



4420 16" Planer

Owner's Manual



Oliver Machinery
Seattle, WA
info@olivermachinery.net

M-4630 9/2019
© Copyright 2019
www.olivermachinery.net

Warranty

Oliver makes every effort possible to assure that its equipment meets the highest possible standards of quality and durability. All products sold by Oliver are warranted to the original customer to be free from defects for a period of 2 (two) years on all parts, excluding electronics and motors, which are warranted for 1 year. Oliver's obligation under this warranty shall be exclusively limited to repairing or replacing (at Oliver's option) products which are determined by Oliver to be defective upon delivery F.O.B. (return freight paid by customer) to Oliver, and on inspection by Oliver. This warranty does not apply to defects due, directly or indirectly, to misuse, abuse, negligence, accidents, unauthorized repairs, alterations, lack of maintenance, acts of nature, or items that would normally be consumed or require replacement due to normal wear. In no event shall Oliver be liable for death, personal or property injury, or damages arising from the use of its products.

Warning

Read this manual thoroughly before operating the machine. Oliver Machinery disclaims any liability for machines that have been altered or abused. Oliver Machinery reserves the right to effect at any time, without prior notice, those alterations to parts, fittings, and accessory equipment which they may deem necessary for any reason whatsoever.

For More Information

Oliver Machinery is always adding new Industrial Woodworking products to the line. For complete, up-to-date product information, check with your local Oliver Machinery distributor, or visit www.olivermachinery.net.

PROP 65 NOTICE:

WARNING: Some dust created by power sanding, sawing, grinding, drilling, and other construction activities contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

Some examples of these chemicals are:

- lead from lead-based paints,
- crystalline silica from bricks and cement and other masonry products, and
- arsenic and chromium from chemically treated lumber.

Your risk from exposure to these chemicals varies, depending on how often you do this type of work. To reduce

your exposure, work in a well-ventilated area and with approved safety equipment, such as dust masks that are

specially designed to filter out microscopic particles. For more information go to www.P65Warnings.ca.gov.

All efforts have been made to ensure that the information in this catalog is accurate. However, Oliver Machinery does not guarantee the accuracy of this information and reserves the right to change information in this catalog without notification.

For Your Own Safety Read Instruction Manual Before Operating This Tool

Read this manual completely and observe all warning labels on the machine. This machine has made every attempt to provide a safe, reliable, easy-to-use piece of machinery. Safety, however, is ultimately the responsibility of the individual machine operator. As with any piece of machinery, the operator must exercise caution, patience, and common sense to safely run the machine. Before operating this product, become familiar with the safety rules in the following sections.

1. **KEEP WORK AREA CLEAN.** Cluttered areas and benches invite accidents.
2. **DON'T USE IN DANGEROUS ENVIRONMENT.** Don't use power tools in damp or wet locations, or expose them to rain. Keep work area well lighted.
3. **KEEP CHILDREN AWAY.** All visitors should be kept safe distance from work area.
4. **MAKE WORKSHOP KID PROOF** with padlocks, master switches, or by removing starter keys.
5. **USE RIGHT TOOL** Don't force tool or attachment to do a job for which it was not designed.
6. **WEAR PROPER APPAREL** Do not wear loose clothing, gloves, neckties, rings, bracelets, or other jewelry which may get caught in moving parts. Non-slip footwear is recommended. Wear protective hair covering to contain long hair.
7. **ALWAYS USE SAFETY GLASSES.** Also use face or dust mask if cutting operation is dusty. Everyday eyeglasses only have impact resistant lenses, they are NOT safety glasses.
8. **SECURE WORK.** Use clamps or a vise to hold work when practical. It's safer than using your hand and it frees both hands to operate tool.
9. **DON'T OVERREACH.** Keep proper footing and balance at all times.
10. **MAINTAIN TOOLS WITH CARE.** Keep tools sharp and clean for best and safest performance. Follow instructions for lubricating and changing accessories.
11. **REDUCE THE RISK OF UNINTENTIONAL STARTING.** Make sure switch is in off position before plugging in.
12. **USE RECOMMENDED ACCESSORIES.** Consult the owner's manual for recommended accessories. The use of improper accessories may cause risk of injury to persons.
13. **CHECK DAMAGED PARTS.** Before further use of the tool, a guard or other part that is damaged should be carefully checked to determine that it will operate properly and perform its intended function - check for alignment of moving parts, binding of moving parts, breakage of parts, mounting, and any other conditions that may affect its operation. A guard or other part that is damaged should be properly repaired or replaced.
14. **DIRECTION OF FEED.** Feed work into a blade or cutter against the direction of rotation of the blade or cutter only.
15. **NEVER LEAVE TOOL RUNNING UNATTENDED. TURN POWER OFF.** Don't leave tool until it comes to a complete stop.
16. **Wear eye protection.**

17. KEEP GUARDS IN PLACE and in working order.
18. REMOVE ADJUSTING KEYS AND WRENCHES. Form habit of checking to see that keys and adjusting wrenches are removed from tool before turning it on.
19. DON'T FORCE TOOL It will do the job better and safer at the rate for which it was designed.
20. DISCONNECT TOOLS before servicing; when changing accessories, such as blades, bits, cutters, and the like.
21. NEVER STAND ON TOOL. Serious injury could occur if the tool is tipped or if the cutting tool is unintentionally contacted.

Your risk from these exposures varies, depending on how often you do this type of work. To reduce your exposure to these chemicals, work in a well-ventilated area, and work with approved safety equipment, such as those dust masks that are specifically designed to filter out microscopic particles.

Familiarize yourself with the following safety notices used in this manual:

CAUTION: (This means that if precautions are not heeded, it may result in minor or moderate injury and/or possible machine damage)

WARNING: (This means that if precautions are not heeded, it could result in serious injury or possibly even death).

Grounding

This tool should be connected to a grounded metal permanent wiring system; or to a system having an equipment-grounding conductor.

