

MODEL CX15HC & CX20HC 15" & 20" MOBILE PLANERS WITH HELICAL CUTTERHEADS



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GENERAL SAFETY INSTRUCTIONS

Extreme caution should be used when operating all power tools. Know your power tool, be familiar with its operation, read through the owner's manual and practice safe usage procedures at all times.

- CONNECT your machine ONLY to the matched and specific power source.
- ALWAYS wear safety glasses, respirators, hearing protection and safety shoes, when operating your machine.
- DO NOT wear loose clothing or jewelry when operating your machine.
- ♠ A SAFE ENVIRONMENT is important. Keep the area free of dust, dirt and other debris in the immediate vicinity of your machine.
- BE ALERT! DO NOT use prescription or other drugs that may affect your ability or judgment to safely use your machine.
- DISCONNECT the power source when changing drill bits, hollow chisels, router bits, shaper heads,

- blades, knives or making other adjustments or repairs.
- NEVER leave a tool unattended while it is in operation.
- NEVER reach over the table when the tool is in operation.
- ALWAYS keep blades, knives and bits sharpened and properly aligned.
- ALWAYS keep all safety guards in place and ensure their proper function.
- ALWAYS use push sticks and feather boards to safely feed your work through the machine.
- ALWAYS make sure that any tools used for adjustments are removed before operating the machine.
- ALWAYS keep the bystanders safely away while the machine is in operation.

CX15HC-15" / CX20HC-20" THICKNESS PLANER SPECIFIC SAFETY INSTRUCTIONS

- If you are not familiar with the operation of a thickness planer, you should obtain the advice and/or instruction from a qualified professional.
- Never reach into or through the throat of the thickness planer. Even with the power turned off, the cutter-knives are very sharp.
- Keep the cutter head and knives clean and free of tar and pitch.
- Be sure that the motor switch is properly grounded.
- Check each and every board to be surfaced for loose knots, nails,

- screws and any other foreign materials and defects before planning.
- Keep hands away from the surface of the wood as it nears the in-feed rollers.
- Make all adjustments with the power off.
- Always keep the machine clean and free of sawdust and wood chips. They may contain moisture that could cause the cast-iron surfaces to rust.
- Turn off power before removing wood shavings and sawdust from the surface of in-feed & out-feed tables.

THINK SAFETY. WORK SAFELY

IMPORTANT

The safety instructions given above can not be complete because the environment in every shop is different. Always consider safety first as it applies to your individual working conditions.



PLANER FEATURES

MODEL CX15HC-15" PLANER WITH HELICAL CUTTER-HEAD

As part of the growing line of Craftex woodworking equipment, we are proud to offer the CX15HC, a 15" Thickness Planer with Helical Cutter-Head. By following the instructions and procedures laid out in this owner's manual, you will receive years of excellent service and satisfaction. The CX15HC is a professional tool and like all power tools, proper care and safety procedures should be adhered to.

- □ Motor: 3HP, 220 Volts, Single Phase, 15 Amps
- □ 3 "V" Belts Drive
- □ Cutter Head Speed: 5,000 RPM
- □ Cuts per minute 20,000
- □ Feed Rate: 16 FPM and 30 FPM plus Neutral.
- □ Capacity: 15" Width, 8" Height
- □ Minimum Stock Thickness: 3/16"
- Max. Stock Thickness: 8"
- Max. Cut Depth Planing Full Width 3/32"
- Max. Cut Depth Planing 6 Inch Wide Board 1/8"
- □ Cutter-Head Type: Helical, Carbide Inserts
- □ Number of Cutters: 75
- □ Table Size: 20" x 15"
- □ All Ball Bearing and Cast-Iron Construction
- Precision Ground Cast Iron In-feed and Out-feed Tables with Rollers
- Oil-Bath Gear Box supplies 2 speeds and neutral to the in-feed and out-feed rollers
- Powder Coated Body
- □ Mobile Base with Locking Foot Pedal
- 4" Dust Port is included
- □ Weight: 300 Kg
- Length, Width & Height 42" x 32-1/2" x 45-7/8"
- Warranty: 3 YEARS





PLANER FEATURES

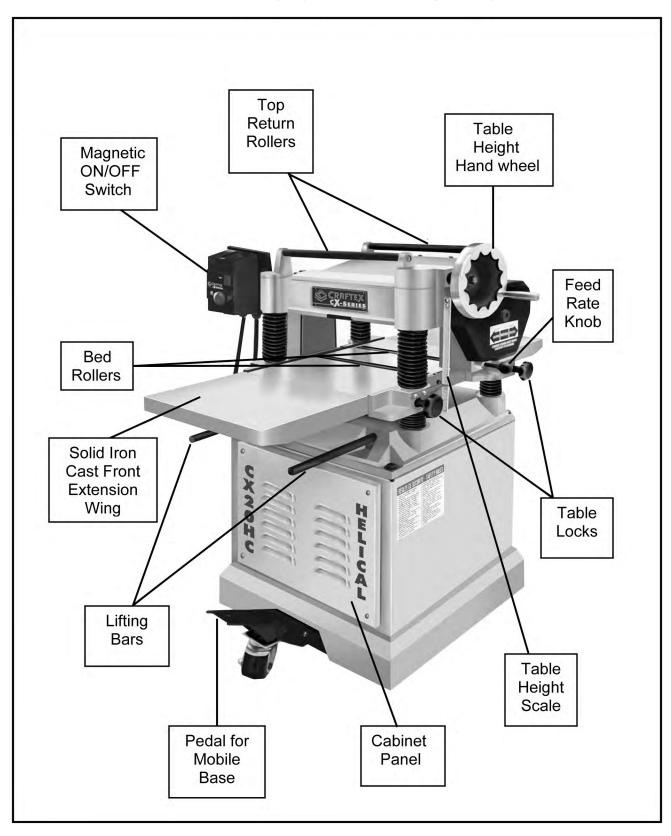
MODEL CX20HC 20" PLANER WITH HELICAL CUTTER-HEAD

As part of the growing line of Craftex woodworking equipment, we are proud to offer the CX20HC, a 20" Thickness Planer with Helical Cutter-Head. By following the instructions and procedures laid out in this owner's manual, you will receive years of excellent service and satisfaction. The CX20HC is a professional tool and like all power tools, proper care and safety procedures should be adhered to.

- □ Motor: 5 HP, 220 Volts, Single Phase, 19 Amps
- □ 3 'V' Belts Drive.
- □ Cutter Head Speed: 5,000 RPM
- □ Cuts per minute 20,000
- □ Feed Rate: 16 FPM and 20 FPM plus Neutral.
- □ Capacity: 20" width, 8" height.
- □ Minimum Stock Thickness: 3/16"
- □ Max. Stock Thickness: 8"
- Max. Cut Depth Planing Full Width 1/8"
- Max. Cut Depth Planing 6" Wide Board 1/8"
- Cutter-Head Type: Helical, Carbide Inserts
- □ Number of Cutters: 100
- □ Table Size: 25-3/4" x 20"
- □ All Ball Bearing and Cast-Iron Construction
- Precision Ground Cast Iron In-feed and Out-feed Tables with Rollers
- □ Oil-Bath Gear Box supplies 2 speeds and Neutral to the in-feed and out-feed rollers.
- Powder Coated Body
- Mobile Base with Locking Foot Pedal
- 5" Dust Port is included
- □ Weight: 420 Kg
- □ Length, Width & Height 56" x 39" x 45-7/8"
- □ Warranty: 3 YEARS



PHYSICAL FEATURES



SETUP

To setup the machine you need an assistant to help you. For the protection of your eyes, both of you need to have safety glasses. The unpainted surfaces of the planer are coated with rust prevention waxy oil and you will want to remove this before you begin assembly. Use a solvent cleaner that will not damage painted surfaces.

IMPORTANT

CX15HC/CX20HC is a heavy machine. Do not over-exert yourself. For safe moving method get the help of assistant.

NOTE!

When setting up your machine, you will want to find an ideal spot where your planer will most likely be positioned most of the time. Consider your complete work environment as well as working comfortably with the planer before placing your machine in the ideal spot.

UNPACKING

The planer is properly packaged in a wooden crate. When unpacking, carefully inspect the crate and ensure that nothing has been damaged during transit. Open the crate and check that the machine is in a good condition.

The machine is heavy and you should use a fork truck or get assistance to move the machine for safe moving method. The cabinet stand is equipped with 4 lifting handles (rods) that pull out. Use only these handles when moving the machine with the fork truck

You should also remove the top cover and clean the cutter-head, table, feed rollers and extension wings before assembly and operation.



PROPER GROUNDING

Grounding provides a path of least resistance for electric current to reduce the risk of electric shock.

CX15HC / CX20HC is for use on a normal 220 volt circuit. Make sure that the machine is connected to an outlet having the same configuration as the plug. If an adaptor plug is used, it must be attached to the metal screw of the receptacle. To prevent electrical hazards, have a qualified electrician ensure that the line is properly wired.

The planer should be wired with a plug having 3 prongs to fit a 3 prong grounded receptacle as shown in figure-1. Do not remove the grounding prong to fit it into a 2 pronged outlet.

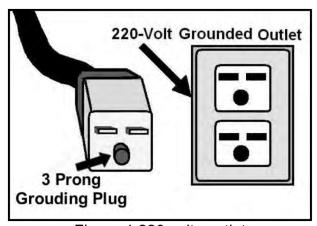


Figure-1 220 volts outlet

It is strongly recommended not to use extension cords with your CX15HC/CX20HC. Always try to position your machine close to the power source so that you do not need to use extension cords.

In case if you really find it necessary to use an extension cord, make sure the extension cord does not exceed 50-feet in length and the cord is 14-gauge to prevent motor damage.

ASSEMBLY

For clarity, it is recommended that you may want to remove the front panel on the base of the machine. See Figure-2.



Figure-2 Removing the front panel

Once you have removed the front panel, you can begin assembling the integrated mobile base.

Remove the hex bolt and hex nut that is comes installed on the foot pedal bracket. Align the holes on the caster assembly with the holes on the bracket and flange and insert the bolt, tighten the screws. Now align the holes on the foot pedal with the foot pedal bracket and secure it with the help of the washers and screws provided. See Figure-4.



Figure-4 Installing the foot pedal and the caster

Your mobile base should now be installed and ready to use. You can now lower the machine back to the ground. Once the machine is sitting back on solid ground, you can lock the mobile base in the place by lifting the foot pedal up. When you are ready to move your machine again, it is recommended that you use the lifting handles (or once the table extension wings are in place) as leverage when operating the foot pedal so that you do not hurt your back (the machine is very heavy, so a strong rigid mobile base has been provided).

Remove the extension wings from the cardboard box. Starting with either the front or the back of the machine, take the first extension table and line the holes of the table bed with the holes of the extension table. Using the hex bolts, lock washers and flat washers provided, finger-tighten all the holes so that the table is secure. Do not fully tighten at this time. See Figure-5.



Figure-5 Installing the extension wings

Once you have installed both extension wings, you can begin the process of leveling out the tables to make sure that they are both flush to the table bed.

