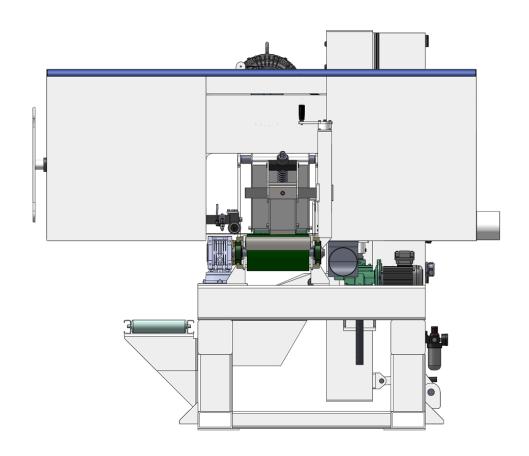
OPERATION MANUAL AND PARTS LIST

HBS300

HORIZONTAL BAND RESAW





WARNING: 1.Read this operation manual carefully before operation

2. Keep this manual for future reference



GENERAL SAFETY RULES FOR WOODWORKING MACHINERY

- 1. Know your machine. Read this operation manual carefully. Learn the machine applications and limitations, as well as the specific potential hazard peculiar to it.
- 2. Keep the guards in place and in working order.
- 3. The machine must be properly grounded to prevent electrical shocks.
- 4. Keep the work area clean. Cluttered areas invite accidents.
- 5. Don't use in a dangerous environment. Don't use the machine in a damp or wet locations, or expose it to rain. Keep the work area well-lit.
- 6. Keep children and visitors away. All children and visitors should be kept a safe distance from the work area.
- 7. Wear proper apparel. No loose clothing, gloves, neckties, rings, bracelets or other jewelry to get caught in moving parts. Non-slip wear is recommended. Wear protective hair covering to contain long hair.
- 8. Use safety glasses. Everyday eyeglasses only have impact-resistant lenses. They are not safety glasses.
- 9. Hold work securely.
- 10.Don't over-reach.
- 11. Disconnect the machine from before servicing and when changing accessories such as the blade, etc.
- 12. Avoid accidental starting. Make sure the switch is at the OFF position before plugging in power wires.
- 13. Never leave the machine running unattended. Turn off the power.
- 14. Never have any part of your body in line with the path of blade.



ADDITIONAL SAFETY RULES FOR BAND RESAW

- 1. Make sure all guards are in place before starting the machine.
- 2. The band resaw is designed for cutting wood material only. Do not apply this machine for cutting metal.
- 3. Alqays keep blade teeth sharp.
- 4. Disconnect the machine from power source before servicing.
- 5. Check the wood material to be sure that it is free of defect.
- 6. Never try to remove small pieces of material from the conveyor belt when the machine is operating.
- 7. Make sure blade has proper tension. Too much tension may cause blade to break.
- 8. Do not back out of a cut during cutting as this will pull the blade off the wheels.
- 9. Wear gloves when handling the blade.



MACHINE SPECIFCATIONS

MODEL	HBS300
Maximum cutting capacity	300x300mm
Distance from blade to feed conveyor	3~300mm
Saw wheel diameter	24 inches (600mm)
Sawblade length	4260mm
Sawblade width	1" - 1 1/2" (27-38mm)
Conveyor belt sizes (W*L)	10-5/8"*165-1/2"(270*4200mm)
Feed speed (variable)	0~25m/min
Band saw tilt	0~12 degrees
Conveyor height from floor	33-2/3 inches(855mm)
Saw wheel motor	20HP
Blade lift motor	0.25HP
Feed drive motor	1HP with inverter
Dust hood outlet diameter	Dia.5"x2
Machine dimensions (L*W*H)	2110*1950*1950mm
Packing dimensions (L*W*H)	2300*1950*2000mm
Net weight	1360kg



STANDARD EQUIPMENT

- 20HP SAW WHEEL MOTOR
- BLADE LIFT DIGITAL CONTROL
- FREQUENCY INVERTER CONTROLLED CONVEYOR FEED
- BAND SAW TILT 0-12 DEGREES
- 1-1/2" SAWBLADE
- TOOL BOX WITH SERVICE TOOLS
- OIL MIST BLADE COOLING SYSTEM

OPTIONAL EQUIPMENT

● T.C.T. SAWBLADE

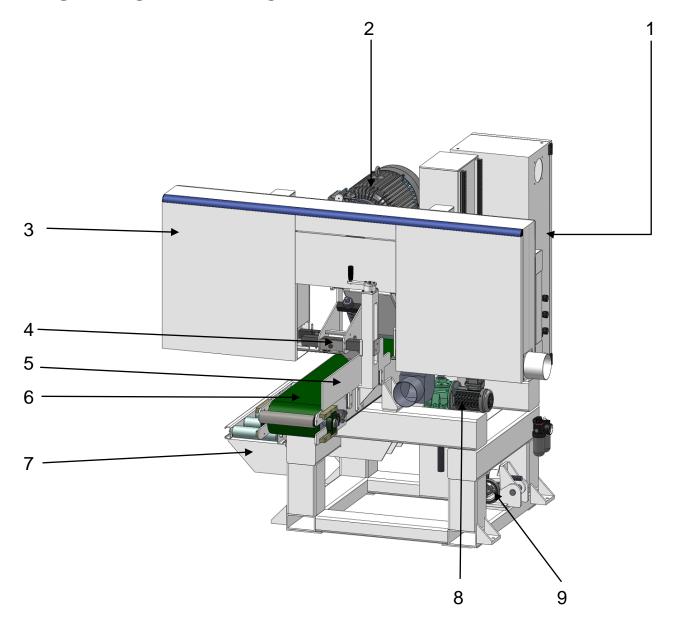


LEGEND OF THE MACHINE

- 1. ELECTRIC CONTROL BOX
- 2. SAW WHEEL DRIVE MOTOR
- 3. BAND SAW DOOR
- 4. INFEED PRESSURE ROLLER
- 5. FENCE
- 6. CONVEYOR BELT
- 7. RETURN ROLLER
- 8. BLADE ELEVATION DRIVE MOTOR
- 9. BAND SAW TILT HANDWHEEL
- 10. ELECTRIC CINTROL PANEL
- 11. SAW WHEEL BRAKE
- 12. BLADE TENSION HANDLE
- 13. FEEDING MOTOR WITH WORM GEAR SPEED REDUCER

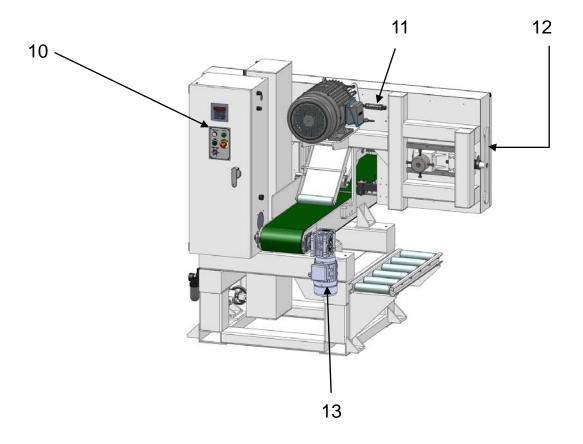


LEGEND OF THE MACHINE





LEGEND OF THE MACHINE





UNPACKING THE MACHINE

Remove the machine from the wooden crate carefully, and ensure that all parts are present and free from damage. If any parts are missing or damaged, contact your local distributor or the machine manufacturer immediately. Do not attempt to assemble or operate the machine without all parts present ant in working.

