Model GPX.WCI

Precision Disc Style Coffee Grinder with Integrated Water Cooling System

Modern Process Equipment, Inc.
Chicago, Illinois

OVERVIEW

The Model GPX Disc Style Coffee Grinder utilizes precision cut "diamond hard" grinding plates to produce up to 400 lbs per hour of a full range of coffee grinds. The grinder utilizes a 3 HP (1800 RPM) motor to drive a rotor, which incorporates an auger feeder and a rotating grinding disc. The rotor also incorporates turbo vanes to maximize throughput and minimize product accumulation within the unit.

The gap between the rotating grinding disc and a stationary grinding disc, which is mounted directly opposite on the grinder housing, determines the type of coffee grind produced. The machine's grind adjustment knob utilizes a screw assembly and thrust bearing to vary the position of the rotor on the motor shaft and, consequently, adjust the gap between the grinding discs. This disc gap variance provides the capability of "dialing in" any one of a full range of coffee grinds, from drip to espresso.

On "American" style coffees, it may be necessary to utilize the dechaffer on your GPX grinder. By utilizing the weight on the dechaffing arm, back pressure is exerted on the coffee being expelled from the grinder, thereby breaking up the "chaff" (broken coffee skin) which is released when the bean is ground. By moving the weight outward on the dechaffing arm, the back pressure and the resulting level of dechaffing is increased. When producing very fine coffees (melitta, espresso, turkish), the dechaffing level should be minimized or, in some cases, eliminated by removing the weight.

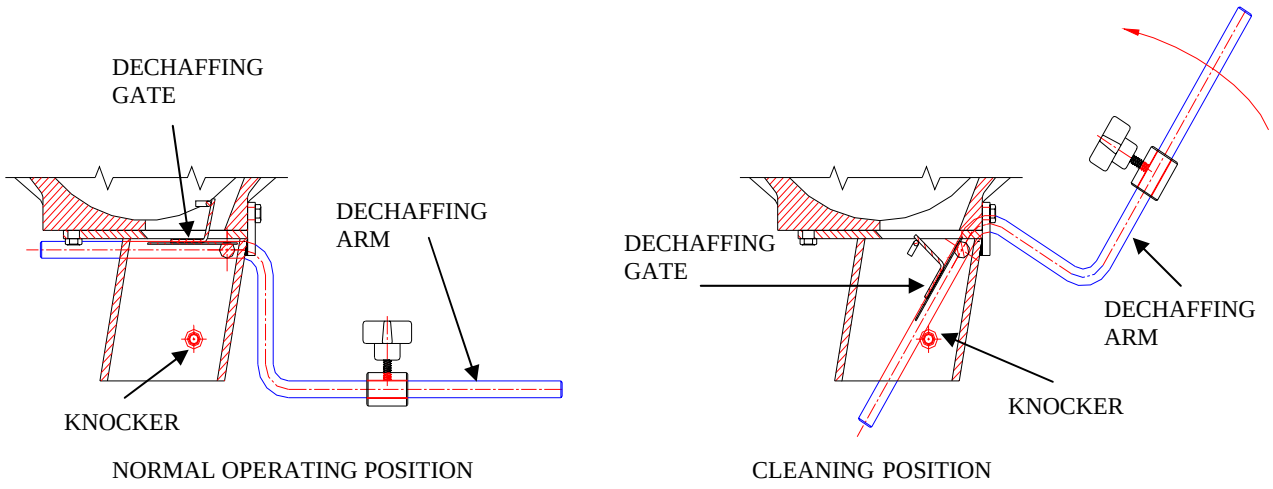
OPERATION AND MAINTENANCE

Because of its uncomplicated design, the GPX grinder is relatively simple to operate. Prior to starting the grinder, ensure that the coffee bean control gate is fully closed. To grind coffee, simply start the grinder, fill the hopper with the desired amount of beans, set the dechaffer arm weight, "dial in" the desired grind on the grind adjustment knob, and open the bean control gate. As a starting point, the dechaffer arm weight should be set at 1/2 the arm distance for medium to coarse grinds, and at the bottom of the arm (fully toward the machine) for finer grinds. When the grinding run is complete, close the control gate, lift the dechaffer arm to remove any excess coffee, and shut down the grinder.

NOTE

TO REMOVE ANY COFFEE BUILDUP ABOVE DECHAFFING GATE, SWING THE DECHAFFING ARM UPWARD UNTIL IT IMPACTS ON THE "KNOCKER", AS SHOWN IN THE DRAWING BELOW.

DO NOT PUSH OR FORCE HANDLE DOWN



To change the grind range on the grind adjustment knob, loosen the knob set screws, rotate the adjusting screw in the middle of the knob (Clockwise=Finer) to the desired point, and retighten the knob set screws.

CAUTION!

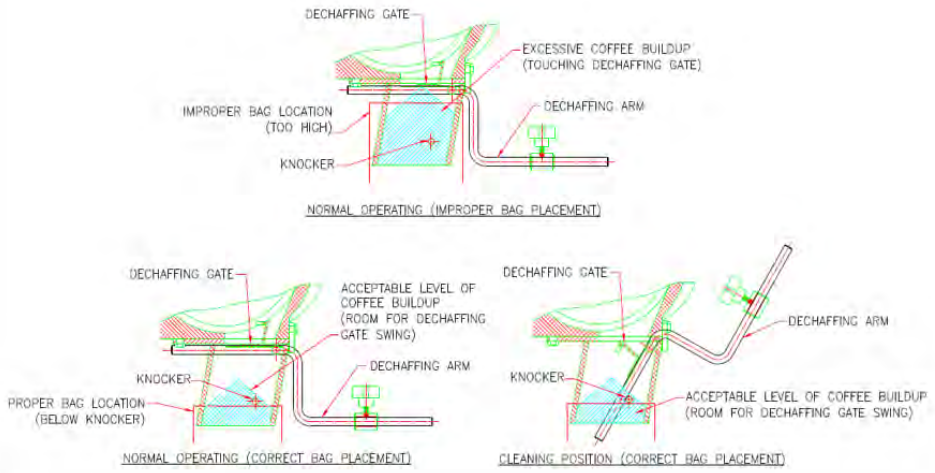
LOCK OUT OR DISCONNECT MOTOR PRIOR TO ATTEMPTING WORK, REPAIR OR REMOVAL OF COVER FROM THIS UNIT.

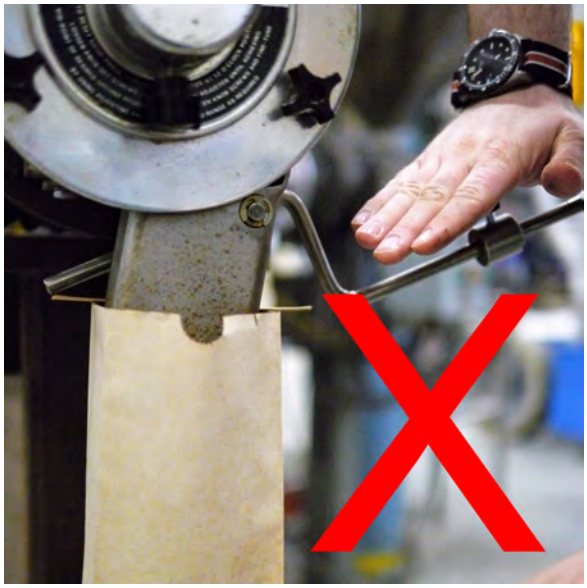
NOTE

TO REMOVE ANY COFFEE BUILDUP ABOVE DECHAFFING GATE, SWING THE DECHAFFING ARM UPWARD UNTIL IT IMPACTS ON THE 'KNOCKER', AS SHOWN IN THE DRAWING BELOW.

