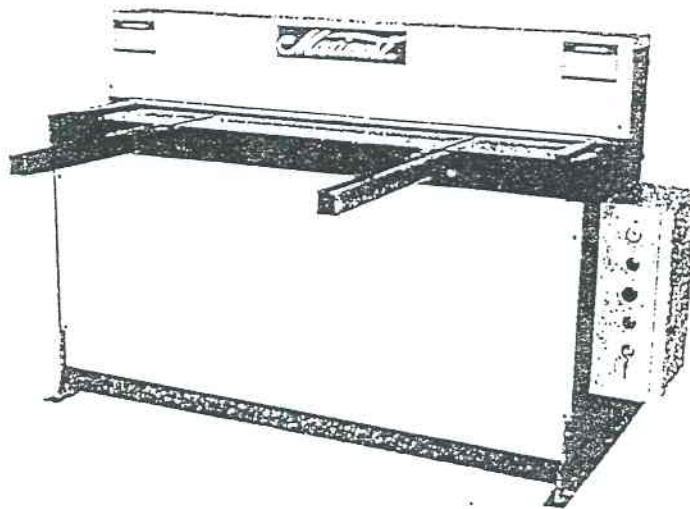


HYDRAULIC POWER SHEAR

OPERATOR MANUAL



H-5214 / H-5210



Model	Cutting Length	Capacity Mildsteel	Back Gauge Range	Front Gauge Range	Motor HP	Shipping Weight	Packing Size
0-5216	1320mm (52")	1.6mm (16GA)	685mm (27")	660mm (26")	NIL-	520kgs (1144lbs)	1600 x 780 x 1100mm (63" x 31" x 44")
H-5214	1320mm (52")	2.0mm (14 GA)	685mm (27")	660mm (26")	3	800kgs (1760lbs)	1800 x 780 x 1100mm (71" x 31" x 44")
H-5210	1320mm (52")	3.5mm (10 GA)	685mm (27")	660mm (26")	5	1000kgs (2200lbs)	1800 x 780 x 1100mm (71" x 31" x 44")

GENERAL INFORMATION

YOUR HYDRAULIC POWER SHEAR IS EQUIPPED WITH A FULLY INTEGRATED HYDRAULIC UNIT. THE SYSTEM INCLUDES STARTER WITH SELECTOR SWITCH FOR SINGLE STROKE HYDRAULIC PUMP AND TANK, DOUBLE ACTING CYLINDERS, ELECTRICALLY OPERATING HYDRAULIC VALVE, PRESSURE RELIEF VALVE FOR SAFETY, FOOT SWITCH AND STROKE CONTROL. ELECTRICAL SERVICE FOR 3 PHASE, 220, 380, 440 VOLTAGE AS REQUIRED.

SHEET METAL COVERS ARE FURNISHED FOR FRONT AND REAR OF THE MACHINE TO GUARD THE HYDRAULIC SYSTEM, THE FOOT SWITCH IS ALSO EQUIPPED WITH GUARD. OPERATOR HAS COMPLETE CONTROL OF CUTTING ACTION WHICH IS SMOOTH, QUIET AND PROVIDES CLEAN, BURR-FREE SHEARING. FOR ADDITIONAL SAFETY, THE KNIFE BAR IS DESIGNED TO RETURN TO THE TOP OF STROKE AT ANY POINT IN THE STROKE IN WHICH THE OPERATOR REMOVES HIS FOOT FROM THE FOOT SWITCH.

THE KNIFE BAR ON H-5214/H-5210 AUTOMATICALLY RETURN TO THE TOP OF THE STROKE WHEN THE LOWER LIMITATION IS REACHED.

SPECIFICATION

(UNIT: mm)	H-5214	H-5210
CUTTING LENGTH,	1320	1320
CUTTING CAPACITY (MILD STEEL),	2.0	3.5
STROKE A MINUTE,	30	30
BACK GAUGE RANGE,	600	600
MOTOR (H.P.),	3.0	5.0
OIL TANK VOLUME (GALLON),	12	12

RECEIVING INSTRUCTION

YOUR HYDRAULIC POWER SHEAR IS CAREFULLY INSPECTED, CRATED AND LEFT OUR PLANT IN A PERFECT CONDITION.