CLEANING THE MACHINE

Once the machine has been unpacked, then remove the rust preventative oil that coats the machine with a cloth soaked in kerosene. Do not use gasoline or lacquer thinner to remove the rust preventative oil, as this can damage the painted parts of the machine.

INSTALLING THE MACHINE

Once the machine has been well placed at a proper work site, it is requested to make the machine leveling adjustment.

The four leveling screws located at the 4 corners are used for adjusting the machine leveling. Turn these 4 leveling screws until the proper machine leveling.



LUBRICANTION

Please replacement lubricant after first 300 hours operation and do the same for every 2500 hrs. Proper lubricant can sufficient support worm set contact surface lubrication. Ensure long life running and better efficiency for heavy duty and impact application.

Type of oil:

SPINDLE OIL K5035 (ISO VG5)

Oil for gear reducer:

LOAD	AMBIENT	CDC LID	SHELL OIL	MOBLE OIL	ESSO OIL
	TEMP	CPC-HD	- Omala oil	-Mobil gear	-Spartan EP
	-20°C~10°C	HD-150	R150	629	150
NORMAL	-0°C~25°C	HD-220	R220	630	220
LOAD	10°C~40°C	HD-320	R320	632	320
	40°C~65°C	HD-460	R460	634	460
HE AVX	-0°C~25°C	HD-320	R320	632	320
HEAVY LOAD	10°C~40°C	HD-460	R460	634	460
LOAD	40°C~65°C	HD-680	R680	636	680



CONNECT POWER WIRES

Before connecting this machine to your factory power source, be sure that your power source voltage, hertz, and phase are all the same characteristics as that of the machine.

For personal safety, this machine must be properly grounded.

Connect the power wires to the "R.S.T." terminals, located in the electric control box.

After the power wires are connected, you must check the running direction of the conveyor belt to determine if the wiring is correct or not.

If the conveyor belt runs to the opposite direction, then you need to change any two of the three input power.



WARNING

Disconnect the machine from the power source before making wire connection.

