

IMPORTANT NOTICE

READ CAREFULLY BEFORE OPERATING MACHINE

- 1) For the material infeed roller conveyors must be used that have a minimum length of three quarters of the max. stock length.
- 2) Work stands should only be used for the additional support behind the main roller conveyor.
- 3) Roller conveyors should be equipped by vertical side rollers or support to avoid rolling-off of round material.
- 4) Manual stock infeed should always be carried out from the rear of the machine.

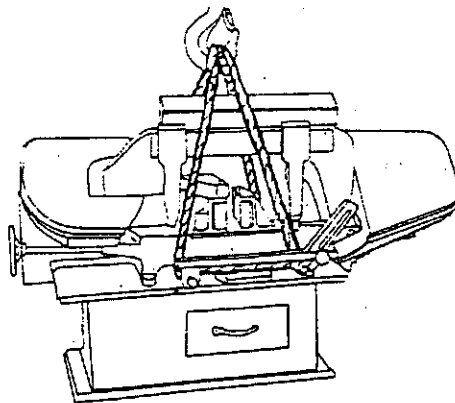
ATTENTION

Keep Hands Clear of Cutting Area!

Stop machine for positioning, measuring etc. of stock.

I. UNCRATING AND LUBRICATION

- a) After uncrating check thoroughly for transport damages. To place the saw in position, you proceed as shown on drawing, leave wooden support between vice clamps and saw head untied. Not until the saw does not need further transportation the supporting log and the retaining wire may be removed.



The machine bed must be levelled both in transverse and longitudinal direction and should be bolted rigidly to the level floor by anchor bolts or on shock absorption pads.

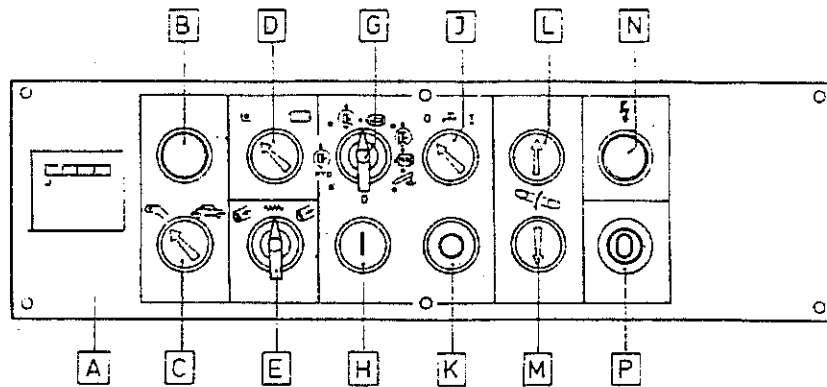
Clean saw from dust and anti-rust material. It might be necessary to soak the rust protection material with crude oil or turpentine for easier removal.

b) Initial lubricant and oil check

- 1) Gear: check on oil level.
- 2) Feeding gear: also check on oil level glass
- 3) Hydraulic system: for the test run a minimum amount of oil has been filled into the hydraulic oil tank. According to enclosed lubricant chart fill the hydraulic tank to mid of oil level glass.
- 4) Oil quantities:
 - Gear approx.
0,75ℓ=0,75 US. qt=1,3British pints
 - Feeding Gear approx.
0,6 ℓ=0,6 US. qt=1 British pint
 - Hydraulic Tank approx.
15 ℓ=4 US. gal.=3,3British gal.

Before putting the machine into operation, grease in conformity with lubricant chart (should the saw have been unused for a period of time, remove old grease from bearings as otherwise the bearings might get seized).

II. CONTROL PANEL





A : Electromagnetic predetermining counter, method of counting
: Addition
Operation: See separate instruction



B : Pilot lamp: Illuminates only with selector switch

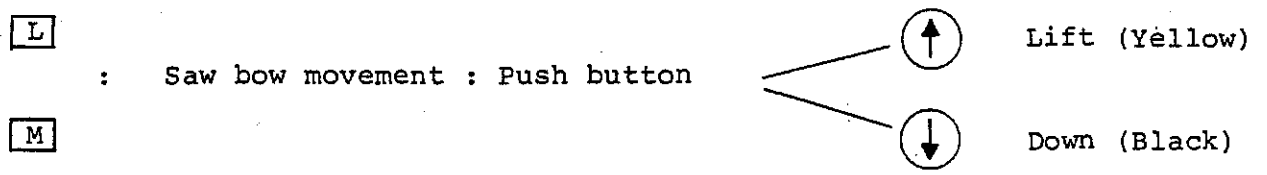
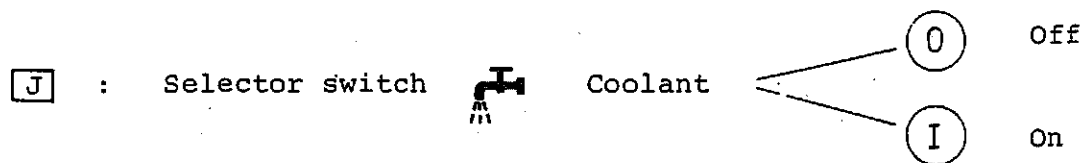
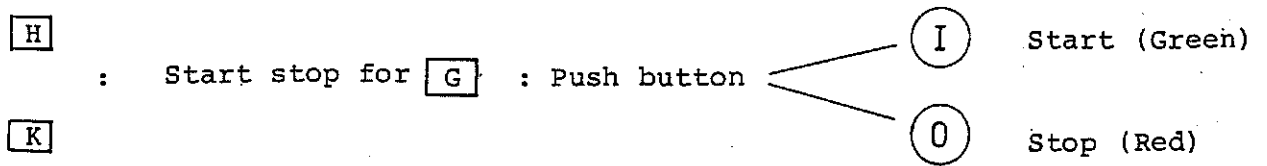
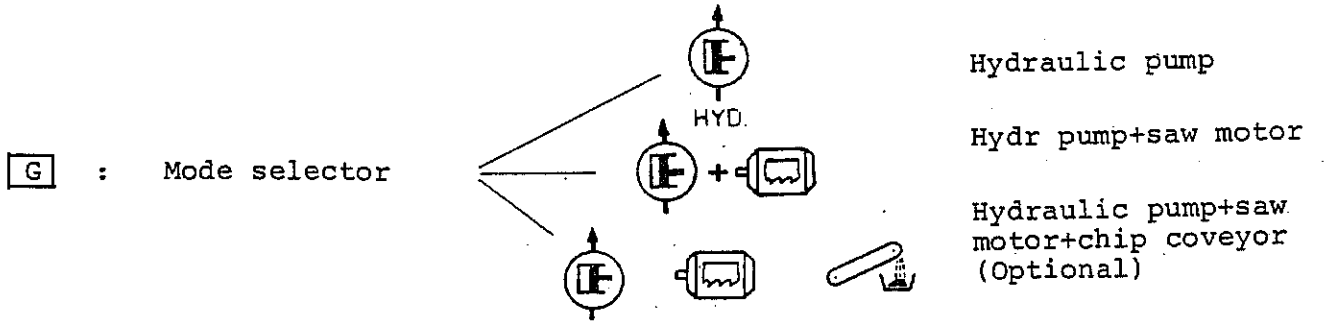
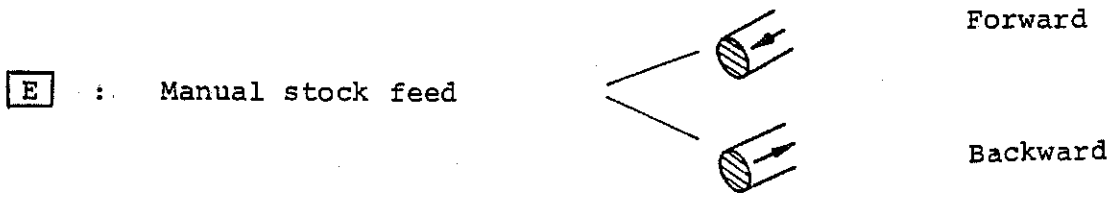
C in  position

C : Selector switch

-  Manual
-  Automatic

D : Selector switch

-  Band change
-  Automatic cycle





N : Pilot lamp: Illuminates only when main power on.

P : EMERGENCY STOP (Reset type)

III. INSTALLATION

1. Electrical Hook Up

- a) Loosen screws on top of door, flap down door to which the electrical controls are mounted Connect power to terminals R-S-T (L1,L2,L3) also a neutral terminal is provided.
- b) Set main switch to "On" position-this will be indicated by the pilot lamp on the control panel.
- c) Set selector "D" to "Band Change" position.
- d) To start the saw drive motor set selector switch "G" to  + 
-saw drive motor starts, then depress push button "H" to start motor.
- e) Lift hinged door of drive wheel and check that wheel is rotating in line with red arrow. Should the wheel turn anti-clockwise turn off power and change over two phases at terminals.
- f) For stopping saw drive motor depress push button "K".

2. Fitting of Saw Band (Band Width 25mm = 1" only)

- a) Set selector switch "G" to "HYD", the hydraulic pump motor only will be started.
- b) Turn feed valve to "O" position.
- c) Push button "L" for up-movement of saw bow, push button "M" and "K" to shut off hydraulic pump when saw bow has been lifted by one half approximately.
- d) Place saw band over wheels. It might be necessary to move back the idler wheel with toggle. Tension the saw band until it no longer slips of the wheels.
- e) Insert band between saw guide rollers. The eccentric bolts of both guides are pre adjusted to operate with 0,9mm (035") thick saw bands.
In case of wrong tooth face direction take off blade and twist band inside out.

New bands have to be retensioned frequently as they will stretch slightly at the beginning.

IV. OPERATING FEATURES

The COSEN AH-250 offers an automatic cycle, controlled by hydraulic, electric and mechanic devices.

A sensitive hydraulic system controls the lifting and lowering of the saw bow and includes an automatic feed control valve. This unit is activated by the back of the saw band itself and is designed to give maximum performance and life to the saw band. Its operation is simple and effective. It helps to prevent overloading of the saw teeth, eliminates clogging and ensures that each and every piece is cut accurately.

The push button control panel is mounted on the top of the saw bow and there is an extra control cabinet with the electrical controls mounted to a flap out door at the rear lower part of the machine. The AH-250 has each one motor for the saw drive, hydraulic pump and stock feeding.

1. Control Panel

All controls are located at the top of saw frame on the control panel.

A) Electric Impulse Counter

a) Preselection

Depress the reset push button and simultaneously depress the flap downward by its edge under the figure window to open the flap. Set the desired number of pieces to be cut by finger rotate the gears with each figure wheel. Close the flap by pulling its edge upward.

Note: Counter functions in both "manual" and "automatic" mode, and only with the flap closed.

b) Resetting

Depress reset push button of the counter. Since the counting operation functions with the lifting motion of the saw bow, it is important to carry out the preselection and resetting when the saw bow is at its lifted position.

The saw bow will rest at its lowest position and the motors will stop after the preselected number of pieces to be cut has been reached. To lift saw bow for further setting and cutting, first depress the reset push button of the counter and depress push button "H" to start the motors, then depress push button "L" to lift saw bow. Reset the counter when saw bow is at lifted position before further setting and cutting.

B) Selector Switch with Indicating Lamp

a) Semi-Automatic operation

It might be necessary to use the machine for single cuts without automatic feeding. Selector switch "C" must be set to "manual" position, the stock either be fed against the stop with manual stock feed selector "E" or adjusted to length by manually rotate the handwheel mounted coaxial with the feed motor.

The semi-automatic cycle only assures lifting of saw bow after each cut, down feed of saw bow must be activated by manually depress the push button "M". The saw bow down feed rate is controlled by the feed valve on the right guide arm. If one prefer to keep saw bow at lifting position, turn feed valve to "O" setting before lifting saw bow, then depress push button "M" after saw bow has reached the upper limit switch.

Note: Always depress push button "M" to release the lifting pressure in the hydraulic system after saw bow has reached the upper limit switch. When using selector switch "E" to feed the stock, be sure that the saw bow had touched the upper limit switch or the selector switch will not function when turn to "Forward" direction.

b) Automatic cycle

The automatic cycle is recommended starting with four or five equal cuts.

Set switch "C" to "Auto". The end limit switch on the stop bar triggers the down movement of the saw bow. After the cut has been completed, the lower end limit switch will start the lifting of the saw bow, having reached the upper position the upper end limit switch will start the feeding of the stock against the switch of the material stop. At the moment the stock touches against the stock feed end limit switch, the feeding motion will be stopped and the down movement of the saw bow begins. This cycle will be repeated after each cut.

During automatic operation the lamp "B" will indicate that the machine works with automatic cycle.

Proper feed rate of saw bow must be selected from the feed valve before operation.

