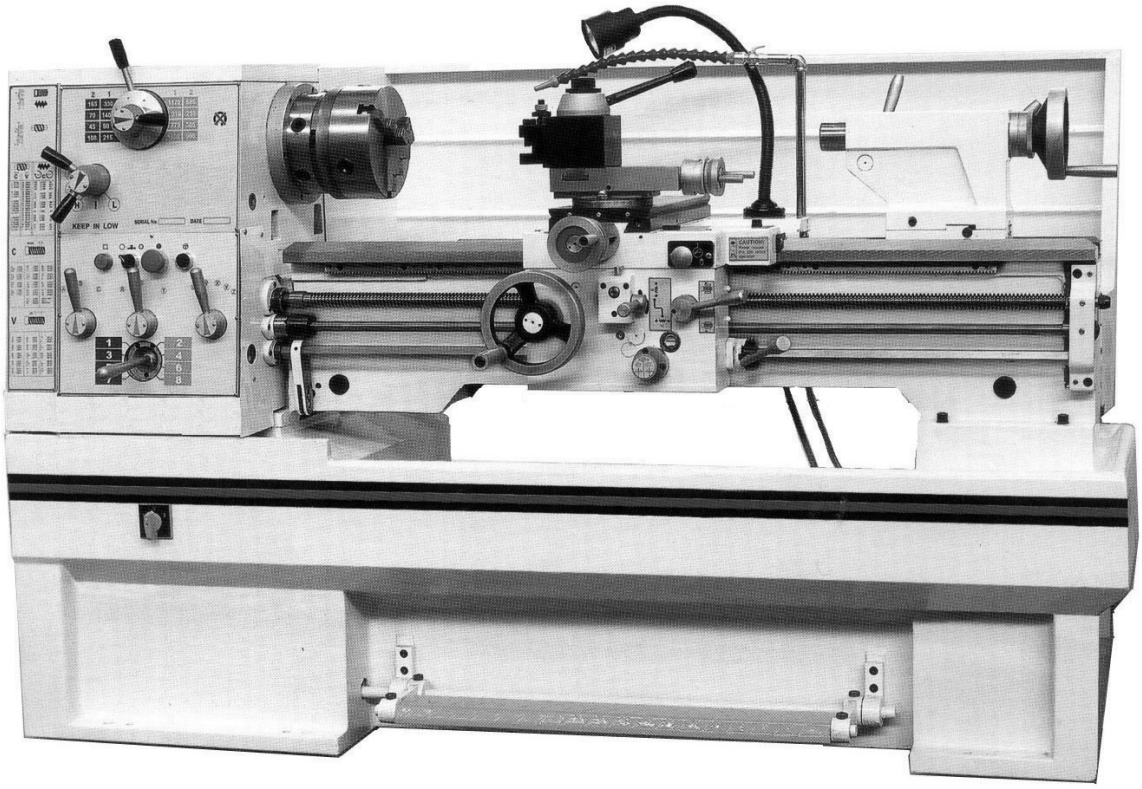
# INSTRUCTION MANUAL AND PARTS LIST

## LATHE



## MODEL: *CD6240*

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## .1. Guideline for Safety Operation

The lathe is a high speed and powerful machine and can cause danger if operate it improperly.

Before operating the lathe please read the following guidelines of safety operation. Take care and observe to make the lathe be under normal operation environment so as to avoid danger.

The lathe is in accordance with GB15760-1995 <General Technical Condition of Safety Protection of Metal Cutting Machine> issued by the state.

The manual covers information and hints necessary for proper and safe operation of the lathe.

It is required the operator of the lathe should accept suitable technical training before operating the machine, own skills to operate it and hold the certificate of operation; or he should be trained under the close supervision of somebody who can skillfully operate the machine.

The lathe should be operated under the environmental temperature of +5°C - +40°C; the elevation up to 1000 m; the relative humidity of 50% when ambient temperature is +40°C or higher relative humidity if ambient temperature is lower.

The manual also covers related information for those who owns necessary skills or appointed persons to make suitable maintenance upon the machine.

## 1-1 Safety Points for Attention

1. Keep the lathe and the working area clean and in good order.

2. All guard devices and cover plates should be on the place; the side cover should be closed.

3. Do not place any objects in the processing area of the lathe as they may bump with rotating or moving parts.

4. Do not contact or leap over moving or rotating parts of the lathe.

5. Before starting the lathe, you should understand how to stop it.

6. The lathe cannot be operated under overload.

7. Stop running of the lathe immediately in case any accident occurs.

8. When mounting the chuck or other attachment on the spindle, switch off power supply of the lathe to prevent rotation of the spindle.

9. Do not mount the jigger if it is not checked of confirmed to be compatible with the lathe.

10. Check the center you used if its load capacity can meet with requirement.

11. Switch off power supply before leaving the lathe.

12. The maximum weight of the workpiece on the lathe is 500 kg.

13. The chuck should be properly and firmly mounted on the spindle of the lathe.

14. Take care that the workpiece should be gripped firmly and the speed of the spindle cannot exceed the safe speed of the chuck.

15. As it is possible to contact with human body, especially when the material with small diameter is used, it is not allowed in any case that the rod material cannot extend out the end of the spindle of the headstock which has no special guard and relative support.

16. There is the label of speed limit for the chuck and that no speed change is allowed in operation at the lower right corner of the headstock, the electric warning board at the electric cabinet (box) and that no touch on the workpiece (or chuck) when it is rotating on the guard of the chuck to remind you to take care.

## 1-2 Danger of Operation

When operating the lathe you should fully understand the danger of following operations:

### 1) Cutting Fluid

The cutting fluid is hazardous to human body. To contact the cutting

fluid continuously especially the original fluid, it can cause the skin allergic or ill if seriously, even the emulsion can also cause the same. Therefore following precautions should be taken:

a. Avoid any unnecessary contact.

b. Put on the protective clothes.

c. Adopt guard shield or plate.

d. Do not wear oily or dirt clothes.

e. Clean all parts of the body where the cutting fluid is contacted after work.

f. Do not mix different cutting fluids.

g. Replace the cutting fluid regularly.

h. Correctly treat the cutting fluid.

**2) Safe Operation of the Chuck of the Lathe**

All jiggers of work pieces should have clear labels of the maximum safe speed and the speed of the spindle can never exceed it. It should point out that the maximum safe speed on the label is supposed under ideal work condition and lower speed of the spindle should be selected in following cases:

a. Adopt the chuck to jig the workpiece under noisy work condition.

b. If the chuck is surely damaged, it is dangerous to operate under high speed, especially when the chuck of grey pig iron is used it shall break if it is something damaged.

c. If no griping force is known before jigging.

d. All factors such as strength of the workpiece to be jigged, balance of the jigging faces and the workpiece etc. can largely affect the maximum safe speed.

When the workpiece is rotation, it may not be jigged firmly due to the role of centrifugal force and following factors may be involved:

a. The speed is too high.

b. The weight and type of the claws are off standard.

c. The working radius of the claw is unsuitable.

d. The claw ahs bad lubrication.

e. It is unbalanced.

f. The dynamic factor is not considered in the jigging force.

g. Too large cutting force.

h. Is the workpiece jigged internally or externally?

These factors should be seriously considered as they can cause different influence in different purposes. The manufacturer cannot provide concrete data for general use as they are beyond the range controlled by the manufacturer of the machine.

## 1-3 General Safe Rules for Operator of the Lathe

1. When jigging the workpiece, it cannot have oil or grease;

All parts should be jigged firmly;

Do not intend to jig the workpiece which is unsuitable or hardly to jig well;

Do not jig the workpiece exceeding the weight allowed by the lathe;

Master suitable hoisting method when the workpiece is hoisted.

2. Ensure to remove oil or grease on handy tools and operation grippers;

Ensure the structures of handy tools and operation grippers are suitable to touch safely by hand.

3. When operating the handy tool or the operation gripper, it should be gripped firmly;

Select suitable position to grasp on the handy tool or the operation gripper;

You cannot grasp the handy tool or the operation gripper on unsuitable position;

You cannot operate with excessive force.

4. Grasp the handy tool or the operation grippe on recommended positions.

5. Do not allow to leave other handy tool or operation gripper on the chuck.

6. Do not allow to use broken, damaged or defected tool.

7. Ensure the workpiece is jigged firmly on the chuck or other jiggers.

8. Take special care of irregular workpiece.

9. Take care of large flashes and burrs on the workpiece.

10. Always take care to select correct tool in work.

11. It is not allowed to leave other unfixed handy tool or operation gripper on the chuck.

12. Do not allow to use the tool without the handle.

13. Always adopt the chuck, the follow rest and the center to support the workpiece.

14. The workpiece should have correct position in the hexagon hole and the groove of the screwdriver.

15. Take care that the locking screw should be tightened.

16. Do not make preparation work in a hurry.

17. Never use the substitute tool if no suitable tool is available or prepared in the workshop.

18. Do not allow to move away the guard plate or to open the protection door when the lathe is switched on.

19. Do not let your hands or body be within the working area of moving parts.

Take care to move parts of the lathe which could drop down.

Take care of relative position between the hand or the body and the lathe.

Take care of the tool to be grasped and other parts inserted in the chuck or the workpiece.

Do not let your hands or body be on the place where they could be hurt

by the chuck or the workpiece.

20. Take care not to push the handle, to operate the clutch or to witch on power supply to cause accident.

21. Master every function and all kinds of operation methods.

22. Never put your hands on the chuck or the workpiece to stop rotation of the spindle.

23. For the lathe driven by the clutch, in case the clutch is disengaged, the spindle should be stopped running otherwise the clutch or the brake device should be adjusted.

24. When the lathe is not in use, ensure to switch off power supply of the lathe.

25. Stop the rotation of the chuck before replacing the new workpiece.

26. Always take care to check if driving of the chuck, the belt pulley and driving parts are loose.

27. When the handle of the chuck is in the chuck, never start the spindle.

28. Do not operate the laths if the attention is not concentrated in order to avoid accident.

29. When preparing to make other operation of the lathe such as the tailstock, take care to avoid danger such as bumping or dropping.

30. Take care of guard cover of the chuck and other covers which cannot be loosened.

31. Put on the safety cap to operate the lathe if the operator has long hair to avoid danger due to hair is wounded by rotating parts of the machine.

32. Take special care to make operation if you are closing to rotating part of the machine.

33. Always pay attention to filing and deburring:

Take special care when the file or the deburring tool is closing to the chuck;

The file or the deburring tool could bump the chuck.

34. For the lathe driven by the clutch, take care that the clutch should be at the position the lathe is stopped when making measurement.

35. Take care of rotating and stopping positions of the spindle when hand is on the handle of the clutch.

36. Ensure the spindle of the lathe should be at the stop position when measuring the workpiece jigged on the chuck.

37. When the measuring meter is used on the lathe, ensure the motor is at the stop status.

38. Wear protective gears met with safe standard before making operation on the lathe;

It is not allowed if taking off protective gears in a short period of time before making operation on the lathe;

Wear protective gears properly.

39. Take cars of cuttings flying out from the lathe.

40. Select suitable guard plate on the operation position.

41. Never leap over or go around the chuck or the workpiece to make adjustment when they are in running status;

Never leap over or go around the chuck or the workpiece to take something;

Take care of the place the workpiece is put when making adjustment of the lathe or the workpiece;

Never leap over or go around the chuck or the workpiece to move the tool/lathe to other position;

Never leap over or go around the chuck or the workpiece to tighten parts on the lathe;

Never leap over or go around the chuck or the workpiece to remove iron chips.

42. Master suitable method to load, and never apply force from unsuitable position.

43. Never mount the workpiece too large or heavy toward the lathe.

44. Never mount the workpiece too large or heavy toward the operator.

45. Use necessary tools to treat the workpiece.

46. Never apply excessive force on the attachment or the operation lever.

47. Take care to jig the workpiece firmly.

48. Tighten all claws, nuts, screws and fasteners.

49. Always take care to use correct equipment.

50. Never make cutting beyond the ability of the lathe.

51. Do not apply excessive force to polish or to deburr.

52. Always take care to adopt suitable tool to deburr. Do not deburr in a hurry and take care of burrs on the chuck and the workpiece.

53. Switch off power supply to stop all movements of the lathe before replacing the exchange gears.

54. Take care if the chuck/parts could drop down when the lathe is in operation.

## 1-4 Protection of the Chuck

The lathe is equipped with the guard of the chuck (option), which is suitable for the standard chuck.

In case the chuck guard is equipped on the lathe, it should be in a closed status before the spindle is running.

1) When the machine is equipped with larger chuck, the chuck guard should be replaced with one which has corresponding diameter with that of the chuck.

It is suggested that claws cannot extend out the outer diameter of the chuck in order to avoid bump with the chuck guard. For the sake of safe operation, always take care not to extend claws out of the outer diameter of the chuck.

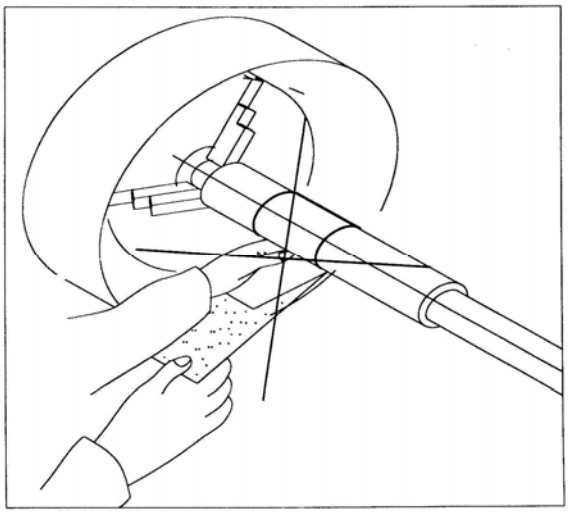
2) When the face chuck is used, the chuck guard should be removed. If

it is indeed required by customer, the special chuck guard can be provided but it should be confirmed that only the face chuck is used and any case should be responsible by customer himself.

### 1-5 The Use of Emery Cloth in Metal Processing Can Cause Danger

In all accidents occurred on the lathe, most are from the use of emery cloth to cause breakage of fingers, or even to amputate occasionally.

When workpieces with different shapes are rotating on the lathe, if using emery cloth to deburr, to polish or to process finished sizes, it can cause the accident when winding emery cloth on the workpiece to be ground by two hands. If winding the emery cloth on the finger or to make rough grinding, the finger could be seized firmly to cause serious injury.



### Precautions

The operator should have certain recognition and knowledge on the necessity to treat part by emery cloth on the lathe.

It is not needed to process by emery cloth in following cases:

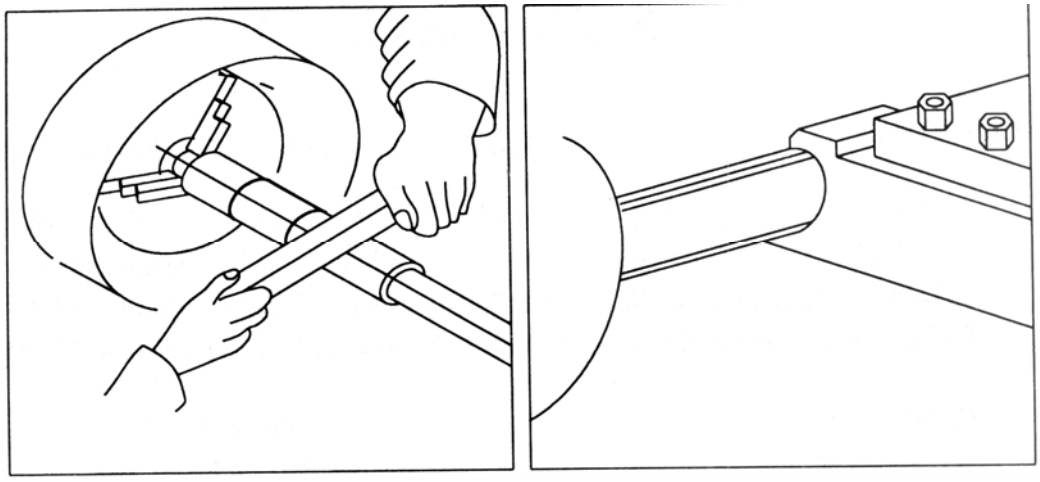
If the requirement of the surface roughness is not so high;

Make processing by turning or on special polisher or grinding machine, the finished sizes and surface roughness can be achieved well.

If technological rule defines that the workpiece should be ground by

emery cloth, then the emery cloth should be used in following cases:

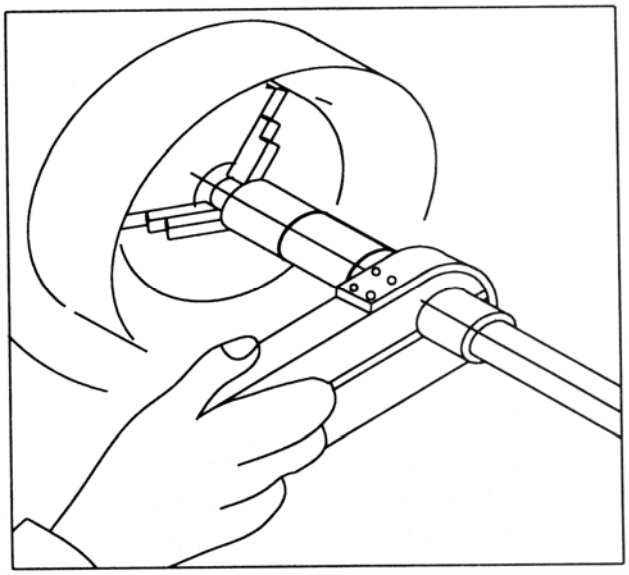
a. Nail the emery cloth on a quality wood board to grind;



b. The emery cloth is fixed on and jigged by the tool holder to grind.

c. The “Robust Grinder” consists of two pieces of jointed wood board and the emery cloth to make grinding and the workpiece to be polished can go through its hole.

d. The polish is made by the wire brush stuck with abrasive material.



Apply force at the both ends of the emery cloth to pull it upward. Never pull it loosely or wind it on your finger or on the workpiece.

When the end of the workpiece is polished, only a short piece of the emery cloth shall be used as it cannot be wound.

When polish by the emery cloth is made, never operate by wearing gloves.

## 1-6 Safety devices

Operate the lathe only with properly functioning safety devices.

Stop the lathe immediately if there is a failure in the safety device or if it is not functioning for some reason.

It is your responsibility!

If the safety device has been activated or has failed, the lathe must only be operated again when

- the cause of the failure has been removed,
- you have made sure that there is no existing danger for persons or objects.

**WARNING!**

**If you bypass, remove or override a safety device in any other way, you are endangering yourself and other persons working on the lathe. The possible consequences are the following**

- **injuries due to components or parts of components flying off at high speed,**
- **contact with rotating parts,**
- **fatal electrocution,**
- **pulling-in of clothes.**

**The lathe includes the following safety devices:**

- a lockable main switch,
- an EMERGENCY-STOP button,
- a protective cover on the headstock with position switch,
- a lathe chuck protection with position switch,
- a recoil spring as protective cover on the guide spindle, the coil

spring prevents the pulling-in of clothes into the guide spindle,

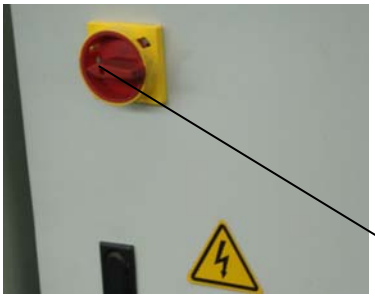
- chip protection,
- securing screw
- an overload clutch on the feed shaft,
- safety screws for the Camlock bolts on the workpiece holder.

**a. Lockable main switch**

In the position "0", the lockable main switch can be secured against accidental or non-authorized switching-on by means of a padlock.

When the main switch is switched off, the current supply is being interrupted.

Except for the areas marked by the ideogram in the margin. In these areas, there might be voltage, even if the main switch is being switched off.



main switch

**WARNING!**

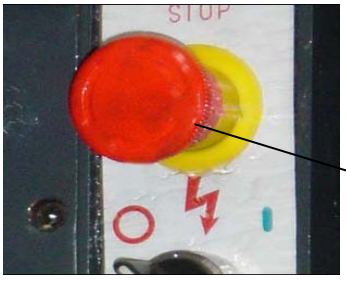
**Dangerous voltage exists even if the main switch is switched off.**

**In the areas marked by the ideogram in the margin, there might be voltage, even if the main switch is switched off.**

**b. EMERGENCY-STOP button**

The EMERGENCY-STOP button switches the lathe off.

After actuating the switch, turn it to the right, in order to restart the lathe.




EMERGENCY-STOP button

**c. Protective cover on the headstock**

The headstock of the lathe is provided with a protective cover and a position switch.

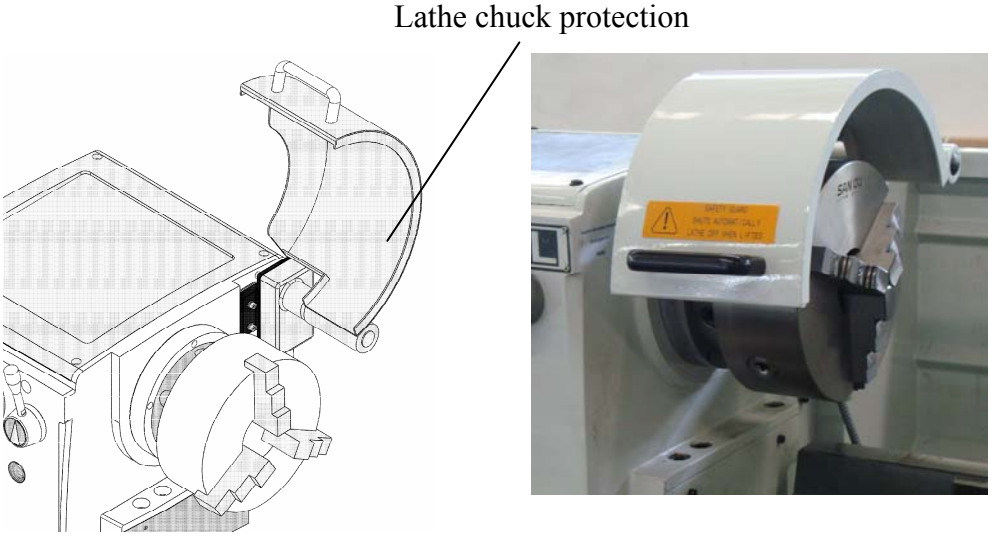
The lathe only starts when the protective cover is mounted.


**WARNING!**

**Only remove the protective cover when the main switch of the lathe is turned off and secured by a padlock.**

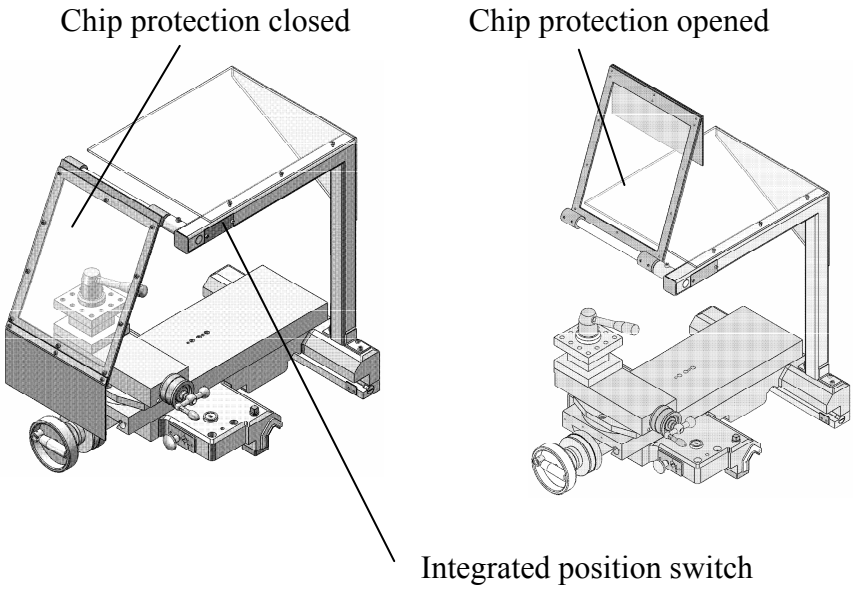
**d. Lathe chuck protection with position switch**

The lathe is provided with a lathe chuck protection. The lathe can only be switched on if the lathe chuck protection is closed.



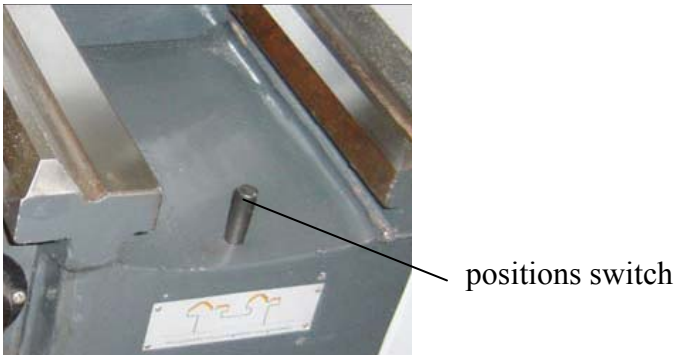
## e. Chip protection

The lathe is provided with a protective cover for the tool cutting chip.




## f. securing screw

Tighten the securing screw at the end of the lathe bed in order to prevent the tailstock from unintentional drawing-out of the lathe bed.



**Safety check**

Check the lathe at least once per shift. Inform the person responsible immediately of any damage, defect or change in the operating function.

Check all safety devices

- at the beginning of each shift (with the machine stopped),
- once a week (with the machine in operation),
- after every maintenance and repair work.

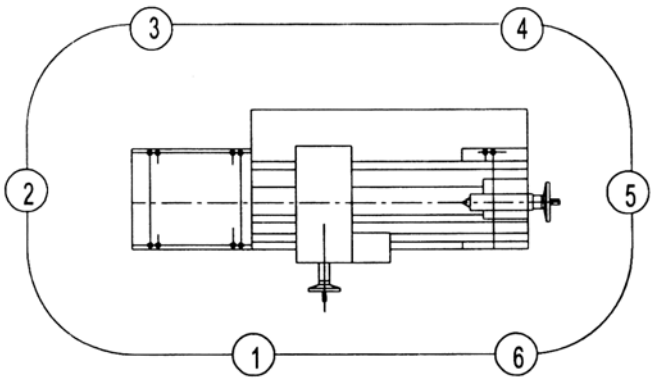
Check that the prohibition, warning and information labels as well as the markings on the lathe

- are legible (clean them, if necessary),
- are complete.

## 2. Level of Noise

According to GB/T16769-1997 <Measurement Method of Sound-Pressure-Level of Metal Cutting Machine>, measure the noise at six positions being one meter far from the lathe. The maximum noise should be less than 85dB（A）.

Note: The measurement should be made at the spindle with standard chuck at the maximum speed.