The extension tables are equipped with adjusting set screws that make these adjustments very easy. See Figure-6



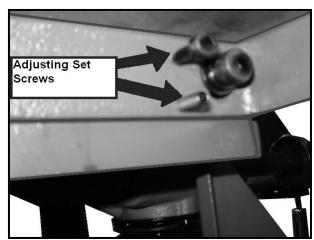


Figure-6 Adjusting the set screws

It is important to use a straight edge at this time as a guide and the set screws for leveling to make sure it is attached properly. Position the extension wings even with the main bed and once fully leveled, tighten all hex bolts. See Figure-7.



Figure-7 Leveling wings using straight edge

Repeat the same procedure for the other extension wing.

The magnetic switch is in a protective brown box. Remove the packaging of the magnetic switch and attach it to the switch bracket located on the left front of the machine. Using the two screws and washers provided, tighten the magnetic switch in place. See Figure-8.

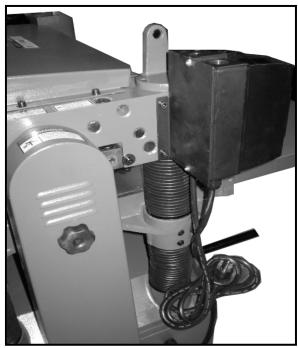


Figure-8 Installing the magnetic switch

Attach the dust hood to the top of the planer first by using the hex bolts, flat washers and hex nuts provided. Then attach the bottom of the dust hood to the planer in the same manner. See Figure-9.



Figure-9 Attaching the dust hood

Locate the hand wheel shaft on the right side of the machine, opposite the magnetic switch. Remove the screw and washer off the keyway shaft and set them aside. Place the hand wheel onto the keyway shaft and put the screw and



washer back into the shaft, tightening to secure the hand wheel. Now insert the turning handle for hand wheel onto the threaded hole on the actual hand wheel and tighten. See Figure-10.



Figure-10 Installing the hand-wheel

Locate the gearbox pull handle and screw it into the gearbox. See Figure-11.

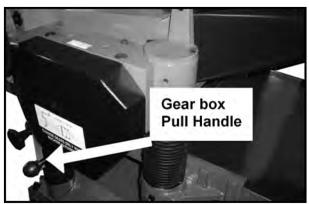


Figure-11 Gear box pull handle installed

This will allow you to change your feed speeds and will be explained later in the manual (See Page-19).

CHECK GEAR BOX OIL!

Before you test run the machine it is important to make sure that there is oil in the gear box. It is best to start with fresh oil. For details see page 19. Normal break-in procedure is to refill the gear box oil after the first 20 hours of operation.

TEST RUN

Once you have assembled your machine completely, then it is time for a test run to make sure that the machine works properly and is ready for operation.

During the test run if there is an unusual noise coming from the machine or the machine vibrates, there problem might be because of the following:

- 1- Belts slapping cover
- 2- V-belts worn or loose
- 3- Pulley loose
- 4- Motor mounts loose or broken

After you investigate and If you find that the problem with your machine is one of the above.

- Replace or realign the belts with a matched set
- 2- Replace the belts with a new matched set
- 3- Realign or replace shaft, pulley, setscrew and key
- 4- Tighten or replace the motor mount

WARNING!

Before starting the planer please make sure that you have read and understood the manual and you are familiar with the functions and safety features on this machine. Failure to do this may cause serious personal injury.



BASIC CONTROLS

The basic controls of the planer are shown in the figure below. Use this figure and read the text to know what the basic controls of this planer are:

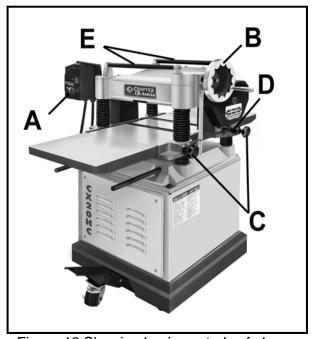


Figure-12 Showing basic controls of planer

- **A. Magnetic Switch:** Starts and stops the planer.
- B. Table Height Hand-Wheel: Controls the height of the table under the cutterhead.
- **C. Table Locks:** Locks the table in your desired position so that it does not move during the operation.
- **D. Feed Rate Control Knob:** Changes the speed rate of the in-feed rollers.
- **E. Return Rollers:** Makes it easy to move wood to the in-feed side of the planer.

IMPORTANT!

Accidents are frequently caused by the lack of familiarity and failure to pay attention. If you have never used any type of this machine before, we recommend you to read and understand this user manual, or get formal training, so that you have enough knowledge about your machine before starting any project.

DEPTH OF CUT

To control depth of cut, use the table height hand-wheel and you can read the dept of cut in inch and metric on the scale provided. The distance of upward or downward movement is controlled by the hand wheel. One revolution of the hand wheel is 1.5mm (0.059").

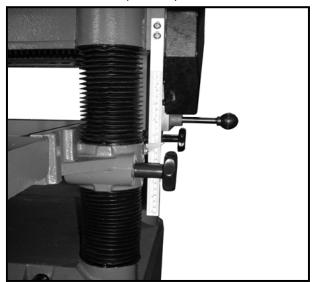
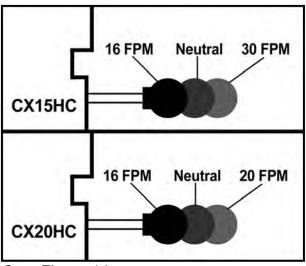


Figure-13 Depth of cut scale

FEED SPEED CONTROL

Your machine has a serrated in-feed roller and they turn to feed the stock in. The feed rollers are driven by chains and the sprockets, which takes the power directly from the cutter-head through the oil bath gear box.

The feeding speed can be changed by using the feed rate control knob. When the knob is in the middle the speed rate is 0. Pulling out the knob, the feed roller operates on rate 30 FPM (CX15HC) and 20 FPM (CX20HC), while pushing it in, the feed roller operates on rate 16 FPM.



See Figure-14 Feed Speed Control Knob positions for CX15HC and CX20HC

WARNING!

Only change the speed rate while the machine is moving, but not during any cutting operation. Failure to do so could result in damaging of the gear box.

TABLE ROLLER HEIGHT

Your planer is supplied with two table rollers in the middle of the planer bed to move stock. As all wood behaves different it is hard to specify the exact dimensions on the proper height settings. However, as a general rule, keep the bed roller height within 0.002"-0.020".above the table surface as shown in figure-15.

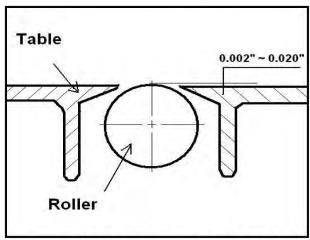


Figure-15 Setting the table roller height

When planing rough stock, the table rollers should be set at a high position and when planing smooth stock the table rollers should be set low. If you wish to adjust the rollers, loosen the screws on both side of the table and turn the eccentric shafts to raise or lower the table rollers. When the proper height is obtained, tighten the screws. The table rollers must be adjusted on the opposite side of the table as well. Be sure that the height of the front and rear rollers are the same.



INFEED AND OUTFEED ROLLERS

In-feed and Out-feed rollers are the part of machine that feed the stock while planning. Both the rollers are under spring tension and this tension must be sufficient to feed the stock uniformly through the planer without slipping but it should not be so tight that it causes damage to the board. The tension should be equal on both ends of each roller.

The spring tension on both the rollers can be adjusted by turning the set screw on the opposite ends of the in-feed and out-feed rollers. If you loosen the screw it makes the rollers to come down and if you tighten the screw the rollers goes up. See figure-16.

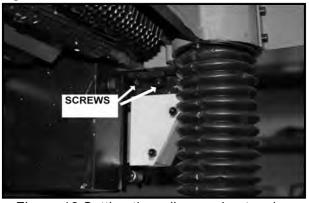


Figure-16 Setting the rollers spring tension

The in-feed roller, chip-breaker, pressure bar and out-feed roller are adjusted at the factory. The in-feed roller and chip-breaker is (0.004") below the cutting circle. The pressure bar is (0.008") and the out feed roller is (0.02") below the cutting circle. See Figure-17.

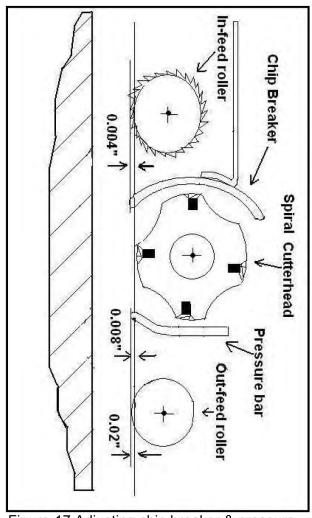


Figure-17 Adjusting chip breaker & pressure bar with the cutter-head

ANTI-KICKBACK FINGERS

To prevent possible injuries, vour machine is provided with anti-kick back fingers. These fingers should be inspected occasionally to make sure they are free of gum and pitch so that they can move independently and operate correctly.

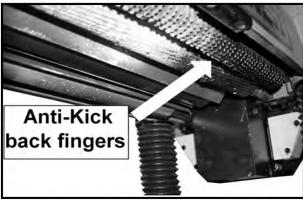


Figure-18 Anti-kick back fingers

RETURN ROLLERS

The planer has two rollers on the top which serves as convenient stock rest. You can move the stock to the in-feed side on these rollers while working which save the time and motion. See Figure-19.



Figure-19 Top return rollers

ROTATING THE CARBIDE INSERT

CX15HC/CX20HC has helical cutter-head using carbide inserts. These inserts are square shape. If one edge of the insert becomes dull or damaged, you can simply rotate the insert 90-degrees and you will get a fresh cutting edge. See figure-20.

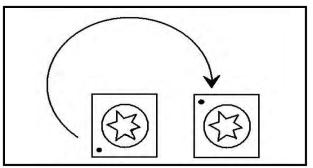


Figure-20 Rotating the insert 90°

If you have used all four edges of the insert, replace the insert with a new one. Always position the reference dot in the same position while installing a new insert to aid the rotational sequencing.

REPLACING THE CARBIDE INSERT

First of all disconnect the power to the planer and remove the top cover. Use protective leather gloves to clean the dust and debris from the head of the insert and from the Torx screw. Remove carbide inserts and replace it with new ones.

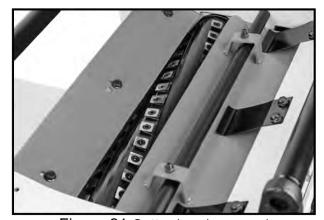


Figure-21 Cutter-head exposed

IMPORTANT

It is important to clean Torx screw and the cutter head surroundings. If dirt or debris gets trapped, it will make the insert out of height alignment and may result in poor cutting performance.



REPLACING AND TENSIONING V-BELTS

CX15HC/CX20HC planer is provided with three V-belts from the motor to the cutter head, in-feed and out-feed rollers through the gear box.

To access the V-belts, remove the front cabinet panel of the machine. If the V-belts need to be replaced, raise the motor to release the belt tension and then replace them with a matching set of 3 belts.

To Adjust the V-belt, loosen the top motor hex nuts and adjust the bottom hex nuts to raise or lower the motor. If there is approximately 1/2" deflection when a moderate pressure is applied to the V-belts, the V-belts are correctly tensioned. See Figure-22.