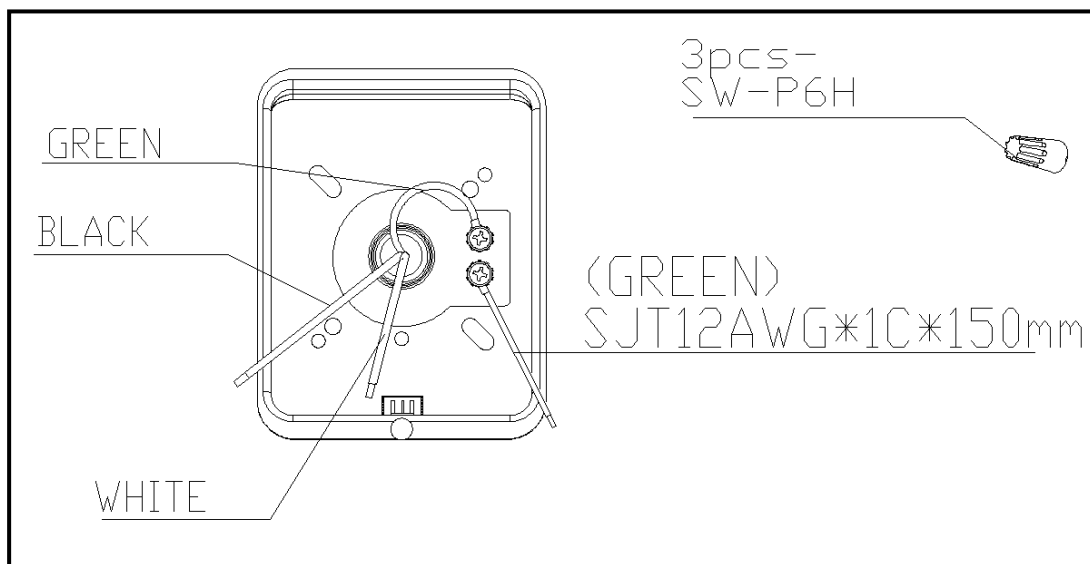


Table of Contents	Page Number
Warranty.....	2
Warnings.....	3-4
Table of Contents.....	5
Specifications.....	5
Receiving the planer.....	6
Unpacking the Machine.....	6
Machine Preparation and Setup.....	7
Assembly.....	7
Knife Replacement.....	8
Switch safety lock.....	8
Lubrication Schedule.....	9
Depth of Cut.....	10
Pulley Alignment.....	10
V-belt Tensioning.....	10
Feed Speed.....	11
Return Rollers.....	11
Feed Rollers.....	11
Table Rollers.....	12
Table Parallelism.....	12
Feed Rollers and Chip breaker.....	13
Adjustment of Chip Breaker.....	14
Adjustment of Feed Rollers.....	14
Digital Readout.....	15
Parts.....	16-25

Specifications

Stock No.....	(5HP, 1Ph Helical Cutterhead) 4420.001
Maximum Stock Width (in.).....	16
Maximum Depth of Cut (in.).....	1/8
Maximum Stock Thickness (in.).....	6
Minimum Stock Thickness (in.).....	1/8
Minimum Stock Length (in.).....	6
Dust Port Diameter (in.).....	4
Minimum CFM Required.....	600
Feed Speeds (FPM).....	16 and 20
Bed Rollers.....	2, Adjustable
Overall Dimension When Assembled (L x W x H in.).....	48 x 28 x 43-1/2
Cutterhead Diameter (in.).....	2-7/8
Number of Knives.....	90
Cutterhead Speed (RPM).....	4800
Motor.....	5HP, 1Ph, 220V Only
Gross Weight (lbs.).....	675

16" PLANER

Thank you for choosing this planer.

This unit is carefully tested and inspected before shipment and if properly used and maintained, will provide you with many years of reliable service. To ensure optimum performance and trouble free operation a reasonable amount of care and attention is required. To get the most from your new planer, please take the time to read this manual before assembling, installing and operating the unit.

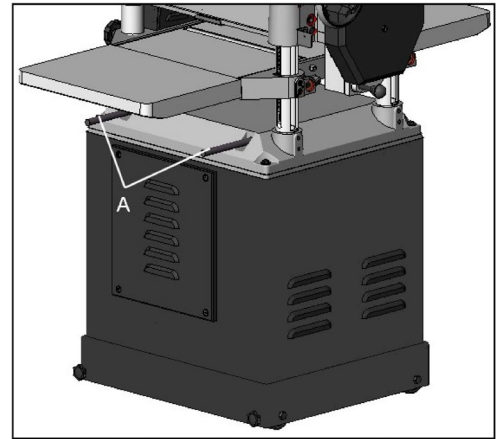


Fig. 1

UNPACKING AND CLEANING

To ensure maximum performance from your 16" planer, clean it properly; and install it accurately before use. As soon as you receive the planer, we recommend you follow these procedures:

1. Remove the contents of the shipping container.
2. Report damage, if any to your local distributor.
3. Clean all rust protected surfaces with a mild solvent or kerosene. Do not use lacquer thinner; paint thinner, or gasoline. These will damage painted surfaces.
4. To prevent rust, apply a light coating of paste wax to surface.

CARRIAGE

The planer has four lifting handles (A), that can be pulled out when needed. (Fig.1)

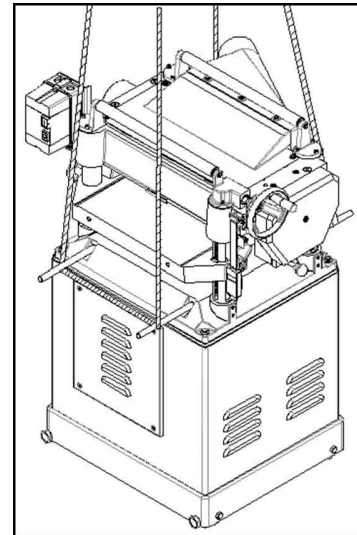


Fig. 2

USING A SLING

When using a sling to carry machine, lifting handles must be pulled out (Fig.2). Try keeping sling parallel to machine and hold steady.

MAGNETIC CONTACTOR CURCUIT

FIG.3

- Single phase motor
- Power source: A,C in put
- Motor source : A,C, out put
- Grounding: D

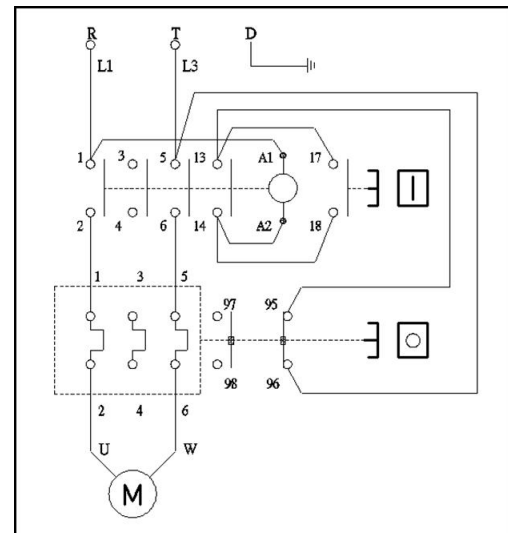


Fig. 3

EXTENSION TABLE ASSEMBLY

Ask another person to provide assistance to hold an extension table. Bolt the table to the machine using the supplied bolts then place a straight edge on the table as shown if Fig. 4. If they are not aligned, loosen the bolts and adjust the alignment screws accordingly and the tighten back the main bolts.

WARNING: Always disconnect the machine from the power source before assembly or any servicing to the machine.