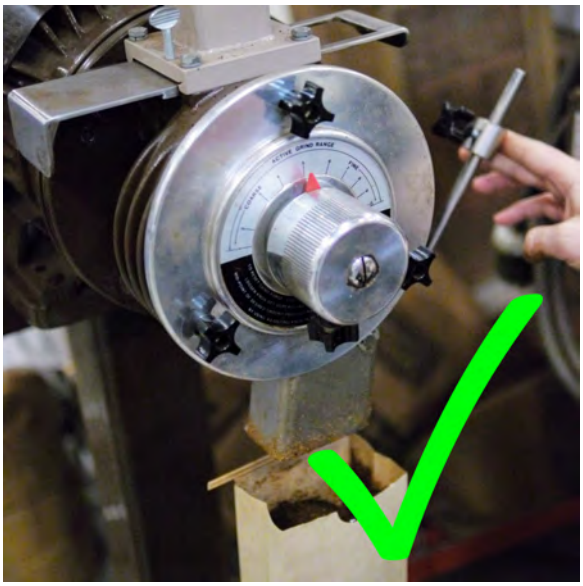
DO NOT PUSH OR FORCE HANDLE DOWN

DO NOT PLACE BAG ABOVE THE KNOCKER OR ALLOW COFFEE TO BUILD UP UNDER THE DECHAFFING GATE

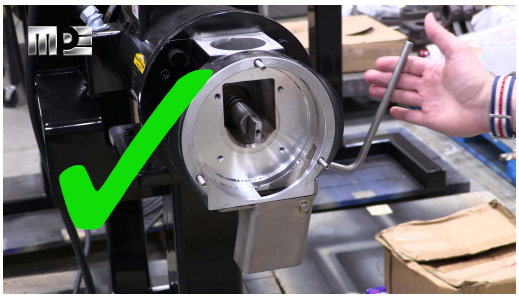




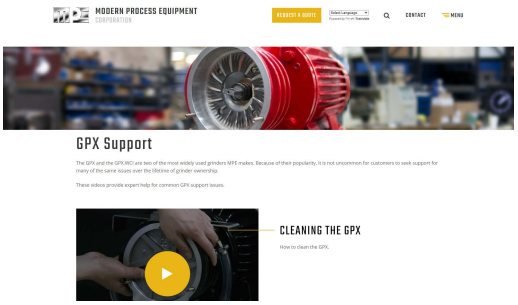
Don't push down on the dechaffing arm as this may damage the dechaffing gate.



Do lift up the dechaffing arm and lower the coffee bag at the end of grinding. This empties the burr housing.



Video on how to use and
not use a dechaffing gate.



MPE webpage for troubleshooting
common GPX issues.

How to install a dechaffing gate
and add a dechaffing arm.

WATER COOLING

The GPX.WCI has an integrated water cooling loop that flushes water through the aluminum grinder housing to remove heat from the grinding process.

The closed loop system includes a pump, heat exchanger, fan, and mode selector switch.

OPERATING MODES

OFF -	Pump is OFF
ON -	Pump is ON; water will flow through the grinder head.
AUTOMATIC -	The water cooling pump starts automatically when the grinder is started and stops automatically one minute after the grinder is stopped.

NOTE

WATER COOLING SHOULD REMAIN IN AUTOMATIC MODE.

On occasion, the grinder will require disassembly for cleaning and/or grinding disc replacement. To disassemble, remove the front cover after first removing the (3) front cover screw knobs. After the front cover has been removed, the rotor can be pulled out either by hand or by utilizing "ejector screws" on the rotor insert (part #4 on drawing SG-1206-B) which, when screwed in, act against the motor shaft to force the rotor out. Refer to drawing SG-1206-B for further details on the internal construction of the grinder.

NOTE

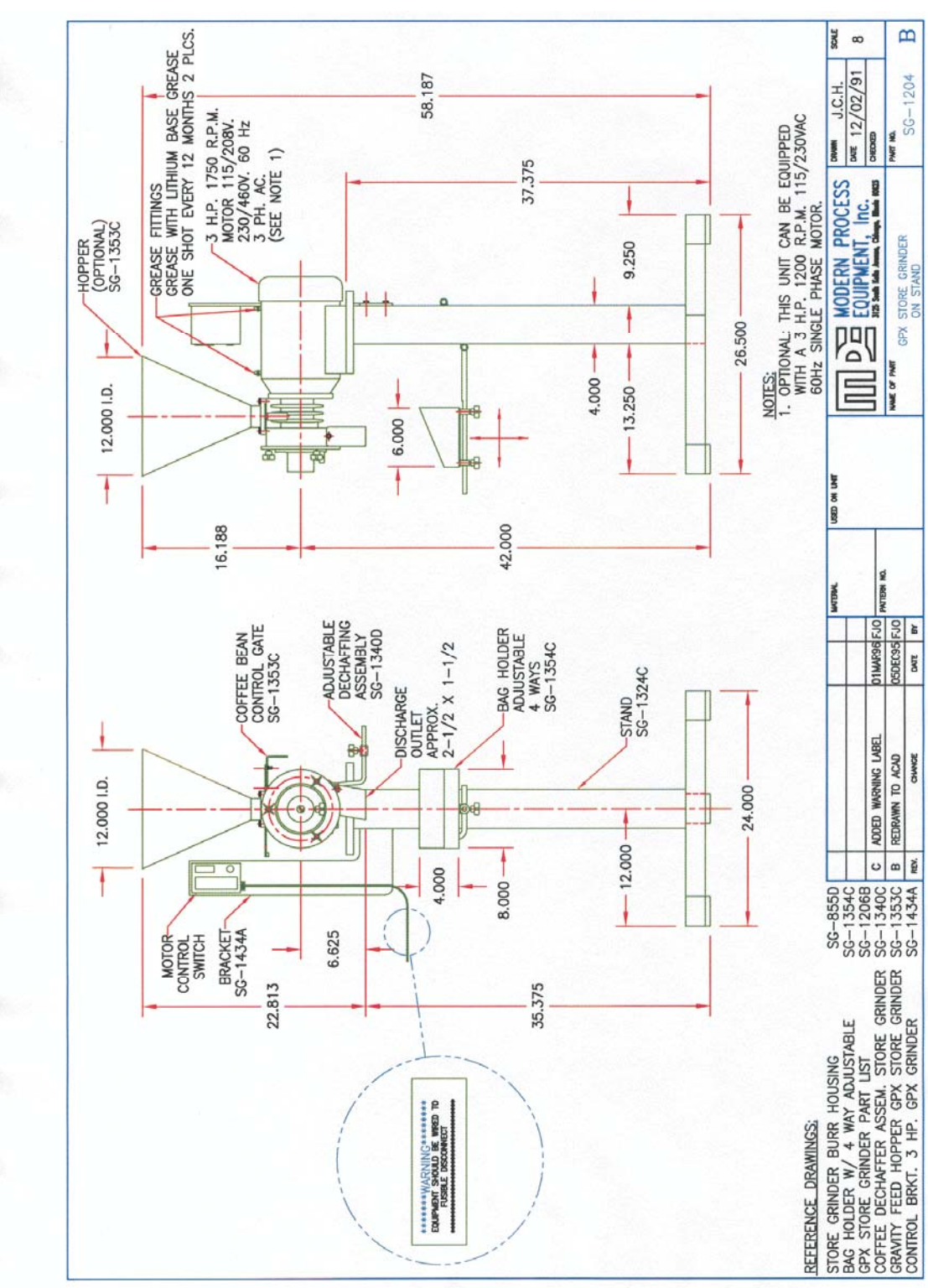
PRIOT TO GRINDING, CONFIRM THAT THE DRIVE MOTOR IS TURNING COUNTER CLOCKWISE AS VIEWED FROM THE FAN END OF THE MOTOR. A MOTOR ROTATION STICKER IS LOCATED ON THE FAN GUARD. THE GRINDING BURR TURNS CLOCKWISE AS VIEWED FROM THE GRIND ADJUSTMENT KNOB.