FOR YOUR PROTECTION, EXAMINE CRATES, CONTAINERS AND PROTECTIVE COVERING UPON RECEIVING IMMEDIATELY.

ANY EXTERNAL EVIDENCE OF MISSING OR DAMAGE MUST BE NOTED ON THE FREIGHT BILL (OR EXPRESS RECEIPT), AND SIGNED BY THE CARRIER'S AGENT. FAILURE TO LIST OR DAMAGE, MAY RESULT IN THE CARRIER REFUSING TO HONOR YOUR CLAIM. PROMPTLY FILE YOUR CLAIM.

CONCEALED MISSING OR DAMAGE MEANS MISSING OR DAMAGE WHICH DOES NOT BECOME APPARENT UNTIL THE CRATE AND COVERS HAVE BEEN REMOVED. CONTACT THE CARRIERS' AS SOON AS THE CONCEALED MISSING OR DAMAGE IS DISCOVERED. MAKE THE WRITTEN REQUEST FOR INSPECTION AS ONCE AND HOLD THE EQUIPMENT FOR THE TRANSPORTATION COMPANY'S INSPECTOR. THEN FILE A CLAIM WITH THE CARRIER SINCE SUCH A MISSING OR DAMAGE IS HIS RESPONSIBILITY.

I N S T A L L A T I O N

THE SHEAR SHOULD BE INSTALLED INDOORS ON A SOLID FLOOR WHICH IS A LEVEL AND FREE VIBRATION.

THE MACHINE MAY BE ANCHORED TO THE FLOOR BY USING ANCHOR BOLTS, OR INSERTS COME INTO THE FLOOR. FRONT AND REAR COVERS, USING A HEX KEY TO LOOSEN THE BUTTON HEAD HEX SOCKET CAP SCREWS.

USE WATER TO CLEAN ALL PROTECTIVE COATING OFF THE MACHINE. AFTER CLEANING, RE-COAT WITH A LIGHT COAT OF LUBRICATING OIL.

THE SHEAR SHOULD BE REMOVED FROM THE SHIPPING SKID, AND PLACE DIRECTLY OVER THE MOUNTING BOLTS. USING A PRECISION LEVEL ON THE TABLE SURFACE, LEVEL THE MACHINE TO WITHIN 0.2MM PER METER FRONT TO BACK, AND LEFT TO RIGHT.

SECURELY TIGHTEN THE MOUNTING BOLTS AND RE-CHECK FOR ANY POSSIBLE CHANGE. INSTALL THE TABLE, BACK-GAUGE RACKS, BACK-GAUGE SUPPORTS, BACK-GAUGE STOP & FRONT SUPPORTS IN ACCORDANCE WITH THE ILLUSTRATIONS.

LUBRICATE THE TREADLE BEARINGS, KNIFE-BAR SLIDES, LINK PINS AND ALL FUNCTION POINTS WITH A LIGHT LUBRICATING OIL.

SHEAR TO CONNECTING POWER TO THE SHEAR, CHECK THE BLADE CLEARANCE AS BELOW:

- (1) ALLOWED THE KNIFE BAR TO SLOWLY DROP AND THE CUTTING EDGES TO BEGIN TO INTERFERE. CHECK WITH A FEELER GAUGE FOR 0.8MM CLEARANCE BETWEEN BLADES ON THE RIGHT SIDE.
- (2) CHECK THE BLADE CLEARANCE FROM THE RIGHT TO THE LEFT AS THE KNIFE-BAR MOVES DOWNWARDLY. THE CLEARANCE SHOULD BE 0.8MM ON EACH SIDE & 0.6MM IN THE CENTER. THE CLEARANCE MUST BE CHECKED AT THE EXACTING POINT OF INTERSECTION OF THE BLADES TO OBTAIN ACCURATE INDICATIONS.
- (3) IF CLEARANCE ARE NOT CORRECT LOSSEN THE TABLE BOLT & MOVE THE TABLE IN OR OUT. USE THE SQUARE HEART SET SCREWS TO PUSH THE TABLE IN (= REDUCE CLEARANCE), AND THE HEX SOCKET CAP SCREWS TO PULL THE TABLE OUT (= INCREASE CLEARANCE). USE THE CONTROL SCREWS ALTERNATELY SO AS NOT TO FORCE ONE SCREW AGAINST THE OTHER & TO MAINTAIN COMPLETE CONTROL OVER THE TABLE AS ALL TIMES. CHECK CLEARANCES AFTER THE TABLE BOLTS HAVE BEEN TIGHTENED AND THE CONTROL SCREWS SNUGGED UP TO DETERMINE IF ANY SETTINGS HAVE CHANGED.
- (4) TO CHANGE THE CLEARANCE AS THE CENTER OF THE BLADE, ADJUST THE NUT.
- (5) THIS BLADE CLEARANCE CHECKING AND ADJUSTMENT PROCEDURES MUST BE FOLLOWED WHENEVER THE BLADES ARE CHANGED OR REVERSED.

