

AIR-DEX

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Congratulations on your purchase of the "AIRDEX-8 or -12" Manual / Automatic Indexer!

This AIRDEX Manual / Automatic Indexer is made from the start, of the best materials and workmanship possible, to be the finest and most trouble free unit available!

We have tested this unit prior to shipping and are confident you will be satisfied with it's operation, workmanship, and the increased productivity realized from your purchase.

If you have any problems or questions concerning this unit, please contact your dealer immediately. Your inquiry will be addressed in a most timely manner. We welcome any suggestions which you may have that could make this unit even more durable or productive.

Please take the time to carefully read and follow the enclosed instructions for the set-up and operation of your unit.

Thank you very much for your patronage.

Model: AIRDEX -8 -12

Serial Number: _____

CONTENTS & ASSEMBLY TOOLS REQUIRED

Tools required for AIRDEX assembly to your machine:

- (1) 7/8" drill bit
- (1) 9/32" drill bit
- (1) 4 mm allen wrench for cross slide cover
- (1) 8 mm allen wrench for mounting base of AIRDEX to the cross slide
- (1) 9/16" wrench for tightening coolant fitting
- (1) 5 mm allen wrench for screws on the wiper retainer

Contents of AIRDEX crate:

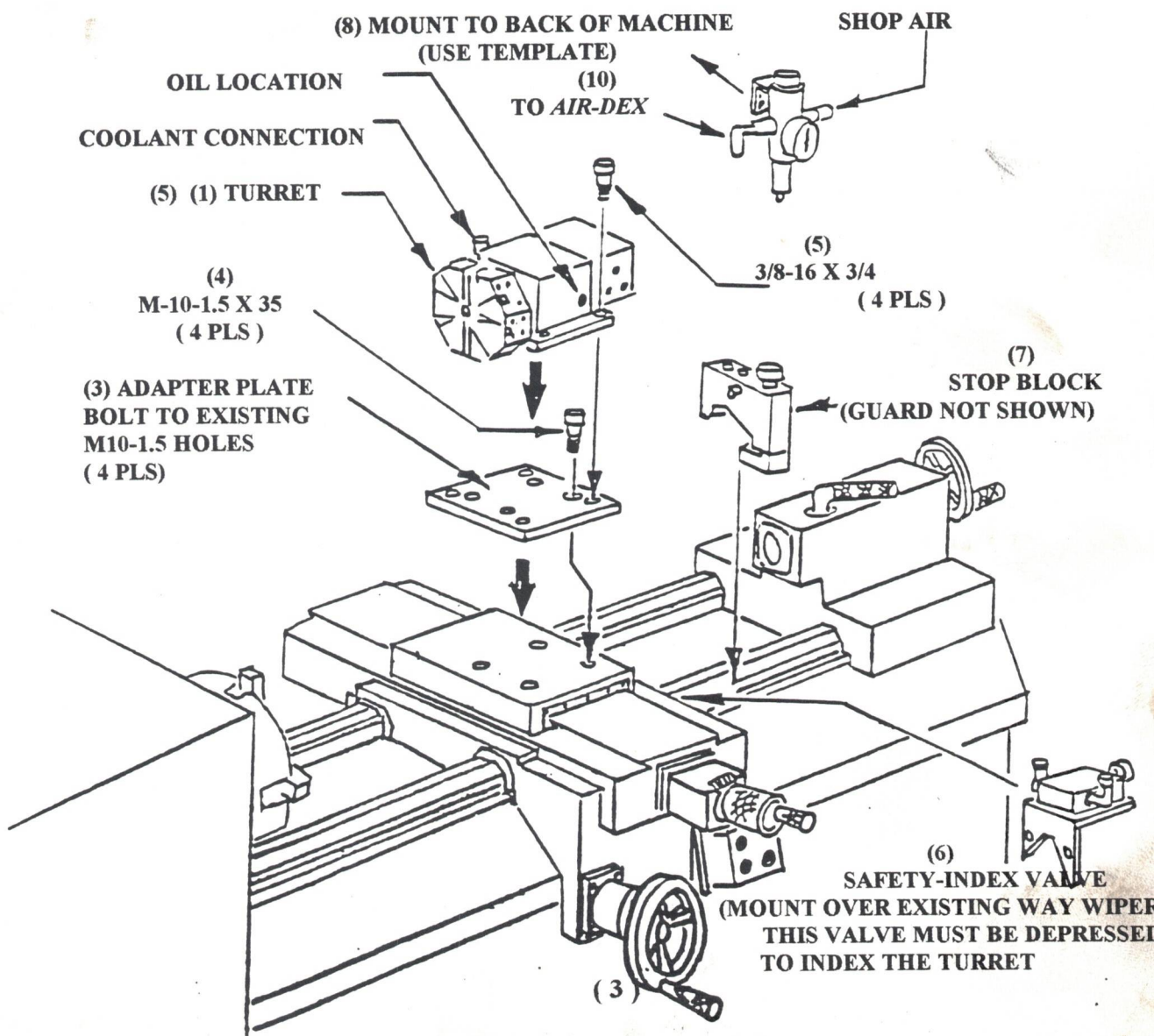
- (1) AIRDEX unit
- (3) Boring bar holders
- (8) Tool locking wedges
- (1) Air regulator & water separator
- (1) Braided stainless steel protected air and coolant lines
- (12) 1/4-20 x 1 1/2" S.H.C.S. (for mounting boring bar holders)
- (4) 10 mm x 35 mm S.H.C.S. (for mounting AIRDEX to cross slide)
- (2) 6 mm x 20 mm B.H.S. (extension screw for wiper blade)
- (8/12) 1/8" NPT 90 degree elbow (for coolant lines) with copper tubes
- (3) Clamp brackets for coolant & air line