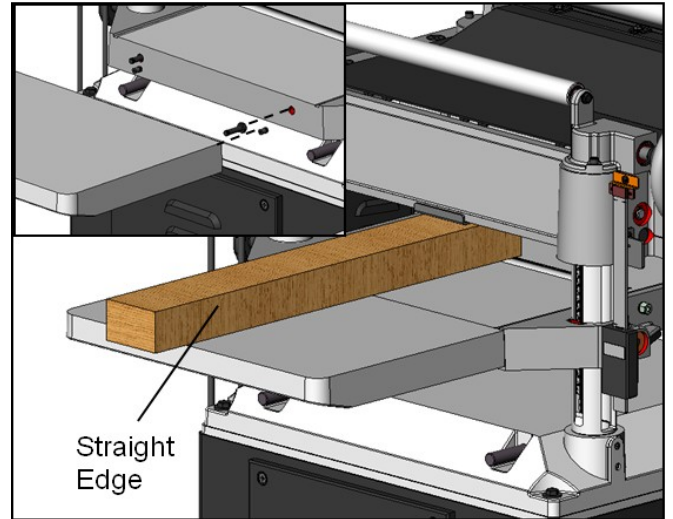


Fig. 4

DUST CHUTE ASSEMBLY

Mount the dust chute to the planer hood with hex head screws and washers (A) & (B). Make sure the dust collection system has sufficient capacity and suction for your planer. Always turn on the dust collection system before starting the planer. Figure 5

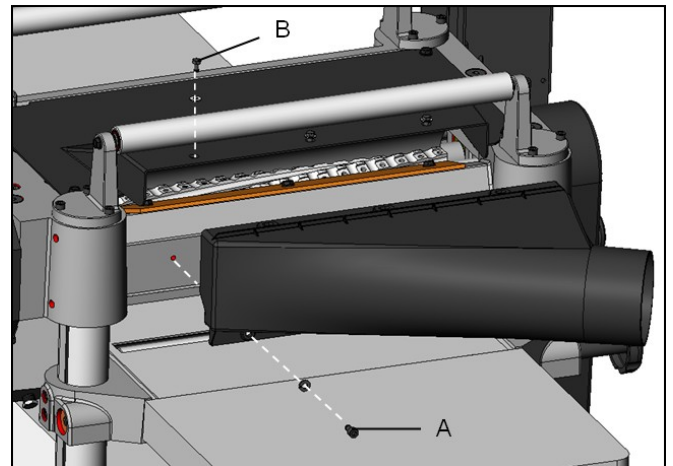


Fig. 5

CONSTRUCTING GAUGE BLOCK

Your Oliver planer has been adjusted at the factory and should not need adjustment. Typically poor performance can be attributed to dull knives however if the knives are in good order it may be time to check the machine. Construct a guage block as shown if Fig. 6. Machine adjustments are found further along in this manual.

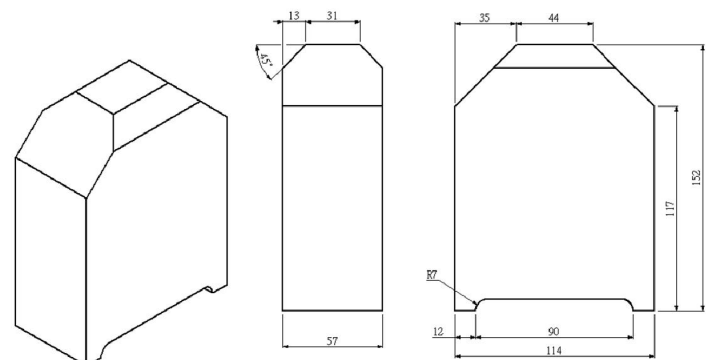


Fig. 6

Knife Replacement

Knife inserts are dangerously sharp. Use extreme caution when inspecting, removing, or replacing knife inserts.

The knife inserts on the Jointer are four-sided. When dull, simply remove each insert, rotate it 90° for a fresh edge, and re-install it. No further adjustment is necessary. Use the two provided torx wrench to remove the knife insert screw. Use one of the torx wrenches to help hold the cutterhead in Position, and the other to remove the screw. See Fig. 7. It is advisable to rotate all inserts at the same time to maintain consistent cutting. However, if one or more knife inserts develops a nick, rotate only those inserts that are affected.

Each knife insert has an etched reference mark so you can keep track of the rotations.

IMPORTANT: When removing or rotating inserts, clean saw dust from the screw, the insert, and the cutterhead platform. Dust accumulation between these elements can prevent the insert from seating properly, and may affect the quality of the cut.

Before installing each screw, lightly coat the screw threads with machine oil and wipe off any excess. Securely tighten each screw which holds the knife inserts before operating the jointer! Loose inserts can be propelled at high speed from a rotating cutterhead, causing injury.

SWITCH

The planer is equipped with magnetic switch that will accept a safety padlock (not included). See Fig. 8. To safeguard your machine from unauthorized operation and accidental starting by young children, the use of a padlock is required.

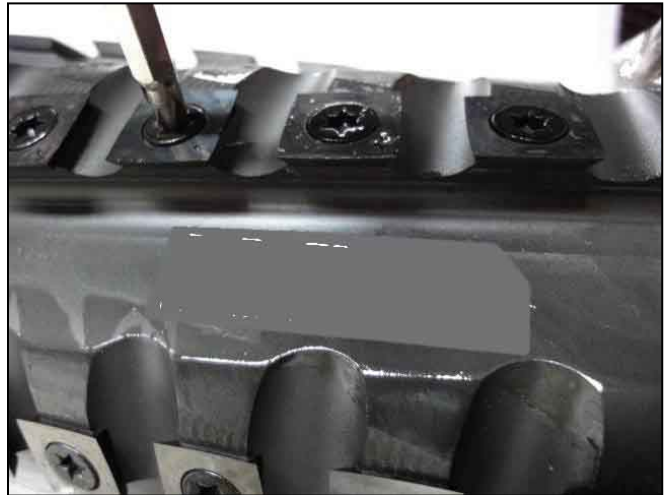


Fig. 7

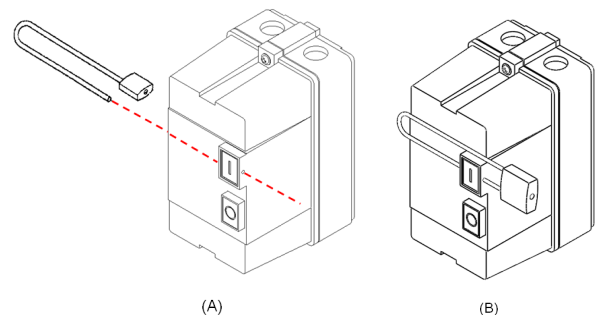


Fig. 8

4420 Lubrication Schedule

Components on this chart are referenced to the illustrations below. The illustrations are for component clarification and may not match your specific model.