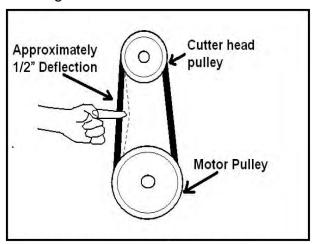


Figure-22 Adjusting the V-belt tension

ADJUSTING ROLLER SPRING TENSION

The spring tension should be adjusted so that the work pieces move through the planer properly

The roller tension varies depending upon the type of wood you are planing. If the stock consistently stops feeding during the planing, the roller spring tension should be increased and if the roller is leaving indents in the wood as it leaves the planer, the tension should be decreased.

To adjust the roller spring tension disconnect the planer from power and adjust the #1, #2 and #3 cap screws as shown in Figure 24, so that they protrude 1/8" and adjust the #4 cap screw so that it protrudes 5/16" above the head casting. See Figure 23.



Figure-23 Set screws for the roller spring tension adjustment

LUBRICATION

For long life and trouble-free operation of your planer it is important to lubricate some components of the machine.

FEED ROLLER BUSHINGS

The In-feed and Out-feed rollers rotate inside bushing blocks on both ends of the rollers. Lubricate feed roller bushing by adding 2-3 drops of SAE 30W oil to the center hole of the four feed roller adjustment bolts on the top of the head casting. See Figure-24.



Figure-24 Lubrication holes for the feed rollers

TABLE HEIGHT WORM GEAR

To lubricate the gear teeth remove the three cap screws from the worm gear housing and lift the housing and hand wheel off the machine. Clean the gear and then apply a moderate amount of multi-purpose grease on the gear teeth. See Figure-25.



Figure-25 Worm gear lubrication location

COLUMNS AND LEAD SCREWS

The table moves up and down by the rotation of the Lead screws inside the columns. Loosen the dust sleeve and apply a thin coat of SAE 30W oil to the outside surface of the columns and put a light application of multi-purpose grease to the lead screws threads. See Figure-26.

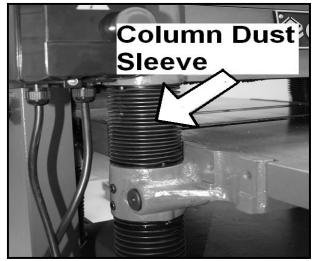


Figure-26 Column dust sleeve



GEARBOX

Remove the drain plug and the filler cap and drain the oil. It is best to start with fresh oil. Retighten the drain-plug and now fill with clean lubricant though the hole (fill plug). (See figure-27). Normal break-in procedure is to refill the gearbox oil after the first 20 hours of operation.

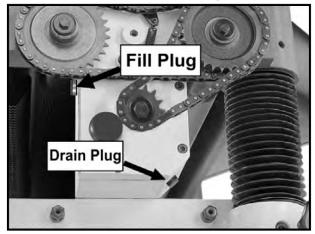


Figure-27 Lubricating the gear box

TABLE HEIGHT CHAIN & SPROCKETS

Remove the front and rear cabinet panels to access these parts, clean away debris and grime, and then brush on a light coat of multi-purpose grease to the chain and sprockets. See Figure-28.

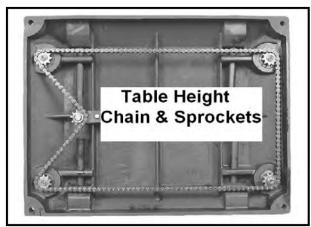


Figure-28 Table height chain and sprockets

DRIVE CHAIN AND SPROCKETS

To lubricate the in-feed and out-feed drive chain and sprockets first remove the table height hand wheel and safety covers attached to the drive chain to access these parts. Then clean the chain and the sprockets and apply a light coat of multipurpose grease on both.

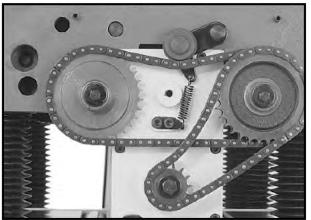
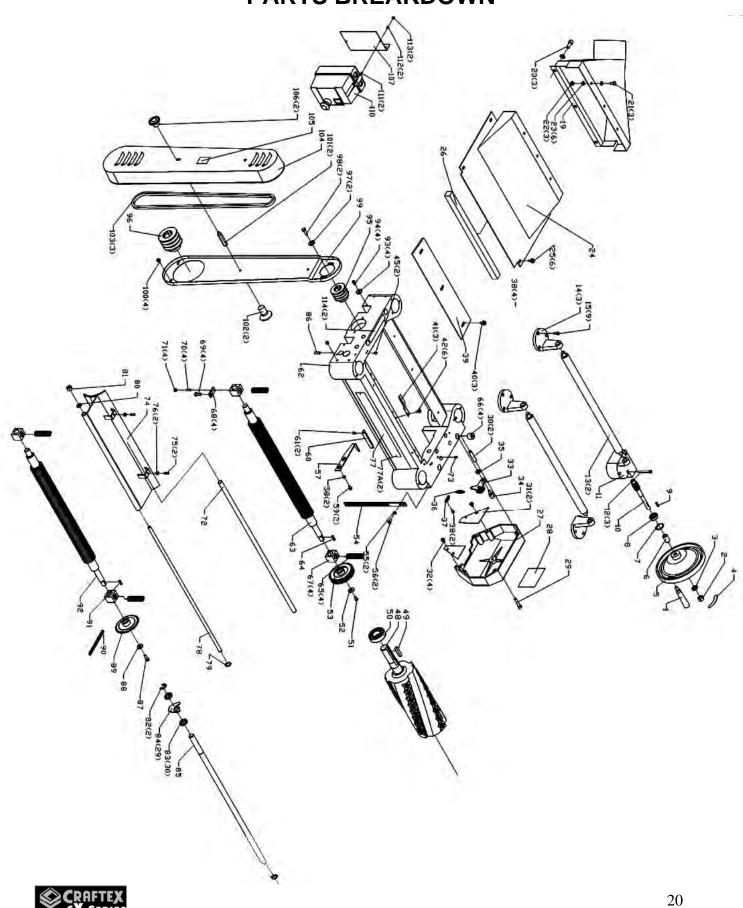


Figure-29 Drive chain & sprockets

CX15HC - 15" PLANER HEADSTOCK PARTS BREAKDOWN



CX15HC - 15" PLANER HEADSTOCK PARTS LIST

REF	PART#	DESCRIPTION
1	MB15-054	HANDLE
2	GB6170	M12 HEX NUT
3	GB96	FLAT WASHER
4	1066	HAND WHEEL LABEL
5	1041	HAND WHEEL
6	1055	COLLAR
7	GB893.1	32MM RETAINING RING
8	6201	BEARING
9	GB1096	4X20 KEY
10	1040	WORM GEAR
11	WP15-106	WORM HOUSING
12	GB70	M5X55 HEX SOC HD SCR
13	WP15-105	ROLLER
14	WP15-104	ROLLER STAND
15	GB70	M5X14 HEX SOC HD SCR
19	680J-06	DUST HOOD
20	GB70	M8X20 HEX SOC HD SCR
21	GB5783	M6X10 HEX BOLT
22	GB6170	M6 HEX NUT
23	GB97	6MM FLAT WASHER
24	WP15-103	UPPER COVER
25	MB15-005	HEX LOCITE SCR
26	MB15- 053A	FOAM PIECE
27	MB15-050	GEAR BOX COVER
28		SPEED RATE LABEL
29	GB70	M8X45 HEX SOC HD SCR

REF	PART# D	ESCRIPTION
30	GB879	6X20 SPRING PIN
31	MB15-049	SAFETY HATCH
32	MB15-005	HEX LOCITE SCR
33		BRACKET
34	MB15-041	SHAFT
35	MB15-042	COLLAR
36	MB15-037	SPRING
37	MB15-036	HANGER
38	GB70	M6X8 HEX SOC HD SCR
39	MB15-008	CHIP DEFLECTOR PLATE
40	MB15-005	HEX LOCITE SCR
41	MB15-053	PRESS PLATE
42	MB15-005	HEX LOCITE SCR
48	MB15-043	HELICAL CUTTERHEAD
49	GB1096	C8X36 KEY
50	6205Z	BEARING
51	GB5783	M6X16 HEX BOLT
52	MB15- 023A	FLAT WASHER
53	MB15-023	SPROCKET
54	1043	SCALE
55	GB97	6MM FLAT WASHER
56	GB818	M6X12 CROSS PAN HD SCR.
57	WP15-107	POINTER
58	GB97	6MM FLAT WASHER
59	GB818	M6X12 CROSS PAN HD SCR.

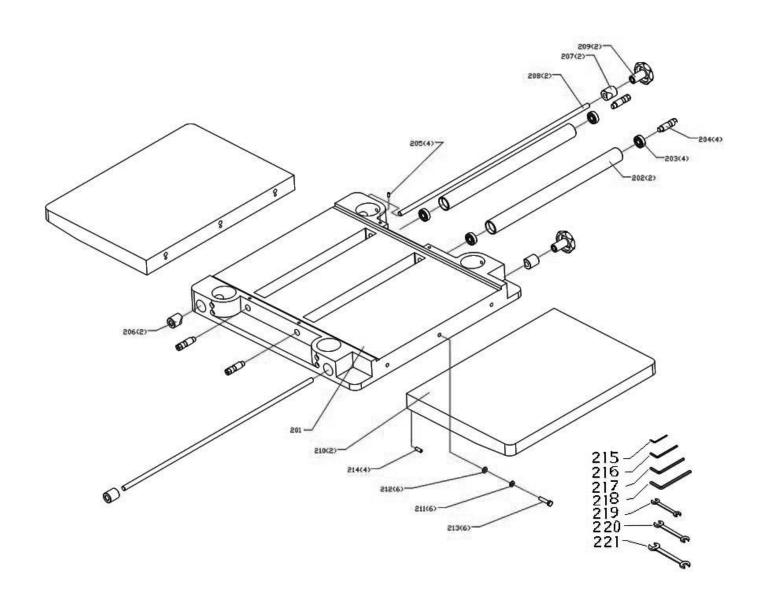
60	MB15-027	CUT LIMIT PLATE
	GB819	M6X8 CROSS
64		COUNTERSUNK HD SCR
61	WP15-101	HEAD CASTING
62	MB15-022	OUTFEED ROLLER
63	GB1096	C5X16 KEY
64	MB15-020	SPRING
65 66	MB15-052	ADJUSTING SCR
67	MB15-032	BUSHING
68	MB15-021	PLATE
69	GB5783	M8X16 HEX BOLT
70	GB80	M5X12MM HEX SOC SET SCR
71	GB6170	M5 HEX NUT
72	MB15-035	SHAFT
73	GB80	M6X20 HEX SOC SET SCR
74	MB15-006	CHIP BREAKER
75	GB80	M6X18 HEX SOC SET SCR
76	GB6170	M6 HEX NUT
77		NAMEPLATE
77A	GB869	2X4MM RIVET
78	WP15-102	LOCKING BOLT
79	GB97	8MM LOCK WASHER
79A	GB5783	M8X12 HEX BOLT
80	GB859	12MM LOCK WASHER
81	GB6170	M12 HEX NUT
82	GB896	15MM RETAINING RING
83	MB15-025	COLLAR
84	MB15-026	ANTI-KICKBACK FINGER
85	MB15-024	SHAFT
86	GB80	M6X18 HEX SOC SET SCR