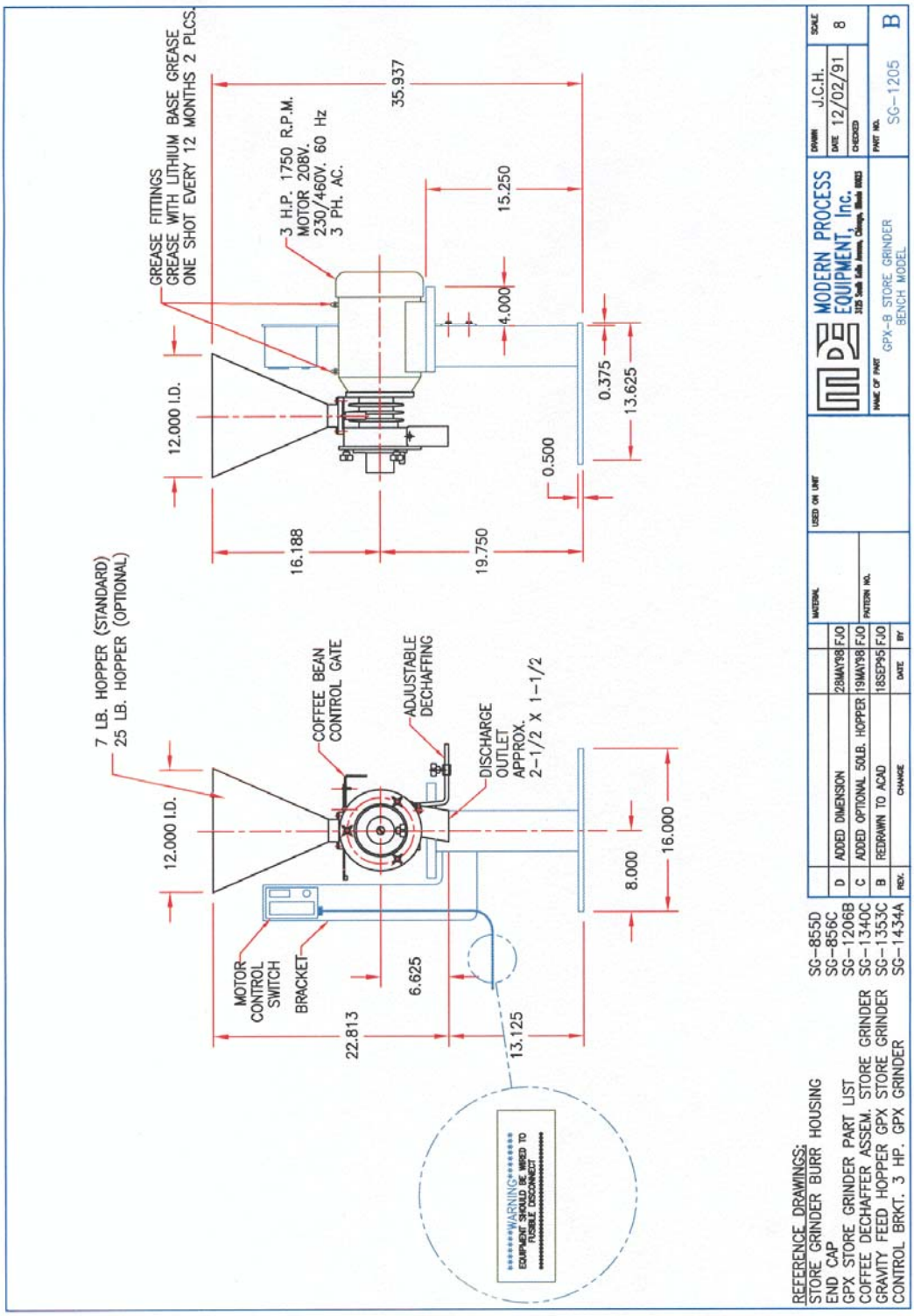
NOTE

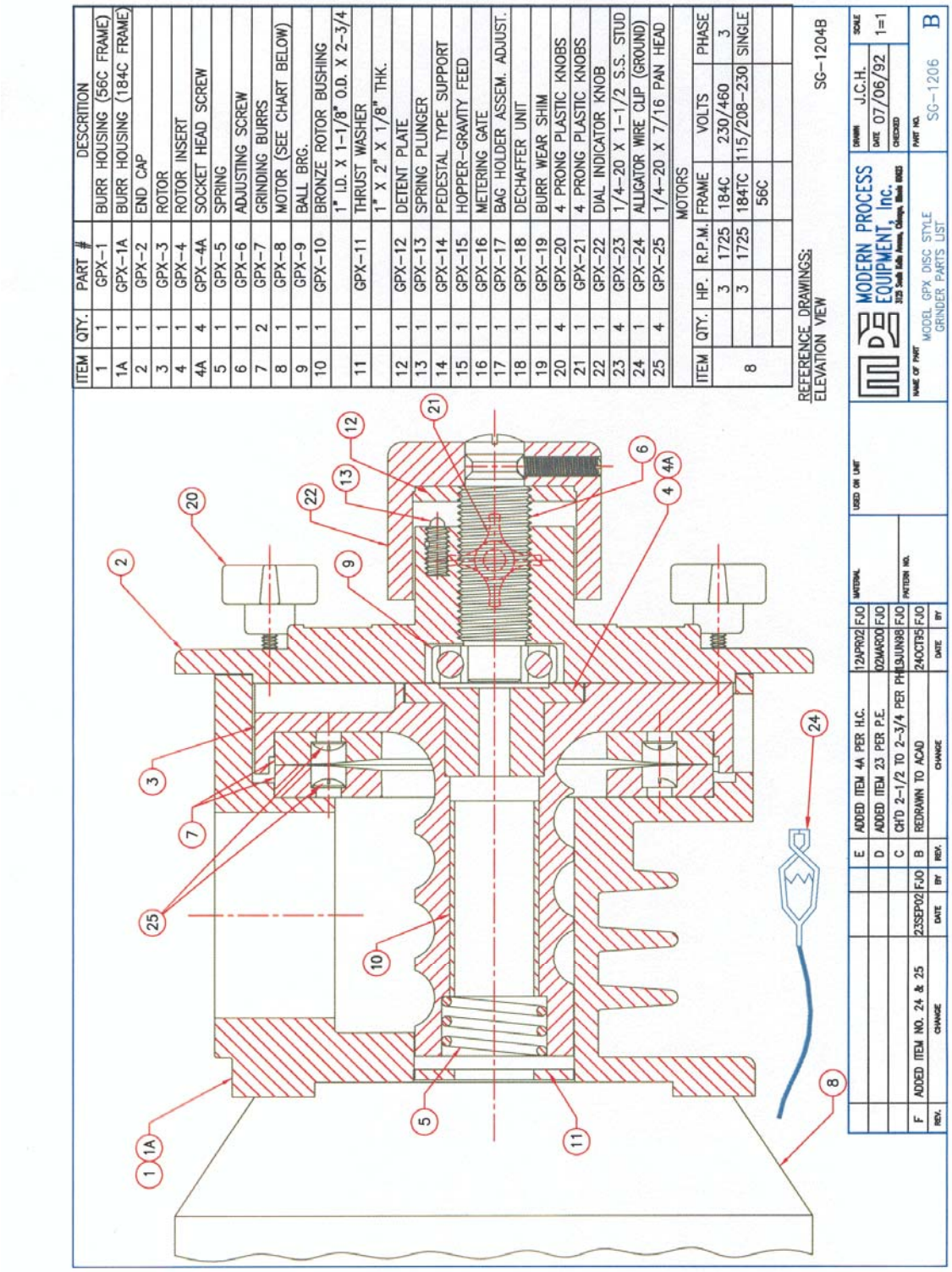
NOT ALL DRAWINGS APPLICABLE TO EACH GPX GRINDER. THE APPROPRIATE ELECTRICAL DRAWING SHOULD BE USED BASED ON THE ACTUAL GRINDER SPECIFICATIONS.

Drawings

GPX Store Grinder on Stand	SG-1204B
GPX-B Store Grinder Bench Model	SG-1205B
Model GPX Disc Style Grinder Parts List	SG-1206B
Electrical Schematic 230V AC GPX.WC 3PH	EL-7357-1
Electrical Schematic 230V AC GPX.WC Single PH	EL-7357-4
Model GPX Disc Style Coffee Grinder With Parts List	SG-2520C
GPX Store Grinder on Stand with WC Box Location	SG-7353


HOPPER (OPTIONAL) SG-1353C
GREASE FITTINGS GREASE WITH LITHIUM BASE GREASE ONE SHOT EVERY 12 MONTHS 2 PLCS.
3 H.P. 1750 R.P.M. MOTOR 115/208V. 230/460V. 60 Hz 3 PH. AC. (SEE NOTE 1)
58.187
37.375
12.000 I.D.
9.250
6.000
4.000
13.250
26.500
16.188
42.000
COFFEE BEAN CONTROL GATE SG-1353C
ADJUSTABLE DECHAFFING ASSEMBLY SG-1340D
DISCHARGE OUTLET APPROX. 2-1/2 X 1-1/2
BAG HOLDER ADJUSTABLE 4 WAYS SG-1354C
STAND SG-1324C
12.000 I.D.
4.000
8.000
12.000
24.000
MOTOR CONTROL SWITCH
BRACKET SG-1434A
6.625
22.813
35.375
*****WARNING*****
EQUIPMENT SHOULD BE WIRED TO FUSIBLE DISCONNECT
NOTES:
1. OPTIONAL: THIS UNIT CAN BE EQUIPPED WITH A 3 H.P. 1200 R.P.M. 115/230VAC 60Hz SINGLE PHASE MOTOR.
REFERENCE DRAWINGS:
STORE GRINDER BURR HOUSING SG-855D
BAG HOLDER W/ 4 WAY ADJUSTABLE SG-1354C
GPX STORE GRINDER PART LIST SG-1206B
