

PARTS & SERVICE MANUAL



MERCURY "340" DEHIDER

**INSTALLATION
OPERATING
MAINTENANCE
PARTS LIST
PARTS DIAGRAMS**



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SERVICE INFORMATION

Throughout the information described in this service booklet, there are important notations requiring special attention by the technician(s) performing the tasks. They are: WARNING, CAUTION and NOTE.

- (1) **WARNING** Will describe conditions that exist or potentially exist that can cause injury or death.
- (2) **CAUTION** Will describe conditions that exist or potentially exist that can cause injury or equipment failure.
- (3) NOTE Will describe a specific helpful procedure.

Best & Donovan realizes that there may be many different approaches to proper maintenance, assembly, disassembly and/or adjustment procedures. The following procedures described in this service booklet are to be used AS A GUIDELINE and whether they are used in their entirety or partially, is not a substitute for proper mechanical knowledge.

**ONLY PERSONNEL WITH PROPER MECHANICAL BACKGROUND
SHOULD ATTEMPT ANY SERVICE PROCEDURE.**

IMPORTANT

INSPECT YOUR 3&D MERCURY "340" DEHIDER for possible damage as soon as you receive it. If you discover any damage, notify carrier's agent at once and request him to inspect the damage, also notify Best & Donovan. Check the packing list against the contents to be sure you have all parts.

If no damage is found, place the Mercury "340" on a table or bench for connection of hoses, lubrication and test operation before placing it into service on the "kill" floor.

NOTE: CAREFULLY READ THE FOLLOWING INSTRUCTIONS BEFORE ATTEMPTING TO ASSEMBLE & OPERATE YOUR MERCURY "340".

WARNING

ALWAYS EXERCISE CARE WHEN OPERATING OR PERFORMING MAINTENANCE, REPAIRS AND ADJUSTMENTS. Always disconnect air connector before attempting to work on the tool. Never allow any part of your person or any other person to be in the path of the blade.

AIR PRESSURE OF 100-110 POUNDS PER SQUARE INCH (6.8 - 7.6 BAR) @ 18 CFM is required for maximum efficiency. A regulator should be installed to maintain this limit. Pipe and fittings on main supply line should be a minimum of 3/8 inch. To maintain the best efficiency of this tool, the supply hose should have a free flow area of .03750 square inch minimum.

WARNING

IF THE DEHIDER BLADES BECOME DAMAGED DURING USE, FURTHER DAMAGE OR INJURY TO THE OPERATOR OR OTHERS MAY OCCUR WITH CONTINUED USE. REPLACE WITH CORRECT BLADES IMMEDIATELY.

INSTALLATION

Connect #6337893 - 1/2" (12.7mm) Air Filter/Regulator/Lubricator unit to air line. Bowl must be kept filled with a #10 weight food grade oil at all times. Adjust air pressure to a range of 100-110 PSI 18 CFM (6.8-7.6 BAR)

Attach air hose to dehider. With dehider running, adjust oil for a rate of one oil drop every 5 or 6 seconds, or 3/4 to a full bowl for 8 hours.

MAINTENANCE

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) your Mercury "340" Dehider.

BEFORE DISASSEMBLING A TOOL, the area around the work bench should be clean and free from metal chips and other foreign matter. You may find it helpful to spread a clean white cloth on the work bench to prevent the loss of small parts.

IT IS IMPORTANT that all parts are thoroughly cleaned and inspected before re-assembling. The slightest particles of dirt can create premature mechanical failures.

MAINTENANCE

"KILL" FLOOR

WARNING

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1. Using grease gun #2548100, put 10 shots of #2111100 grease in the #6361201 grease fitting in the #6387327 body and in the #6361201 grease fitting in #6387330 cap at the beginning of each work day or 8 hour period.
2. Grease the #6361201 grease fitting in the #6387379 gear case at shift start, and each break, using 6-8 shots of grease.
3. When changing the #6387350 blades, pack grease around the #6387505 pinion and inside of #6387410 body.