REF PART# DESCRIPTION REF PART# DESCRIPTION

87	GB5783	M6X16 HEX BOLT
	MB15-	FLAT WASHER
88	023A	
89	MB15-029	SPROCKET
90	GB1243	CHAIN
91	GB1096	C5X16 KEY
92	MB15-028	IN-FEED ROLLER
93	MB15- 023A	FLAT WASHER
94	GB5783	M6X12 HEX BOLT
95	MB15-016	CUTTERHEAD PULLEY
96	MB15-013	MOTOR PULLEY
97	MB15-014	COLLAR
98	GB5783	M8X20 HEX BOLT
99	1048	BELT GUARD
100	MB15-005	HEX LOCITE SCR
101	WP15-108	BOLT
102	GB	M6X12 COUNTERSUNK HD SCR
103		V-BELT
104	1050	BELT COVER
105		WARNING LABEL
106	1053	NUT
107		SWITCH PLATE
108	GB70	M6X12 HEX SOC HD SCR
109	GB97	6MM FLAT WASHER
110		MAGNETIC SWITCH
111	GB818	M5X20 CROSS PAN HD SCR.
112	GB97	5MM FLAT WASHER
113	GB6170	M5 HEX NUT



CX15HC - 15" PLANER WORKING TABLE PARTS BREAKDOWN

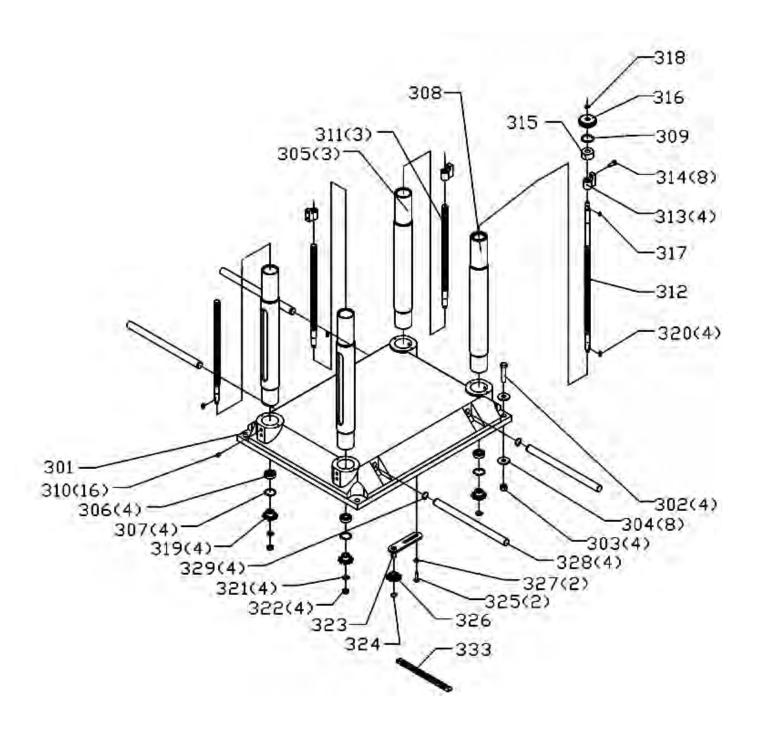


CX15HC - 15" PLANER WORKING TABLE PARTS LIST

REF	ITEM#	DESCRIPTION
202	MB15-069	ROLLER
203		BEARING
204	MB15-067	ECCENTRIC SHAFT
205	GB80	M6X16 HEX SOC SET SCR
206	MB15-033	LOCK BOLT
207	MB15-010	LOCKSMITH
208	MB15-018	LOCK BAR
209	MB15-011	KNOB
210	WP15-202	TABLE CASTING EXTENSION
211	GB93	8MM LOCK WASHER
212	GB97	8MM FLAT WASHER
213	GB5783	M8X30 HEX BOLT
214	GB80	M8X20 HEX SOC SET SCR
215		2.5MM HEX WRENCH
216		3MM HEX WRENCH
217		4MM HEX WRENCH
218		6MM HEX WRENCH
219		10-12MM OPEN END WRENCH
220		14-17MM OPEN END WRENCH
221		17-19MM OPEN END WRENCH



