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SAFETY PRECAUTIONS

IN GENERAL

When using rotating head cutting equipment, basic safety precautions should always be followed to reduce the risk of personal injury.

Operate this tool only in accordance with specific operating instructions.

WARNING:

Do not override the deadman switch on the power unit. Locking down, obstructing, or in any way defeating the deadman switch on the power drive unit may result in serious injury.

DRESS CONSIDERATIONS

Use standard safety equipment. Hard hats, safety shoes, safety harnesses, protective clothes, and other safety devices should always be used when appropriate.

Use safety glasses. Do not operate cutting tools without eye protection.

Dress properly. Do not wear loose clothing or jewelry. They can be caught in rotating and moving parts. Avoid slippery floors or wear nonskid footwear. If you have long hair, wear protective hair covering to contain it.

WORK AREA

Keep the work area clean. Cluttered work areas and benches invite injuries.

Consider the work area environment. Keep the area well lit. Keep electrical cords, cables, rags, rigging straps, and etc. clear of rotating equipment. Do not use power-cutting tools in the presence of flammable liquids and gasses.

Keep visitors away. Do not let visitors or untrained personnel at or near operating tools. Enforce eye protection requirements for all observers.

Do not over reach. Keep proper footing at all times.

Stay alert. Watch what you are doing. Use common sense. Do not operate tools when you are tired.

TOOL CARE

Maintain tools with care. Keep tools in good operating condition. Sharp tool bits perform better and safer than dull tool bits. Well maintained tools function properly when needed.

Check for damaged parts. If a tool has malfunctioned, been dropped or hit, it must be checked for damage. Run no-load tests and feed function checks. Do a complete visual inspection.

Electric motors. Use only with proper AC voltage power sources and observe all normal electric shock hazard procedures.

Do not abuse power and control cords. Pulling or running over cords and cables can result in electrical shock hazards and malfunctions. Keep control and power cords out of all cutting fluids and water.

Hydraulic drives. Observe proper procedures for electrically driven power sources. Avoid damage to hydraulic lines. Keep quick-disconnects clean. Grit contamination causes malfunctions.

Air tools. Check the exhaust muffler. Broken or damaged mufflers can restrict air flow or cause excessive noise. Use air motors only with a filtered, lubricated and regulated air supply. Dirty air, low-pressure air or over pressure air will cause malfunctions, including delayed starting.

AREA EQUIPMENT

Secure work. Whenever possible use clamps, vises, chains and straps to secure pipe.

Make sure the tool is secured; it is safer to have both hands free to operate the tool.

TOOL USE

Use the right tool and tool bit for the job. Do not use a tool, which is incorrect for the job you are doing.

Keep the tool bits fully engaged in the tool bit holders. Loose bits are a safety hazard.

Disconnect power supply during setup and maintenance. Use all 'Stop' or Shut off' features available when changing or adjusting tool bits, maintaining the tool, or when the tool is not in use.

Remove adjusting keys and wrenches before applying power to the equipment. Develop a habit of checking the tool before turning it on to make sure that all keys and wrenches have been removed.

Do not force tools. Tools and tool bits function better and safer when used at the feed and speed rate for which they were designed.

Do not reach into rotating equipment. Do not reach into the rotating head stock to clear chips, to make adjustments, or to check surface finish. A machine designed to cut steel will not stop for a hand or an arm.

Handle chips with care. Chips have very sharp edges and are hot. Do not try to pull chips apart with our hands; they are very tough.

Avoid unintentional starts. Do not carry or handle tools with your hand on the operating switches or levers. Do not lay the tool down in a manner that will start the drive. Do not allow the tool to flip around or move when adjusting or changing tool bits.

Store idle tools properly. Disconnect tools from the power source and store in a safe place. Remove tool bits for safe handling of the tool.

GENERAL DESCRIPTION

The Model 201BA (P/N 01-1320) BEVELMASTER™ is a Pipe Beveler designed for facing and/or beveling the ends of the pipe or tubing in preparation for welding.

These machining operations may be performed either simultaneously or separately.

Pipe weld end preparations that meet all existing conventional codes including the more stringent nuclear codes may be machined using the Model 201BA.

The various interchangeable Fixed Saddles working with the Clamping Saddle will secure the Model 201BA Pipe Beveler to pipe and tubing having an outside diameter of .250" to 2.000" (6.4 mm to 50.8 mm).

The Clamping Saddle/Fixed Saddle provides an accurate self-centering and alignment to the pipe or tubing to be machined.

The Adjustable Saddle Assembly features an adjustable Saddle for adjusting the centerline of a pipe or tubing working with the Clamping Saddle.

There are two sizes of Adjustable Saddles.

The Small Adjustable Saddle covers a range of .250" to .600" (6.4 mm to 15.2 mm) diameter.

The Large Adjustable Saddle covers a range of .600" to 2.000" (15.2 mm to 50.8 mm) diameter.

There are two different Heads available:

The 1.45" dia. Head Kit.

The 2.00" dia. Head Kit.

The Model 201BA accepts the reaction torque generated by the machining operations through the Saddles.

No additional restraining devices are required.

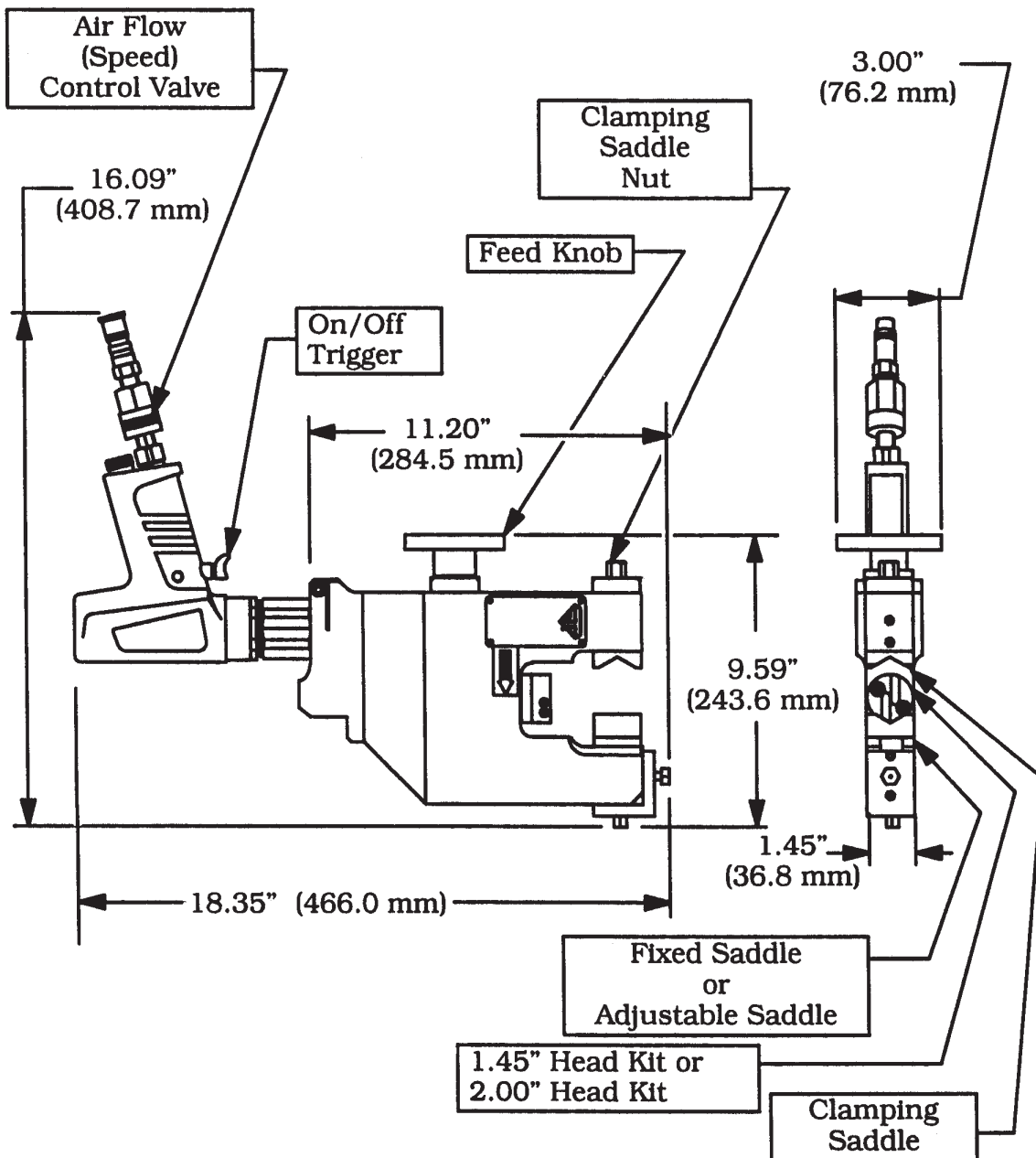
SPECIFICATIONS

Model 201BA with an Air Motor:

Weight: 15 lbs. (6.8 kg)

Power Requirements: 32 cfm at 90 psi (15 L/s at 621 kPa)

Envelope, Model 201BA, BEVELMASTER™



PIPE CUTTING CAPACITIES

Basic Pipe Sizes

1/8" pipe through 1 1/2" pipe, all schedules

Basic Tube Sizes

Up to .400" (10.2 mm) wall tubing with a maximum OD of 2.00" (50.8 mm) may be beveled with standard procedures.

No mounting limitations on the ID.

Wall Thickness Capacity

Wall thickness of all standard pipe schedules (.400" (10.2 mm) maximum) in the range listed.

Contact TRI TOOL Inc. for heavier wall procedures.

MATERIAL CUTTING CAPABILITIES

Mild steels, chrome steels (Rc 35 maximum), stainless steel, copper-nickel and aluminum without limitations except size and wall thickness as specified in previous paragraph.

Inconel and some other high temperature alloys may require special procedures as a function of wall thickness and type of end preparation.

Contact the TRI TOOL Inc. engineering department for details.