COFFEE DECHAFFER ASSEM. STORE GRINDER SG-1340C
GRAVITY FEED HOPPER GPX STORE GRINDER SG-1353C
CONTROL BRKT. 3 HP. GPX GRINDER SG-1434A
REV. C ADDED WARNING LABEL D1MAR98FJO
REV. B REDRAWN TO ACAD 05DEC95FJO
CHANGE DATE BY
MATERIAL
PATTERN NO.
USED ON UNIT
MODERN PROCESS EQUIPMENT, Inc.
DRAWN J.C.H.
DATE 12/02/91
CHECKED
SCALE 8
NAME OF PART GPX STORE GRINDER ON STAND
PART NO. SG-1204
B


GREASE FITTINGS
GREASE WITH LITHIUM BASE GREASE
ONE SHOT EVERY 12 MONTHS 2 PLCS.
3 H.P. 1750 R.P.M.
MOTOR 208V.
230/460V. 60 Hz
3 PH. AC.
35.937
15.250
4.000
0.375
13.625
0.500
12.000 I.D.
16.188
19.750
7 LB. HOPPER (STANDARD)
25 LB. HOPPER (OPTIONAL)
COFFEE BEAN
CONTROL GATE
ADJUSTABLE
DECHAFFING
DISCHARGE
OUTLET
APPROX.
2-1/2 X 1-1/2
12.000 I.D.
8.000
16.000
MOTOR
CONTROL
SWITCH
BRACKET
6.625
22.813
13.125
WARNING
EQUIPMENT SHOULD BE WIRED TO
FUSIBLE DISCONNECT
REFERENCE DRAWINGS:
STORE GRINDER BURR HOUSING SG-855D
END CAP SG-856C
GPX STORE GRINDER PART LIST SG-1206B
COFFEE DECHAFFER ASSEM. STORE GRINDER SG-1340C
GRAVITY FEED HOPPER GPX STORE GRINDER SG-1353C
CONTROL BRKT. 3 HP. GPX GRINDER SG-1434A
REV. CHANGE DATE BY
D ADDED DIMENSION 28MAY98 FJO
C ADDED OPTIONAL 50LB. HOPPER 19MAY98 FJO
B REDRAWN TO ACAD 18SEP95 FJO
MATERIAL
PATTERN NO.
USED ON UNIT
MODERN PROCESS EQUIPMENT, Inc.
NAME OF PART
GPX-B STORE GRINDER
BENCH MODEL
DRAWN J.C.H.
DATE 12/02/91
CHECKED
PART NO. SG-1205
SCALE 8
B



