
PARTS MANUAL

AIR MODEL '275' BEEF BREASTBONE OPENER SAW

AND

AIR MODEL '100-A' CARCASS SPLITTER SAW

WARNING

**ALWAYS EXERCISE CARE WHEN OPERATING
OR PERFORMING MAINTENANCE, REPAIRS &
ADJUSTMENTS ON THESE MACHINES.**

Always disconnect the air supply line before attempting to work on these machines. Never allow any part of your person or any other person to be in the path of the blade when machine is in service.



**USDA
APPROVED**



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SPECIFICATIONS

SAW BLADE	13-1/8 Inch (336.40 mm) Length 4 Teeth Per Inch (4 T.P.I.) 1": 25.40 mm Available in Special Blunted Tip - #6102760 Sabre Style - #6102600
OVERALL LENGTH	30" (762 mm)
WIDTH	9" (228.60 mm)
HEIGHT	13-3/4" (349.25 mm)
NET WEIGHT	45 Lbs (20.32 Kilos)
GROSS WEIGHT	81 Lbs. (36.77 Kilos)
CONTROL	Operator has full control at all times. Release of handle grip shuts off air motor and saw blade stops instantly.
COUNTERBALANCERS	6339500 Balancer 7 Ft. (2.1 M) Cable Travel (275) 6340500 Balancer 9 Ft. (2.7 M) Cable Travel (275) 6343493 Balancer 7 Ft. (2.1 M) Cable Travel (100)

INSTALLATION INSTRUCTIONS

The Air Model "275" Beef Breastbone Opener and Air Model "100-A" Carcass Splitter Saws must be installed with the use of an overhead counterbalancer; the proper counterbalancer for your machine is set forth in the above specifications.

These machines require a clean and dry air supply through a minimum 1/2" (12.70 mm) inside diameter (I.D.) air supply line to the rear handle. A 3/4" (19.05 mm) #6337793 Air Filter/Regulator/Lubricator must be mounted just ahead of the flexible air supply line.

The #6337793 Lubricator Unit should be set to give 5 to 10 drops per minute of a lightweight (10#) mineral grade oil.

The #7110045 Air Motor requires 45 cfm at 90-100 psi to obtain maximum horsepower.

MAINTENANCE

Preventative maintenance is the first step of good maintenance. A periodic check should be made to replace worn parts and to inspect lubrication levels. A worn part replaced in time may save extensive repairs later.

THIS IS A PRECISION MACHINE made up of precision parts and should be handled with extreme care. Do not squeeze machine or parts in holding device or otherwise misuse. Too much pressure exerted in holding device may cause distortion of part. Be sure you have the correct tools and fixtures before assembling (or disassembling) this machine. When assembling (or disassembling) parts which have a press fit, apply pressure evenly to the parts. To assemble (or disassemble) bearings, the pressure should be applied to the face of the inner or outer race, whichever is adjacent to the mating part. If this is not done, it will brinell the bearing races making it necessary to replace them.

MAINTENANCE

(Continued)

OPEN BEARINGS may be washed in only fresh, clean solvent. Bearings should be washed in a container with a screened false bottom to prevent settlements from being stirred up. After washing, blow solvent out of bearing with a dry, clean air and repack with good grade bearing grease. Do not spin bearing, or allow it to spin when blowing off solvent. Do not attempt to wash a sealed or shielded bearing.

BEFORE DISASSEMBLING a machine, the area around the work bench should be clean and free from metal chips and other foreign matter. It is a good practice to spread a clean cloth on the work bench to prevent the loss of small parts.

IT IS IMPORTANT that all parts are thoroughly cleaned and inspected before assembling. The slightest particles of dirt can create excessive runout in spindle or out of squareness in the bearing being mounted, causing vibrations and loss of speed, ultimately damaging the machine.

BEFORE ASSEMBLING, ALL PARTS SHOULD BE WASHED AND INSPECTED, replacing any worn parts or defective parts. Applying a small amount of grease to springs and other small parts will hold them in place while reassembling. Lubricant is recommended for the installation of "O" Rings.

WHEN REPAIRS ARE NECESSARY consult drawing containing part, for identification. When ordering repair parts, be sure to list MODEL NUMBER, PART NUMBER and PART NAME to assure prompt and accurate shipment of your order.

LUBRICATION

The connecting rod #7027950 must be greased on both ends. Once per day on the saw blade end (Page 6, #24) and once per week at the bearing end (Page 6, #34). Whenever the crank connecting rod bearing (Page 6, #30) is replaced, the outside seal should be removed to allow grease in.

The motor bearings are sealed ball bearings, which require no lubrication.

ADJUSTMENT

On new machines or when new guides are installed, crosshead adjustment will have to be made several times until the guides are properly adjusted.

ONLY ADJUST ONE GUIDE AT A TIME. Loosen the 3 screws (Page 5, #18) which holds the guide to the main frame 1/2 turn. The guide can now be adjusted with the 3 set screws (Page 5, #3) on the side of the main frame. These screws should be moved very little at a time in rotation until all the screws have been set with the shake taken out of the crosshead (Page 5, #19). Retighten the 3 main frame screws (Page 5, #18) and prove the adjustment by running the machine for one minute. BE SURE TO TIGHTEN ALL SCREWS BEFORE PUTTING THE MACHINE INTO OPERATION.