CUTTING HEAD SPEEDS

Maximum Cutting Head speed: 223 rpm

Cutting Head speed at maximum H.P.: 112 rpm

Functional speed range: 47 to 220 rpm

MAINTENANCE

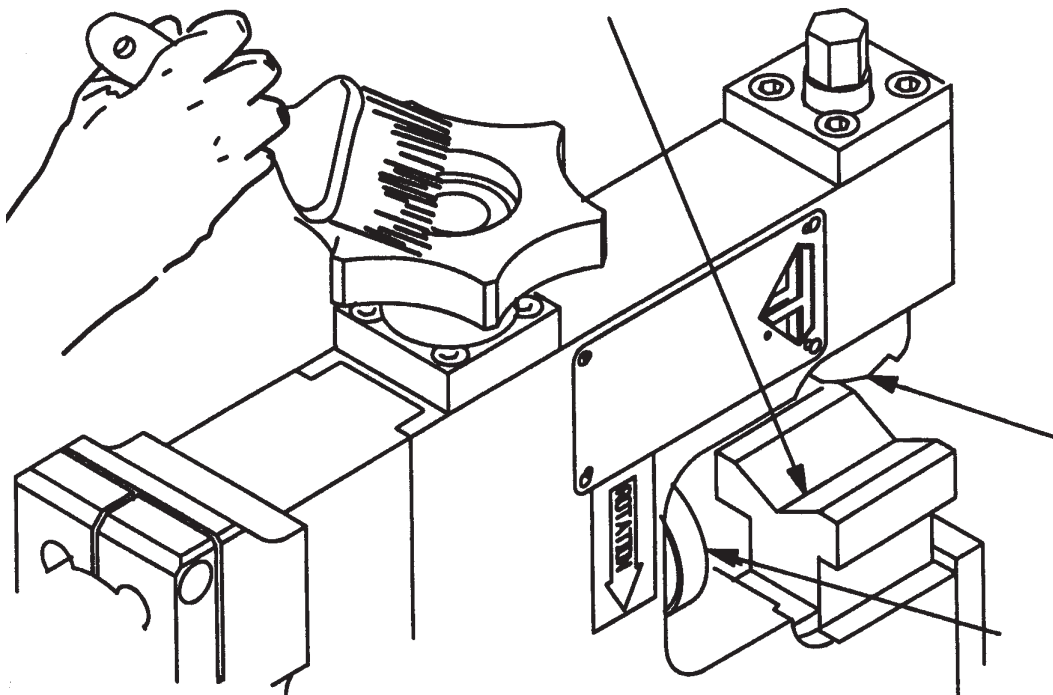
All components should be cleaned and coated with a light film of oil prior to use.

Use a clean, non-detergent oil, preferably SAE 10 (90 SSU) or lighter or oil as specified for the air motor.

Air supply for the Model 201BA with an Air Motor requires an adequate filter/regulator/lubricator (FRL) to be used.

A maximum of 90-psi (621 kPa) line pressure is recommended.

Clean Up



NOTE:

The motor warranty is void if damage occurs from contaminated air or lack of lubrication.

If the Model 201BA is operated in the vertical position (cutting head up), it should be turned upside down and the chips and/or other debris removed after each bevel has been completed.

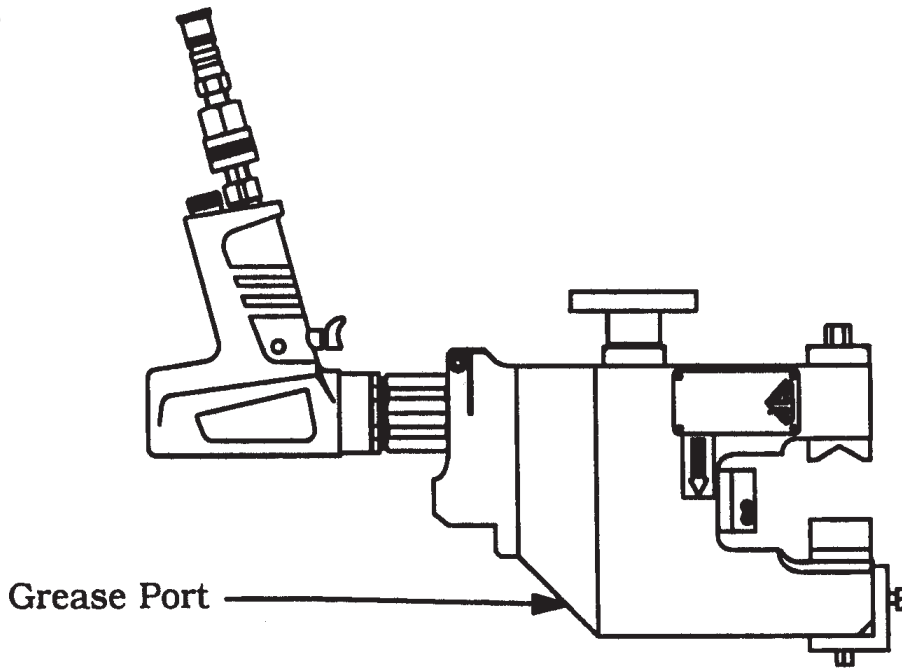
NOTE:

Tool life may be severely shortened, unless chips and/or other debris that have been deposited on the cutting head during the machining operations are removed.

Verify that there is adequate grease in the gearbox.

Gears and Bearings are to be lubricated using a high string utility grease (P/N 68-0020).

Grease



NOTE:

Disassembly of a power unit voids warranty, except when performed by a TRI TOOL Inc. designated repair technician. (A letter of designation is required.)

AIR MOTOR LUBRICATION

No direct maintenance is normally required on the Air Motor.

However, the air supply must flow through a filter/regulator/lubricator (FRL) unit or separate units before arriving at the Air Motor.

The FRL unit must be maintained as required (frequency dependent on the basic air supply) to keep the water trap drained, filter cleaned and the lubricator oil reservoir filled so that a drop of oil every 2 to 5 seconds is flowing.

If the Model 201BA BEVELMASTER™ is to be left idle for 24 hours or more after being run on 'wet' air, it is advisable to squirt oil directly into the Air Motor inlet and run the Motor for 2 to 3 seconds.

This will prevent rusting and 'freezing' of the Rotor Vanes.

LUBRICANT RECOMMENDATIONS

The Air Motor requires a Class 2 lubricant, viscosity of 100 to 200 SSU at 100°F (38° C) minimum aniline point of 200° F (93° C).

TRI TOOL Inc. – Air Tool Lubricant (P/N 68-0022)

AMOCO – American Industrial Oil No. 32

Atlantic Richfield – Duro Oil S-150

Chevron – A.W. Machine Oil 32

Exxon – Nuto H32

Shell – Tellus Oil 32

The bearings in the Air Motor are sealed and do not require any lubrication.

The Drive Gears require a high string utility grease

OPERATION

Read the operating instructions carefully before attempting to operate the Model 201BA BEVELMASTER™.

Use eye protection at all times when operating the Model 201BA.

Adjusting the Adjustable Saddle Kit to the required pipe or tube size.

Loosen the Hex Head Screw on the front of the Model 201BA.

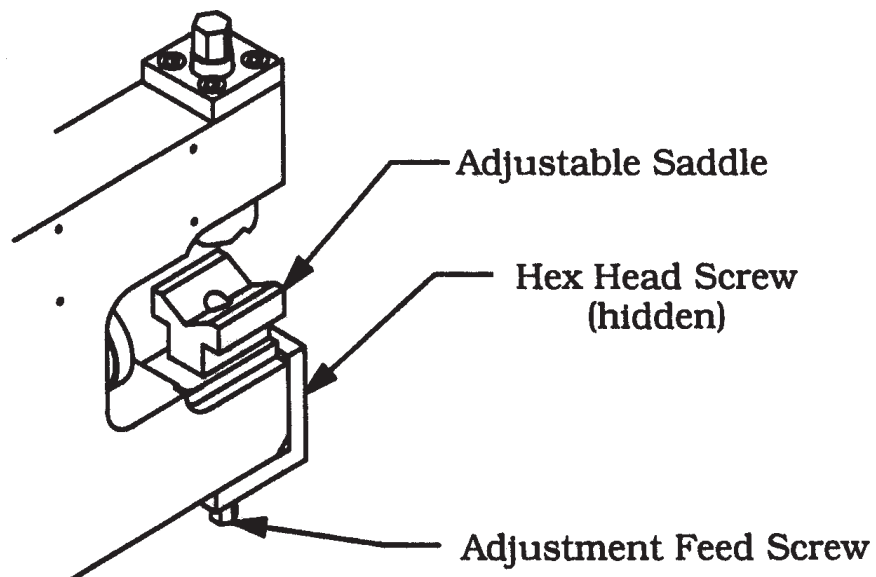
Turn the Adjustment Feed Screw to raise or lower the Adjustable Saddle.

Select the line on the side of the Adjustable Saddle and adjust the height so that the desired line is even with the seat of the Main Housing.

One side of the Saddle is marked with pipe sizes and the other is marked with tube sizes.

Tighten the Hex Head Screw on the front of the Model 201BA once the desired location has been selected.

Operation of the Adjustable Saddle

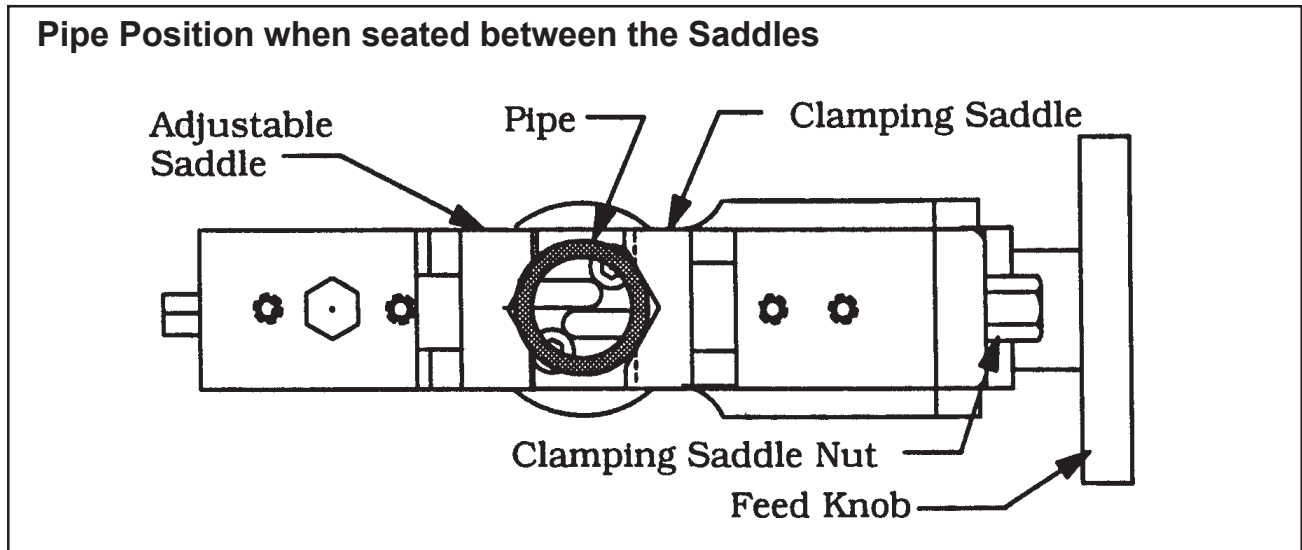


Retract the Cutting Head by rotating the Feed Knob.