AIRDEX-8 UNIT WEIGHT = 110 lbs.
TOTAL SHIPPING WEIGHT = 175 lbs.

AIRDEX-12 UNIT WEIGHT = 175 lbs.
TOTAL SHIPPING WEIGHT = 240 lbs.

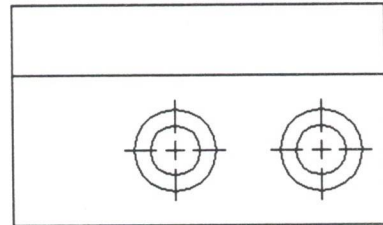
INSTALLATION INSTRUCTIONS FOR YOUR NEW AIRDEX TOOL CHANGER

- (1) REMOVE THE AIRDEX FROM THE SHIPPING CONTAINER BY REMOVING (4) NUTS
- (2) REMOVE ANY EXISTING TOOL POST FROM YOUR LATHE
- (3) LOCATE THE ADAPTER PLATE (THIS UNIT HAS 8 HOLES, 4 TAPPED HOLES, AND 4 THROUGH HOLES)
- (4) USING (4) M10-1.5 X 35MM S.H.C.S. (SUPPLIED) ATTACH PLATE TO THE TOP OF THE CARRIAGE ON YOUR LATHE
- (5) PLACE THE AIRDEX UNIT INTO POSITION ON TOP OF THE ADAPTER PLATE, AND ATTACH USING (4) 3/8-16 X 3/4" S.H.C.S.
- (6) REMOVE THE WAY WIPER BOLTS FROM THE CARRIAGE (TAIL STOCK SIDE OF OPERATOR SIDE) AND ATTACH THE "SAFETY-INDEX VALVE", USING THE (2) M6-1.0 X 20 MM S.H.C.S SUPPLIED DO NOT REMOVE WIPER (BRACKET ATTACHES OVER EXISTING WIPER)
- (7) CLAMP THE "STOP BLOCK" TO THE WAY (BETWEEN THE "SAFETY-INDEX VALVE" AND THE TAIL STOCK)
- (8) USING THE TEMPLATE (SUPPLIED), LOCATE AND TRANSFER THE HOLE PATTERN TO MOUNT THE AIR FILTER / REGULATOR
- (9) DRILL THE HOLES AND MOUNT THE AIR FILTER / REGULATOR
- (10) ATTACH THE AIR LINE FROM THE REGULATOR TO THE "AIRDEX"
- (11) READ THE OPERATIONS MANUAL COMPLETELY, BEGIN PROCESSING PARTS



STOP BLOCK REPLACEMENT

TAIL STOCK END OF LATHE



**REMOVE EXISTING (2) PIECE
CONSTRUCTION HOME POSITION
STOP BLOCK AND REPLACE IT WITH
SUPPLIED (1) PIECE NYLON STOP BLOCK
USING EXISTING SCREWS.**