# 3. Specification

**Capacity**

| | |
|---|---|
| Swing Over Bed | 360mm(14") or 410mm(16") |
| Swing Over Cross Slide | 215mm(81/2") or 255mm(10") |
| Swing In Gap Diameter×Width | 540(211/4") or 580(23")×190(71/2") |
| Height of Center | 185mm(71/2") or 205mm(8") |
| Distance Between Centers | 1000mm(40")/1500 mm |
| Width of Bed | 250mm(10") |
| Cutting Tool Max Section | 20×20mm(3/4"×3/4") |
| Total Travel of Cross Slide | 210mm(81/2") |
| Total Travel of Top Slide | 140mm(51/2") |

**Headstock**

| | |
|---|---|
| Spindle Bore | 52mm(2") |
| Spindle Nose | D1-6 |
| Spindle Morse Taper in Bore | M.T.No. 6 |
| Spindle Speeds Number | 16 |
| Spindle Speeds Range | 45-1800R.P.M |

**Thread & Feeds**

| | |
|---|---|
| Leadscrew Diameter & Thread | 28mm×6mm or 4T.P.I |
| Threads Imperial Pitches | 2-72T.P.I(45Nos) |
| Threads Metric Pitches | 0.2-14mm(39Nos) |
| Longitudinal Feeds Imperial | 0.002"-0.067"/Rev (17Nos) |
| Longitudinal Feeds Metric | 0.05-1.7mm/Rev (17Nos) |
| Cross Feeds Imperial | 0.001"-0.0335"/Rev (17Nos) |
| Cross Feeds Metric | 0.025-0.85mm/Rev (17Nos) |
| Range of Module Pitches | 0.3-3.5MP(18Nos) |
| Range of Diametral Pitches | 8-44DP(21Nos) |

**Tailstock**

| | |
|---|---|
| Total Travel of Tailstock Quill | 120mm(43/4") |
| Tailstock Quill Diameter | 50mm(2") |
| Taper in Tailstock Quill | M.T.No.4 |

**Motors**

| | |
|---|---|
| Spindle Drive Motor | 4P/8P, 3PH 3.3/2.2kw or 4.5/3kw |
| Coolant Pump Motor | 4P, 3PH 90W |

**Weight & Measures**

| | |
|---|---|
| Machine Space Requires (L×W×H) | 194（244）cm×85cm×130cm or132cm |
| Packing Case Dimensions (L×W×H) | 206 (81")×90 ($35^{7}/_{16}$")×164cm($64^{9}/_{16}$") |
| Net Weight | 1300kg or 1350kg/1550kg or 1600kg |
| Gross Weight | 1500kg or 1555kg/1750kg or 1755kg |

## 4. Lifting

Use a sling-chain to sling the lathe as in fig position the saddle and tailstock along the bed to obtain balance.

**Important**: The sling-chain should not touch the leadscrew or Feed-shaft to avoid damage.

Unloading of the machine. When the machine is unloaded from the car or to be moved, please proceed with following steps (Fig.1)

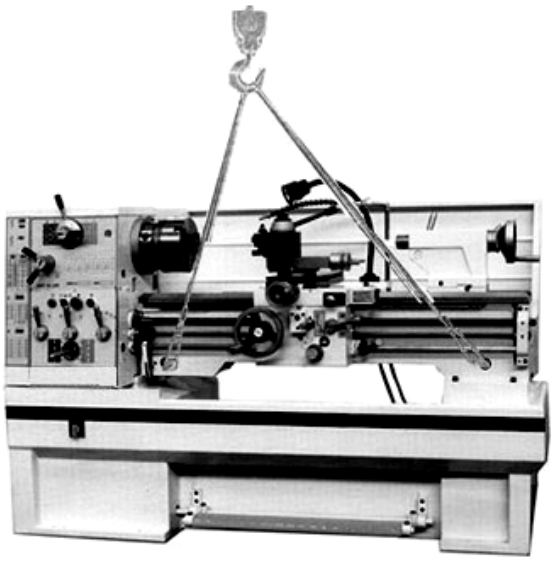


**Fig.1**

1. Preparing two round sticks (long approx.800mm dia 35mm) insert into the preserved holes on lathe bed. Then lift up with applying wires on both end of the stick.

Lifting the machine by a crane.

3. Before lifting adjust the position of Lathe Apron and Tailstock to maintain the balance of machine.

4. When the machine was shifted to its destination, always handle with care to put it down. Don't let go of it to hit the ground or it will affect the accuracy of the machine

**Note**: Machine weight can be seen in Specification Table.

5. For the adjustment of electric control, keep the distance between machines and wall not less than 600mm.

## 5. Cleaning

Before operating any controls remove the anticorrosion coating from all slideways and the end gear train, using white spirit or kerosene.

**Do not use cellulose solvents for cleaning, as they will damage the paint finish.**

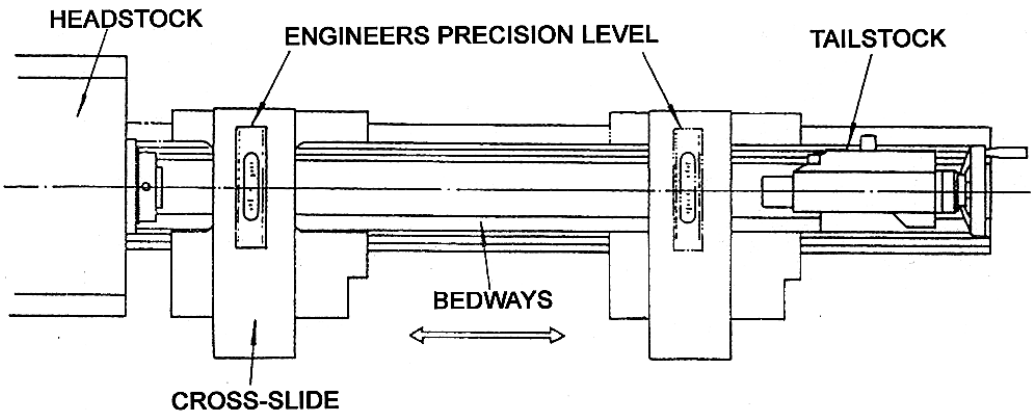
Oil all bright-machined surfaces immediately after cleaning using machine oil or slide way lubricant; use heavy oil or grease on the end gear.

## 6. Installing

Locate the machine on a solid foundation, allowing sufficient area all around for easy working and maintenance (see Foundation plan). The lathe may be used freestanding or bolted to the foundation.

Freestanding: Position lathe on foundation and adjust each of the six mounting feet to take equal share of the load. Then using an engineer's precision level on the bedways (Fig.2) adjusts the feet to level up machine. Periodically check bed level to ensure continued lathe accuracy.

Fixed installation: Position lathe over six bolts (1/2 in. or 12mm.dia.) set into the foundation to correspond with holes in the mounting feet; Accurately level the machine, then tighten hold-down bolts, Re-check bed level.



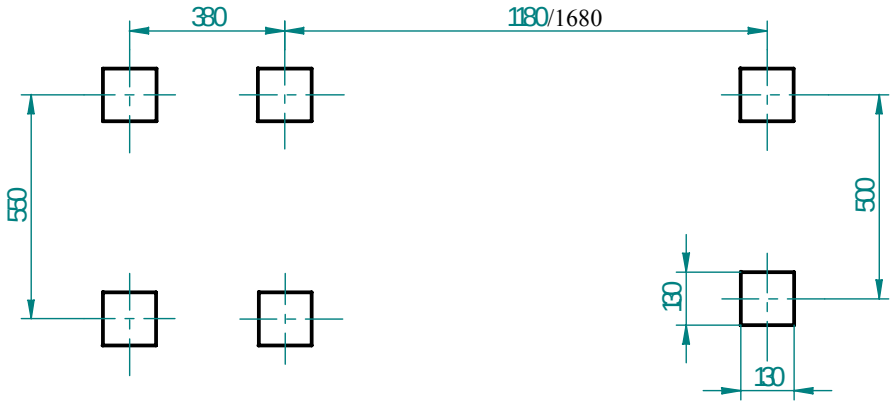



**Fig.2**

Construction of the Ground

Due to the recent tendency of utilizing Ultra-Hard Alloy Steel tools, it surely increases the speed of heavy cutting comparing to the previous steel tool. But, in the mean time, it easily happens to the vibration of the machine. For assuring better cutting result, it requires a very strong and steady construction of ground. (Please refer to right illustration of construct in of ground)(Fig.3)

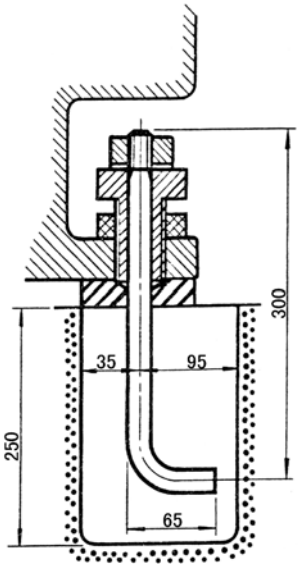
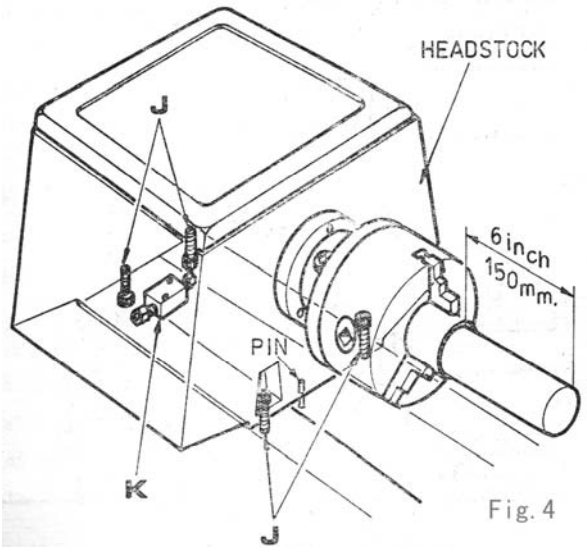



**Fig.3**

## 7. Lathe Alignment Part.1

With the lathe install and running. We recommend a check on machine alignment before commencing work. Check leveling and machine alignment at regular periods to periods to ensure continued lathe accuracy.

Headstock check: Take a light cut-with a keen tool over a 6 in. (150mm.) length of 2 in. dia. (50mm) steel bar gripped in the chuck but



not supported at the free end. Micrometer reading at each end of the turned length (at A and B of Fig.4) should be the same.

To correct a difference in readings, slacken and release the four-headstock hold-down screws (J) shown in Fig.4 and adjust the set-over screw (K) beneath the headstock. Then tighten all screws, after adjustment and repeat the test-cut/micrometer-reading sequence until micrometer readings are identical, so machine now cutting

absolutely parallel.

The Importance and Methods of Spindle Leveling Adjustment

1. Switch on to make the Spindle turn while the Spindle is set up at 1170r.p.m. By putting the palm of the left hand on the Headstock cover to fell its chatter. An unrevealing Spindle will lead to lathe chatter. Move Leveling Block (either “A” or “B”) left or right to adjust until your left hand feels the minimum chatter.

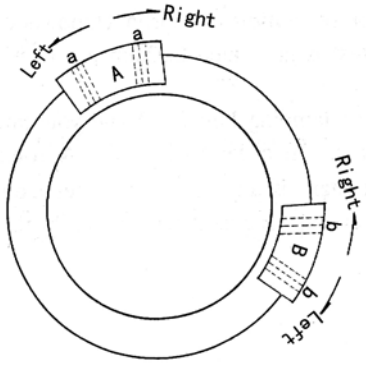



**Fig.5**

2. Afterwards, change the Spindle speed to 1800r.p.m. or 770r.p.m.and check the Leveling with the same way as we did at 770r.p.m.by adjusting the Leveling Block “A” or “B”.

## 8. Lathe Alignment Part.2

Using a 12in. (305mm.) ground steel bar fitted between headstock and tailstock centers, check the alignment by fitting a dial-test indicator to the topside and traversing the center line of the bar. (Fig.6).

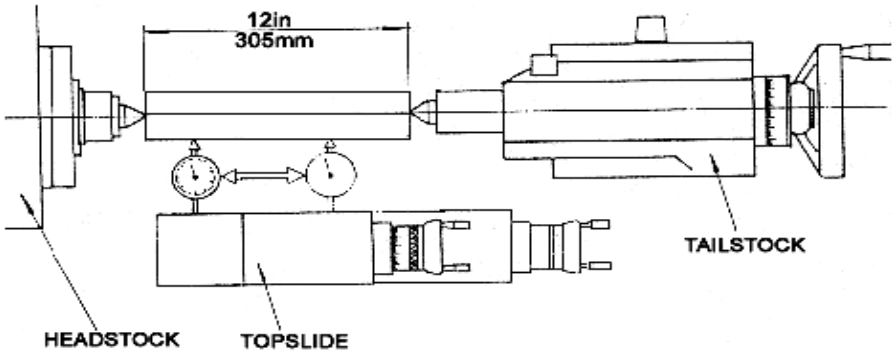



**Fig.6**

## 9. Slide Ways Attention

Tapered gib strips are fitted to slideways of saddle cross-slide and top (compound) slides so that any slackness, which may develop can be rectified.

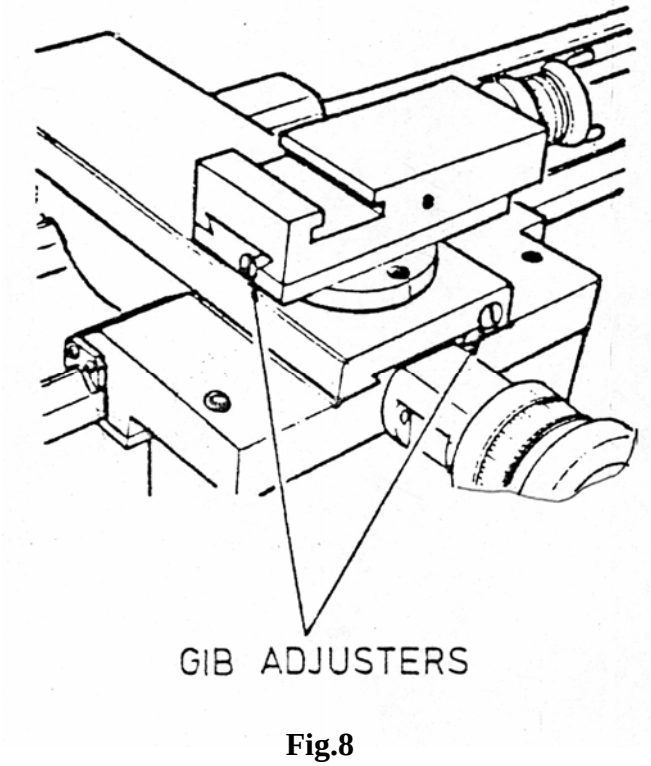



**Fig.8**

Ensure that slideways are thoroughly cleaned and lubricated before attempting adjustment. Then reset the gib screw and tightening the front screw, a little at a time. Check constantly for smooth action throughout full slide travel; avoid over adjustment which can result in increased wear-rate are stiff or jerky action. (Fig.8)

## 10. Cross-Slide Nut

This is adjustable for elimination of slackness, which may develop in service. Reduce backlash by the cap-head screw rear of the nut. Before operating the cross-slide several times by hand to be sure of smooth operation throughout travel. (Fig.9)

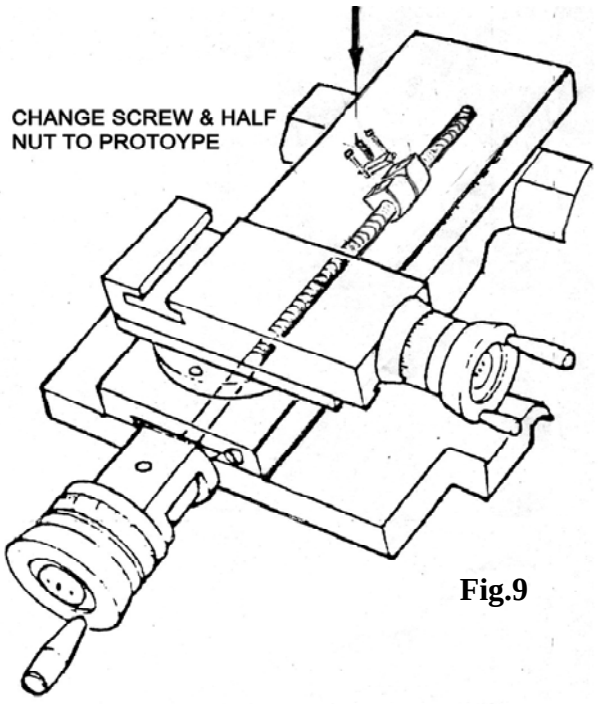



**Fig.9**

## 11. Electrical Controls

The power switches are fitted on the face of electrical box in back of the bed and below the headstock. Except the main switch, all electrical controls are fitted in the front of the headstock.

1.Move the power switch set at ON position then the indicator lamp glows.

2.Press the GREEN button. The main drive motor can be running with a moment. (With the main motor rotation lever is set in the neutral position.)

3.Coolant pump ON/OFF push button.

4.Press the RED button to stop the main motor and coolant pump.

Check the rotating direction of spindle after wiring:

1. Turn on the power switch.

2. Slightly push “INTREMITENT” button.

3. Look at the rotating direction of Main Spindle from Tailstock.

4.If it is of anti-clockwise, you’ve got a right wiring.

5.If oppositely, exchange any of two wires among R”,“S”,“T” terminals.

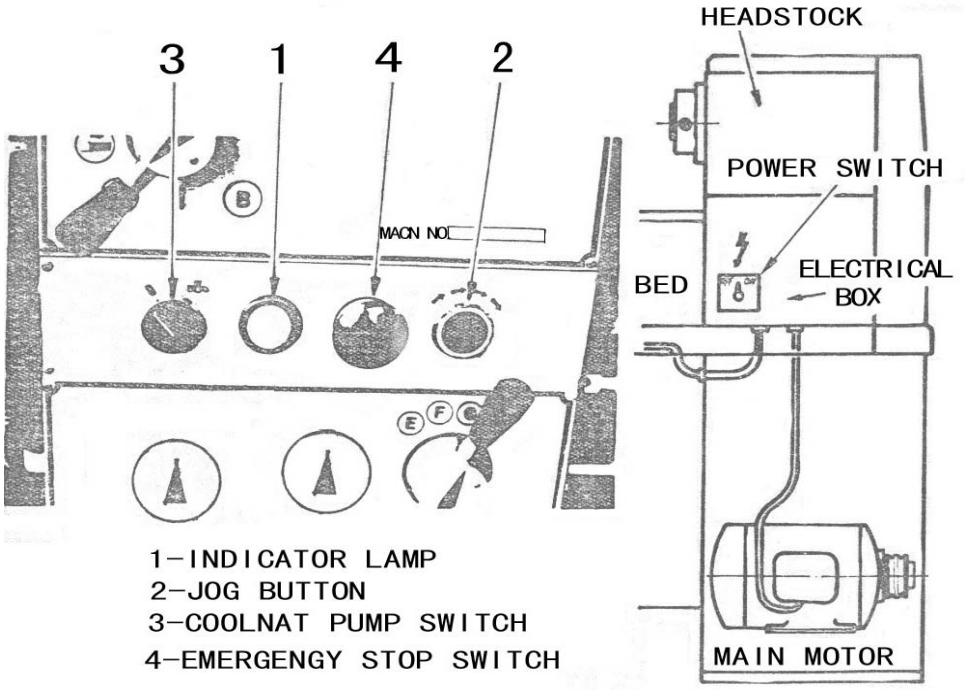



**Fig.10**

## 12. Speed Controls (2 Speed Motor)

**Spindle speeds: Selected by the two lever controls and electrical switch, on the headstock and stand. The sixteen available speeds are shown directly on the data plate. While the electrical switch set at (1) position, the small lever rotated right-hand side, it provides speeds from 1800-510r.p.m., and rotated to left-hand side, it provides speeds from 330-90r.p.m. Then move the large lever to the appropriately colored arrow aligned with the required speed on the data plate. While the electrical switch set at (2) position, it provides speeds from 900-255 R.P.M. and 165-45 R.P.M. When the small lever set at upper or bottom position, the spindle is free for hand rotation.**

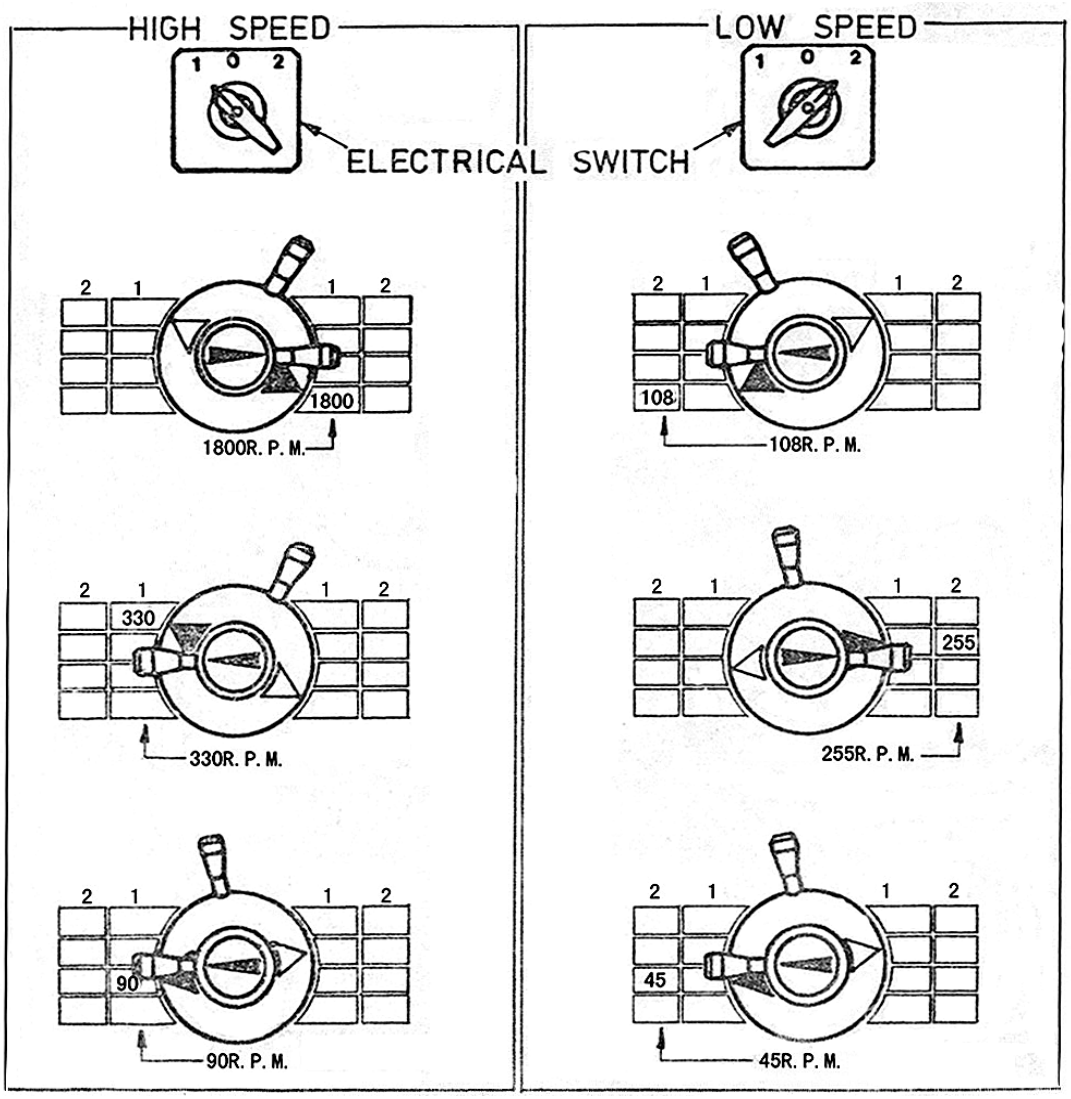



**Fig.11**

## 13. Threading Dial Indicator

### A. Whitworth threads

Located on right-hand side of the apron on lathes having an Imperial leadscrew. Engage the indicator pinion with the leadscrew and tighten the hand nut to retain indicator in engagement.

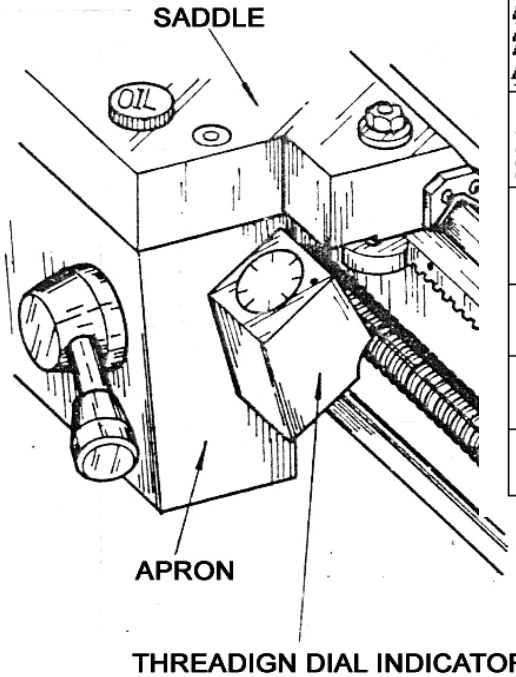
To cut threads of an even number per inch, close the leadscrew nut as ANY line on the dial passes the datum mark. To cut threads of odd numbers per inch, close the leadscrew nut at any NUMBERED line.

Fractional threads of 1/2 or 1/4 T.P.I. may be cut by closing the nut at the SAME numbered line on each pass of the tool.

This dial cannot be used with an Imperial leadscrew to cut metric threads, or fractional threads. For these the leadscrew nut must be kept closed and the machine reversed by use of the changeover switch, after each cutting pass and tool with drawl.

Leadscrew Pitch 4T.P.I

Leadscrew Pitch 6mm




THREADIGN DIAL INDICATOR

| ins | |
|---|---|
| 4, 8, 12, 16, 20, 24, 28, 32, 36, 40, 44, 48, 56, 60, 72 | ANY POAITON |
| 2, 6, 10, 14, 18, 22, 26, 30, 54 | NON NUMBERED POSITION |
| 3, 5, 7, 9, 11, 13, 15, 19, 23, 27 | NUMBERED POSITION 1, 2, 3, 4 |
| 2½, 3½, 4½, 7½, 11½, 13½ | POSITION 1, 3 OR 2, 4 |
| 1/24, 3/24, 1/34, 3/24 | POSITION 1 ONLY |
| 7/28 | SAME METRIC THREADS CUTTING |

**INDICATOR TABLE**

| | | | |
|---|---|---|---|
| 11T | 2.75 | 5.5 | 1 |
| 13T | 3.25 | 6.5 | |
| 14T | 1.75 | 3.5 | |
| | 7 | | |
| | 0.5 | 0.75 | 1~7 |
| | 1 | 1.5 | |
| | 2 | 3 | |
| | 4 | 6 | |
| 15T | 1.25 | 2.5 | 1 |
| | 5 | | |
| | 2.25 | 4.5 | |

**Fig.12**

**B. Metric threads**

Same as above when a Metric Screw is installed.