Align the saw yoke up or down so that the blade guides support the blade without prestressing the crosshead or guide plates.

CLEANING

The complete exterior of the machine may be sprayed clean with water. The bottom cover pivots from the main frame and the exposed parts may be sprayed clean with water.

It is recommended that the air motor be flushed with a cleaning solvent once per week. After flushing, it is advisable to put 20 to 30 drops of lubricating oil in the air inlet of the air motor.

SAW BLADE REMOVAL

The Model "100-A" Saw Blade is removed by first removing the saw blade crosshead bolt (Page 5, #10) and then loosening the front saw guide bolts one turn (Page 4, #1). Let the blade drop down and pull back. Reverse this procedure to replace the saw blade. Be sure that the saw bolt is tightened down until the washer is completely compressed. Always rotate the motor by hand at least one full turn to insure that this bolt is down and does not hit the guides.

SAW BLADE & BLADE GUIDES

Saw guides, (Page 4, #2) and (Page 4, #16) should be checked at regular intervals for proper clearance in relation to the saw blade. Excessive clearance will allow unnecessary vibration which will result in blade breakage, cracking or buckling and also places strain on the drive parts.

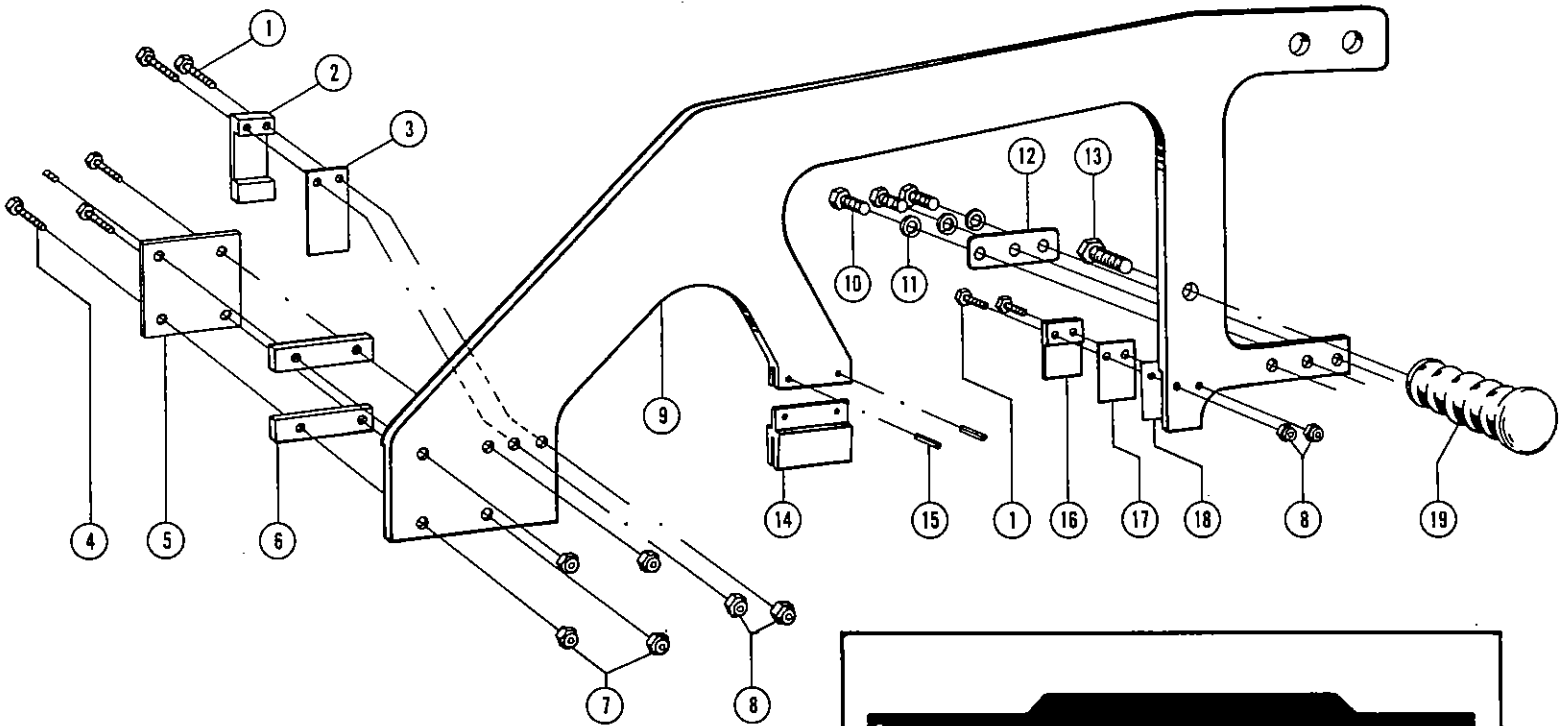
Saw blades should be kept sharp at all times, to neglect this will cause an overload on the motor and the machine will be subject to severe strain and resultant wear.