CAUTION

★ NEVER LET A WET OR DIRTY
KNIFE SET OVERNIGHT WITHOUT
CLEANING...PRECISION PARTS
WILL BE RUINED.

END OF WORKDAY — Mon., Weds., Fri.

FILL AIR INTAKE AT MOTOR WITH OIL AND BLOW
THROUGH DEHIDER WITH AIR HOSE. R E P E A T.

IMPORTANT NOTE:

Use only clear bearing grease. NEVER USE GRAPHITE OR WHITE GREASE. B&D #2111100 waterproof grease is fully approved by the U.S.D.A. It will not emulsify or melt out in the sterilizers.

End Of Workday -

- (1) Before disassembly of the tool, flush head area with HOT water stream while running dehider.

WARNING

USE ADEQUATE CARE WHEN HANDLING DEHIDER WHILE FREE-RUNNING BLADES.

WARNING

DISCONNECT AIR LINE FROM TOOL BEFORE DISASSEMBLY.

- (2) Remove #9801161 Screw (Ref. 17) from 6387420 Shaft (Ref. 8) located in #6387405 Cap (Ref. 1).

NOTE: THIS IS THE ONLY SCREW THAT JOINS THE CAP & BODY.

CAUTION

HANDLE BLADE (S) VERY CAREFULLY WHILE REMOVING FROM TOOL.

Slide cap up and away from the mating area in the body. When the #6387350 Blades have been separated by approximately 1/2" (12.70mm), the cap with one blade can be parted from the tool.

- (3) Remove and clean blades.
- (4) Inspect for tissue or hair residue on or around #6387505 Pinion and in the grease cavity of cap or body.
- (5) Remove 4 #9900337 Screws (Ref. 20) and gently lift off shields #6387485 (Ref. 15). TAKE CARE NOT TO BEND OR DAMAGE SHIELDS. Inspect shields for burrs or other damage that would cause build-up of hair & tissue, and replace if necessary.
- (6) Inverting cap or body will cause #6387430 Blade Gear and Blade Gear bearing to fall free. CLEAN WITH SOLVENT.
- (7) NOTE: TAKE CARE NOT TO LOSE OR DAMAGE THRUST BEARING #6387425 (Ref. #7) and Thrust Bearing Races #6387424 (Ref. 6) when inverting Cap & Body. Bearings and races should be replaced at the slightest indication of wear.
- (8) Clean grease cavities of cap and body thoroughly.
- (9) Repack grease cavities with #2111100 B&D Packers Grease and reassemble in reverse order of disassembly procedures.

NOTE: WHEN INSPECTING GEAR BUSHINGS, THE INSIDE DIAMETER MUST BE MAINTAINED TO PRECISE TOLERANCE — REPLACE WITH NEW BUSHINGS IF ABOVE SERVICE LIMIT.