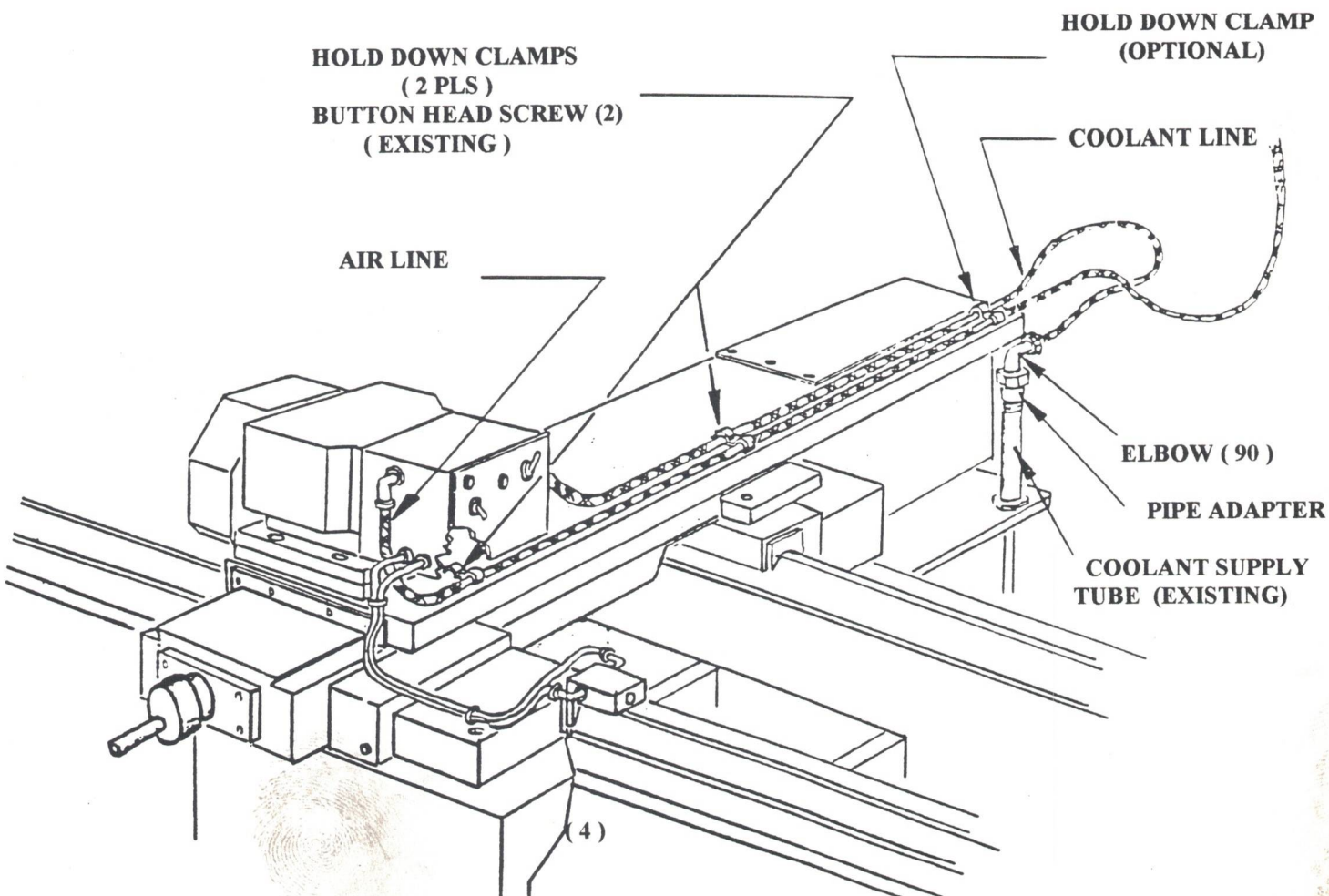
(3A)

COOLANT AND AIR LINE INSTALLATION

- (1) REMOVE EXISTING BUTTON HEAD SCREWS USED TO ATTACH THE GUARD. LOCATE HOSE CLAMPS AND POSITION COOLANT AND AIR LINES AS SHOWN. FASTEN IN PLACE WITH EXISTING BUTTON HEAD SCREWS.
- (2) SCREW SUPPLIED PIPE ADAPTER TO EXISTING COOLANT TUBE. SCREW ON THE SUPPLIED 90 degree ELBOW TO THE PIPE ADAPTER.

NOTE:

- A) ALL CONNECTIONS TO THE AIRDEX ARE FACTORY INSTALLED PRIOR TO SHIPPING.
- B) IF YOU WISH TO USE THE OPTIONAL SUPPLIED HOSE CLAMP (SHOWN ON SKETCH) YOU WILL NEED TO DRILL & TAP A MOUNTING HOLE AS REQUIRED.



SET-UP of the AIRDEX:

1. Verify that the **AIRDEX** has been mounted and aligned with lathe centerline as described in the installation instructions.
2. Verify that the "SAFETY STOP BLOCK" on the vee way behind the cross slide carriage has been mounted per installation instructions.
3. Verify that the "SAFETY / START" valve bracket has been mounted per installation instructions.
4. Caution: Before operating **AIRDEX**, turret clearance must be verified!

MAINTENANCE of the AIRDEX:

1. Your **AIRDEX** unit must be oiled daily !!
Vacra #2 should be added to the "oil location" port as shown on installation instructions.

OPERATION of the AIRDEX IN THE AUTOMATIC MODE:

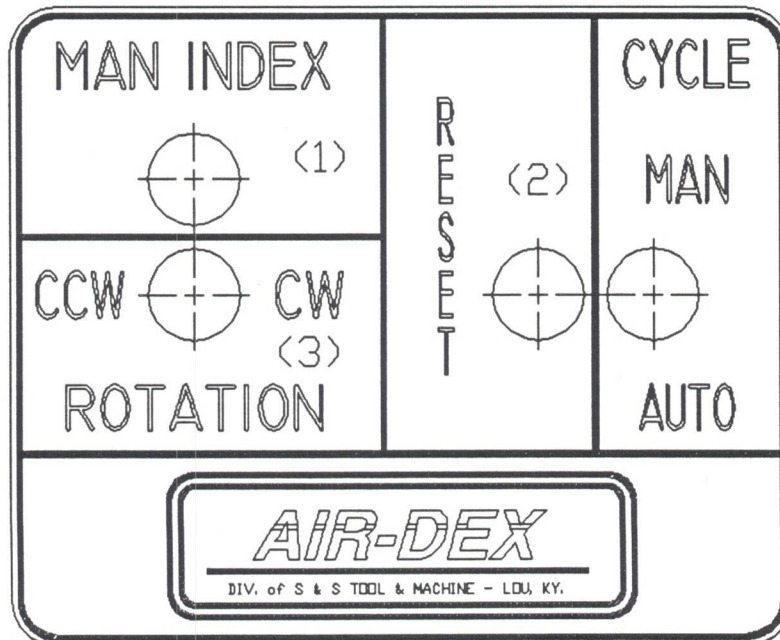
1. Position the "MAN / AUTO" toggle switch to "AUTO". Confirm that the rotation of **AIRDEX** is correct for tool positions and change if necessary. The "CCW / CW" toggle changes the index rotation.
2. Load the **AIRDEX** with required tooling for processing the part to be machined.
3. Move the cross slide and cross slide carriage to a position where the longest / largest tool will clear the work before indexing. This is now the "HOME" position for the **AIRDEX**. Relocate "SAFETY STOP BLOCK" as required.
4. Program the lathe to run the part. Program all tool changes to take place in the "HOME" position.
5. Each time that the carriage returns to the "HOME" position, the turret will index. (The "MAN / AUTO" toggle switch must be in "AUTO").
6. Each time the cross slide carriage returns to the "HOME" position to activate the "SAFETY / START" valve, it must be programmed to dwell for 1 second before moving off of the "SAFETY / START" valve.
7. To run in automatic mode, if no tool exists in a particular index station it must be programmed to move off the "SAFETY STOP BLOCK" and return to index to the next station.
8. **AIRDEX** is now ready to begin operation.

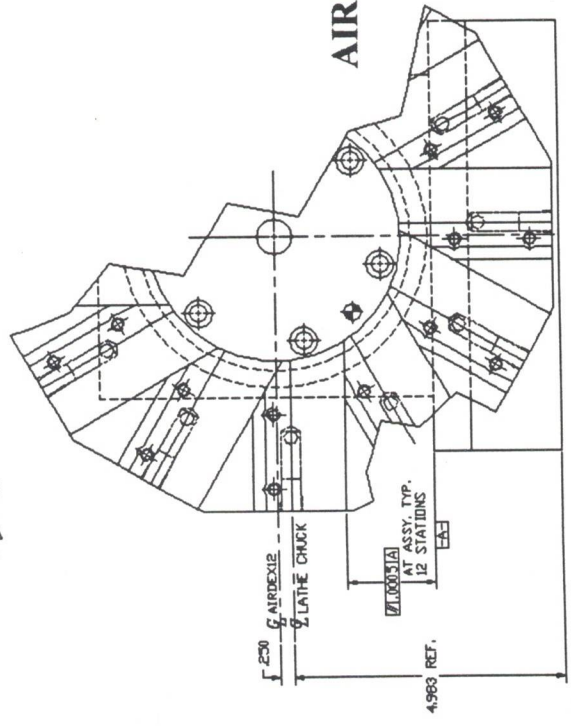
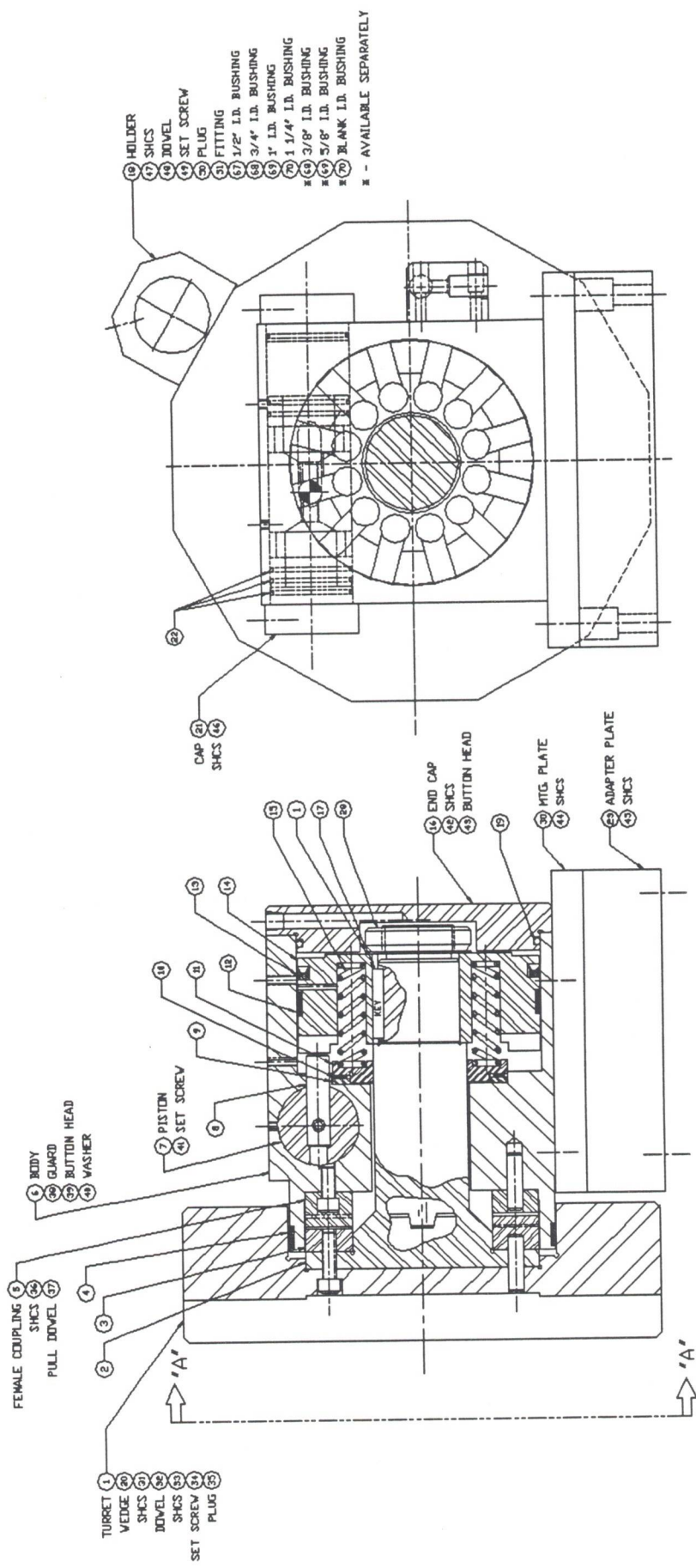
OPERATION of the AIRDEX IN THE MANUAL MODE:

1. Position the "MAN / AUTO" toggle switch located on the pneumatic control to "MAN". **AIRDEX** can now be indexed one station at a time, by pushing the index button. The "CCW / CW" toggle changes the index rotation. (Note: The "SAFETY / START" valve must be actuated before indexing can be initiated.)
2. Load the **AIRDEX** with required tooling for processing the part to be machined.
3. Move the cross slide and cross slide carriage to a position where the longest / largest tool will clear the work / chuck before indexing. This is now the "HOME" position for the **AIRDEX**. Relocate "SAFETY STOP BLOCK" as required.
4. Program the lathe to run the part. Program all tool changes to take place in the "HOME" position.
5. **AIRDEX** is now ready to begin operation. It may be indexed manually by pressing the index button located on the pneumatic control. (Note: When located in the "HOME" position)

AIRDEX TROUBLE SHOOTING

PROBLEM	CAUSE	SOLUTION
AIRDEX WILL NOT EXTEND TO ROTATE	NO AIR PRESSURE	CHECK AIR LINES
	LOW AIR PRESSURE	CHECK REGULATOR FOR PROPER 75 PSI
	SPINDLE PISTON NEEDS OIL	OIL PISTON
AIRDEX STARTS TO EXTEND BUT STOPS	MAN. INDEX BUTTON (1) PUSHED TOO QUICKLY BETWEEN INDEXES	PRESS RESET BUTTON (2) (TURRET HEAD WILL RETURN TO HOME POSITION)
	VALVE NOT SHIFTING COMPLETELY	WAIT FOR INDEX CYCLE TO COMPLETE BEFORE INITIATING ANOTHER CYCLE
	SPINDLE PISTON NEEDS OIL	OIL PISTON
AIRDEX EXTENDS BUT DOES NOT COMPLETE ROTATION	TOO MUCH WEIGHT ON ONE SIDE OF THE TURRET HEAD	MOVE ROTATION LEVER (3) OPPOSITE DIRECTION OF CURRENT SETTING CHANGE TOOL LOCATION TO SPREAD OUT THE TOOL WEIGHT AROUND THE TURRET HEAD
	SPINDLE PISTON NEEDS OIL	OIL PISTON





