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USERGUIDE

UGE010/0597

Fan Cutter Pelletizer (Model 2512)

⚠ **WARNING - Reliance on this Manual Could Result in Severe Bodily Injury or Death!**

This manual is out-of-date and is provided only for its technical information, data and capacities. Portions of this manual detailing procedures or precautions in the operation, inspection, maintenance and repair of the product forming the subject matter of this manual may be inadequate, inaccurate, and/or incomplete and cannot be used, followed, or relied upon. Contact Conair at info@conairgroup.com or 1-800-654-6661 for more current information, warnings, and materials about more recent product manuals containing warnings, information, precautions, and procedures that may be more adequate than those contained in this out-of-date manual.

FORWARD

Proper installation, operation, and maintenance procedures are critical, however, for achieving optimum equipment performance, as well as for insuring operator safety. This manual provides an overview of the system design features, suggested installation steps, recommended start-up and operation procedures, possible troubleshooting needs, maintenance schedules and procedures, service and spare parts recommendations, and key reference materials on the system and its commercially available components.

Each user may have different procedures, techniques, tools, and parts for operating and maintaining its pelletizing lines. Also, the skills of the individuals doing the work may vary. As such, this manual cannot possibly anticipate all such variations and provide advice or cautions as to each. Accordingly, anyone who departs from the instructions in this manual must first establish that neither personal safety nor equipment integrity will be compromised by the choice of methods, tools, or parts.

As you read through the procedures in this manual, you will come across NOTES, CAUTIONS, and WARNINGS. Each is listed for a specific purpose. NOTES give you added information to help you complete a particular procedure. CAUTIONS are given to prevent you from making an error that could damage the equipment. WARNINGS remind you to be especially careful where personal injury may result.

The recommendations and suggestions in this manual are made to help you with your Conair Jetro Model 2512 Fan Cutter Strand Pelletizing System. It is not meant to supersede individual company policies or override OSHA safety requirements.

SAFETY INSTRUCTIONS

This pelletizer should not be installed, operated or worked upon without compliance with the warning signs affixed and a thorough understanding of these instructions.

PRECAUTIONS

1. Always disconnect power completely before attempting any service to the unit.
2. Never operate the unit with the cutting chamber cover removed, or in poor condition.
3. Never operate the unit with the guards or discharge chute removed.
4. Do not attempt to override safety switches or overloads.
5. Always allow the unit to clean out before shutting it down; do not feed material to the unit when it is not operating.
6. Prevent all metal and foreign material from entering the cutting chamber; this pelletizer is intended to cut plastic material only.
7. Do not operate this machine without proper training.
8. WARNING: STRANDS ARE HOT!!!

POWER AND UTILITY REQUIREMENTS

The standard model FC-2512 Fan Cutter pelletizer has electrical power connection to a flush mounted NEMA 12 enclosure in the base of the machine.

WARNING: MAKE SURE POWER IS DISCONNECTED AT THE MAIN SOURCE BEFORE CONNECTING.

a. **Electrical Power Requirements:**
Standard Drives are 3 HP and 1 HP AC motors electrical power service required is:
460 Volt, 3 Phase, 60 Hertz and power is 11 KVA draw.

Ref: Drawing No. 2512-480, FC2512 Wiring Diagram.

Optional Drive is 5 HP and 1 HP motors, 11 KVA power draw. (460 V, 3 PH, 60 Hertz)

b. **Utility Requirements:**
Air supply of 40 to 80 psi gauge - connection to air regulator is located on the upper base at this flow regulation valve marked feedroll "OPEN" or "CLOSED" position.

WARNING: MAKE SURE ALL MACHINE GUARDS ARE CLOSED AND SECURED IN PLACE BEFORE CONNECTION AND ACTUATION OF THE FEEDROLL AIR CONTROL VALVE.

OPERATION PROCEDURES

1. Position the machine in line with the exiting strands at the die on the extruder.

   WARNING: MAKE SURE THE POWER IS DISCONNECTED AT THE MAIN SOURCE AND THE ELECTRICAL CONTROL ENCLOSURE DISCONNECT SWITCH IS LOCKED OUT BEFORE OPENING THE MACHINE FOR SERVICE OR MAINTENANCE. REFER ALSO TO SAFETY INSTRUCTIONS.

2. Insure that all safety interlocks are closed and all guards and covers on the machine are in place and securely fastened so the operator may not be injured by rotating components of the machine.

3. Connect all electrical power to the machine main electrical enclosure, following the schematic instructions for the appropriate model and serial number of the machine. Also see instructions of section 2.0 Power and Utility Requirements.

4. Connect the pneumatic air line to the pressure regulator fitting on the machine and set pressure to a maximum of 30 psi. Position the feedroll air pressure valve lever to the "OPEN" position. Also see instructions of section 2.0 Power and Utility Requirements.

5. Press the Operator Control station "START" button and set the rotor speed potentiometer to near maximum speed setting. Next, set the feedroll speed potentiometer to 50% of maximum speed.