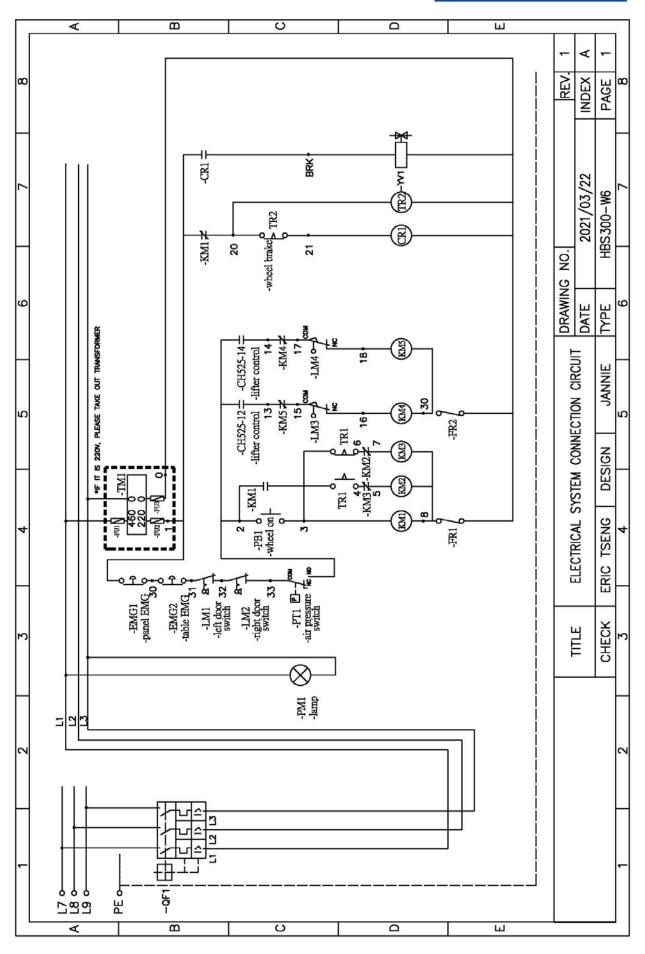


CONNECT POWER WIRES

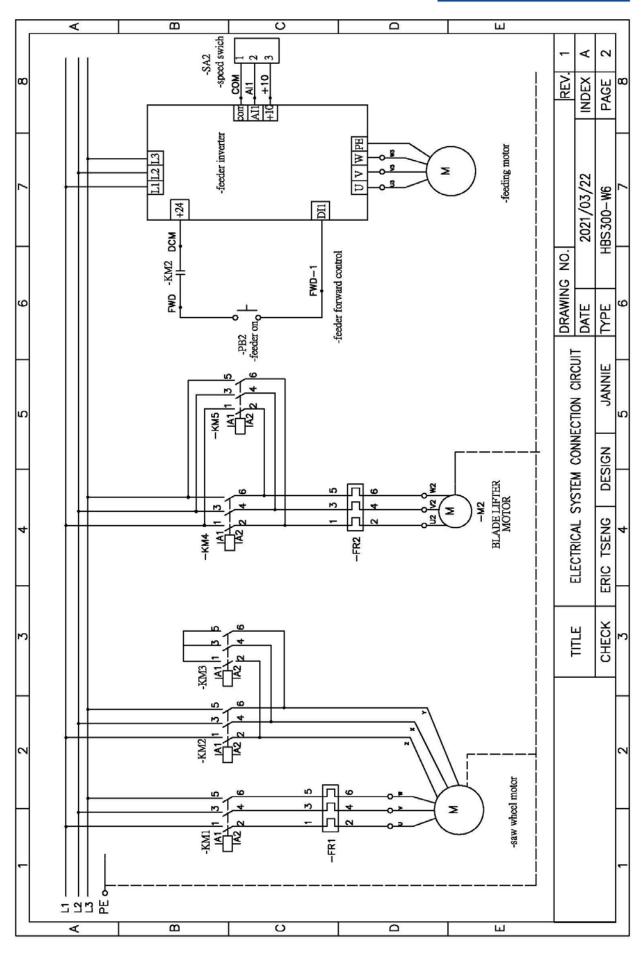


TO POWER SOURCE









IRONWOOD

	FOR AC230	
designation	type number	quantily reference
Main Control Panel		
ETEK controller	CH525	1 CH525
SPEED SWITCH	VR2K/RV24YN-20S-2K B202+RN99D	1 SA2
SCHNEIDER-select switch	ZB4 BD2-ZB4 BZ101	1 PB2
SCHNEIDER-push button-1a/lamp(ac220)	ZB4 BW333-ZB4 BW0M31	1 PB1
SCHNEIDER-lamp-ac220	ZB4 BV013-ZB4 BVM1	1 PM1
SCHNEIDER-EMG stop-1b	ZB4BS844-ZB4 BZ102	1 EMG1
Electric Cabinet		
TE-main power-switch(100A)	EZC100F 3100	1 QF1
TE-main power-switch handle	EZA ROTE	1 QF1
TE-magnetic contactor-ac220-32a	LC1D32M7	3 KM1-1~KM1-3
TE-motor protector-23-32A	LR3D32	1 FR1
TE-TIMMER	LADS2	1 TR1
ANY TIMMER	AH3-RB	1 TR2
TE-conveyor inveter(220V)	ATV320U-07M3C-1HP/220V	1 INV1(main power 220v)
TE-FUSE base	DF101	3 FU1~FU3
ETN-fuse	FWC-6A10F	3 FU1~FU3
OMRON-relay base	PYF08A-E	1 CR1
OMRON-relay	MY2N-GS-AC220	1 CR1
TE-magnetic contactor-ac220-9a	LC1D09M7	2 KM4/KM5
TE-motor protector-1-1.6a	LR3D06	1 FR2
TE-contactor interlock-1	LAD9V2	1 KM4/KM5
TE-contactor interlock-2	LAD9V6	1 KM4/KM5
External		
SCHNEIDED FMG ston 1h	7BAB\$\$44-7BA B7100	1 EWG2

IRONWOOD

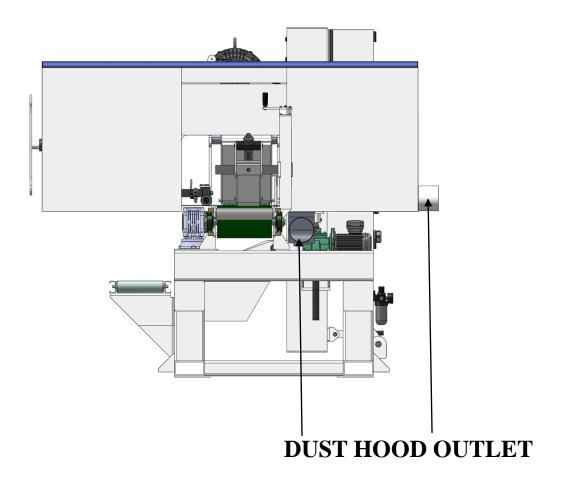
	FOR AC460		
designation	type number	quantily reference	
Main Control Panel			
ETEK controller	CH525	1 CH525	
SPEED SWITCH	VR2K/RV24YN-20S-2K B202+RN99D	1 SA2	
SCHNEIDER-select switch	ZB4 BD2-ZB4 BZ101	1 PB2	
SCHNEIDER-push button-1a/lamp(ac220)	ZB4 BW333-ZB4 BW0M31	1 PB1	
SCHNEIDER-lamp-ac220	ZB4 BV013-ZB4 BVM1	1 PM1	
SCHNEIDER-EMG stop-1b	ZB4BS844-ZB4 BZ102	1 EMG1	
Electric Cabinet			
LCE-transformal	330VA	1 TM1	
TE-main power-switch(100A)	EZC100F 3100	1 QF1	
TE-main power-switch handle	EZA ROTE	1 QF1	
TE-magnetic contactor-ac220-32a	LC1D32M7	3 KM1-1~KM1-3	
TE-motor protector-16-24A	LR3D22	1 FR1	
TE-conveyor inveter	ATV320U-07N4C-1HP/380V	1 INV1	
TE-TIMMER	LADS2	1 TR1	
ANY TIMMER	AH3-RB	1 TR2	
TE-FUSE base	DF101	3 FU1~FU3	
ETN-fuse	FWC-6A10F	3 FU1~FU3	
OMRON-relay base	PYF08A-E	1 CR1	
OMRON-relay	MY2N-GS-DC24	1 CR1	
TE-magnetic contactor-ac220-9a	LC1D09M7	2 KM4/KM5	
TE-motor protector-1-1.6a	LR3D06	1 FR2	
TE-contactor interlock-1	LAD9V2	1 KM4/KM5	
TE-contactor interlock-2	LAD9V6	1 KM4/KM5	
External			
SCHNEIDER-EMG stop-1b	ZB4BS844-ZB4 BZ102	1 EMG2	



CONNECT DUST COLLECTION SYSTEM

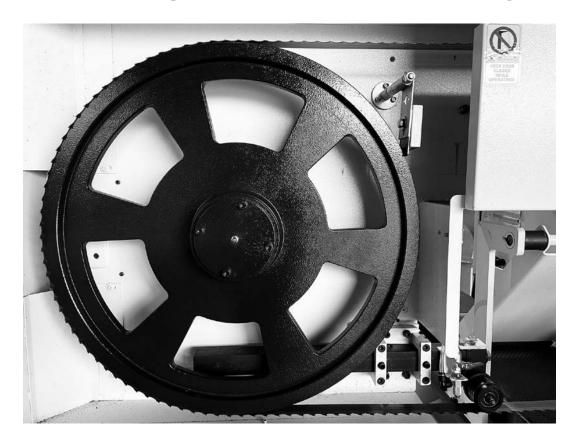
This machine is equipped with a dust hood outlet. Located at right side of the machine. Apply an appropriate size of flexible hose to connect the dust hood outlet to a dust collection system. This outlet is 5" in diameter.

Be sure to start running the dust collection system before operating the band resaw.





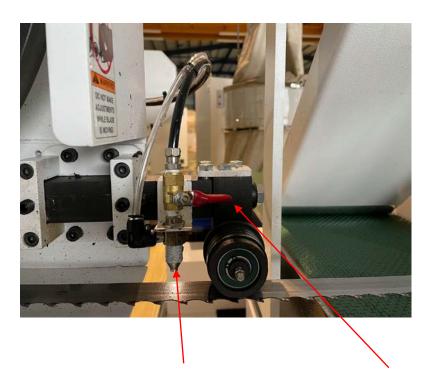
SAW WHEEL MAINTENANCE



- 1) Before producing goods, Please check the sound of wheels with running the machine.
- 2) Please add grease when the sound of wheel is loud until the sound is normal.
- 3) Do not add too much grease to cause the bearings being over hot.
- 4) Grease suggestion "SKF LGMT2".