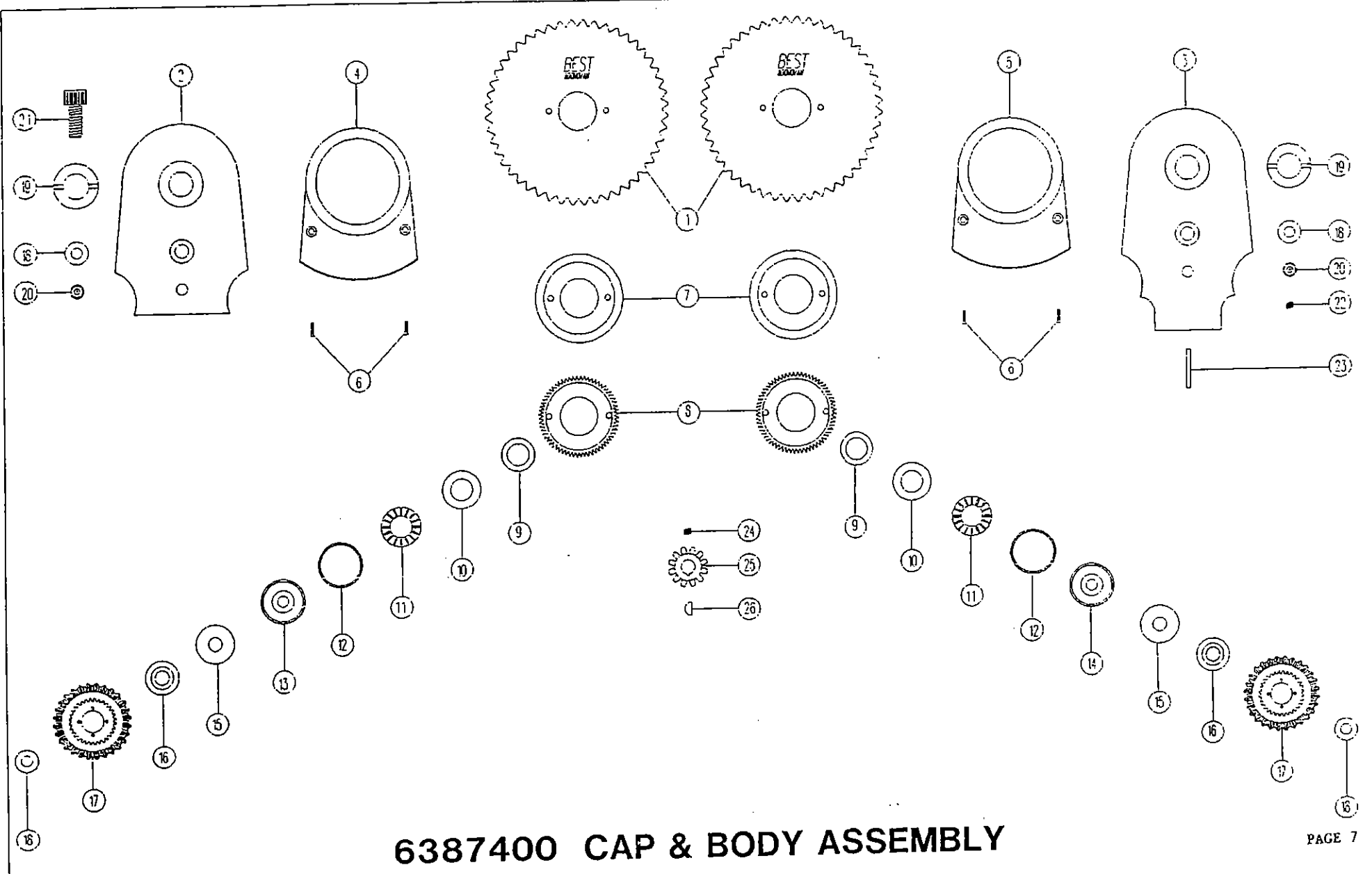
#6387448 - Bushing - Knife Gear	I.D. .5030 Service Limit
#6387465 - Bushing - Mid Gear	I.D. .3152 Service Limit

NOTE: When replacing bushings use proper arbor tool to maintain correct I.D. of bushing.

#6387448 Bushing Knife Gear	uses #6387440 Arbor Tool
#6387465 Bushing Mid Gear	uses #6387466 Arbor Tool