B L A D E C A R E
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LIKE ALL POWER SHEARS, THIS MACHINE HAS HIGH-CARBON / HIGH-CHROME ALLOY TOOL STEEL BLADE WITH CUTTING EDGES ON THE BOTTOM BLADE AND TWO EDGES ON THE TOP. BLADES ARE QUICKLY AND EASILY REVERSIBLE WHEN ONE EDGE IS DULL. THE MULTIPLE SHEARING EDGE PROLONGS BLADE LIFE CONSIDERABLY. NEVER PERMIT THE BLADE TO RUB EACH OTHER. LUBRICATE THE BLADE WITH A LIGHT OIL WHEN SHEARING STAINLESS STEEL OR GALVANIZED MATERIAL. BRUSH OIL ON THE LOWER BLADE; THE UPPER BLADE WILL PICK UP OIL DURING THE SHEARING CYCLE. KEEP THE BLADE SHARP. TURN OR CHANGE BLADES AS SOON AS A BURR IS NOTED ON THE SHEARED STOCK. IT IS RECOMMENDED THAT A SPARE SET OF BLADES BE HELD IN STOCK SO AS NOT TO IMPAIR PRODUCTION DURING GRINDING.

WHEN A:: EDGES HAVE BEEN USED, IT WILL BE NECESSARY TO HAVE THE BLADE GROUND. THE BLADES SHOULD BE GROUND SO THAT THE VARIATION IS NO GREATER THAN 0.025MM WITHIN 3048MM AND 0.05MM FROM THE END TO END.

WHEN RE-INSTALLING RE-GROUND BLADES, INSTALL SHIM STOCK UNDER THE LOWER EDGE TO BRING THE BLADE UP FLUSH WITH THE TABLE.

CAUTION

POWER MUST BE DISCONNECTED FROM THE SHEAR WHEN WORKING IN THE AREA OF THE BLADES. USE EXTREME CARE IN HANDLING BLADES. THEY ARE SHARP AND CAN CUT HAND IF ALLOWED TO SLIP OR TWIST.

KNIFE BARWAYS ADJUSTMENT

THE BARWAYS ARE ADJUSTABLE TO EFFECT THE WEAR THAT WILL OCCUR DURING YEARS OF SERVICE. THE ADJUSTMENT WILL ONLY BE REQUIRED ABOUT EVERY FIVE(5) YEARS, UNLESS THE SHEAR IS ALLOWED TO OPERATE UNLEVELED WHICH CAUSES A TWISTING ACTION AND PREMATURE BARWAY WEAR.

THE PROPER RUNNING CLEARANCE IS 0.038MM TO 0.05MM AND SHOULD BE MAINTAINED AT ALLTIMES IN ORDER TO GET THE MAXIMUM LIFE FROM THE BLADES & QUALITY WORK FROM THE SHEAR.