2. SAFETY SWITCH stops machine should a band break

a. Function

Selector switch set to "AUTO CYCLE" = saw band must be tensioned to operate machine

All motors will be stopped automatically in case of band breakage.

b. Machine will not start

a) without saw band mounted and selector switch in

- "AUTO-CYCLE" position.
- b). should saw band not be correctly tensioned.
 - c) after band breakage
 - c. In case of band breakage
 - a) set selector switch to "BAND CHANGE" position
 - b) start hydraulic pump
 - c) press button for saw bow lift
 - d) replace saw band, tension correctly
 - e) set selector switch to "AUTO CYCLE"

Attention: The machine can be operated in "BAND CHANGE" position, however, the safety stop then is disengaged.

3. Coolant System

The lower part of the base serves as coolant tank. The cutting fluid is supplied to the saw guides and should be mixed in accordance with the recommendations of the supplier. It should not contain too much grease to avoid slipping of the saw blade on the wheel.

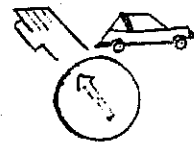
Never work with pure water only!

For cleaning of the tank take off discharge table and steel sheet cover.

Tank capacity approx. 55ℓ - approx. 15US gal = approx 12 British gal.

4. Material Stop and Stock Clamping Device

- a) Material stop loosen setscrews (located on the bottom of the bed) of the two stop bars, pull out bars until they are flush with the rear machine bed, fasten setscrews, and put stock between roller vice.
- b) Clamping device (roller vice): tension with hand wheel until the space between the cup springs is reduced by one half approximately, however, the stock diameter also influences the amount of tensioning. This is a matter of experience.
- c) Set selector switch "C" to "MANUAL".



With selector switch "E", jog stock to cut-off length required.





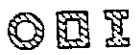

- d) Now push end limit switch onto the material, the pin of the end limit switch mechanism should touch the material at its upper utmost right hand side to ensure that the sawn off piece can fall down freely. Also be sure that

all clamping wheels and levers of the stop mechanism are clamped tightly.

- e) The guide arms or guides must never touch the stock but should be set as close as possible to the stock to be sawn. Be sure that the guide arms are clamped tightly to the dove-tailed guide rail with the help of the clamping grip.
- f) The upper end limit switch can be adjusted in accordance of stock's height. The adjustment of this switch should guaranty that the up-movement of the saw bow is stopped just above the material.

5. Hydraulic Valve for Regulation of Feeding Pressure and Feeding Speed

The knurled head screw of the autamatic feed regulating attachment is to be adjusted as follows (at temperature of approx. 17°C. = 63°F.)

0		Neutral position
1/2 - 1		Big diameter solids
1 - 2		Sold stock and thick-walled tubes
2 - 3		Thin-walled pipes and profiles.

Note: The adjusting screw must be adjusted accordingly to just touch the push pin after the setting of the regulating valve.

The valve offers the following advantages:

- a. The descending velocity of saw head as well as the feeding pressure is automatically adjusted to each material section.
- b. The saw blade is cutting under optimum conditions.
- c. An overloading of saw blade thus being eliminated, a longer tool life is to be expected.
- d. Due to this particular valve the operator is free from the decision correctly to choose the necessary descending velocity in each case.
- e. Cutting times are improved, as the blade will penetrate in the cut just as much as might be expected under best cutting conditions.

6. Wheel Cleaning Brush

The bursh is adjustable in height and spring loaded. It is self-driven by the saw band. If set too close to the saw band the brush will wear quickly. However, be sure that the brush cleans the saw teeth thoroughly.

V. MAINTENANCE

Daily:

- A) Remove chips from upper blade guard and between feeding rollers, clean movable parts of end limit switch and the space around the saw wheels.

Weekly:

- A) Saw guide rollers, saw guide inserts and wheel brush must be checked.

- 1. Guide rollers:

- Clean with a brush, defective guide rollers must be replaced immediately, also replace worn out thrust rollers. Adjust hydraulic regulating valve to position "O", then check easy up and down movement of bolt. For lubrication of this bolt use oil, do not take grease which may harden and create malfunction of this bolt.

- 2. Guide inserts:

- The carbide face of the inserts should always be in good order, it might be necessary to regrind the guide inserts or to replace them from time to time.

- 3. Blade cleaning brush:

- If set too close to the saw band, the brush will wear quickly. However be sure that the brush cleans the saw teeth thoroughly. Worn out brushes must be replaced immediately.

- B) Check amount of coolant liquid as there is a constant loss of coolant during productive cutting (protection sheets above coolant tank can be removed). For refilling be sure to mix coolant conforming to recommendation of the coolant supplier, do not fill in pure water only.

Monthly:

- A) Clean coolant tank, check and clean coolant suction filter
- B) Clean insides of pulleys, check V-belt
- C) On the feeding device check chain for correct tension. Take off cover unscrew the setscrew located on the front of the vice housing, then adjust the eccentric bolt with a pin for proper tensioning of the chain.
- D) Clean feeding rollers with crude oil.
- D) Clean the rims of the saw wheels carrying the saw band.

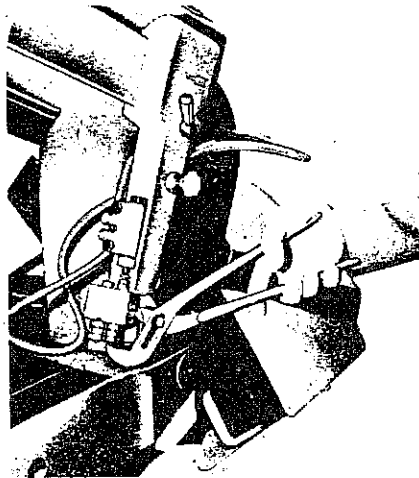
Miscellaneous

- A) Electrical system of the machine needs no maintenance.
- B) Should the machine be operated out of doors or in rooms without heating, do not forget to add an antifreezing solution to the coolant in winter and according to the instruction of the coolant supplier.

VI. FEED REGULATING VALVE FUNCTION TEST

The feed regulator valve serves for automatic adjustment of cutting pressure and feeding velocity of the saw bow according to the material section and within the valve position 1,2,3. In principle, cutting can be made on any of the settings. However, ensure the initial setting (especially when sawing irregular sections) of the feed rate is slow, otherwise the sudden fall of the saw frame will damage the teeth on the saw band. When cutting solid stock of large dimensions the working surface is greater, so the initial cutting pressure is distributed to a greater number of teeth and the valve comes into action immediately. It is therefore that this valve should have your special care for good function. Checking procedures are as follows:

- a. Lift saw bow and close feed valve.
- b. Now adjust feed regulating valve to position 0.
- c. With the help of pliers move bolt of blade guide against valve pin.
- d. Now open feed valve to allow saw bow to move downwards.



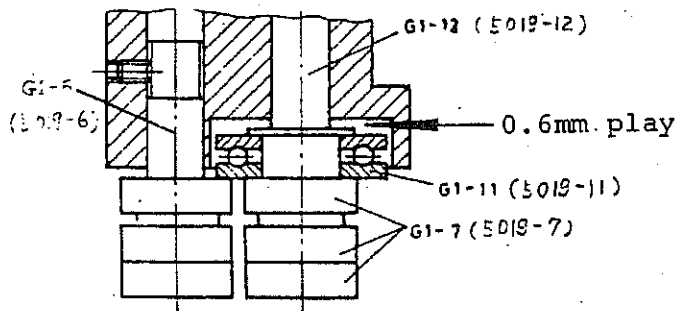
- e. The saw bow must remain in its position. When releasing the pressure on the valve pin the saw bow must start its down-movement and stop again when you repeat pressing bolt against pin.

VII. ADJUSTMENT OF SAW GUIDES (after exchange of guide parts):

- a. Place blade over wheels and tension it.
- b. Loosen guide inserts and pull apart.
- c. Loosen counter nut screw-in screw by several windings.
- d. After loosening of the setscrew, you can adjust the eccentric bolt 5019-6. Between the upper guide housing and the thrust roller 5019-11 there should be a play of min. 0,6mm (024") should the movable bolt 5019-12 be in its highest position. Furthermore it must be possible to move up and down the saw blade between the rollers easily. Clamp tight eccentric bolt G1-6.

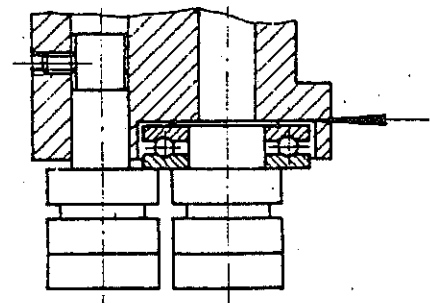
Saw Guides:

Correct Setting



The play between thrust race G1-11 and guide housing allows movable bolt G1-12 to travel upwards and to engage pressure pin on hydraulic valve

Incorrect Setting



No clearance between thrust race G1-11 and guide housing to allow movable bolt G1-12 to engage pressure pin in hydraulic valve

VIII. Some Words about the Bandsawing Blades

The COSEN cut-off saws are designed to apply high quality high speed steel saw bands. To utilize the sawing potential and productivity of high speed steel saw bands our machine must be of rugged design, have the right type of saw guides, have enough motor power and band speed, must be able to apply the necessary tension to the band. Your COSEN saw has all these features.

The saw band is guided through its cutting by roller guides, to take the flex out of the blade as it comes off the wheels and precision carbide insert guides hold the bands securely and guide accurately through the cut. In addition thrust rollers are provided. The saw tensioning device in conjunction with the strong hollow cast saw bow guarantees adequate band tension.

To make full use of good quality and high speed saw bands a strong motor is being required, hydraulic automatic regulation of cutting feed and pressure together with positive hydraulic downfeed.

Band life is influenced by several factors such as type of stock to be sawn, hardness, band speed, cutting pressure, type of coolant, correct saw pitch related to stock diameter, tooth shape and last not least by the ability of the saw operator.

High Speed Steel Saw Bands:

Recommended for cutting "tough to machine" materials, for economic production sawing, especially for use on automatic machines.

Saw Bands of Special Steel:

May be used for not so tough to machine materials and if a better cutting rate is required when cutting standard steels.

Carbon Steel Saw Bands:

Suitable for general use on easy to machine stock and for single cuts.

Some cutting rates (approx.):

	CS-Band	Special-Band	HSS-Band
Free cutting steel.	ab. 3-4 sq. inch ab. 20-25 cm ² /min	4-6 sq. inch 25-40 cm ² /min	10-16 sq. inch/min 70-100 cm ² /min
C45 (AISI C1040) (970EN4 3B)	2, 5-3 sq. inch 16-20 cm ² /min	3-4 sq. inch 20-25 cm ² /min	9,5-13 sq. inch/min 60-80 cm ² /min
V2A (AISI 302) High Chrom.-High Nickel	not to be recommended	1,2-2,5 sq. inch 8-15 cm ² /min	2,5-4 sq. inch/min 15-25 cm ² /min
V4A (AISI 316) High Chr-Ni with Molybdenum	not to be recommended	not to be recommended	1,3-1,8 sq. inch/min 8-12 cm ² /min

The approximate rates refer to cut-off saws with 2 HP saw drive motors and band speed up to 180 m/min (600 FPM) Figures shown must be reduced by 20-30% when using machine of less HP and max. band speed up to 60 m/min (200 fpm) only.

Tooth Forms:



Standard (precision)



Skip-a-tooth



CLAW-tooth

Standard:

This tooth design is most often used for general metal cutting, available with a saw pitch of 4-22 TPI, for cutting of solid stock and structurals, cutting of steel, cast iron, hard non-ferrous metals – smooth surface finish.

Skip tooth:

Designed for cutting soft sticky materials that have a tendency to clog. The teeth are spaced further apart and the gullet is deeper to give large chip-clearance. Suitable for sawing larger stock diameter – good surface finish.

Claw tooth:

For cutting of larger stock of ferrous and non-ferrous metals, for faster cutting – coarse surface finish.

Saw set:

Standard (Raker):

for general purpose metal cutting applications



Wave set:

recommended for cutting light sections in metals such as sheet, tubing and smaller solids, generally used on fine pitch blades



Alternative set:

the teeth are set alternatively right and left, this type of set is generally used to give faster cutting of soft steels, aluminium, etc.



Rule of the Thumb:

The thinner the stock, the finer the saw pitch




The thicker the stock, the coarser the saw pitch

The more difficult the stock, the finer the saw pitch




The softer the material, the coarser the saw pitch

At least three teeth always must be in contact with the material being cut.