PARTS LIST
 NR. 6387400 CAP & BODY ASSEMBLY COMPLETE

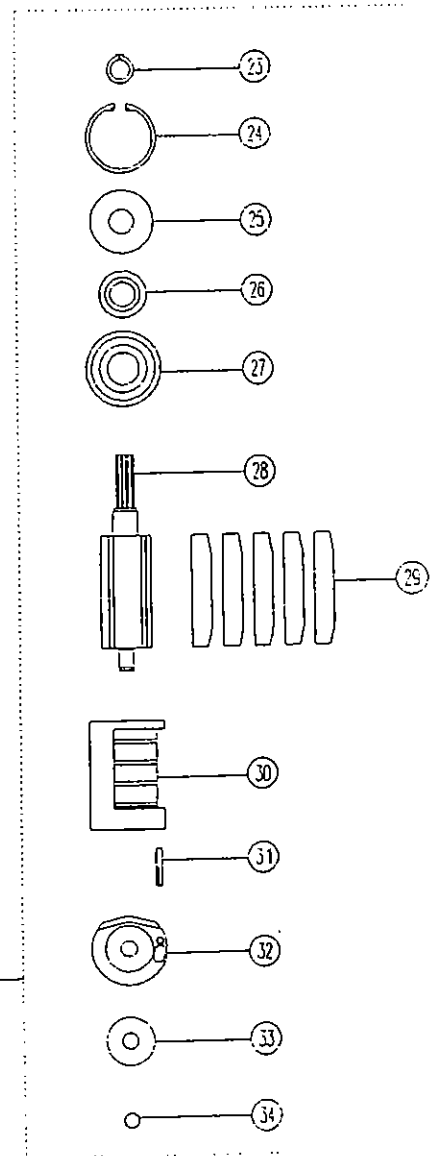
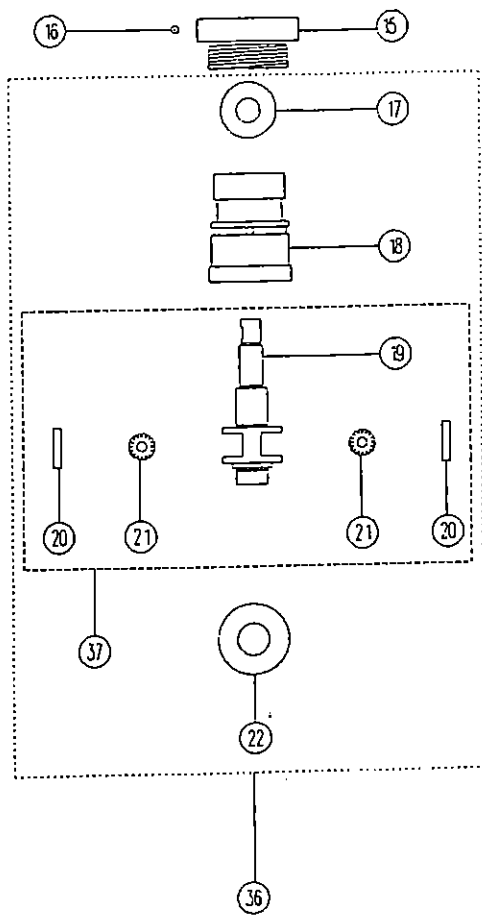
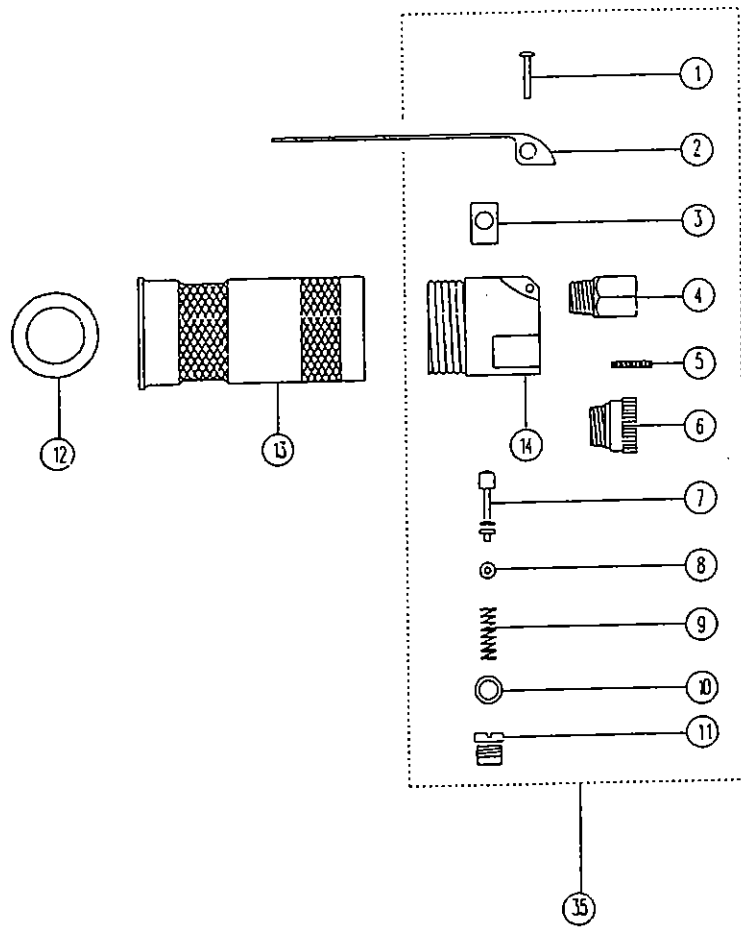
REF.	PART NO.	DESCRIPTION	NO. REQ'D
1	6387350	BLADE SET - STANDARD	1
2	6387405	CAP	1
3	6387410	BODY	1
4	6387483	SHIELD, CAP	1
5	6387485	SHIELD, BODY	1
6	6387487	SCREW, SHIELD 4-48 x 1/4	4
7	6387432	PLATE - KNIFE GEAR	2
8	6387430	GEAR ASSEMBLY - KNIFE	2
9	6387448	BUSHING - KNIFE GEAR	2
10	6387424	THRUST BEARING RACE	2
11	6387425	THRUST BEARING	2
12	6387423	THRUST BEARING SEAL	2
13	6387420	SHAFT, KNIFE GEAR - CAP	1
	6387415	SHAFT, KNIFE GEAR - BODY	1
15	6387490	SHAFT, MID GEAR	2
16	6387465	BUSHING, MID GEAR	2
17	6387450	MID GEAR ASSEMBLY	2
18	6387373	SCREW, MID GEAR SHAFT	4
19	6387495	NUT, KNIFE GEAR SHAFT	2
20	6361201	GREASE FITTING	2
21	9801161	SCREW, COUPLING 1/4-28 x 3/4	1
22	9901849	SET SCREW 8-32 x 3/8	1
23	6387396	JOINT PIN	1
24	9901845	SET SCREW 8-32 x 1/8	1
25	6387505	PINION	1
26	6376000	WOODRUFF KEY	1
	6387466	ARBOR TOOL MID GEAR ASSEMBLY BUSHING	
	6387440	ARBOR TOOL BLADE GEAR BEARING	
	6387496	TOOL - SHAFT NUT	
	6369600	GREASE NOZZLE - ADAPTOR	