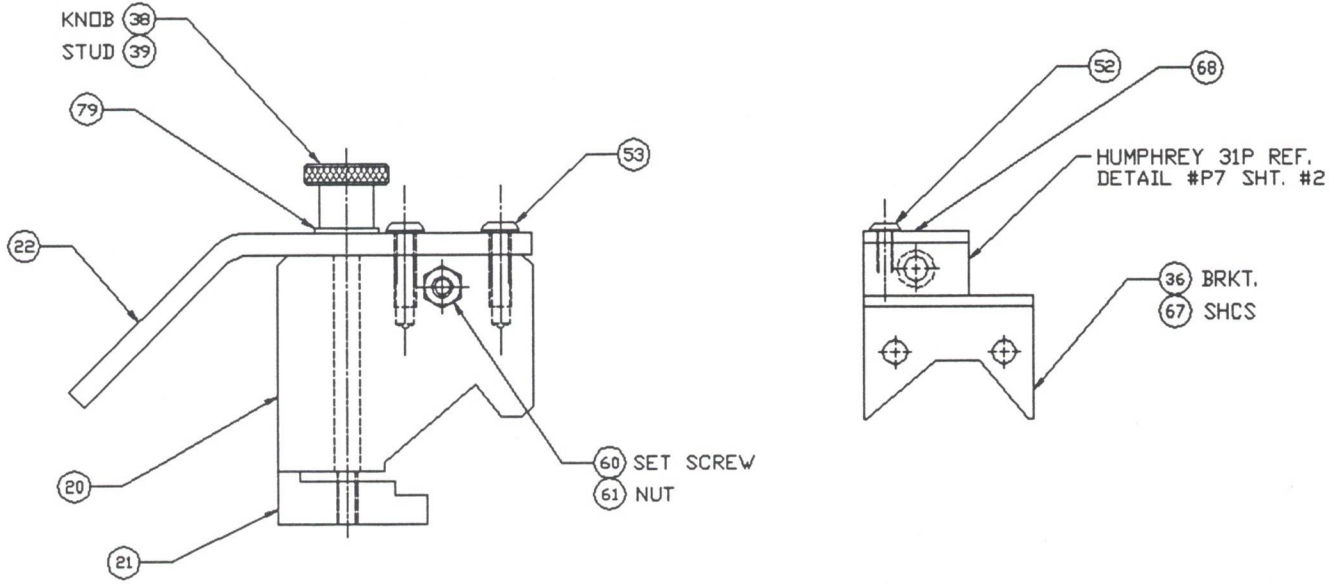
AIRDEX-12 ASSEMBLY DRAWING

(10)

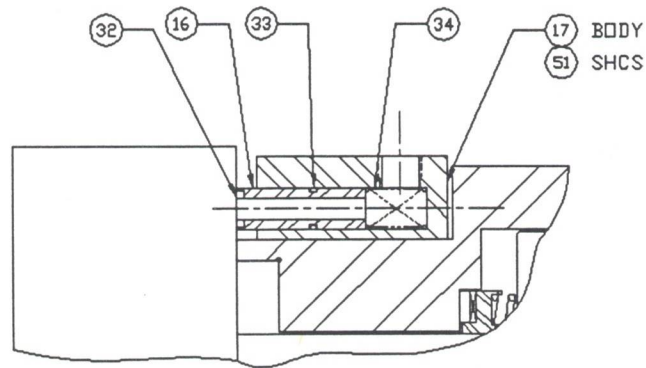
VIEW "A-A"

* - AVAILABLE SEPARATELY

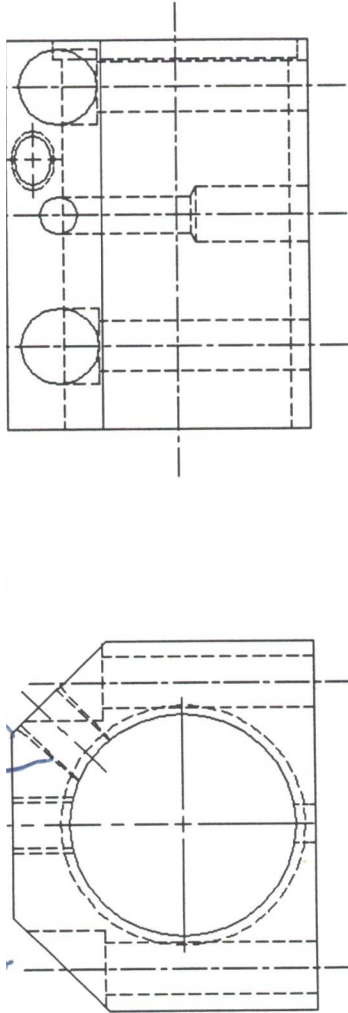
LOCTITE STUD TO KNOB



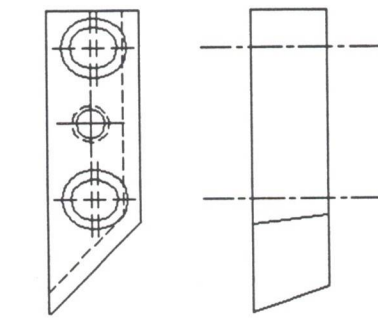
INDEX SAFETY ASSEMBLY



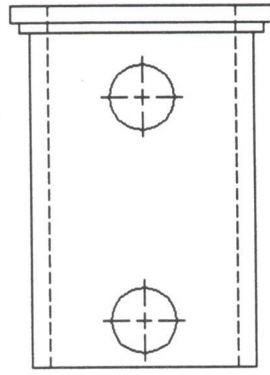
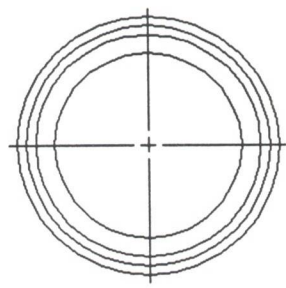
COOLANT BLOCK ASSEMBLY



**THRU THE TOOL COOLANT
BORING BAR HOLDER PART #8-118
FOR AIRDEX-8 OR -12**



**WEDGE PART #8-114
OR #12-116**



- FOR AIRDEX-8 OR -12**
- 3/8" I.D. COLLET PART #8-187
 - 1/2" I.D. COLLET PART #8-150
 - 5/8" I.D. COLLET PART #8-188
 - 3/4" I.D. COLLET PART #8-151
 - 1" I.D. COLLET PART #8-152
 - 1 1/4" I.D. COLLET PART #8-153
 - BLANK I.D. COLLET PART #8-189