Component	Interval	Types of Lubricant	Reference
Return Rollers	Monthly	SAE 30	Figure A
Drive chain	Monthly	General purpose grease	Figure B
Gear box	Drain (A) and refill (B) every 2,500 hours	Standard gear oil, 70-90 weight	Figure B
Lead screw (x4)	Once every 3 months	General purpose grease	#3, Figure C
Column (x4)	Clean and lubricate weekly	Light coat of SAE-30 oil	#4, Figure C
Feed roller shafts	Every 30 hours	Clean and apply SAE-30 oil.	#6, Figure C
Anti-kickback fingers (A), rollers (B & E), cutter head (D)	Clean and lubricate as needed.	Very light coat of SAE-30 oil.	Figure D
Table chain	Every 4 to 6 months	Grease, or good quality cycle chain lubricant	#5, Figure E

Figure A

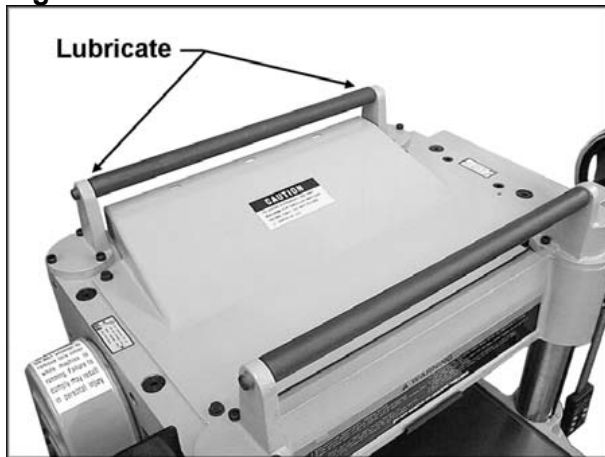


Figure B

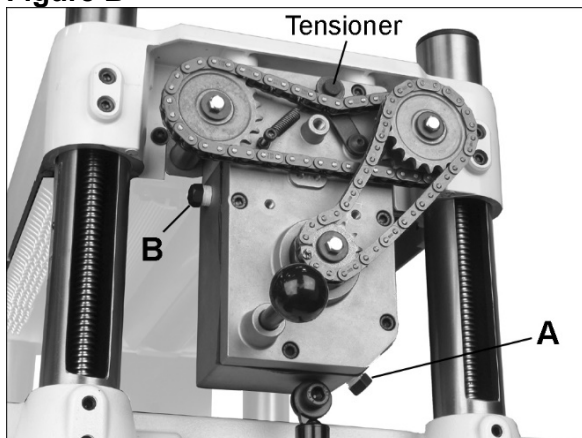


Figure C

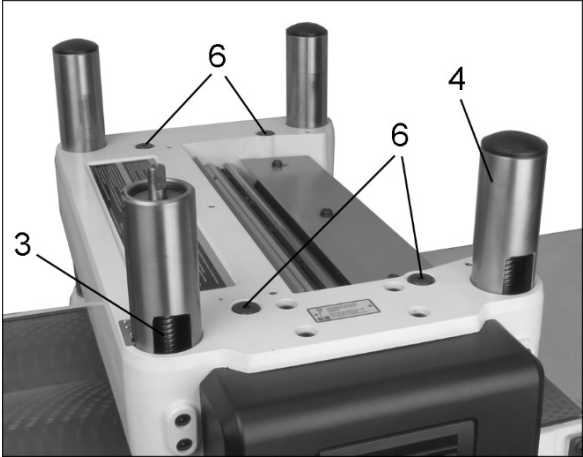


Figure D

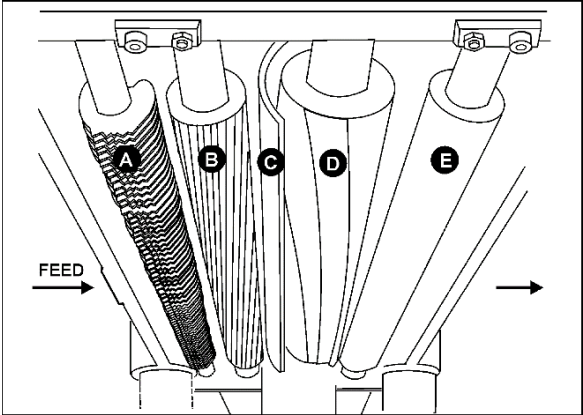
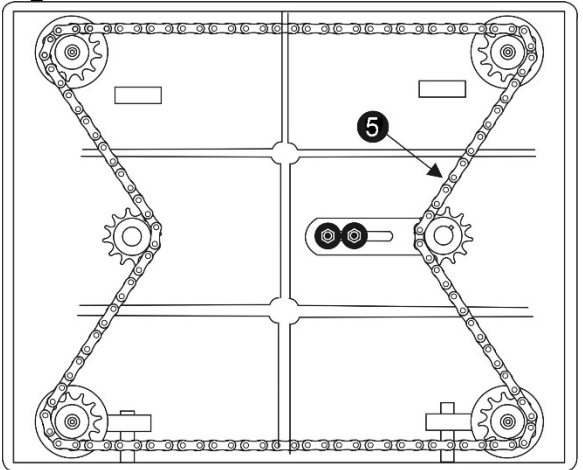


Figure E



DEPTH OF CUT

The cutting depth scale is a combination of inch / metric scale, the cutting range is from 0 to 8" (204 mm).

**See page 15 for DRO instructions.*

TABLE LOCKS

Before adjusting the table upward, or downward; loosen knob A, after positioning to required position, tighten knob A again to hold in position. (Fig.9)

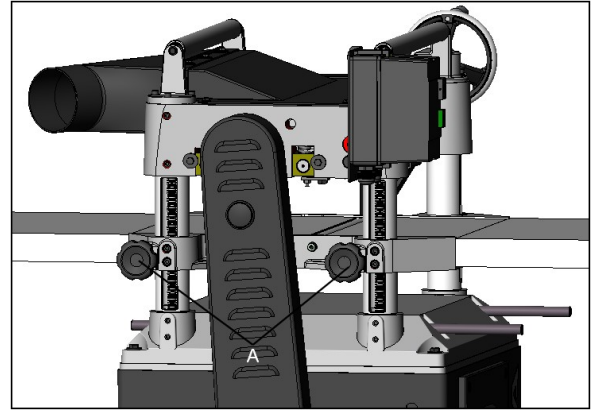


Fig. 9

CHECKING PULLEY ALIGNMENT

To verify that motor pulley (B) is in line with the shaft pulley of (A), using the edge of a straight scale check to see if they are on-line with each other. (Fig.10). If out of alignment, loosen the motor securing nuts as shown in Figure 11 and adjust as necessary.

ADJUSTING BELT TENSION

Use the two nuts to adjust the belt tension (Fig.11) When achieved proper position of adjustment tighten bolts to hold in place.