6. Start the extruder and purge strands for uniform flow. Gather strands of plastics and submerge through the water bath and pass the air knife and into the feed opening of the pelletizer. Make the following adjustments:
   a. Close the feedroll, by moving the feedroll air pressure valve lever to the "CLOSE" position.
   b. Adjust the feedroll speed potentiometer to pull strands into tension according to extruder output and the desired strand diameter.
   c. Adjust the extruder output and feedroll speed potentiometer for strand tension to avoid tangles or slack of the strands. Separate and space strands uniformly in the grooves provided across the pelletizer's infeed strand guide.

7. Make rotor speed adjustments to produce the "cut length" desirable. Usually strand sizes range from .020" long at maximum speed to a nominal .125" long cuts at 25% of full rotor speed setting. Inspect output pellets and make necessary speed adjustments.

8. Cut length to strand diameter adjustments (pellet L/D):
   a. For various pellet cut length changes and strand diameter adjustments, first increase or decrease the feedroll speed potentiometer to refine the strand diameter.
   b. Secondly, make the rotor speed adjustment up or down to increase or decrease the cut lengths.

9. Shut Down Sequence:
   a. Maintain the set pelletizer feedroll speed setting until the extruder has discharged all material and slowly decrease the extruder screw speed to "0" rpm.
   b. Run the pelletizer until all strands have been cut and material no longer discharges from the machine. Open the feedrolls to release remaining small size strands.
   c. Shut down the pelletizer by depressing the "Stop" button on the operator control station and turn the main power disconnect "Off".
   d. Disconnect electrical and air supply before maintenance or cleanout.

ROTOR KNIFE BLADE & BED KNIFE REPLACEMENT AND ADJUSTMENT

WARNING: MAKE SURE THE POWER IS DISCONNECTED AT THE MAIN SOURCE AND THE ELECTRICAL CONTROL ENCLOSURE DISCONNECT SWITCH IS LOCKED OUT BEFORE OPENING THE MACHINE FOR SERVICE OR MAINTENANCE. REFER ALSO TO SAFETY INSTRUCTIONS.

Blades should be replaced when they show signs of wear, become dull or show nicks and chips.

All of the blades should be replaced as a set.

To replace a set of knife blades, first **disconnect power**. Loosen feedroll motor mounting bolts and adjust motor up to remove belts. Remove post mounting plate bolts (see Dwg. #2512-26) and then remove feedroll assembly. This should allow you access to the rotor and knife blades. When removing blades, be sure to block rotor from turning before loosening knife blade bolts. Reassemble replacement blades making sure rotor is still blocked to prevent free turning. Torque knife blade bolts to 14 Ft./Lbs. (Blue thread lock optional). Once knife blades are assembled, the gap between the blades and the bed knife needs to be adjusted. If the bed knife strand surface shows wear or the carbide insert becomes chipped it should be replaced. Loosen mounting bolts to bed knife and slide bed knife to knife blades. Adjust the gap between knife blade and bed knife with .001" feeler gauge. Be sure to check each blade. Tighten bed knife bolts and then you can reassembly the feedroll assembly.

Before assembling the feedroll assembly, adjust the bed knife gap between the rotor blade and the bed knife. Loosen bolts on the bed knife. With a feeler gage of .001", set gap between blade and bed knife by sliding bed knife towards blades with feeler gage in between. Spin rotor to check all blades. Once the bed knife is set, assemble feedroll assembly. Then tighten bed knife bolts.

FEEDROLL REPLACEMENT AND ADJUSTMENT

WARNING: MAKE SURE THE POWER IS DISCONNECTED AT THE MAIN SOURCE AND THE ELECTRICAL CONTROL ENCLOSURE DISCONNECT SWITCH IS LOCKED OUT BEFORE OPENING THE MACHINE FOR SERVICE OR MAINTENANCE. REFER ALSO TO SAFETY INSTRUCTIONS.

The upper feedroll should be replaced when the outside diameter of the hypalon coating shows cuts, tears, and/or worn grooves.

When adjusting the upper feedroll, cylinders, cylinder mounting plate and cylinder rod ends, right and left guide brackets, slide into the left and right hand post. The cylinder mounting plate bolts to the posts. To adjust strand guides, remove upper feedroll assembly and adjust set screws in bed knife to height needed. To remove strand guide, remove upper feedroll assembly, remove bolts to air cylinder with slot in mounting plate. Loosen set screw in cylinder rod end and slide cylinder out of mounting plate. Strand guide will drop out. Reassemble cylinder to mounting plate and left and right hand posts.

DRIVE PART ADJUSTMENT AND REPLACEMENT

WARNING: MAKE SURE THE POWER IS DISCONNECTED AT THE MAIN SOURCE AND THE ELECTRICAL CONTROL ENCLOSURE DISCONNECT SWITCH IS LOCKED OUT BEFORE OPENING THE MACHINE FOR SERVICE OR MAINTENANCE. REFER ALSO TO SAFETY INSTRUCTIONS.