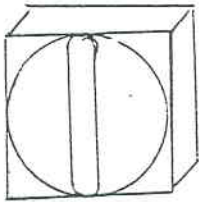
THE ADJUSTMENT PROCEDURE IS AS FOLLOWS:

- (1) DISCONNECT ELECTRICAL POWER FROM THE MACHINE.
- (2) LOOSEN THE LOCK NUTS ON THE THREE SQUARE HEAD SET SCREW LOCATED AT THE FRONT GIB AREA OF R.H. END HEADING.
- (3) RUN CENTER SET SCREW IN TIGHT TO TAKE UP EXCESS CLEARANCE.
- (4) RUN IN THE TOP AND BOTTOM SCREWS UNTIL THEY STRIKE THE WEAR PLATE, THE BACK OFF 1/16 OF TURN AND TIGHTEN LOCK NUTS.
- (5) TAKE OFF ON THE CENTER SET SCREW UNTIL IT COMES IN LINE WITH THE TOP AND BOTTOM SCREWS, TIGHTEN LOCK NUTS.

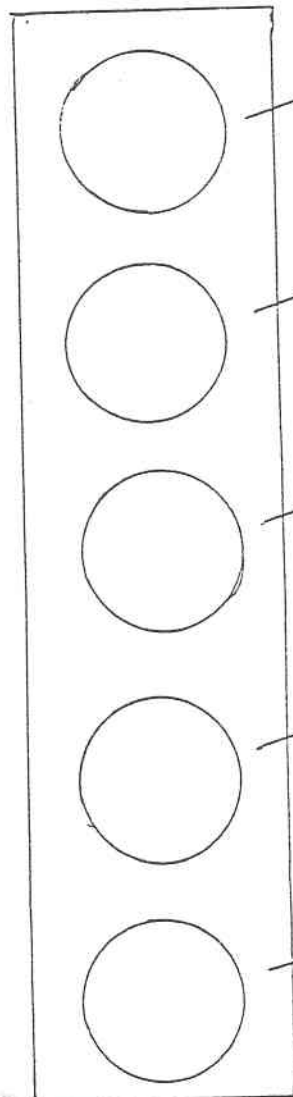
- (6) CHECK WITH A FEELER GAUGE BETWEEN THE WEAR PLATE AND THE KNIFE BAR ALONG THE LOWER GEAR SURFACE AND TOP REAR SURFACE THAT A PROPER CLEARANCE HAS BEEN ESTABLISHED.
- (7) REPEAT STEPS 2 THROUGH 6 ON THE L.H. END OF THE SHEAR.
- (8) CHECK BLADE CLEARANCE AND ADJUST IT NECESSARY.

E L E C T R I C A L
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ELECTRICAL CONNECTIONS MUST BE MADE BY A QUALIFIED ELECTRICIAN. THE HYDRAULIC SHEAR IS CONNECTED AT THE FACTORY FOR THE A.C. INPUT VOLTAGE SPECIFIED BY THE CUSTOMER. AFTER CONNECTING, JOG THE MOTOR BY MEANS OF THE PUMP START & STOP PUSH BUTTONS TO ASCERTAIN ROTATION. THE MOTOR SHOULD ROTATE IN ACCORDANCE WITH THE ROTATION ARROW (COUNTER-CLOCKWISE FACING THE COUPLING END).