To provide for the various pitches of metric threads, several gears having different numbers of teeth are mounted on the lower end of the shaft. The

vertical position of the thread dial indicator is changed as required so that the correct gear for the pitch of the thread to be cut wills mesh with the leadscrew.

Each graduation on the dial is marked with a letter, which indicates the points at which the half nuts may be engaged for certain threads. A diagram is supplied with the thread dial to show which gear and graduations must be used for each pitch of metric screw thread.

## 14. Chucks and Chucks Mounting

When fitting chucks or faceplates, first ensure that spindle and chuck tapers are scrupulously clean and that all cams lock in the correct positions; see Fig.12. it may be necessary to re-set the cam lock studs (A) when mounting a new chuck. To do this, remove the cap-head locking screws (B) and set each stud so that the scribed ring (C) is flush with the rear face of the chuck-with the slot lining up with the locking screw hole. See Fig.13.

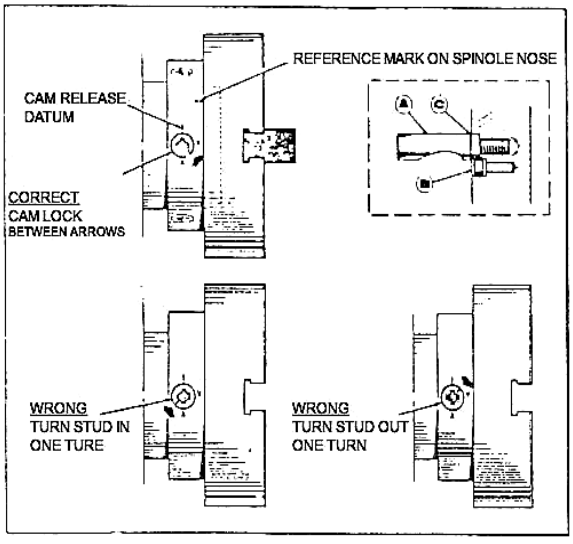



**Fig.13**

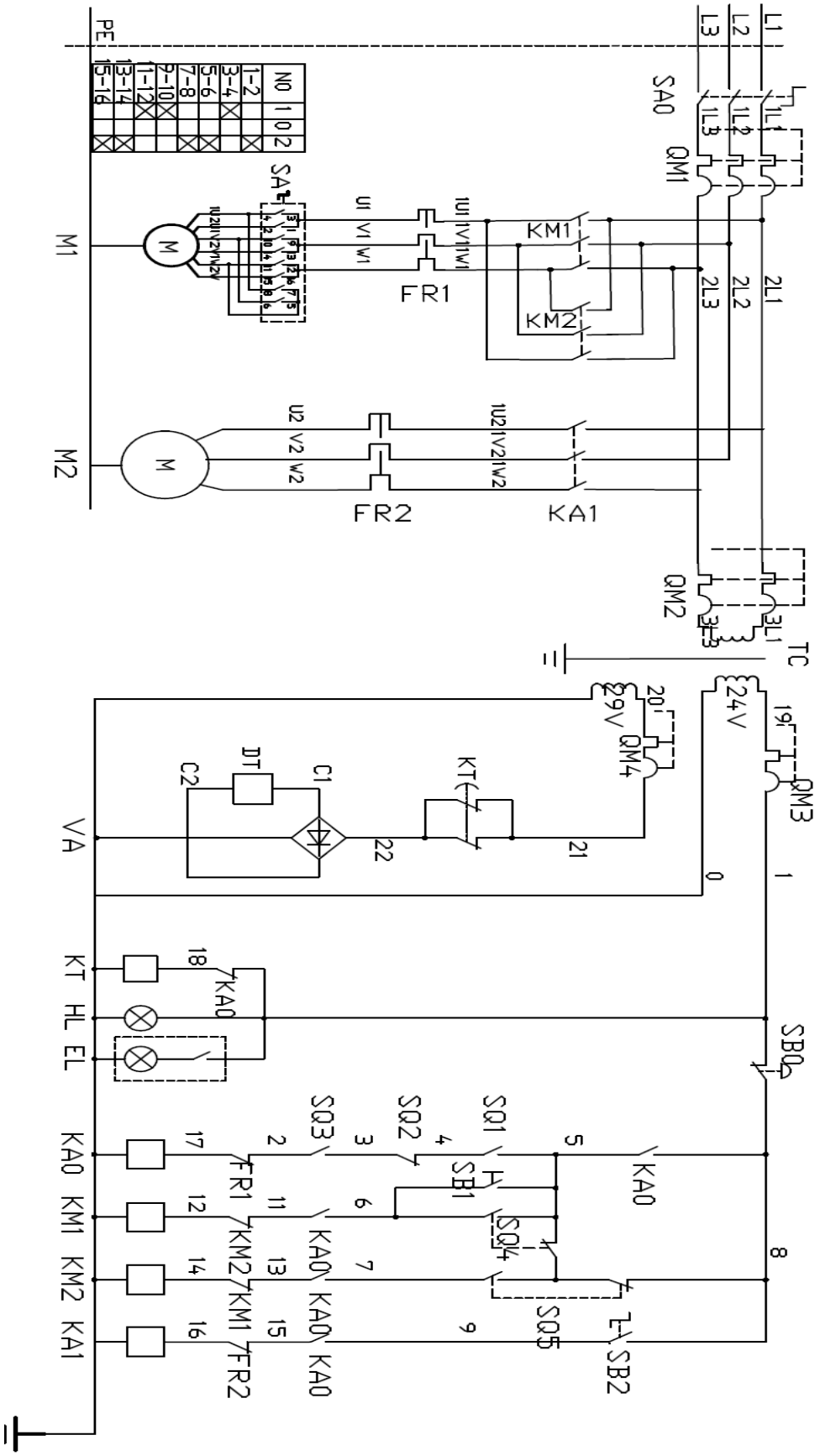
Now, mount the chuck or faceplate on the spindle nose and tighten the three cams in turn. When fully tightened, the cam lock line on each cam should be between the two V marks on the spindle nose. If any of the cams do not tighten fully within these limit marks, remove the chuck or

faceplate and re-adjust the stud as indicated in the illustration. Fit and tighten the locking screw (B) at each stud before remounting the chuck for work. A reference mark should be made on each correctly fitted chuck or faceplate to coincide with the reference mark scribed in the spindle nose. This will assist subsequent remounting.

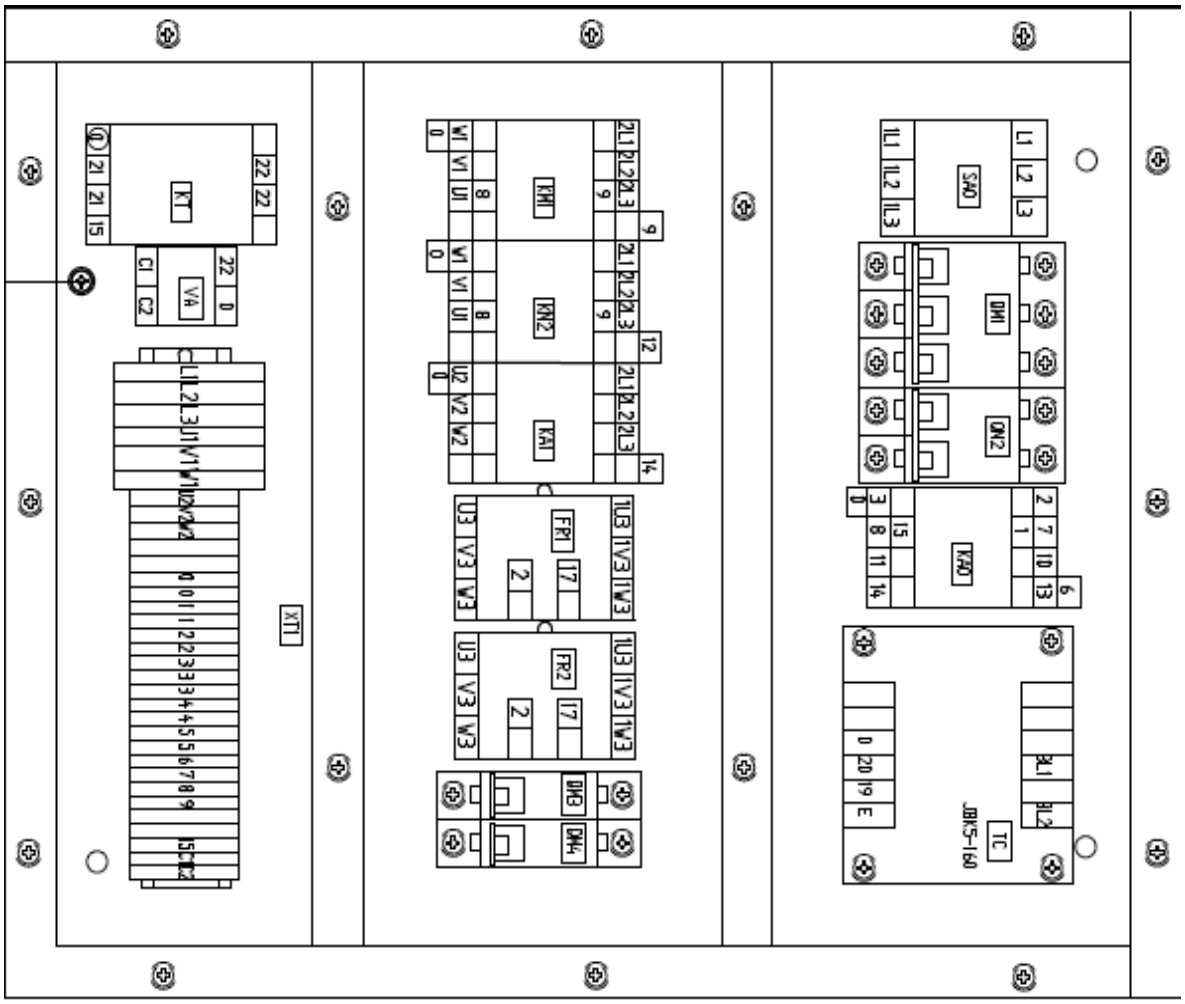
**IMPORTANT**: Do Not Interchange Chucks or Face Plates Between Lathes Without Checking For Correct Cam Locking.

# 15. Electric Circuit Control

## 15.1 Wiring Diagram



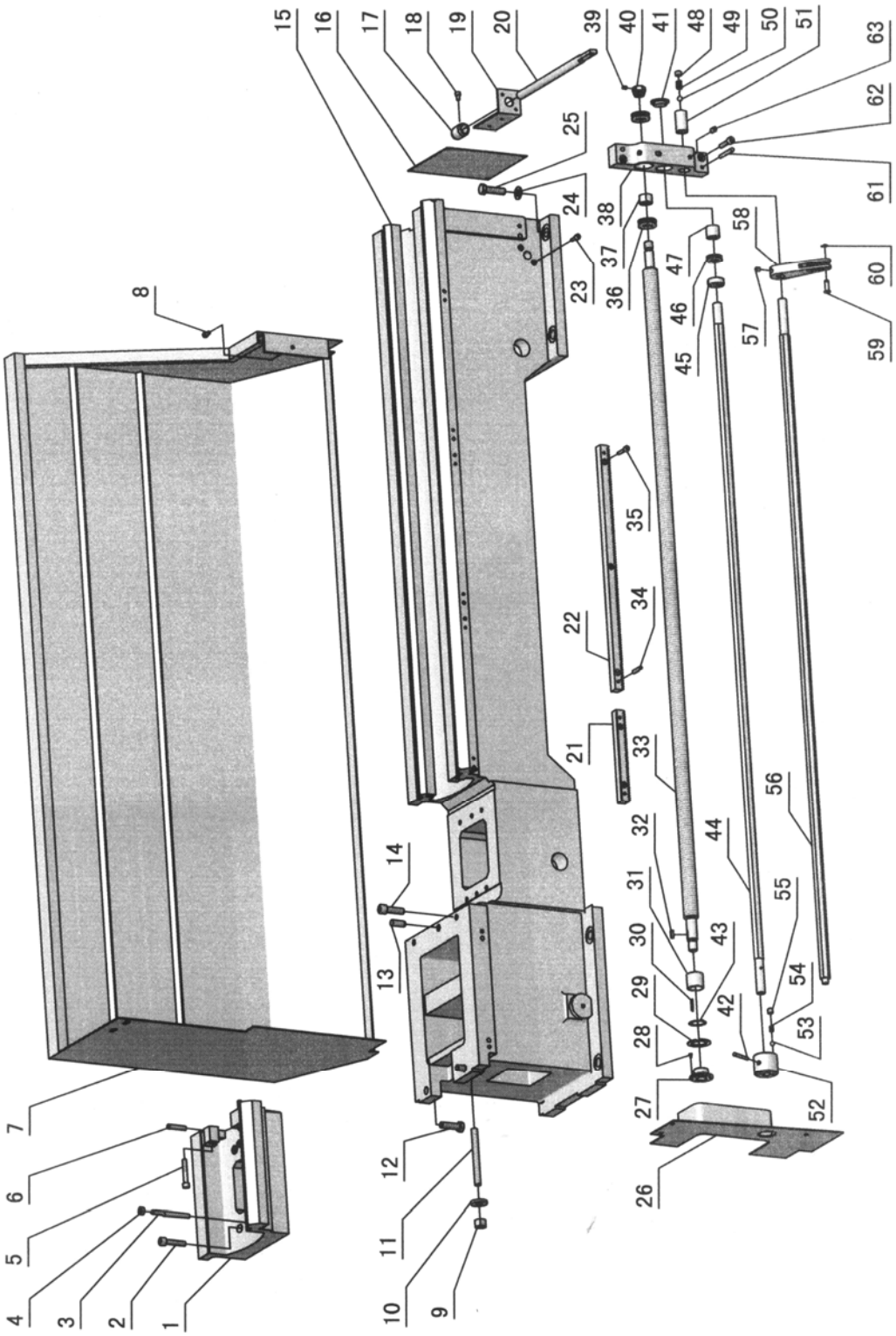
## 15.2 Electric Board Diagram

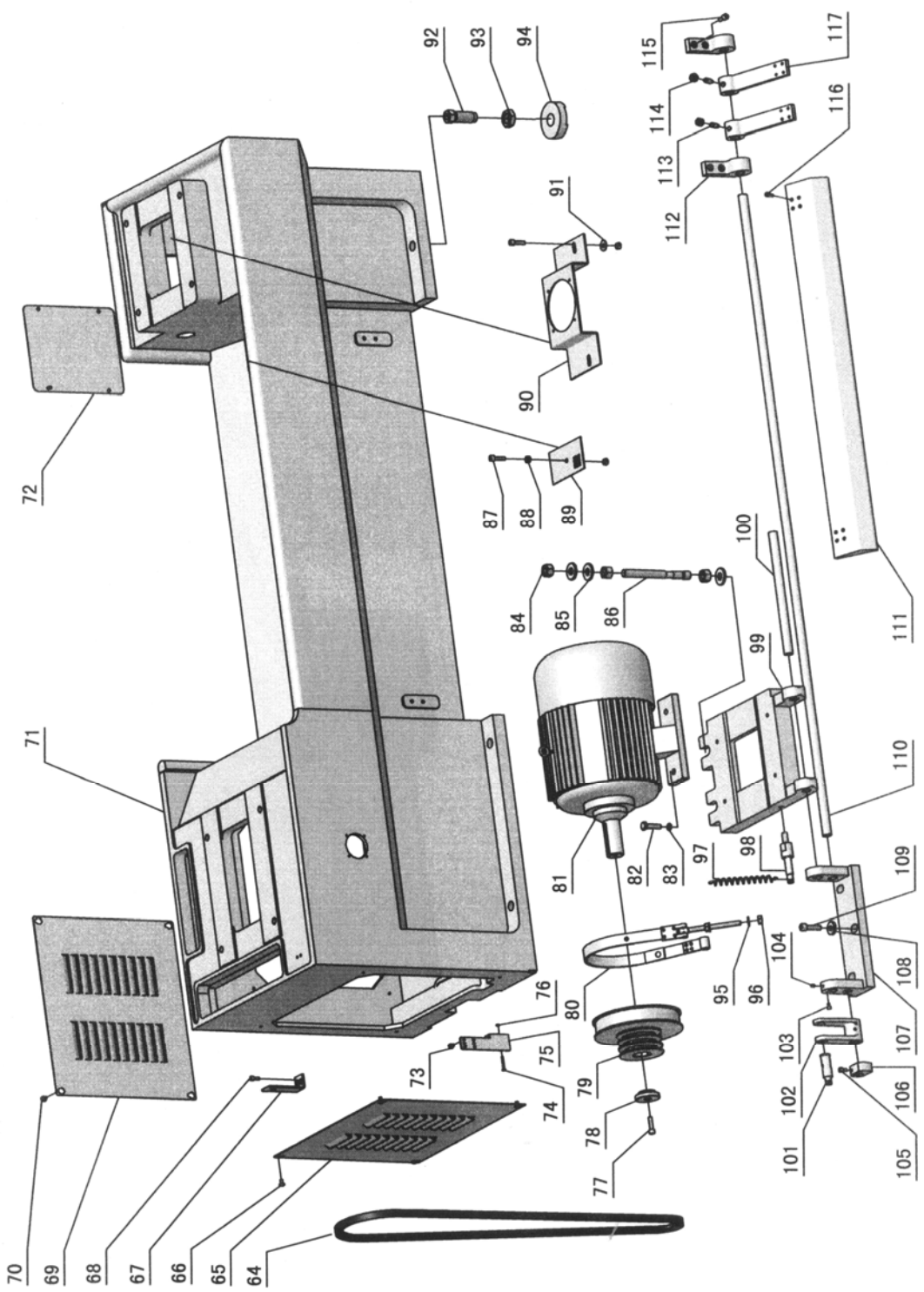


## 15.3 Electric Listing Component

| No. | Type | Name | Specification | Qty |
|---|---|---|---|---|
| 1 | SA | High/Low/Stop Switch | LW8PS-25/M10T | 1 |
| 2 | SA0 | Main Switch | LW8GS-25/30000-A | 1 |
| 3 | QM1 | Breaker | GV2 2.5-4A | 1 |
| 4 | QM2 | Breaker | DZ451-63 2P C1 | 1 |
| 5 | QM3 | Breaker | DZ451-63 1P C5 | 1 |
| 6 | QM4 | Breaker | DZ451-63 1P C2 | 1 |
| 7 | FR1 | Thermal overload relay | 3UA5940 6.3-10A | 1 |
| 8 | FR2 | Thermal overload relay | 3UA5940 0.4-0.63A | 1 |
| 9 | KM1,2 | AC Contactor | 3TB4122 AC24V 50/60Hz | 2 |
| 10 | KA0 | Relay | 3TH8262 AC24V 50/60Hz | 1 |
| 11 | KA1 | Relay | 3TH8262 AC24V 50/60Hz | 1 |
| 12 | TC | Control Transformer | JBK5-160 | 1 |
| 13 | KT | Time Relay | ST3PA AC24V | 1 |
| 14 | VA | Rectifier | 3TQL 250V 12A | 1 |
| 15 | HL | Pilot Lamp | LA103-M/32 AC24V | 1 |
| 16 | EL | Working Lamp | JC34A AC24V | 1 |
| 17 | SQ4,5 | Switch For FWD-REV | LXW5-11G2 | 2 |
| 18 | SQ1 | Switch For Brake | LXW5-11N1 | 1 |
| 19 | SQ2 | Switch For Chuck | LXW5-11Q1 | 1 |
| 20 | SQ3 | Switch For Position | QKS8-6080103201 | 1 |
| 21 | SB0 | Emergency Button | LA103-01ZS/1 | 1 |
| 22 | SB1 | Button | LA103-10/3 | 1 |
| 23 | SB2 | Button | LA103-10X/3 | 1 |
| 24 | M1 | Main Motor | YD132M2-8/4 | 1 |
| 25 | M2 | Coolant Pump | AB25 | 1 |

# 16 Bed assembly

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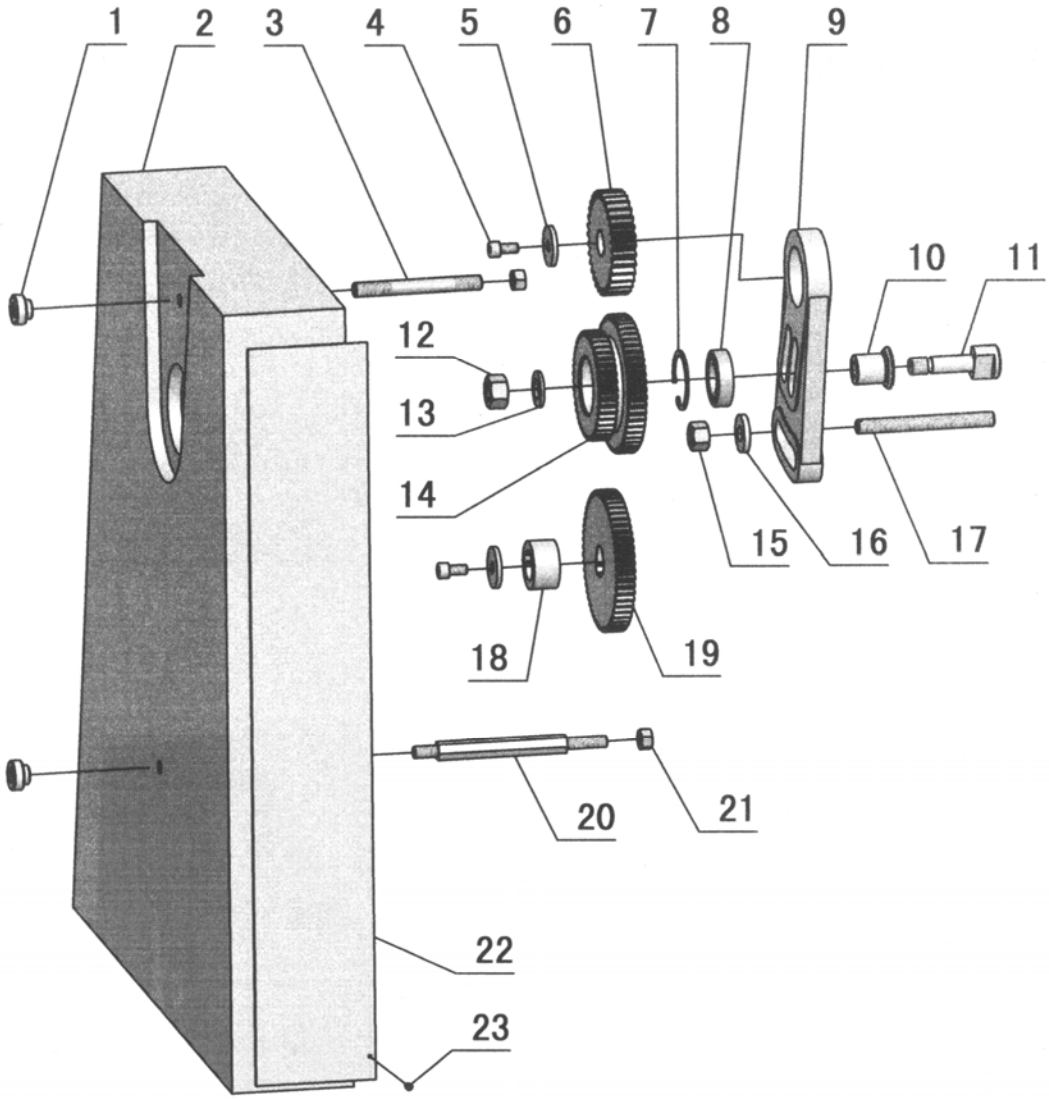
| No. | Part No. | Name | Specification |
|---|---|---|---|
| 1 | CD6236-01-27 | Gap Block | |
| 2 | GB70-85 | Socket Head Cap Screw | M10×45 |
| 3 | GB881-86 | Taper Pin | 8×85 |
| 4 | GB6170-86 | Nut | M8 |
| 5 | GB70-85 | Socket Head Cap Screw | M8×50 |
| 6 | GB118-86 | Pin | 8×40 |
| 7 | CD6236-01-26 | Guard Assay | |
| 8 | GB70-85 | Socket Head Cap Screw | M6×12 |
| 9 | GB41-76 | Nut | M14 |
| 10 | CD6236-01-44 | Washer | 45 |
| 11 | CD6236-01-43 | Screw | |
| 12 | GB21-76 | Bolt | M12×40 |
| 13 | GB119-86 | Pin | 12×30 |
| 14 | GB70-85 | Socket Head Cap Screw | M12×40 |
| 15 | CD6236-01-45 | Bed | |
| 16 | CD6236-01-54 | Cover | |
| 17 | CD6236-01-12 | Block | |
| 18 | GB70-85 | Socket Head Cap Screw | M6×10 |
| 19 | CD6236-01-19 | Hold | |
| 20 | CD6236-01-22 | Rod | |
| 21 | CD6236-01-28 | Rack | |
| 22 | CD6236-01-34 | Rock | |
| 23 | GB70-85 | Socket Head Cap Screw | M6×20 |
| 24 | GB97.1-86 | Washer | 12 |
| 25 | GB5783-86 | Bolt | M12×45 |
| 26 | CD6236-01-25 | Cover | |
| 27 | CD6236-01-30 | Sleeve | |
| 28 | CD6236-01-31 | Pin | |
| 29 | CD6236-01-32 | Washer | |
| 30 | GB2089-80 | Spring | 1.8×2.5×55 |
| 31 | CD6236-01-33 | Cover | |
| 32 | GB1567-86 | Key | 5×16 |
| 33 | CD6236-01-37 | Lead Screw(Inch) | |
| 33 | CD6236-01-37G | Lead Screw(Metric) | |
| 34 | GB879-86 | Spring Pin | 6×30 |
| 35 | GB70-85 | Socket Head Cap Screw | M6×30 |
| 36 | GB301-84 | Thrust Bearing | 8203 |
| 37 | CD6236-01-39 | Sleeve | |
| 38 | CD6236-01-42 | Bracket | |
| 39 | GB78-85 | Set Screw | M6×8 |

| No. | Part No. | Name | Specification |
|---|---|---|---|
| 40 | CD6236-01-41 | Nut | |
| 41 | CL6132-06-11 | Plug | |
| 42 | GB117-86 | Taper Pin | 5×45 |
| 43 | GB894.2-86 | External circlip | 28 |
| 44 | CD6236-01-36 | Feed Rod | |
| 45 | CD6236-01-38 | Sleeve | |
| 46 | GB301-84 | Thrust Bearing | 8103 |
| 47 | CD6236-01-40 | Sleeve | |
| 48 | GB77-85 | Set Screw | M12×8 |
| 49 | GB2089-80 | Spring | 1×9×20 |
| 50 | GB308-84 | Steel Ball | 9.5 |
| 51 | CD6236-01-55 | Sleeve | |
| 52 | CD6236-01-29 | Clutch | |
| 53 | GB308-84 | Steal Ball | 8 |
| 54 | GB2089-80 | Spring | 1.2×6×46 |
| 55 | GB77-85 | Screw | M10×10 |
| 56 | CD6236-01-35 | Started Rod | |
| 57 | GB77-85 | Screw | M8×8 |
| 58 | CD6236-01-23 | Lever | |
| 59 | CD6236-01-21 | Pin | |
| 60 | GB896-86 | Circlip | 6 |
| 61 | GB117-86 | Taper Pin | 6×50 |
| 62 | GB70-85 | Socket Head Cap Screw | M8×35 |
| 63 | GB80-85 | Screw | M8×14 |
| 64 | GB1171-74 | V13-1890 | |
| 65 | RUN6141-106028 | Cover | |
| 66 | GB818-85 | Cross Screw | M6×10 |
| 67 | RUN6246-108078 | Limited Switch Seat | |
| 68 | GB70-85 | Socket Head Cap Screw | M6×16 |
| 69 | RUN6141-106028-01 | Cover | |
| 70 | GB818-85 | Cross Screw | M6×10 |
| 71 | CD6236-01-01A | Stand | |
| 72 | RUN6246-106033 | Cover | |
| 73 | GB818-85 | Cross Screw | M6×10 |
| 74 | GB818-85 | Screw | M4×30 |
| 75 | CD6236-01-59 | Limited Switch Seat | |
| 76 | GB6172-86 | Nut | M4 |
| 77 | GB70-85 | Socket Head Cap Screw | M8×30 |
| 78 | RUN6141-106049a | Washer | |
| 79 | CD6236-01-05 | Belt Pulley | |