ITEM	QTY.	PART #	DESCRIPTION
1	1	GPX-1	BURR HOUSING (56C FRAME)
1A	1	GPX-1A	BURR HOUSING (184C FRAME)
2	1	GPX-2	END CAP
3	1	GPX-3	ROTOR
4	1	GPX-4	ROTOR INSERT
4A	4	GPX-4A	SOCKET HEAD SCREW
5	1	GPX-5	SPRING
6	1	GPX-6	ADJUSTING SCREW
7	2	GPX-7	GRINDING BURRS
8	1	GPX-8	MOTOR (SEE CHART BELOW)
9	1	GPX-9	BALL BRG.
10	1	GPX-10	BRONZE ROTOR BUSHING 1" I.D. X 1-1/8" O.D. X 2-3/4
11	1	GPX-11	THRUST WASHER 1" X 2" X 1/8" THK.
12	1	GPX-12	DETENT PLATE
13	1	GPX-13	SPRING PLUNGER
14	1	GPX-14	PEDESTAL TYPE SUPPORT
15	1	GPX-15	HOPPER-GRAVITY FEED
16	1	GPX-16	METERING GATE
17	1	GPX-17	BAG HOLDER ASSEM. ADJUST.
18	1	GPX-18	DECHAFFER UNIT
19	1	GPX-19	BURR WEAR SHIM
20	4	GPX-20	4 PRONG PLASTIC KNOBS
21	1	GPX-21	4 PRONG PLASTIC KNOBS
22	1	GPX-22	DIAL INDICATOR KNOB
23	4	GPX-23	1/4-20 X 1-1/2 S.S. STUD
24	1	GPX-24	ALLIGATOR WIRE CLIP (GROUND)
25	4	GPX-25	1/4-20 X 7/16 PAN HEAD

MOTORS

ITEM	QTY.	HP.	R.P.M.	FRAME	VOLTS	PHASE
8		3	1725	184C	230/460	3
		3	1725	184TC	115/208-230	SINGLE
				56C		

REFERENCE DRAWINGS:
ELEVATION VIEW

SG-1204B

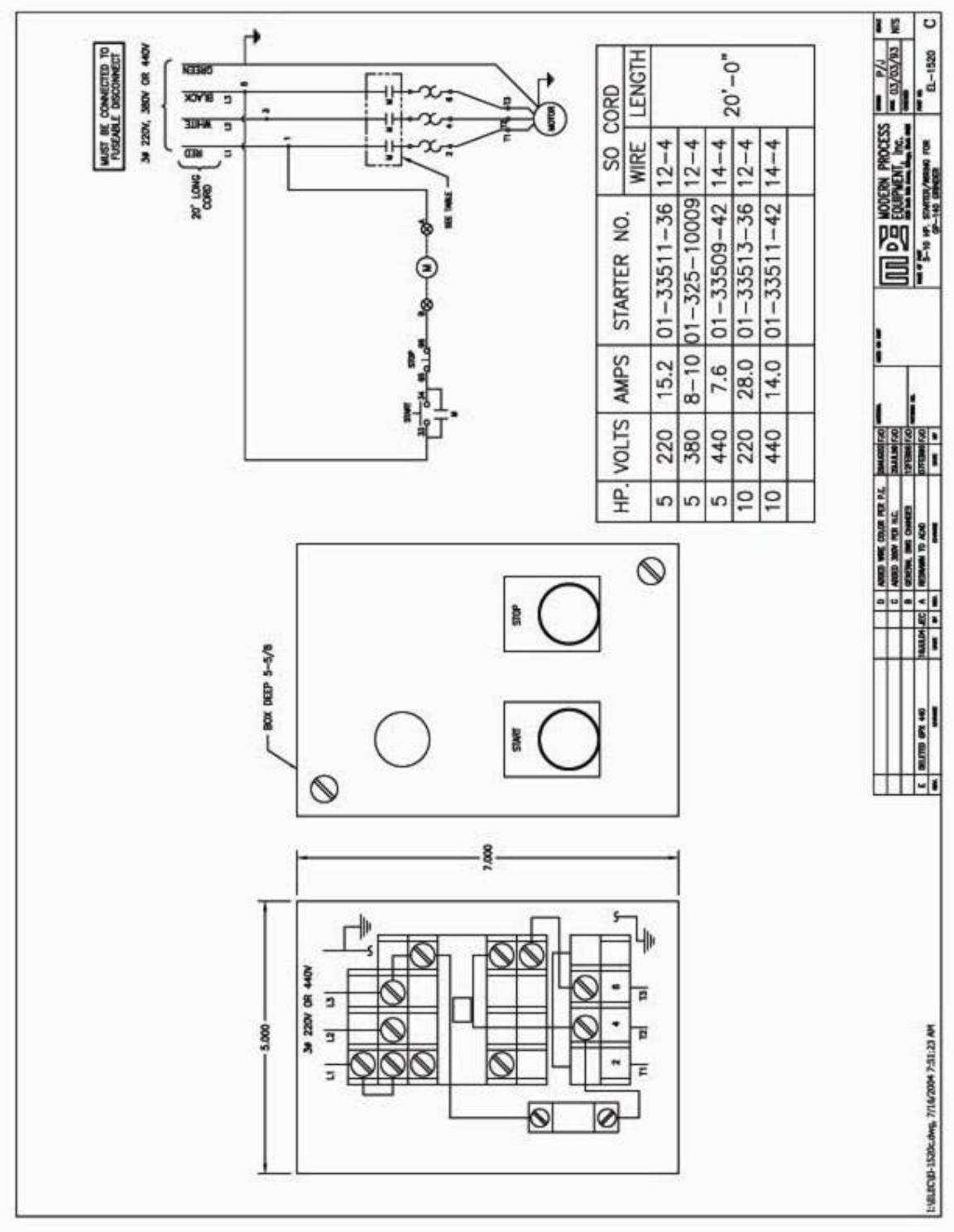
MODERN PROCESS EQUIPMENT, Inc.
3125 South Kilbo Avenue, Chicago, Illinois 60623