BLADE COOLING SYSTEM



SPRAYER HANDLE FOR ADJUST OIL



OIL TANK FOR BLADE COLLING SYSTEM



OPENING WHEEL FRONT GUARD



WARNING!!

Don't open the wheel guard immediately after the blade stop switch or the emergency stop switch is pressed. Wait until the saw blade has come to a complete stop before opening the guard.



Unlock the lock on both side of front guard.





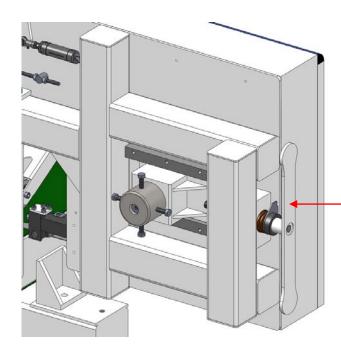
INSTALLING THE BLADE

- 1. Open the wheel front guard and rest it firmly at the two side of the machine.
- 2. Uncoil the blade.
- 3. Place the blade over the wheel and insert it into the gap of the blade guides.
- 4. When installing the blade, be sure the teeth pointing toward the running direction of the wheels.
- 5. Make sure the blade is between the blade guides and is in the center of wheel rim.
- 6. Turn the blade tracking hand wheel for adjusting blade tracking on the wheels.
- 7. It is necessary to make blade tension adjustment after installing the blade



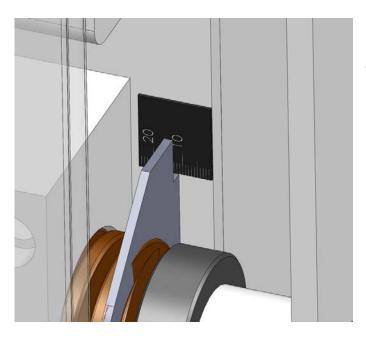


ADJUSTING BLADE TENSION



 Please turn the blade tension handle to adjust the blade tension.