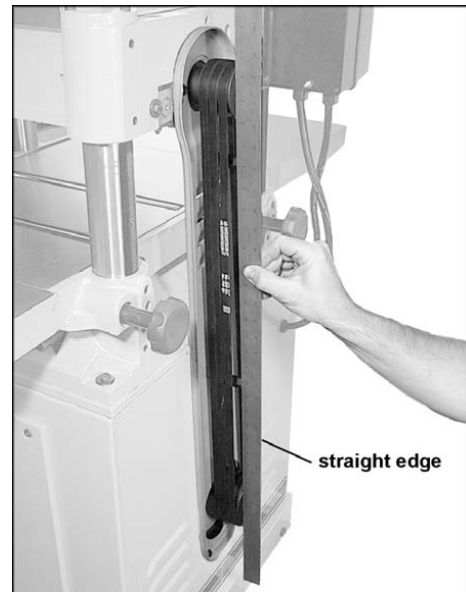


Fig. 10

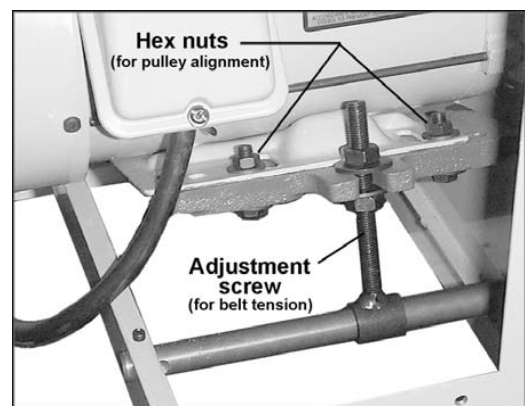


Fig. 11

FEEDING SPEEDS

This planer is supplied with a 2-speed gear box for planing both hard and soft woods. Low speed is 16FPM (feed per minute) for hard wood and 20FPM for soft wood. Adjust power feed rate while planer is running. To engage power feed at low speed (16 FPM), pull shift handle out away from planer. To engage power feed at high speed (20 FPM), push shift handle in all the way, toward planer. Figure 12

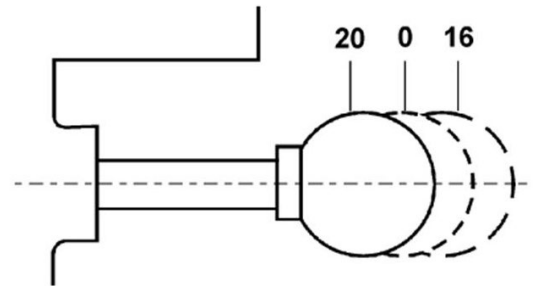


Fig. 12

RETURN ROLLERS

The rollers located on top of machine will save time in returning the stock to the infeed operator for continued material removal. Figure 13.

FEED ROLLERS

There are two powered feed rollers on your Oliver 16" planer. One is located before and the other after the cutterhead. The feed rollers transmit the work piece through the machine. The downward pressure on the work piece is adjustable. If your piece is slipping and not feeding through the machine, increase the spring pressure by turning clockwise the pressure nuts with an allen key as shown in Figure 14. There is a spring on each end of each feed roll. To ensure great results make sure both ends are at the same tension. If the work piece is damaged by the feed roll, decrease the spring pressure.

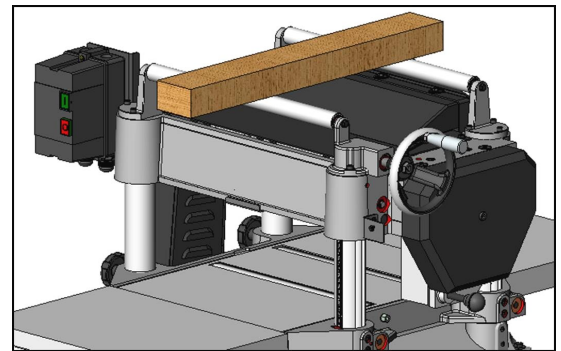


Fig. 13

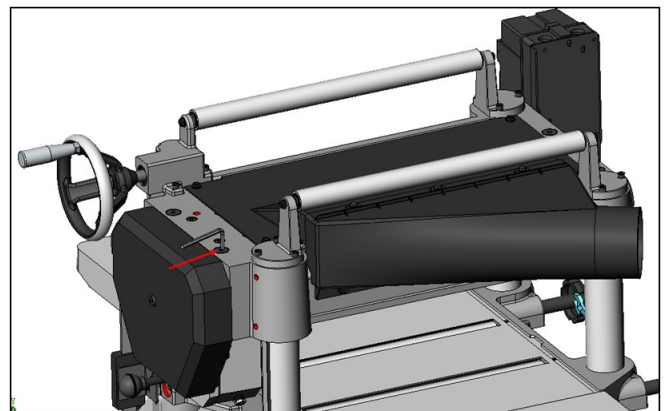


Fig. 14

TABLE ROLLERS

Your planer is supplied with two idler table rollers (Figure 15) which help to reduce friction. It is not possible to give exact dimensions on the proper height setting of the table rollers because each type of wood behaves differently. As a general rule, however, when planing rough stock the table rollers should be set at high position. When planing smooth stock the rollers should be set at low position. The down side to the rollers being high is the increased probability of 'snipe' appearing on the work piece. This is an increased amount of material being removed at the ends of the board because the board rocks on the table roll.

To make adjustment, turn the eccentric adjusters 'A' as shown in Figure 16. Use a straight edge across both front and rear rollers and check that they are at the same height side to side.

Note: each adjuster is secured in place by a set screw on top of the adjuster. It is accessed with an allen key through the top of the table casting.

TABLE PARALLELISM

If your material is tapered from left to right the cutterhead may not be parallel to the table. Using the guage block constructed earlier, check the cutterhead to table for parallelism. If the head is not parallel, remove the bolts securing the planer to the stand and tilt the planer on it's side. Remove bolt C and loosen bolt (D) (Fig.26). This will enable you to move the idler sprocket assembly (E) this procedure will release the tension of the chain.

Remove chain from sprocket on the end that must be adjusted. When chain has to be released, do not turn the sprocket more than one or two teeth. Turn sprocket clockwise to decrease the distance, and counter clockwise to increase the distance between the table and head casting.