MAIN POWER
-DOOR SWITCH
FOR POWER
ON / OFF



POWER INDICATION LAMP
-LIGHT IS ON WHEN POWER ON
AND LAMP OFF WHEN POWER IS
OFF

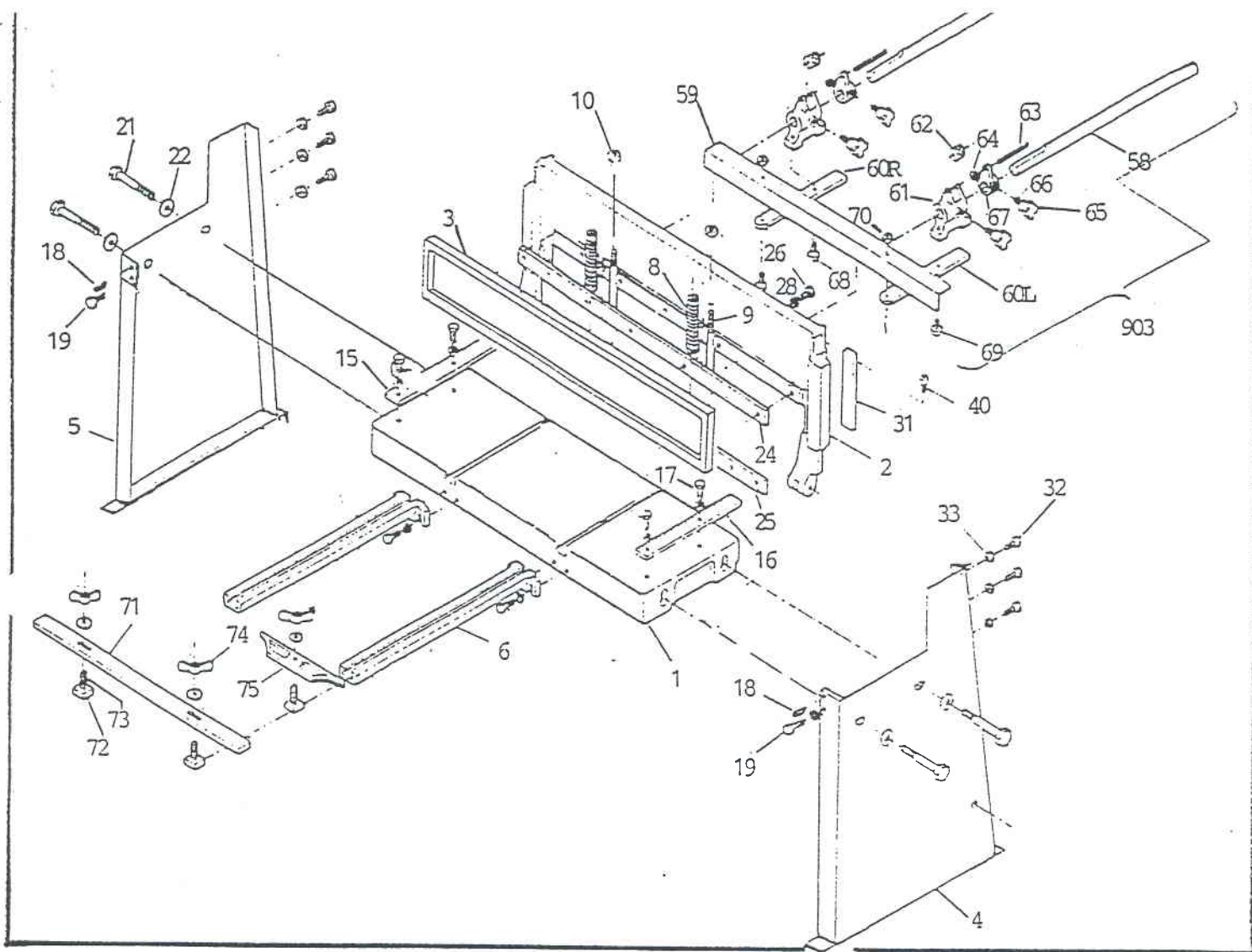
PUMP START
-TO START HYDRAULIC MOTOR

INCH / CYCLE
-INCH FOR JOG MOVEMENT AND
THE BLADE WILL STOP AT THE
POSITION RIGHT WHERE IT IS
-CYCLE FOR COMPLETE CUTTING
CYCLE AND BLADE RETURNS TO
TOP LIMIT WHEN RELEASE THE
FOOT PEDAL