Solid stock:

up to 25 mm	-	1"	8-10 TPI			
25-100 mm	-	1"-4"	6- 8 TPI			
100-250 mm	-	4-10"	3- 4 TPI			

Structurals:

up to 10 mm	-	3/8"	10- 8 TPI			
10-20 mm	-	3/8-3/4"	8-10 TPI			
above 20 mm	-	3/4"	6- 8 TPI			

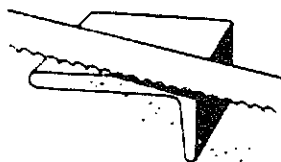
Solid:

up to 20 mm	-	3/4"	8-10 TPI			
20-80 mm	-	3/4-3.1/4"	2- 8 TPI			
above 80 mm	-	3.1/4"	4- 6 TPI			

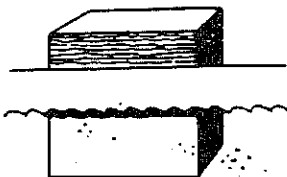
(per unit)

Sawing Practices:

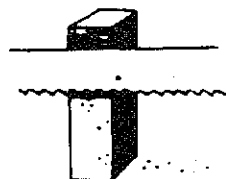
Correct



Several teeth contact work

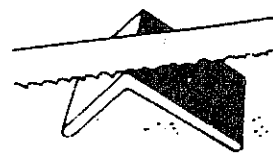


Coarse teeth clear chips freely

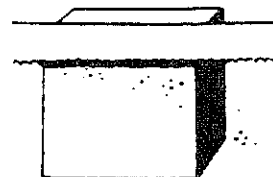


Three or more teeth on cutting wall

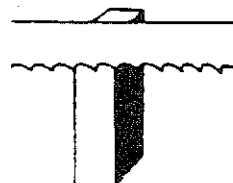
Incorrect



Teeth strike sharp edge



Teeth too fine for large solids



Coarse teeth rip on thin wall

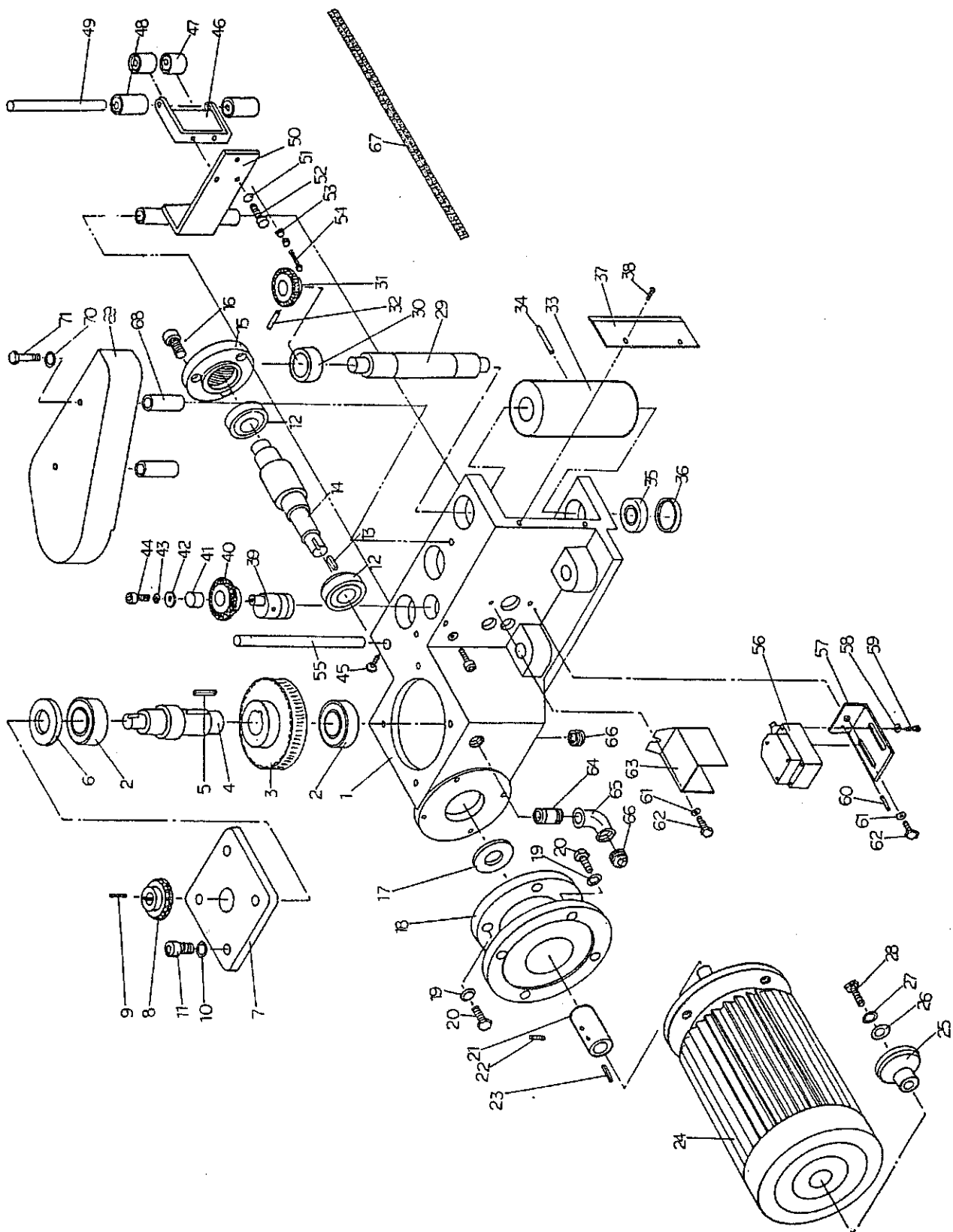
IX. TROUBLE SHOOTING (mechanic troubles)

1. Blade sliding down:
(1) (2) (3) (4) (5)
 2. Blade running hard on wheel flange (saw back gets defective or screaming noise)
(1) (3) (5)
 3. Blade swings sideways (vibrates)
(2) (6) (7) (9) (10) (11) (12) (1)
 4. Teeth stripping
(9) (13) (14) (15) (16) (17) (18) (19) (20)
(21)
 5. Saw slips on wheels
(1) (2) (17) (18) (22) (23) (27)
 6. Poor cutting rate
(8) (16) (18) (20) (23) (26) (29) (54) (61)
 7. Blade cuts out of true
 - a. Related to stock
(30) (31) (32) (33)
 - b. Cutting surface is slanted outwards or inwards
(10) (11) (17) (18) (21) (23) (34) (35)
 8. Premature dulling of teeth
(6) (17) (20) (36) (37) (38)
 9. Premature saw band breakage
(1) (4) (6) (17) (18) (34) (36) (39)
 10. Saw teeth are clogged
(15) (16) (17) (18) (41)
 11. Surface finish too rough
(10) (17) (18) (21) (34) (38)
 12. Unacceptable length tolerances on cut-off pieces:
(24) (30) (32) (43) (44) (42)
 13. Cutting rate drops
(23) (46) (2) (48)
 14. Machine chatters
(21) (48)
 15. Coolant pump does not provide coolant
(25)
 16. Hydraulic Troubles
 - 16/1 Teeth stripping
 - 16/2 Poor cutting rate
 - 16/3 Blade cuts out of true
 - 16/4 Premature dulling of blade
 - 16/5 Premature breaking of blade
 - 16/6 Surface finish too rough
 - 16/7 Machine chattering
(21)
 17. Slow raise of saw bow:
(50) (51) (61)
 18. Saw bow will not raise:
(50) (51) (53) (60) (61)
 19. No down movement of saw bow:
(54)
 20. Saw frame moves down too slowly:
(51) (55) (56)
 21. Saw frame moves down too fast:
(21) (51) (57)
- Electrical Troubles
22. Saw bow does not raise and does not go down:
(58) (59)
 23. Although machine is switched on it does not start:
(60)
 24. One or several motors will not start:
(62)

X. REMEDY:

- (1) Clean wheel flange with scraper.
- (2) Retension saw band.
- (3) Check back of saw band for straightness especially on weld joint.
- (4) Loosen guide inserts 5019-18 and adjust eccentric bolt 5019-6 after loosening of hex screws to allow smooth run of band between guide rollers 5019-7, retension hex screw and re-adjust guide inserts.
You must be able to move up and down saw band between guide rollers easily and furthermore band must not be clamped tight between guide inserts.
- (5) Check saw wheels for play.
- (6) Change to finer pitch of blade
- (7) Increase or reduce band speed.
- (8) Increase cutting pressure.
- (9) Stock not clamped correctly.
- (10) Check condition of side rollers 5019-7, thrust rollers 5019-11 and the guide inserts 5019-18.
- (11) Retension saw band.
- (12) Adjust both guides closer to stock or guides may be adjusted too close.
- (13) Change to finer pitch for thin profiles.
- (14) Change to coarser pitch for solid stock.
- (15) Check blade cleaning brush, replace if necessary.
- (16) Use coolant that avoids clogging of saw teeth (for instance CIMCOOL, ADDICUT).
- (17) Reduce cutting pressure.
- (18) Increase band speed.
- (19) Ensure that on initial setting of saw bow feed rate, especially on rectangular sections, the feed rate should be low at first position 1 of feed valve.
- (20) Saw band quality not suitable for stock to be cut.
- (21) Carry out regulating valve function test.
- (22) Saw band is struck in stock, lift saw bow and refeed.
- (23) Replace dull saw band.
- (24) Retension chain of feeding device.
- (25) Take out suction filter, fill in water with main motor running.
- (26) For sawing of mild and semi hard steel use saw band with coarser pitch.
- (27) Coolant too greasy.
- (28) Stop cock is not opened entirely.
- (29) In works, the cutting pressure has been adjusted to approx. 30kg. You can increase this down pressure by turning the knurled nut on top of feed regulating valve to left hand, however by doing so, you will reduce the sensitivity of the automatic regulation of cutting pressure.
- (30) The stock to be cut is not straight.
- (31) Check right angle setting of vice clamps in relation to saw band.
- (32) Check parallel position of stock to machine bed.
- (33) Machine bed must be in level both longitudinally and transversely.
- (34) Check TPI and tooth form.
- (35) Adjust guides closer to stock.
- (36) Reduce band speed and cutting pressure for new saw bands and for the first two or three cuts. This especially is true for new high speed steel saw bands.
- (37) Reduce band speed.
- (38) Increase coolant flow.
- (39) Should blade break at weld, the weld was defective or incorrect, replace band or reweld, use butt welder if possible.

- (40) Increase or reduce band tension.
- (41) Use coarser pitch, check tooth form.
- (42) Retension all handles, wheels, levers on material stop mechanism.
- (43) Adjust contact in end limit switch to allow earlier stopping of feeding device when cutting large diameter stock to avoid hard pushing of stock against stop lever.
- (44) Surface of stock is rough and irregular, not all owing a smooth saw feed. It might be possible that the end limit switch stops the feeding motion before the full cut-off length is reached. Re-adjust end limit switch on fine adjustment screw or on the contacts.
- (45) Check V-belt, clean or replace.
- (46) Check V belt tension.
- (48) Take off saw band, turn the drive wheel, there must be no play. Should there be no play:
 - a. Check the keys replace if necessary.
 - b. Check worm wheel, replace if necessary.
- (49) Loosen nut on piston of hydraulic cylinder, it must be possible to lift saw bow by hand easily. Should this be difficult, grease bearings of pivot shaft and bolts of piston and check piston for smooth up and down movement.
- (50) Replace piston in hydraulic cylinder.
- (51) Check all hydraulic lines and connections for tightness and sharp bends.
- (52) Check oil level in oil tank.
- (53) Loosen lower hydraulic line on feed valve. Should hydraulic oil not flow out, clean feed valve and stop cock.
- (54) Stop valve should be opened fully.
- (55) Between pressure pin of the valve and the adjusting screw of bolt of right saw guide, there should be a play of 0,4mm (1/64").
- (56) Non return valve of 4-way valve "C" should be cleaned or replaced.
- (57) Solenoids of 4-way valve are disconnected from power supply, magnetic contactors do not work, replace coils of magnetic contactors.
- (58) Replace solenoid of 4-way valve, be sure to have power income cut-off when replacing.
- (59) Knurled nut on hydraulic valve may be turned clockwise to increase down pressure which has been set in works to 30kg. Through increasing the cutting pressure the sensitivity of the automatic pressure regulation of course will be diminished.
- (60) Electric counter has shut off.
- (61) The hydraulic pump delivers a max, pressure of appr. 16 kg/cm² (230p.s.i.) The pressure can be adjusted on the maximum pressure valve B after taking off the cap and loosening of the counter nut. Should no pressure adjustment be possible with help of this valve, check cap seal in hydraulic pump, replace if necessary. The saw bow must lift swiftly.
- (62) The magnetic contactors have cut the power supply. Open door of switch box and push in reset buttons, check the fuses.