WHEN SAW BLADES ARE RESHARPENED, FILE A 20 DEGREE BEVEL FRONT & BACK ALTERNATELY PER TOOTH. TOOTH GULETS MUST BE ROUNDED. DO NOT SET TEETH.

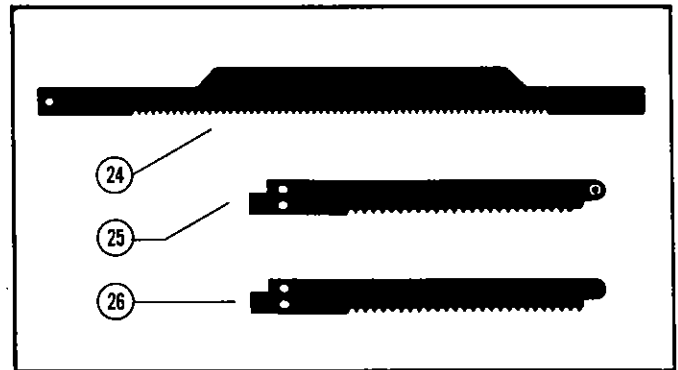
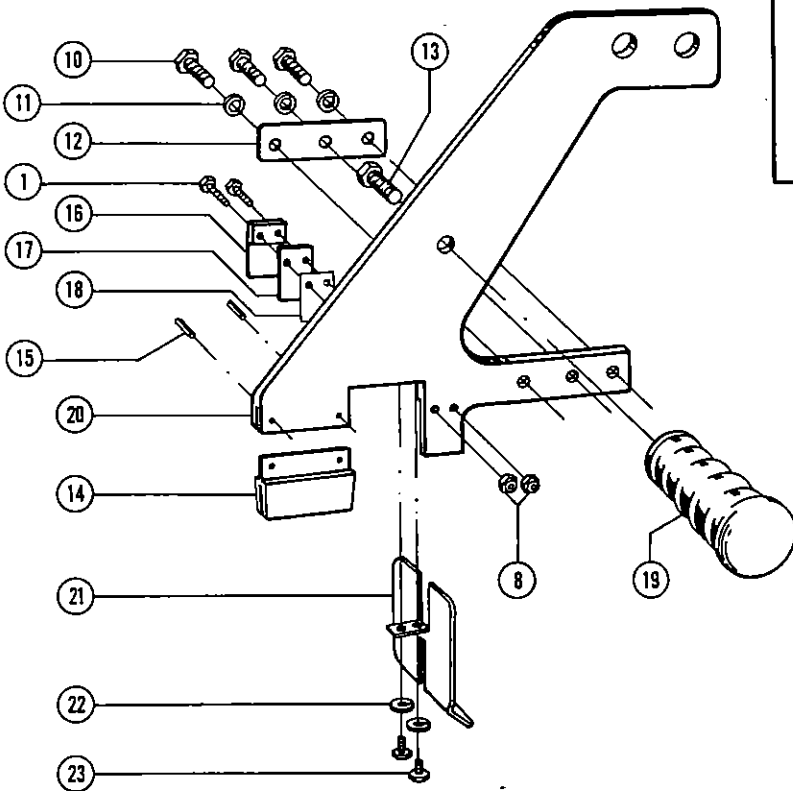
REASSEMBLY OF SAW YOKES

1. Assemble all wear plates and guides to saw yoke, snug all bolts and nuts BUT DO NOT TIGHTEN.
2. Place the yoke and saw blade in the main frame (Page 5, #4) with the proper amount of shims #12 Pg 4. Position the yoke such that the saw blade slides freely and tighten the 3 screws (#10).
3. If required, shim the rear guide with appropriate shims.
4. TIGHTEN ALL BOLTS & NUTS, check to insure the blade slides freely.
5. The slot in the extension saw guide (#14) may be closed to a limited extent. First remove it from the saw yoke, then pound the slot closed using a hammer or squeeze it closed using a vise. Be sure that the blade slides freely in the slot after making this adjustment.