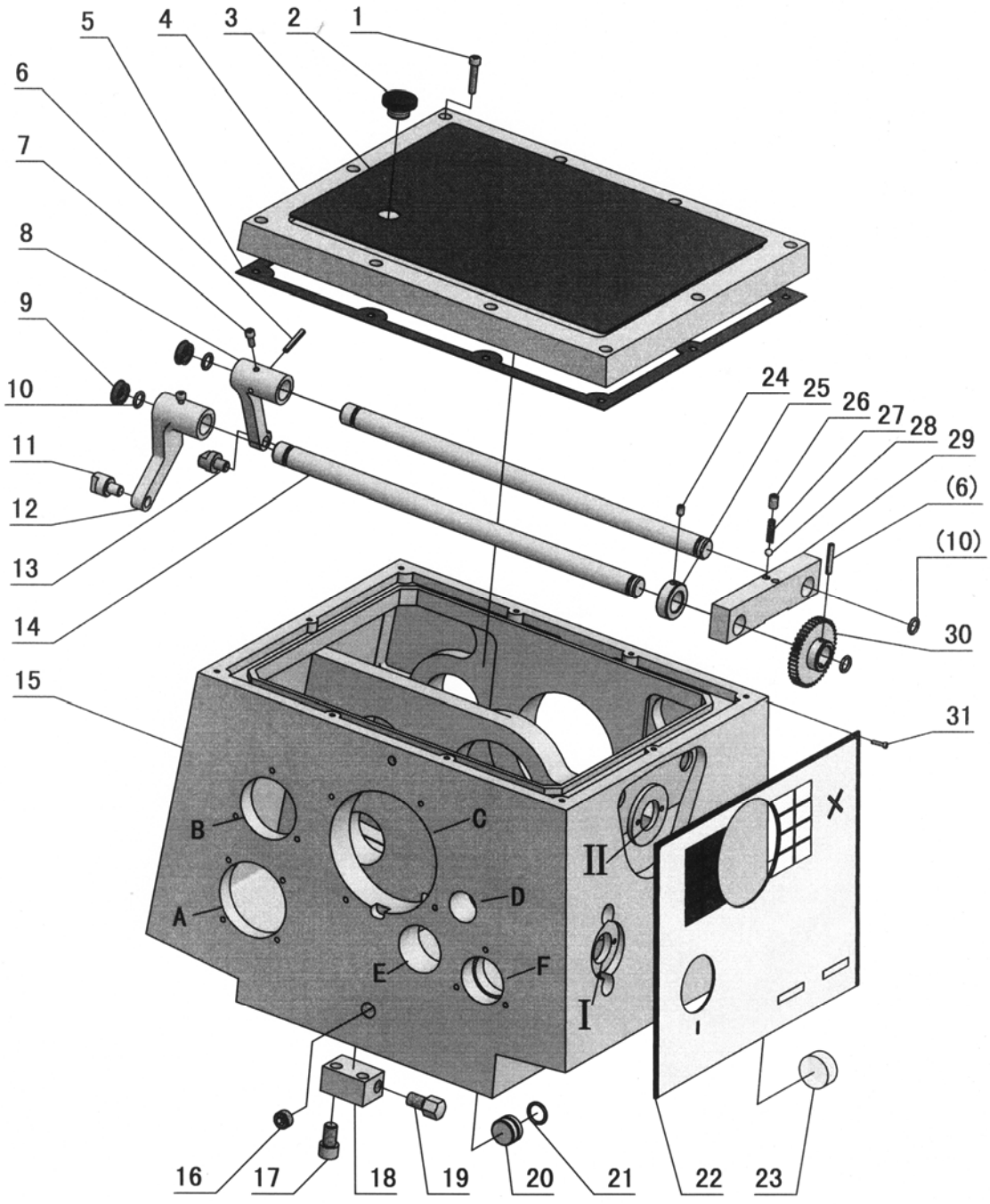
| No. | Part No. | Name | Specification |
|---|---|---|---|
| 80 | RUN6141-106047 | Belt Brake | |
| 81 | Y132M-8/4 | Motor | |
| 82 | GB30-76 | Bolt | M10×40 |
| 83 | GB93-86 | Washer | 10 |
| 84 | GB41-76 | Nut | M16 |
| 85 | RUN6141-106079 | Washer | |
| 86 | RUN6141-106046 | Screw | |
| 87 | GB70-85 | Socket Head Cap Screw | M8×30 |
| 88 | GB6170-86 | Nut | M8 |
| 89 | RUN6246-106051 | Screen | |
| 90 | RUN6246-106090A | Coolant Pump Seat | |
| 91 | GB96-85 | Washer | 8 |
| 92 | RUN6246-106029 | Bolt | |
| 93 | GB6173-86 | Nut | M24×2 |
| 94 | RUN6246-106069 | Block-Leveling | |
| 95 | GB97.1-85 | Washer | 10 |
| 96 | GB6170-86 | Nut | M10 |
| 97 | Q81-3 | Spring | 3×16×115 |
| 98 | RUN6246-106050 | Shaft | |
| 99 | RUN6141-106034 | Motor Seat | |
| 100 | RUN6246-106044 | Shaft | |
| 101 | RUN6141-106039 | Shaft | |
| 102 | RUN6141-106040 | Arm Brake | |
| 103 | GB70-85 | Socket Head Cap Screw | M5×8 |
| 104 | GB80-85 | Screw | M6×8 |
| 105 | GB70-85 | Socket Head Cap Screw | M6×12 |
| 106 | RUN6141-106037 | Cam | |
| 107 | RUN6141-106041 | Bracket Motor Seat | |
| 108 | RUN6246-106097 | Washer | |
| 109 | GB70-85 | Screw | M10×40 |
| 110 | RUN6141-106050 | Shaft | |
| 111 | CD6236-01-51 | Pedal Brake | |
| 112 | RUN6141-106036 | Bracket | |
| 113 | GB79-85 | Screw | M10×25 |
| 114 | GB6170-86 | Nut | M10 |
| 115 | GB70-85 | Screw | M8×20 |
| 116 | GB70-85 | Screw | M6×16 |
| 117 | RUN6141-106042 | Arm | |

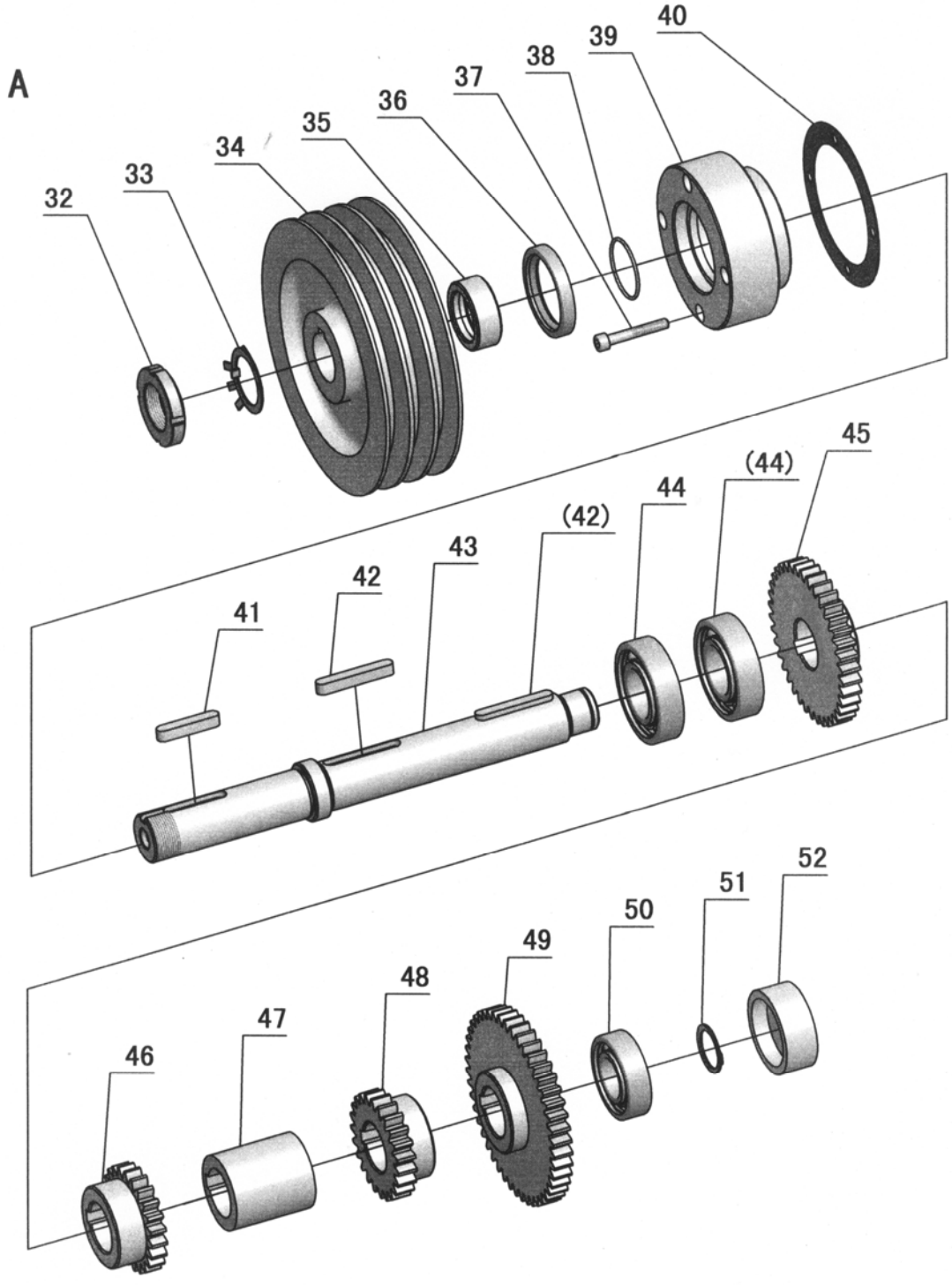
# 17. Change gear



| No. | Part No. | Name | Specification |
|---|---|---|---|
| 1 | CL6132-04-77 | Nut | |
| 2 | CD6236-04-72 | Cover(360) | |
| 2 | CD6240-04-72 | Cover(410) | |
| 3 | GB900-88 | Bolt | M10×85 |
| 4 | GB70-85 | Socket Head Cap Screw | M8×16 |
| 5 | CD6240-05-02 | Washer | |
| 6 | CD6240-04-53G1 | Change Gear | Metric(33T) |
| 6 | CD6236-04-53 | Change Gear(360) | Inch(24T) |
| 6 | CD6240-04-53 | Change Gear(410) | Inch(24T) |
| 7 | GB893.1-86 | Circlip | 47 |
| 8 | GB279-88 | Roller Bearing | 160105 |
| 9 | CD6240-05-10 | Swing France | |
| 10 | CD6236-05-06 | Sleeve | |
| 11 | CD6236-05-05 | Shaft | |
| 12 | GB6172-86 | Nut | M14 |
| 13 | GB97.1-84 | Washer | 14 |
| 14 | CD6240-05-09G1 | Change Gear | Metric(35/48T) |
| 14 | CD6236-05-09 | Change Gear(360) | Inch(44/52T) |
| 14 | CD6240-05-09 | Change Gear(410) | Inch(44/52T) |
| 15 | GB41-76 | Nut | M14 |
| 16 | CD6236-01-44 | Washer | 45 |
| 17 | CD6236-01-43 | Screw | |
| 18 | CD6236-05-03 | Sleeve | |
| 19 | CD6240-05-04G1 | Change Gear | Metric(54T) |
| 19 | CD6236-05-04 | Change Gear(360) | Inch(57T) |
| 19 | CD6240-05-04 | Change Gear(410) | Inch(57T) |
| 20 | CD6236-01-24 | Bolt | |
| 21 | GB54-76 | Nut | M10 |
| 22 | CD6236-04-71 | Plate | |
| 23 | GB818-85 | Screw | M3×8 |

# 18. Headstock Assembly

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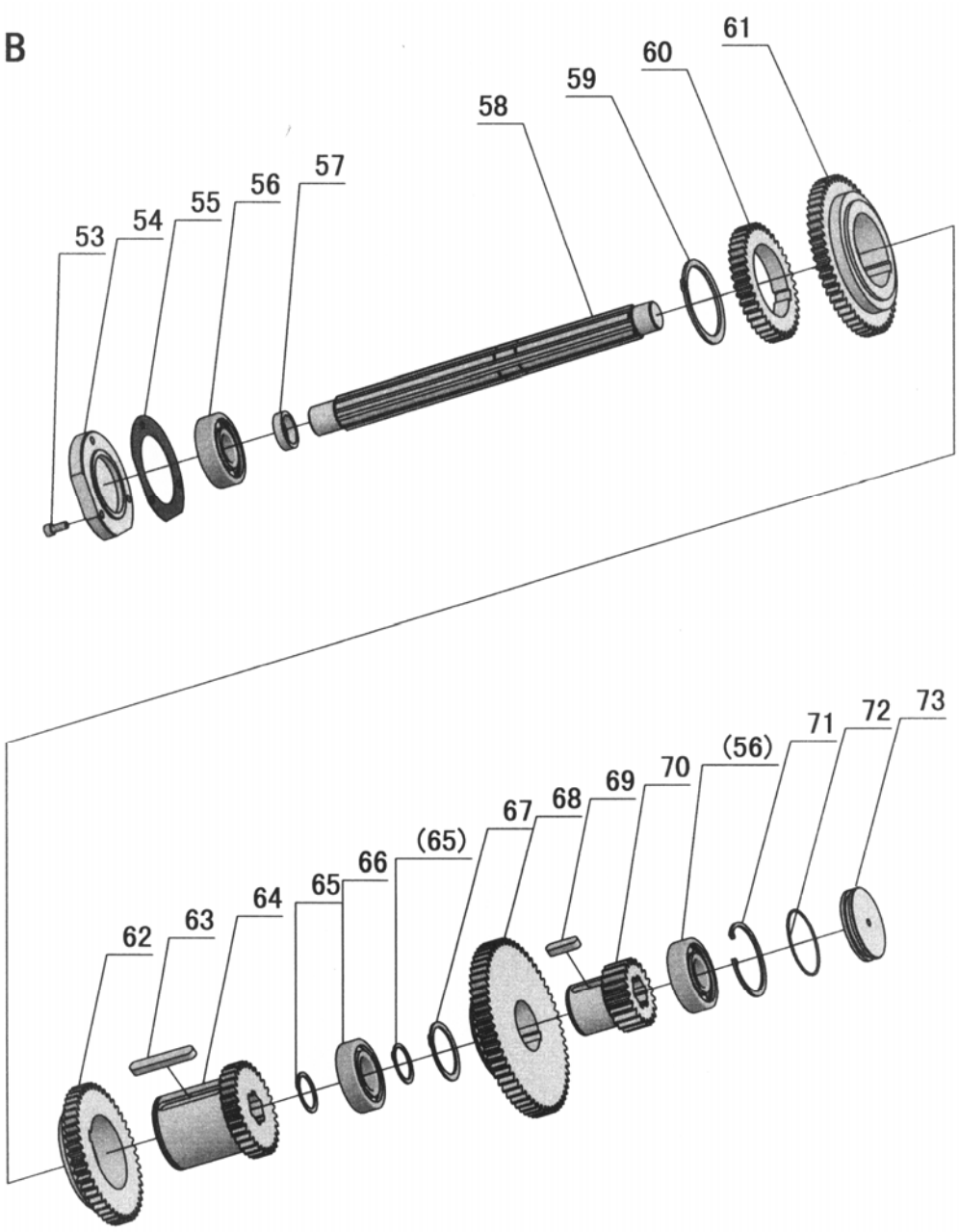
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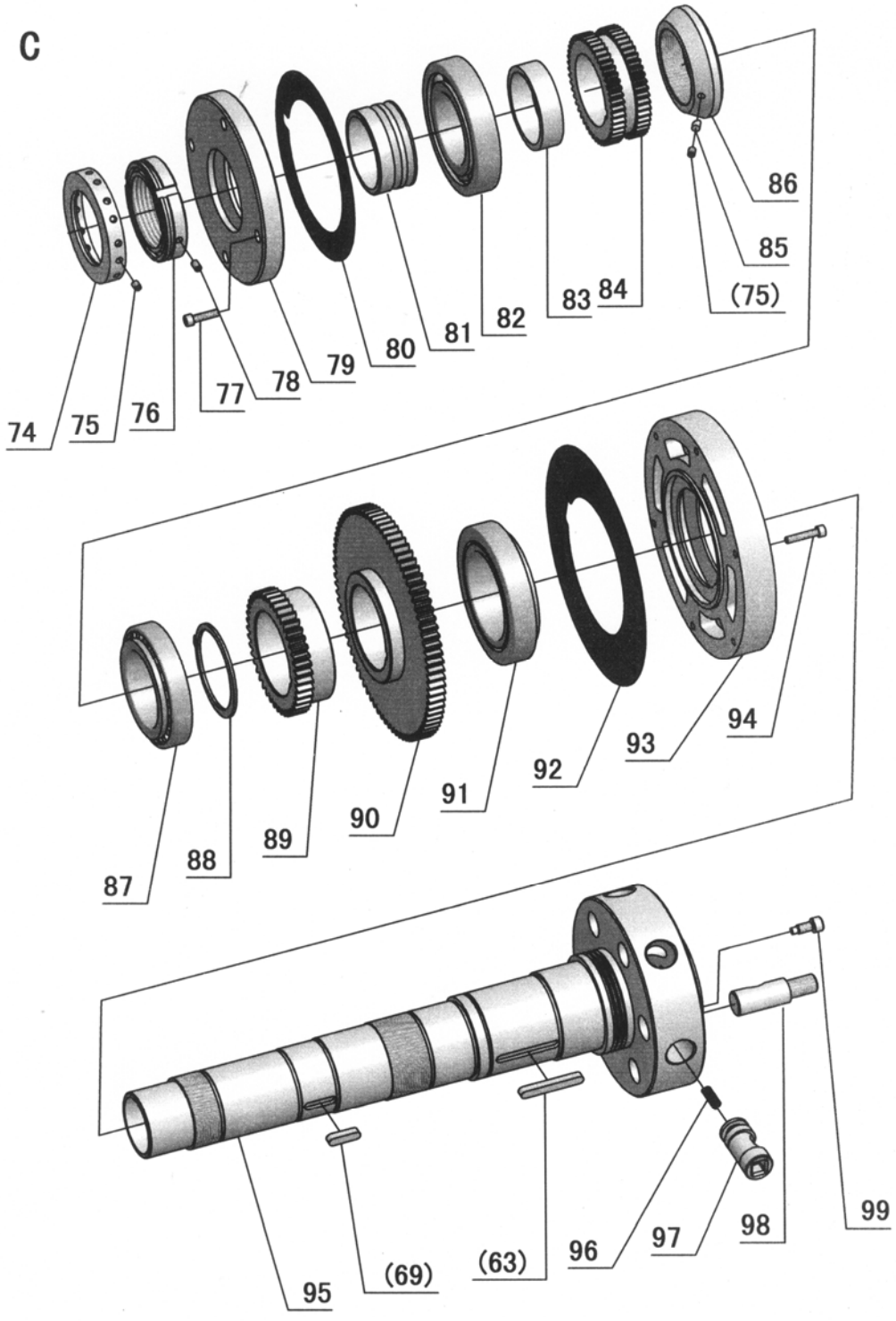
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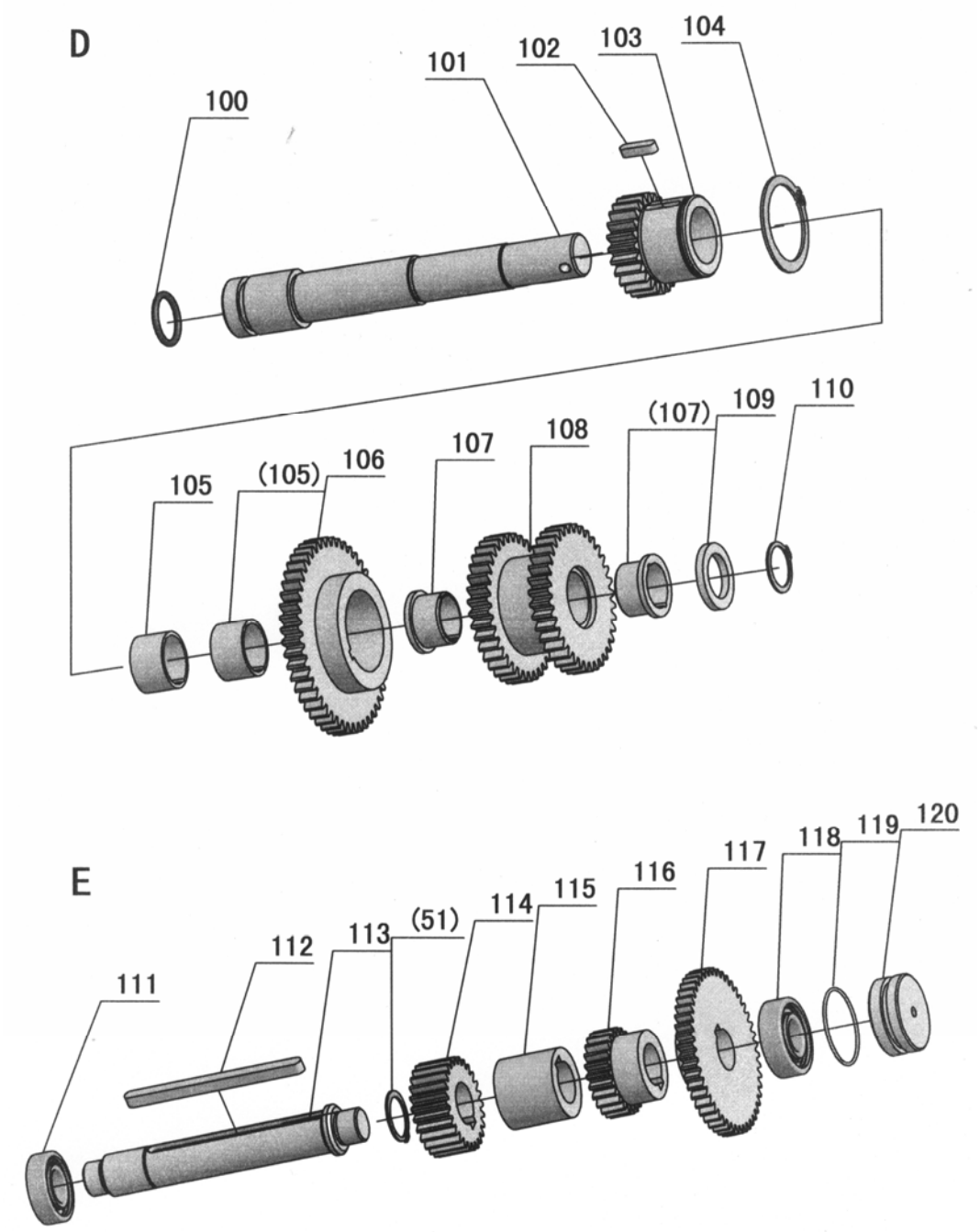
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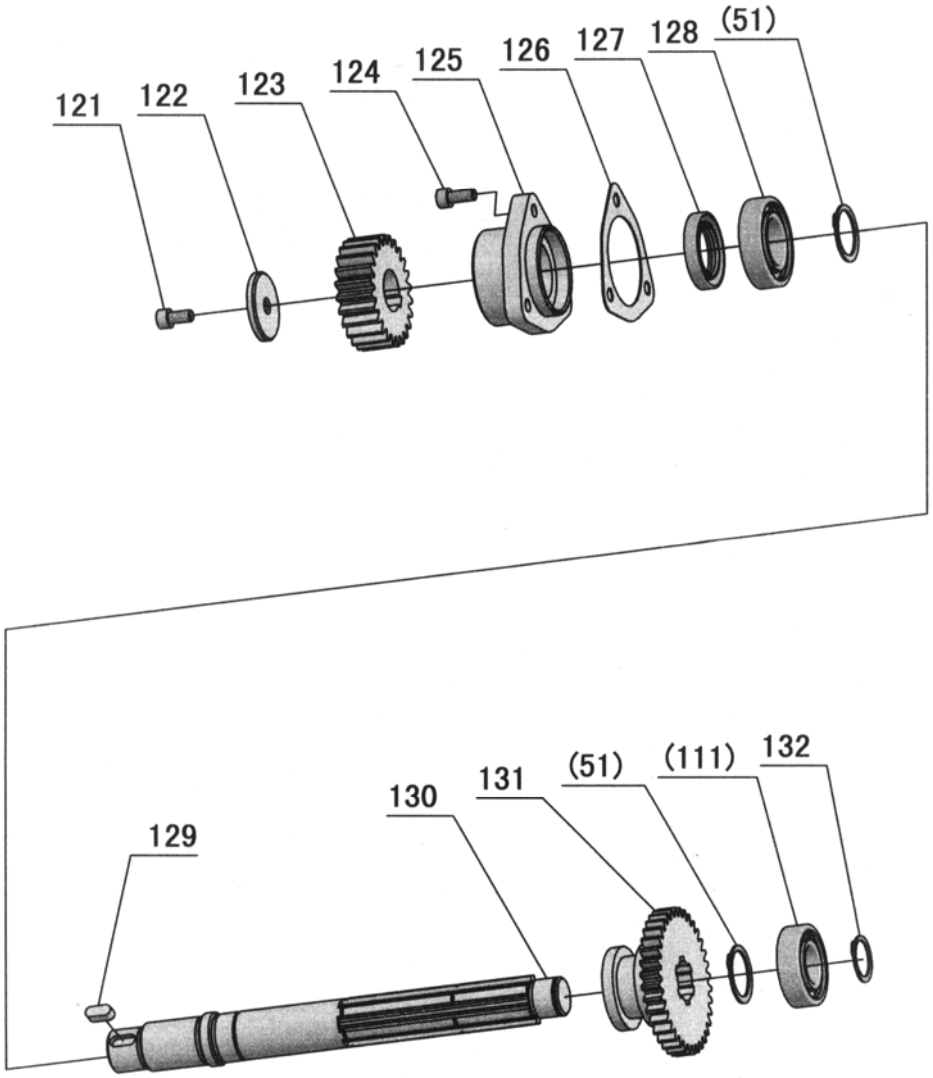