The pipe or tube to be end prepped may now be set into the Adjustable Saddle.

The Clamping Saddle Nut is turned, lowering the Clamping Saddle down onto the pipe or tube.

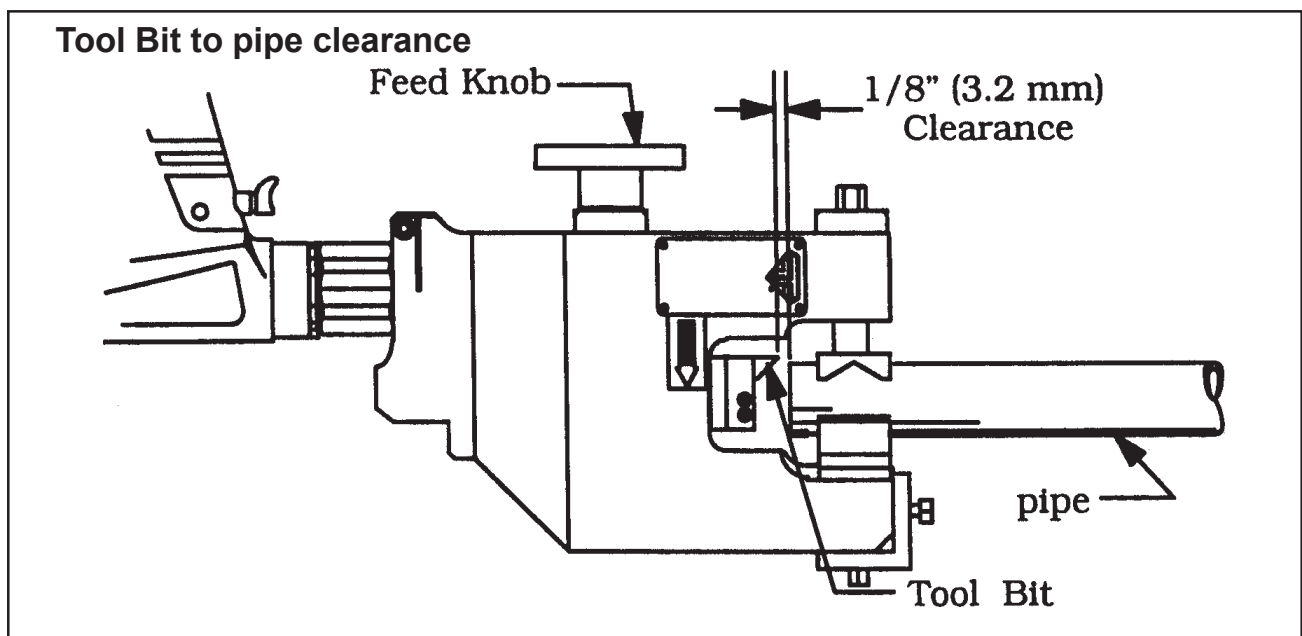
Pipe Position when seated between the Saddles



Continue this operation until the pipe or tube is clamped securely between the Adjustable Saddle and the Clamping saddle.

Verify a clearance of 1/8" (3.2 mm) minimum between the Tool Bit and the pipe or tube face.

Tool Bit to pipe clearance



Select the Tool Bit(s) required to machine the pipe to the configuration desired. Refer to the section 'Tool Bits' for the Tool Bit selection chart.

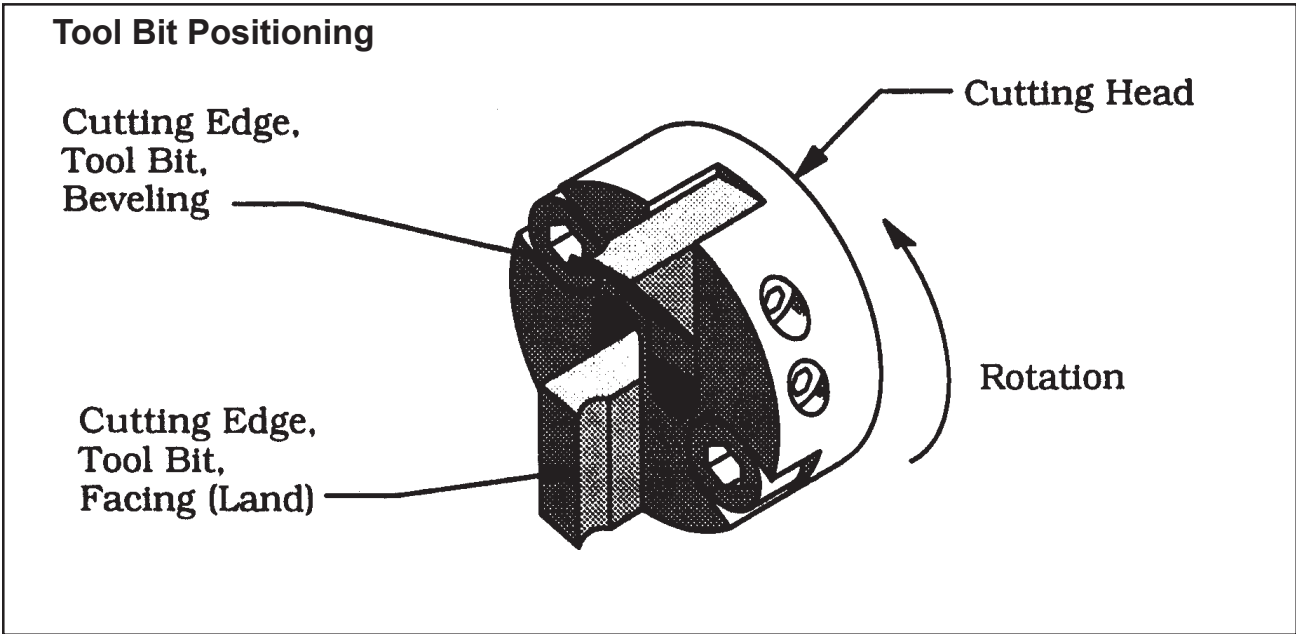
WARNING: Use of dull or improperly designed Tool Bits or Tool Bits not manufactured by TRI TOOL Inc. may result in poor performance and may constitute abuse of this machine and therefore voids the TRI TOOL Inc. factory warranty.

Insert the Tool Bit(s) into the Slot(s) in the Cutting Head.

CAUTION: The cutting edge of the Tool Bit(s) must be located on the radial centerline.

CAUTION: Make sure that there are not any tool bits installed backwards.

Make sure that there is a clearance between the Tool Bit(s) and the Saddles.



Tighten the Set Screws to secure the Tool Bit(s) to the Cutting Head.

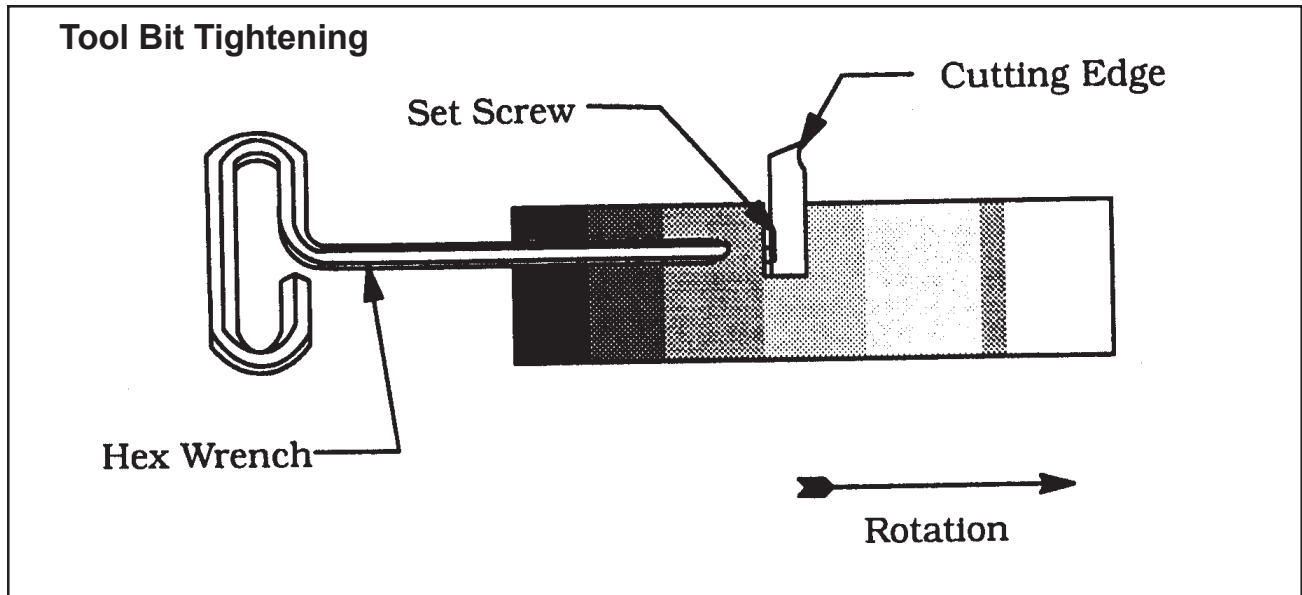
Attach the proper air supply line to the Model 201BA.