MODELS 100 & 100-A YOKES



MODELS 250 & 275 YOKES



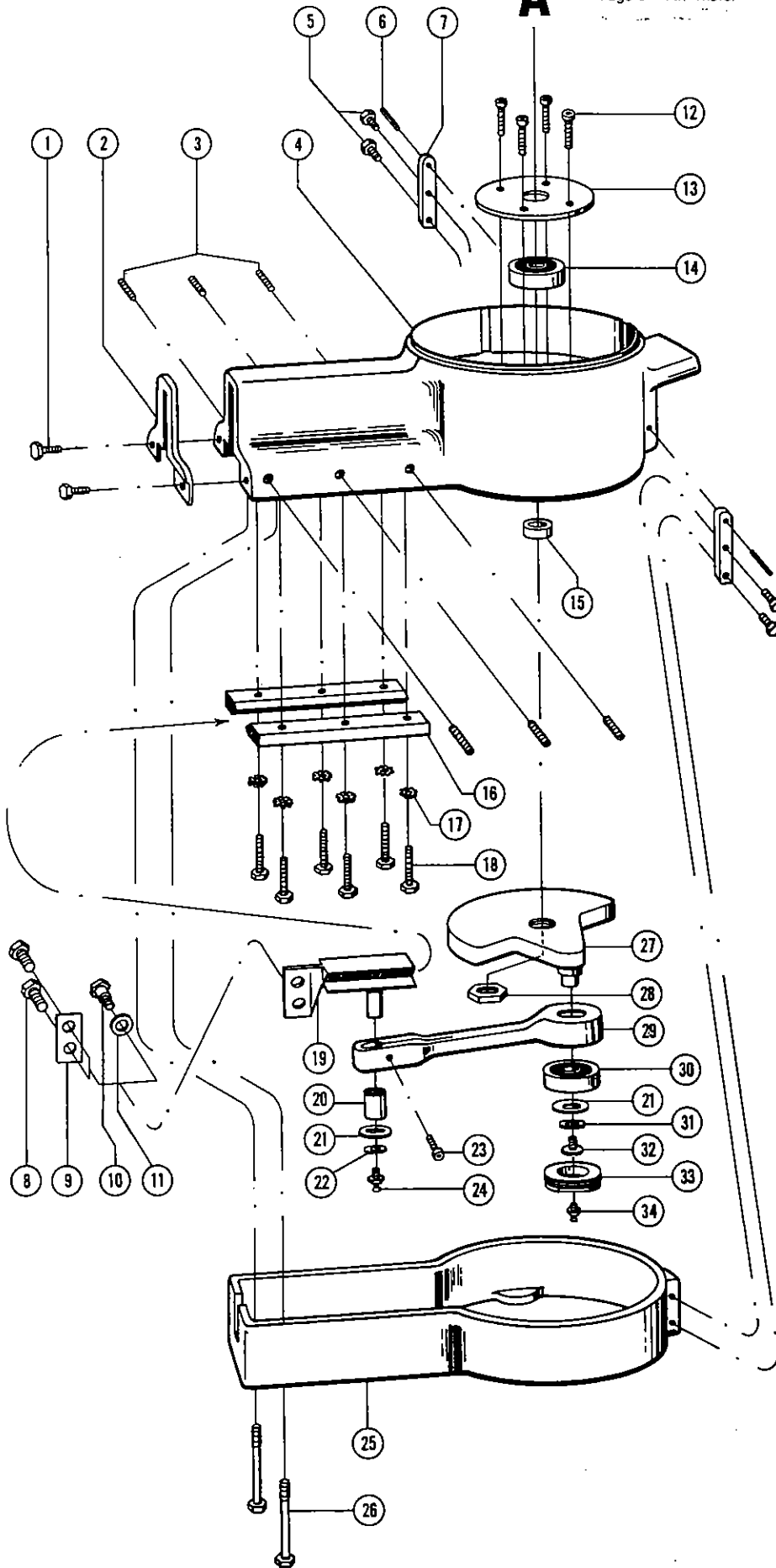
Model 100 or 100-A Steel Yoke Complete 7107559

Model 250 or 275 Saw Yoke Complete 7103159

Ref. No.	Description	Quantity used if more than 1	Prime No.
1	Hex Head Screw *-2	4	9901493
2	Saw Guide - Front *-1		8505700
3	Wear Plate - Front *-1		7104200
4	Hex Head Screw	4	9902705
5	Blade Cover		7104400
6	Spacer	2	7104300
7	Elastic Stop Nut	4	9901731
8	Elastic Stop Nut *-2	4	9902308
9	Model 100 Yoke		
	Steel		7107500
	Aluminum		7104100
10	Hex Head Screws	3	9901443
11	Washer	3	9901937
12	Shim *-2	as req.	7032300
13	Hex Head Screw		9901542
14	Extension Saw Guide *-1		7103300
15	Dowel Pin	2	9902129
16	Saw Guide - Rear *-1		7033100
17	Wear Plate - Rear *-1		7033000
18	Shim -Rear Saw Guide *-3		7104593
19	Handle		6098198
20	Model 250 & 275 Saw Yoke		7103100
21	Splash Guard		7103200
22	Washer	2	9901935
23	Hex Head Screw	2	9901408
24	Model 100 & 100-A Saw Blade (4 TPI) *-5		6101500
25	Model 250 & 275 Blunted Saw Blade *-5		6102760
26	Model 250 & 275 Saw Blade		6102600

*-No. Denotes recommended spare part & number recommended.