**WE RECOMMEND THAT ALL AIRDEX
SPARE PARTS BE PURCHASED
DIRECTLY FROM YOUR DEALER**

*** METRIC SIZES ARE AVAILABLE**

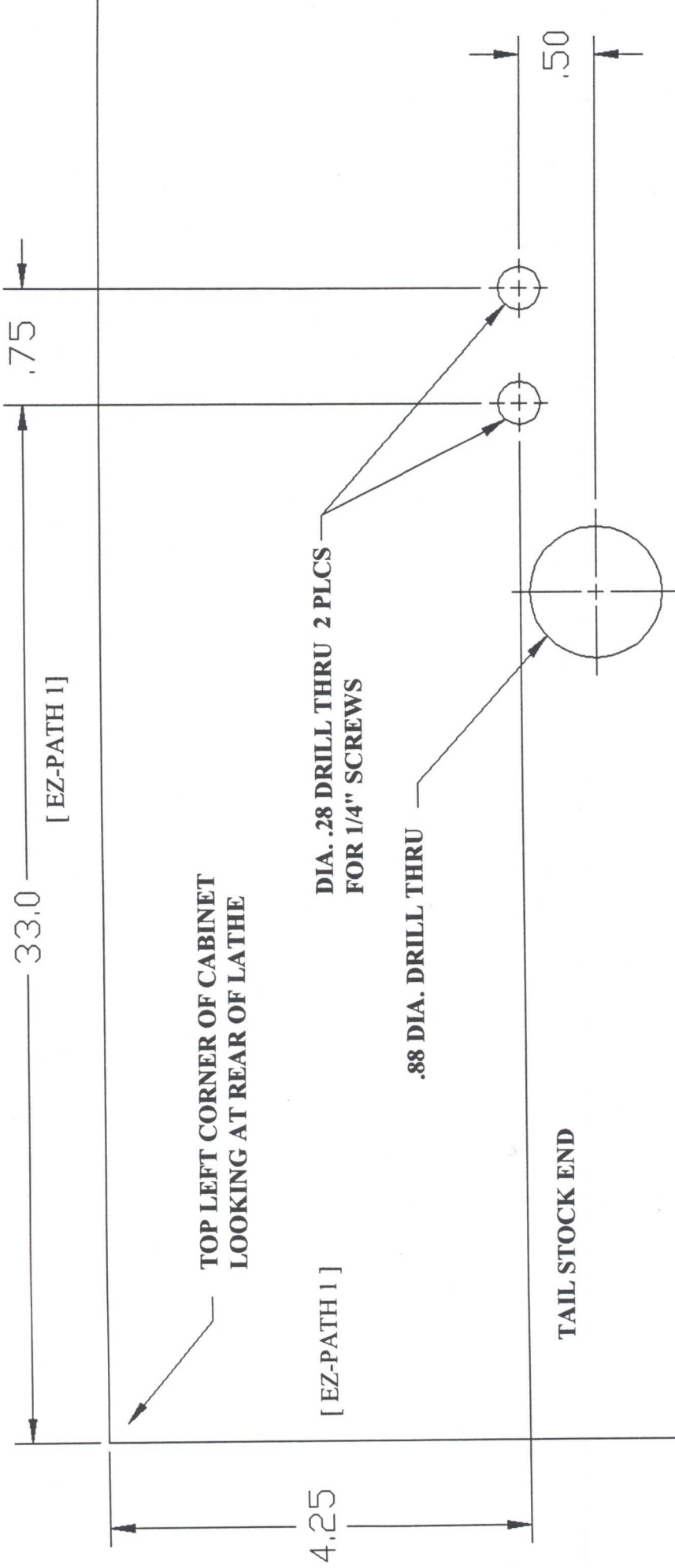
DET	AIRDEX-8 PART No.	DESCRIPTION	DET	AIRDEX-8 PART No.	DESCRIPTION
* 40	8-138	90° COMPRESSION FITTING	80	1/4" FLAT	WASHER
39	8-137	STUD	79	8-184	C'SUNK HEX HEAD PLUG
38	8-136	KNOB	78		
37	8-135	WASHER	77		
36	8-134	BRACKET	76		
35	SEE SHT. #2	PNEUMATIC ASSY. *	75	8-189	BLANK I.D. SLEEVE
34	8-133	SPRING	74	8-188	5/8" I.D. SLEEVE
33	8-132	O-RING	73	8-187	3/8" I.D. SLEEVE
* 32	8-131	NYLON SEAL WASHER	72	8-153	1 1/4" I.D. SLEEVE
31			71	8-152	1" I.D. SLEEVE
* 30	8-130	O-RING	70	8-151	3/4" I.D. SLEEVE
* 29	8-129	O-RING	69	8-150	1/2" I.D. SLEEVE
28	8-128	LOCK NUT	68	8-144	DETAIL #P7 GUARD
27	8-127	SPRING	67	6mm - 1.00 x 20	SHCS
26	8-126	LIP SEAL	66	10mm - 1.50 x 35	SHCS
25	8-125	THRUST BRG.	65	#10 FLAT	WASHER
24	8-124	THRUST WASHER	64	#10-32 x .38	BUTTON HEAD
23	8-123	MTG. PLATE	63	8-143	GUARD
22	8-122	GUARD	62	8-142	EXPANSION PLUG
21	8-121	FOOT	61	1/4-28 JAM	NUT
20	8-120	SAFETY STOP BLOCK	60	1/4-28 x 1.50 OVAL POINT	SET SCREW
19	8-119	ADAPTER PLATE	59	3/8-16 x .75	SHCS
18	8-118	BAR HOLDER	58	3/8-16 x .50 HALF DOG	SET SCREW
17	8-117	COOLANT BODY	57	ø.3125 x 1.00	DOWEL
16	8-116	COOLANT PISTON	56	5/16-18 x 1.75	SHCS
15	8-115	PISTON STOP CAP	55	1/4-20 x .75 OVAL POINT	SET SCREW
14	8-114	WEDGE	54	1/4-20 x 1.00	SHCS
13	8-113	KEY	53	1/4-20 x .50	BUTTON HEAD
12	8-112	END CAP	52	#10-32 x .75	BUTTON HEAD
11	8-111	SPINDLE PISTON	51	#10-32 x 1.25	SHCS
* 10	8-110	WEAR RING (PISTON)	50	3/8-16 x 1.00	SHCS
9	8-109	THRUST WASHER(SPRING)	49	#10-32 x .75	SHCS
8	8-108	INDEXING PIN	48	1/4-20 x .50 HALF DOG	SET SCREW
7	8-107	INDEXING PISTON	47	ø.3125 x 1.50	DOWEL
6	8-106	SPINDLE HOUSING	46	ø.3125 x 1.00 SPIRAL	PULL DOWEL
5	8-105	FEMALE COUPLING	45	5/16-18 x 1.00	SHCS
4	8-104	WEAR RING (HSG.)	44	5/16-18 x 1.25	SHCS
3	8-103	MALE COUPLING	43		
2	8-102	TURRET SPINDLE	42		
1	8-101	TURRET HEAD	41	8-186	COOLANT TUBE
DET	AIRDEX-8 PART No.	DESCRIPTION	DET	AIRDEX-8 PART No.	DESCRIPTION