1. ROLLER FEED VICE

CHART 1 ROLLER FEED VICE

NO.	PART NO.	PART NAME	PART NAME IN CHINESE	PART SPEC.	QTY
1-1	ACA-1014	Feed roller housing	固定虎鉗		1
1-2	PP-14570	Bearing	軸承	6205CM	2
1-3	ACA-1037	Worm gear	蝸輪		1
1-4	ACA-1041	Worm gear shaft	蝸輪軸		1
1-5		Key	方鍵	7*7*15L	1
1-6	PP-51030	Oil seal	油封	25*40*8	1
1-7	ACA-1038	Gear box cover	蝸輪蓋		1
1-8	ACA-1030	Sprocket	主動鏈輪		1
1-9		Key	方鍵	6*6*15L	1
1-10		Lock washer	彈簧華司	5/16	4
1-11		Screw	外六角螺絲	5/16-18UNC*3/4	4
1-12	PP-14610	Bearing	軸承	4T-30204	2
1-13		Key	方鍵	5*5*15L	1
1-14	ACA-1039	Worm	蝸桿		1
1-15	ACA-1040	End cover	蝸桿蓋		1
1-16		Screw	內六角螺絲	3/8-16UNC*5/8	3
1-17	PP-51040	Oil seal	油封	20*47*6	1
1-18	ACA-1033A	Adapter	連接凸緣		1
1-19		Lock washer	彈簧華司	3/8	8
1-20		Screw	內六角螺絲	3/8-16UNC*20L	8
1-21	ACA-1034	Coupling	接軸套		1
1-22		Set screw	止付螺絲	M5*5L	1
1-23		Key	方鍵	5*5*15L	1
1-24	PP-31321	Motor	馬達	1/4HP	1
1-25	ACA-1035	Handwheel	微調手輪		1
1-26	ACA-1036	Bushing	微調手輪軸套		1
1-27		Lock washer	彈簧華司	5/16	1
1-28		Screw	內六角螺絲	5/16-18UNC*1 1/4	1
1-29	ACA-1016	Roller shaft	固定虎鉗滾輪軸		4
1-30	PP-14070	Bearing	軸承	HK-2820	3
1-31	ACA-1031	Sprocket	從動鏈輪		3
1-32		Pin	斜度銷	2*25L	3
1-33	ACA-1015	Roller , drive	固定虎鉗滾輪		3
1-34		Pin	彈簧銷	6*60L	3
1-35	PP-14251	Bearing	軸承	6003ZZ	3
1-36	ACA-1027	Washer	固定虎鉗墊圈		3
1-37	ACA-1017	Chip wiper	滾輪側蓋		1
1-38		Screw	平頭十字螺絲	3/16-24UNC*3/8	2
1-39	ACA-1026	Adjusting cam shaft	鏈輪調整桿		1
1-40	ACA-1032	Sprocket	調整鏈輪		1
1-41	PP-14020	Bearing	軸承	HK-1210	1
1-42		Washer	平面華司	1/4	1
1-43		Lock washer	彈簧華司	1/4	1
1-44		Screw	外六角螺絲	1/4-20UNC*3/4	1
1-45		Screw	外六角螺絲	5/16-18UNC*5/8	2
1-46	ACA-1020	Bracket	U型架		1

減速機內軸承 = 出力軸 30208x1, 30209x1, NU209x1
 入力軸 30207x2

AH-2600

CHART 1 ROLLER FEED VICE

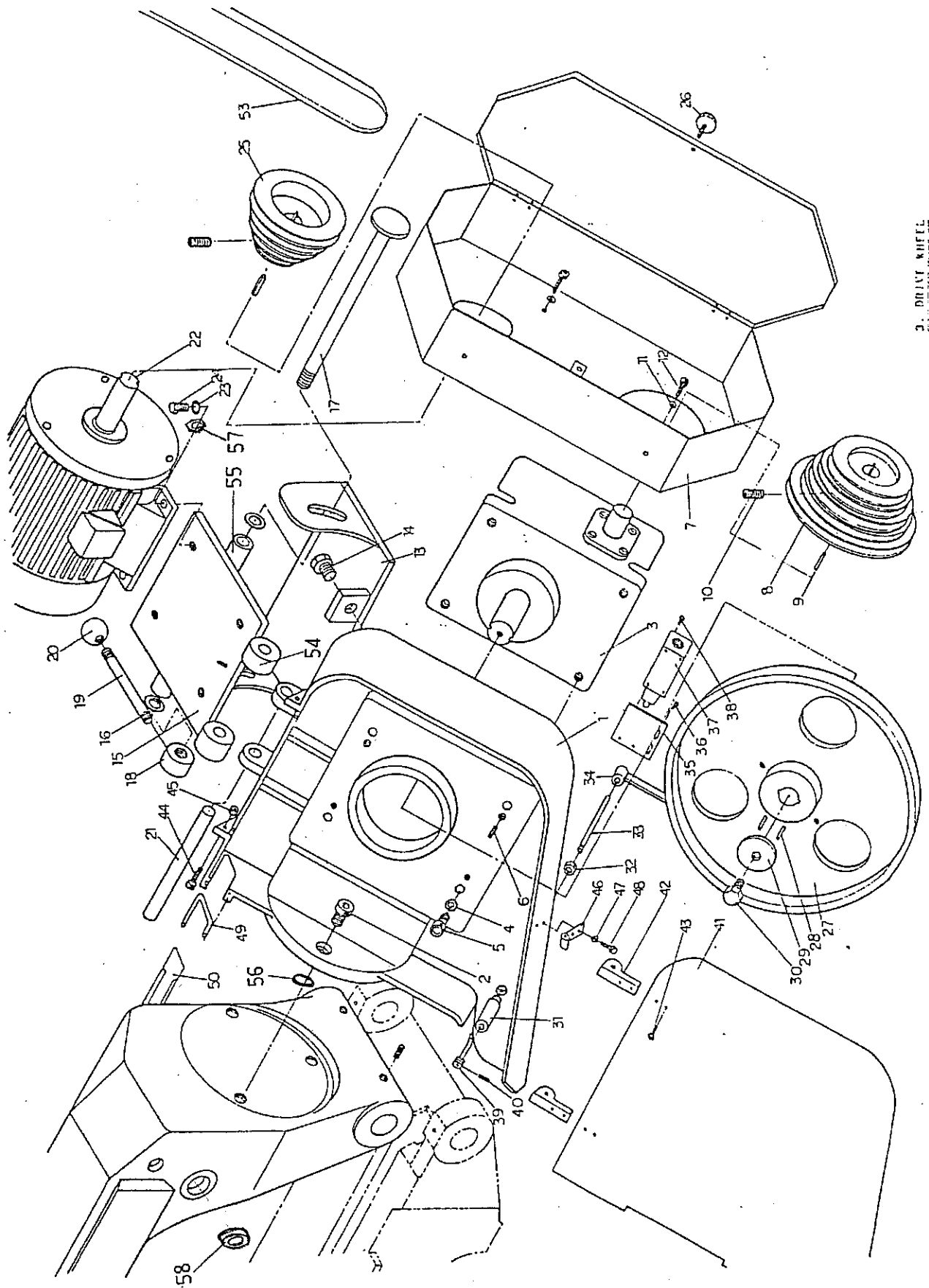
NO.	PART NO.	PART NAME		PART SPEC.	Q'TY
1-47	ACA-1021	Roller (A)	短滾輪		2
1-48	ACA-1022	Roller (B)	長滾輪		2
1-49	ACA-1023	Shaft	U 型架活動軸		1
1-50	ACA-1019	Rock arm	送料開關固定板		1
1-51		Lock washer	彈簧華司	1/4	2
1-52		Screw	內六角螺絲	1/4-20UNC*1/2	2
1-53		Nut	螺母	1/4-20UNC	2
1-54		Screw	外六角螺絲	1/4-20UNC*3/4	1
1-55	ACA-1018	Pivot	送料開關軸		1
1-56	PP-90020	Limit switch	限動開關	TZ-5101	1
1-57	ACA-1024	Bracket	送料電器座板		1
1-58		Lock washer	平面華司	M6	2
1-59		Screw	內六角螺絲	M6*10L	2
1-60				Deleted	
1-61		Lock washer	彈簧華司	1/4	2
1-62		Screw	內六角螺絲	1/4-20UNC*3/8	2
1-63	ACA-1025	Limit switch guard	送料電器遮板		1
1-64				Deleted	
1-65		Elbow joint	內外牙彎頭	PT 1/2	1
1-66		Cap	塞頭	PT 1/2	2
1-67	PP-19010	Chain	鏈條	RS40*2.5R	1
1-68	ACA-1029	Spacer	護蓋墊圈		2
1-69	ACA-1028	Chain guard	鏈輪護蓋		1
1-70		Lock washer	平面華司	5/16	2
1-71		Screw	外六角螺絲	5/16-18UNC*2"	2
1-72	ACA-1019A	Bushing	送料開關軸套		1
1-73		Screw	內六角螺絲	5/16*3/4	1
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CHART 2 BED

NO.	PART NO.	PART NAME	PART NAME IN CHINESE	PART SPEC.	Q'TY
2-1	ACA-1013	Bed	床面		1
2-2	ACA-00010	Roller feed vice			1
2-3		Lock washer	彈簧華司	5/8	2
2-4		Bolt	內六角螺絲	5/8-11UNC*50	2
2-5	ACA-1042	Movable vice casting	活動虎鉗本體		1
2-6	ACA-1044	Shaft	活動虎鉗滾輪軸		3
2-7	PP-14070	Needle bearing	軸承	HK-2820	3
2-8	ACA-1043	Roller	活動虎鉗滾輪		3
2-9	PP-14003	Bearing	軸承	6202ZZ	3
2-10		Retainer	扣環	R35	3
2-11		Washer	平面華司	1/4	3
2-12		Lock washer	彈簧華司	1/4	3
2-13		Screw	丸頭螺絲	1/4-20UNC*1/2	3
2-14		Set screw	止付螺絲	5/16-18UNC*3/8	3
2-15	ACA-1045	Nesting fixture	材料下壓固定塊		1
2-16	ACA-1046A,B	Pressing bar	長短材料下壓桿		1
2-17		Screw	內六角螺絲	5/16-18UNC*1 1/4	1
2-18		Screw	內六角螺絲	5/16-18UNC*1 1/2	1
2-19	ABB-050-220	Bolt	內六角螺絲	5/8-11UNC*2 1/4	2
2-20	ABB-050	Lock washer	彈簧華司	5/8	2
2-21	ACA-1048	Lead screw nut	導桿螺母		1
2-22	MJA-1013	Collar	導螺桿固定圈		2
2-23	ACA-1047	Vice lead screw	導螺桿		1
2-24	PP-14450	Needle bearing	軸承	K25*30*17	1
2-25	PP-14410	Thrust bearing	軸承	AS/MPP2542	1
2-26	ACA-1049	Disk spring	碟形彈簧	DIA-25	8
2-27		Spring pin	彈簧銷	6*30L	2
2-28	PP-52031	Handwheel	手輪	8"	1
2-29	PP-52030	Handle	手輪柄	3/8	1
2-30	PUC-005	Nipple	油嘴	1/16	1
2-31		Set screw	內六角螺絲	5/16-18UNC*1/2	1
2-32	ACA-1054	Depth bar (length bar)	定寸桿		2
2-33	ACA-1056	Adapter , right	大調整座		1
2-34	ACA-1059A	Fastening bolt	調整座固定螺絲		2
2-35	ACA-1058	Stud	調整手輪桿		1
2-36	PP-52050	Knob	調整手輪		1
2-37	ACA-1057	Adapter left	小調整座		1
2-38	ACA-1055	Cross slide	定寸開關座滑板		1
2-39		Screw	內六角螺絲	1/2W-12*1"	1
2-40	ACA-1067	Pivot bolt	開關板軸		1
2-41	ACA-1062	Rocker	定寸開關擋板		1
2-42	ACA-1060	Carriage	定寸開關滑座		1
2-43	ACA-1065	Cover	定寸開關護蓋		1
2-44		Screw	丸頭螺絲	3/16-24UNC*3/8	2
2-45		Screw	內六角螺絲	1/4-16UNC*1 3/4	1
2-46	ACA-1063	Spring	定寸擋板彈簧		1