A



MAIN FRAME

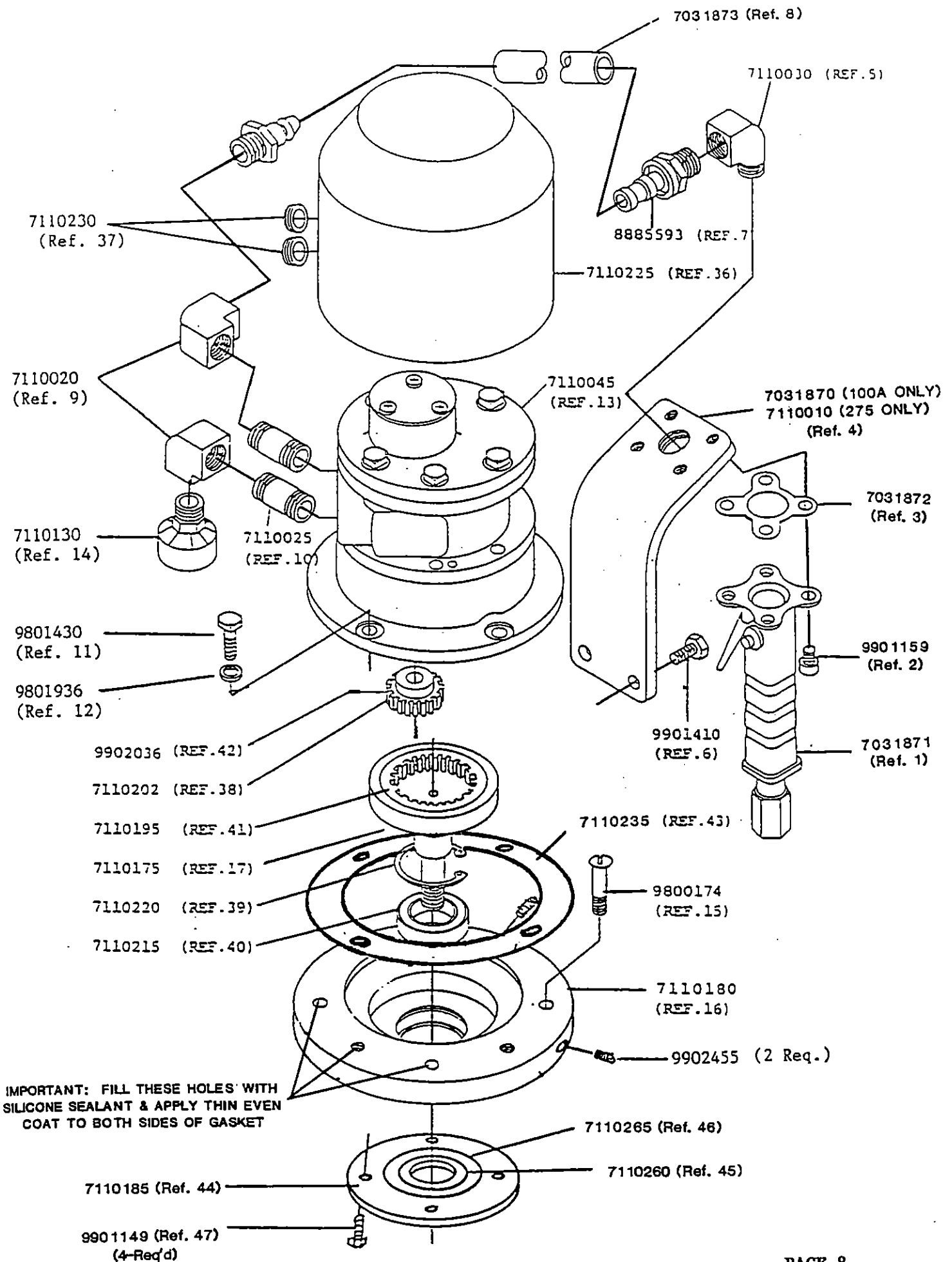
Ref. No.	Description	Quantity used if more than 1	Prime No.
1	Screw	2	9902702
2	Front Cover		7100900
3	Socket Head Set Screw	6	9901924
4	Main Frame Sub-Assy (includes #2)		7100155
5	Screw	4	9901410
6	Roll Pin	2	9902050
7	Bracket	2	7100700
8	Saw Bolt (Model 250 & 275) *-2	2	7025600
9	Saw Bolt Strap (Model 250 & 275) *-1		7033400
10	Saw Bolt (Model 100 & 100-A) *-1		7101800
11	Washer *-4		9901937
12	Screw	4	9901151
13	Bottom Bearing Retainer		7100500
14	Bearing *-1		7100693
15	Spacing Washer		7027300
16	Guide Plate *-2		
	Brass	2	7025100
17	Shake-proof Washer *-6		9901955
18	Hex Head Screw *-6	6	9902766
19	Crosshead *-1		7025400
20	Bushing *-1		8512900
21	Washer	2	7027600
22	Washer		9901935
23	Screw		9901300
24	Grease Fitting - Crosshead *-1		7100893
25	Bottom Cover		7100200
26	Bottom Cover Bolt	2	7101700
27	Crank		7026900
28	Lock Nut *-1		7027400
29	Connecting Rod S. A. (Includes #20 & 23)		7027950
30	Bearing *-1		1058093
31	Washer		9901975
32	Screw		7027500
33	Bearing Cap		7028000
34	Grease Fitting *-1		8512793