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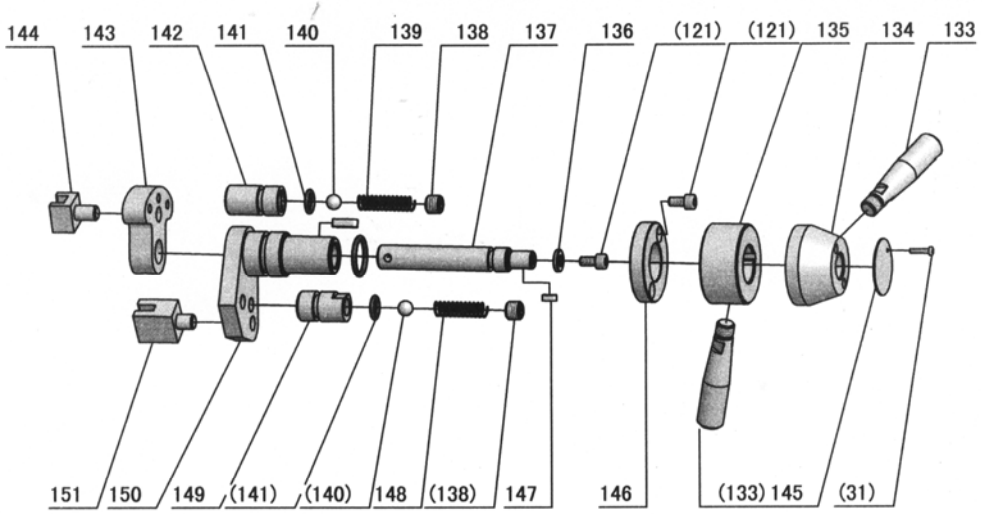
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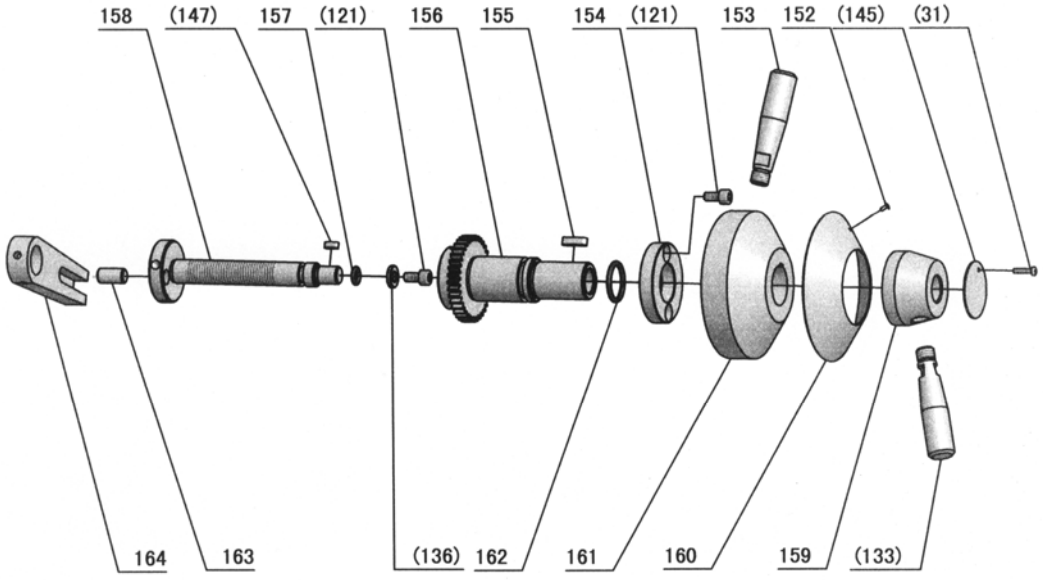
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| No. | Part No. | Name | Specification |
|---|---|---|---|
| 1 | GB70-85 | Socket Head Cap Screw | M6×30 |
| 2 | CL6132-04-06 | Plug-Oil Inlet | |
| 3 | CD6236-04-19 | Cover Dress | |
| 4 | CD6236/6240-04-15 | Headstock Cover(360/410) | |
| 5 | CD6236/6240-04-14 | Packing(360/410) | |
| 6 | GB879-85 | Spring Pin | 5×30 |
| 7 | GB70-85 | Socket Head Cap Screw | M5×16 |
| 8 | CD6236-04-74 | Bracket | |
| 9 | CL6132-04-03 | Plug | |
| 10 | GB3452.1-82 | O-Ring | 14×2.65 |
| 11 | CD6236-04-22 | Fork | |
| 12 | CD6236-04-21 | Lever | |
| 13 | CL6132-04-76 | Fork | |
| 14 | CD6236-04-20 | Shaft | |
| 15 | CD6236/6240-04-16 | Headstock(360/410) | |
| 16 | Q/ZB285.3 | Oil Plug | ZG 3/8" |
| 17 | GB70-85 | Screw | M12×20 |
| 18 | CD6236-04-73 | Limited Bracket | |
| 19 | CL6132-04-82 | Adjust Screw | |
| 20 | CL6132-04-40 | Plug | |
| 21 | GB3452.1-82 | O-Ring | 19×2.65 |
| 22 | CD6236-04-13 | Plate | |
| 23 | GB1160.1-86 | Oil Sight | 16 |
| 24 | GB80-85 | Fix Screw | M6×10 |
| 25 | Cl6132-04-99 | Sleeve | |
| 26 | GB77-85 | Screw | M8×12 |
| 27 | GB2089-80 | Spring | 1×5×22 |
| 28 | GB308-84 | Steel Ball | 6.5 |
| 29 | CD6236-04-18 | Bracket | |
| 30 | CD6236-04-17 | Gear | Mn=2.5 Z=43 |
| 31 | GB818-85 | Cross Recessed Head Screw | M3×15 |
| 32 | GB812-88 | Nut | M30×1.5 |
| 33 | GB858-88 | Toothed Lock Washer | 30 |
| 34 | CD6236-04-02 | Belt Pulley | |
| 35 | RUN6246-101009 | Spacer | |
| 36 | | Oil Seal | TC55×42×9 |
| 37 | GB70-85 | Socket Head Cap Screw | M6×40 |
| 38 | GB1235-76 | O-Ring | 36×3.5 |
| 39 | RUN6246-101010 | Bearing Cover | |
| 40 | RUN6246-101010-1 | Packing | |

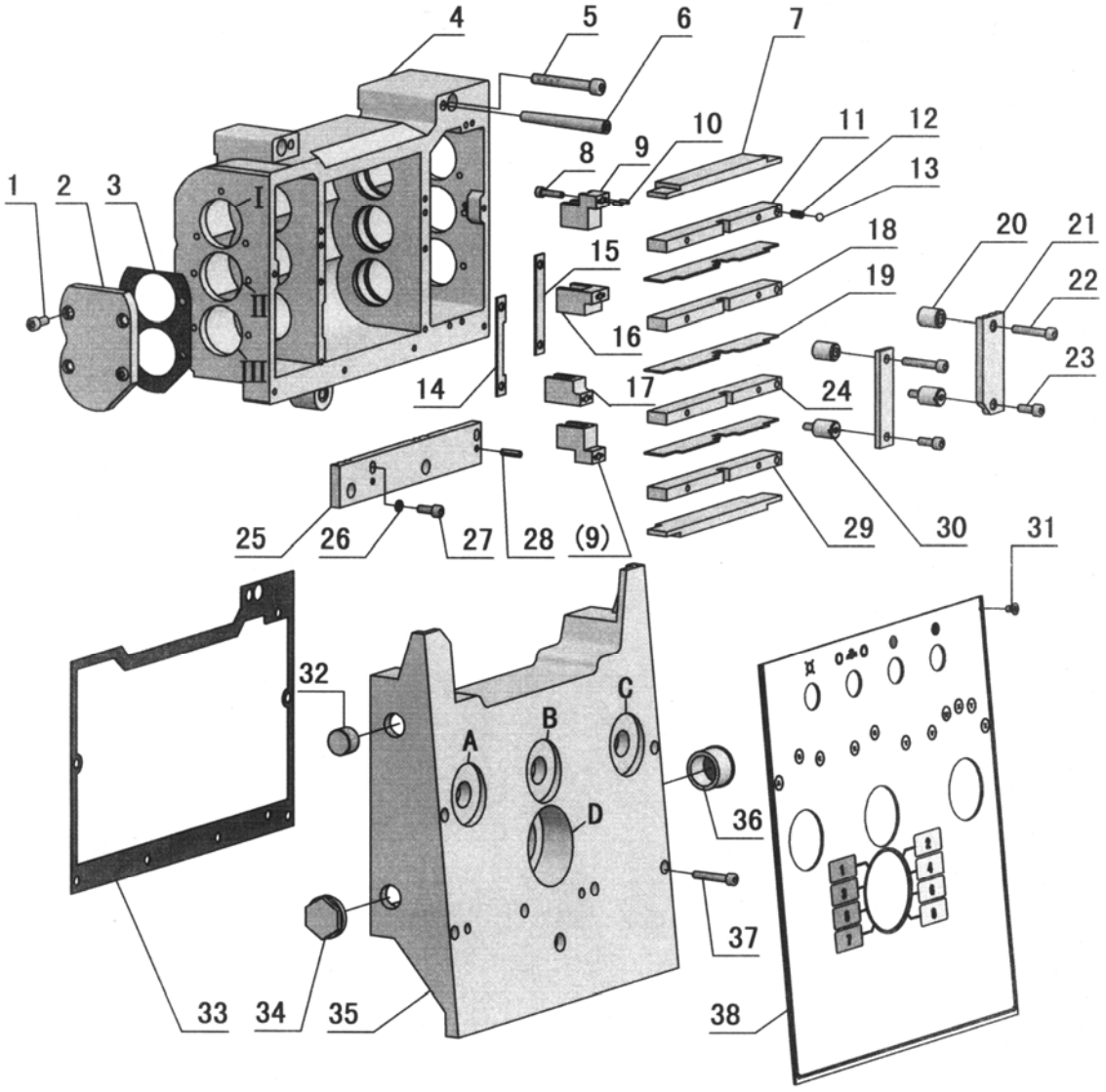
| No. | Part No. | Name | Specification |
|---|---|---|---|
| 41 | GB1096-79 | Key | 8×40 |
| 42 | GB1096-79 | Key | 8×50 |
| 43 | CD6236-04-01 | Shaft | |
| 44 | GB278-89 | Ball Bearing | 80206 |
| 45 | CD6236-04-03 | Gear | Mn=2.5 Z=38 |
| 46 | CD6236-04-04 | Gear | Mn=2.5 Z=33 |
| 47 | CD6236-04-05 | Sleeve | |
| 48 | CD6236-04-06 | Gear | Mn=2.5 Z=23 |
| 49 | CD6236-04-07 | Gear | Mn=2.5 Z=33 |
| 50 | GB278-89 | Ball Bearing | 80205 |
| 51 | GB894.1-86 | External Circlip | 25 |
| 52 | CD6236-04-08 | Plug | |
| 53 | GB70-85 | Socket Head Cap Screw | M6×14 |
| 54 | CD6236-04-68 | Cover | |
| 55 | CD6236-04-67 | Packing | |
| 56 | GB278-89 | Ball Bearing | 80305 |
| 57 | CD6236-04-69 | Spacer | |
| 58 | CD6236-04-09 | Shaft | |
| 59 | GB894.1-86 | External Circlip | 65 |
| 60 | CD6236-04-63 | Gear | Mn=2.5 Z=39 |
| 61 | CD6236-04-64 | Gear | Mn=2.5 Z=54 |
| 62 | CD6236-04-65 | Gear | Mn=2.5 Z=47 |
| 63 | GB1096-79 | Key | 8×60 |
| 64 | CD6236-04-66 | Gear | Mn=2.5 Z=31 |
| 65 | GB894.1-86 | External Circlip | 30 |
| 66 | GB276-89 | Ball Bearing | E206 |
| 67 | GB894.1-86 | External Circlip | 45 |
| 68 | CD6236-04-10 | Gear | Mn=2.5 Z=60 |
| 69 | GB1096-79 | Key | 8×30 |
| 70 | CD6236-04-11 | Gear | Mn=2.5 Z=21 |
| 71 | GB893.1-86 | External Circlip | 62 |
| 72 | GB1235-76 | O-Ring | 56×3.5 |
| 73 | CD6236-04-12 | Cover | |
| 74 | CD6236-04-62 | Balance Piece | |
| 75 | GB77-85 | Fix Screw | M6×8 |
| 76 | CD6236-04-61 | Set Nut | |
| 77 | GB70-85 | Socket Head Cap Screw | M6×25 |
| 78 | GB77-85 | Fix Screw | M6×10 |
| 79 | CD6236-04-58 | Cover | |
| 80 | CD6236-04-59 | Packing | |

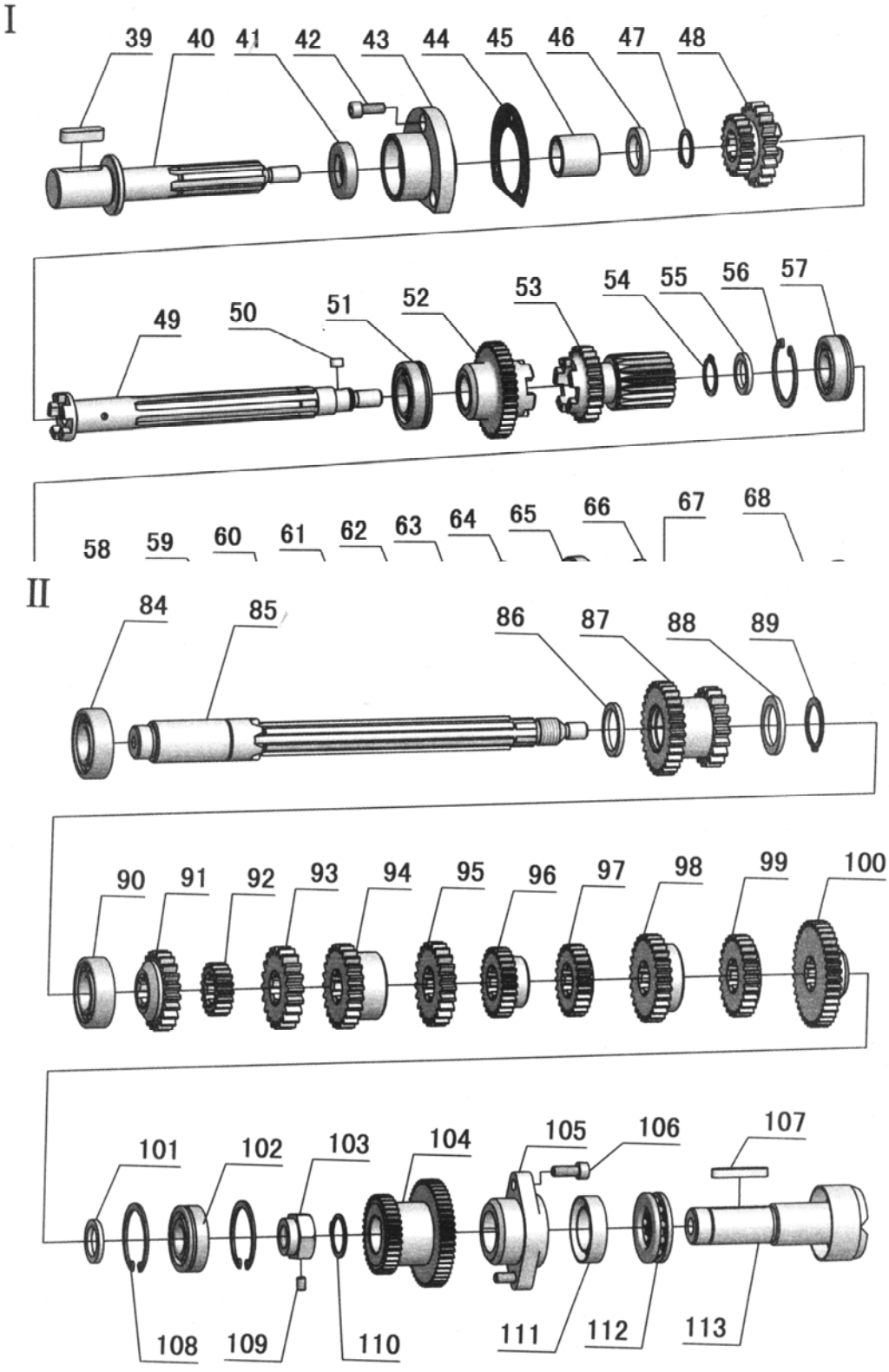
| No. | Part No. | Name | Specification |
|---|---|---|---|
| 81 | CD6236-04-60 | Cycle Oil Ring | |
| 82 | GB276-89 | Ball Bearing | E213 |
| 83 | CD6236-04-57 | Sleeve | |
| 84 | CD6236-04-56 | Gear | Mn=2 Z=48 |
| 85 | CD6236-04-34 | Fix Black | |
| 86 | CD6236-04-33 | Set Nut | |
| 87 | GB297-84 | Taper Roller | D2007114E |
| 88 | GB894.1-86 | External Circlip | 75 |
| 89 | CD6236-04-35 | Gear | Mn=2.5 Z=43 |
| 90 | CD6236-04-36 | Gear | Mn=2.5 Z=82 |
| 91 | GB297-84 | Taper Roller | D2007116E |
| 92 | CD6236-04-38 | Packing | |
| 93 | CD6236-04-37 | Cover | |
| 94 | GB70-85 | Socket Head Cap Screw | M6×30 |
| 95 | CD6236-04-39 | Spindle | D1-6 |
| 96 | RUN6246-101082-1 | Spring | |
| 97 | RUN6246-101081 | Cam Lock | |
| 98 | RUN6246-101082 | Cam Lock Stud | |
| 99 | RUN6246-101087 | Screw | |
| 100 | GB1235-76 | O-Ring | 28×3.1 |
| 101 | CD6236-04-40 | Shaft | |
| 102 | GB1096-79 | Key | 5×20 |
| 103 | CD6236-04-43-1 | Gear | Mn=2 Z=24 |
| 104 | GB894.1-86 | External Circlip | 42 |
| 105 | CD6236-04-43-2 | Bush | |
| 106 | CD6236-04-44 | Gear | Mn=2 Z=48 |
| 107 | CD6236-04-42-2 | Bush | |
| 108 | CD6236-04-42 | Gear | Mn=2 Z=36 |
| 109 | CD6236-04-41 | Spacer | |
| 110 | GB894.1-86 | External Circlip | 22 |
| 111 | GB278-89 | Ball Bearing | 80104 |
| 112 | GB1096-79 | Key | 8×115 |
| 113 | CD6236-04-45 | Shaft | |
| 114 | CD6236-04-46 | Gear | Mn=2 Z=26 |
| 115 | CD6236-04-47 | Sleeve | |
| 116 | CD6236-04-48 | Gear | Mn=2 Z=24 |
| 117 | CD6236-04-49 | Gear | Mn=2 Z=48 |
| 118 | GB278-89 | Ball Bearing | 80204 |
| 119 | GB1235-76 | O-Ring | 46×3.5 |
| 120 | CD6236-04-55 | Cover | |

| No. | Part No. | Name | Specification |
|---|---|---|---|
| 121 | GB70-85 | Socket Head Cap Screw | M6×12 |
| 122 | CD6236-04-54 | Spacer | |
| 123 | CD6240-04-53 | Change Gear(410) | Inch(24T) |
| 124 | GB70-85 | Socket Head Cap Screw | M6×14 |
| 125 | CD6236-04-52 | Cover | |
| 126 | CD6236-04-52 | Packing | |
| 127 | HG4-692-67 | Oil Seal | SD25×40×10 |
| 128 | GB278-89 | Ball Bearing | 80105 |
| 129 | GB1096-79 | Key | 6×14 |
| 130 | CD6236-04-50 | Shaft | |
| 131 | CD6236-04-51 | Gear | Mn=2 Z=36 |
| 132 | GB894.1-86 | External Circlip | 20 |
| 133 | CD6236-05-63A | Lever | |
| 134 | CD6236-04-28 | Lever Head | |
| 135 | CD6236-04-27 | Lever Head | |
| 136 | CL6132-04-62 | External Circlip | |
| 137 | CD6236-04-29 | Shaft | |
| 138 | GB77-85 | Fix Screw | M12×10 |
| 139 | GB2089-80 | Spring | 0.9×9×40 |
| 140 | GB308-84 | Steel Ball | φ10 |
| 141 | GB3452.1-82 | O-Ring | 14×2.65 |
| 142 | CD6236-04-31 | Bracket | |
| 143 | CD6236-04-30 | Lever | |
| 144 | CD6236-04-32 | Fork | |
| 145 | Cl6132-04-90 | Plate | |
| 146 | CD6236-04-26 | Cover | |
| 147 | GB1096-79 | Key | 4×10 |
| 148 | GB2089-80 | Spring | 0.9×9×35 |
| 149 | CD6236-04-25 | Bracket | |
| 150 | CD6236-04-24 | Lever | |
| 151 | CD6236-04-23 | Fork | |
| 152 | GB827-86 | Rivet | 2×5 |
| 153 | CD6236-04-78A | Lever | |
| 154 | CL6132-04-68 | Cover | |
| 155 | GB1096-79 | Key | 5×18 |
| 156 | CD6236-04-77 | Gear Shaft | Mn=1.5 Z=37 |
| 157 | GB3452.1-82 | O-Ring | 10×2.65 |
| 158 | CD6236-04-75 | Lever Shaft | |
| 159 | CL6132-04-91 | Lever Bracket | |
| 160 | CL6132-04-92 | Plate | |

| No. | Part No. | Name | Specification |
|---|---|---|---|
| 161 | CL6132-04-98 | Lever Bracket | |
| 162 | GB1235-76 | O-Ring | 28×3.1 |
| 163 | CL6132-04-94 | Pin | |
| 164 | CD6236-04-76 | Bracket | |