NOTE: Check that the filter/regulator/lubricator (FRL) is installed and set properly.

Depress the Air Motor Trigger.

Adjust the cutting speed by rotating the Flow Valve at the air connection. Refer to the section 'Cutting Speeds' for recommended cutting speeds.

Rotate the Feed Handle clockwise to bring the Tool Bit(s) and pipe or tube closer together.



CAUTION: The actual machining operation will begin when the first Tool Bit contacts the pipe.

If the pipe end is not square to the pipe axis, the Tool Bit will contact only a small segment of the pipe during each revolution.

To avoid Tool Bit damage, the feed rate should be very slow until the Tool Bit(s) is in contact with the pipe continually during at least one full revolution.

Continue rotating the Feed Handle clockwise until the end of the pipe is completely machined.

Discontinue feed and allow the Head to rotate 1 to 3 revolutions to improve finish of the prep surface.

Release the Air Motor Trigger to stop the Head rotation.

Rotate the Feed Handle counterclockwise to separate the Tool Bit(s) from the pipe.

Rotate the Feed Handle counterclockwise until the Head to Saddle relationship is the same as described in "The Clamping Saddle Nut is turned..."

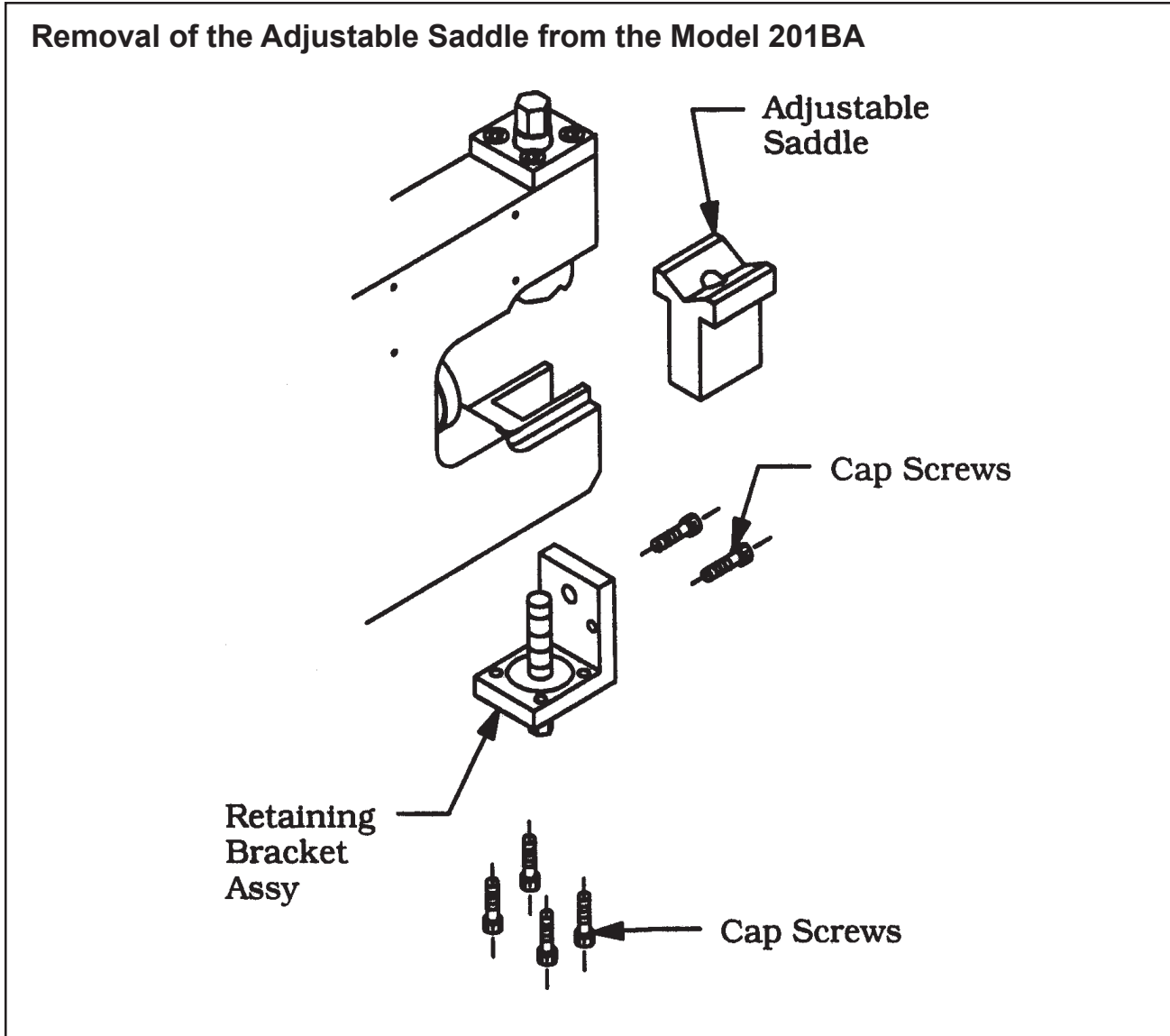
Loosen the Clamping Saddle Nut on the Clamping Saddle to release the pipe or tube from the Model 201BA.

If the next bevel is to be identical to the previous bevel, follow the sequence starting with "The pipe or tube to be end prepped....."

If the next bevel is to be different than the previous bevel, then follow the sequence starting with "Adjusting the Adjustable Saddle Kit...."

Converting the Adjustable Saddle to the Fixed Saddle.

Remove the (4) four Cap Screws from the bottom of the Retaining Bracket Assy and (2) two Cap Screws from the front.



Remove the Retaining Bracket Assy from the front of the Model 201BA.

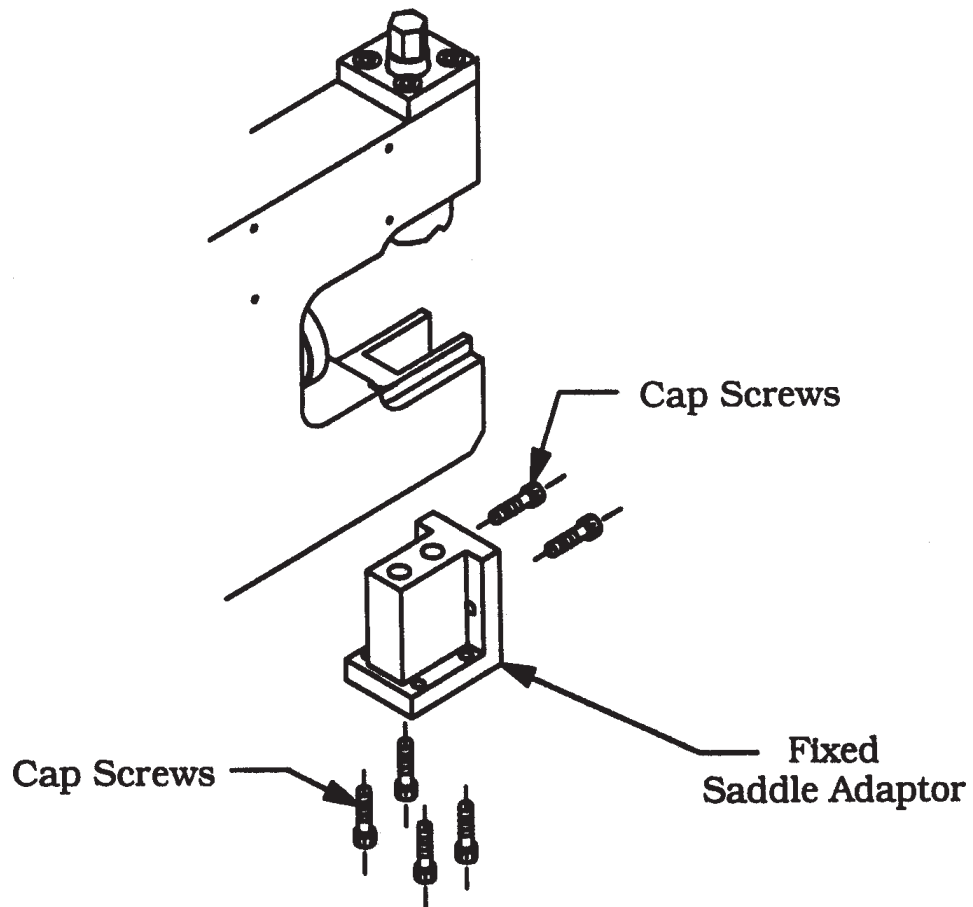
Insert the Fixed Saddle Adapter into the front of the Model 201BA.

Attach the Fixed Saddle Adapter by using (4) four Cap Screws from the bottom and (2) two Cap Screws from the front.

Select the recommended Fixed Saddle for the pipe size to be machined. Refer to the Fixed Saddle selection chart in the section “Fixed Saddles”.