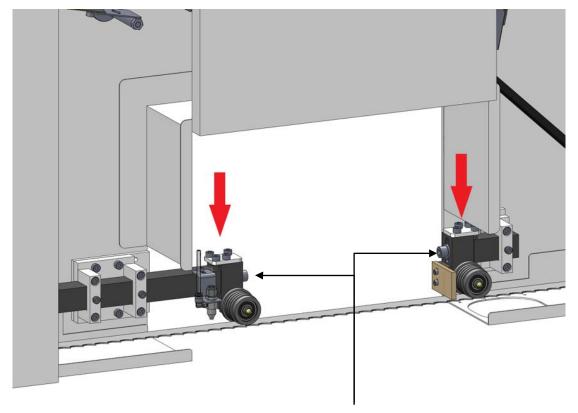
BLADE TENSION HANDLE



Suggestion pressure would be about 12-14

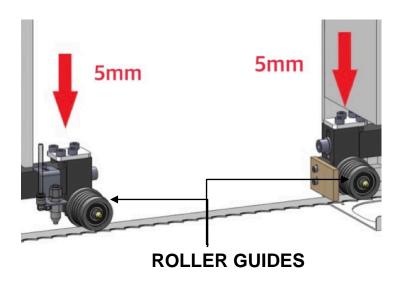


ADJUSTING BLADE GUIDES



ADJUSTMENT SCREWS

1. Loosen the adjustment screws.

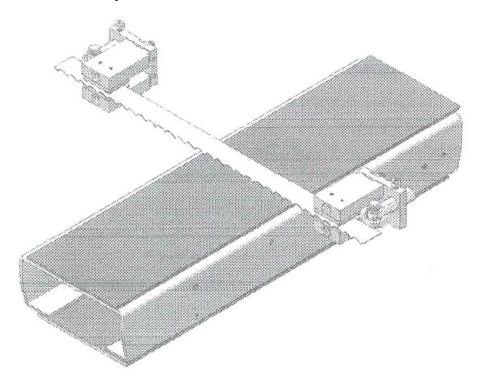


2. Adjust roller guides to push the blade down about 5mm.

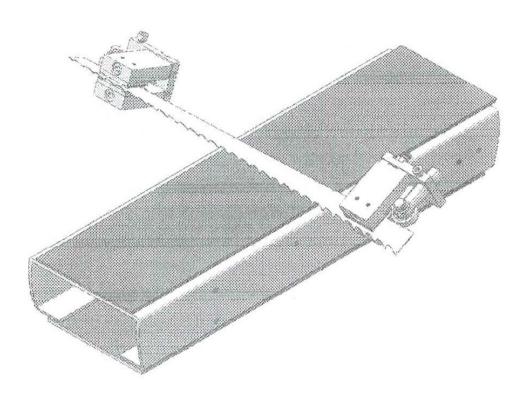


BLADE POSITION

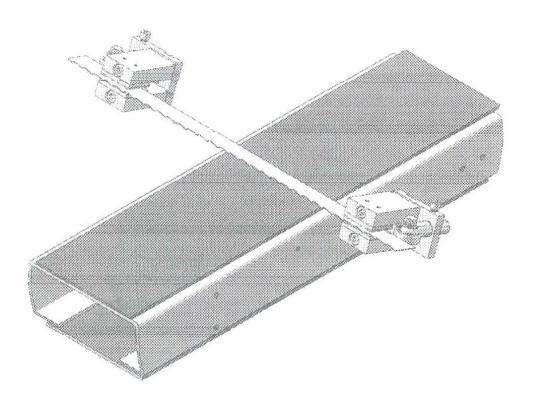
Correct blade adjustment

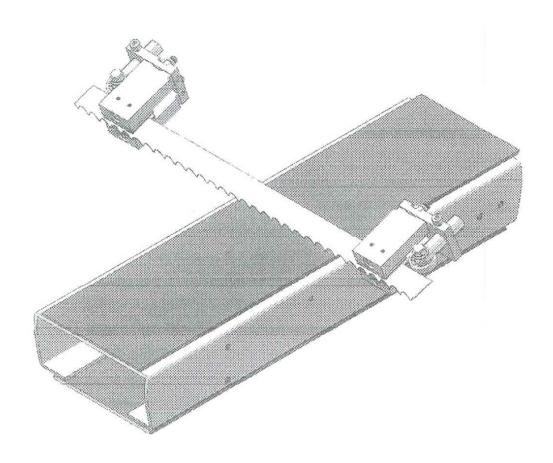


Wrong blade adjustment



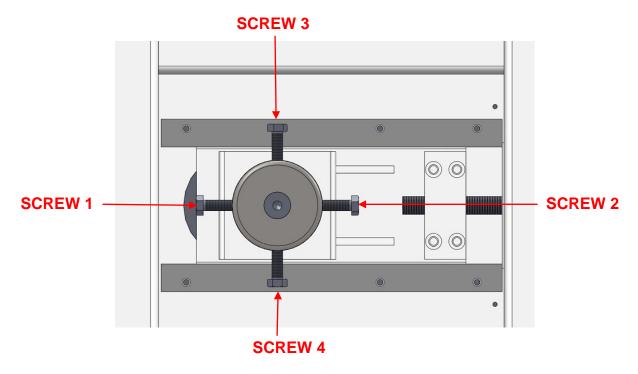
IRONWOOD







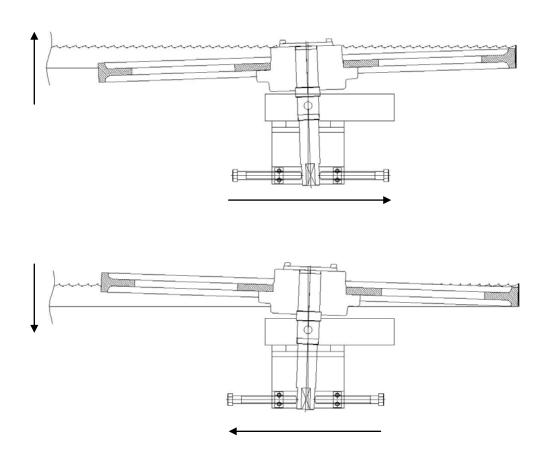
ADJUSTING BLADE TRACK



- Do not adjust screw 3 and screw 4
- Please check next page explanation for adjust screw 1 and screw 2



If saw wheel shaft goes on right side, saw blade would go out of the saw wheel, as you could check below picture.



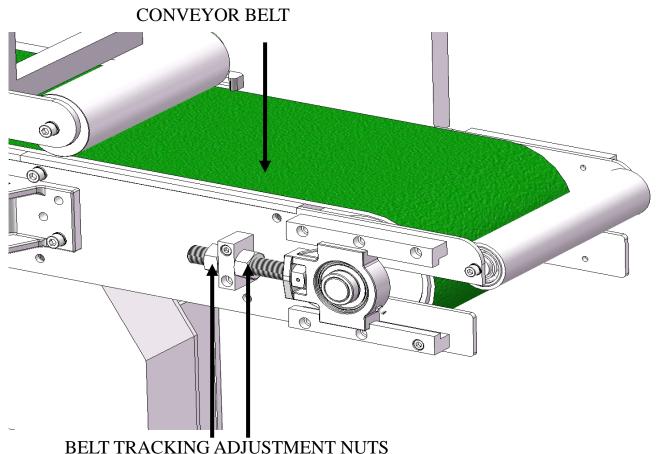
If saw wheel shaft goes on left side, saw blade would go in of the saw wheel, as you could check above picture.



ADJUSTING CONVEYOR BELT TRACKING

The conveyor belt require adjustment from time to time. If the conveyor belt runs to either the right or left side, you should make conveyor belt tracking adjustment as follows:

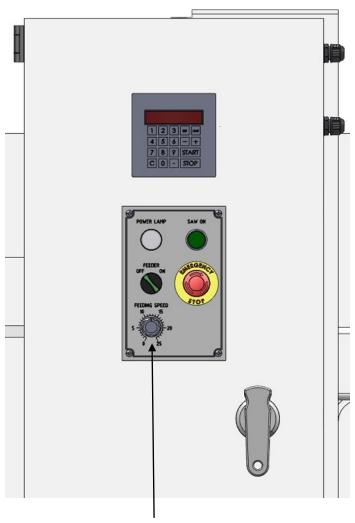
- 1. Once the conveyor belt moves toward the right side, you should adjust tracking from the right side of the conveyor belt. Turning the belt tracking adjustment nut clockwise will make the conveyor belt move to the left side.
- 2. Once the conveyor belt moves toward the left side, you should adjust tracking from the left side of the conveyor belt. Turning the belt tracking adjustment nut clockwise will make the conveyor belt move to the right side.
- 1. The conveyor belt tracking is made when the conveyor belt is running.





ADJUSTING CONVEYOR BELT SPEED

Control panel:



SPEED REGULATOR KNOB

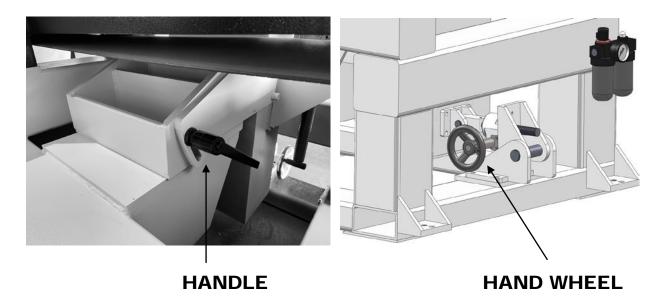
- 1)To change the conveyor speed, turn the speed regulator knob
- 2)Turn it clockwise for increasing speed . Turn counter-clockwise for decreasing speed.
- 3)The allowable meter range is 0-25M/MIN



BAND SAW TILT



● Band saw can be tilted 0~12 degrees.



- 1. Please loosen the handle
- 2. Please turn the hand wheel
- 3. You could see how many degrees from digital protractor



DIGITAL PROTRACTOR



MAINTENACE



CAUTION

Before starting maintenance, disconnect the machine from power source.

- 1. Remove all chips and clean the machine everyday when job finished.
- 2. Surface of conveyor belt. Fence and pressure rollers must be kept clean and smooth for easy workpiece feeding.
- 3. Keep blade sharp at all times.
- 4. Check if wheel brush works normally occasionally
- 5. Keep proper blade tension and tracking at all times.

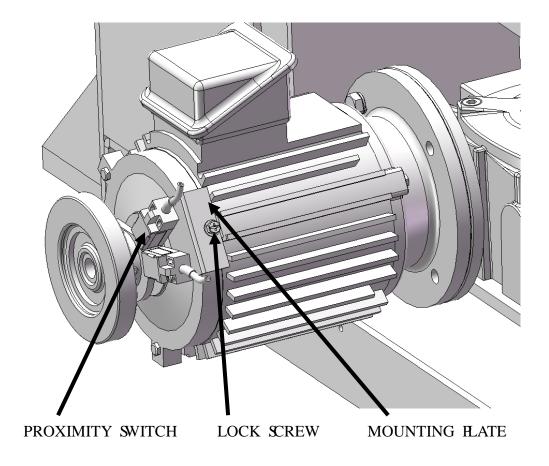


LUBRICATIION

- 1. Apply a grease gun to shot grease to all grease nipples provided on the machine at a proper time.
- 2. All feed screws should be coated with grease at a proper time.



