-152704 | Hex Wrench..... | 3mm | 1 |
| TS-152705 | Hex Wrench..... | 4mm | 1 |
| TS-152706 | Hex Wrench..... | 5mm | 1 |
| JMD18N-119E..... | Lifting Hook..... | M10x33.5 | 1 |
| MP-007..... | Touch Up Paint..... | | 1 |

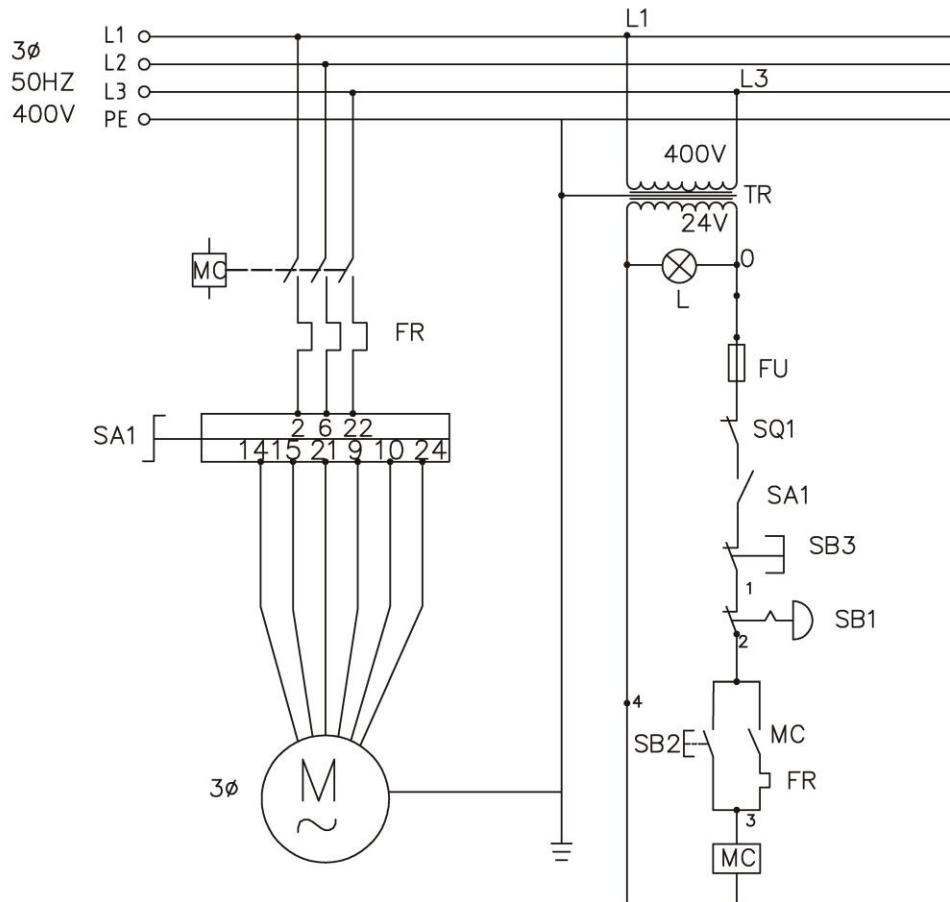
**Breakdown for the JRD-460 Radial arm drilling machine
Stand Assembly---Option**