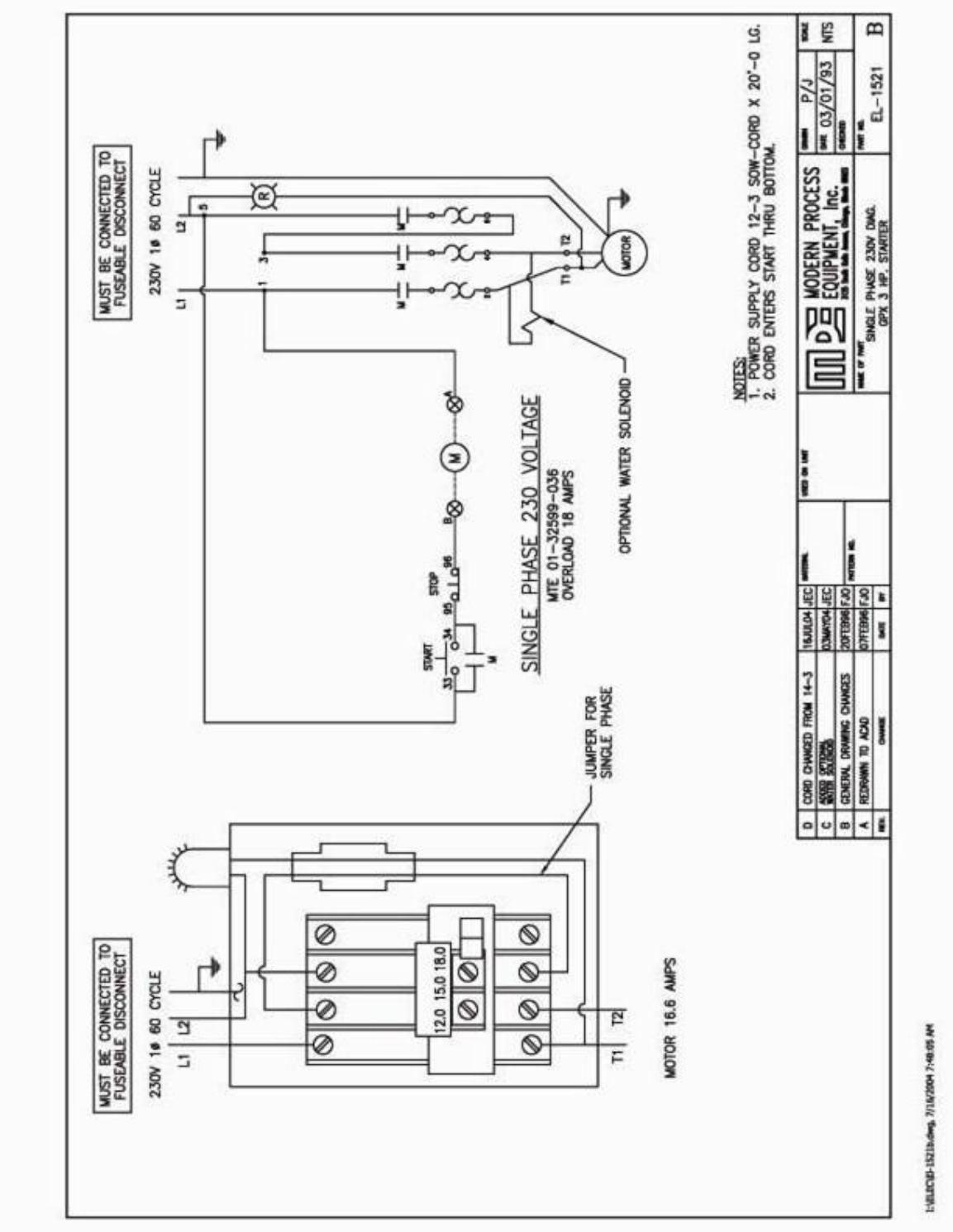
MODEL GPX DISC STYLE GRINDER PARTS LIST

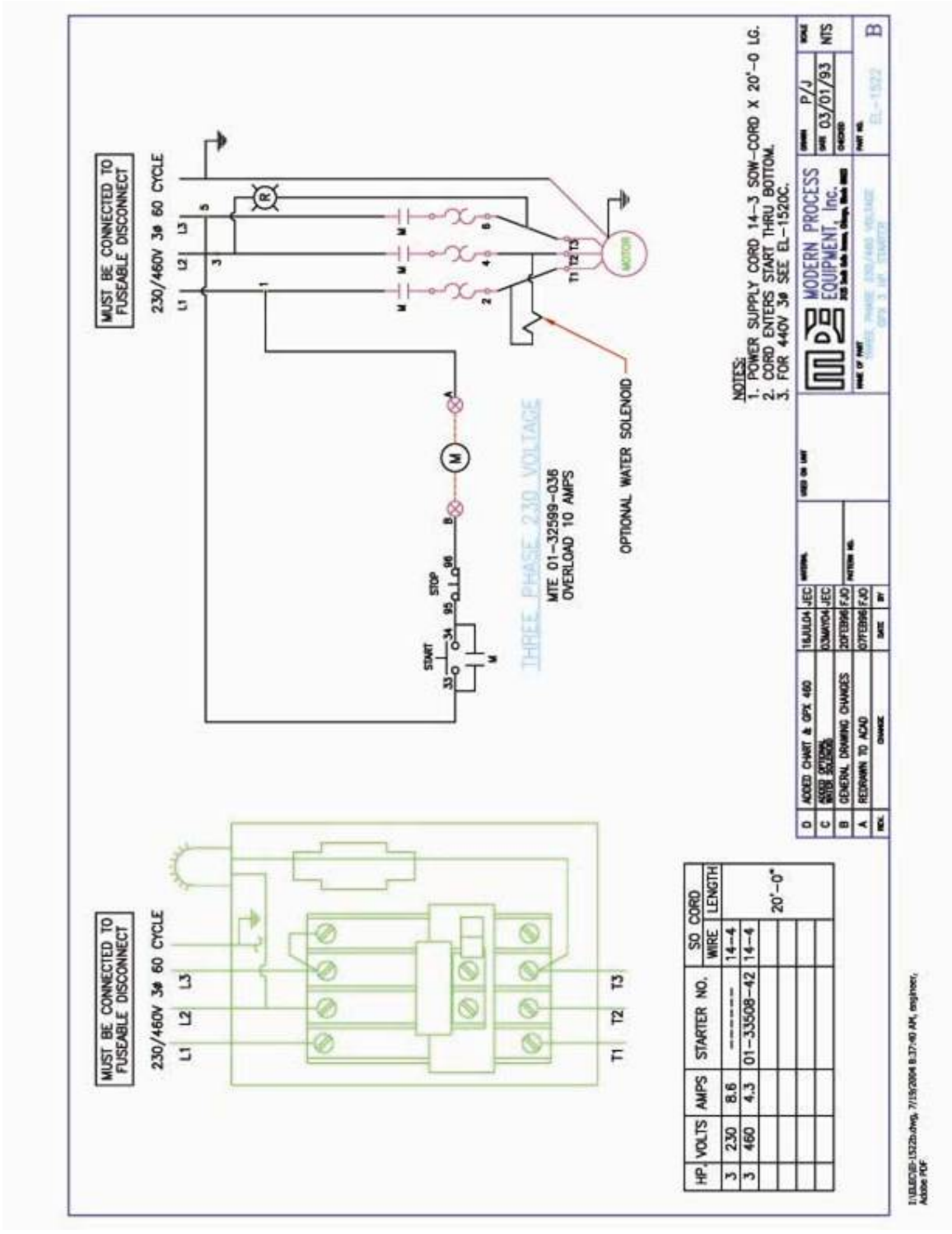
DRAWN J.C.H. DATE 07/06/92 CHECKED
SCALE 1=1
PART NO. SG-1206 B