TROUBLE SHOOTING



BLADE LIFTS DIGITAL READOUT OUT FAILED

In case the digital readout display failed, this may be caused by the sensing failure from the proximity switch. To solve this problem, please loosen the screw, then adjust the proximity switch mounting plate position.

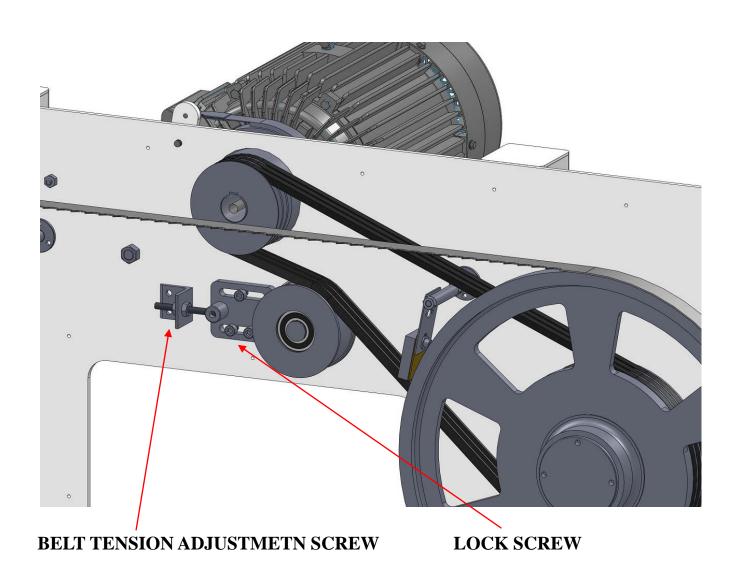


ADJUSTING SAW WHEEL MOTOR TENSION

After the machine has been operated for long period, the belt tension may be Loosen gradually. At this time you need to adjust the belt tension.

To do this, slightly loose the 3 lock screws, then tighten the 2 belt tension adjustment screws until a proper belt tension is obtained.

Tighten the 3 lock screws after belt tension has been properly adjusted.





TROUBLE SHOOTING (FOR MACHINE)



WARNING

To avoid in injury, turn power off and remove plug from power Source before making trouble shooting

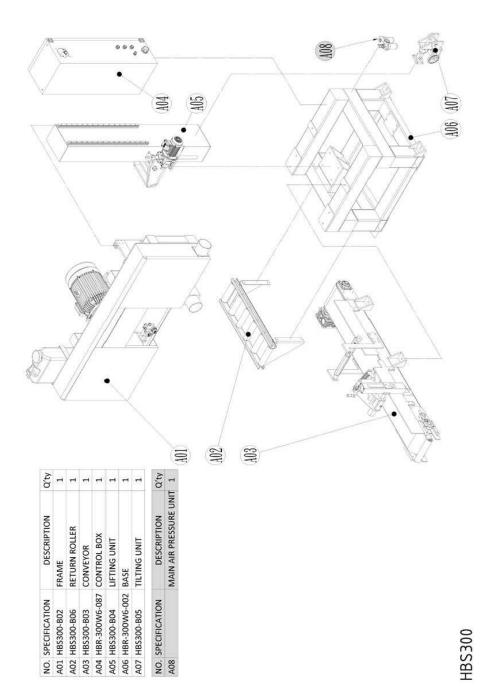
PROBLEM	PROBABLE CAUSE	CORRECTION
Blade dose not in correct track	Blade tracking is not properly adjusted.	Adjust blade tracking
Blade slow down during cutting	 Belt tension is too loose Blade dulled Motor overload 	 Adjust belt tension Sharpen or replace blade Reduce cutting load
Blade breaking	 Too much tension on blade Too much friction on blade Wheel surface is not clean 	 Adjust blade tension Adjust blade guide Clean wheel surface



TROUBLE SHOOTING (FOR ELECTRIC)

PROBLEM	PROBABLE CAUSE	CORRECTION
Motor Overheat	Motor overload	Reduce feed speed
Motor can not reach full speed	 Low voltage Motor damaged 	1.Check power source voltage2.Repair or replace motor
Motor can not develop full power	 Circuit overload Wire size too small or circuit too long 	 Use an independent circuit Increase wire size or reduce wire length.