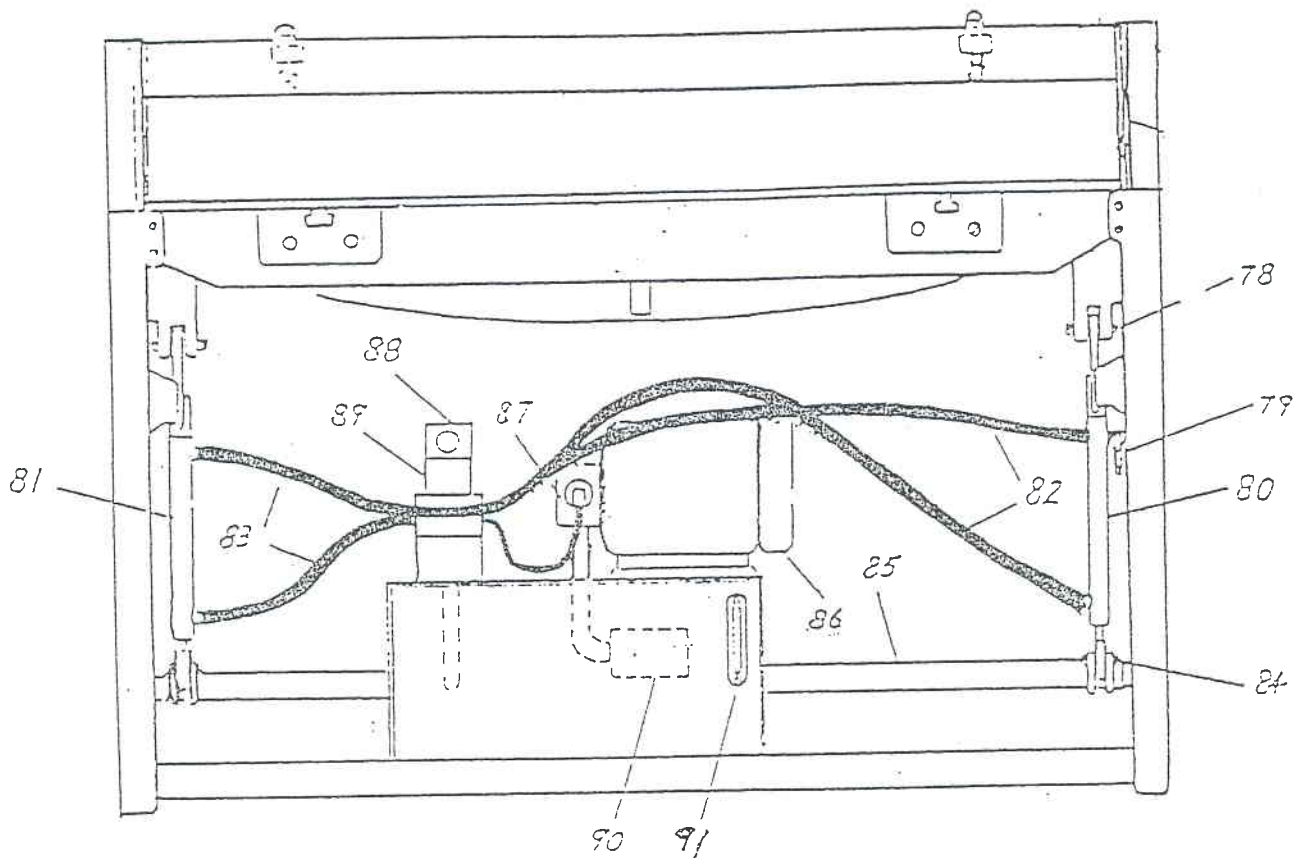
EMERGENCY STOP RESET
-TO RESET THE MACHINE