# 19.Gear Box Control

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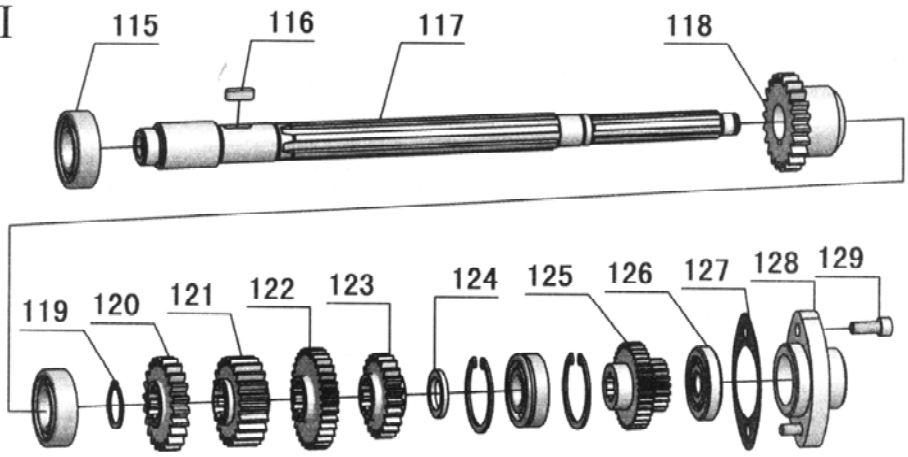
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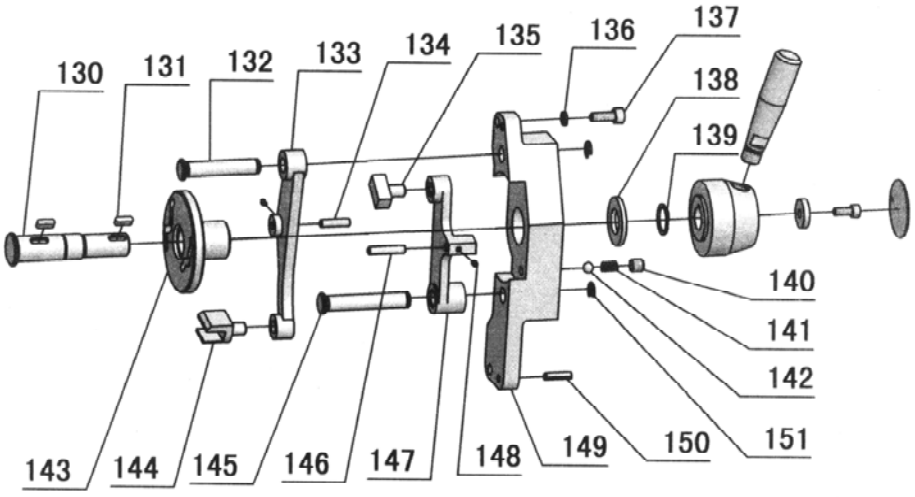
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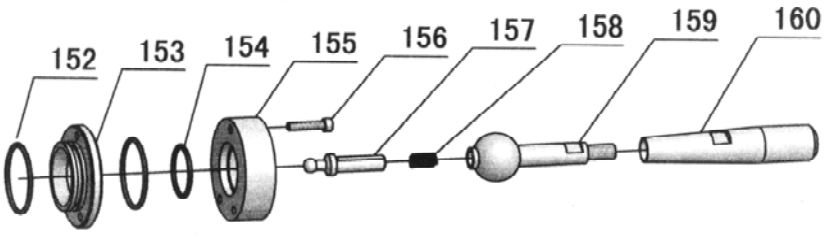
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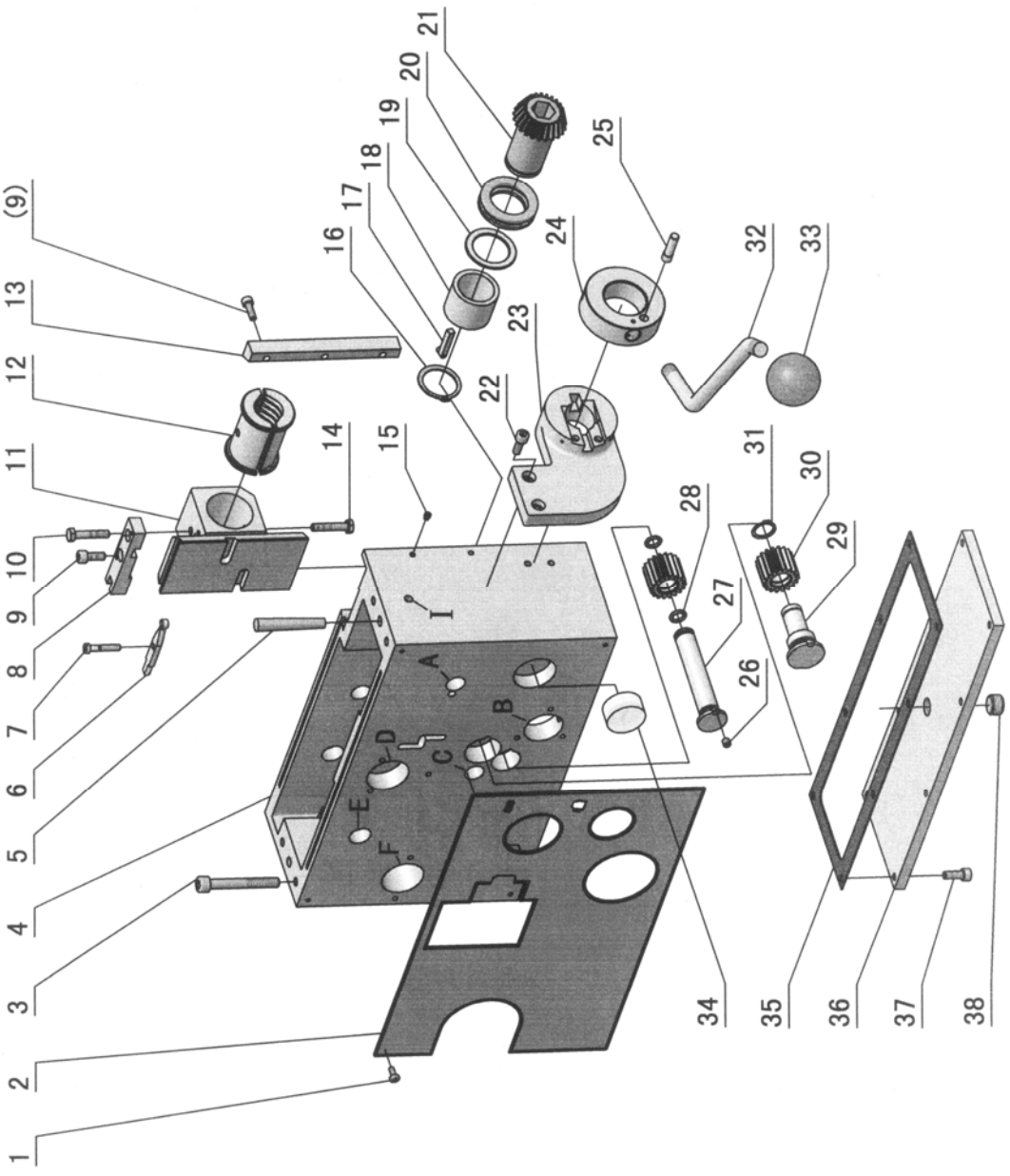
| No. | Part No. | Name | Specification |
|---|---|---|---|
| 1 | GB70-85 | Socket Head Cap Screw | M6×16 |
| 2 | CD6236-05-91 | Cover | |
| 3 | CD6236-05-65 | Packing | |
| 4 | CD6236-05-42 | Gear Box Casting | |
| 5 | GB70-85 | Socket Head Cap Screw | M8×60 |
| 6 | GB118-86 | Taper Pin | A8×90 |
| 7 | CD6236-05-58 | Top Plate | |
| 8 | GB70-85 | Socket Head Cap Screw | M5×20 |
| 9 | CD6236-05-96 | Fork | |
| 10 | GB879-86 | Spring Pin | 3×10 |
| 11 | CD6236-05-56 | Fork | |
| 12 | GB2089-80 | Spring | 0.8×5×17 |
| 13 | GB308-84 | Steel Ball | 6 |
| 14 | CD6236-05-92 | Plate | |
| 15 | CD6236-05-97 | Plate | |
| 16 | CD6236-05-95 | Fork | |
| 17 | CD6236-05-94 | Fork | |
| 18 | CD6236-05-55 | Fork | |
| 19 | CD6236-05-57 | Drive Plate | |
| 20 | CD6236-05-59 | Sleeve | |
| 21 | CD6236-05-51 | Set Screw | M6×5 |
| 22 | GB70-85 | Socket Head Cap Screw | M6×35 |
| 23 | GB70-85 | Socket Head Cap Screw | M6×16 |
| 24 | CD6236-05-54 | Fork | |
| 25 | CD6236-05-89 | Selector Bar | |
| 26 | GB93-87 | Spring Washer | 6 |
| 27 | GB70-85 | Socket Head Cap Screw | M6×16 |
| 28 | GB879-86 | Spring Pin | 5×18 |
| 29 | CD6236-05-53 | Fork | |
| 30 | CD6236-05-52 | Screw | |
| 31 | GB819-85 | Cross Screw | M5×8 |
| 32 | GB3289.2-82 | Oil Inlet Pip | ZG1/2" |
| 33 | CD6236-05-87 | Packing | |
| 34 | GB3289.31-82 | Plug | ZG1/2" |
| 35 | CD6236-05-48 | Cover | |
| 36 | GB1160.1-89 | Oil Sight Glass | 20 |
| 37 | GB70-85 | Socket Head Cap Screw | M6×35 |
| 38 | CD6236-05-62 | Plate | |
| 39 | GB1096-79 | Key | 8×28 |
| 40 | CD6236-05-01 | Shaft | |

| No. | Part No. | Name | Specification |
|---|---|---|---|
| 41 | HG4-692-67 | Oil Seal | PD20×35×10 |
| 42 | GB70-85 | Socket Head Cap Screw | M6×16 |
| 43 | CD6236-05-11 | Bracket | |
| 44 | CD6236-05-64 | Packing | |
| 45 | GB290-64 | Roller Bearing | 943/20 |
| 46 | CD6236-05-12 | Washer | |
| 47 | GB894.1-86 | Circlip | 20 |
| 48 | CD6236-05-13 | Gear | Mn=2.25Z=39Mn=1.75 Z=20 |
| 49 | CD6236-05-14 | Shaft | |
| 50 | GB1096-79 | Key | 5×8 |
| 51 | GB276-84 | Ball Bearing | 7000104 |
| 52 | CD6236-05-15 | Gear | Mn=1.5 Z=38 |
| 53 | CD6236-05-22 | Gear | Mn=2. Z=23 Mn=1.5 Z=19 |
| 54 | GB894.1-86 | Circlip | 20 |
| 55 | CD6236-05-27 | Washer | |
| 56 | GB893.1-86 | Circlip | 40 |
| 57 | GB276-82 | Ball Bearing | 203 |
| 58 | CD6236-05-28 | Clutch | |
| 59 | CD6236-05-76 | Washer | |
| 60 | GB894.1-86 | Circlip | 14 |
| 61 | CD6236-05-29 | Clutch Gear | |
| 62 | GB894.1-86 | Circlip | 20 |
| 63 | CD6236-05-31 | Washer | |
| 64 | CD6236-05-32 | Packing | |
| 65 | CD6236-05-33 | Cover | |
| 66 | GB70-85 | Socket Head Cap Screw | M6×16 |
| 67 | HG4-692-67 | Oil Seal | PD20×35×10 |
| 68 | CD6236-05-30 | Shaft | |
| 69 | CD6236-05-40 | Fork | |
| 70 | CD6236-05-88 | Lever | |
| 71 | GB308-84 | Steel Ball | φ6.5 |
| 72 | GB2089-80 | Spring | 0.8×5×17 |
| 73 | CD6236-05-90 | Shaft | |
| 74 | GB1096-79 | Key | 4×12 |
| 75 | CD6236-05-101 | Sleeve | |
| 76 | GB3452.1-82 | O-Ring | 16×2.65 |
| 77 | CD6236-05-63A | Lever | |
| 78 | CD6236-05-63 | Lever | |
| 79 | CL6132-04-90 | Plate | |
| 80 | GB77-85 | Screw | M6×6 |

| No. | Part No. | Name | Specification |
|---|---|---|---|
| 81 | GB879-86 | Spring Pin | 4×25 |
| 82 | CD6236-05-100 | Washer | |
| 83 | GB70-85 | Socket Head Cap Screw | M5×12 |
| 84 | GB276-84 | Ball Bearing | 7000104 |
| 85 | CD6236-05-67 | Shaft | |
| 86 | CD6236-05-66 | Washer | |
| 87 | CD6236-05-68 | Gear | Mn=1.75Z=30 Mn=2.25 Z=19 |
| 88 | CD6236-05-69 | Washer | |
| 89 | GB894.1-86 | Circlip | 25 |
| 90 | GB276-84 | Ball Bearing | 7000104 |
| 91 | CD6236-05-16 | Gear | Mn=2 Z=22 |
| 92 | CD6236-05-17 | Gear | Mn=1.5 Z=19 |
| 93 | CD6236-05-18 | Gear | Mn=2. Z=20 |
| 94 | CD6236-05-19 | Gear | Mn=2 Z=24 |
| 95 | CD6236-05-20 | Gear | Mn=2 Z=23 |
| 96 | CD6236-05-21 | Gear | Mn=1.5 Z=27 |
| 97 | CD6236-05-23 | Gear | Mn=1.5 Z=24 |
| 98 | CD6236-05-24 | Gear | Mn=1.75 Z=28 |
| 99 | CD6236-05-25 | Gear | Mn=1.75 Z=26 |
| 100 | CD6236-05-26 | Gear | Mn=1.5 Z=38 |
| 101 | CD6236-05-27 | Washer | |
| 102 | GB276-82 | Ball Bearing | 203 |
| 103 | CD6236-05-77 | Nut | |
| 104 | CD6236-05-79 | Gear | Mn=1.5 Z=33 |
| 105 | CD6236-05-81 | Bracket | |
| 106 | GB70-85 | Socket Head Cap Screw | M6×16 |
| 107 | GB1096-79 | Key | 5×35 |
| 108 | GB893.1-86 | Circlip | 40 |
| 109 | GB77-85 | Screw | M5×8 |
| 110 | GB894.1-86 | Circlip | 22 |
| 111 | HG4-692-67 | Oil Seal | PD25×40×10 |
| 112 | GB301-84 | Thrust Bearing | 8105 |
| 113 | CD6236-05-78 | Shaft | |
| 114 | CD6236-05-41 | Fork | |
| 115 | GB276-84 | Ball Bearing | 7000104 |
| 116 | GB1096-79 | Key | 5×16 |
| 117 | CD6236-05-71 | Shaft | |
| 118 | CD6236-05-70 | Gear | Mn=2.25 Z=22 |
| 119 | GB894.1-86 | Circlip | 20 |
| 120 | CD6236-05-72 | Gear | Mn=2 Z=22 |

| No. | Part No. | Name | Specification |
|---|---|---|---|
| 121 | CD6236-05-73 | Gear | Mn=2 Z=22 |
| 122 | CD6236-05-74 | Gear | Mn=1.5 Z=33 |
| 123 | CD6236-05-75 | Gear | Mn=1.75 Z=22 |
| 124 | CD6236-05-27 | Washer | |
| 125 | CD6236-05-80 | Gear | Mn=1.25Z=36 Mn=1.25 Z=20 |
| 126 | GB276-86 | Roller Bearing | 101 |
| 127 | CD6236-05-99 | Packing | |
| 128 | CD6236-05-82 | Bracket | |
| 129 | GB70-85 | Socket Head Cap Screw | M6×16 |
| 130 | CD6236-05-35 | Lever | |
| 131 | GB1096-79 | Key | 4×12 |
| 132 | CD6236-05-38-1 | Shaft | |
| 133 | CD6236-05-84 | Lever | |
| 134 | CD6236-05-43 | Fork | |
| 135 | CD6236-05-39 | Fork | |
| 136 | GB93-87 | Spring Washer | 6 |
| 137 | GB70-85 | Socket Head Cap Screw | M6×16 |
| 138 | CD6236-05-83 | Washer | |
| 139 | GB894.1-86 | Circlip | 17 |
| 140 | GB77-85 | Screw | M8×8 |
| 141 | GB2089-80 | Spring | 0.8×5×17 |
| 142 | GB308-84 | Steel Ball | φ6.5 |
| 143 | CD6236-05-36 | Cam | |
| 144 | CD6236-05-86 | Fork | |
| 145 | CD6236-05-38 | Shaft | |
| 146 | CD6236-05-98 | Fork | |
| 147 | CD6236-05-85 | Lever | |
| 148 | GB879-86 | Spring Pin | 3×4 |
| 149 | CD6236-05-37 | Bracket | |
| 150 | GB879-86 | Spring Pin | 5×18 |
| 151 | GB896-86 | Circlip | 8 |
| 152 | GB3452.1-82 | O-Ring | 38.7×2.65 |
| 153 | CD6236-05-50 | Bracket | |
| 154 | GB3452.1-82 | O-Ring | 30×2.65 |
| 155 | CD6236-05-49 | Cover | |
| 156 | GB70-85 | Socket Head Cap Screw | M5×25 |
| 157 | CD6236-05-46 | Selector | |
| 158 | GB2089-80 | Spring | 1×8×32 |
| 159 | CD6236-05-44/01 | Lever | |
| 160 | CD6236-05-44/02 | Lever | |

# 20.Apron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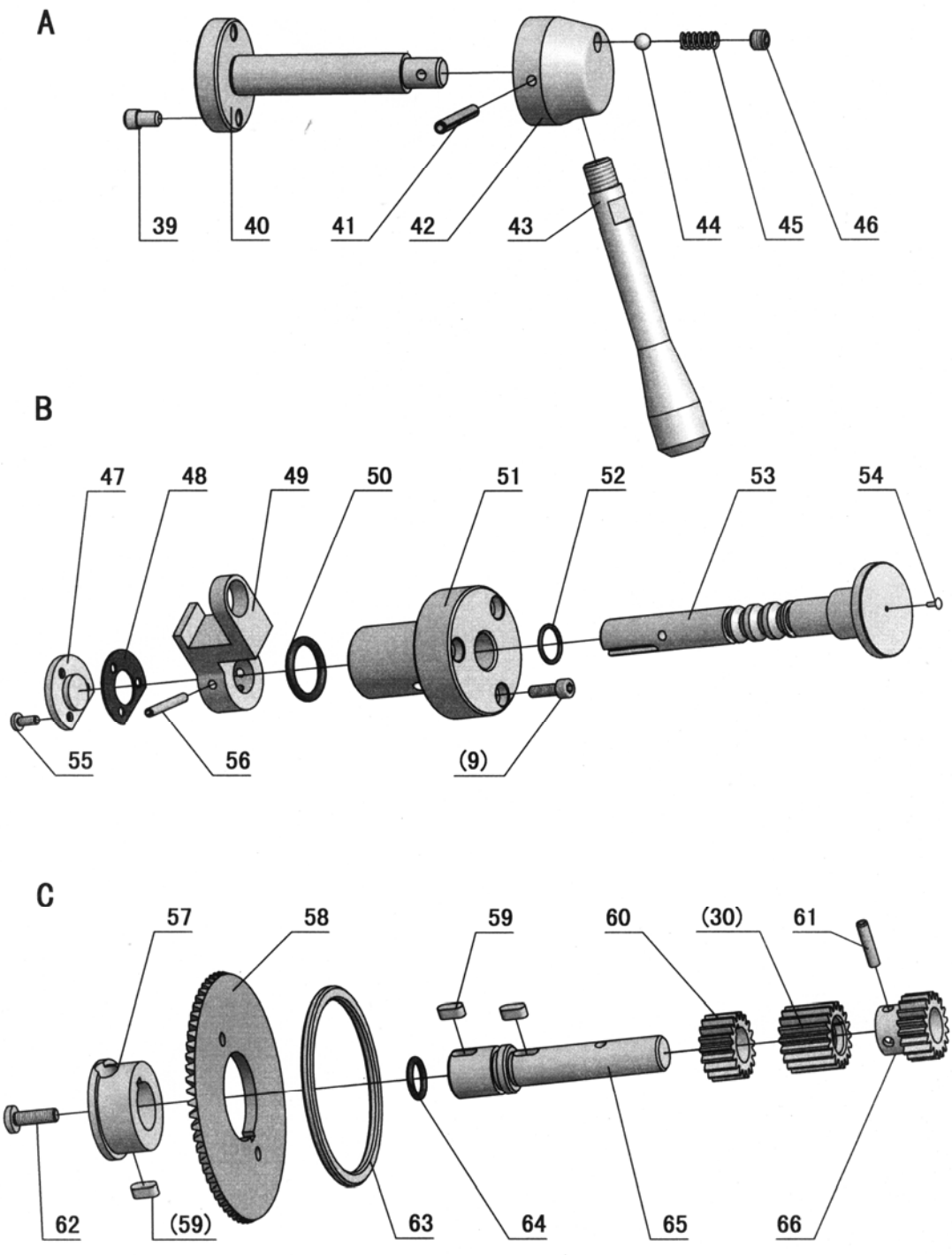
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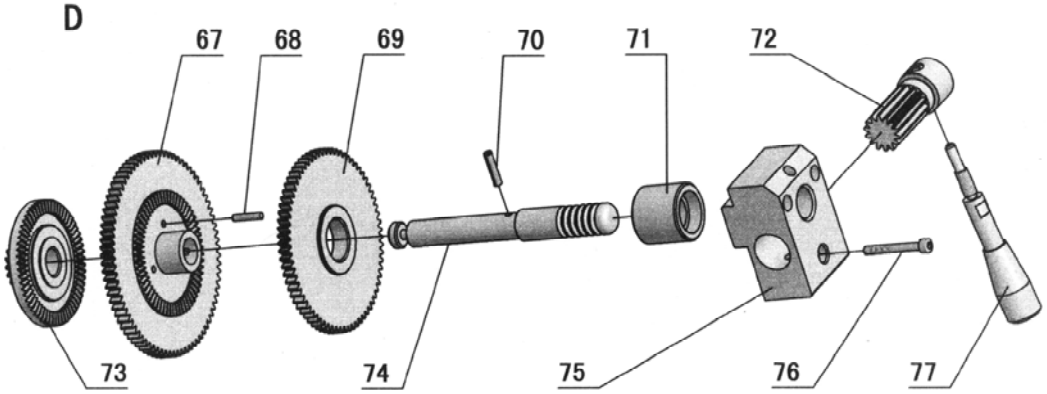
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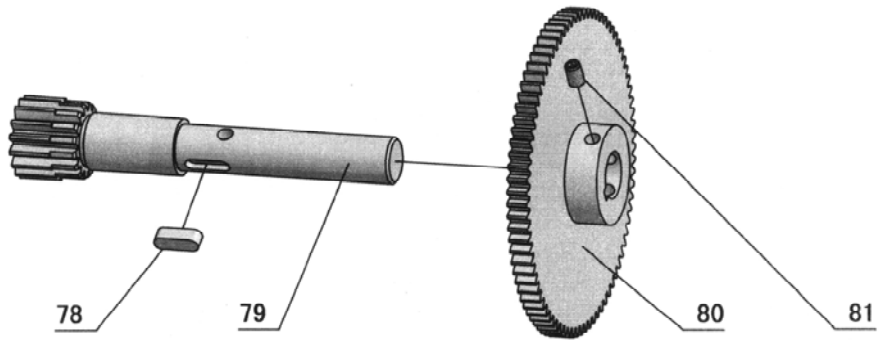
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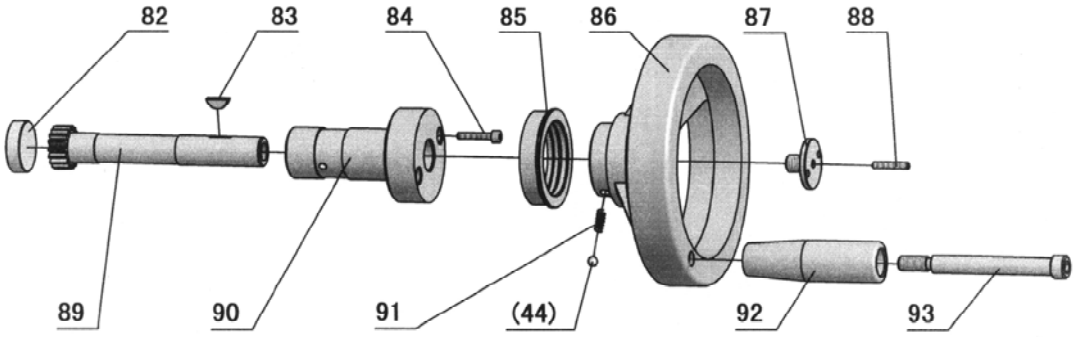
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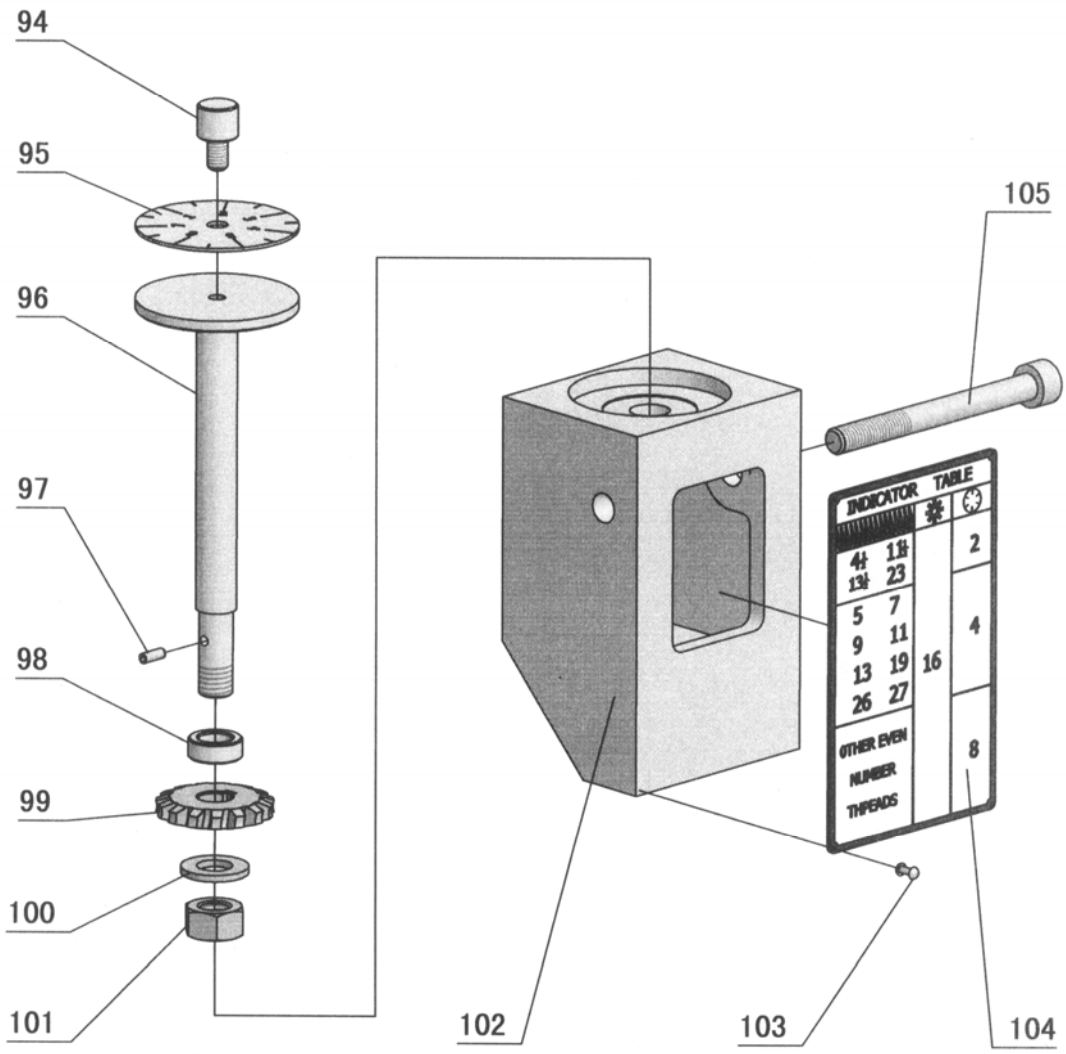
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OTHER EVEN NUMBER THREADS
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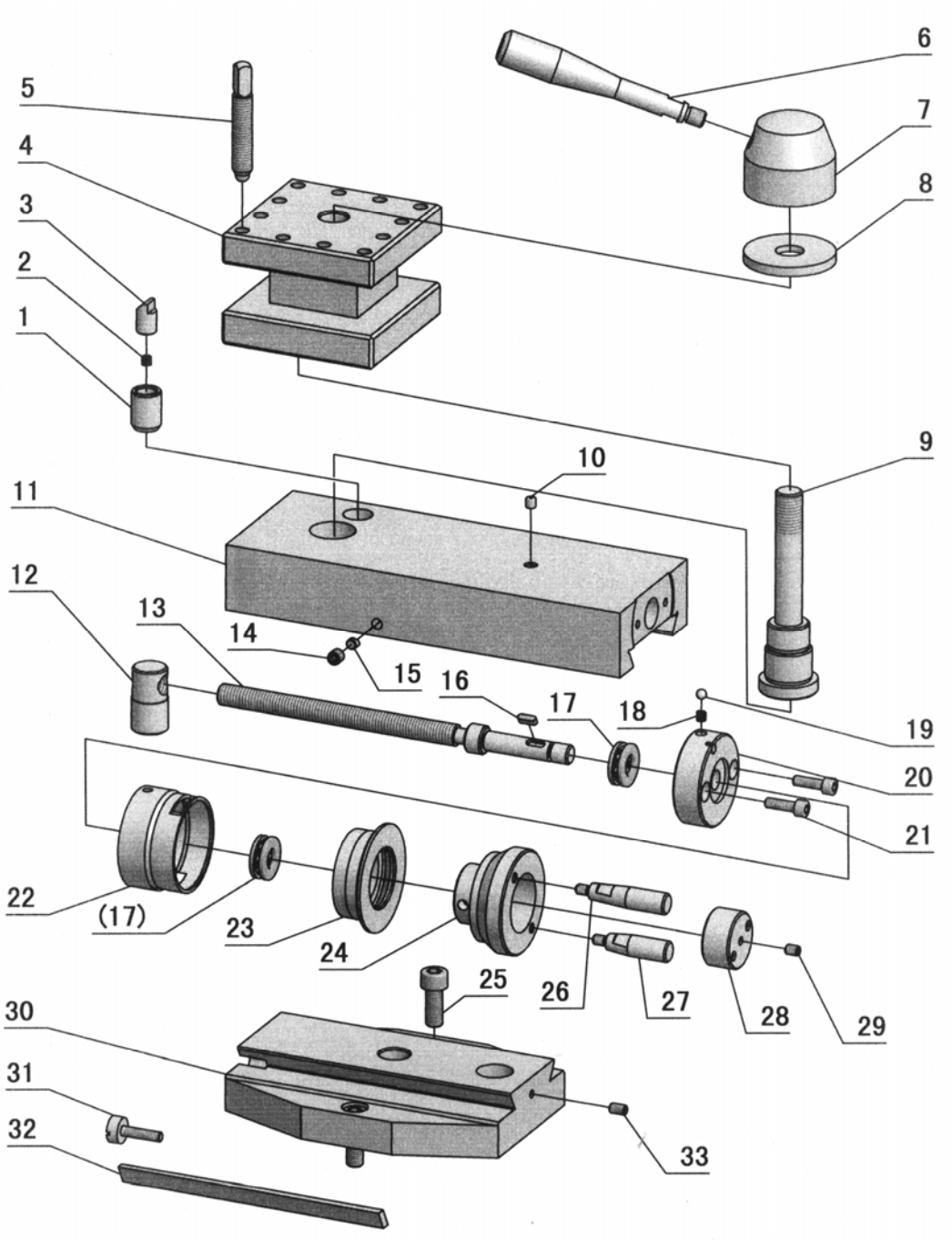
| No. | Part No. | Name | Specification |
|---|---|---|---|
| 1 | GB818-85 | Screw | M4×10 |
| 2 | CD6236-06-03 | Name Plate | |
| 3 | GB70-85 | Socket Head Cap Screw | M8×60 |
| 4 | CD6236-06-01 | Apron Casting | |
| 5 | GB117-86 | Pin | B8×60 |
| 6 | CD6236-06-31 | Lever | |
| 7 | CD6236-06-51 | Bolt | |
| 8 | CD6236-06-39 | Stopper | |
| 9 | GB70-85 | Socket Head Cap Screw | M5×16 |
| 10 | GB5782-86 | Bolt | M6×12 |
| 11 | CD6236-06-38 | Half Bracket | |
| 12 | CD6236-06-52 | Half Nut(Inch) | 4TPI |
| 13 | CD6236-06-30 | Gib | |
| 14 | GB5782-86 | Bolt | M6×10 |
| 15 | GB79-85 | Socket Head Set Screw | M5×6 |
| 16 | GB894.1-86 | Clip | 30 |
| 17 | CD6236-06-35 | Key | |
| 18 | GB290-82 | Needle Bearing | 7943/30 |
| 19 | CD6236-06-28 | Washer | |
| 20 | GB301-84 | Thrust Bearing | 8106 |
| 21 | CD6236-06-29 | Gear-Drive Level | Mn=1.75 Z=23 |
| 22 | GB70-85 | Socket Head Cap Screw | M6×16 |
| 23 | RUN6246-106059 | Switch Brackek | |
| 24 | RUN6246-106053 | Bracket | |
| 25 | RUN6246-106055 | Pin | |
| 26 | GB77-85 | Socket Head Set Screw | M6×6 |
| 27 | CD6236-06-44 | Shaft | |
| 28 | GB3452.1-82 | O-Ring | 11.2×2.65 |
| 29 | CD6236-06-19 | Shaft | |
| 30 | CD6236-06-50 | Gear | Mn=1.5 Z=18 |
| 31 | GB894.1-86 | External Circle | 16 |
| 32 | CD6236-06-33 | Spindle Control Lever | |
| 33 | Z16-1 | Lever Bush | |
| 34 | GB1160-86 | Sight Glass | B20 |
| 35 | CD6236-06-49 | Packing | |
| 36 | CD6236-06-48 | Bottom Plate | |
| 37 | GB70-85 | Socket Head Cap Screw | M5×16 |
| 38 | Q/ZB285.3 | Oil Plug | R 3/8" |
| 39 | CD6236-06-37 | Pin | |
| 40 | CD6236-06-25 | Shaft | |