CX15HC - 15" PLANER BASE PARTS BREAKDOWN

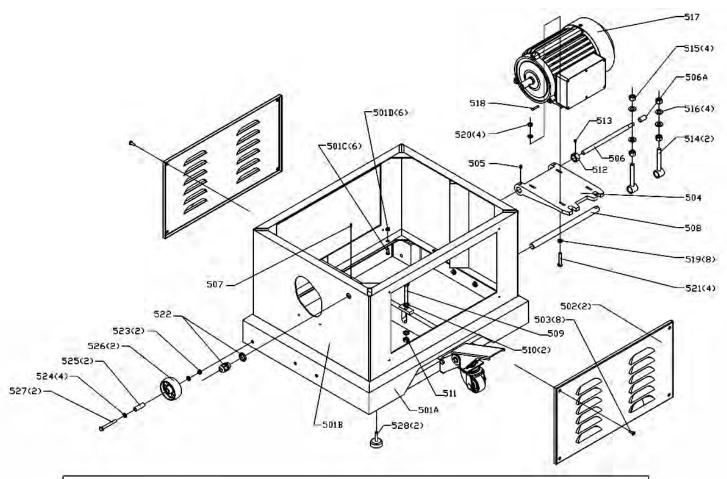


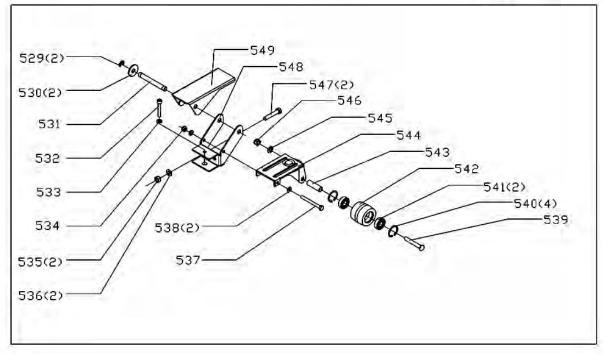
CX15HC - 15" PLANER BASE PARTS LIST

301 WP15-301 BASE 302 GB5783 M12X45 HEX BOLT 303 GB6170 M12 HEX NUT 304 GB96 12MM FLAT WASHER 305 WP15-302 COLUMN 306 BALL BEARING 60302Z 307 GB893.1 42MM INT RETAINING RING 308 WP15-303 COLUMN 309 GB893.1 40MM INT RETAINING RING 310 GB78 M10X12MM HEX SOC SET SCR 311 WP15-305 LEAD SCREW 312 WP15-306 LEAD SCREW 313 WP15-307 LEAD NUT 314 GB70 M6X20MM HEX SOC HD SCR 315 WP15-304 BUSHING 316 3009 GEAR 317 GB1096 4X12MM KEY 318 GB894.1 12MM EXT RETAINING RING 319 MB15-068 SPROCKET 320 GB1096 C5X16 KEY 321 MB15-012A FLAT WASHER 322 GB6170 <	REF	ITEM#	DESCRIPTION
303 GB6170 M12 HEX NUT 304 GB96 12MM FLAT WASHER 305 WP15-302 COLUMN 306 BALL BEARING 60302Z 307 GB893.1 42MM INT RETAINING RING 308 WP15-303 COLUMN 309 GB893.1 40MM INT RETAINING RING 310 GB78 M10X12MM HEX SOC SET SCR 311 WP15-305 LEAD SCREW 312 WP15-306 LEAD SCREW 313 WP15-307 LEAD NUT 314 GB70 M6X20MM HEX SOC HD SCR 315 WP15-304 BUSHING 316 3009 GEAR 317 GB1096 4X12MM KEY 318 GB894.1 12MM EXT RETAINING RING 319 MB15-068 SPROCKET 320 GB1096 C5X16 KEY 321 MB15-012A FLAT WASHER 322 GB6170 M10 HEX NUT 323 BRACKET 323A MB15-070 BRACKET <td>301</td> <td>WP15-301</td> <td>BASE</td>	301	WP15-301	BASE
304 GB96 12MM FLAT WASHER 305 WP15-302 COLUMN 306 BALL BEARING 60302Z 307 GB893.1 42MM INT RETAINING RING 308 WP15-303 COLUMN 309 GB893.1 40MM INT RETAINING RING 310 GB78 M10X12MM HEX SOC SET SCR 311 WP15-305 LEAD SCREW 312 WP15-306 LEAD SCREW 313 WP15-306 LEAD SCREW 314 GB70 M6X20MM HEX SOC HD SCR 315 WP15-304 BUSHING 316 3009 GEAR 317 GB1096 4X12MM KEY 318 GB894.1 12MM EXT RETAINING RING 319 MB15-068 SPROCKET 320 GB1096 C5X16 KEY 321 MB15-012A FLAT WASHER 322 GB6170 M10 HEX NUT 323 BRACKET 323A MB15-071 BRACKET 324 GB894.1 EXT RETAINING RING 15M	302	GB5783	M12X45 HEX BOLT
305 WP15-302 COLUMN 306 BALL BEARING 60302Z 307 GB893.1 42MM INT RETAINING RING 308 WP15-303 COLUMN 309 GB893.1 40MM INT RETAINING RING 310 GB78 M10X12MM HEX SOC SET SCR 311 WP15-305 LEAD SCREW 312 WP15-306 LEAD SCREW 313 WP15-307 LEAD NUT 314 GB70 M6X20MM HEX SOC HD SCR 315 WP15-304 BUSHING 316 3009 GEAR 317 GB1096 4X12MM KEY 318 GB894.1 12MM EXT RETAINING RING 319 MB15-068 SPROCKET 320 GB1096 C5X16 KEY 321 MB15-012A FLAT WASHER 322 GB6170 M10 HEX NUT 323 BRACKET 323A MB15-071 BRACKET 324 GB894.1 EXT RETAINING RING 325 GB5783 M8X20 HEX BOLT 326 MB15-072 CHAIN SPROCKET 327 MB15-007A FLAT WASHER 328 WP15-308 CRANE POST 329 GB894.1 15MM EXT RETAINING RING RING	303	GB6170	M12 HEX NUT
BALL BEARING 60302Z	304	GB96	12MM FLAT WASHER
307 GB893.1 42MM INT RETAINING RING	305	WP15-302	COLUMN
308 WP15-303 COLUMN 309 GB893.1 40MM INT RETAINING RING 310 GB78 M10X12MM HEX SOC SET SCR 311 WP15-305 LEAD SCREW 312 WP15-306 LEAD SCREW 313 WP15-307 LEAD NUT 314 GB70 M6X20MM HEX SOC HD SCR 315 WP15-304 BUSHING 316 3009 GEAR 317 GB1096 4X12MM KEY 318 GB894.1 12MM EXT RETAINING RING 319 MB15-068 SPROCKET 320 GB1096 C5X16 KEY 321 MB15-012A FLAT WASHER 322 GB6170 M10 HEX NUT 323 BRACKET 323A MB15-070 BRACKET 323B MB15-071 BRACKET 324 GB894.1 EXT RETAINING RING 15MM 325 GB5783 M8X20 HEX BOLT 326 MB15-072 CHAIN SPROCKET 327 MB15-007A <td< td=""><td>306</td><td></td><td>BALL BEARING 60302Z</td></td<>	306		BALL BEARING 60302Z
309 GB893.1 40MM INT RETAINING RING	307	GB893.1	42MM INT RETAINING RING
310 GB78 M10X12MM HEX SOC SET SCR 311 WP15-305 LEAD SCREW 312 WP15-306 LEAD SCREW 313 WP15-307 LEAD NUT 314 GB70 M6X20MM HEX SOC HD SCR 315 WP15-304 BUSHING 316 3009 GEAR 317 GB1096 4X12MM KEY 318 GB894.1 12MM EXT RETAINING RING 319 MB15-068 SPROCKET 320 GB1096 C5X16 KEY 321 MB15-012A FLAT WASHER 322 GB6170 M10 HEX NUT 323 BRACKET 323A MB15-070 BRACKET 324 GB894.1 EXT RETAINING RING 15MM 325 GB5783 M8X20 HEX BOLT 326 MB15-072 CHAIN SPROCKET 327 MB15-007A FLAT WASHER 328 WP15-308 CRANE POST 329 GB894.1 15MM EXT RETAINING RING	308	WP15-303	COLUMN
311 WP15-305 LEAD SCREW 312 WP15-306 LEAD SCREW 313 WP15-307 LEAD NUT 314 GB70 M6X20MM HEX SOC HD SCR 315 WP15-304 BUSHING 316 3009 GEAR 317 GB1096 4X12MM KEY 318 GB894.1 12MM EXT RETAINING RING 319 MB15-068 SPROCKET 320 GB1096 C5X16 KEY 321 MB15-012A FLAT WASHER 322 GB6170 M10 HEX NUT 323 BRACKET 323A MB15-070 323B MB15-071 BRACKET 324 GB894.1 EXT RETAINING RING 15MM 325 GB5783 M8X20 HEX BOLT 326 MB15-072 CHAIN SPROCKET 327 MB15-007A FLAT WASHER 328 WP15-308 CRANE POST 329 GB894.1 15MM EXT RETAINING RING	309	GB893.1	40MM INT RETAINING RING
312 WP15-306 LEAD SCREW 313 WP15-307 LEAD NUT 314 GB70 M6X20MM HEX SOC HD SCR 315 WP15-304 BUSHING 316 3009 GEAR 317 GB1096 4X12MM KEY 318 GB894.1 12MM EXT RETAINING RING 319 MB15-068 SPROCKET 320 GB1096 C5X16 KEY 321 MB15-012A FLAT WASHER 322 GB6170 M10 HEX NUT 323 BRACKET 323A MB15-070 BRACKET 323B MB15-071 BRACKET 324 GB894.1 EXT RETAINING RING 15MM 325 GB5783 M8X20 HEX BOLT 326 MB15-072 CHAIN SPROCKET 327 MB15-007A FLAT WASHER 328 WP15-308 CRANE POST 329 GB894.1 15MM EXT RETAINING RING	310	GB78	M10X12MM HEX SOC SET SCR
313 WP15-307 LEAD NUT 314 GB70 M6X20MM HEX SOC HD SCR 315 WP15-304 BUSHING 316 3009 GEAR 317 GB1096 4X12MM KEY 318 GB894.1 12MM EXT RETAINING RING 319 MB15-068 SPROCKET 320 GB1096 C5X16 KEY 321 MB15-012A FLAT WASHER 322 GB6170 M10 HEX NUT 323 BRACKET 323A MB15-070 323B MB15-071 BRACKET 324 GB894.1 EXT RETAINING RING 15MM 325 GB5783 M8X20 HEX BOLT 326 MB15-072 CHAIN SPROCKET 327 MB15-007A FLAT WASHER 328 WP15-308 CRANE POST 329 GB894.1 15MM EXT RETAINING RING	311	WP15-305	LEAD SCREW
314 GB70 M6X20MM HEX SOC HD SCR 315 WP15-304 BUSHING 316 3009 GEAR 317 GB1096 4X12MM KEY 318 GB894.1 12MM EXT RETAINING RING 319 MB15-068 SPROCKET 320 GB1096 C5X16 KEY 321 MB15-012A FLAT WASHER 322 GB6170 M10 HEX NUT 323 BRACKET 323A MB15-070 323B MB15-071 BRACKET 324 GB894.1 EXT RETAINING RING 15MM 325 GB5783 M8X20 HEX BOLT 326 MB15-072 CHAIN SPROCKET 327 MB15-007A FLAT WASHER 328 WP15-308 CRANE POST 329 GB894.1 15MM EXT RETAINING RING	312	WP15-306	LEAD SCREW
315 WP15-304 BUSHING 316 3009 GEAR 317 GB1096 4X12MM KEY 318 GB894.1 12MM EXT RETAINING RING 319 MB15-068 SPROCKET 320 GB1096 C5X16 KEY 321 MB15-012A FLAT WASHER 322 GB6170 M10 HEX NUT 323 BRACKET 323A MB15-070 323B MB15-071 BRACKET 324 GB894.1 EXT RETAINING RING 15MM 325 GB5783 M8X20 HEX BOLT 326 MB15-072 CHAIN SPROCKET 327 MB15-007A FLAT WASHER 328 WP15-308 CRANE POST 329 GB894.1 15MM EXT RETAINING RING	313	WP15-307	LEAD NUT
316 3009 GEAR 317 GB1096 4X12MM KEY 318 GB894.1 12MM EXT RETAINING RING 319 MB15-068 SPROCKET 320 GB1096 C5X16 KEY 321 MB15-012A FLAT WASHER 322 GB6170 M10 HEX NUT 323 BRACKET 323A MB15-070 323B MB15-071 BRACKET 324 GB894.1 EXT RETAINING RING 15MM 325 GB5783 M8X20 HEX BOLT 326 MB15-072 CHAIN SPROCKET 327 MB15-007A FLAT WASHER 328 WP15-308 CRANE POST 329 GB894.1 15MM EXT RETAINING RING	314	GB70	M6X20MM HEX SOC HD SCR
317 GB1096 4X12MM KEY 318 GB894.1 12MM EXT RETAINING RING 319 MB15-068 SPROCKET 320 GB1096 C5X16 KEY 321 MB15-012A FLAT WASHER 322 GB6170 M10 HEX NUT 323 BRACKET 323A MB15-070 323B MB15-071 BRACKET 324 GB894.1 EXT RETAINING RING 15MM 325 GB5783 M8X20 HEX BOLT 326 MB15-072 CHAIN SPROCKET 327 MB15-007A FLAT WASHER 328 WP15-308 CRANE POST 329 GB894.1 15MM EXT RETAINING RING	315	WP15-304	BUSHING
318 GB894.1 12MM EXT RETAINING RING 319 MB15-068 SPROCKET 320 GB1096 C5X16 KEY 321 MB15-012A FLAT WASHER 322 GB6170 M10 HEX NUT 323 BRACKET 323A MB15-070 323B MB15-071 BRACKET 324 GB894.1 EXT RETAINING RING 15MM 325 GB5783 M8X20 HEX BOLT 326 MB15-072 CHAIN SPROCKET 327 MB15-007A FLAT WASHER 328 WP15-308 CRANE POST 329 GB894.1 15MM EXT RETAINING RING	316	3009	GEAR
319 MB15-068 SPROCKET 320 GB1096 C5X16 KEY 321 MB15-012A FLAT WASHER 322 GB6170 M10 HEX NUT 323 BRACKET 323A MB15-070 323B MB15-071 BRACKET 324 GB894.1 EXT RETAINING RING 15MM 325 GB5783 M8X20 HEX BOLT 326 MB15-072 CHAIN SPROCKET 327 MB15-007A FLAT WASHER 328 WP15-308 CRANE POST 329 GB894.1 15MM EXT RETAINING RING	317	GB1096	4X12MM KEY
320 GB1096 C5X16 KEY 321 MB15-012A FLAT WASHER 322 GB6170 M10 HEX NUT 323 BRACKET 323A MB15-070 323B MB15-071 BRACKET 324 GB894.1 EXT RETAINING RING 15MM 325 GB5783 M8X20 HEX BOLT 326 MB15-072 CHAIN SPROCKET 327 MB15-007A FLAT WASHER 328 WP15-308 CRANE POST 329 GB894.1 15MM EXT RETAINING RING	318	GB894.1	12MM EXT RETAINING RING
321 MB15-012A FLAT WASHER 322 GB6170 M10 HEX NUT 323 BRACKET 323A MB15-070 323B MB15-071 BRACKET 324 GB894.1 EXT RETAINING RING 15MM 325 GB5783 M8X20 HEX BOLT 326 MB15-072 CHAIN SPROCKET 327 MB15-007A FLAT WASHER 328 WP15-308 CRANE POST 329 GB894.1 15MM EXT RETAINING RING	319	MB15-068	SPROCKET
322 GB6170 M10 HEX NUT 323 BRACKET 323A MB15-070 323B MB15-071 BRACKET 324 GB894.1 EXT RETAINING RING 15MM 325 GB5783 M8X20 HEX BOLT 326 MB15-072 CHAIN SPROCKET 327 MB15-007A FLAT WASHER 328 WP15-308 CRANE POST 329 GB894.1 15MM EXT RETAINING RING	320	GB1096	C5X16 KEY
323 BRACKET 323A MB15-070 323B MB15-071 BRACKET 324 GB894.1 EXT RETAINING RING 15MM 325 GB5783 M8X20 HEX BOLT 326 MB15-072 CHAIN SPROCKET 327 MB15-007A FLAT WASHER 328 WP15-308 CRANE POST 329 GB894.1 15MM EXT RETAINING RING	321	MB15-012A	FLAT WASHER
323A MB15-070 323B MB15-071 BRACKET 324 GB894.1 EXT RETAINING RING 15MM 325 GB5783 M8X20 HEX BOLT 326 MB15-072 CHAIN SPROCKET 327 MB15-007A FLAT WASHER 328 WP15-308 CRANE POST 329 GB894.1 15MM EXT RETAINING RING	322	GB6170	M10 HEX NUT
323B MB15-071 BRACKET 324 GB894.1 EXT RETAINING RING 15MM 325 GB5783 M8X20 HEX BOLT 326 MB15-072 CHAIN SPROCKET 327 MB15-007A FLAT WASHER 328 WP15-308 CRANE POST 329 GB894.1 15MM EXT RETAINING RING	323		BRACKET
324 GB894.1 EXT RETAINING RING 15MM 325 GB5783 M8X20 HEX BOLT 326 MB15-072 CHAIN SPROCKET 327 MB15-007A FLAT WASHER 328 WP15-308 CRANE POST 329 GB894.1 15MM EXT RETAINING RING	323A	MB15-070	
325 GB5783 M8X20 HEX BOLT 326 MB15-072 CHAIN SPROCKET 327 MB15-007A FLAT WASHER 328 WP15-308 CRANE POST 329 GB894.1 15MM EXT RETAINING RING	323B	MB15-071	BRACKET
326 MB15-072 CHAIN SPROCKET 327 MB15-007A FLAT WASHER 328 WP15-308 CRANE POST 329 GB894.1 15MM EXT RETAINING RING	324	GB894.1	EXT RETAINING RING 15MM
327 MB15-007A FLAT WASHER 328 WP15-308 CRANE POST 329 GB894.1 15MM EXT RETAINING RING	325	GB5783	M8X20 HEX BOLT
328 WP15-308 CRANE POST 329 GB894.1 15MM EXT RETAINING RING	326	MB15-072	CHAIN SPROCKET
329 GB894.1 15MM EXT RETAINING RING	327	MB15-007A	FLAT WASHER
	328	WP15-308	CRANE POST
330 GB3579 CHAIN 12.7A×134	329	GB894.1	15MM EXT RETAINING RING
	330	GB3579	CHAIN 12.7A×134