EMERGENCY STOP
-FOR SHUT OFF THE POWER

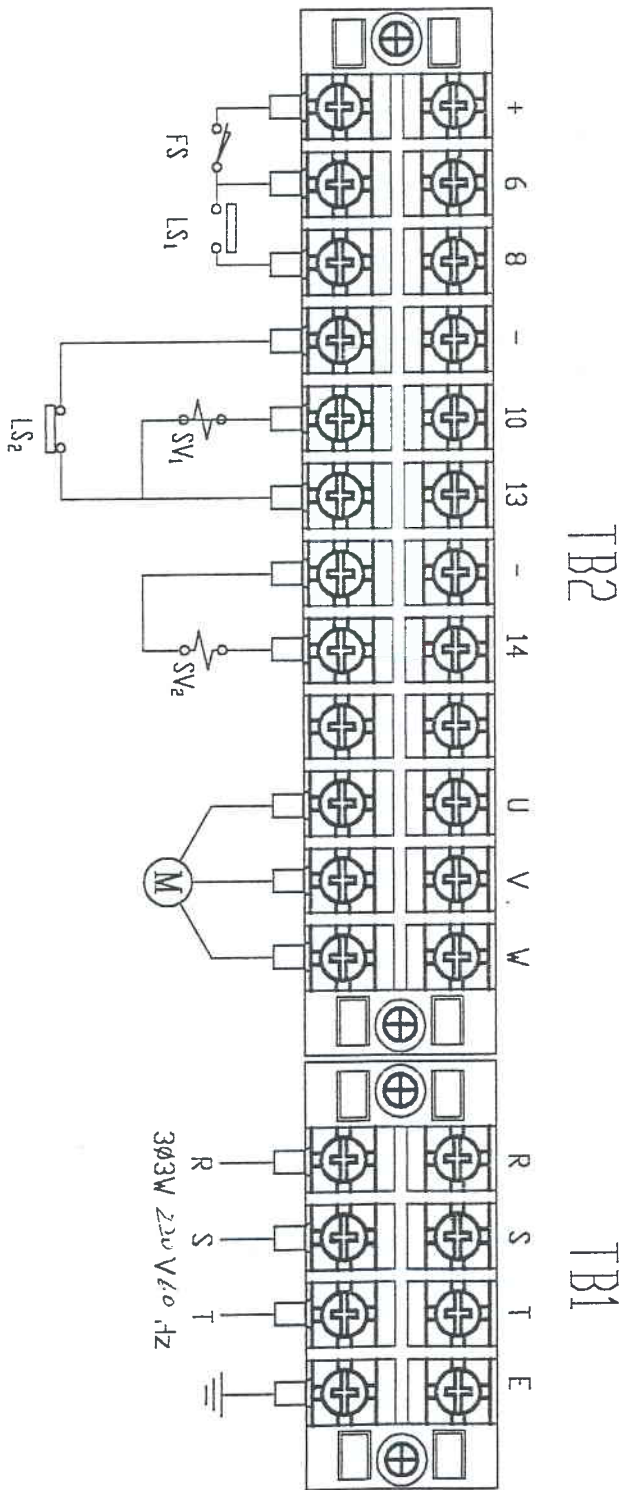
TROUBLE	CAUSE	REMEDY
BURR OR SHEARED EDGE	DULL, BLADES EXCESSIVE BLADE CLEARANCE EXCESSIVE CLEARANCE IN KNIFE-BAR WAYS POOR GRADE OF MATERIAL	TURN OR SHARPEN BLADES ADJUST BLADES ADJUST KINFE-BAR WAYS USE HIGHER GRADE STEEL
CAMER, TWIST AND BOW	BOTTOM BLADE NOT LEVEL WITH TABLE DULL BLADES	ADJUST BLADES-SHIM AFTER GRINDING TURN OR SHARPEN BLADES
KICK BACK OF STOCK	BOTTOM BLADE NOT LEVEL WITH TABLE NOT ENOUGH HOLD DOWN PRESSURE DULL BLADE	ADJUST BLADES-SHIM CHECK SPRINGS AND HOLDDOWN TRUN OR CHANGE BLADE
PUMP MOTOR WILL NOT RUN	NO ELECTRICAL POWER TO PUMP MOTOR DISCONNECT OPEN OR FUSES OPEN MOTOR BURNED OUT MOTOR STARTER DOES NOT CUSE	CLOSE 3 PHASE DISCONNECT, CHECK POWER FUSES REPLACE MOTOR CHECK FUSE (F1) START SWITCH, STOP SWITCH, MOTOR STARTER COIL AND OVERLOADS
PUMP MOTOR RUNS SLOW	ONE FUSE OPEN MOTOR IS SINGLE PHASING	REPLACE OPEN FUSE
PUMP MOTOR RUNS, SHEAR DOES NOT OPERATE	ELECTRICAL CIRCUIT OPEN HYDRAULIC CIRCUIT	CHECK FOOT-SWITCH CONTROL RELAY CONTACTS. DOWN-SLOENOID COIL. CHECK FOR STUCK VALVE, PUMP, PRESSURE LOW, CYLINDERS BY PASSING OIL.
SHEAR OPERATES DOWN BUT WILL NOT RETURN TO UP WHEN FOOT IS REMOVED FROM FOOT SWITCH	DEFECTIVE LIMIT SWITCH	REPLACE LIMIT SWITCH
SHEAR OPERATES DOWN BUT RETURNS TO THE UP POSITION SLPWLY.	NO HYDRAULIC PRESSURE TO LOWER CYLINDER DEFECTIVE LIMIT SWITCH DEFECTIVE UP SOLENOID	CHECK FOR STUCK VALVE REPLACE LIMITED S/W REPLACE SOLENOID COIL COMPLETE VALVE.