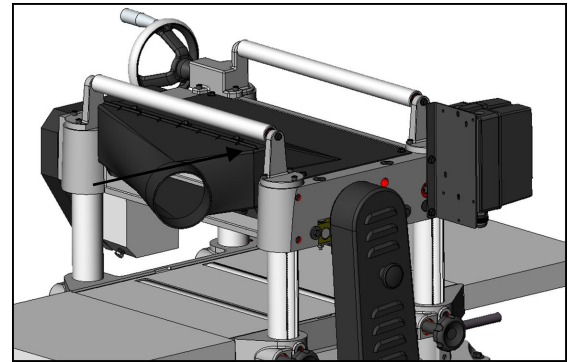


Fig. 15

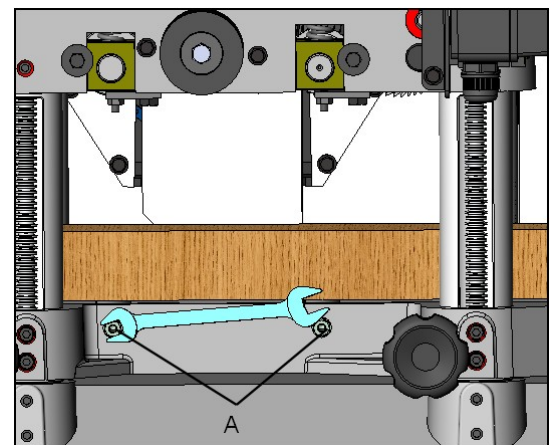


Fig. 16

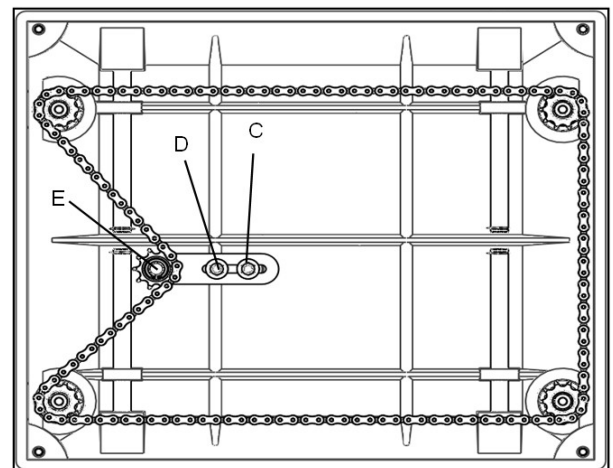


Fig. 17

FEED ROLLER AND CHIP BREAKER ADJUSTMENTS

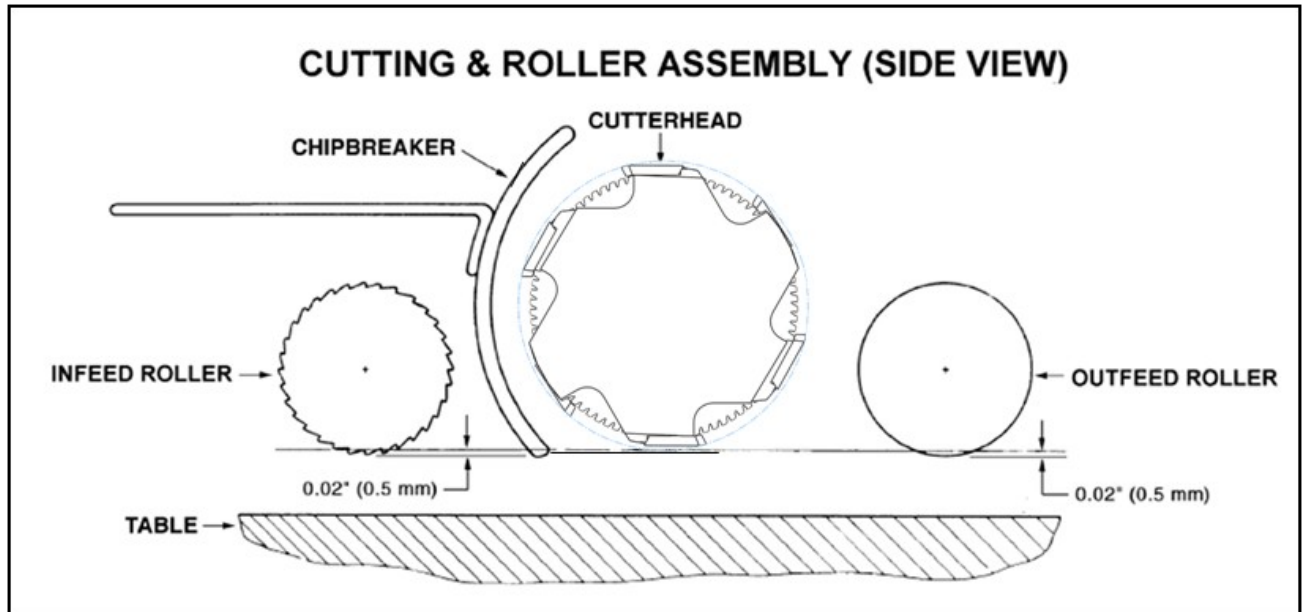
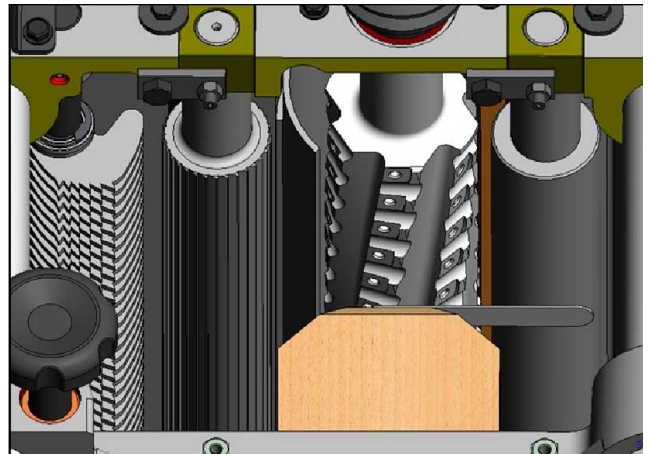


Figure 18 shows the relationship of the feed rollers and chip breaker to the lowest point of the cutting circle. As shown in the diagram, both the infeed roller, outfeed roller and chip breaker should all be 0.02" below the lowest point of the cutting circle.

TO BEGIN

To begin, place a 0.02" feeler gauge on top of the gauge block as shown in Figure 19. Raise the table so that the feeler gauge just scrapes the bottom of the knife at its lowest point of the cutting circle. To find the lowest point, turn the cutterhead by hand. This is easily done by removing the belt guard and turning the cutterhead with the v-belts. Once the lowest point of the cutting circle is found, do not change the height of the table until after all the adjustments are made.



CHIP BREAKER ADJUSTMENT

Remove the feeler gauge from the top of the gauge block and then move the gauge block to underneath the chip breaker. Once adjusted correctly, the chip breaker will just barely touch the top of the gauge block.

Remove the top cover over the cutterhead. Once removed you will see the chip breaker adjusting screws exposed as in Figure 20. Loosen the jam nuts 'A' on each side and using an Allen key turn the adjusting screws so that the chip breaker just scrapes the top of the gauge block on each side. Once set, it will be 0.02" below the cutting circle as seen in Figure 18.

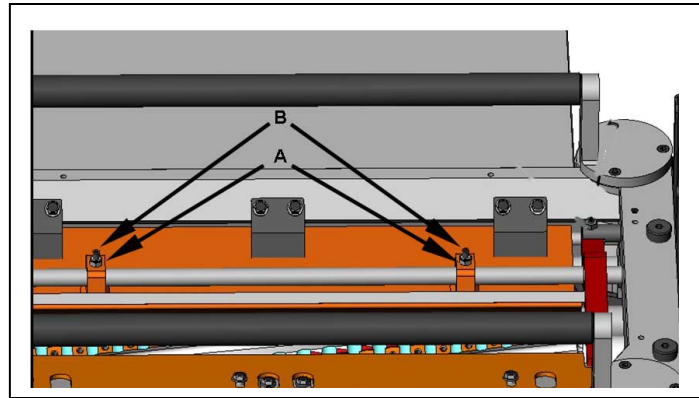


Fig. 20

INFEED & OUTFEED ROLLERS ADJUSTMENT

Position the gauge block to underneath the outfeed roller as seen in Figure 21. Loosen the jam nut '3' and adjust the roller until it just touches the top of the gauge block. Repeat for the other side of the roller as well as the infeed roller.