SGU-1002 MAIN SHAFT AND SUB SHAFT ASS'Y

NO.	PART NO.	PART NAME	PART NAME IN CHINESE	PART SPEC.	Q'TY
2-47		Nut	螺帽	7/16-20UNF	1
2-48	ACA-1061	Micro-adjust bolt	定寸調整桿		1
2-49	PP-53040	Fastening bolt	定寸滑座固定螺絲		1
2-50	PP-90020	Limit switch	限動開關	TZ-5101	2
2-51		Screw	丸頭螺絲	3/16-24UNC* 1/2	4 <i>1/2</i>
2-52	ACA-1066	Cover	定寸開關遮蓋		1
2-53		Screw	丸頭螺絲	3/16-24UNC* 1/2	4
2-54		Nut	螺帽	7/16-14UNC	4
2-55		Screw	外六角螺絲	7/16-14UNC*1 1/4	2
2-56		Bolt	外六角螺絲	1/2W-13*3/4	3
2-57				Deleted	
2-58	ACA-1051	Pivot	開關軸		1
2-59	PP-13228	Needle bearing	乾式軸承	3520	2
2-60	ACA-2001	Saw bow	弓鋸頭		1
2-61		Set screw	內六角螺絲	3/8-16UNC*5/8	2
2-62	ACA-1052	Balancing spring	回程彈簧		1
2-63	ACA-1053	Limitator	彈簧抵擋板		1
2-64		Washer	彈簧華司	1/2	1
2-65		Bolt	外六角螺絲	1/2W-13*1"	1
2-66		Bolt	外六角螺絲	1/2W-13*2"	1
2-67				Deleted	
2-68	ACA-2073	Bracket	下降控制器座板		1
2-69		Screw	內六角螺絲	1/4-20UNC*3/8	2
2-70	ACA-2074	Screw	擋板螺絲		1
2-71	<i>MTA-301</i>	Adjusting bolt	調整螺絲	5/8*1 1/2	2
2-72		Screw	外六角螺絲	3/8*2"	4
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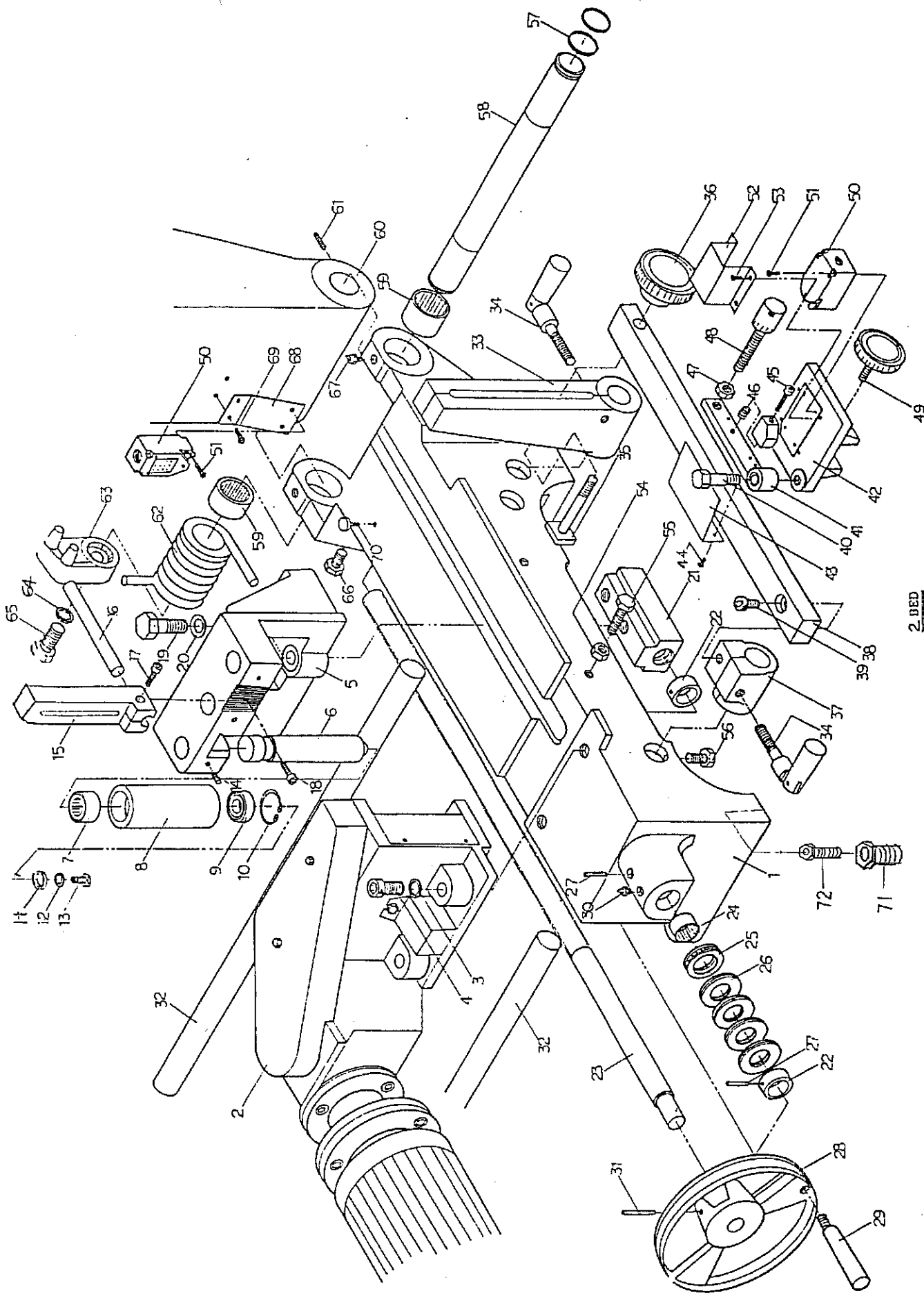
3. DRIVE WHEEL

CHART 3 DRIVE WHEEL

NO.	PART NO.	PART NAME	PART NAME IN CHINESE	PART SPEC.	Q'TY
3-1	ACA-2031	Drive wheel housing	下輪箱蓋		1
3-2		Bolt	內六角螺絲		3
3-3	PP-16041	Gear box	減速機	1/2W-13*2"	1
3-4		Lock washer	彈簧華司		4
3-5		Bolt	內六角螺絲	1/2	4
3-6		Set screw	止付螺絲	1/2W-13*1 1/4	4
3-7	ACA-2038	Belt guard	普利護蓋	3/8-16UNC*3/4	4
3-8	ACA-2036	Idler pulley	減速機普利		1
3-9		Key	方鍵		1
3-10		Set screw	止付螺絲	7*8*20L	2
3-11		Washer	彈簧華司	5/16-18UNC*3/4	2
3-12		Screw	外六角螺絲	1/4	2
3-13	ACA-2040A	Motor mounting bracket	馬達調整座	1/4-20UNC*5/8	2
3-14		Bolt	外六角螺絲		1
3-15	ACA-2039A	Motor mounting plate	馬達底板	1/2W-13*1 1/4	2
3-16		Washer	平面華司		1
3-17	ACA-2042A	Stud	鎖緊栓	5/8	2
3-18	MJA-2047	Nut	固定螺母		1
3-19	MJA-2048 ₂₀₄₆	Lever	固定把手		1
3-20	PP-52040	Knob	塑膠球		1
3-21	ACA-2041	Pivot	馬達座板梢	3/8	1
3-22	PP-31041	Motor	馬達		1
3-23		Lock washer	彈簧華司	2HP	1
3-24		Bolt	外六角螺絲	3/8	4
3-25	ACA-2037	Motor pulley	馬達普利	3/8-16UNC*1 1/4	4
3-26	PP-53020	Knob	梅花螺絲		1
3-27	ACA-2034	Drive wheel	下輪	1/4*1/2	1
3-28		Key	方鍵		1
3-29	ACA-2032	Washer	下輪固定圈	8*10*40L	2
3-30		Bolt	外六角螺絲		1
3-31	ACA-2045	Bushing	接觸板軸套	1/2W-13*1"	1
3-32		Nut	螺母		1
3-33	ACA-2046	Pivot	接觸板軸	5/8-11UNC	1
3-34	ACA-2044	Rock arm (A)	開關接觸板		1
3-35	ACA-2047	Bracket	開關固定板		1
3-36		Screw	內六角螺絲		1
3-37	PP-90020	Limit switch	限動開關	1/4-20UNC*3/8	2
3-38		Screw	丸頭螺絲	TZ5101	1
3-39	ACA-2043	Rock arm (B)	鋸片接觸板	3/16-24UNC*1 1/4	2
3-40		Set screw	止付螺絲		1
3-41	ACA-2035	Wheel cover	下輪箱蓋	1/4-20UNC*1/4	2
3-42	ACA-2014	Hinge	蓋梢座		1
3-43		Screw	內六角螺絲		2
3-44		Screw	內六角螺絲	1/4-20UNC*3/8	4
3-45		Nut	螺母	5/16-18UNC*1 1/2	2
3-46	ACA-2015	Lock plate	輪蓋扣	5/16-18UNC	2
					1

CHART 3 DRIVE WHEEL

NO.	PART NO.	PART NAME	PART NAME IN CHINESE	PART SPEC.	Q'TY
3-47		Washer	彈簧華司	1/4	2
3-48		Screw	內六角螺絲	1/4-20UNC*10L	2
3-49		Rubber packing			2
3-50	ACA-2048	Rear blade guard	長鋸片護蓋		1
3-51				Deleted	
3-52				Deleted	
3-53	PP-56160	V-belt	皮帶	A47	1
3-54	ACA-2039-2	Bracket	馬達底板耳		2
3-55	ACA-2039-1	Tube	馬達底座鐵管		1
3-56		Nut	螺母	1/2*13	3
3-57		Nut	螺母	3/8	4
3-58	PP-13195	Bushing	乾式軸承	3020	2
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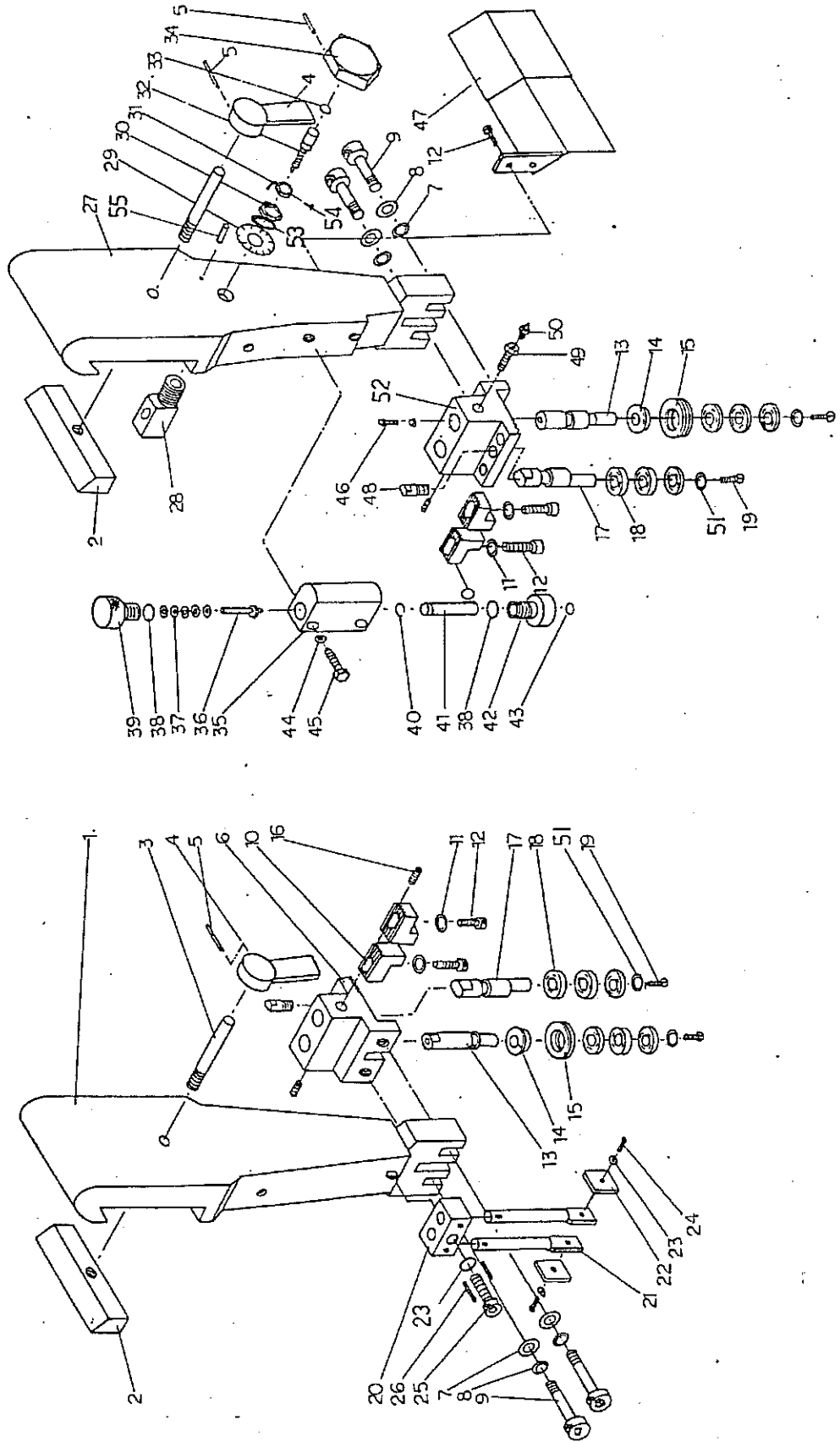
2. BED