1. ROTOR:
   Drive part adjustment and replacement for cutter rotor (3 HP and optional 5 HP motor):

   a. Proper adjustment of belts requires loosening the motor mounting bolts and adjusting the sliding motor base bolts to tighten or loosen the drive belts.
   b. Replacement of rotor drive belts requires loosening motor mounting bolts and moving the adjustable motor base to loosen the belts to the point that they may be removed over the motor sheave. Remove and replace with new rotor drive belts (Conair Part No. 3413-30104) and adjust to tension and tighten.

2. FEEDROLL:
   Drive part adjustment and replacement (1 HP motor):

   a. Proper adjustment of belts requires loosening the motor mounting bolts and adjusting the sliding motor base bolts to tighten or loosen the feedroll belts.
   b. Replacement of feedroll drive belts requires loosening motor mounting bolts and moving the adjustable motor base bolts to loosen the belts to the point that they may be removed over the motor sheave. Remove and replace with new feedroll drive belts (Conair Part No. 3513-30112) and adjust to tension and tighten.

LUBRICATION, BEARINGS, MOTORS, ETC.

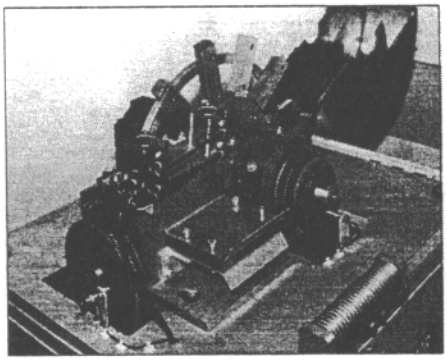
Feedrolls

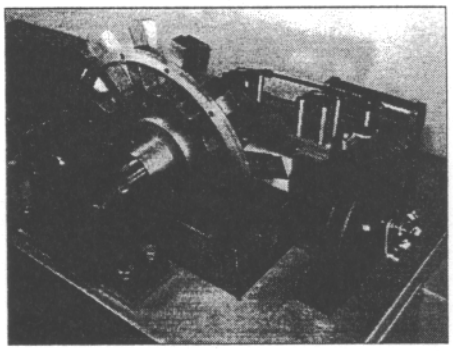
All feedroll bearings are sealed bearings and do not need to be greased. If bearings fail, they should be replaced. Upper feedroll bearing, Conair Part No. 3558-50088 (2), Lower feedroll bearing, Conair Part No. #3558-30072 (1) and #3558-30088 (4).

Rotors

Grease fittings for the rotor bearings are remotely located so that the rotor bearings can be greased with a standard pressure gun. They should be greased periodically.

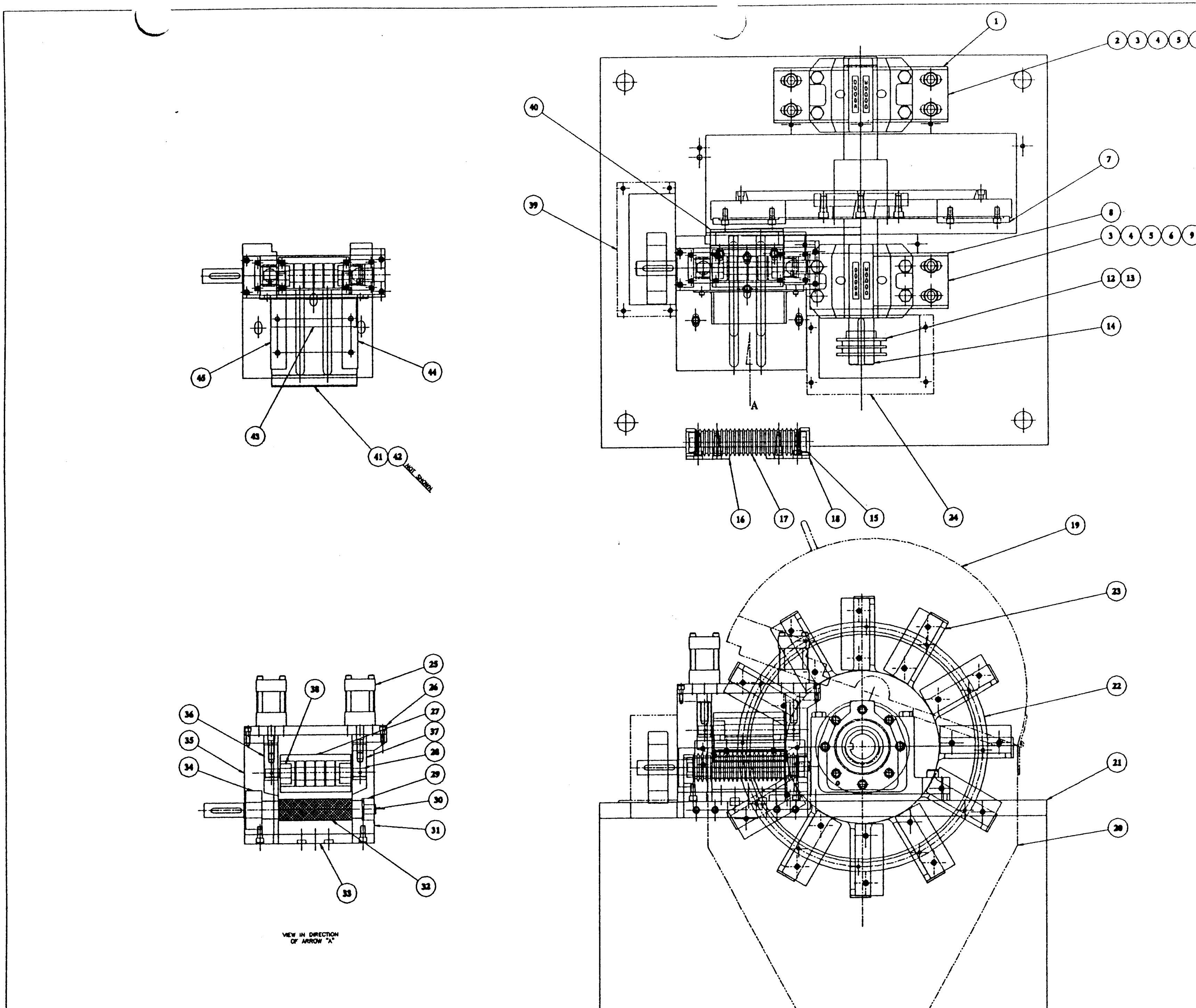
Use only LINIREX N3 grease from EXXON CO.