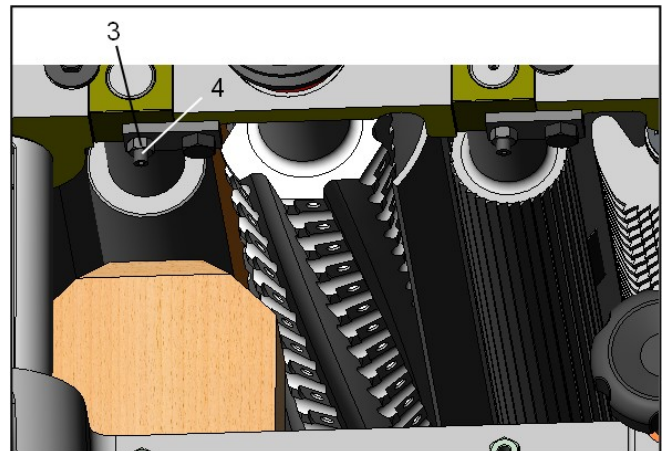


Fig. 21

DIGITAL READOUT

The digital scale equipped with 16" planer can serve many applications, however for wood planing we need only concern ourselves with the ON/OFF, SET, and mm/in buttons. When set properly the digital readout will display the thickness of the finished product.

Calibration: In order to calibrate the unit first run a board through the planer and measure the finished thickness with a set of Vernier calipers. This is the number to be entered into the display unit. At this point turn the unit on by pushing the ON/OFF button. Now press the mm/in button to set the unit to American standard or the metric system.

1. Press and hold the SET button until the '+' sign starts to flash and immediately release it.
2. Cycle the set button by pressing it until the '+' sign remains on.
3. Press and hold the SET button until the second zero to the right of the '+' plus sign starts to flash and immediately release it.
4. Cycle the SET button by pressing it until the number reads the correct whole number taken with the vernier calipers and immediately release the button.
5. Press and hold the SET button until the zero to the right of the decimal point starts to flash.
6. Repeat steps 4 and 5 until the last digit in the 0.001 place is entered.
7. Press and hold the SET button until the SET on the display starts to flash and immediately release it.
8. Press and release the SET button one final time to complete the calibration.

Note: Do not turn the device off. If you do you will have to re-calibrate the unit.

Battery: When the display begins to flash the battery should be replaced. The battery is to be replaced with a SR144 (or equivalent) and can be found at most pharmacies or grocery stores. When replacing the battery the positive side of the button cell must face out.



Fraction	Decimal	Metric
1/32	0.031	0.794
1/16	0.063	1.588
3/32	0.094	2.381
1/8	0.125	3.175
5/32	0.156	3.969
3/16	0.188	4.763
7/32	0.219	5.556
1/4	0.250	6.350
9/32	0.281	7.144
5/16	0.313	7.938
11/32	0.344	8.731
3/8	0.375	9.525
13/32	0.406	10.319
7/16	0.438	11.113
15/32	0.469	11.906
1/2	0.500	12.700
17/32	0.531	13.494
9/16	0.563	14.288
19/32	0.594	15.081
5/8	0.625	15.875
21/32	0.656	16.669
11/16	0.688	17.463
23/32	0.719	18.256
3/4	0.750	19.050
25/32	0.781	19.844
13/16	0.813	20.638
27/32	0.844	21.431
7/8	0.875	22.225
29/32	0.906	23.019
15/16	0.938	23.813
31/32	0.969	24.606
1	1.00	25.400

4420 Parts List

Key	Part No.	Descriptions		Q'ty
1	230118-000	NUT		2
2	170871-000	BELT GUARD FRONT		1
4	380147-901	BOLT		2
5	000902-102	HEX SCREW W/WASHER	M6*1.0P*12	27
6	170432-000	BELT GUARD REAR		1
7	000003-105	HEX. SCREW	M8*1.25P*25	2
8	006001-043	FLAT WASHER	8.2*30*4.0t	1
9	050273-901	CUTTER HEAD PULLEY	60HZ	1
10	006002-046	FLAT WASHER	8.5*16*1.5t	2
11	009005-200	HEX NUT	5/16"-18NC(12.7B*6.75H)	2
12	000003-104	HEX. SCREW	M8*1.25P*20	4
13	921727-000	DIGITAL READ OUT	6"	1
14	000103-103	SOC HD CAP SCREW	M6*1.0P*12	1
15	000902-202	HEX SCREW W/WASHER	M6*1.0P*12	7
16	250348-000	DUST CHUTE		1
19	008304-100	HEX NUT	M6*1.0P(10B*7H)	2
20	172851-000	DUST HOOD		1
21	000103-107	SOC HD CAP SCREW	M6*1.0P*20	20
22	050288-000	ROLLER BRACKET		3
23	012002-004	KEY	4*4*10	2
24	240015-000	HAND WHEEL		1
25	570890-000	RAISE / LOWER LABEL		1
26	006001-067	FLAT WASHER	10*20*1.5t	1
27	008008-100	HEX NUT	M10*1.25P(17B*8H)	1
26	006001-067	FLAT WASHER	10*20*1.5t	5
27	008009-100	HEX NUT	M12*1.75P(19B*10H)	4
28	230114-906	HANDLE		1
30	006001-056	FLAT WASHER	8.5*23*2.0t	12
31	250158-617	CHIP DEFLECTOR		1
32	270015-901	SPRING PLATE		3
33	000104-114	SOC HD CAP SCREW	M8*1.25P*50	5
34	006001-041	FLAT WASHER	8.2*22*3.0t	3
35	170405-901	BRACKET		1
36	290039-901	SHAFT		1
37	130071-000	CHAIN TENSIONER		1
38	360349-901	CHAIN TENSIONER SHAFT		1
39	170424-905	SIDE COVER GUARD		2
40	011004-102	SPRING PIN	6*20	2
41	050276-000	SIDE COVER		1
42	380200-901	SCREW		4
43	000203-106	SET SCREW	M6*1.0P*16	1
44	280050-000	SPRING		1
45	170406-901	HOOK		1
46	030209-002	BALL BEARING	6205	1
47	000103-102	SOC HD CAP SCREW	M6*1.0P*10	2
48	012006-001	KEY	8*8*40	1
49	922839-001	HELICAL CUTTERHEAD ASSEMB	6 SLOT	1
49.2	038201-702	TORX SCREW	#10-32UNF*12.5	108
49.3	P-15mm 4S	INSERT	10PCS/BOX	1
50	000205-101	SET SCREW	M10*1.5P*12	16
52	280051-000	SPRING		4
53	130039-000	BUSHING		4
54	923901-000	RETAINER PLATE		4
55	170036-019	CHIP BREAKER		1