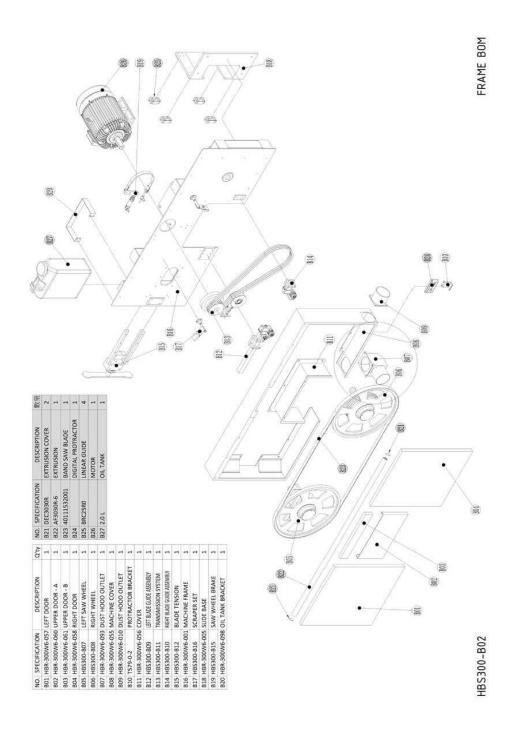
NO. SPECIFICATION A08

HBS300

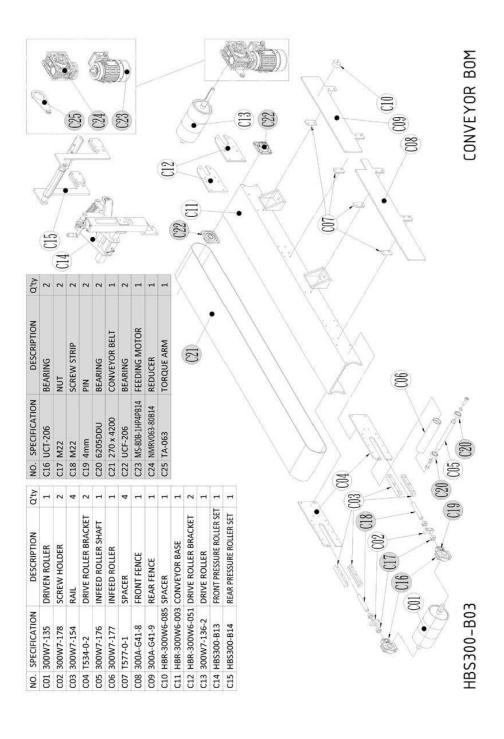
Spare Parts

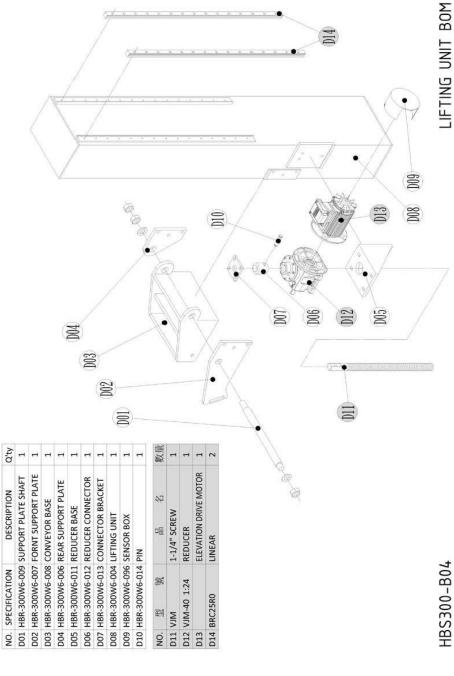
Spare Parts



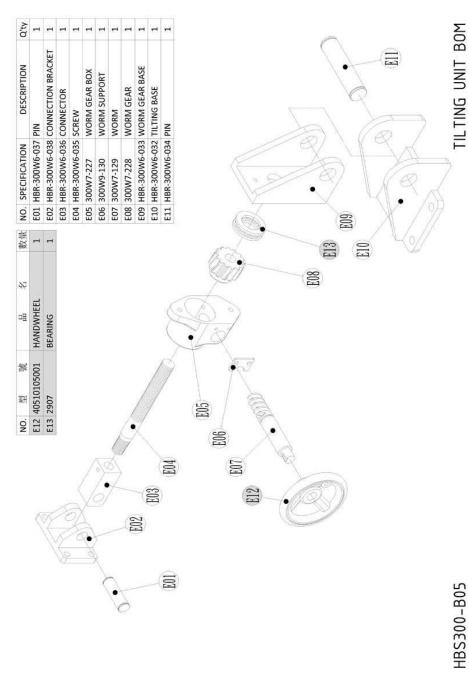








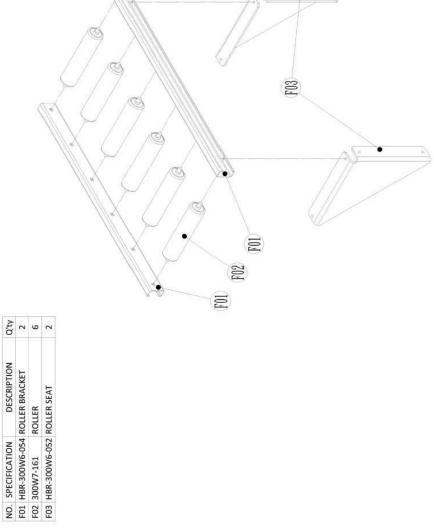




HBS300-B05



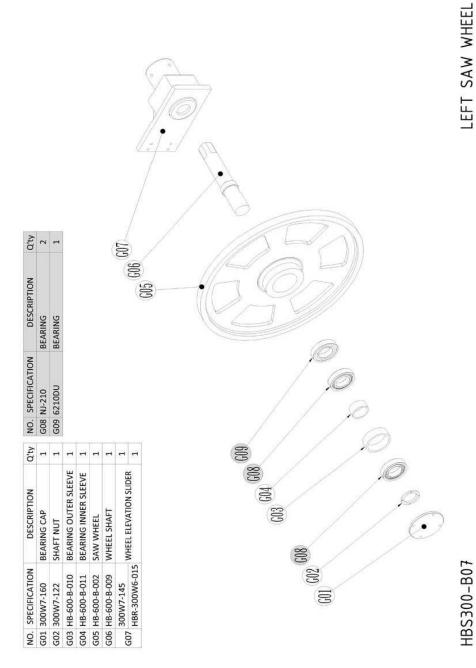




HBS300-B06

Spare Parts

IRONWOOD



HBS300-B07

Q'ty

NO. SPECIFICATION DESCRIPTION

BEARING

H08 NJ-210

Q'ty

DESCRIPTION BEARING CAP

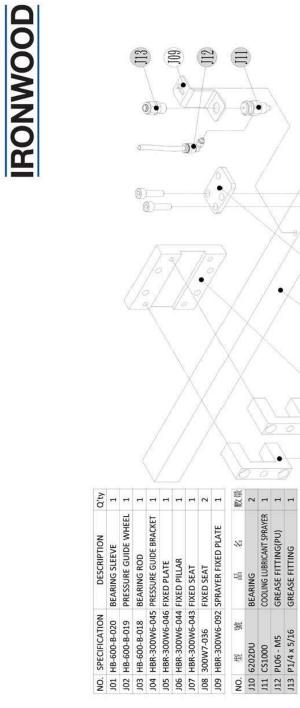
NO. SPECIFICATION H01 300W7-160

H02 H HBS300-B08

RIGHT WHEEL



Spare Parts



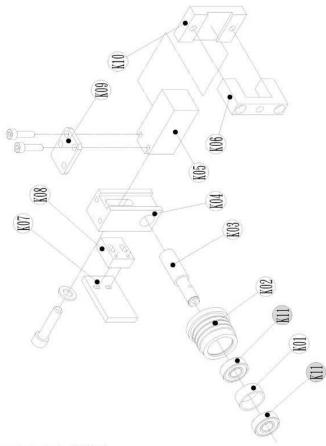
N6-049 FIXED PILLAR 1 N6-043 FIXED SEAT 1 36 FIXED SEAT 2 N6-092 SPRAYER FIXED PLATE 1 號 品 名 數量 BEARING 2	E
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1000	BEARING COOLING LUBRICANT SPRAYER 1
	M

HBS300-B09



IRONWOOD

NO. SPECIFICATION DESCRIPTION Q'ty K01 HB-600-B-020 BEARING SLEEVE 1 K02 HB-600-B-019 PRESSURE GUIDE WHEEL 1 K03 HB-600-B-018 BEARING ROD 1 K04 HBR-300W6-045 PRESSURE GUIDE BRACKET 1 K05 HBR-300W6-045 FIXED PILLAR 1 K05 HBR-300W6-050 SCRAPER 1 K07 HBR-300W6-049 SCRAPER FIXED BLOCK 1 K08 HBR-300W6-049 SCRAPER FIXED BLOCK 1 K09 HBR-300W6-049 FIXED SEAT 1 K10 HBR-300W6-048 FIXED SEAT 1 K10 HBR-300W6-048 FIXED SEAT 1 K10 HBR-300W6-048 FIXED SEAT 2