RECOMMENDED SPARE PARTS

ITEM DESCRIPTION	PART NUMBER	QUANTITY
Upper Feedroll	2512-20	1
Lower Feedroll-Ceramic	2512-25-3	1
Bed Knife Block	2512-27	1
Rotor Blades-Stellite	2512-5-3	12 (Set)
Rotor Drive Belt	3513-30104	2
Feedroll Drive Belt	3513-30112	1
Rotor Bearing	3559-30016	2
Feedroll Bearing	3558-30088	6
Feedroll Bearing	3558-30072	1



SYM.	QTY.	MAT'L/PART#	DESCRIPTION
45	1	2512-42-1	LEFT SIDE RAIL
44	1	2512-42	RIGHT SIDE RAIL
43	1	2512-41	TABLE MOUNTING BRACKET
42	1	2512-39	FEED TABLE TOP COVER
41	1	2512-40	FEED TABLE BOTTOM TRAY
40	1	2512-27	BED KNIFE BLOCK
39	1	XXXX-XX	FEEDROLL GUARD
38	4	3558-30088	BRG. NSK-6002 ZZ C3
37	1	2512-22-3	RH. GUIDE BRACKET
36	1	2512-22-4	LH. GUIDE BRACKET
35	1	2512-17	LEFT HAND POST
34	1	3558-30072	[illegible]
33	1	2512-28	POST MOUNTING PLATE
32	1	2512-25	LOWER FEEDROLL
31	1	2512-24	RIGHT HAND POST
30	3	XXXX-XXXXXX	TRUARC RET. RING#5100-56
29	1	3558-30080	BRG NSK-6202 ZZ C3
28	1	2512-21	UPPER FEEDROLL SHAFT
27	1	2512-20	UPPER FEEDROLL
26	1	2512-18	CYL. MOUNTING PLATE
25	2	5503-30232	PNEU AIR CYL SMC-NCQ2B40-300M
24	1	XXXX-XXXXXX	ROTOR SHAFT GUARD
23	1	2512-11	ROTOR-12 BLADE
22	1	2512-12	ROTOR SUPPORT RING
21	1	2512-13	ISO PLATE
20	1	2512-35	DISCHARGE CHUTE-LOWER
19	1	2512-34	DISCHARGE CHUTE-UPPER
18	1	2512-31	SPREADER BAR BRACKET
17	1	2512-30	SPREADER BAR
16	1	2512-29	SPREADER BAR BRACKET
15	2	XXXXXXXXXX	BRG XXXXXXXXXXXXX
14	1	2512-10	ROTOR SHAFT
13	1	XXXXXXXXXX	XXXXXXXXXXXXXXXXXXX
12	1	XXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXX
11	1	041172	RETAINING RING
10	1	2512-52	SPACER-ROTOR SHAFT
9	1	3507-30068	MOD. PUR. PT. #2512-50
8	1	2512-8	FRONT BEARING PLATE
7	12	2512-5-3	ROTOR BLADE-STELLITE
6	3	5527-3000	DODGE LER SEAL #046307
5	2	3559-3000	DODGE SPH. RLLR BRG #421284
4	2	4548-3000	DODGE LOCK WASHER #046307
3	2	4103-3000	DODGE LOCK NUT #046288
2	1	3507-30064	DODGE CLOSED HSG #039865
1	21	DWG.#2512-1	REAR BEARING PLATE

CONAIR
JETRO

NAME: FAN-CUTTER ASSY

DRAWN: MRC | SCALE: 1:2 | DATE: 8-9-94

TOLERANCES (UNLESS OTHERWISE SPECIFIED):
.XX ± .010 .XXX ± .005 X° ± 0°30'

DRAWING NO.: **2512-55-1**

FIRST USED:
REF:
CHECKED BY
SHT.___OF___SHTS.