CX15HC - 15" PLANER CABINET PARTS BREAKDOWN





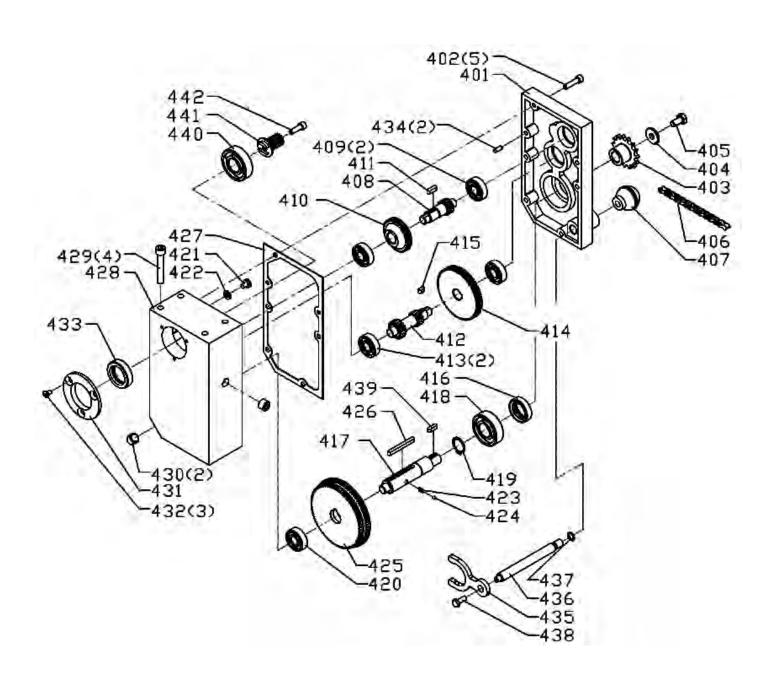
CX15HC - 15" PLANER CABINET PARTS LIST

REF	ITEM#	DESCRIPTION
	WP15-	FRAME
501A	401	
	WP15-	FRAME SUPPORT
501B	402	
	020-	5/16-18X19 HEX BOLT
501C	0834	
	503-	5/16-18 HEX NUT
501D	1514	
	WP15-	COVER
502	403	
	GB819	M6X20 CROSS
503		COUNTERSUNK HD SCR
504	4003	MOTOR PLATE
505	GB80	M6X12 HEX SOC SET SCR
	WP15-	PLATE CONNECTING ROD
506	404	
	WP15-	COLLAR
506A	405	
507	GB80	M8X12 HEX SOC SET SCR
	WP15-	PLATE CONNECTING ROD
508	404A	
509	GB5783	M10X70 HEX BOLT
510	GB97	10MM FLAT WASHER
511	GB6170	M10 HEX NUT
512	4005	COLLAR
513	GB80	M6X8 HEX SOC SET SCR
514	4006	ADJUST BOLT
515	GB6170	M12 HEX NUT
516	GB96	12MM FLAT WASHER
517	4007	MOTOR
518	GB1096	5X30 KEY
	MB15-	FLAT WASHER
519	007A	

REF	ITEM	# DESCRIPTION
520	GB6170	M8 HEX NUT
521	GB5783	M8X45 HEX BOLT
522		STRAIN RELIEF
523	GB6184	M8 SPECIAL HEX NUT
524	GB97	8MM FLAT WASHER
525	4014	SLEEVE
526	4015	UNIVERSAL PULLEY
527	GB5783	M8X65 HEX BOLT
528	4019	RUBBER FEET
529	GB896	9MM RETAINING RING
530	GB96	12MM FLAT WASHER
531	4013	SHAFT
532	GB5780	M8X50 HEX BOLT
533	GB97	8MM FLAT WASHER
534	GB6184	M8 SPECIAL HEX NUT
535	GB6170	M10 HEX NUT
536	GB97	10MM FLAT WASHER
537	GB5780	M8X100 HEX BOLT
538	GB97	8MM FLAT WASHER
539	4009	SPECIAL BOLT
540	GB893	35MM RETAINING RING
541		6202Z BEARING
542	4010A	TROLLEY WHEEL
543	4010B	SLEEVE
544	4008	TROLLEY UNIVERSAL KIT
545	GB97	10MM WASHER
546	GB6184	M10 SPECIAL HEX NUT
547	GB5780	M10X55 HEX BOLT
548	4011	BRACKET
549	4012	PEDAL
'		



CX15HC - 15" PLANER GEARBOX PARTS BREAKDOWN



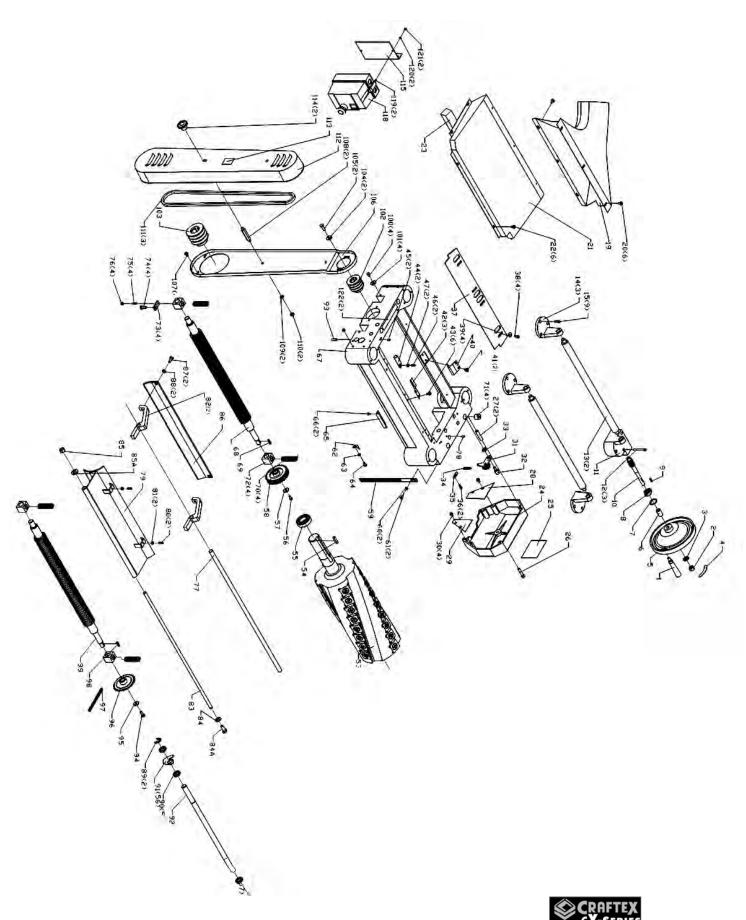
CX15HC - 15" PLANER GEARBOX PARTS LIST

	14045.070	0545 507
	MB15-076	GEAR BOX
401		COVER
	GB70	M6X25MM HEX
402		SOC HD SCR
403	MB15-077	SPROCKET
	MB15-007A	FLAT WASHER
404		8MM
	GB5783	M8X16 HEX
405		BOLT
406	GB1243.1	CHAIN
407	同JT360,2003	BALL KNOB
408	MB15-078	SHAFT
	80201	BALL BEARING
409		80201
410	MB15-081	GEAR
411	GB1096	C5X14 KEY
412	MB15-080	SHAFT
	80201	BALL BEARING
413		80201
414	MB15-079	GEAR
415	GB1096	C5X10 KEY
	HG4-692-67	OIL SEAL
416		20×35×7
417	MB15-082	SHAFT
	80204	BALL BEARING
418		80204
	GB894.1	20MM EXT
		REATINING
419		RING
420	80201	BALL BEARING
	1	1

		80201
	GB818	M6X8 CROSS
421		PAN HD SCR.
422	GB97.1	6MM FLAT WASHER
	MB15-083	COMPRESSION
423		SPRING
424	GB308	4MM STEEL BALL
425	MB15-084	GEAR
426	GB1096	5X50 KEY
427	MB15-085	GASKET
428	MB15-086	GEAR BOX
	GB70	M8X50MM HEX SOC
429		HD SCR
430	MB15-087	OIL PLUG
431	MB15-088	FLANGE COVER
	GB2673	M5X12
		COUNTERSUNK HD
432	SCR	
	HG4-692-	OIL SEAL
433	67	
434	GB119	5×10 PIN
435	MB15-089	CLUTCH
436	MB15-090	HANDLE SHAFT
437	GB1235	16×2.4 O-RING
438	MB15-005	HEX LOCITE SCR
439	GB1096	C5X16 KEY
		BALL BEARING
440	6204Z	80204Z
441	MB15-048	GEAR
		M6X20MM HEX SOC
442	GB70	HD SCR



CX20HC - 20" PLANER HEADSTOCK PARTS BREAKDOWN



CX20HC - 20" PLANER HEADSTOCK PARTS LIST

REF	ITEM#	DESCRIPTION
_	MB15-	HANDLE
1	054 GB617	M12 HEX NUT
2	0	WIZ FIEX NOT
3	GB96	FLAT WASHER
4		HAND WHEEL LABEL
5	1041	HAND WHEEL
6	1055	COLLAR
7	GB893.	32MM RETAINING RING
8	6201	BALL BEARING
0	GB109	4X20 KEY
9	6	17(201)
10	1040	WORM GEAR
11	1039	WORM HOUSING
12	GB70	M5X55 HEX SOC HD SCR
13	1038	ROLLER
14	1037	ROLLER STAND
15	GB70	M6X16 HEX SOC HD SCR
19	1036	8MM RETAINING RING
20	MB15- 005	KNIFE GAUGE
21	1034	KNIFE GAUGE SHAFT
22	MB15- 005	DUST HOOD
23	1035	HEX LOCITE SCR
24	1045	UPPER COVER
25		HEX LOCITE SCR
26	GB70	GASKET
27	GB879	GEAR BOX COVER
28	1046	SPEED CHANGE LABEL
29	1047	M8X40 HEX SOC HD SCR
30	MB15- 005	6X20 ROLL PIN
31		SAFETY HATCH
31A	MB15- 038	SAFETY HATCH
31B	MB15- 039	HEX LOCITE SCR