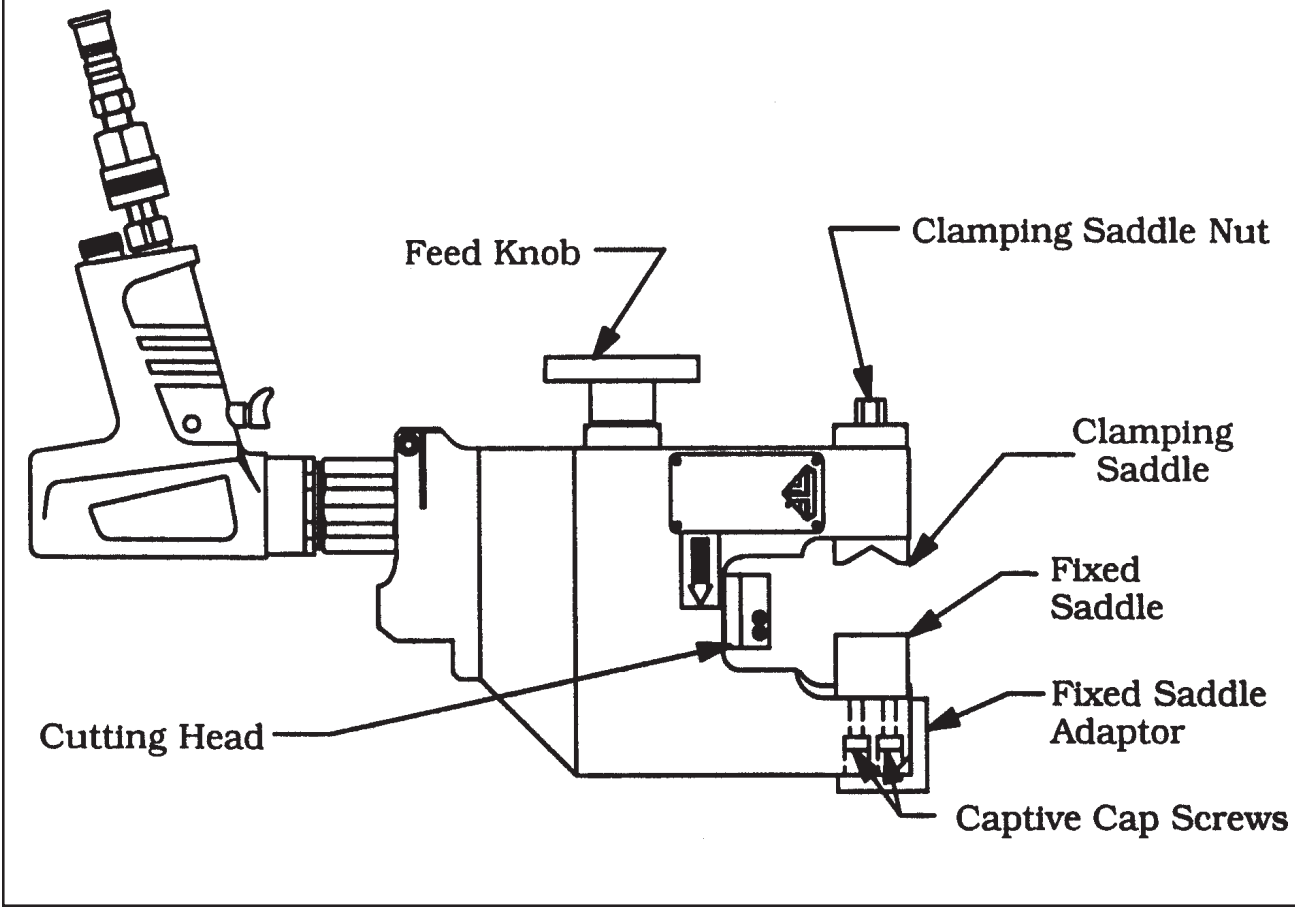
Gently set the Fixed Saddle into the Model 201BA locating it over the Slot.

Installation of the Fixed Saddle Adaptor into the Model 201BA



Tighten the (2) two Captive Cap Screws which will secure the Fixed Saddle to the Model 201BA.

Installing the fixed Saddle into the Model 201BA



CUTTING SPEEDS

The chart shows RPM required to obtain specified Tool Bit surface cutting speed at the surface of the pipe or tube.

Cutting Speeds				
Nominal Pipe Size	True Diameter		RPM for 200 in/min (508 cm/min)	RPM for 250 in/min (635 cm/min)
	.250"	6.4 mm	255	318
	.375"	9.5 mm	170	212
1/8"	.405"	10.3 mm	157	196
	.500"	12.7 mm	127	159
1/4"	.540"	13.7 mm	118	147
3/8"	.675"	17.2 mm	94	118
	.750"	19.1 mm	85	106
1/2"	.840"	21.3 mm	76	95
	1.000"	25.4 mm	64	80
3/4"	1.050"	26.7 mm	61	76
	1.250"	31.8 mm	51	64
1"	1.315"	33.4 mm	48	61
	1.500"	38.1 mm	42	53
1 1/4"	1.660"	42.2 mm	38	48
	1.750"	44.5 mm	36	45
1 1/2"	1.900"	48.3 mm	34	42

Use 200 surface inches per minute (508 surface centimeters per minute) for: Stainless steels in general when no coolant is allowed, all heavy-wall tube and some of the chrome/molybdenum steels.

Use 250 surface inches per minute (635 surface centimeters per minute) for: Mild steels and some thin wall stainless steels when coolants are permitted and applied.

BASIC FEED RECOMMENDATIONS

Use very light feed for initial beveling or until a continuous cut is established.

This is very important for longer tool bit life when cutting through flame cut or out of square pipe ends.

Use adequate feed, .003" to .006" (.08 mm to .15 mm) per revolution there-after, to establish a continuous chip cut.

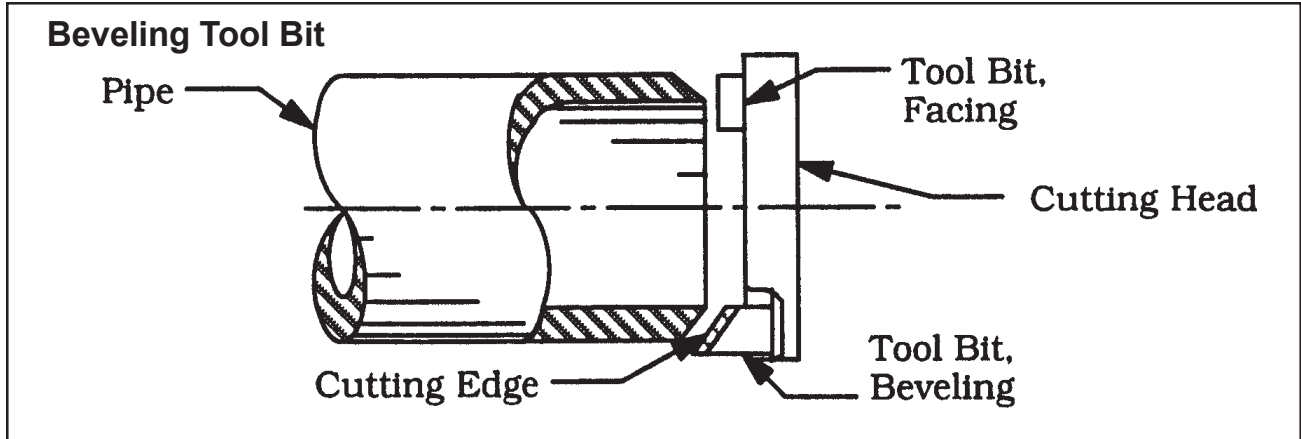
If the feed is too light, only light stringer chips will be removed.

If the feed is too heavy the drive will start to overload and the chip will start to have a rough or torn appearance.

Stainless steel which work hardens, must be worked with a heavy enough feed to stay under the work hardened surface (.003" to .006" (.08 mm to .15 mm) feed). Never allow the Tool Bit to burnish the surface.

Reduced feed and speeds will normally minimize chatter problems.

TOOL BITS

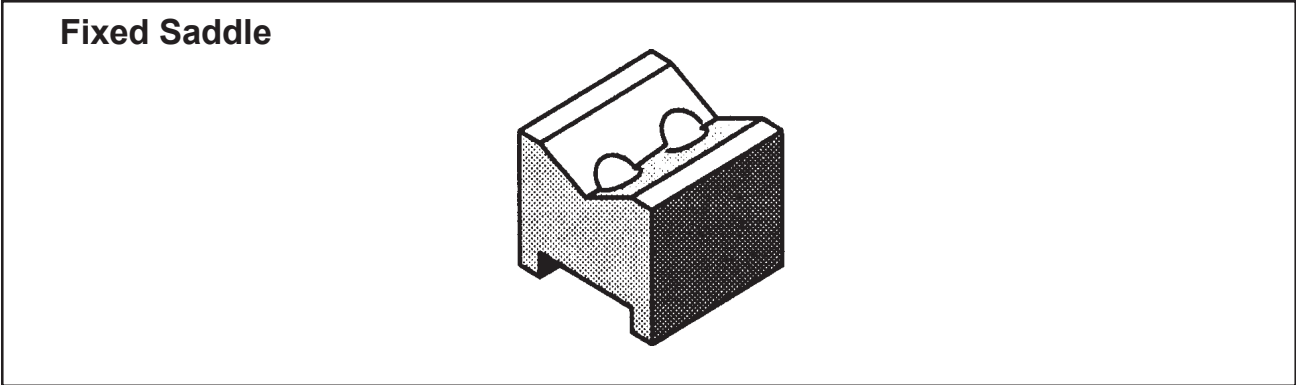


37.5° BEVELING TOOL BITS			
For Beveling and Facing with the 1.45" dia Cutting Head (.355" (9.02 mm) maximum wall)			
Range	Pipe or Tube Material	37.5° Beveling Tool Bit P/N	Facing Tool Bit P/N
.125" thru .375" ID (3.2 mm thru 9.5 mm ID)	Low Carbon	99-4032	99-4000
	Stainless	99-4036	99-4040
.375" thru .638" ID (9.5 mm thru 16.2 mm ID)	Low Carbon	99-4033	99-4000
	Stainless	99-4037	99-4040
.630" thru .880" ID (16.0 mm thru 22.4 mm ID)	Low Carbon	99-4034	99-4000
	Stainless	99-4038	99-4040
.800" thru 1.050" ID (20.3 mm thru 26.7 mm ID)	Low Carbon	99-4035	99-4000
	Stainless	99-4039	99-4040
.900" thru 1.150" ID (22.9 mm thru 29.2 mm ID)	Low Carbon	99-4132	99-4000
	Stainless	99-4133	99-4040
1.150" thru 1.400" ID (29.2 mm thru 35.6 mm ID)	Low Carbon	99-0944	99-4000
	Stainless	99-3574	99-4040
*Cobalt High Heat Tool Bits are available			

37.5° BEVELING TOOL BITS			
For Beveling and Facing with the 2.00" dia Cutting Head (.355" (9.02 mm) maximum wall)			
Range	Pipe or Tube Material	37.5° Beveling Tool Bit P/N	Facing Tool Bit P/N
.125" thru .928" ID (3.2 mm thru 23.6 mm ID)	Low Carbon	99-4032	99-4000
	Stainless	99-4036	99-4040
.664" thru 1.470" ID (16.8 mm thru 37.3 mm ID)	Low Carbon	99-4034	99-4000
	Stainless	99-4038	99-4040
.900" thru 1.550" ID (22.9 mm thru 39.4 mm ID)	Low Carbon	99-4132	99-4000
	Stainless	99-4133	99-4040
1.220" thru 1.875" ID (31.1 mm thru 47.6 mm ID)	Low Carbon	99-4132	99-0170
	Stainless	99-4133	99-1963
*Cobalt High Heat Tool Bits are available			