CHART 4 IDLER WHEEL AND SAW BOW

NO.	PART NO.	PART NAME	PART NAME IN CHINESE	PART SPEC.	Q'TY	
4-1	ACA-2018	Idler wheel shaft	上輪軸		1	
4-2	PP-14130	Bearing	軸承	6205Z	2	
4-3	ACA-2019	Bushing	上輪軸承墊圈		14	
4-4	ACA-2021	Idler wheel	上輪		1	
4-5	ACA-2020	Washer	上輪墊片		1	
4-6				Deleted		
4-7		Screw	內六角螺絲	5/16-18UNC*1/2	1	
4-8		Nipple	油嘴	1/16	1	
4-9	ACA-2012	Idler wheel housing	上輪箱		1	
4-10		Screw	內六角螺絲	5/16-18UNC*5/8	1	
4-11	ACA-2022	Adjusting bolt	上輪調整螺絲	5/8-11UNC*1 3/4	1	
4-12		Screw	外六角螺絲	3/8-16UNC*2"	1	
4-13		Screw	內六角螺絲	5/16-18UNC*1 1/2	2	
4-14		Nut	螺母	5/16-18UNC	2	
4-15	ACA-2029	Bracket	大橡皮夾片		1	
4-16		Screw	內六角螺絲	1/4-20UNC*3/8	1	
4-17	PP-57001	Rubber plate	耐油橡皮		1	
4-18		Screw	內六角螺絲	1/4-20UNC*5/8	2	
4-19		Nut	螺母	1/4-20UNC	4	
4-20	ACA-2015	Lock plate	輪箱扣		2	
4-21		Washer	彈簧華司	1/4	2	
4-22		Screw	內六角螺絲	1/4-20UNC*3/8	2	
4-23	ACA-2013	Idler wheel cover	上輪箱蓋		1	
4-24	ACA-2014	Hinge	蓋梢座		2	
4-25		Screw	內六角螺絲	1/4-20UNC*3/8	4	
4-26	POA-12-125	Nut	螺母	GM12x1.25	1/2W-13 (裝)	1
4-27	ACA-2028	Spring	鋼刷彈簧		1	
4-28	ACA-2027	Stud	鋼刷調整桿		1	
4-29	PRA-3-16	Pin	彈簧梢	3*16L	2	
4-30	ACA-2026	Adapter	鋼刷管座		1	
4-31	ACA-2024	Bushing	鋼刷軸套		1	
4-32	PP-14010	Bearing	軸承	HK0810	2	
4-33	ACA-2023	Brush shaft	鋼刷軸		1	
4-34	POA-8-125	Nut	螺母	GM8x1.25 (裝)	5/16-18UNC	1
4-35	PP-58002	Wire brush	鋼刷		1	
4-36	ACA-2025	Nut	圓形螺母	5/16-18UNC	1	
4-37	PAA-6-6	Set screw	止付螺絲	M6x6	1/4-20UNC*1/4	1
4-38	PBA-6-25	Screw	內六角螺絲	M6x25	1/4-20UNC*1"	1
4-39	ACA-2005	Adjusting slide	上輪滑板		1	
4-40		Rivet	卯釘	6*30L	4	
4-41	ACA-2010	Spring	曲板彈簧		2	
4-42	ACA-2011	Pivot stud	曲板固定螺絲	3/4-11UNC*5"	1	
4-43	ACA-2009	Bushing	曲板軸套		1	
4-44	ACA-2003	Rock ram	傳動曲板		1	
4-45		Bushing		Deleted		
4-46	ACA-2008	Cover	曲板蓋		1	

CHART 4 IDLER WHEEL AND SAW BOW

NO.	PART NO.	PART NAME	PART NAME IN CHINESE	PART SPEC.	Q'TY
4-47		Screw	丸頭螺絲		
4-48	ACA-2016	Wheel cover rest	上輪蓋擋板	3/16-24UNC*3/8	4
4-49		Rivet	卯釘		1
4-50				3*10L	2
4-51		Screw	內六角螺絲	Deleted	
4-52	ACA-2006	Cover	滑板蓋	1/4-20UNC*3/8	2
4-53					1
4-54				Deleted	
4-55		Blade tensioning stud		Deleted	
4-56	ACA-20040	Blade tensioning lever	上輪調整把手		1
4-57		Pin	彈簧檔		
4-58				Deleted	
4-59		Screw	內六角螺絲	5/16*1 1/4	1
4-60	ACA-2030	Bracket	小橡皮夾片		1
4-61	ACA-2017	Coupling plate	上輪蓋接板		1
4-62		Screw	丸頭螺絲	1/4*3/4	2
4-63		Lock washer	扣環	R52	1
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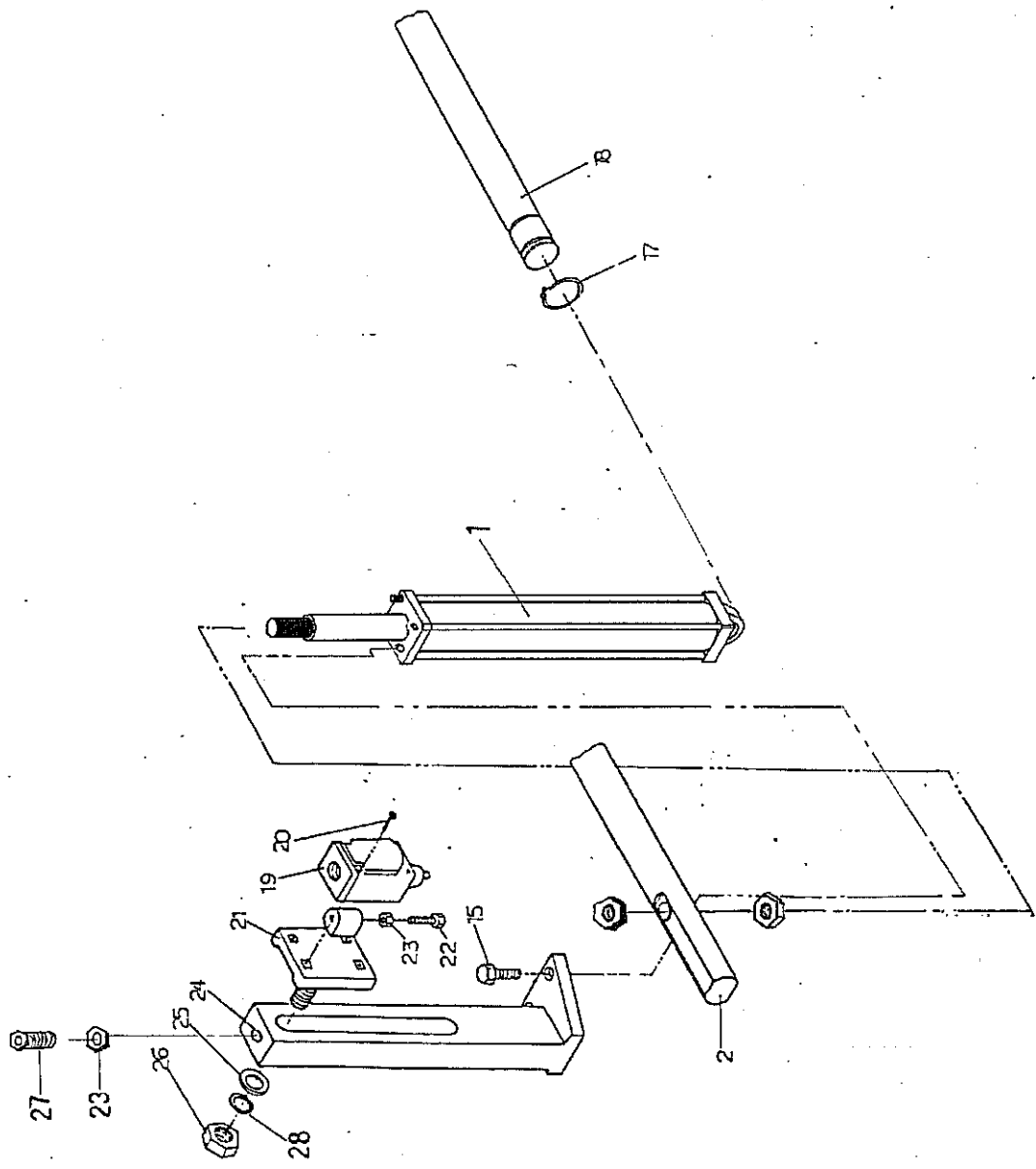
5. BLADE GUIDE ARMS

CHART 5 BLADE GUIDE ARMS

NO.	PART NO.	PART NAME	PART NAME IN CHINESE	PART SPEC.	Q'TY
5-1	ACA-2055	Guide arm , left	左鋸臂		1
5-2	ACA-2059	Clamping block	鋸臂固定塊		2
5-3	ACA-2058	Bolt	鋸臂固定螺栓		2
5-4	ACA-2028A	Lever (244-078)	鋸臂固定把手		2
5-5	5	Pin	彈簧銷	4*20L	2
5-6	ACA-2065	Guide seat ,left	左導輪座		1
5-7	PPB-020	Washer	平面華司	5/16 1/4	4
5-8		Lock washer	彈簧華司	1/2	4
5-9		Screw	內六角螺絲	1/2-20UNC*1 1/2	4
5-10	MAB-6006	Tungsten carbide blade guide	鋸片固定塊		4
5-11		Washer	彈簧華司	1/4	8
5-12		Screw	內六角螺絲	1/4-20UNC*1"	4
5-13	ACA-2068	Cam shaft (A)	導輪軸		2
5-14	ACA-2069	Bushing	導輪軸套		2
5-15	PP-14812	Guide bearing , thrust	軸承	51103	2
5-16		Set screw	止付螺絲	1/4-20UNC*1/2	3
5-17	ACA-2067	Cam shaft (B)	偏心導輪軸		2
5-18	PP-14211	Guide bearing	軸承	608VV	12
5-19		Screw	丸頭螺絲	3/16-24UNC*3/8	4
5-20	ACA-2011	Chip wiper seat	去屑座		1
5-21	ACA-2012	Adjusting rod	去屑桿		2
5-22	ACA-2090	Chip wiper	刮屑片		2
5-23		Washer	彈簧華司	1/4	3
5-24		Screw	丸頭螺絲	1/4-20UNC*3/8	2
5-25		Screw	內六角螺絲	1/4-20UNC*1 1/4	1
5-26		Set screw	止付螺絲	1/4-20UNC*1/4	2
5-27	ACA-2056	Guide arm , right	右鋸臂		1
5-28	ACA-2063-1	Feed rate valve block	流量閥本體		1
5-29	PP-61006	Feed rate gauge dial	流量閥刻度表		1
5-30	MAJ-4010	Nut	螺帽	M16	1
5-31	MAJ-4007	Pointer	指針及座		1
5-32	ACA-2063-2	Flow regulator	流量調整桿		1
5-33	PP-59010	O-ring	O型環	P5	1
5-34	PP-52123	Feed rate adjusting	旋鈕		1
5-35	ACA-2064-1	Auto feed rate regulating valve block	壓力閥本體		1
5-36	ACA-2064-3	Flow regulator	彈簧軸		1
5-37	ACA-2064-6	Disk spring	蝶形彈簧	5.2	12
5-38	PP-59030	O-ring	O型環	P9	2
5-39	ACA-2064-2	Adjusting knob (A)	壓力閥調整無孔螺絲		1
5-40	PTK-8	Retainer	扣環	E8	1
5-41	ACA-2064-5	Sensing screw	活動軸		1
5-42	ACA-2064-4	Adjusting knob (B)	壓力閥調整有孔螺絲		1
5-43	PP-59020	O-ring	O型環	P8	1
5-44	PPB-025	Lock washer	彈簧華司	5/16	2
5-45	PPB-025-120	Screw	外六角螺絲	5/16-18UNC*1 1/4	2
5-46		Adjusting screw	外六角螺絲	1/4-28UNF*3/4	1