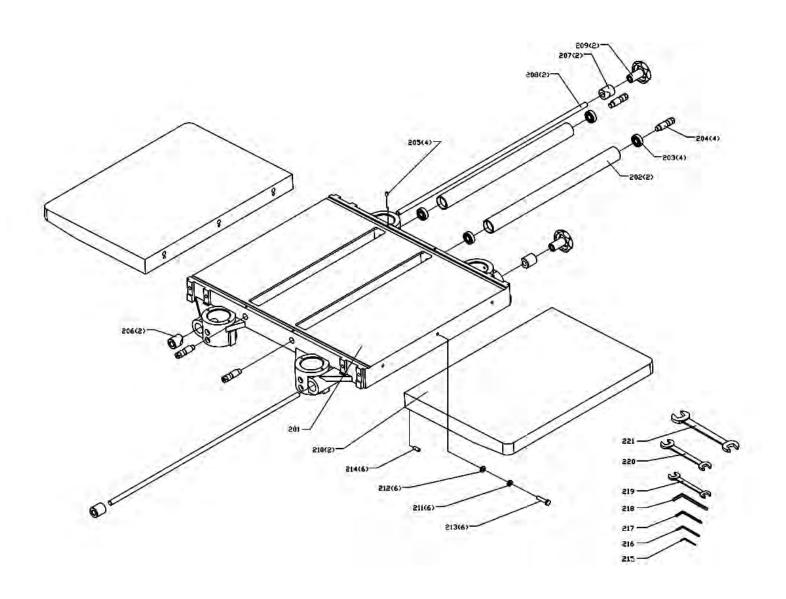
F	REF IT	EM# DESCRIPTION
	MB15-	BRACKET ASSY
31C	049	
	MB15-	SHAFT
32	041	
20	MB15-	COLLAR
33	042	
		EXTENSION SPRING
0.4	MB15-	HANGER
34	037 MB15-	
35	036	M6X10 HEX SOC HD SCR
	GB70	CHIP DEFLECTOR PLATE
36	1029	M6X16 FLANGE BOLT
37		
38	GB578 3	6MM FLAT WASHER
39	GB96	SPRING PLATE
40	1028	HEX LOCITE SCR
	MB15-	SPRING PLATE
41	005	
42	1023	HEX LOCITE SCR
	MB15-	ADJUSTING SHAFT
43	005	
44	1027	M6X12MM HEX SOC SET SCR
	GB80	M6X12MM HEX SOC SET
45		SCR
46	GB80	M6 HEX NUT
47	GB617 0	HELICAL CUTTERHEAD
	0	C8X36 KEY
53	GB109	BALL BEARING 6206
54	6	5, LE 5E, (KII 40 0200
55	6206Z	M6X16 HEX BOLT
	GB578	FLAT WASHER
56	3	
	MB15-	SPROCKET FOR DOUBLE
57	023A	CHAIN
58	1020	SCALE
59	1043	6MM FLAT WASHER
60	GB97	PHLP HD SCR M6-1X12
61	GB818	CUT LIMIT POINTER
62	1044	6MM FLAT WASHER



60	GB97	MCV42 CDOSS DANLID SCD
63	GB818	M6X12 CROSS PAN HD SCR. CUT LIMITER PLATE
64		
65	1033	M5X12 COUNTERSUNK HD SCR
66	GB	HEAD CASTING
67	1001	OUT-FEED ROLLER
68	1019	C5X22 KEY
69	GB109 6	COMPRESSION SPRING
70	MB15- 020	ADJUSTING SCR
71	MB15- 052	BUSHING
72	1013	PLATE
73	1016	M8X20 HEX BOLT
74	GB578	M6X20 HEX SOC SET SCR
75	GB80	M6 HEX NUT
76	GB617 0	SHAFT
77	1024	M6X16 HEX SOC SET SCR
78	GB80	CHIP BREAKER
79	1022	M6X20 HEX SOC SET SCR
80	GB80	M6 HEX NUT
00	GB617	BRACKET
81	0	
82	1025	LOCKING ROD
83	1021	8MM FLAT WASHER
84	GB97	M8X12 HEX BOLT
84A	GB578 3	M12 HEX NUT
85	GB617 0	12MM LOCK WASHER
85A	GB93	PRESSURE PLATE
86	1026	M8X20 HEX BOLT
	GB578	8MM LOCK WASHER
87	3	15MM RETAINING RING
88	GB93	
89	GB896	COLLAR
90	1031	ANTI-KICKBACK FINGER
91	1030	ANTI-KICKBACK SHAFT
92	1032	M6X12 HEX SOC SET SCR

93	GB80	M6X16 HEX BOLT
94	GB578 3	FLAT WASHER
34	MB15-	SPROCKET
95	023A	
96	1017	CHAIN
97	GB124 3	C5X22 KEY
00	GB109 6	IN-FEED ROLLER
98 99	1012	FLAT WASHER
99	MB15-	
100	023A	M6X12 HEX BOLT
101	GB578 3	CUTTERHEAD PULLEY
102	MB15- 016	MOTOR PULLEY
103	MB15- 013	FLAT WASHER
104	MB15- 007A	M8X25 HEX BOLT
105	GB578 3	BELT GUARD
106	1048	HEX LOCITE SCR
107	MB15- 005	SPECIAL BOLT
108	1049	8MM FLAT WASHER
109	GB97	8MM HEX NUT
110	GB617 0	V-BELT
111		BELT COVER
112	1050	WARNING LABEL
113		NUT
114	1053	MAGNETIC SWITCH PLATE
115		M6X10 HEX SOC HD SCR
116	GB70	6MM FLAT WASHER
117	GB97	MAGNETIC SWITCH
118		M5X20 CROSS PAN HD SCR.
119	GB818	5MM FLAT WASHER
120	GB97	M5 HEX NUT
121	GB617 0	M5 HEX NUT

CX20HC - 20" PLANER WORKING TABLE PARTS BREAKDOWN

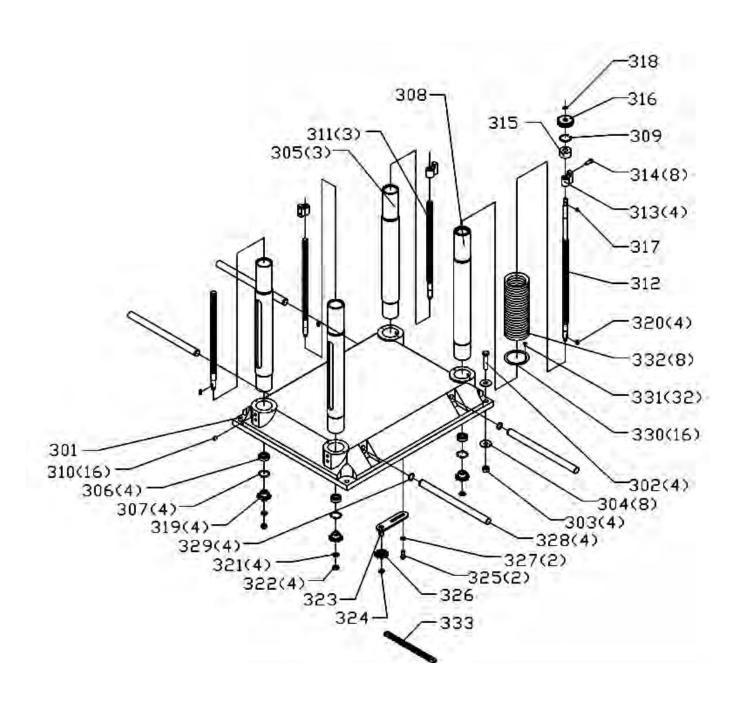




CX20HC - 20" PLANER WORKING TABLE PARTS LIST

REF	ITEM#	DESCRIPTION
201	2001	INTERMEDIATE TABLE
202	2002	ROLLER
203		BEARING
204	2003	ECCENTRIC SHAFT
205	GB80	M6X16 HEX SOC SET SCR
206	2004	LOCK BOLT
207	2005	LOCKSMITH
208	2006	LOCK BAR
209	MB15-011	KNOB
210	2008	TABLE CASTING EXTENSION
211	GB93	8MM LOCK WASHER
212	GB97	8MM FLAT WASHER
213	GB5783	M8X35 HEX BOLT
214	GB80	M8X20 HEX SOC SET SCR
215	GB5356	3MM HEX WRENCH
216	GB5356	4MM HEX WRENCH
217	GB5356	5MM HEX WRENCH
218	GB5356	6MM HEX WRENCH
219	GB4393	8-10MM OPEN END WRENCH
220	GB4393	12-14MM OPEN END WRENCH
221	GB4393	17-19MM OPEN END WRENCH

CX20SC - 20" PLANER BASE PARTS BREAKDOWN

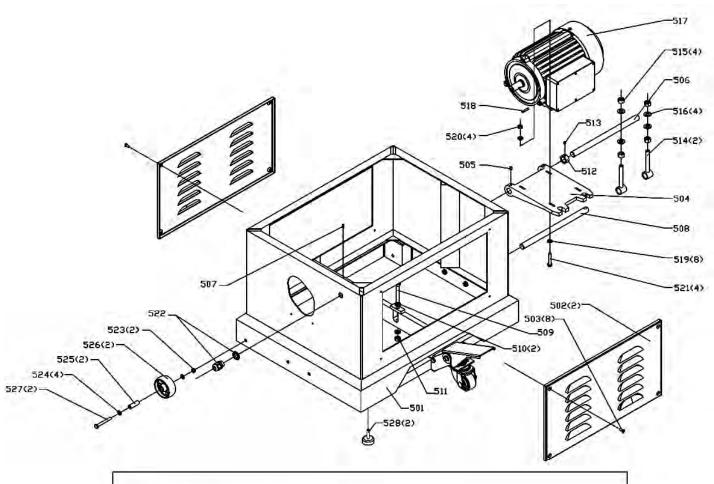


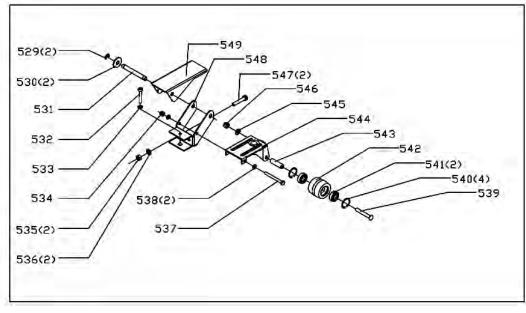


CX20HC -20" PLANER BASE PARTS LIST

REF	ITEM#	DESCRIPTION
301	3001	BASE
302	GB5783	M12X60 HEX BOLT
303	GB6170	M12 HEX NUT
304	GB96	12MM FLAT WASHER
305	3002	COLUMN
306		BALL BEARING 6202
307	GB893.1	35MM INT RETAINING RING
308	3003	COLUMN
309	GB893.1	38MM INT RETAINING RING
310	GB78	M10X12MM HEX SOC SET SCR
311	3004	LEAD SCREW
312	3005	LEAD SCREW
313	3006	LEAD UNT
314	GB70	M8X20MM HEX SOC HD SCR
315	3007	BUSHING
316	3009	GEAR
317	GB1096	4X12MM KEY
318	GB894.1	12MM EXT RETAINING RING
319	3010	SPROCKET
320	GB1096	C5X16 KEY
321	GB97	10MM FLAT WASHER 10MM
322	GB6170	M10 HEX NUT
323		BRACKET ASSY
323A	3011	SHAFT
323B	3012	BRACKET
324	GB894.1	15MM EXT RETAINING RING
325	GB5783	M8×25 HEX BOLT
326	3013	SPROCKET
327	MB15-007A	FLAT WASHER
328	3015	GRANE POST
329	GB894.1	21MM EXT RETAINING RING
330	3016	PIPE BAND
331	GB818	M5X10 CROSS PAN HD SCR.
332	3017	DUST BOOT