37.5° BEVELING TOOL BITS			
For Beveling only with the 1.45" or 2.00" dia Cutting Head (.355" (9.02 mm) maximum wall)			
Range	Pipe or Tube Material	37.5° Beveling Tool Bit P/N	Cutting Head Diameter
.125" ID thru 1.25" OD (3.2 mm ID thru 31.8 mm OD)	Low Carbon	99-4033	1.45"
	Stainless	99-4037	
.800" ID thru 1.500" OD (20.3 mm ID thru 38.1 mm OD)	Low Carbon	99-0944	2.00"
	Stainless	99-3574	
.125" ID thru 1.800" OD (3.2 mm ID thru 45.7 mm OD)	Low Carbon	99-4033	2.00"
	Stainless	99-4037	
.800" ID thru 2.00" ID (20.3 mm thru 50.8 mm OD)	Low Carbon	99-0944	2.00"
	Stainless	99-3574	
*Cobalt High Heat Tool Bits are available			

FIXED SADDLES



FIXED SADDLES			
Pipe Size	True Outside Diameter		Fixed Saddle P/N
	.250"	6.35 mm	26-1100
	.375"	9.53 mm	26-1271
	.405"	10.29 mm	26-1101
	.500"	12.70 mm	26-1102
1/4"	.540"	13.72 mm	26-1103
	.625"	15.88 mm	26-1272
3/8"	.675"	17.15 mm	26-1104
	.750"	19.05 mm	26-1105
1/2"	.840"	21.34 mm	26-1106
	.875"	22.23 mm	26-1175
	1.000"	25.40 mm	26-1107
3/4"	1.050"	26.67 mm	26-1108
	1.125"	28.58 mm	26-1273
	1.250"	31.75 mm	26-1109
Contact TRI TOOL Inc. for sizes not listed.			

Table Continues on next page

FIXED SADDLES			
Pipe Size	True Outside Diameter		Fixed Saddle P/N
1"	1.315"	33.40 mm	26-1110
	1.375"	34.93 mm	26-1274
	1.500"	38.10 mm	26-1111
	1.625"	41.28 mm	26-1275
1 1/4"	1.660"	42.16 mm	26-1112
	1.750"	44.45 mm	26-1113
	1.875"	47.63 mm	26-1209
1 1/2"	1.900"	48.26 mm	26-1114
	2.00"	50.80 mm	26-1115
Contact TRI TOOL Inc. for sizes not listed.			

TROUBLE SHOOTING

Problem: The Tool Bit Chatters

Probable causes:

- The tool bit is loose or overextended.
- The tool bit is damaged.
- The tool holder is too loose in the slides.
- The cutting speed is too fast.
- The clamping pads are loose on the pipe or tube.
- Cutting fluid is required.
- The main bearing pre-load is loose.

Problem: There is excessive Tool Bit wear

Probable causes:

- The pipe or tube material is too hard or abrasive.
- The cutting speed is too fast.
- Cutting fluid is required.
- A dull Tool Bit is causing surface hardening conditions (Stainless pipe or tubing).
- There is scale or other foreign matter on the pipe or tube, which is dulling the tool bit at the start of the cut.
- The tool bit is incorrect for the material being cut.

Problem: The surface finish is rough

Probable causes:

- The tool bit is dull, chipped, etc.
- Metal build-up on the cutting edge of the tool bit is creating a false cutting edge.
- Cutting fluid is required.

Problem: The tool holder is not feeding

Probable causes:

- The feed pin is broken or out of position.
- The feed sprocket shear pin is broken.
- The feed screw is stripped.
- The feed nut is stripped.
- The slide rails are too tight.

Problem: There is a loss of air power

Probable causes:

- The air supply pressure is too low.
- The air filter is plugged.
- The air line size is insufficient.
- The air line is too long.

Problem: There is a loss of hydraulic power

Probable causes:

- The hydraulic supply pressure is too low.
- The hydraulic filter is plugged.
- The hydraulic line size is insufficient.
- The hydraulic line is too long.

Problem: The tool bit will not reach the work

Probable causes:

- Incorrect tool blocks are installed for the size of the pipe or tube being worked on.
- Incorrect tool bit is installed.

Problem: The hydraulic motor will not start

Probable causes:

- The hydraulic power supply is shut off.
- The hydraulic motor is damaged and will not run free.

ACCESSORIES

The following accessories are recommended for use with the Model 201BA Pipe Beveler and are available from TRI TOOL Inc.:

1. Portable Air Filter Caddy (P/N 75-0115)
A Filter/Regulator/Lubricator (FRL) is required to protect the warranty on all TRI TOOL Inc. Air Driven Tools.
2. Tool Bits (Refer to 'Tool Bit' Section)
3. Headstock Kits
 - 1.45" dia Head Kit (P/N 03-0037)
 - 2.00" dia Head Kit (P/N 03-0038)
4. Adjustable Saddle Kits:

Small Adjustable Saddle Kit (P/N 05-0241)
(Diameter range: .250" to .600")
(Diameter range: 6.4 mm to 15.2 mm)

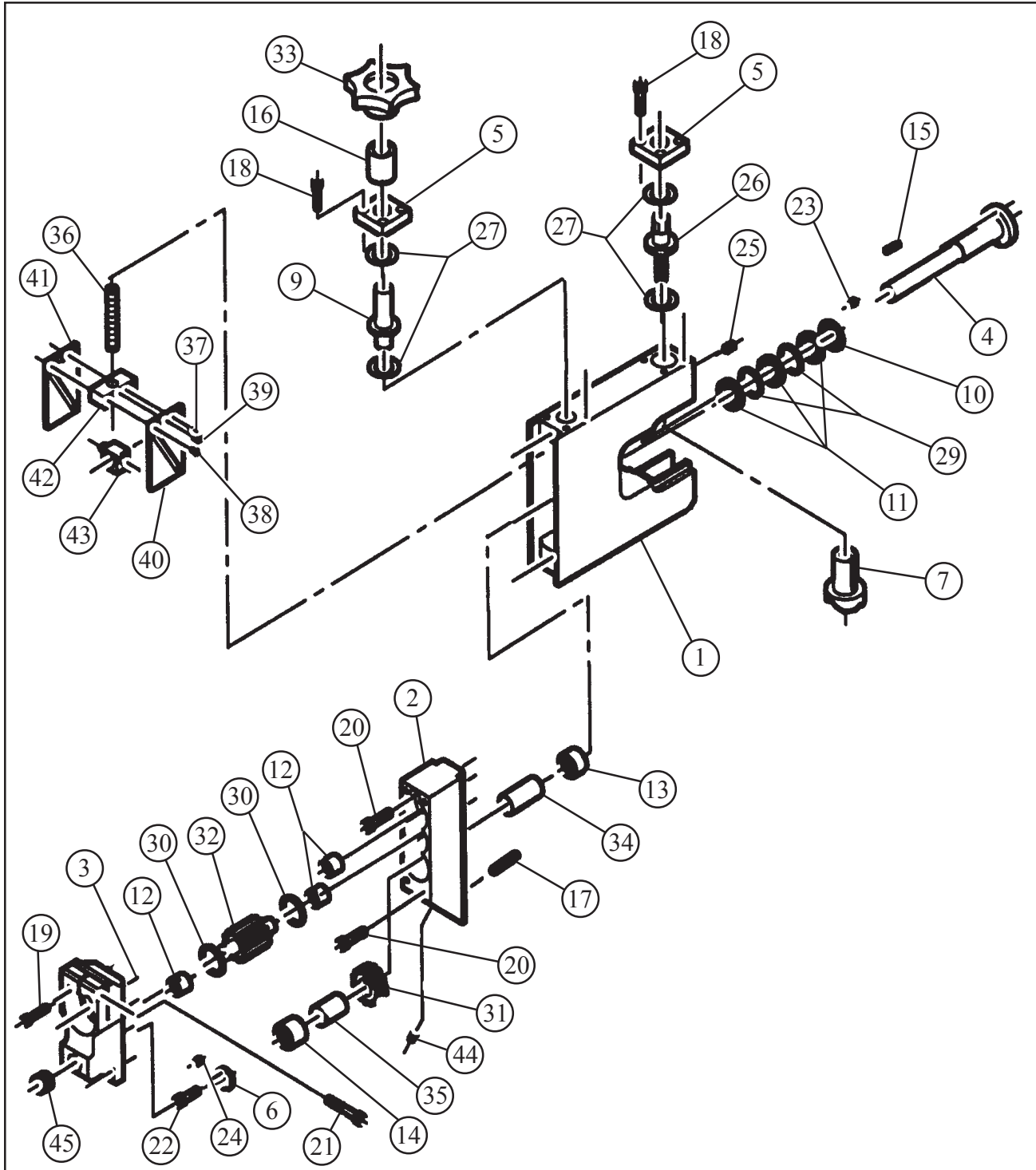
Large Adjustable Saddle Kit (P/N 05-0242)
(Diameter range: .600" to 2.000")
(Diameter range: 15.2 mm to 50.8 mm)

Full Range Adjustable Saddle Kit (P/N 05-0243)
(Diameter range: .250" to 2.000")
(Diameter range: 6.4 mm to 50.8 mm)
5. Fixed Saddle Adapter Kit (P/N 05-0244)

Fixed Saddles (Refer to 'Fixed Saddles' section)