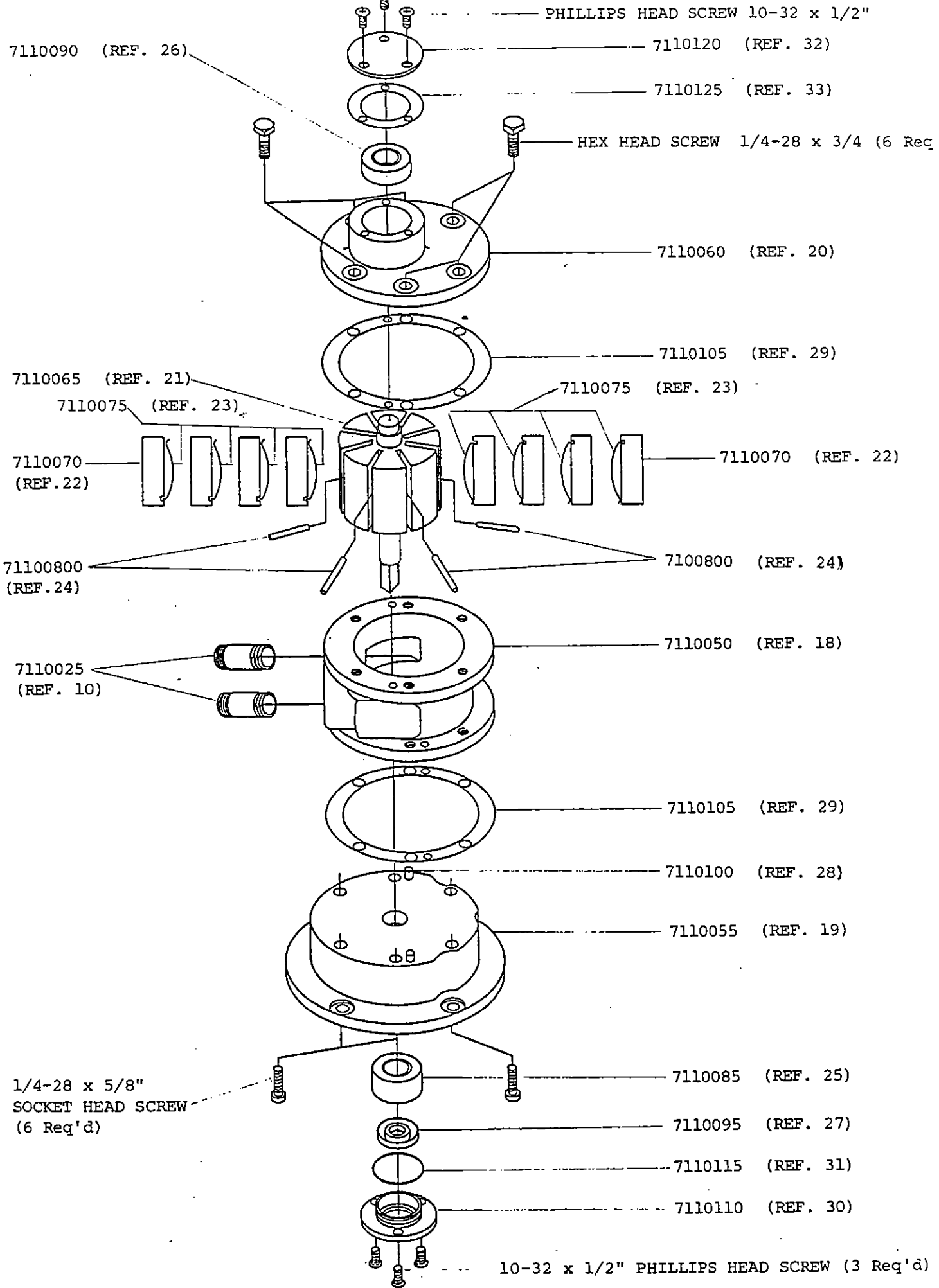
*-No. Denotes recommended spare part & number recommended.

PARTS LIST

7110045 AIR MOTOR & GEAR REDUCTION

Ref.No.	Part No.	Description	Qty Req'd (if more than one)
1	7031871	Air Handle Complete Assembly	
2	9901159	Socket Head Cap Screw	4
3	7031872	Gasket	
4	7110010	Handle Support	
5	7110030	90 Degree Street Elbow	2
6	9901410	Hex Head Cap Screw	2
7	8885593	Push Lok Coupling	2
8	7031873	Hose 1/4" x 8" Length	
9	7110020	90 Degree Street Elbow	
10	7110025	Pipe Nipple 1/4" x 2"	
11	9801430	Hex Head Cap Screw	4
12	9801936	Lockwasher 5/16"	4
13	7110045	Air Motor Complete Assy	
14	7110130	Muffler	
15	9800174	Round Head Screw	4
16	7110180	Adaptor Plate	
17	7110175	Crank Shaft Complete (includes 7110195)	
18	7110050	Body	
19	7110055	End Plate - Drive	
20	7110060	End Plate - Dead	
21	7110065	Rotor Assembly	
22	7110070	Rotor Vanes	8
23	7110075	Spring	8
24	7110080	Push Pin	4
25	7110085	Bearing - Drive End	
26	7110090	Bearing - Dead End	
27	7110095	Shaft Seal	
28	7110100	Dowel Pin	4
29	7110105	Body Gasket	2
30	7110110	End Cap - Drive End	
31	7110115	"O" Ring	
32	7110120	End Cap - Dead End	
33	7110125	Gasket - End Cap	
34	7110130	Muffler Assembly	
35	7110135	Felt	
36	7110225	Shroud	
37	7110230	Grommet	
38	7110202	Pinion	
39	7110220	Retaining Ring	
40	7110215	Bearing	
41	7110195	Internal Gear	
42	9902036	Roll Pin	2
43	7110235	Gasket between Ref #16 & #13	
44	7110185	Plate	
45	7110260	"O" Ring	
46	7110265	"O" Ring	
47	9901149	Screw	