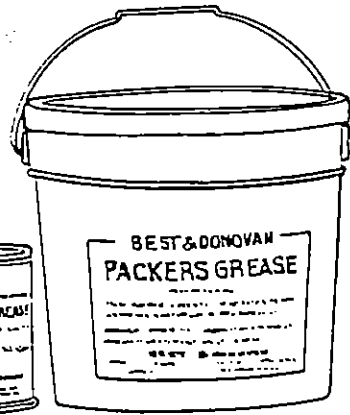
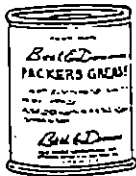
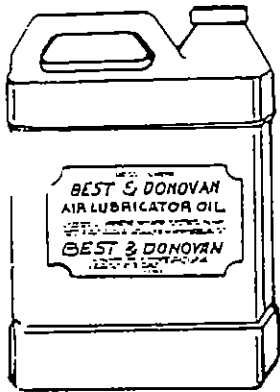
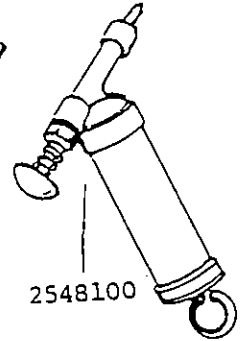
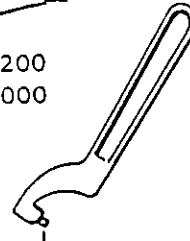
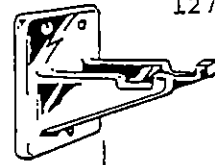
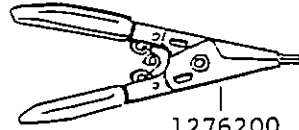
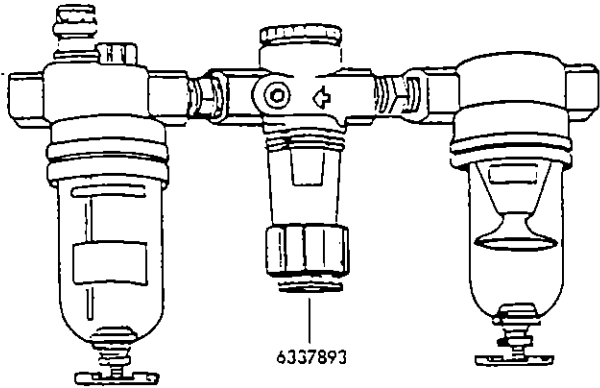
6387400 CAP & BODY ASSEMBLY