CX20HC - 20" PLANER CABINET PARTS BREAKDOWN





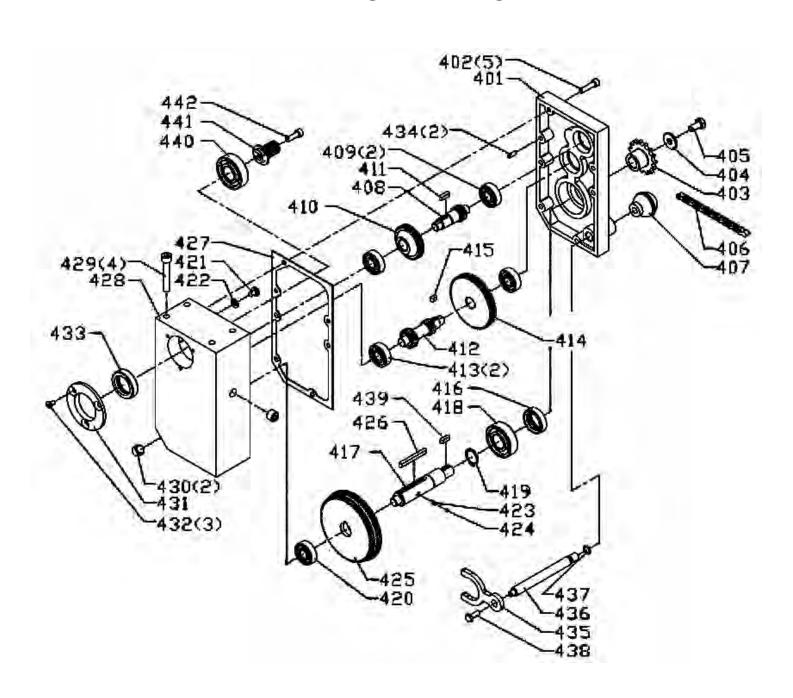


CX20HC - 20" PLANER CABINET PARTS LIST

REF	ITEM#	DESCRIPTION
501	4001	ENCLOSED STAND
502	4002	COVER
	GB819	M6X20 CROSS
503		COUNTERSUNK HD SCR
504	4003	MOTOR PLATE
	GB80	M6X12 HEX SOC SET
505		SCR
	4004	PLATE CONNECTING
506		ROD
	GB80	M8X12 HEX SOC SET
507		SCR
	4004A	PLATE CONNECTING
508		ROD
509	GB5783	M10X70 HEX BOLT
510	GB97	10MM FLAT WASHER
511	GB6170	M10 HEX NUT
512	4005	COLLAR
513	GB80	M6X8 HEX SOC SET SCR
514	4006	ADJUST BOLT
515	GB6170	M12 HEX NUT
516	GB96	12MM FLAT WASHER
517	4007	MOTOR 5HP 220V
518	GB1096	5X30 KEY
	MB15-	FLAT WASHER
519	007A	
520	GB6170	M8 HEX NUT
521	GB5783	M8X45 HEX BOLT
522		STRAIN RELIEF

REF	ITEM#	DESCRIPTION
523	GB6184	M8 SPECIAL HEX NUT
524	GB97	8MM FLAT WASHER
525	4014	SLEEVE
526	4015	UNIVERSAL PULLEY
527	GB5783	M8X65 HEX BOLT
528	4019	RUBBER FEET
529	GB896	9MM RETAINING RING
530	GB96	12MM FLAT WASHER
531	4013	SHAFT
532	GB5780	M8X50 HEX BOLT
533	GB97	8MM FLAT WASHER
534	GB6184	M8 SPECIAL HEX NUT
535	GB6170	M10 HEX NUT
536	GB97	10MM FLAT WASHER
537	GB5780	M8X100 HEX BOLT
538	GB97	8MM FLAT WASHER
539	4009	SPECIAL BOLT
540	GB893	35MM RETAINING RING
541		BEARING
542	4010A	TROLLEY WHEEL
543	4010B	SLEEVE
	4008	TROLLEY UNIVERSAL
544		KIT
545	GB97	10MM WASHER
546	GB6184	M10 SPECIAL HEX NUT
547	GB5780	M10X55 HEX BOLT
548	4011	BRACKET
549	4012	PEDAL
	1	·

CX20HC - 20" PLANER GEAR BOX PARTS BREAKDOWN





CX20HC - 20" PLANER GEAR BOX PARTS LIST

REF	TITEM#	DESCRIPTION
401	MB15-076	GEAR BOX COVER
	GB70	M6X25MM HEX SOC
402		HD SCR
403	MB15-077	SPROCKET
404	MB15-007A	8MM FLAT WASHER
405	GB5783	M8X16 HEX BOLT
406	GB1243.1	CHAIN
407	同JT360,2003	BALL KNOB
408	MB15-078	SHAFT
409	80201	BALL BEARING 6201
410	MB15-081	GEAR
411	GB1096	C5X14 KEY
412	5007	SHAFT
413	80201	BALL BEARING 6201
414	MB15-079	GEAR
415	GB1096	C5X10 KEY
416	HG4-692-67	OIL SEAL 20X35X7
417	MB15-082	SHAFT
418	80204	BALL BEARING 6204
	GB894.1	20MM EXT
419		RETAINING RING
420	80201	BALL BEARING 6201
	GB818	M6X8 CROSS PAN
421		HD SCR.
422	GB97.1	6MM FLAT WASHER

MB15-083 COMPRESSION 423 SPRING 424 GB308 4MM STEEL BALL 425 5008 GEAR 426 GB1096 5X50 KEY 427 MB15-085 GASKET 428 MB15-086 GEAR BOX GB70 M8X50MM HEX SO 429 HD SCR 430 MB15-087 OIL PLUG 431 MB15-088 FLANGE COVER GB2673 M5X12 COUNTERSUNK H 432 SCR 433 HG4-692-67 OIL SEAL 434 GB119 5×10 PIN	
424 GB308 4MM STEEL BALL 425 5008 GEAR 426 GB1096 5X50 KEY 427 MB15-085 GASKET 428 MB15-086 GEAR BOX GB70 M8X50MM HEX SC 429 HD SCR 430 MB15-087 OIL PLUG 431 MB15-088 FLANGE COVER GB2673 M5X12 COUNTERSUNK F 432 SCR 433 HG4-692-67 OIL SEAL	
425 5008 GEAR 426 GB1096 5X50 KEY 427 MB15-085 GASKET 428 MB15-086 GEAR BOX GB70 M8X50MM HEX SC 429 HD SCR 430 MB15-087 OIL PLUG 431 MB15-088 FLANGE COVER GB2673 M5X12 COUNTERSUNK F 432 SCR 433 HG4-692-67 OIL SEAL	
426 GB1096 5X50 KEY 427 MB15-085 GASKET 428 MB15-086 GEAR BOX 429 M8X50MM HEX SC 429 HD SCR 430 MB15-087 OIL PLUG 431 MB15-088 FLANGE COVER GB2673 M5X12 COUNTERSUNK F 432 SCR 433 HG4-692-67 OIL SEAL	
427 MB15-085 GASKET 428 MB15-086 GEAR BOX GB70 M8X50MM HEX SC 429 HD SCR 430 MB15-087 OIL PLUG 431 MB15-088 FLANGE COVER GB2673 M5X12 COUNTERSUNK H 432 SCR 433 HG4-692-67 OIL SEAL	
428 MB15-086 GEAR BOX GB70 M8X50MM HEX SO 429 HD SCR 430 MB15-087 OIL PLUG 431 MB15-088 FLANGE COVER GB2673 M5X12 COUNTERSUNK H 432 SCR 433 HG4-692-67 OIL SEAL	
GB70 M8X50MM HEX SC HD SCR 430 MB15-087 OIL PLUG 431 MB15-088 FLANGE COVER GB2673 M5X12 COUNTERSUNK H SCR 432 SCR	
429 HD SCR 430 MB15-087 OIL PLUG 431 MB15-088 FLANGE COVER GB2673 M5X12 COUNTERSUNK F 432 SCR 433 HG4-692-67 OIL SEAL	
430 MB15-087 OIL PLUG 431 MB15-088 FLANGE COVER GB2673 M5X12 COUNTERSUNK F SCR 433 HG4-692-67 OIL SEAL	C
431 MB15-088 FLANGE COVER GB2673 M5X12 COUNTERSUNK F SCR 433 HG4-692-67 OIL SEAL	
GB2673 M5X12 COUNTERSUNK H SCR 433 HG4-692-67 OIL SEAL	
COUNTERSUNK H SCR 433 HG4-692-67 OIL SEAL	
432 SCR 433 HG4-692-67 OIL SEAL	
433 HG4-692-67 OIL SEAL	ΙD
434 GB119 5×10 PIN	
435 MB15-089 CLUTCH	
436 MB15-090 HANDLE SHAFT	
437 GB1235 16×2.4 O-RING	
438 MB15-005 HEX LOCITE SCR	
439 GB1096 C5X16 KEY	
440 6204Z BALL BEARING	
441 MB15-048 GEAR	
M6X20MM HEX SC	С
442 GB70 HD SCR	



WARRANTY

CRAFTEX 3 YEAR LIMITED WARRANTY

Craftex warrants every product to be free from defects in materials and agrees to correct such defects where applicable. This warranty covers **three years** for parts and 90 days for labour (unless specified otherwise), to the original purchaser from the date of purchase but does not apply to malfunctions arising directly or indirectly from misuse, abuse, improper installation or assembly, negligence, accidents, repairs or alterations or lack of maintenance.

Proof of purchase is necessary.

All warranty claims are subject to inspection of such products or part thereof and Craftex reserves the right to inspect any returned item before a refund or replacement may be issued.

This warranty shall not apply to consumable products such as blades, bits, belts, cutters, chisels, punches etceteras.

Craftex shall in no event be liable for injuries, accidental or otherwise, death to persons or damage to property or for incidental contingent, special or consequential damages arising from the use of our products.

RETURNS, REPAIRS AND REPLACEMENTS

To return, repair, or replace a Craftex product, you must visit the appropriate Busy Bee Tools showroom or call 1-800-461-BUSY. Craftex is a brand of equipment that is exclusive to Busy Bee Tools.

For replacement parts directly from Busy Bee Tools, for this machine, please call 1-800-461-BUSY (2879), and have your credit card and part number handy.

- All returned merchandise will be subject to a minimum charge of 15% for re-stocking and handling with the following qualifications.
- Returns must be pre-authorized by us in writing.
- We do not accept *collect* shipments.
- Items returned for warranty purposes must be insured and shipped pre-paid to the nearest warehouse
- Returns must be accompanied with a copy of your original invoice as proof of purchase. Returns must be in an un-used condition and shipped in their original packaging a letter explaining your reason for the return. Incurred shipping and handling charges are not refundable.
- Busy Bee will repair or replace the item at our discretion and subject to our inspection.
- Repaired or replaced items will be returned to you pre-paid by our choice of carriers.
- Busy Bee reserves the right to refuse reimbursement or repairs or replacement if a third party without our prior authorization has carried out repairs to the item.
- Repairs made by Busy Bee are warranted for 30 days on parts and labour.
- Any unforeseen repair charges will be reported to you for acceptance prior to making the repairs.
- The Busy Bee Parts & Service Departments are fully equipped to do repairs on all products purchased from
 us with the exception of some products that require the return to their authorized repair depots. A Busy Bee
 representative will provide you with the necessary information to have this done.
- For faster service it is advisable to contact the nearest Busy Bee location for parts availability prior to bringing your product in for repairs.