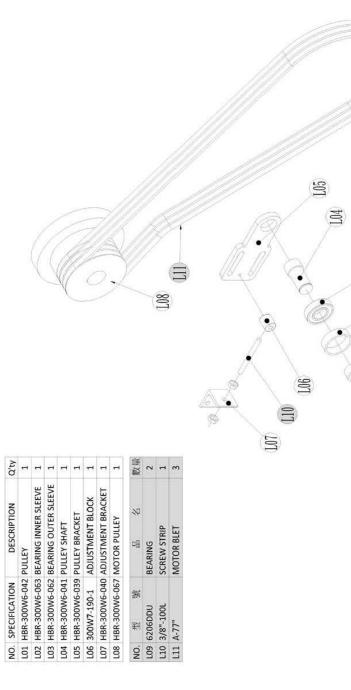
HBS300-B10

RIGHT BLADE GUIDE ASSEMBLY BOM



Spare Parts

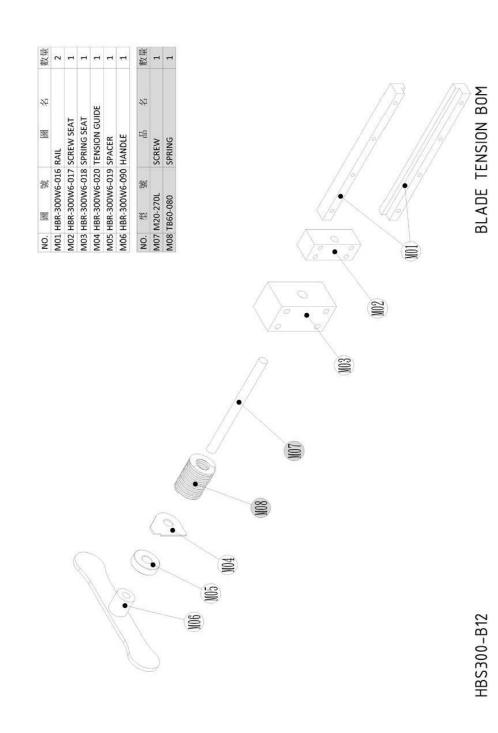
IRONWOOD



HBS300-B11

TRANSMISSION SYSTEM BOM





Spare Parts

IRONWOOD

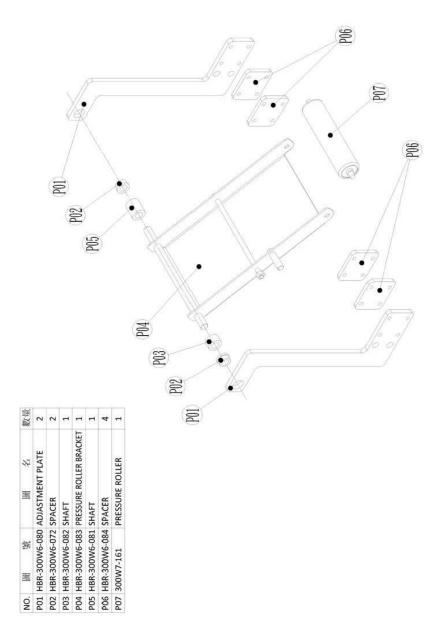


TOP POWER FEEDING ROLLER

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	\	-	1	202	1	1	1		1	R SHAFT 1	1	1	1	, ,	1	-	3 1000	1		1000	2	1	-	H	1	1
24	\	-	1	202	RE SHAFT 1	1	1		1	RE ROLLER SHAFT 1	1	1	1	W 1	PLATE	-	3 1000	1		**	200				1	1
	2	-	1	202	PRESSURE SHAFT 1	1	1	1	1	PRESSURE ROLLER SHAFT 1	1	1	1	W 1	BRACKET PLATE 1	-	3 1000	1	1	1000	BEARING 2		BEARING 1			SCREW
24	2	FIX LEVER BRACKET 1	STRUCTURE BAR 1	202	V6-073 PRESSURE SHAFT 1	1	1	1	PRESSURE ROLLER 1	96 PRESSURE ROLLER SHAFT 1	1	1	1	ELEVATION SCREW 1	V6-069 BRACKET PLATE 1	-	3 1000		1	**	200	BEARING 1		HANDLE	SPRING 1	OL SCREW 1
國	\	-	1	NO4 HBR-300W6-086 ROLLER SWING PLATE 2 N20	NOS HBR-300W6-073 PRESSURE SHAFT 1	_			1	N10 300W7-196 PRESSURE ROLLER SHAFT 1	-075 PRESSURE ROLLER BRACKET 1	1	-077 BEARING WASHER 1	W 1	N15 HBR-300W6-069 BRACKET PLATE 1	LATE 1	3 1000	1		唱谷	200					N26 M14 x 340L SCREW 1

HBS300-B13



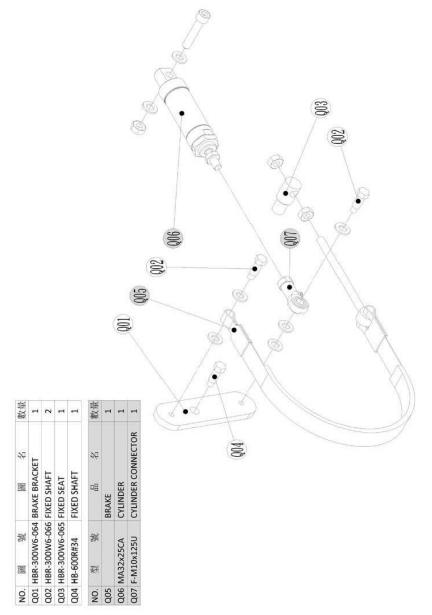


HBS300-B14

REAR PRESSURE ROLLER ASSEMBLY



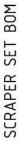


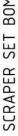


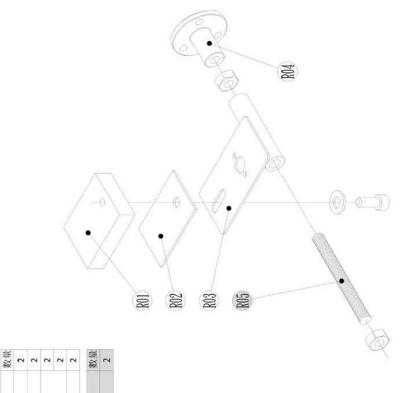
PART LIST

Spare Parts

IRONWOOD







HBS300-B16

24

NO. 型 號 ROS M10×100L R04 300W7-021

SCRAPING BLOCK

NO. 圖 號 R01 300W7-117 R02 300W7-103-1

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COPPER PLATE

SCRAPING PLATE SCRAPING SEAT

R03 300W7-116 300W7-116-1

IRONWOOD