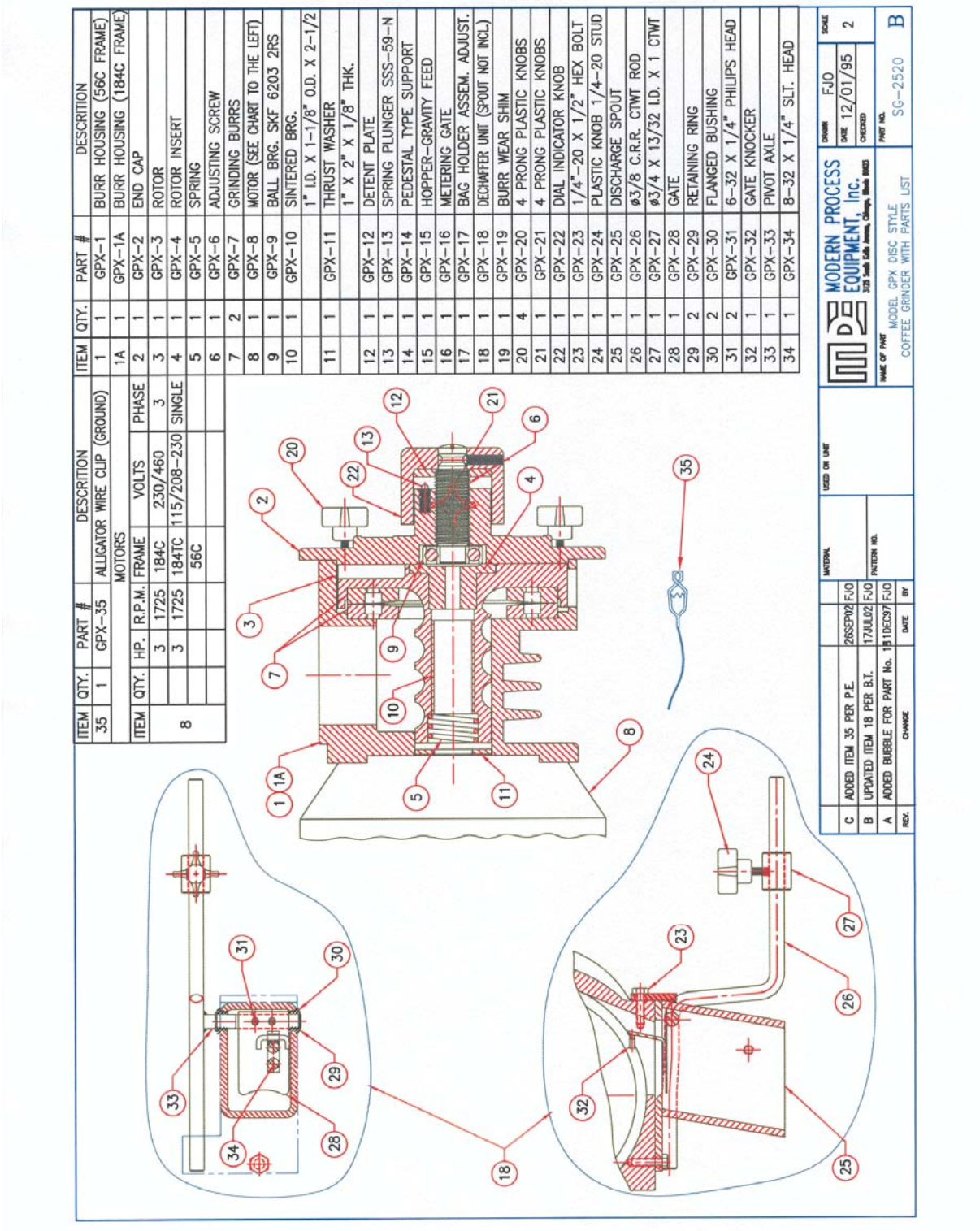
REV.		CHANGE	DATE	BY
F		ADDED ITEM NO. 24 & 25	23SEP02	FJO
	E	ADDED ITEM 4A PER H.C.	12APR02	FJO
	D	ADDED ITEM 23 PER P.E.	02MAR00	FJO
	C	CHG'D 2-1/2 TO 2-3/4 PER PH	13JUN98	FJO
	B	REDRAWN TO ACAD	24OCT95	FJO

MATERIAL
USED ON UNIT
PATTERN NO.


MUST BE CONNECTED TO FUSIBLE DISCONNECT
3Φ 220V, 380V OR 440V
GREEN
BLACK
WHITE
RED
L3
L2
L1
20' LONG CORD
STOP
START
SEE TABLE
HP. VOLTS AMPS STARTER NO. SO CORD WIRE LENGTH
5 220 15.2 01-33511-36 12-4
5 380 8-10 01-325-10009 12-4
5 440 7.6 01-33509-42 14-4 20'-0"
10 220 28.0 01-33513-36 12-4
10 440 14.0 01-33511-42 14-4
BOX DEEP 5-5/8
STOP
START
7.000
5.000
3Φ 220V OR 440V
L1
L2
L3
T1
T2
T3
MODERN PROCESS EQUIPMENT, Inc.
C


MUST BE CONNECTED TO FUSEABLE DISCONNECT
230V 1Ø 60 CYCLE
L1
L2
SINGLE PHASE 230 VOLTAGE
MTE 01-32599-036
OVERLOAD 18 AMPS
START
STOP
OPTIONAL WATER SOLENOID
JUMPER FOR SINGLE PHASE
MOTOR 16.6 AMPS
12.0 15.0 18.0
T1
T2
NOTES:
1. POWER SUPPLY CORD 12-3 SOW-CORD X 20'-0 LG.
2. CORD ENTERS START THRU BOTTOM.
MODERN PROCESS EQUIPMENT, Inc.
SINGLE PHASE 230V DWG.
GPX 3 HP. STARTER
EL-1521
B
NTS
03/01/93
P/J


MUST BE CONNECTED TO FUSEABLE DISCONNECT
230/460V 3ø 60 CYCLE
L1 L2 L3
THREE PHASE 230 VOLTAGE
MTE 01-32599-036
OVERLOAD 10 AMPS
OPTIONAL WATER SOLENOID
START
STOP
NOTES:
1. POWER SUPPLY CORD 14-3 SOW-CORD X 20'-0 LG.
2. CORD ENTERS START THRU BOTTOM.
3. FOR 440V 3ø SEE EL-1520C.
MODERN PROCESS EQUIPMENT, Inc.
P/J
03/01/93
NTS
EL-1522
B
ADDED CHART & GPX 460
GENERAL DRAWING CHANGES
REDRAWN TO ACAD
HP VOLTS AMPS STARTER NO. SO CORD WIRE LENGTH
3 230 8.6 ------ 14-4
3 460 4.3 01-33508-42 14-4
20'-0"



ITEM	QTY.	PART #	DESCRIPTION
35	1	GPX-35	ALLIGATOR WIRE CLIP (GROUND)

	ITEM	QTY.	HP.	R.P.M.	FRAME	VOLTS	PHASE
					MOTORS		
8			3	1725	184C	230/460	3
			3	1725	184TC	115/208-230	SINGLE
					56C		