PARTS LIST
NR. 6387500 AIR MOTOR COMPLETE

REF.	PART NO.	DESCRIPTION	NO. REQ'D
1	6306100	RIVET	1
2	6387600	THROTTLE LEVER	1
3	6387597	VALVE BUSHING	1
4	6367700	AIR STRAINER	1
5	9901852	SET SCREW	1
6	6349053	MUFFLER	1
7	6387592	VALVE STEM	1
8	6387593	O RING	1
9	6367400	SPRING	1
10	6046093	SEAL RING	1
11	6387595	SEAL PLUG	1
12	6387566	THRUST INSERT	1
13	6387525	MOTOR CASE	1
14	6387590	VALVE BODY	1
15	6387530	RETAINING COLLAR	1
16	6387531	GREASE FITTING	1
17	6363900	BEARING	1
18	6387540	GEAR CASE	1
19	6387550	GEAR CAGE	1
20	6363200	IDLER SHAFT	2
21	6387547	IDLER GEAR	2
22	6363400	BEARING	1
23	6364000	RETAINING RING	1
24	6387555	RETAINING RING	1
25	6387559	BEARING	1
26	6387560	SPACER, LOWER END PLATE	1
27	6387565	LOWER END PLATE	1
28	6387570	ROTOR	1
29	6387312	ROTOR VANE	5
30	6387575	CYLINDER	1
31	6365501	CYLINDER PIN	1
32	6387580	UPPER END PLATE	1
33	6365800	BEARING	1
34	6387585	RETAINING RING	1
35	6387520	VALVE BODY ASSEMBLY	1
36	6387510	GEAR CASE ASSEMBLY	1
37	6387545	GEAR CAGE ASSEMBLY	1
38	6387515	AIR MOTOR SUB ASSEMBLY	1
	6387605	SPLIT STEEL RING	
	6387610	SLEEVE, ROTOR DISASSEMBLY TOOL	



6387500 AIR MOTOR COMPLETE



2111400

2111100

2111200

2110607
(3/16)

2110507
(7/64)

SPECIAL TOOLS

- 1 6387466 Arbor Tool Mid Gear Assembly Bushing
- 1 6387440 Arbor Tool Blade Gear Bearing
- 1 6387605 Split Steel Ring Disassembly Tool
- 1 6387610 Sleeve Rotor Disassembly Tool
- 1 6387496 Tool Shaft Nuc



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