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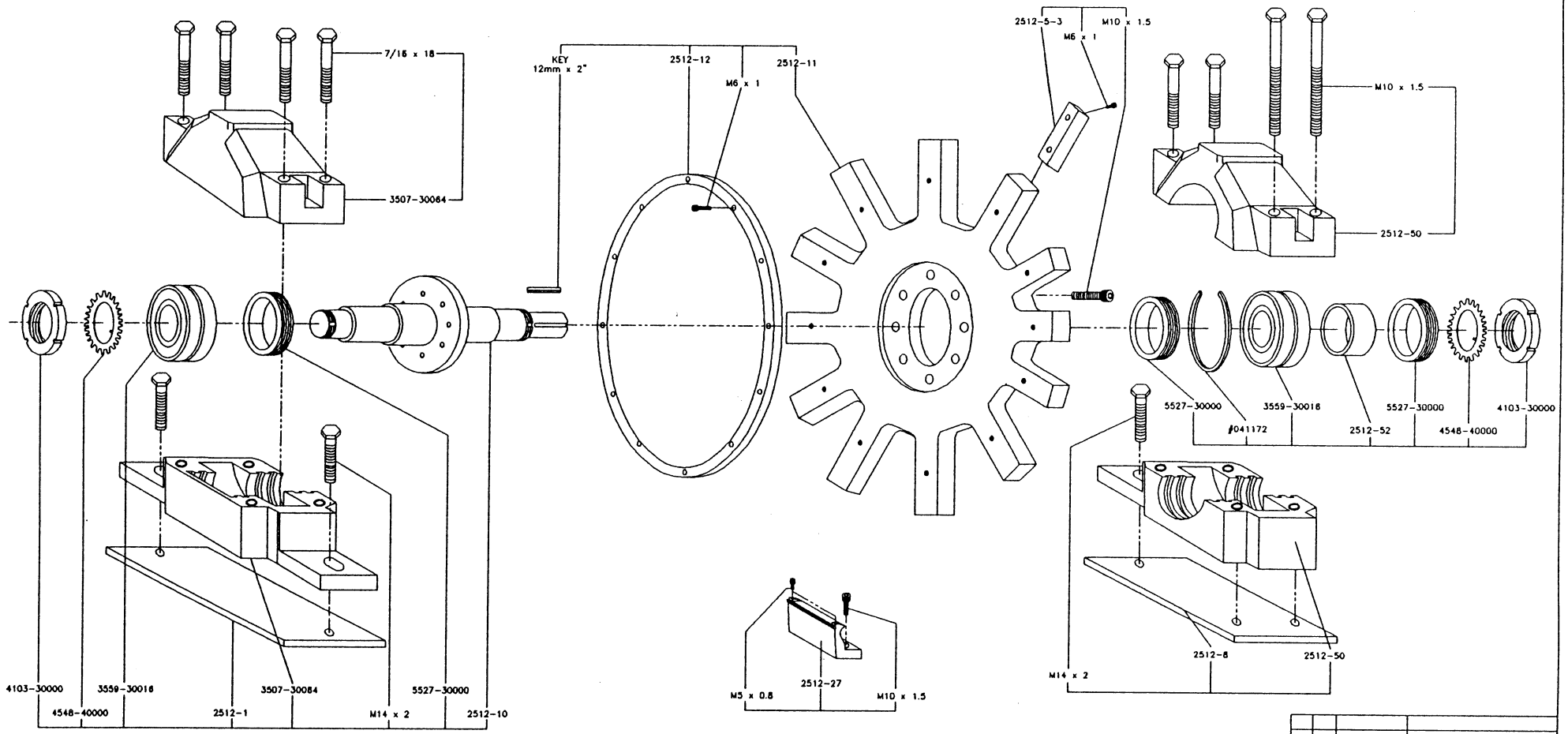

SYM.	QTY.	MAT'L/PART #	DESCRIPTION

CONAIR JETRO

NAME: ROTOR ASSEMBLY

FIRST USED: XXXX

REF: X

DRAWN: F. TANNER | SCALE: FULL | DATE: 6-27-95

TOLERANCES (UNLESS OTHERWISE SPECIFIED):
.XX ± .010 .XXX ± .005 X° ± 0°30'

CHECKED BY

SHT. 1 OF 2 SHTS.