ITEM	QTY.	PART #	DESCRIPTION
1	1	GPX-1	BURR HOUSING (56C FRAME)
1A	1	GPX-1A	BURR HOUSING (184C FRAME)
2	1	GPX-2	END CAP
3	1	GPX-3	ROTOR
4	1	GPX-4	ROTOR INSERT
5	1	GPX-5	SPRING
6	1	GPX-6	ADJUSTING SCREW
7	2	GPX-7	GRINDING BURRS
8	1	GPX-8	MOTOR (SEE CHART TO THE LEFT)
9	1	GPX-9	BALL BRG. SKF 6203 2RS
10	1	GPX-10	SINTERED BRG. 1" I.D. X 1-1/8" O.D. X 2-1/2
11	1	GPX-11	THRUST WASHER 1" X 2" X 1/8" THK.
12	1	GPX-12	DETENT PLATE
13	1	GPX-13	SPRING PLUNGER SSS-59-N
14	1	GPX-14	PEDESTAL TYPE SUPPORT
15	1	GPX-15	HOPPER-GRAVITY FEED
16	1	GPX-16	METERING GATE
17	1	GPX-17	BAG HOLDER ASSEM. ADJUST.
18	1	GPX-18	DECHAFFER UNIT (SPOUT NOT INCL.)
19	1	GPX-19	BURR WEAR SHIM
20	4	GPX-20	4 PRONG PLASTIC KNOBS
21	1	GPX-21	4 PRONG PLASTIC KNOBS
22	1	GPX-22	DIAL INDICATOR KNOB
23	1	GPX-23	1/4"-20 X 1/2" HEX BOLT
24	1	GPX-24	PLASTIC KNOB 1/4-20 STUD
25	1	GPX-25	DISCHARGE SPOUT
26	1	GPX-26	ø3/8 C.R.R. CTWT ROD
27	1	GPX-27	ø3/4 X 13/32 I.D. X 1 CTWT
28	1	GPX-28	GATE
29	2	GPX-29	RETAINING RING
30	2	GPX-30	FLANGED BUSHING
31	2	GPX-31	6-32 X 1/4" PHILIPS HEAD
32	1	GPX-32	GATE KNOCKER
33	1	GPX-33	PIVOT AXLE
34	1	GPX-34	8-32 X 1/4" SLT. HEAD

REV.	CHANGE	DATE	BY
C	ADDED ITEM 35 PER P.E.	26SEP02	FJO
B	UPDATED ITEM 18 PER B.T.	17JUL02	FJO
A	ADDED BUBBLE FOR PART No. 18	10DEC97	FJO

MATERIAL | USED ON UNIT | PATTERN NO.

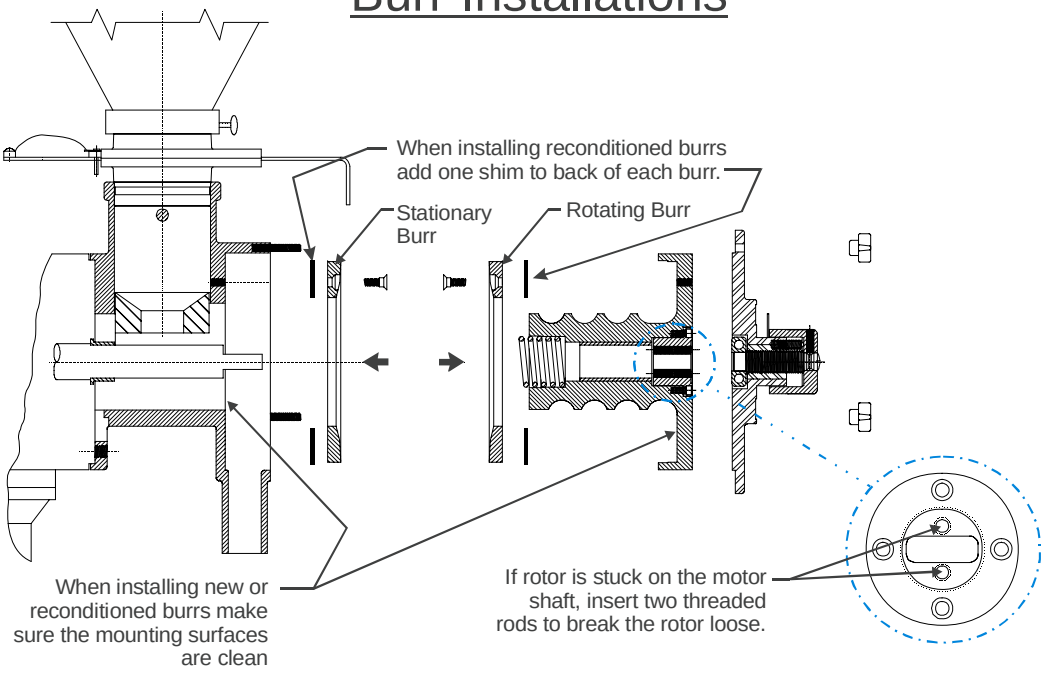
MODERN PROCESS EQUIPMENT, Inc.
3325 South Kolin Avenue, Chicago, Illinois 60623

NAME OF PART: MODEL GPX DISC STYLE COFFEE GRINDER WITH PARTS LIST

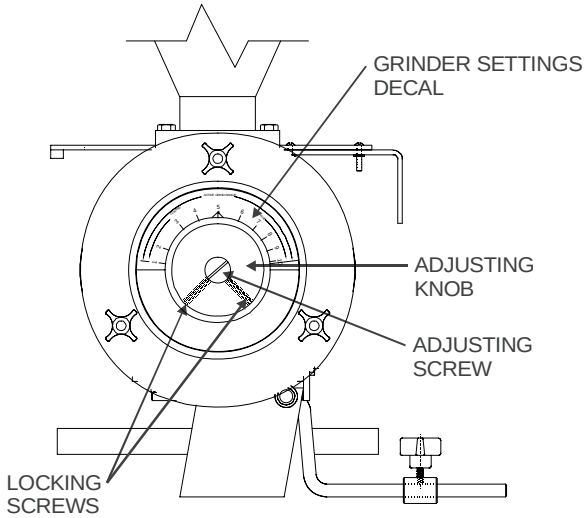
DRAWN: FJO | DATE: 12/01/95 | CHECKED

SCALE: 2 | PART NO.: SG-2520 | B

Burr Installations



Zero Adjust Procedure



1. After fully assembling grinder, turn grinder on.
2. Loosen locking screws
3. Rotate the knob to grind setting No. 10.
4. With a screwdriver turn adjusting screw clockwise until burrs touch lightly.
5. Tighten locking screws.
6. For GPX grinders turn knob counterclockwise to grind setting No. 8, For GPC grinders turn knob counterclockwise to grind setting No. 9.
7. With a screw driver hold the position of the adjusting screw, then loosen the locking screws.
8. While still holding the position of the adjusting screw, turn the knob to grind setting No. 10.
9. Tighten locking screw.
10. The grinder is now adjusted to the original factory settings.