4420 Parts List

Key	Part No.	Descriptions		Q'ty
56	010003-000	RETAINING RING	STW-12	2
57	051069-000	HEAD CASTING		1
58	360024-000	ROLLER		1
59	000402-104	FLAT HEAD SCREW	M5*0.8P*12	2
60	170409-901	LIMIT PLATE		1
61	012003-008	KEY	5*5*22	2
62	070012-000	CHAIN SPROCKET		1
63	006001-020	FLAT WASHER	6.2*20*3.0t	3
64	000002-103	HEX. SCREW	M6*1.0P*16	7
65	016306-000	CHAIN	#06B*63P	1
66	050009-000	EXTENSION ROLLER		2
67	360021-902	SHAFT		1
68	360947-902	SHAFT		1
69	170464-156	POINTER		1
70	010209-000	RETAINING RING	ETW-15	2
71	250160-615	SPACER		45
72	172281-905	ANTI-KICK BACK		44
73	360023-902	SHAFT		1
74	360020-000	INFEED ROLLER		1
75	070013-000	CHAIN SPROCKET		1
76	030208-002	BALL BEARING	6204	1
77	320196-000	GEAR		1
78	000103-108	SOC HD CAP SCREW	M6*1.0P*25	5
79	030106-002	BALL BEARING	6201	5
80	320197-000	GEAR		1
81	320160-000	SHAFT		1
82	012003-002	KEY	5*5*10	1
83	050280-000	GEARBOX COVER		1
84	360355-901	PIN		2
85	002602-106	CAP LOCKING SCREW	M6*1.0P*25	1
86	320205-000	SHAFT		1
87	012004-003	KEY	6*6*40	1
88	320198-000	GEAR		1
89	250372-615	KNOB		1
90	016303-000	CHAIN	#06B*47P	1
91	150008-000	CHAIN SPROCKET		1
92	043401-000	PLUG	PT1/4"-19	2
93	043608-000	OIL SEAL	TCX4 28*40*8	1
94	050281-000	GEARBOX		1
95	340012-615	GEARBOX GASKET		1
96	922351-000	GEAR		1
97	190176-906	ROLLER		2
98	360357-901	SHAFT		1
99	280052-000	SPRING		1
100	017002-000	STEEL BALL	Φ6	1
101	043505-000	OIL SEAL	SC25*47*6	1
102	030109-002	BALL BEARING	6204	1
104	070014-000	SHIFTING CLAW		1
105	360358-901	SHAFT		1
106	043303-000	RETAINING RING	P12	1
107	000204-103	SET SCREW	M8*1.25P*12	7
109	360949-902	ECCENTRIC SHAFT		4
110	030005-001	BALL BEARING	608	8
111	190026-000	ROLLER		2

4420 Parts List

Key	Part No.	Descriptions	Q'ty	
112	230115-000	KNOB	2	
113	130037-000	COLUMN LOCK BUSHING	2	
114	360948-902	FIX ROD	2	
115	051070-000	TABLE	1	
116	000203-104	SET SCREW	M6*1.0P*12	2
117	130038-000	COLUMN LOCK BUSHING		2
118	002301-201	RIVET	2*5	2
119	000801-104	ROUND HD HEX. SCREW	M6*1.0P*20	8
120	173029-000	STAND ACCESS PANEL		2
121	000003-109	HEX. SCREW	M8*1.25P*45	4
122	PK03-18	CABINET ASSEMBLY		1
124	000204-104	SET SCREW	M8*1.25P*16	4
123	000003-106	HEX. SCREW	M8*1.25P*30	4
126	003005-106	HEX. SCREW	3/8"-16NC*2-1/2"	4
127	PK03-02	SWITCH ASSEMBLY		1
127	821007-029	MAGNETIC SWITCH ONLY		1
127	473004-037	SWITCH CORD	12AWG*3C*1450mm	1
127	473004-036	SWITCH CORD	12AWG*3C*2000mm	1
127	471004-012	SWITCH CORD	12AWG*1C*150mm	1
128	250400-000	WHEEL		4
129	009102-100	HEX NUT	3/8"-16NC(14.2B*11.5H)	4
130	004001-101	KNOB	5/16"-18NC*3/4"	2
131	190177-902	CASING		1
132	PK03-01	MOTOR ASSEMBLY	5HP 230V 1Ph	1
132	593012-000	MOTOR ONLY	5HP 230V 1Ph	1
132	006001-091	MOTOR PULLEY		1
133	008006-100	HEX NUT	M8*1.25P(13B*6.5H)	4
134	006001-091	FLAT WASHER	13*28*3.0t	4
136	360986-902	MOTOR MOUNTING SHAFT		2
137	380249-901	MOTOR MOUNT TENSION SHAFT ASSEMBLY		2
139	190074-901	SPACER		2
140	000003-108	HEX. SCREW	M8*1.25P*40	4
141	006305-100	SPRING WASHER	8.2*15.4	4
142	000203-101	SET SCREW	M6*1.0P*6	4
150	130043-000	NUT		4
151	360359-000	COLUMN SHAFT		3
152	050284-000	COLUMN		3
153	051071-000	BASE CASTING		1
154	030003-001	BALL BEARING	6202	4
155	010103-000	RETAINING RING	RTW-35	4
156	150010-000	CHAIN SPROCKET		4
157	170413-901	CHAIN TENSIONER BRACKET		1
158	360362-901	SPROCKET SHAFT		1
159	150009-000	CHAIN SPROCKET		1
160	010006-000	RETAINING RING	STW-15	1
161	016221-000	CHAIN	#410*148P	1
162	010208-000	RETAINING RING	ETW-12	4
163	360367-902	ROD		4
164	050286-000	MAIN COLUMN		1
165	570889-000	SCALE		1
166	000301-101	ROUND HD SCREW	M3*0.5P*6	1
167	010001-000	RETAINING RING	STW-10	1
168	320201-000	WORM GEAR		1
169	010104-000	RETAINING RING	RTW-38	1

4420 Parts List

Key	Part No.	Descriptions		Q'ty
170	130041-000	BUSHING		1
171	360372-000	ELEVATING SCREW		1
173	360380-902	SHAFT		4
NS	040006-000	HEX. WRENCH	6mm	1
NS	040005-000	HEX. WRENCH	5mm	1
NS	040004-000	HEX. WRENCH	4mm	1
NS	040003-000	HEX. WRENCH	3mm	1
NS	040201-000	WRENCH BOX	8*10	1
NS	040204-000	WRENCH BOX	12*14	1
186	012003-003	KEY	5*5*12	1
192	050289-000	ELEVATING SCREW GEARBOX		1
193	320306-000	LEAD SCREW		1
194	030006-001	BALL BEARING	6200	1
195	010101-000	RETAINING RING	RTW-30	1
198	200013-615	BELT GUARD SPACER		2
199	006001-021	FLAT WASHER	6.2*22*3t	5
207	490124-000	TERMNAL COVER		1
208	003303-102	ROUND HD SCREW	3/16"-24NC*1/4"	1
209	000303-103	ROUND HD SCREW	M5*0.8P*10	2
210	006502-100	TOOTH WASHER	5.3*10(BW-5)	3
211	021311-000	RELIEF BUSHING	PGA13.5-11B	4
213	PK03-06	POWER CORD		1
215	048201-103	HEX HEAD SCREW	M8*1.25P*25	1