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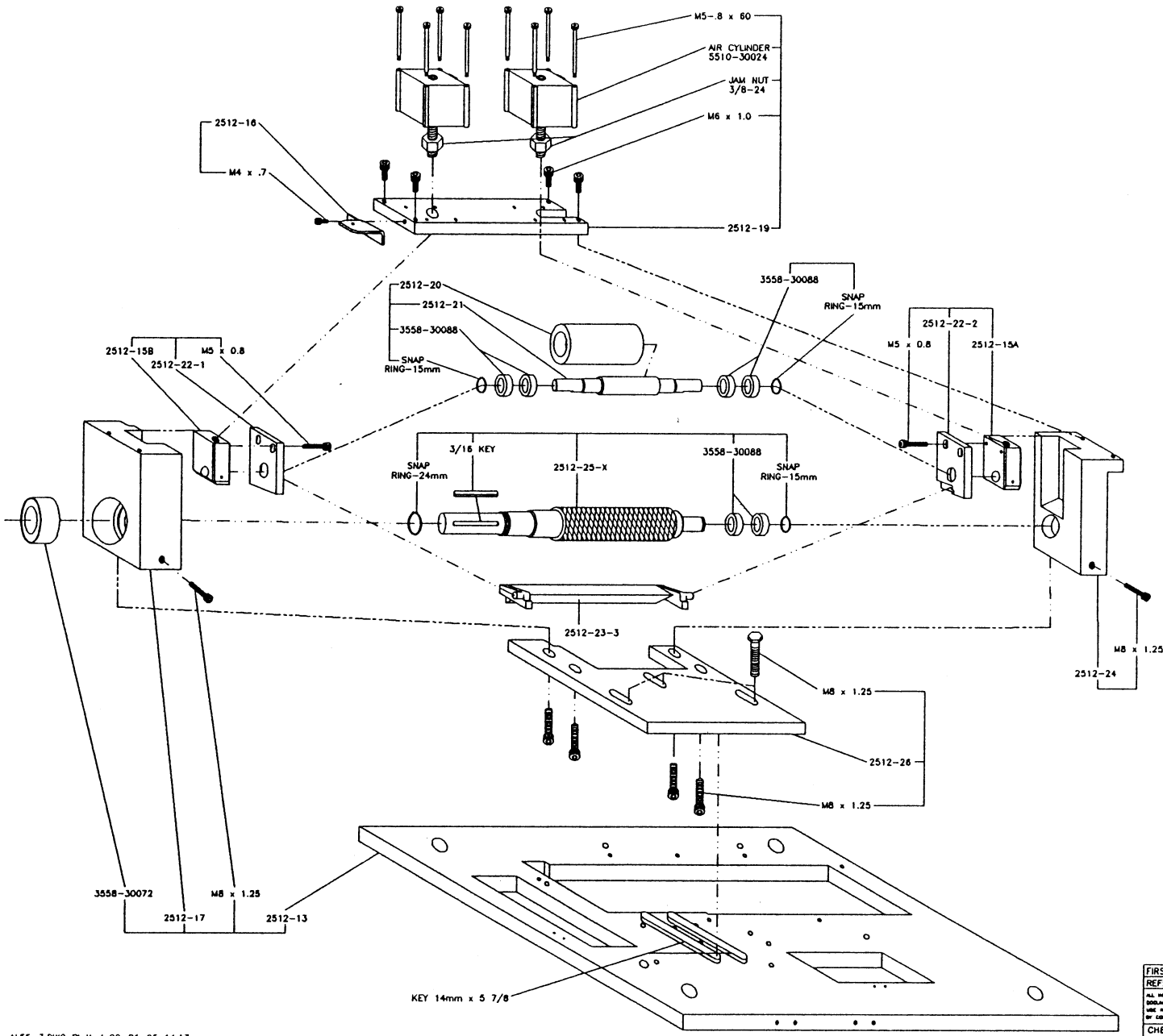

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SYM.	QTY.	MAT'L/PART #	DESCRIPTION