CHART 5 BLADE GUIDE ARMS

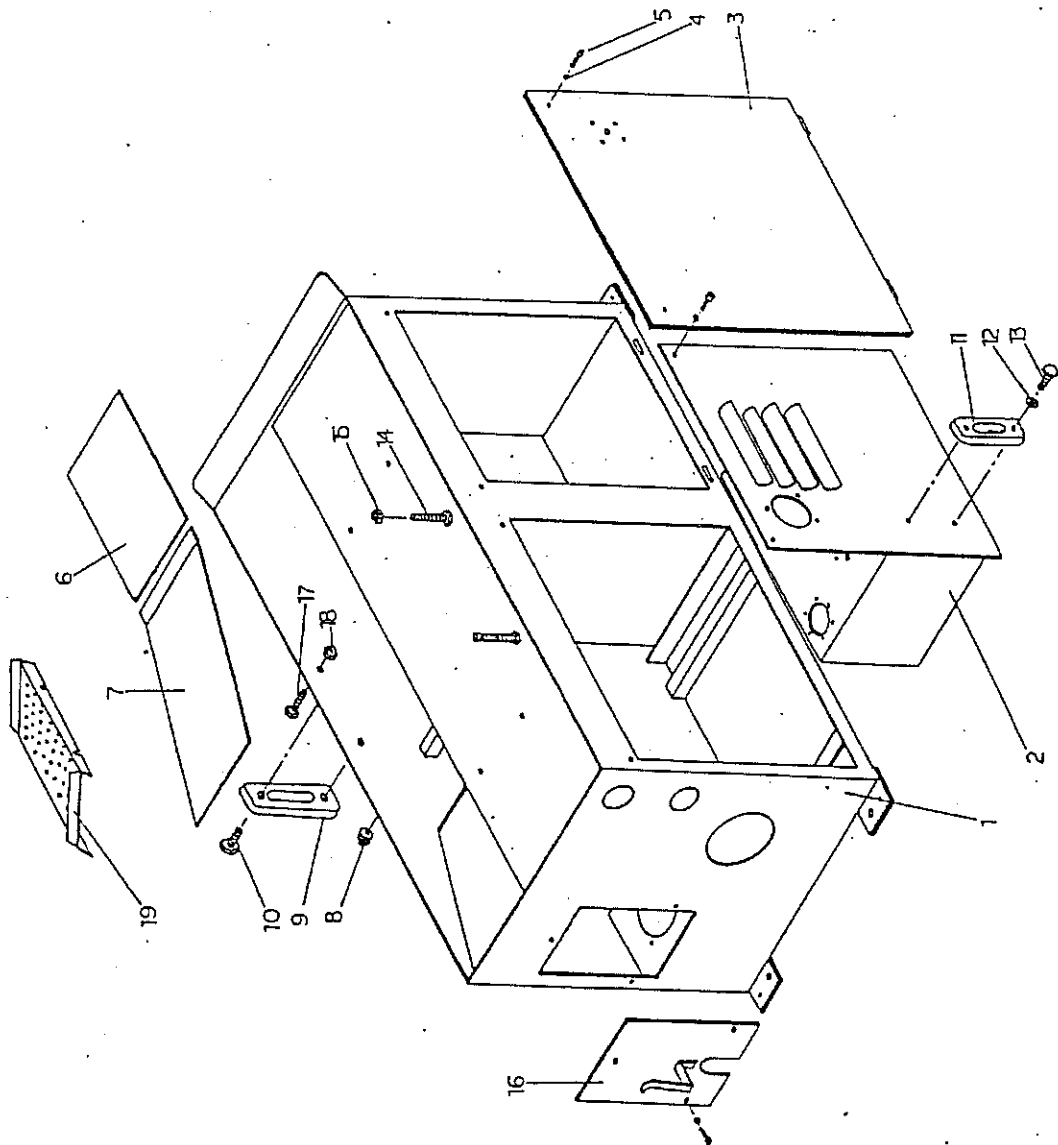
NO.	PART NO.	PART NAME	PART NAME IN CHINESE	PART SPEC.	Q'TY
5-47	ACA-2049	Blade guard	短鋸片護蓋		1
5-48	MAB-6014	Coolant nozzle	固定塊水管接頭		2
5-49	ACA-2070	Screw	導輪軸固定螺絲		1
5-50		Nipple	油嘴	1/16	1
5-51		Spring washer	彈簧華司	3/16	4
5-52	ACA-2066	Guide seat , right	右導輪座		1
5-53		Washer	平面華司	M16	1
5-54		Screw	丸頭螺絲	3/16*3/8	1
5-55	MAJ-4008	Pointer rod	指針擋桿		1
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6. HYDRAULIC CYLINDER

CHART 6 HYDRAULIC CYLINDER

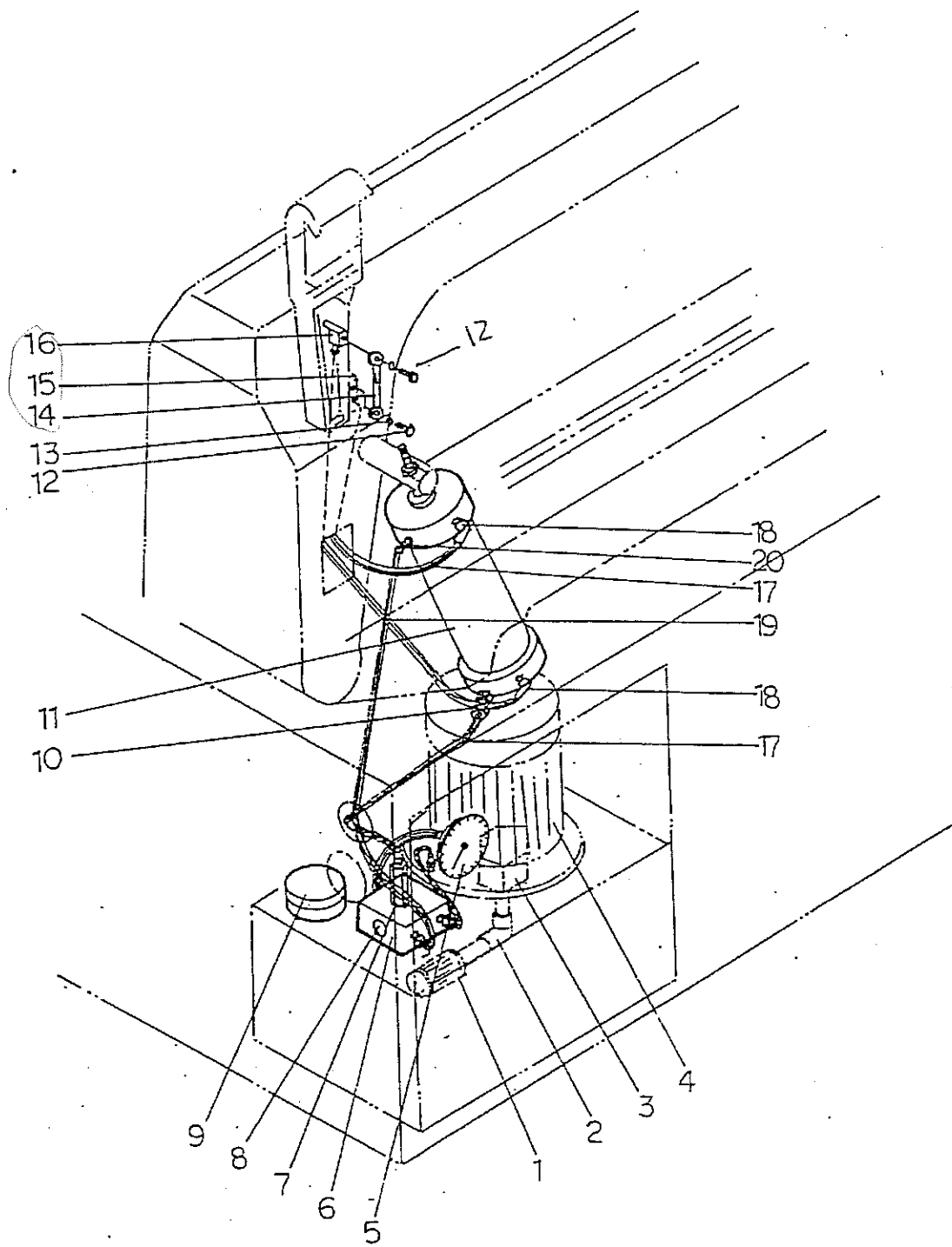
NO.	PART NO.	PART NAME	PART NAME IN CHINESE	PART SPEC.	Q'TY
6-1	ACA-1072	Cylinder	油壓缸		1
6-2	ACA-2054	Pivot upper	上昇軸桿		1
6-3				DELETED	
6-4				DELETED	
6-5				DELETED	
6-6				DELETED	
6-7				DELETED	
6-8				DELETED	
6-9				DELETED	
6-10				DELETED	
6-11				DELETED	
6-12				DELETED	
6-13				DELETED	
6-14				DELETED	
6-15				DELETED	
6-16				Deleted	
6-17		Retainer	扣環	S30	2
6-18	ACA-1050	Pivot , bottom	油壓缸活動軸		1
6-19	PP-90020	Limit switch	限動開關	TZ5101	1
6-20		Screw	丸頭螺絲	3/16-24UNC*1 1/4	4
6-21	ACA-2052	Carriage	限動開關滑座		1
6-22		Screw	外六角螺絲	5/16-18UNC*1"	1
6-23		Nut	螺母	5/16-18UNC	2
6-24	ACA-2051	Height setting slide	限動開關滑板		1
6-25		Washer	平面華司	5/8	1
6-26	ACA-2053	Nut	滑座固定螺帽	5/8-11UNC	1
6-27		Screw	外六角螺絲	5/16*2 1/2	1
6-28		Washer	彈簧華司	5/8	1
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7. BASE ASSEMBLY

CHART 7 BASE ASSEMBLY

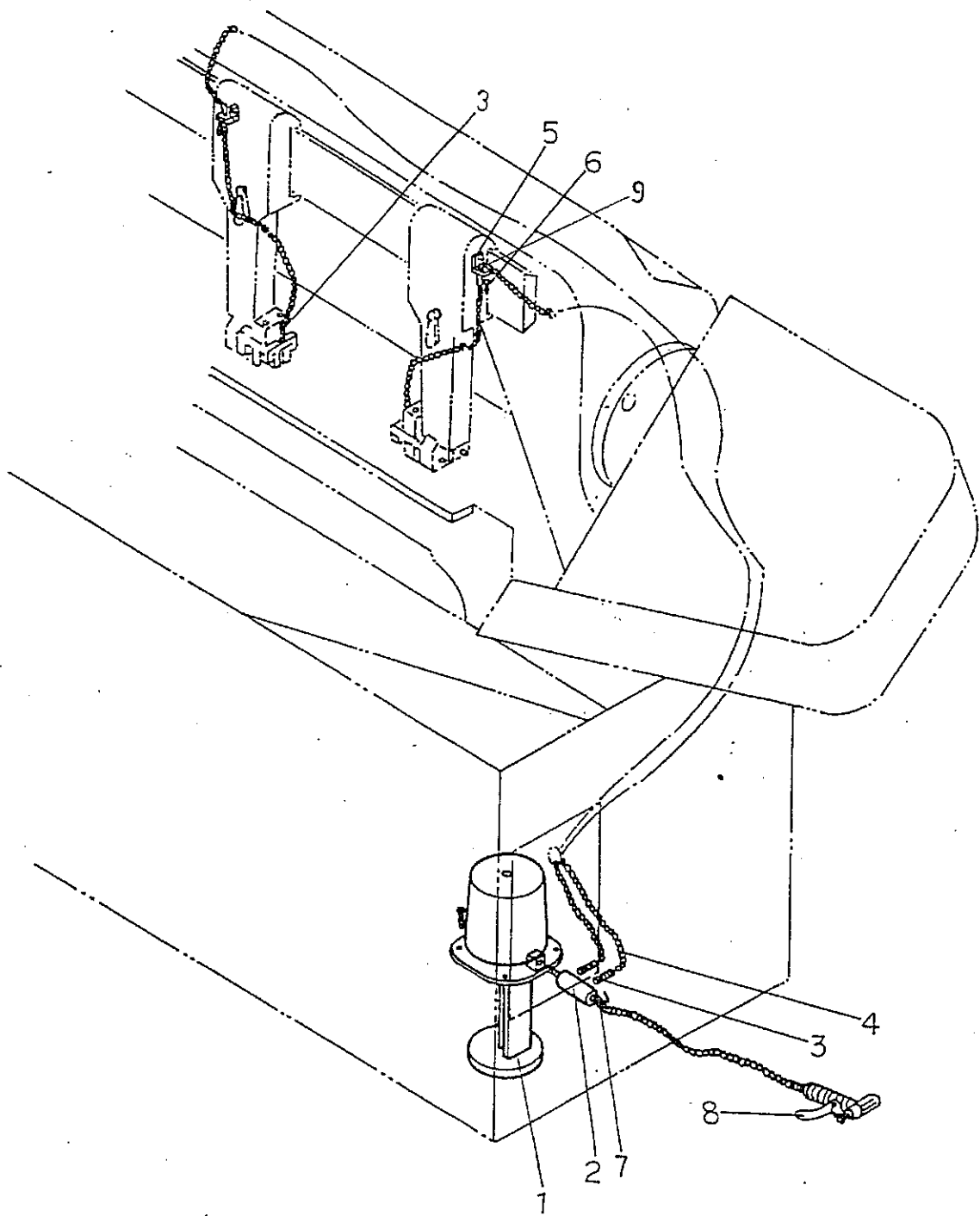
NO.	PART NO.	PART NAME	PART NAME IN CHINESE	PART SPEC.	Q'TY
7-1	ACA-1001	Base	底座		1
7-2	ACA-1007	Hydraulic oil tank	油壓箱		1
7-3		Electric cabinet door	電器門		1
7-4		Washer	彈簧華司	1/4	9
7-5		Screw	外六角螺絲	1/4-20UNC*1"	9
7-6		Filter plate (A)	集水斜板		1
7-7		Filter plate (B)	集水斜板		1
7-8		Coolant drain plug	塞頭	PT 1/2	1
7-9	PP-21040	Coolant level gauge	油面計	7"	1
7-10		Bolt		1/2W-12*1"	2
7-11	PP-21030	Oil level gauge	油面計	3"	1
7-12		Washer			2
7-13		Screw		3/8-16UNC*3/4	2
7-14		Bolt	外六角螺絲	5/8-11UNC*4"	2
7-15		Nut	螺母	5/8-11UNC	4
7-16	ACA-1003	Hose hanger	泵浦邊蓋		1
7-17		Screw	外六角螺絲	3/8-16UNC*1 1/4	2
7-18		Nut	螺母	3/8-16UNC	2
7-19	ACA-1068	Off-cut extracting plate	鋸料斜板		1
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8. HYDRAULIC SYSTEM