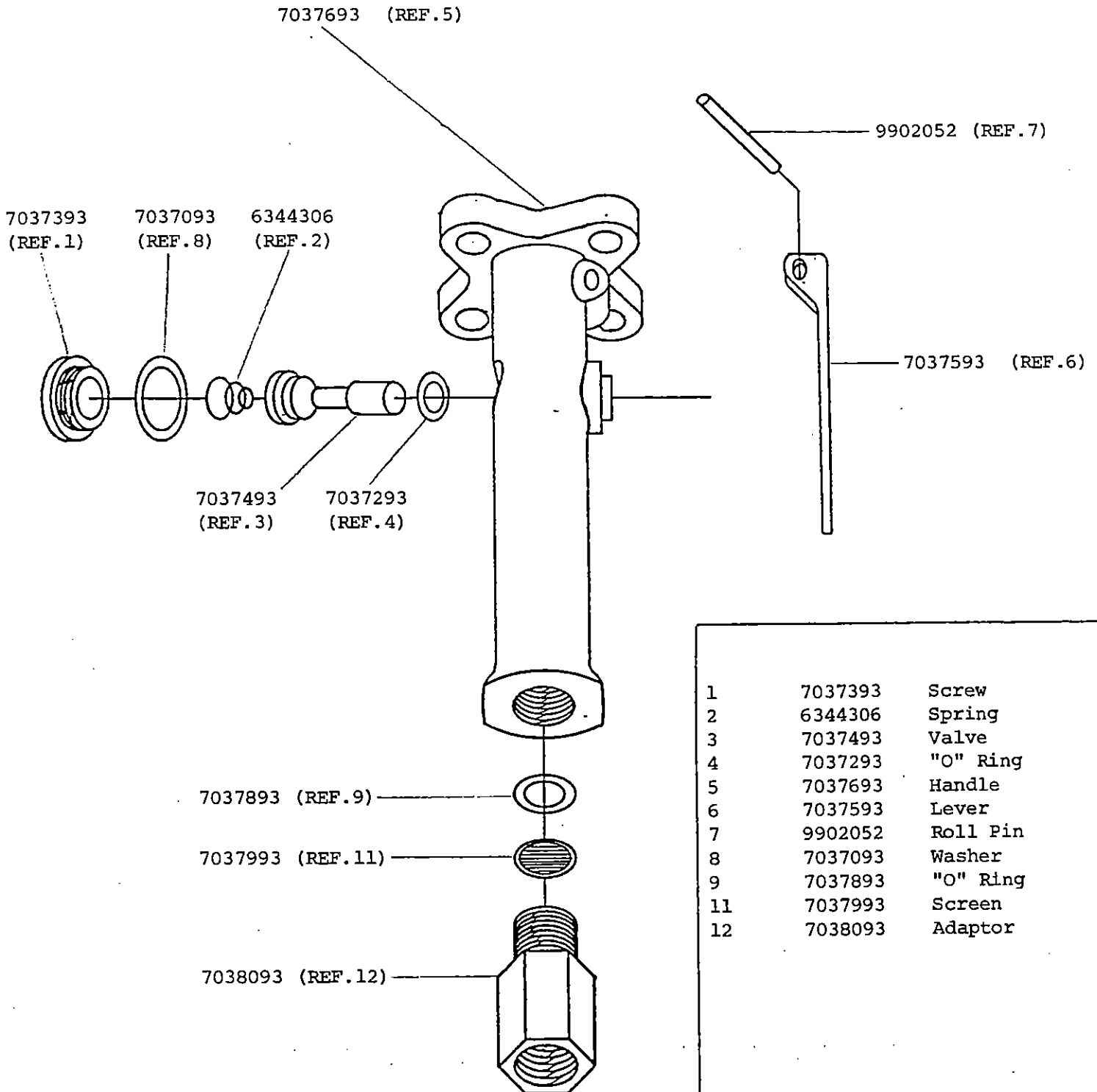




#7031871 HANDLE ASSEMBLY FOR

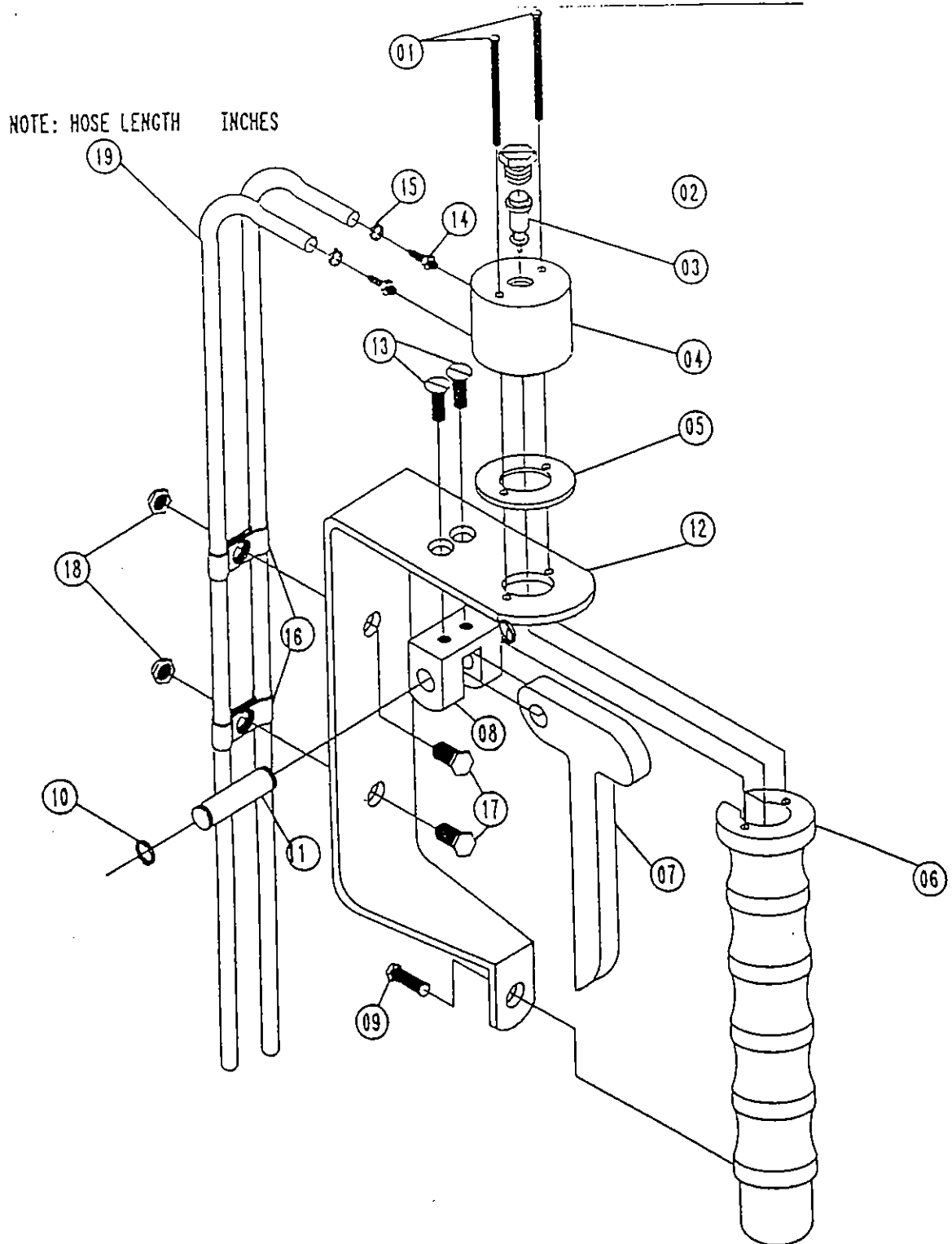
AIR "275" BBO & MODEL "100A"

CARCASS SPLITTER



1	7037393	Screw
2	6344306	Spring
3	7037493	Valve
4	7037293	"O" Ring
5	7037693	Handle
6	7037593	Lever
7	9902052	Roll Pin
8	7037093	Washer
9	7037893	"O" Ring
11	7037993	Screen
12	7038093	Adaptor

Nr. 9753655 DUAL CONTROL HANDLE ASSEMBLY



AIR MODEL "275" B.B.O.

Nr. 9753655 DUAL CONTROL HANDLE ASSY

FOR THE FOLLOWING B&D MACHINES:

AIR MODEL "275" BEEF BRISKET OPENER SAW

MODEL "E-22" HYDRAULIC PIG FOOT CUTTER

MODEL "E-24" HYDRAULIC HOCK CUTTER

MODEL "E-23" HYDRAULIC SHEEP/GOAT HORN CUTTER

19		1/4 O.D. PARFLEX HOSE	6523391
18	2	10-32 STOP NUT	9901750
17	2	10-32 X 5/8 HEX HD CAP SCREW	9902763
16	2	WIRE CLIP	6288025
15	2	OTIKIR CLAMP	9739906
14	2	BRASS HOSE FITTING	9739907
13	2	10-32 X 3/8 SLOTTED FLT HD SCREW	9900396
12	1	FINGER GUARD	9753547
11	1	PIN	6044500
10	2	RETAINING RING	1208193
9	1	1/4-20 HEX HD CAP SCREW	9901408
8	1	PIVOT BRACKET	9753543
7	1	LEVER	9753541
6	1	MODULAR HANDLE - 6"	9753506
5	1	SPACER	9753528
4	1	VALVE BODY	9753520
3	1	VALVE CARTRIDGE	9739940
2	1	PLUG	9739943
1	2	10-32 X 1 1/2 HEX HD CAP SCREW	9902769
DET. NO.	NO. REQD.	DESCRIPTION	PART NO.

NOTE: ITEMS 1-13 ARE
INCLUDED IN HANDLE
ASSY #9753650

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