* INCLUDED IN SEAL KIT - 8-147

AIRDEX-8 PARTS LIST

40	#10 FLAT	WASHER	80	
39	#10-32 x .38	BUTTON HEAD	79	
38	8-143	GUARD	78	
37	ø.3125 x 1.00 SPIRAL	PULL DOWEL	77	
36	SEE SHT. #2	PNEUMATIC ASSY.	76	
35	8-184	C'SUNK HEX HD. PLUG	75	
34	1/4-20 x 1.00 OVAL POINT	SET SCREW	74	
33	1/4-20 x 1.25	SHCS	73	8-189
32	ø.3125 x 1.25	DOWEL	72	8-188
31	5/16-18 x 1.00	SHCS	71	8-187
30	8-123	MTG. PLATE	70	8-153
29	8-128	LOCK NUT	69	8-152
28	12-120	COOLANT BODY	68	8-151
27	8-133	SPRING	67	8-150
26	8-132	O-RING	66	TBD
25	8-116	COOLANT PISTON	65	8-136
24	8-131	DELTRIN SEAL WASHER	64	1/4" FLAT
23	12-119	ADAPTER PLATE	63	TBD
22	12-118	O-RING	62	1/4-20 JAM
21	12-117	PISTON STOP CAP	61	1/4-20 x 1.50 OVAL POINT
20	12-116	WEDGE	60	TBD
19	12-115	O-RING	59	TBD
18	8-118	BAR HOLDER	58	8-144
17	8-113	KEY	57	#10-32 x 1.00
16	12-114	END CAP	56	TBD
15	12-113	SPRING	55	8-186
14	12-112	SPINDLE PISTON	54	TBD
13	12-111	LIP SEAL	53	8-135
12	12-110	WEAR RING (PISTON)	52	#10-32 x 1.00
11	12-109	THRUST WASHER(SPRING)	51	8-138
10	8-125	THRUST BRG.	50	8-142
9	8-124	THRUST WASHER	49	3/8-16 x .50 HALF DOG
8	12-108	INDEXING PIN	48	ø.3125 x 1.00
7	12-107	INDEXING PISTON	47	5/16-18 x 1.75
6	12-106	SPINDLE HOUSING	46	#10-32 x 1.00
5	12-105	FEMALE COUPLING	45	10mm - 1.00 x .45
4	12-104	WEAR RING (HSG.)	44	3/8-16 x .75
3	12-103	MALE COUPLING	43	1/4-20 x .50
2	12-102	TURRET SPINDLE	42	7/16-14 x .75
1	12-101	TURRET HEAD	41	3/8-16 x .38 HALF DOG
DET	AIRDEX-8 PART No.	DESCRIPTION	DET	AIRDEX-8 PART No.
				DESCRIPTION

(cut along dotted line)



**NOTE: REGULATOR MOUNTS
TO INSIDE OF CABINET
SET REGULATOR TO 75 PSI**

REAR VIEW