| No. | Part No. | Name | Specification |
|---|---|---|---|
| 41 | GB879-86 | Spring Pin | 5×42 |
| 42 | CD6236-06-26 | Lever Head | |
| 43 | CD6236-06-27 | Handle | |
| 44 | GB308-84 | Steel Ball | φ6.5 |
| 45 | GB896-86 | Clip | 8 |
| 46 | GB77-85 | Socket Head Cap Screw | M8×6 |
| 47 | CD6236-06-43 | Cover | |
| 48 | CD6236-06-42 | Packing | |
| 49 | CD6236-06-41 | Fork | |
| 50 | GB3452.1-82 | O-Ring | 25.8×3.55 |
| 51 | CD6236-06-22 | Sleeve | |
| 52 | GB3452.1-82 | O-Ring | 16×1.8 |
| 53 | CD6236-06-21 | Shaft | |
| 54 | GB827-86 | Rivet | 2×6 |
| 55 | GB818-85 | Screw | M4×10 |
| 56 | GB879-86 | Spring Pin | 4×30 |
| 57 | CD6236-06-18-02 | Input Bush | |
| 58 | CD6236-06-45 | Gear-Drive Bevel | Mn=1.75 Z=64 |
| 59 | GB1096-79 | Key | 5×12 |
| 60 | CD6236-06-47 | Gear | Mn=1.5 Z=18 |
| 61 | GB879-86 | Spring Pin | 5×22 |
| 62 | GB818-85 | Screw | M6×20 |
| 63 | CD6236-06-46 | Washer | |
| 64 | GB3452.1-82 | O-Ring | 11.2×2.65 |
| 65 | CD6236-06-18-01 | Shaft | |
| 66 | CD6236-06-17 | Gear | Mn=1.5 Z=18 |
| 67 | CD6236-06-11 | Gear | Mn=1.5Z=80 Mn=1.25 Z=60 |
| 68 | GB119-86 | Pin | D4×20 |
| 69 | CD6236-06-12 | Gear | Mn=1.5Z=72 Mn=1.25 Z=60 |
| 70 | GB879-86 | Spring Pin | 5×22 |
| 71 | CD6236-06-15 | Sleeve | |
| 72 | CD6236-06-40 | Gear Shaft | Mn=1.5 Z=14 |
| 73 | CD6236-06-34 | Gear | Mn=1.5Z=18 Mn=1.25 Z=60 |
| 74 | CD6236-06-13 | Shaft | |
| 75 | CD6236-06-14 | Lever Head | |
| 76 | GB70-85 | Socket Head Cap Screw | M5×40 |
| 77 | CD6236-06-16 | Lever | |
| 78 | GB1096-79 | Key | 6×18 |
| 79 | CD6236-06-10 | Shaft | Mn=1.75 Z=16 |
| 80 | CD6236-06-09 | Gear | Mn=1.5 Z=81 |

| No. | Part No. | Name | Specification |
|---|---|---|---|
| 81 | GB78-85 | Screw | M6×10 |
| 82 | CD6236-06-23 | Plug | |
| 83 | GB1099-79 | Wood ruff Key | 5×6.5×16 |
| 84 | GB70-85 | Socket Head Cap Screw | M5×25 |
| 85 | CD6236-06-08 | Dial | |
| 86 | CD6236-06-07 | Hand Wheel | |
| 87 | CD6236-08-16 | Screw Plug | |
| 88 | GB79-85 | Set Screw | M5×25 |
| 89 | CD6236-06-02 | Shaft | |
| 90 | CD6236-06-04 | Sleeve | |
| 91 | GB2089-80 | Spring | |
| 92 | CD6236-06-05 | Handle | |
| 93 | CD6236-06-06 | Bolt | |
| 94 | CD6236-06-32 1/9 | Screw | |
| 95 | CD6236-06-32-3G | Plate | |
| 96 | CD6236-06-32-1G | Shaft | |
| 97 | GB879-86 | Spring Pin | 3×8 |
| 98 | CD6236-06-32-2G | Washer | |
| 99 | CD6236-06-32 2/5G | Worm Gear | Mn=2 Z=14 |
| 100 | GB93-86 | Spring Washer | 10 |
| 101 | GB6170-86 | Nut | M10 |
| 102 | CD6236-06-32G | Worm Unit | |
| 103 | GB827-86 | Rivet | 2×5 |
| 104 | CD6236-06-32 5/5G | Plate | |

# 21. Saddle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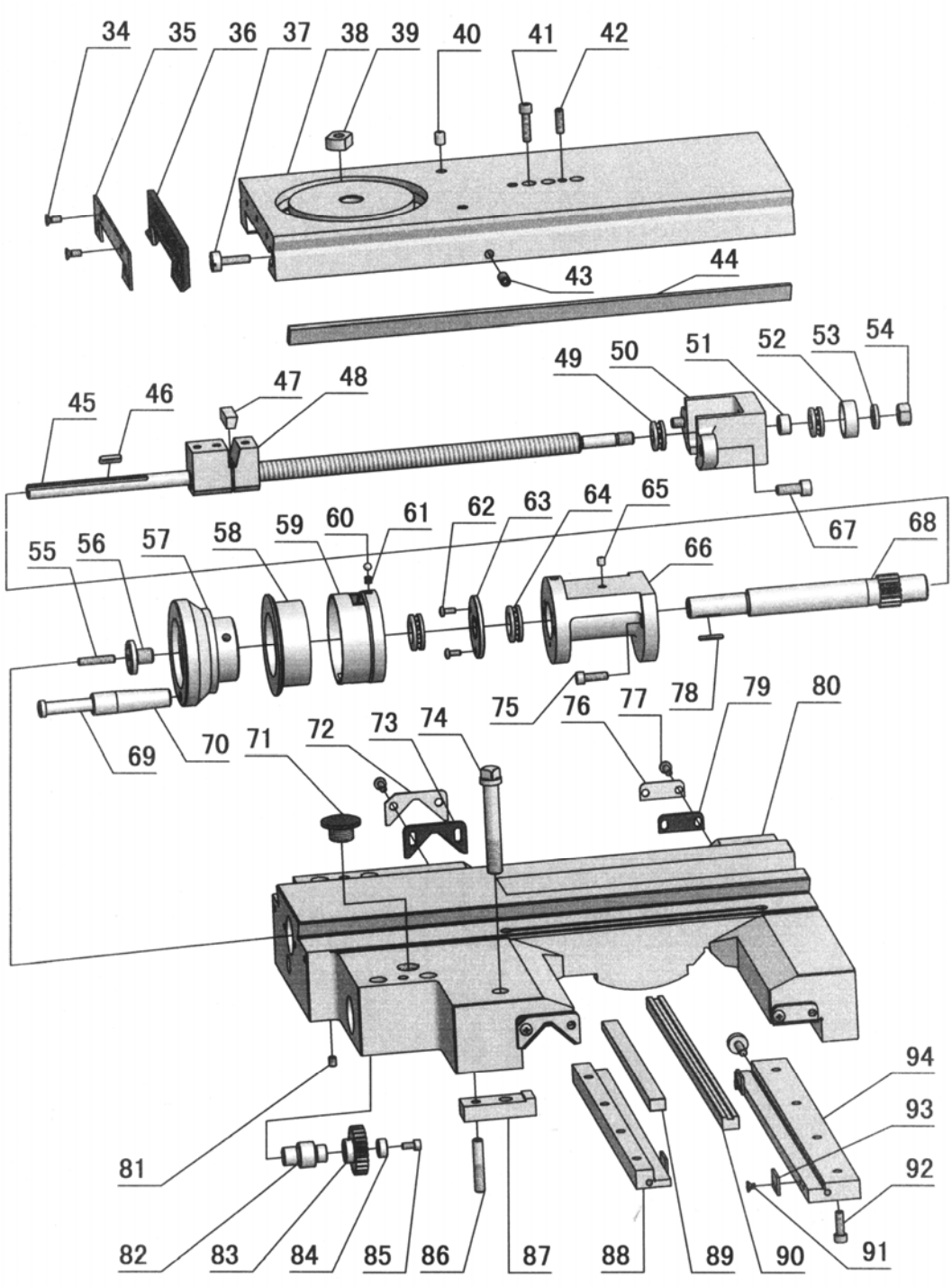
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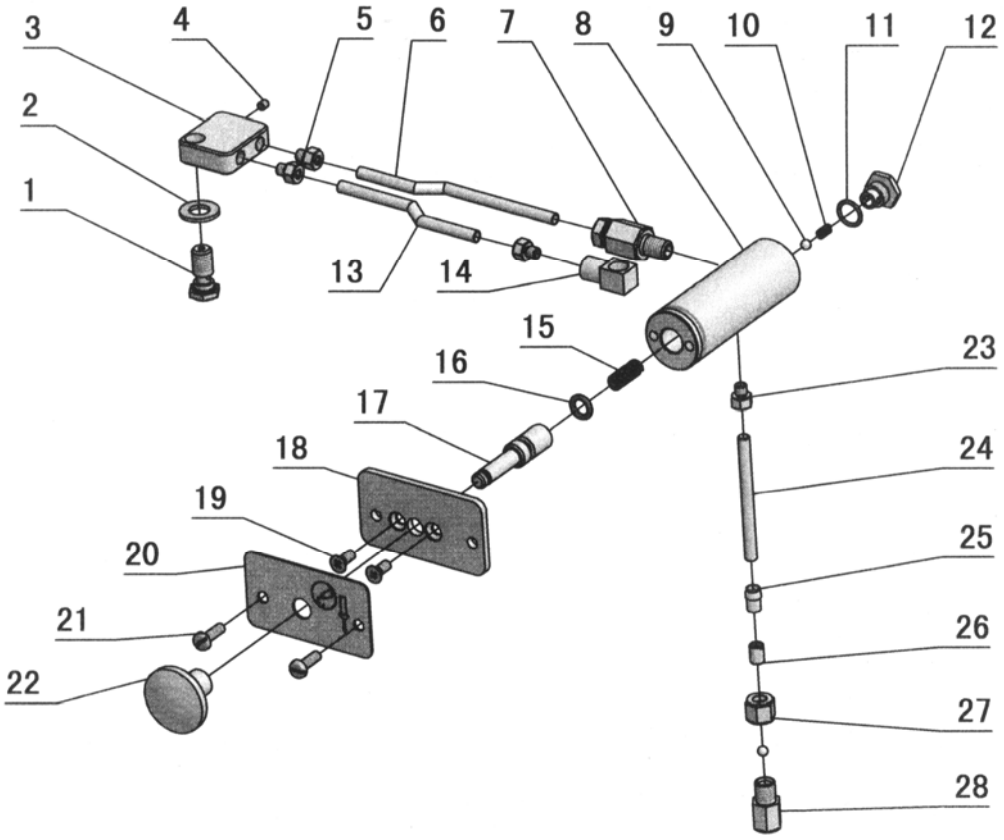
| No. | Part No. | Name | Specification |
|---|---|---|---|
| 1 | CD6236-07-49A | Bush(S-Post) | |
| 1 | CD6236-07-49 | Bush(T-Post) | |
| 2 | GB2089-80 | Spring | 0.5×5×18 |
| 3 | CD6236-07-50 | Pin | |
| 4 | CD6236-07-21 | Tool Post | |
| 5 | GB98-83 | Screw | M10×50 |
| 6 | CD6236-07-29 | Clamp Handle | |
| 7 | CD6236-07-19 | Clamping Handle | |
| 8 | CD6236-07-20 | Washer | |
| 9 | CD6236-07-18A | Tool Post Shaft(S-Post) | |
| 9 | CD6236-07-18 | Tool Post Shaft(T-Post) | |
| 10 | GB1155-79 | Ball Cup | 6 |
| 11 | CD6236-07-25A | Compound Rest(360S-Post) | |
| 11 | CD6240-07-25A | Compound Rest(410S-Post) | |
| 11 | CD6236-07-25 | Compound Rest(360T-Post) | |
| 11 | CD6240-07-25 | Compound Rest(410T-Post) | |
| 12 | CD6236-07-17G | Nut(Metric) | |
| 12 | CD6236-07-17 | Nut(Inch) | |
| 13 | CD6236-07-07G | Feed Screw(Metric) | |
| 13 | CD6236-07-07 | Feed Screw(Inch) | |
| 14 | GB77-85 | Screw | M8×8 |
| 15 | CD6236-07-46 | Bottom | |
| 16 | GB1096-79 | Key | 4×12 |
| 17 | GB301-84 | Thrust Bearing | 8101 |
| 18 | GB2089-80 | Spring | 0.5×5×18 |
| 19 | GB308-77 | Steel Ball | 6 |
| 20 | CD6236-07-13 | Seat | |
| 21 | GB70-85 | Screw | M6×20 |
| 22 | CD6236-07-12G | Steel Ball(Metric) | |
| 22 | CD6236-07-12 | Steel Ball(Inch) | |
| 23 | CD6236-07-11G | Dial-Compound Rest(M) | |
| 23 | CD6236-07-11 | Dial-Compound Rest(Inch) | |
| 24 | CD6236-07-10 | Handle | |
| 25 | GB70-85 | Screw | M10×25 |
| 26 | CD6236-07-05 | Handle | |
| 27 | CD6236-07-06 | Handle | |
| 28 | CD6236-07-08 | Screw Plug | |
| 29 | GB77-85 | Screw | M6×8 |
| 30 | CD6236-07-26 | Swivel Table(360) | |
| 30 | CD6240-07-26 | Swivel Table(410) | |

| No. | Part No. | Name | Specification |
|---|---|---|---|
| 31 | CD6236-07-48 | Screw | |
| 32 | CD6236-07-47 | Gib | |
| 33 | GB77-85 | Screw | M6×10 |
| 34 | GB819-85 | Screw | M5×12 |
| 35 | CD6236-07-44 | Wiper Cover | |
| 36 | CD6236-07-45 | Wiper | |
| 37 | CD6236-07-48 | Screw | |
| 38 | CD6236-07-27 | Cover-Cross Sliding | |
| 39 | CD6236-07-64 | T-Bracket | |
| 40 | GB1155-79 | Ball Cup | 8 |
| 41 | GB70-85 | Screw | M6×25 |
| 42 | GB77-85 | Screw | M6×20 |
| 43 | GB77-85 | Screw | M8×16 |
| 44 | CD6236-07-23 | Gib | |
| 45 | CD6236-07-55G | Feed Screw(Metric) | |
| 45 | CD6236-07-55 | Feed Screw(Inch) | |
| 46 | CD6240-07-63a-2 | Key | 4×18 |
| 47 | RUN6246-103004 | Bracket | |
| 48 | CD6236-07-51Ga | Nut(Metric) | |
| 48 | CD6236-07-51a | Nut(Inch) | |
| 49 | GB301-84 | Thrust Bearing | 8100 |
| 50 | CD6236-07-22 | Bracket | |
| 51 | CD6236-07-14 | Spacer | |
| 52 | CD6236-07-30 | Bearing Cover | |
| 53 | CD6236-07-09 | Bracket | |
| 54 | GB6175-86 | Clamping Nut | M10 |
| 55 | GB77-85 | Screw | M6×35 |
| 56 | CD6236-07-37 | Clamping Screw | |
| 57 | CD6236-07-38 | Wheel; | |
| 58 | CD6236-07-41G | Dial-Feed(Metric) | |
| 58 | CD6236-07-41 | Dial-Feed(Inch) | |
| 59 | CD6236-07-42G | Handle Spacer(Metric) | |
| 59 | CD6236-07-42 | Handle Spacer(Inch) | |
| 60 | GB308-77 | Steel Ball | 6 |
| 61 | GB2089-80 | Spring | 0.5×5×18 |
| 62 | GB818-85 | Screw | M4×10 |
| 63 | CD6236-07-43 | Washer | |
| 64 | GB301-84 | Thrust Bearing | 8103 |
| 65 | GB1155-79 | Ball Cup | 6 |
| 66 | CD6236-07-36 | Bracket | |

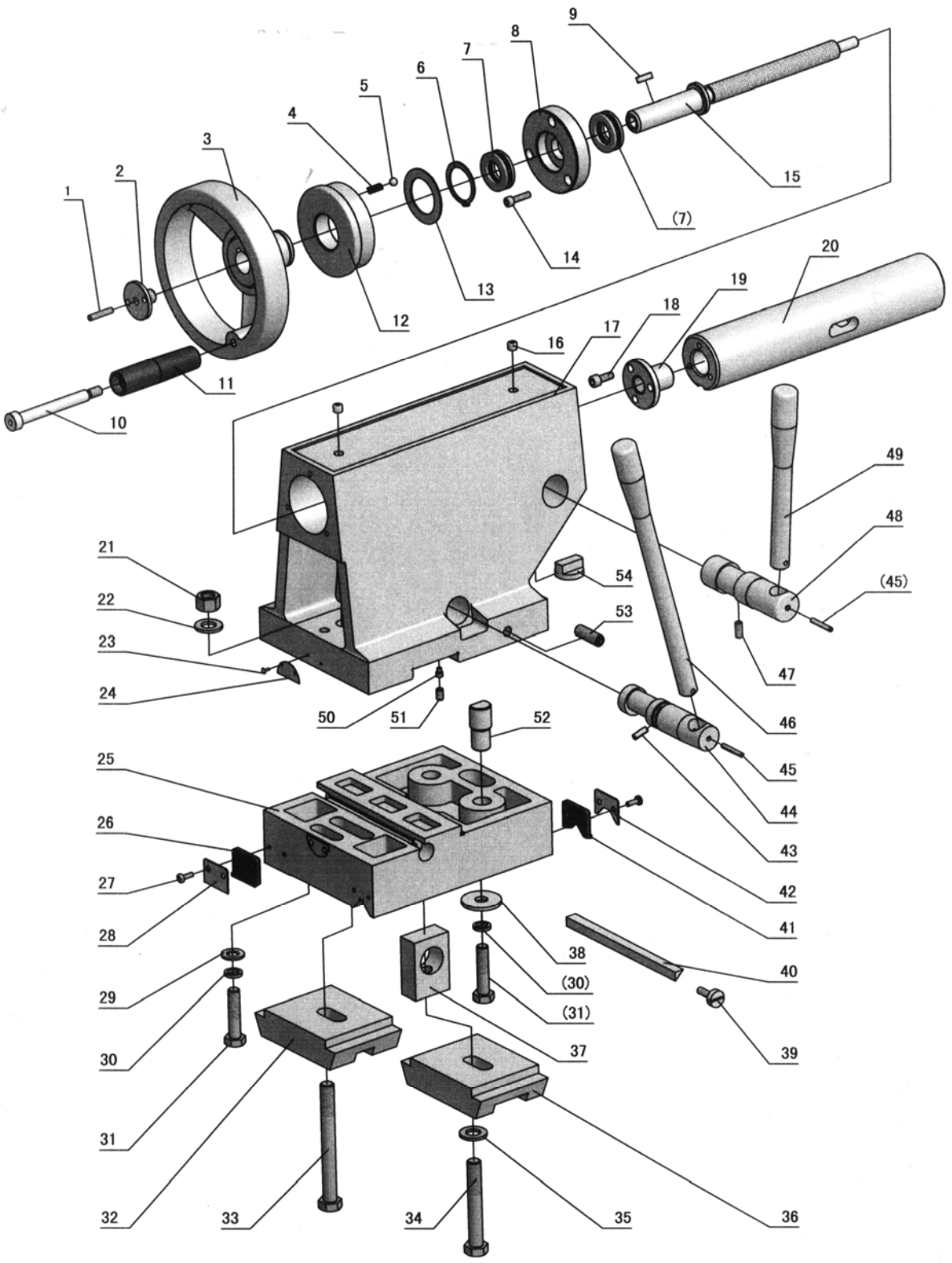
| No. | Part No. | Name | Specification |
|---|---|---|---|
| 67 | GB77-85 | Screw | M8×20 |
| 68 | CD6240-07-63a | Gear Shaft | Mn=1.5 Z=16 |
| 69 | CD6236-07-40 | Screw | |
| 70 | CD6236-07-39 | Handle Spacer | |
| 71 | CD6236-07-15 | Plug | |
| 72 | CD6236-07-34 | Wiper Cover | |
| 73 | CD6236-07-33 | Wiper | |
| 74 | CD6236-07-04 | Clamp Screw | |
| 75 | GB70-85 | Screw | M6×20 |
| 76 | CD6236-07-32 | Wiper Cover | |
| 77 | GB818-85 | Screw | M5×16 |
| 78 | GB1096-86 | Key | 3×3×20 |
| 79 | CD6236-07-31 | Wiper | |
| 80 | CD6236-07-28 | Carriage | |
| 81 | GB77-85 | Screw | M6×8 |
| 82 | CD6236-07-61 | Shaft | |
| 83 | CD6236-07-60 | Gear | Mn=1.5 Z=25 |
| 84 | CD6236-07-59 | Washer | |
| 85 | GB70-85 | Screw | M5×10 |
| 86 | CD6236-07-03 | Support Screw | |
| 87 | CD6236-07-02 | Clamp Block | |
| 88 | CD6236-07-16 | Gib | |
| 89 | CD6236-07-58 | Gib | |
| 90 | CD6236-07-57 | Gib | |
| 91 | GB68-85 | Screw | M4×6 |
| 92 | GB70-85 | Screw | M6×20 |
| 93 | CD6236-07-16-1 | Baffle | |
| 94 | CD6236-07-56 | Gib | |

# 22. Lubrication



| No. | Part No. | Name | Specification |
|---|---|---|---|
| 1 | CD6236-07-01 13/13 | Proper Screw | |
| 2 | GB97.1-85 | Washer | 10 |
| 3 | CD6236-07-01 10/13 | Distributor | |
| 4 | GB77-85 | Screw | M4×5 |
| 5 | 15326C | Tie-in | |
| 6 | | Lubrication Tube | φ5 |
| 7 | 2143SC | Tie-in | φ5/Z1/8 |
| 8 | CD6236-07-01 6/13a | Pump | |
| 9 | GB308-77 | Ball | 5 |
| 10 | GB2089-80 | Spring | 0.5×4×15 |
| 11 | GB3452.1-82 | O-Ring | 11.2×1.8 |
| 12 | CD6236-07-01 5/13 | Plug | |
| 13 | | Lubrication Tube | φ5 |
| 14 | CD6236-07-01 7/13 | Joint | |
| 15 | GB2089-80 | Spring | 1×7×45 |
| 16 | GB3452.1-82 | O-Ring | 8×2.65 |
| 17 | CD6236-07-01 2/13 | Piston | |
| 18 | CD6236-07-01 4/13 | Plate | |
| 19 | GB819-85 | Screw | M5×12 |
| 20 | CD6236-07-01 3/13 | Name Plate | |
| 21 | GB67-85 | Screw | M5×15 |
| 22 | RUN6241-103067 | Knob | |
| 23 | 22587T | Tie-in | φ6/Z1/8 |
| 24 | | Lubrication Tube | φ6×150 |
| 25 | RUN6246-103071 | Tie-in | |
| 26 | RUN6246-103072 | Nut | |
| 27 | B1061C | Double Taper Sheath | 4 |
| 28 | RUN6246-103073 | Valve | |