ILLUSTRATED PARTS BREAKDOWN

MODEL 201BA, BEVELMASTER™ SUB-ASSEMBLY



Parts List, Model 201BA, BEVELMASTER™

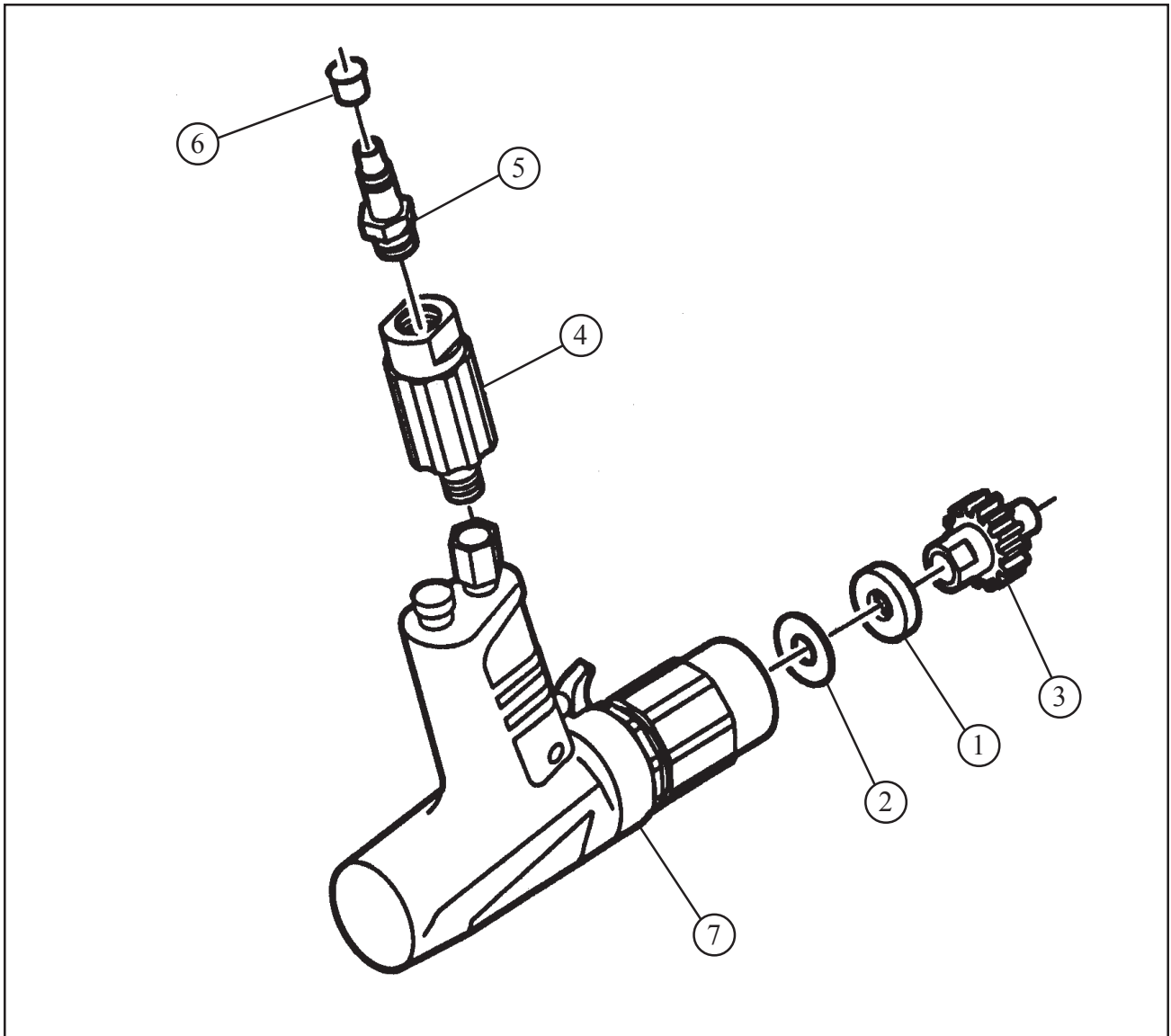
Item No.	Part No.	Description	Qty
1.	19-0690	HOUSING, MAIN	1
2.	19-0521	HOUSING, DRIVE	1
3.	19-0522	HOUSING, CLAMP	1
4.	20-0441	SHAFT, DRIVE	1
5.	24-0996	PLATE, RETAINING	2
6.	24-1024	PLATE, END	1
7.	26-1099	SADDLE, CLAMPING	1
8.			
9.	27-0362	ADAPTER, FEED	1
10.	28-0218	SEAL, GREASE	1
11.	29-0080	BEARING, BALL	3
12.	29-0255	BEARING, ROLLER	3
13.	29-0256	BEARING, ROLLER	1
14.	29-0257	BEARING, ROLLER	1
15.	31-0115	KEY, SQUARE	1
16.	30-1790	BUSHING, KEYLESS	1
17.	32-0140	PIN, DOWEL	1
18.	33-0029	SCREW, CAP, #10-24 X 5/8	8
19.	33-0040	SCREW, CAP, 1/4-20 X 3/4	4
20.	33-0056	SCREW, CAP, 5/16-18 X 1	2
21.	33-0058	SCREW, CAP, 5/16-18 X 1 1/2	1
22.	33-2017	SCREW, CAP, #10-32 X 5/8	1
23.	33-0273	SCREW, CAP, #10-32 X 3/8	2
24.	33-0459	SCREW, SET, #10-40 X 5/16, CUP PT	1
25.	33-0928	SCREW, SET, 1/4-20 X 3/8, HDOG	2
26.	33-1654	SCREW, FEED, LH	1
27.	34-0192	WASHER, THRUST	4
29.	34-0245	WASHER, FLAT	2
30.	34-0247	WASHER, THRUST	2
31.	39-0575	GEAR, DRIVE	1
32.	39-0576	GEAR, IDLER	1
33.	42-0123	KNOB, FEED	1
34.	45-0176	BUSHING	1
35.	45-0177	BUSHING	1
	48-0634	YOKE ASSY, FEED	1
36.	23-0235	ROD, FEED	1
37.	32-0200	PIN, DOWEL	4
38.	33-0273	SCREW, BUTTON, #8-32 X 3/8	4
39.	33-0478	SCREW, SET, #8-32 X 1/4, CUP PT	1

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Parts List, Model 201BA, BEVELMASTER™. Continued

Item No.	Part No.	Description	Qty
40.	24-0991	PLATE, FEED, RH	1
41.	24-0992	PLATE, FEED, LH	1
42.	24-0994	PLATE, SPACER	1
43.	48-0633	YOKE, FEED	1
44.	54-0375	FITTING, GREASE	1
45.	54-0304	PLUG, PRESSURE	1
NOT SHOWN:			
	36-0001	WRENCH, L, 1/16" HEX	1
	36-0008	WRENCH, L, 3/16" HEX	1
	36-0010	WRENCH, L, 1/4" HEX	1
	36-0011	WRENCH, L, 5/16" HEX	1
	36-0018	WRENCH, T, 1/8" HEX	1
	36-0020	WRENCH, T, 5/32" HEX	1
	36-0075	WRENCH, COMBINATION, 1/2"	1
	86-0170	CASE, CUSTOM CARRYING	1

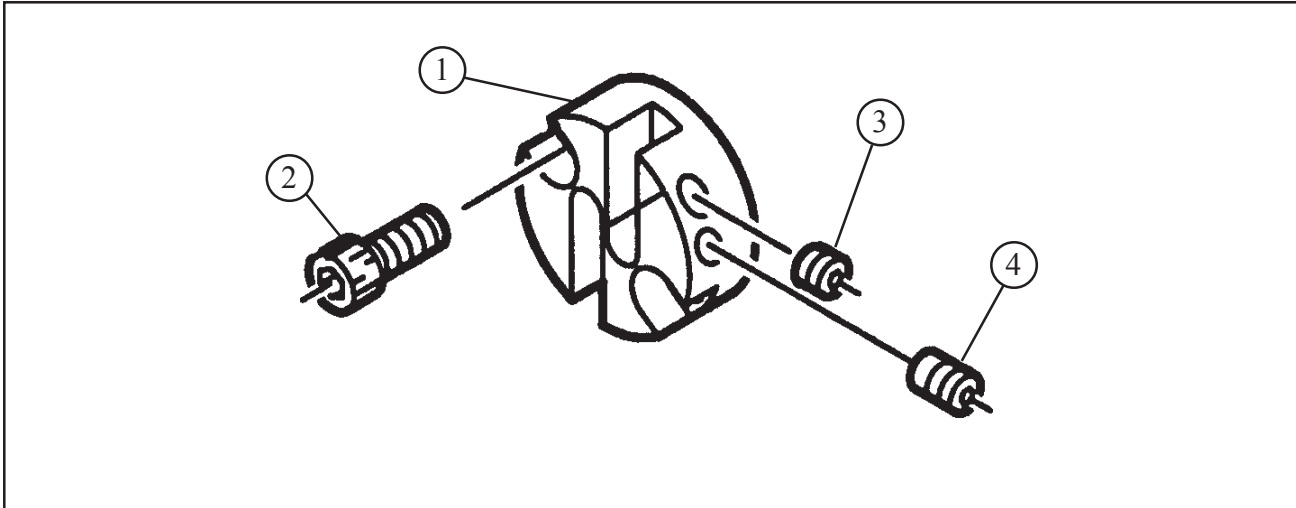
AIR MOTOR ASSEMBLY



Parts List, Motor Assy, Air (P/N 57-0156)

Item No.	Part No.	Description	Qty
1.	28-0219	SEAL, GREASE	1
2.	34-0246	WASHER, FLAT	1
3.	39-0582	GEAR ASSY, PINION	1
4.	53-0045	VALVE, AIR FLOW CONTROL	1
5.	54-0149	COUPLING, MALE, QD	1
6.	54-0201	CAP, YELLOW	1
7.	57-0077	MOTOR, AIR	1

CUTTING HEAD KITS



Parts List, Cutting Head Kit, 1.45" dia (P/N 03-0037)