CONAIR JETRO

NAME: FEED ROLL ASSEMBLY

FIRST USED: XXXX
REF: X

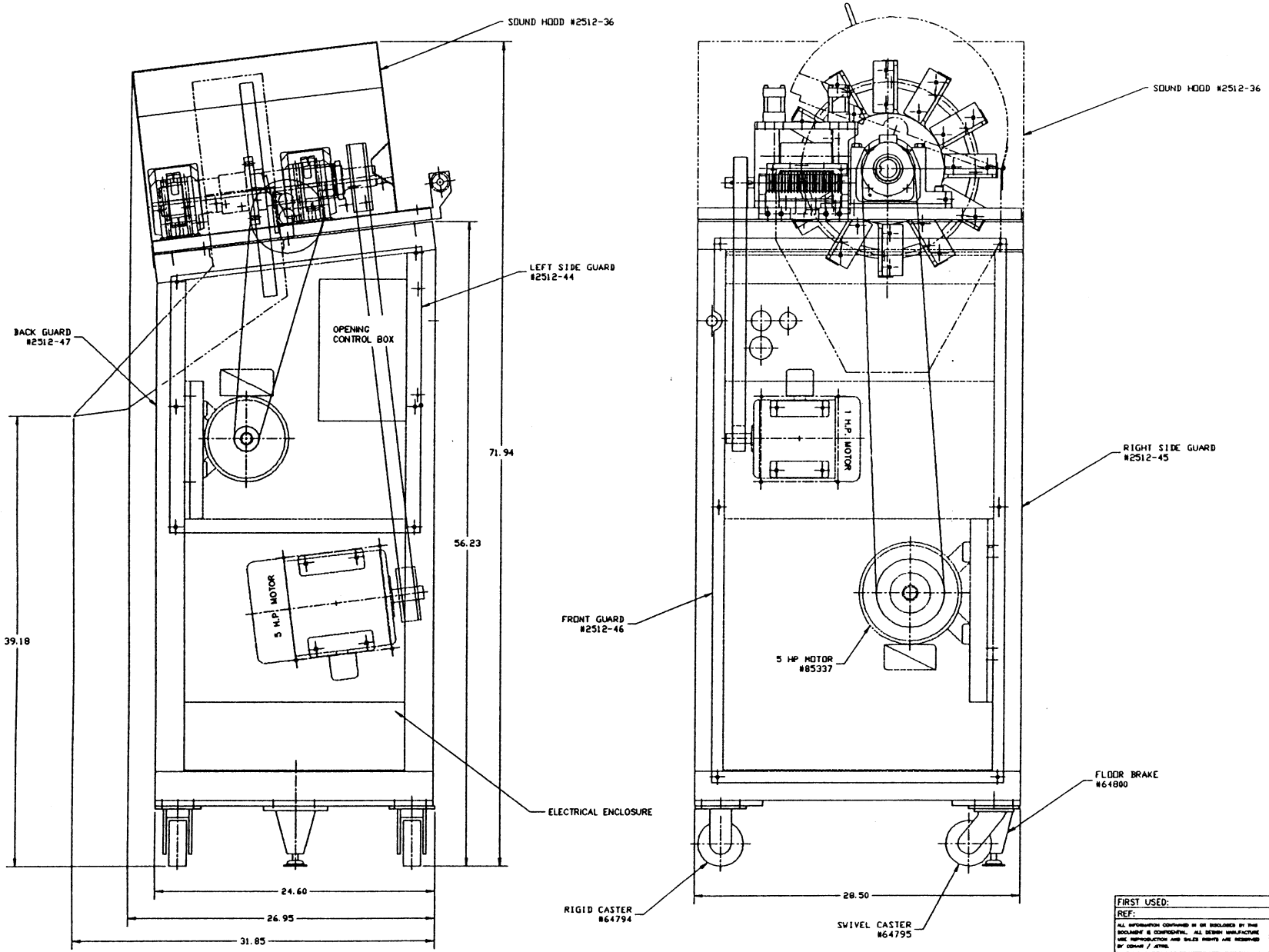
CHECKED BY

DRAWN: F. TANNER | SCALE: FULL | DATE: 8-27-95

TOLERANCES (UNLESS OTHERWISE SPECIFIED):
.XX ± .010 .XXX ± .005 X° ± 0°30'

SHT. 2 OF 2 SHTS.

DRAWING NO.: 2512-55-3



SYM.	QTY.	MAT'L/PART #	DESCRIPTION

CONAIR JETRO

NAME: 2512 FAN CUTTER-FLOOR PLAN

FIRST USED:

REF:

DRAWN: N.L | SCALE: 1:4 | DATE: 04-25-95

TOLERANCES (UNLESS OTHERWISE SPECIFIED):
.XX ± .010 .XXX ± .005 X° ± 0°30'