CHART 8 HYDRAULIC SYSTEM

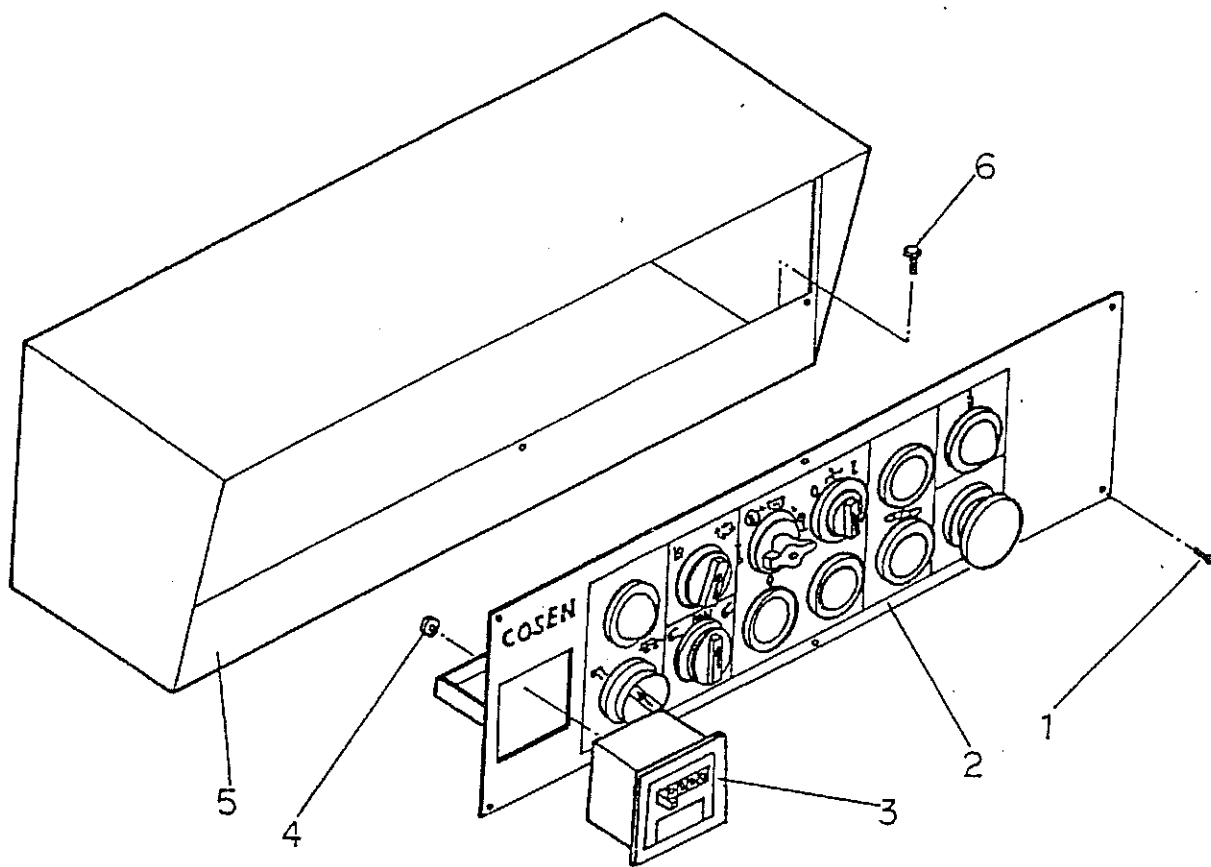
NO.	PART NO.	PART NAME	PART NAME IN CHINESE	PART SPEC.	Q'TY
8-1	PP-43330	Filter	濾油網		1
8-2		Elbow	內外牙彎頭	PT 1/2	1
8-3	PP-32202	Oil pump	油壓泵浦	RSP-205A	1
8-4	PP-31311	Motor	油壓馬達	1/4HP-4P	1
8-5	PP-43310	Pressure gauge	壓力表	50KG	1
8-6	ACA-1008	Oil distributing block	油路板		1
8-7	PP-43110	Check valve	止回閥	3/8"	1
8-8	ACA-10100	Pressure adjustor	洩壓閥整組		1
8-9	PP-43320	Oil inlet	注油器		1
8-10	PP-43601	Solenoid valce	電磁閥		1
8-11				Deleted	
8-12	ACA-2064-7	Special bolt	油路固定螺絲 (油管接頭)		2
8-13	ACA-2064-8,9	Spring washer	銅墊圈		2
8-14	PP-20400	Special oil tube	油管	1/4*165L	1
8-15	調壓閥本體接頭不亮			Deleted	
8-16	洩壓閥	" "		Deleted	
8-17		Vinyl hose	油管	1/4"	2
8-18		Elbow	彎接頭	1/4"	2
8-19		Vinyl hose	油管	1/4"	2
8-20		Hose connector	彎接頭	1/4"	4
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9. COLLANT SYSTEM

CHART 9 COOLANT SYSTEM

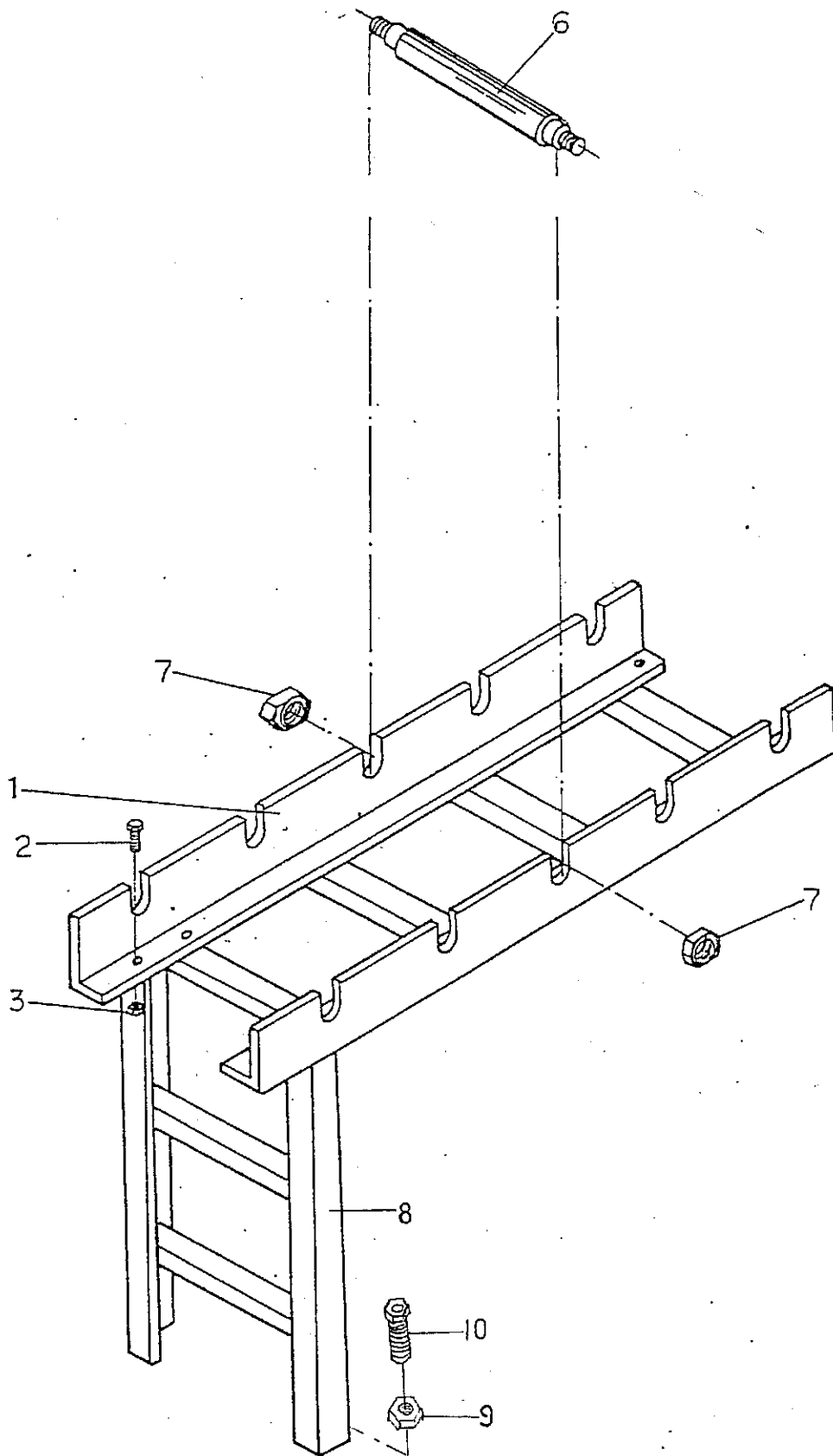
NO.	PART NO.	PART NAME	PART NAME IN CHINESE	PART SPEC.	Q'TY
9-1	PP-32051	Pump	浸水泵浦	1/8HP	1
9-2	ACA-1004	3-way cock	泵浦接頭		1
9-3	MAB-6014	Fitting	固定塊水管接頭		4
9-4		Hose	水管	1/4*3000L	2
9-5	ACA-2062	Bracket	水龍頭座板		2
9-6	PP-43132	Valve	開關閥	1/8	2
9-7	PP-43135	Valve	開關閥	A101-3/8*3/8'	1
9-8	AHA-1313	Nozzle ,hand	噴嘴		1
9-9	MAB-6010	Fitting	水龍頭彎頭		2
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10. CONTROL PANTEL

CHART 10 CONTROL PANEL

NO.	PART NO.	PART NAME	PART NAME IN CHINESE	PART SPEC.	Q'TY
10-1		Screw	丸頭螺絲	3/16-24UNC*3/8	6
10-2	ACA-2078	Control panel	控制面板		1
10-3	PP-90410	Piece counter	計數器		1
10-4				Deleted	
10-5	ACA-2002	Control box	控制箱		1
10-6		Screw	外六角螺絲	1/4-20UNC*3/8	4
10-7					
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11. ROLLER TABLE

CHART 11 ROLLER TABLE(1M)

NO.	PART NO.	PART NAME	PART NAME IN CHINESE	PART SPEC.	Q'TY
11-1	ACA-1073	Roller table	送料架		2
11-2		Bolt	外六角螺絲	3/8*1 1/4"	4
11-3		Nut	螺母	3/8"	4
11-4				DELETED	
11-5				DELETED	
11-6	ACA-1071	Roller	滾輪		5
11-7		Pin	開口梢	5/32*1 1/4"	10
11-8	ACA-1070	Roller table frame	送料腳架		1
11-9		Nut	螺母	5/8"	2
11-10		Bolt	外六角螺絲	5/8*2 1/2"	2
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