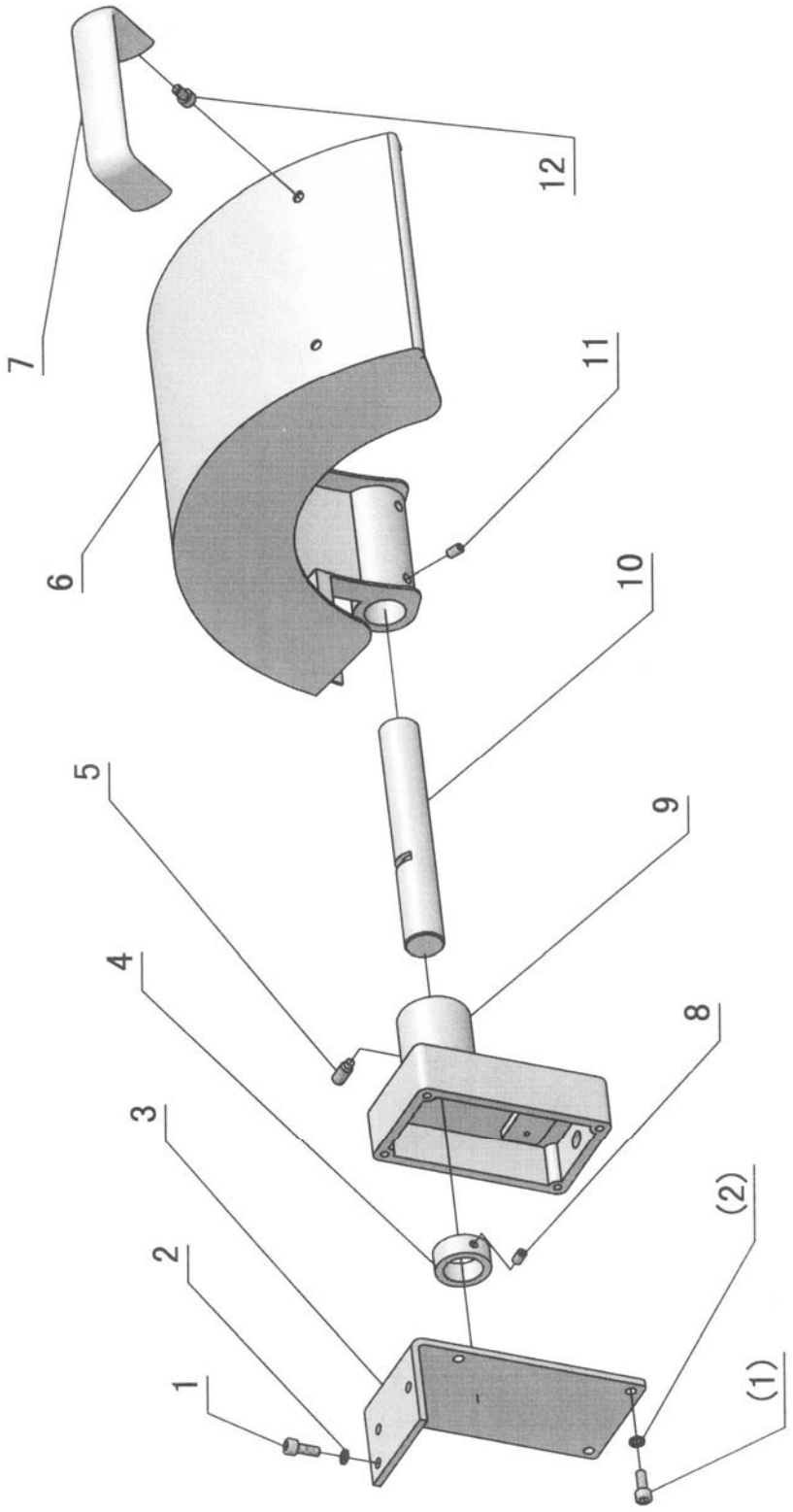
# 23. Tailstock Assembly



| No. | Part No. | Name | Specification |
|---|---|---|---|
| 1 | GB78-85 | Key | 5×25 |
| 2 | CD6236-08-16 | Screw Plug | |
| 3 | CD6236-08-17 | Hand Wheel | |
| 4 | GB2089-80 | Spring | 0.6×5×16 |
| 5 | GB308-84 | Steel Ball | Φ6.5 |
| 6 | GB894.1-86 | Retaining Ring | 32 |
| 7 | GB301-84 | Thrust Bearing | 8104 |
| 8 | CD6236-08-13 | Bracket | |
| 9 | GB1096-79 | Key | 5×16 |
| 10 | CD6236-08-18 | Bolt | |
| 11 | CD6236-08-19 | Handle | |
| 12 | CD6236-08-14 | Dial | |
| 13 | CD6236-08-15 | Retaining Ring | |
| 14 | GB70-85 | Screw | M5×25 |
| 15 | CD6236-08-11 | Feed Screw | |
| 16 | GB1155-79 | Oil Cup | 8 |
| 17 | CD6236-08-01 | Tailstock | |
| 18 | GB70-85 | Screw | M6×16 |
| 19 | CD6236-08-12 | Feed Nut | |
| 20 | CD6236-08-10 | Quill | |
| 21 | GB55-76 | Hexagon Thick Nut | M12 |
| 22 | GB97-85 | Washer | 12 |
| 23 | GB827-85 | Button Head Rivet | 2×8 |
| 24 | CD6236-08-26 | Set-Over Indication Chart | |
| 25 | CD6236-08-05 | Tail Stock Base | |
| 26 | CD6236-08-25 | Bedway Wiper | |
| 27 | GB818-85 | Cross Screw | M4×10 |
| 28 | CD6236-08-27 | Bedway Wiper Plate | |
| 29 | GB97.1-86 | Washer | 10 |
| 30 | GB93-85 | Spring Washer | 10 |
| 31 | GB5780-86 | Bolt | M10×45 |
| 32 | CD6236-08-29 | Clamping Block | |
| 33 | GB5780-86 | Bolt | M12×110 |
| 34 | GB5780-86 | Bolt | M12×80 |
| 35 | GB95-86 | Washer | 12 |
| 36 | CD6236-08-06 | Clamping Block | |
| 37 | CD6236-08-20 | Adjusting Block | |
| 38 | CD6236-08-30 | Washer | |
| 39 | CD6236-08-04 | Screw | |
| 40 | CD6236-08-03 | Gib | |

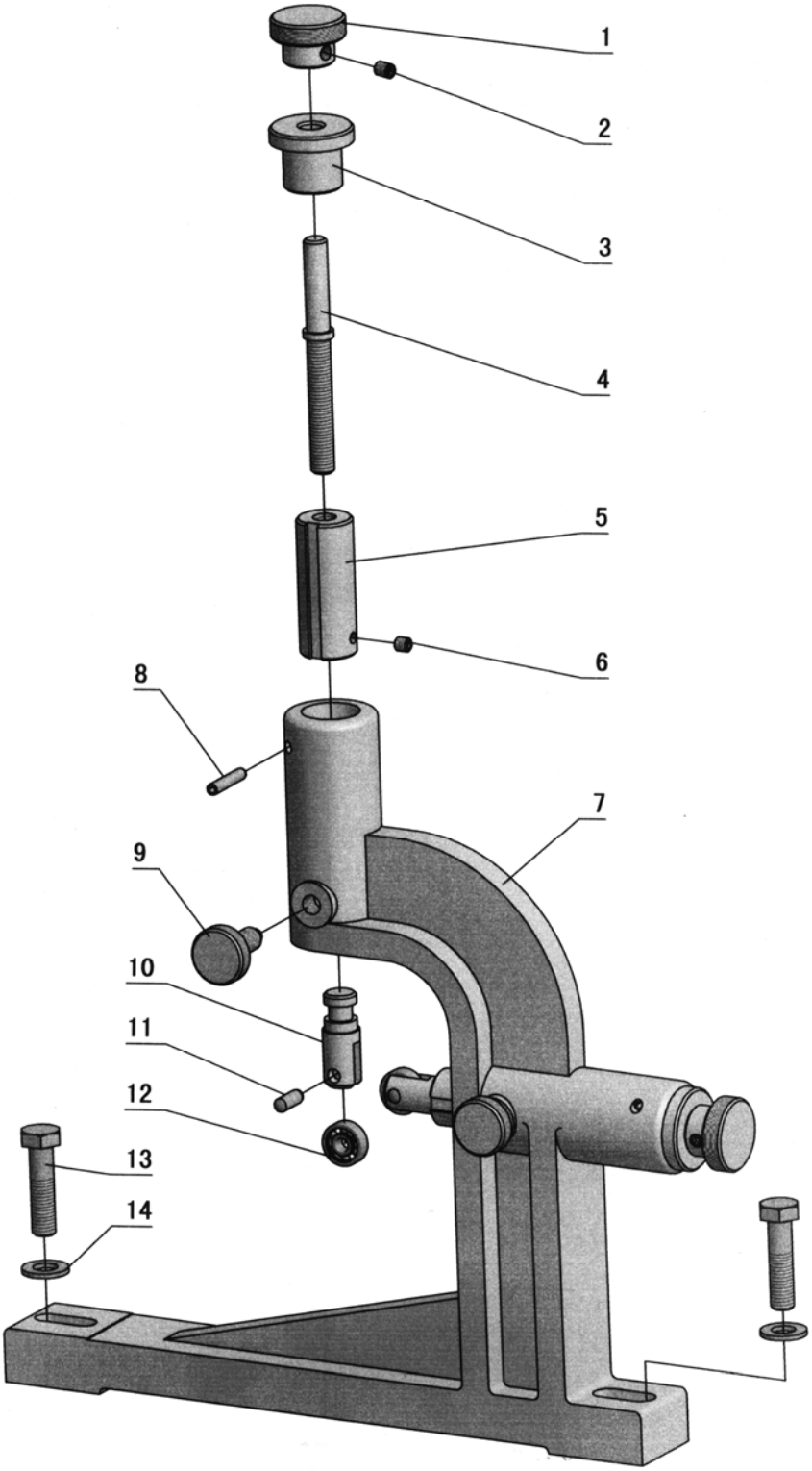
| No. | Part No. | Name | Specification |
|---|---|---|---|
| 41 | CD6236-08-02 | Bedway Wiper | |
| 42 | CD6236-08-28 | Bedway Wiper Plate | |
| 43 | GB879-86 | Spring Pin | 5×15 |
| 44 | CD6236-08-21 | socket wrench | |
| 45 | GB879-86 | Spring Pin | 4×25 |
| 46 | CD6236-08-22 | Clamping Lever | |
| 47 | GB77-85 | Socket Head Set Screw | M6×15 |
| 48 | CD6236-08-23 | Clamping Shaft | |
| 49 | CD6236-08-24 | Clamping Lever | |
| 50 | GB79-85 | Socket Head Set Screw | M6×10 |
| 51 | GB77-85 | Socket Head Set Screw | M6×10 |
| 52 | CD6236-08-07 | Shaft | |
| 53 | GB77-85 | Socket Head Set Screw | M10×35 |
| 54 | CD6236-08-09 | Key | |

# 24. Chuck Guard Cover



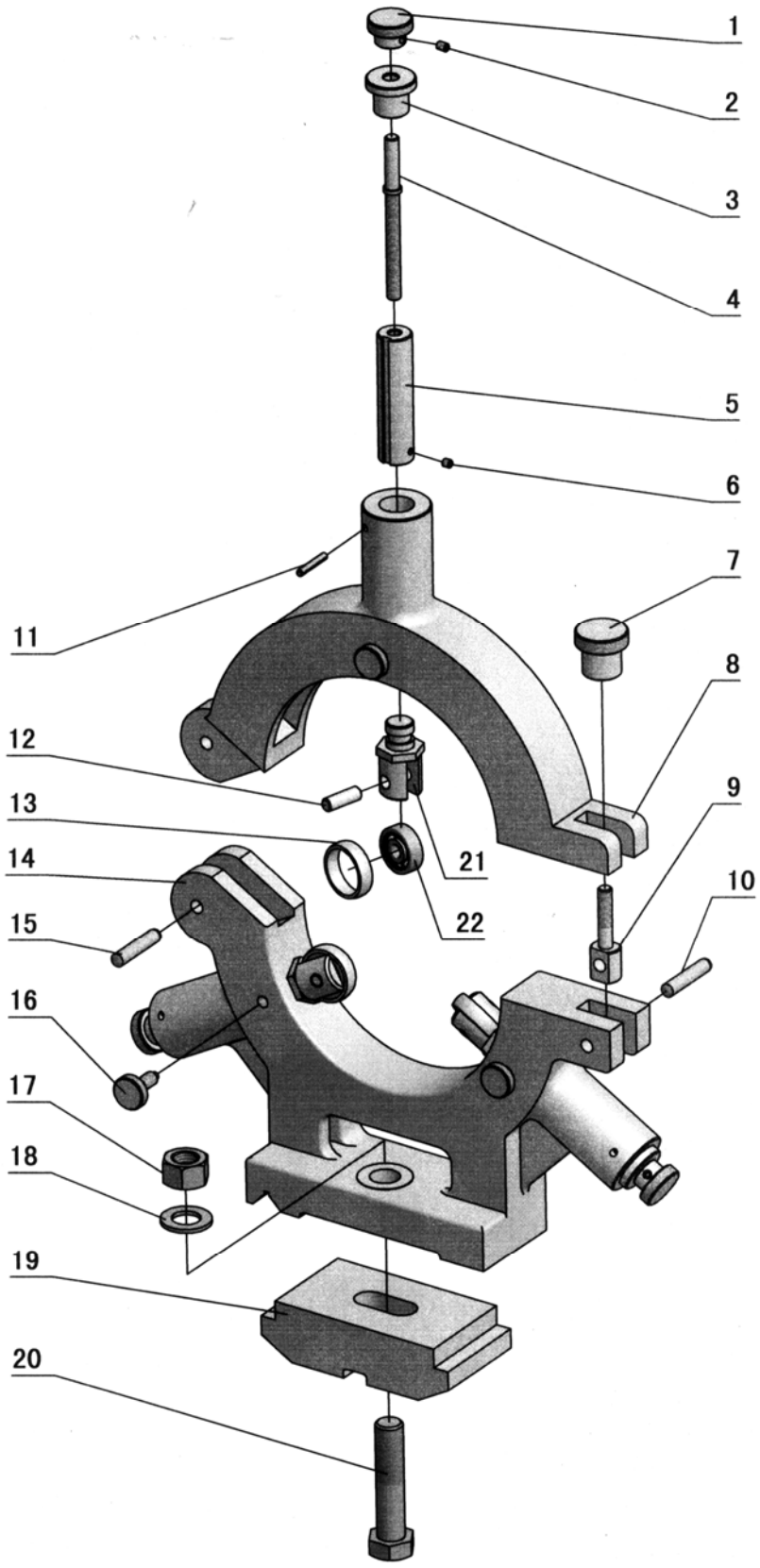
| No. | Part No. | Name | Specification |
|---|---|---|---|
| 1 | GB70-85 | Screw | M6×12 |
| 2 | GB93-86 | Washer | 6 |
| 3 | CD6236-04F-02 | Support Bracket | |
| 4 | CM6233-F1005 | Sleeve | |
| 5 | GB75-85 | Screw | M8X20 |
| 6 | CD6236-04FA-01 | Cover | |
| 7 | HY8315.4 A=114 | handle | |
| 8 | GB78-85 | Screw | M6×10 |
| 9 | RIN6236-101101 | Cover Bracket | |
| 10 | CD6236-04FA-04 | Shaft | |
| 11 | GB78-85 | Screw | M8×10 |
| 12 | GB70-85 | Screw | M6×10 |

# 25. Follow Rest



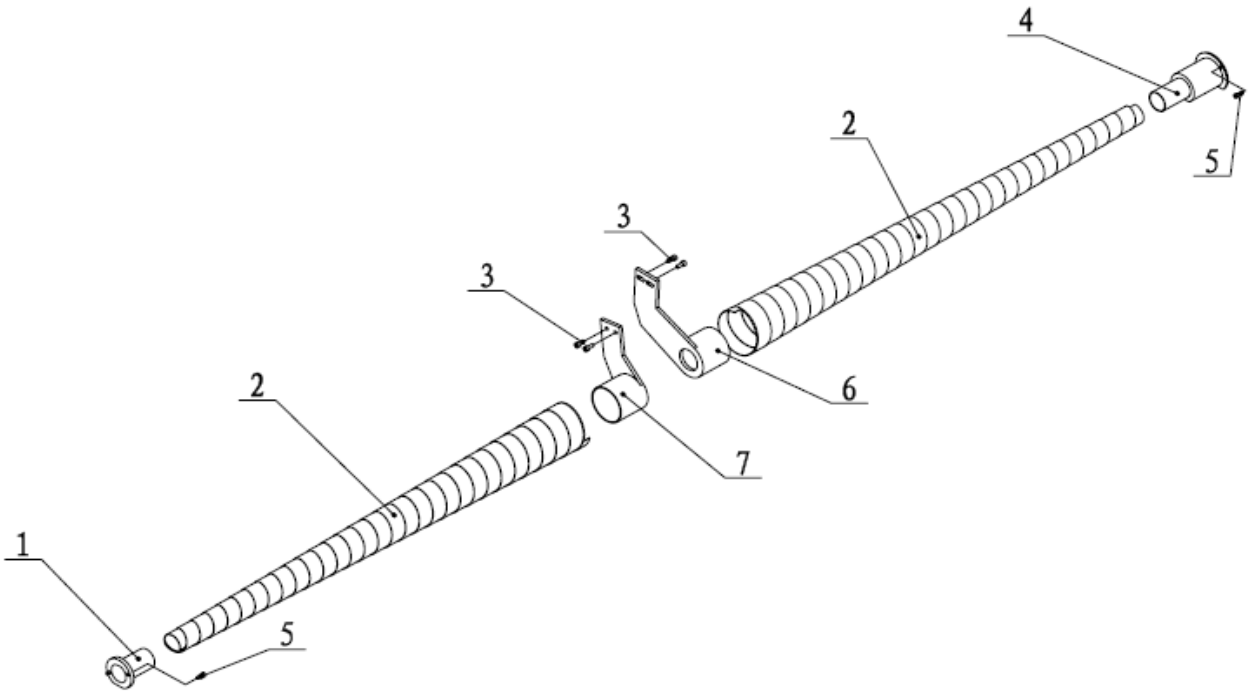
| No. | Part No. | Name | Specification |
|---|---|---|---|
| 1 | RUN6246-110019 | Rotate Handle | |
| 2 | GB78-85 | Screw | M6×8 |
| 3 | RUN6246-110004 | Bush | |
| 4 | CD6236-10-11 | Screw Shaft | |
| 5 | CD6236-10-10 | Sleeve | |
| 6 | GB77-85 | Screw | M6×6 |
| 7 | CD6236-10-09 | Follow Rest | |
| 8 | GB879-86 | Spring Pin | 5×26 |
| 9 | RUN6246-110018 | Limited Screw | |
| 10 | CD6236-10-08 | Support Shaft | |
| 11 | GB119-86 | Pin | 6×16 |
| 12 | GB278-88 | Bearing | 80026 |
| 13 | GB5782-86 | Bolt | M10×40 |
| 14 | GB97.1-86 | Washer | 6×16 |

# 26. Steady Rest



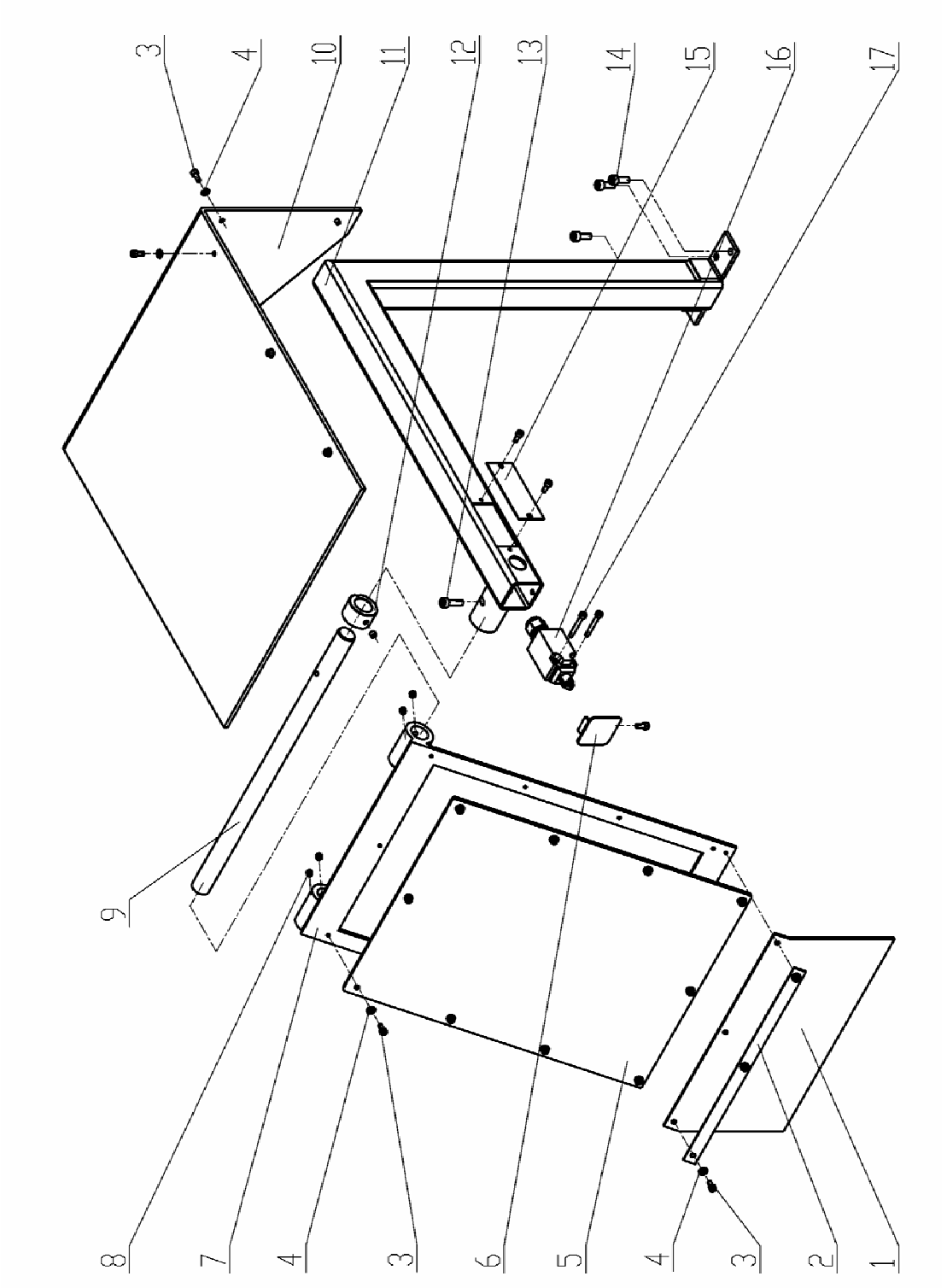
| No. | Part No. | Name | Specification |
|---|---|---|---|
| 1 | RUN6246-110019 | Rotate Handle | |
| 2 | GB78-85 | Screw | M6×8 |
| 3 | RUN6246-110004 | Bush | |
| 4 | CD6240-10-05 | Screw Shaft | |
| 5 | CD6236-10-04 | Sleeve | |
| 6 | GB77-85 | Screw | M6×6 |
| 7 | RUN6246-110014 | Handle | |
| 8 | CD6236-10-02 | Upside of Steady Rest | |
| 9 | RUN6246-110013 | Clamping Screw | |
| 10 | GB119-86 | Pin | 10×50 |
| 11 | GB879-86 | Spring Pin | 5×32 |
| 12 | GB119-86 | Pin | 6×20 |
| 13 | CD6240-10-07 | Guard Bush | |
| 14 | CD6236-10-01 | Dowmside of Steady Rest | |
| 15 | GB119-86 | Pin | 10×50 |
| 16 | RUN6246-110018 | Limited Screw | |
| 17 | GB6170-86 | Nut | M16 |
| 18 | GB97.1-86 | Washer | 16 |
| 19 | CD6240-10-03 | Clamping Bracket | |
| 20 | GB5780-86 | Bolt | M16×80 |
| 21 | CD6236-10-06 | Support Shaft | |
| 22 | GB278-88 | Bearing | 80026 |

# 27. Lead Screw Guard




| No. | Part No. | Name | Specification | Qty |
|---|---|---|---|---|
| 1 | CD6236-01F-05 | Connect Sleeve | | 1 |
| 2 | CD6236-01F-01 | Protect Sleeve | 1000 | 2 |
| 3 | GB70-85 | Socket Cap Screw | M5×12 | 4 |
| 4 | CD6236-01F-02 | Protect Sleeve | 2000 | 2 |
| 5 | GB70-85 | Socket Cap Screw | M4×12 | 4 |
| 6 | CD6236-01F-03 | Connect Sleeve | 1000、1500 | 1 |
| 7 | CD6236-01F-04 | Connect Sleeve | 2000 | 1 |

# 28. Chip Protection



| No. | Part No. | Name | Specification | Qty |
|---|---|---|---|---|
| 1 | CD6240-20-02 | Chip Cover | | 1 |
| 2 | CD6240-20-09 | Clamp | | 1 |
| 3 | GB70-85 | Screw | M4×10 | 21 |
| 4 | GB97.1-85 | Washer | 4 | 18 |
| 5 | CD6240-20-07 | Chip Cover | | 1 |
| 6 | CD6240-20-03 | Chip Cover Plate | | 1 |
| 7 | CD6240-20-06 | Chip Cover Fixing Plate | | 1 |
| 8 | GB80-85 | Screw | M6×6 | 5 |
| 9 | CD6240-20-05 | Shaft | | 1 |
| 10 | CD6240-20-03 | Top Cover Plate | Select Purchase | 1 |
| 11 | CD6240-20-01 | Main Block | | 1 |
| 12 | CD6240-20-04 | Lock for Switch Stop | | 1 |
| 13 | GB70-85 | Screw | M6×20 | 1 |
| 14 | GB70-85 | Screw | M6×16 | 3 |
| 15 | CD6240-20-02 | Chip Cover Plate | | 1 |
| 16 | | Switch | | 1 |
| 17 | GB70-85 | Screw | M4×30 | 2 |