CHECKED BY

SHT. 1 OF 1 SHTS

DRAWING NO.: 2512-55

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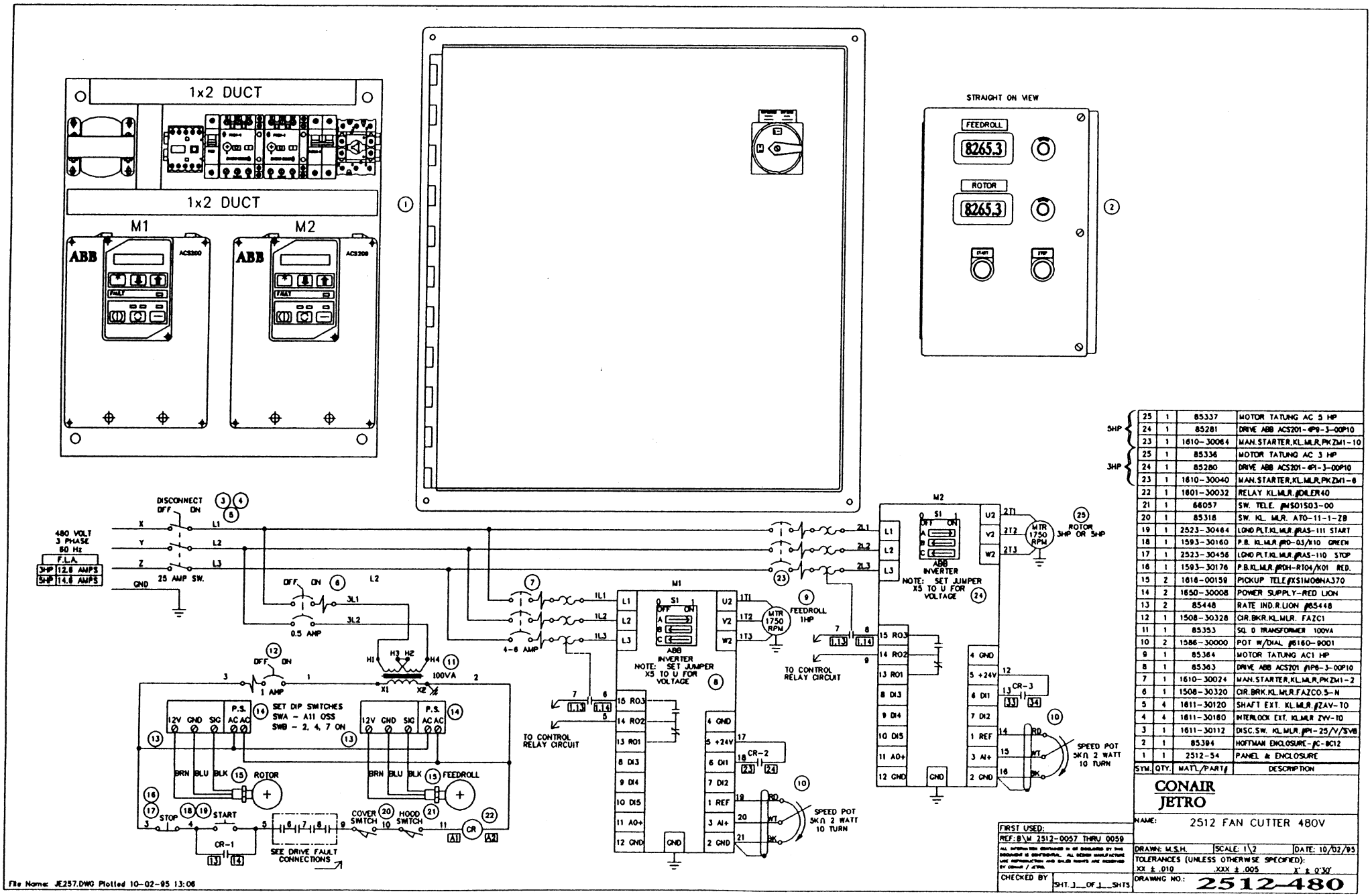

SYM.	QTY.	MAT'L/PART#	DESCRIPTION
25	1	85337	MOTOR TATUNG AC 5 HP
24	1	85281	DRIVE ABB ACS201-4P9-3-00P10
23	1	1610-30064	MAN.STARTER,KL.MLR,PKZM1-10
25	1	85336	MOTOR TATUNG AC 3 HP
24	1	85280	DRIVE ABB ACS201-4P1-3-00P10
23	1	1610-30040	MAN.STARTER,KL.MLR,PKZM1-6
22	1	1601-30032	RELAY KL.MLR.#DILER40
21	1	66057	SW. TELE. #MS01503-00
20	1	85318	SW. KL. MLR. ATO-11-1-ZB
19	1	2523-30464	LOND PLT.KL.MLR.#RAS-111 START
18	1	1593-30160	P.B. KL.MLR.#RO-03/X10 GREEN
17	1	2523-30456	LOND PLT.KL.MLR.#RAS-110 STOP
16	1	1593-30176	P.B.KL.MLR.#RDH-RT04/X01 RED.
15	2	1616-00159	PICKUP TELE#XS1M08NA370
14	2	1650-30008	POWER SUPPLY-RED LION
13	2	85448	RATE IND.R.LION #85448
12	1	1508-30328	CIR.BKR.KL.MLR. FAZC1
11	1	85353	SQ. D TRANSFORMER 100VA
10	2	1586-30000	POT W/DIAL #6160-9001
9	1	85364	MOTOR TATUNG AC1 HP
8	1	85363	DRIVE ABB ACS701 #1P8-3-00P10
7	1	1610-30024	MAN.STARTER,KL.MLR,PKZM1-2
6	1	1508-30320	CIR.BRK.KL.MLR.FAZC0.5-N
5	4	1611-30120	SHAFT EXT. KL.MLR.#ZAV-10
4	4	1611-30180	INTERLOCK EXT. KL.MLR ZVV-10
3	1	1611-30112	DISC.SW. KL.MLR.#P1-25/V/SVB
2	1	85384	HOFFMAN ENCLOSURE-AC-BC12
1	1	2512-54	PANEL & ENCLOSURE

CONAIR JETRO

NAME: 2512 FAN CUTTER 480V

FIRST USED:
REF: B\W 2512-0057 THRU 0059

DRAWN: M.S.H. | SCALE: 1\2 | DATE: 10/02/95

TOLERANCES (UNLESS OTHERWISE SPECIFIED):
.XX ± .010 .XXX ± .005 X' ± 0°30'

CHECKED BY | SHT. 1 OF 1 SHTS.

DRAWING NO.: 2512-480

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