**Parts List for the JRD-460 Radial arm drilling machine
Stand Assembly---Option**

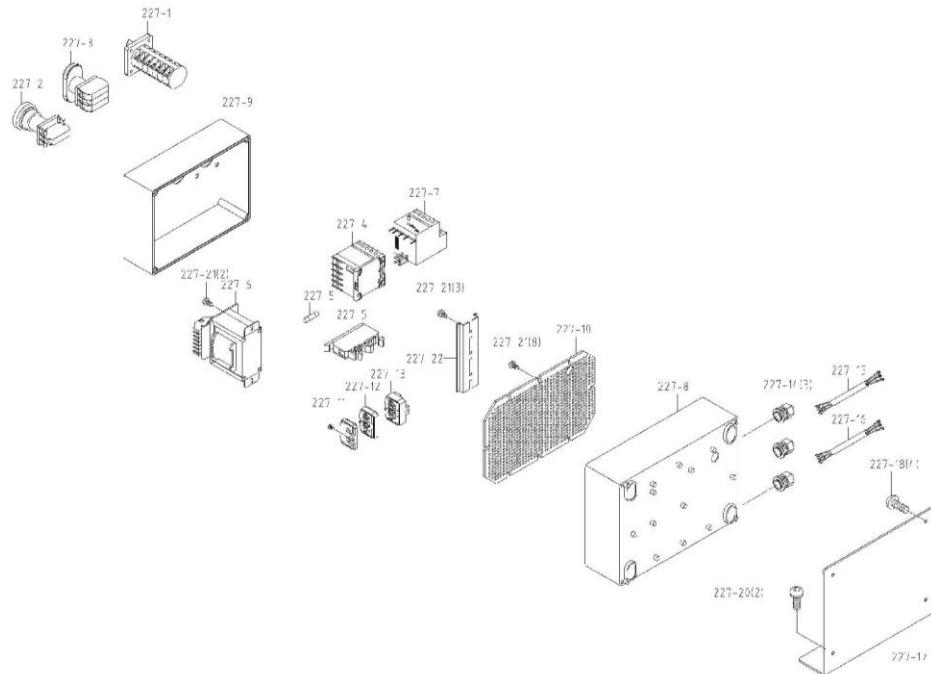
| Index | Part | | Description | Size | Qty. |
|--------------|------------------|--|-------------------------|--------------|-------------|
| No. | No. | | | | |
| 301..... | JRD460-301 | | Side Panel (left)..... | | 1 |
| 302..... | JRD460-302 | | Side Panel (right)..... | | 1 |
| 303..... | JRD460-303 | | Front Panel..... | | 1 |
| 304..... | JRD460-304 | | Rear Panel | | 1 |
| 305..... | JRD460-305 | | Shelf | | 1 |
| 306..... | TS-1482011 | | Hex Cap Screw | M6x10 | 12 |
| 307..... | TS-1550041 | | Flat Washer..... | M6 | 12 |
| 308..... | TS-1491061 | | Hex Cap Screw | M10x40 | 4 |
| 309..... | TS-1550071 | | Flat Washer..... | M10 | 4 |
| 310..... | JRD460-119 | | JET Logo | | 1 |
| 311..... | JRD460-311 | | Rubber Cushion | | 4 |

JRD-460-T...3~400V, 50Hz



MC: Magnetic Contactor
 FU: Fuse Base And Fuse
 SB1: Emergency Stop Switch
 SB2: Push button Switch
 SB3: Off Switch
 SA1: 2/4P CAM Switch
 FR: Overload
 TR: Transformer
 M: MOTOR
 L: SINGAL
 SQ: Chguard Limit Switch

Electrical Box Assembly



Parts list for the JRD-460 Electrical Box Assembly

| Index | Part | | | |
|--------------|----------------|-------------------------------|-------------------|-------------|
| No. | No. | Description | Size | Qty. |
| 227-1 | PMJRD460227-1 | F/R Switch..... | | 1 |
| 227-2 | PMJRD460227-2 | Emergency-Stop Switch..... | HY-57B | 1 |
| 227-3 | PMJRD460227-3 | Power ON/OFF and Signal | | 1 |
| 227-4 | PMJRD460227-4 | Contactor | | 1 |
| 227-5 | PMJRD460227-5 | Fuse | 2A | 1 |
| 227-6 | PMJRD460227-6 | Transformer | 230/400 24V | 1 |
| 227-7 | PMJRD460227-7 | Over-Load | 10K 2.9-4A.. | 1 |
| 227-8 | PMJRD460227-8 | Base Box | | 1 |
| 227-9 | PMJRD460227-9 | Cover | | 1 |
| 227-10 | PMJRD460227-10 | Netboardl | | 1 |
| 227-11 | PMJRD460227-11 | Side Terminal..... | | 1 |
| 227-12 | PMJRD460227-12 | Terminal Blocks | | 1 |
| 227-13 | PMJRD460227-13 | Ground Terminal Blocks | | 2 |
| 227-14 | PMJRD460227-14 | Cable Glands | | 3 |
| 227-15 | PMJRD460227-15 | Motor Cable | | 1 |
| 227-16 | PMJRD460227-16 | Power Cable | | 1 |
| 227-17 | PMJRD460227-17 | Holder | | 1 |
| 227-18 | PMJRD460227-18 | Screw | M5x15L..... | 4 |
| 227-19 | PMJRD460227-20 | Screw | M6x16L..... | 2 |
| 227-20 | PMJRD460227-21 | Screw | 3/16" x3/8" | 1 |
| 227-21 | PMJRD460227-22 | Aluminum Rails..... | | 1 |