ITEM	DESCRIPTION	QTY	ITEM	DESCRIPTION	QTY
1.	TABLE	1	26.	SCREW, UPPER KNIFE	7
2.	CUTTER BAR	1	28.	WASHER, UPPER KNIFE,	7
3.	HOLDDOWN	1	31.	SHIM, C' BAR	2
4.	RIGHT-HAND SLIDE PANEL	1	32.	SCREW, C' BAR SHIM	6
5.	LEFT -HAND SLIDE PANEL	1	33.	NUT, C' BAR SHIM SCREW LOCK	6
6.	FRONT ARM EXT	2	40.	SET SCREW, BACK GAUGE ROD	2
7.	SCREW FOR FRONT ARM EXT	4	58.	ROD, BACK GAUGE	2
8.	SPRING	2	59.	STOP, BACK GAUGE	1
9.	STUD	2	60R.	EXT, BAR, BACK GAUGE	1
10.	NUT	4	60L.	EXT, BAR, BACK GAUGE	1
15.	SCALE, LEFT -HAND TABLE	1	61.	ADJ, BLOCK, BACK GAUGE	2
16.	SCALE, RIGHT-HAND TABLE	1	62.	ADJ, DIAL, BACK GAUGE	2
17.	SCREW + NUT	4	63.	ADJ, SCREW, BACK GAUGE,	2
18.	SET SCREW, TABLE ADJUSTABLE	2	64.	NUT, ADJ, SCREW,	2
19.	SCREW, TABLE LOCK	2	65.	KNOB, LOCK	4
21.	BOLT, TABLE	4	66.	STUD, KNOB	4
22.	WASH + NUT	4	67.	ADJ, BRKT	2
24.	KNIFE, UPPER	1	68.	SCREW, EXT, BAR	2
25.	KNIFE, LOWER	1	69.	SWIVEL BOLT,	3
			70.	NUT, SWIVEL BOLT	2
			71.	STOP, FRONT MATERIAL	1
			72.	"T" NUT	3
			73.	STUD "T" NUT	3
			74.	VING NUT "T" NUT	3
			75.	BEVEL GAUGE	1
			903.	BACK GAUGE ASSEMBLY	1



ITEM NO	DESCRIPTION	QTY
78.	PIN	2
79.	LIMITED SWITCH	1
80.	RIGHT-HAND HYDRAULIC CYLINDER	1
81.	LEFT -HAND HYDRAULIC CYLINDER	1
82.	RIGHT-HAND HOSE	2
83.	LEFT -HAND HOSE	2
84.	PIN	4
85.	TREADLE STUDS	1
86.	3HP MOTOR	1
87.	PUMP	1
88.	DIRECTIONAL	1
89.	RELIEF VALVE	1
90.	SUCTION FILTER	1
91.	HYDRAULIC OIL GAUGE	1



No.	PARTS	SIZE	MARK	NOTE
A	PILOT LIGHT	30ø 24V WHITE	RENY	WL
B	PUSH BUTTON	30ø 1A1B 24V GREEN	RENY	PB2
C	PUSH BUTTON	30ø 1A1B RED (LOCK)	RENY	PB1
D	SELECT SWITCH	30ø 1A1B BLACK	RENY	CS
E	CIRCUIT BREAKER	3P 20A		MCB
F	MAGNETIC SWITCH	HKD-11 AC 24V 9A	TAIAN	MC,DL
G	TRANSFORMERS	1ø 220/18-24V 2A 50HZ		TR
H	GLASS FUSES	30mm 2A	RENY	PFI,PF2
I	POWER SUPPLY	DC 24V 8A 2000uf		DC24V
J	POWER REALY	MY-2 DC 24V	DMRDN	R1-R3
K	TRANS BUS	4P 35A	GIKDKA	TB1
L	TRANS BUS	12P 25A	SHIMING	TB2
M				
N				
D				
P				
Q				
R				
S				
T				
U				