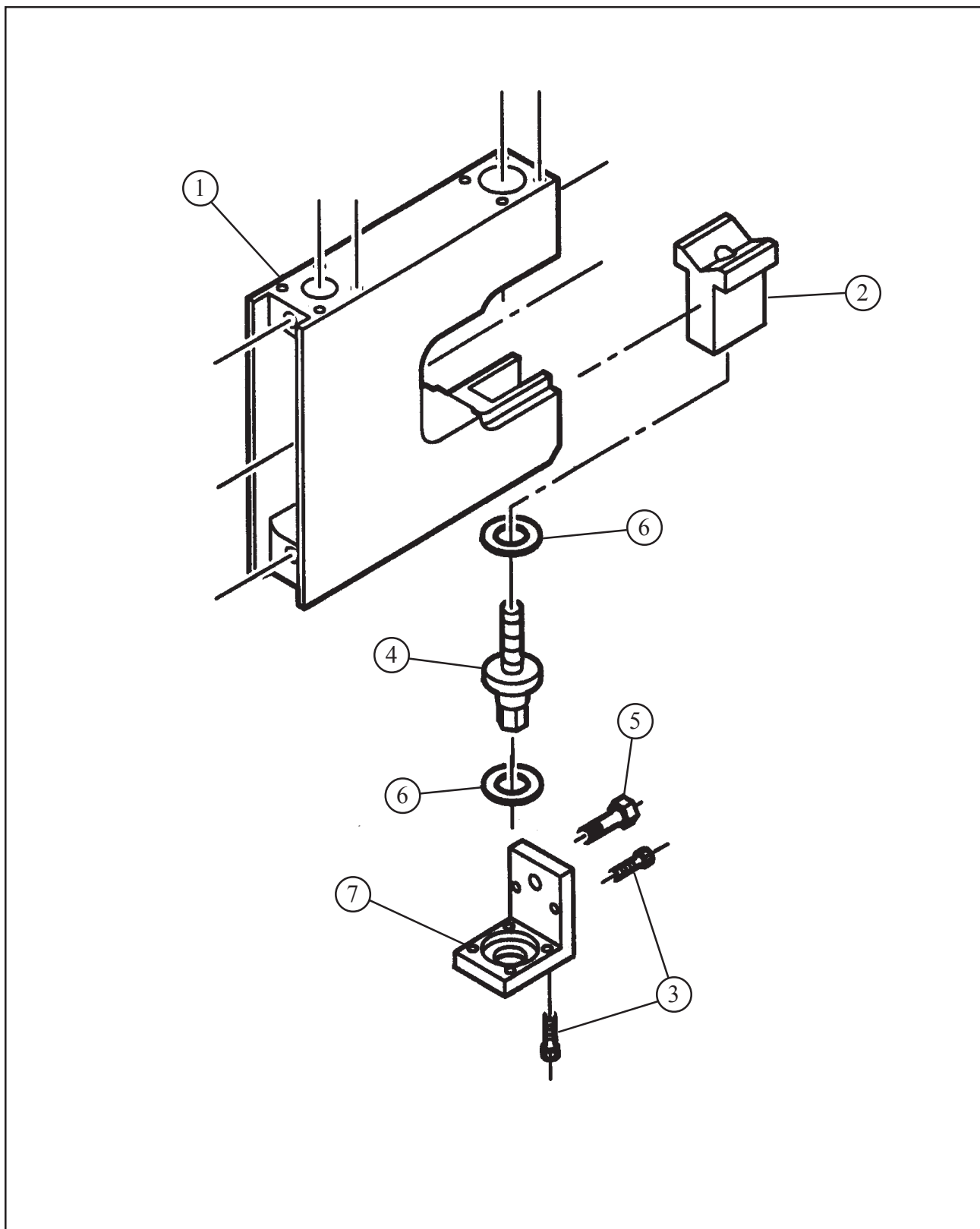
Item No.	Part No.	Description	Qty
1.	21-0325	HEAD, 1.45" DIA	1
2.	33-0039	SCREW, CAP, 1/4-20 X 5/8	2
3.	33-0499	SCREW, SET, 1/4-20 X 1/4, CUP PT	2
4.	33-0501	SCREW, SET, 1/4-20 X 3/8 , CUP PT	2

Parts List, Cutting Head Kit, 2.00" dia (P/N 03-0038)

Item No.	Part No.	Description	Qty
1.	21-0326	HEAD, 2.00" DIA	1
2.	33-0039	SCREW, CAP, 1/4-20 X 5/8	2
3.	33-0499	SCREW, SET, 1/4-20 X 1/4, CUP PT	2
4.	33-0503	SCREW, SET, 1/4-20 X 1/2 , CUP PT	4

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ADJUSTABLE SADDLE KIT



Parts List, Saddle Kit, Adjustable, Small (P/N 05-0241)

Item No.	Part No.	Description	Qty
1.	19-0690	HOUSING, MAIN	REF
2.	26-1401	SADDLE, ADJUSTABLE, SMALL	1
3.	33-0028	SCREW, CAP, #10-24 X 1/2	6
4.	33-1654	SCREW, FEED, LH	1
5.	33-1951	SCREW, HEX HD CAP, 5/16-18 X 5/8	1
6.	34-0192	WASHER, THRUST	2
7.	47-0972	BRACKET, RETAINING	1

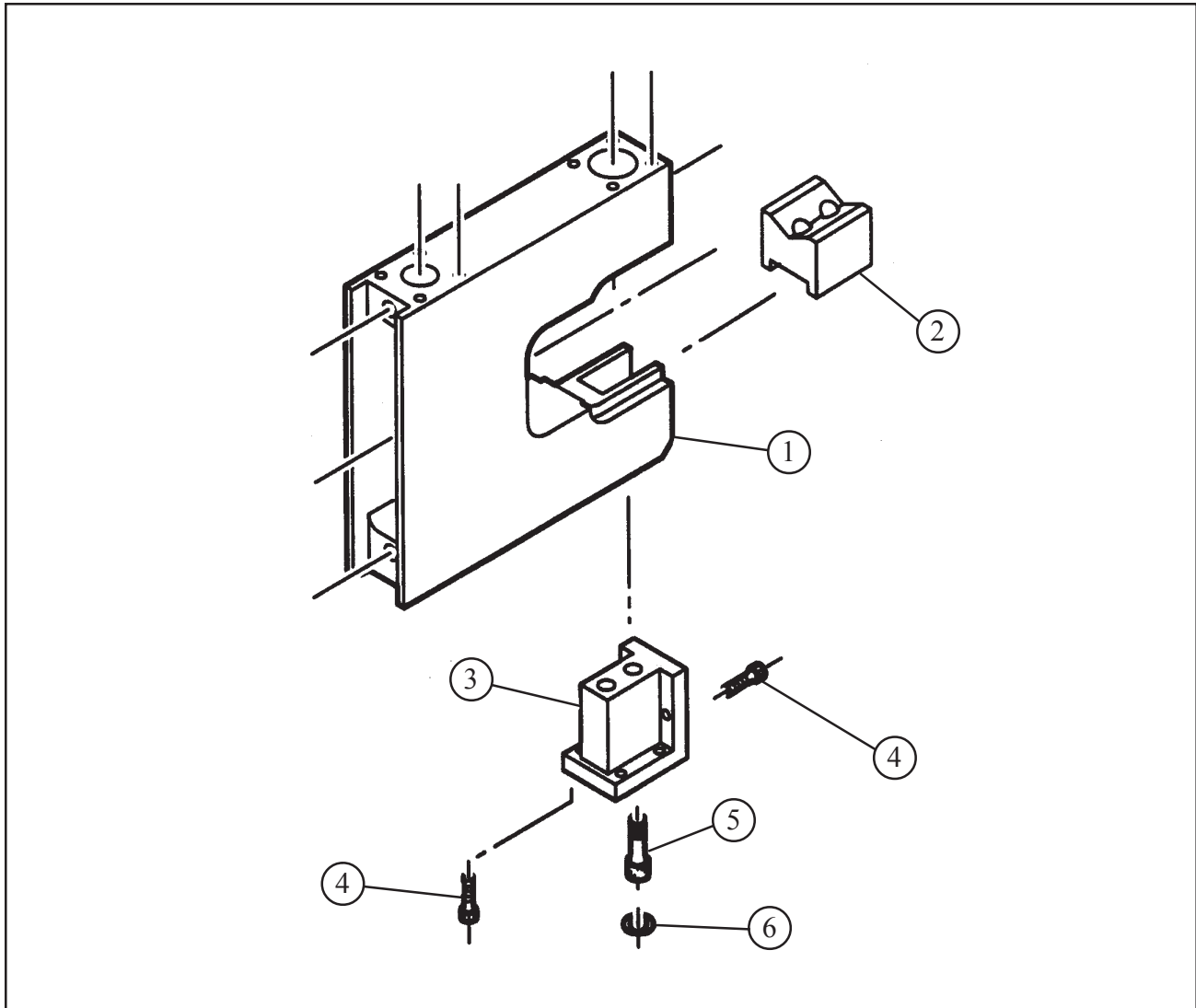
Parts List, Saddle Kit, Adjustable, Large (P/N 05-0242)

Item No.	Part No.	Description	Qty
1.	19-0690	HOUSING, MAIN	REF
2.	26-1376	SADDLE, ADJUSTABLE, LARGE	1
3.	33-0028	SCREW, CAP, #10-24 X 1/2	6
4.	33-1654	SCREW, FEED, LH	1
5.	33-1951	SCREW, HEX HD CAP, 5/16-18 X 5/8	1
6.	34-0192	WASHER, THRUST	2
7.	47-0972	BRACKET, RETAINING	1

Parts List, Saddle Kit, Adjustable, Full Range (P/N 05-0243)

Item No.	Part No.	Description	Qty
1.	19-0690	HOUSING, MAIN	REF
2.	26-1376	SADDLE, ADJUSTABLE, LARGE	1
	26-1401	SADDLE, ADJUSTABLE, SMALL	1
3.	33-0028	SCREW, CAP, #10-24 X 1/2	6
4.	33-1654	SCREW, FEED, LH	1
5.	33-1951	SCREW, HEX HD CAP, 5/16-18 X 5/8	1
6.	34-0192	WASHER, THRUST	2
7.	47-0972	BRACKET, RETAINING	1

FIXED SADDLE ADAPTOR KIT



Parts List, Adaptor Kit, Fixed Saddle (P/N 05-0244)

Item No.	Part No.	Description	Qty
1.	19-0690	HOUSING, MAIN	REF
2.	26-XXXX	SADDLE, FIXED REFER TO 'FIXED SADDLE' SECTION	- REF
3.	27-0490	ADAPTER, SADDLE, FIXED	1
4.	33-0028	SCREW, CAP, #10-24 X 1/2	6
5.	33-0056	SCREW, CAP, 5/16-18 X 1	2
6.	34-0233	WASHER, THRUST	2