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Jiffy 70 Series Power Ice Drill OPERATING MANUAL/PARTS GUIDE

This manual contains operating and safety instructions for the Jiffy 70 Series Power Ice Drill. To receive the greatest possible performance and satisfaction from your Jiffy Power Ice Drill, and to reduce the risk of injury, it is important that you read and understand the assembly, operating, maintenance, and safety instructions before using your Jiffy Power Ice Drill. Contact your Jiffy dealer or Feldmann Engineering if you do not understand any of the instructions in this manual.

As with any power tool, safety precautions must be observed with the Jiffy Power Ice Drill to reduce the risk of personal injury. Careless or improper use may cause serious injury and/or damage to your Jiffy Power Ice Drill.

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MANUFACTURER'S One Year Limited Warranty (30 days for Commercial and/or Rental Use)

Feldmann Engineering & Manufacturing Co., Inc. warrants the Jiffy Power Ice Drill to be made of first quality materials and workmanship and will, at its option, repair or replace any drill part thereof found to be defective in such materials and workmanship if returned to the factory, prepaid within one year from the date of purchase by the original purchaser. Inbound and outbound transportation charges are paid by the purchaser. Feldmann Engineering assumes no responsibility for damage caused by misuse, careless handling, or where repairs were made or attempted by an unauthorized person. The engine and its operation are covered by the engine manufacturer's warranty. For engine service or parts, contact your local Tecumseh service outlet, phone **1-800-558-5402**, or visit Tecumseh web [site www.tecumsehpower.com](http://www.tecumsehpower.com)

SERVICE & REPAIR INFORMATION

For engine adjustments, repairs or warranty service not covered in this manual, contact your nearest AUTHORIZED TECUMSEH SERVICE OUTLET. They are listed in your telephone book yellow pages under "Engines, Gasoline". If you cannot find an Authorized Tecumseh Service Outlet near you, call

1-800-558-5402 to locate the Tecumseh outlets nearest you, or visit the Tecumseh web site at www.tecumsehpower.com. When requesting warranty service, Jiffy ice drill proof of purchase establishes the date of sale and the start of the warranty period.

For non-engine related adjustments, repairs or warranty service contact your nearest Authorized Jiffy Service Center listed in the Jiffy Service Directory or call (920) 467-6167 for locations near you, or visit our web site at www.jiffyonice.com.

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Other products include: TurfVent Lawn Aeration Equipment, BADGER Earth Augers

GENERAL SAFETY PRECAUTIONS

To receive the greatest possible performance and satisfaction from your Jiffy Power Ice Drill, and to reduce the risk of injury, it is important that you read and understand the assembly, operating, maintenance, and safety instructions before using your Jiffy Power Ice Drill. Contact your Jiffy dealer or Feldmann Engineering if you do not understand any of the instructions in this manual.

Your Jiffy Power Ice Drill is designed and manufactured to provide safe and dependable operation, provided it is operated in accordance with the following safety precautions.

Preventing accidents is the responsibility of every power equipment operator. The safety precautions identified in this manual must be fully understood and followed by every operator of this Jiffy Power Ice Drill. Review the safety precautions frequently and never take chances.

Take the time to become familiar with your Jiffy Power Ice Drill and its components, then operate it in a safe manner. Study the appropriate sections of this manual for the description of the controls and function of your Jiffy Power Ice Drill. Teach the safety precautions to all persons who use your Jiffy Power Ice Drill.

- + This symbol points out important safety instructions, which, if not followed, could endanger your personal safety. Read and follow all instructions in this manual and any other provided with this equipment.
- + Avoid mishandling and abuse of your Jiffy Power Ice Drill. Handle it with care, as any rough treatment can cause damage to your Jiffy Power Ice Drill or it can cause a malfunction.
- + Should the engine stop while drilling, do not attempt to restart it while the drill bit is in the hole.
- + Never attempt to adjust or repair your Jiffy Power Ice Drill while the engine is running. Avoid possible injury from moving parts by first stopping the engine.
- + Never modify your Jiffy Power Ice Drill in any way. Only Jiffy ice drills and accessories supplied by Feldmann Engineering or expressly approved by Feldmann Engineering for use with your Jiffy Power Ice Drill are authorized for connection and use. The use of non-Jiffy or unauthorized components may cause damage or injury.
- + Check the tightness of screws, nuts, and bolts at regular intervals and re-tighten if necessary.
- + Do not wear loose clothing while operating your Jiffy Power Ice Drill and keep all clothes and parts of the body (hands, feet, etc.) clear of the rotating ice drill assembly to avoid being drawn into the boring drill.
- + By wearing cleated or spiked shoes, or ice creepers when using your Jiffy Power Ice Drill, you will find it easier to control the rotational torque as you drill holes in the ice.
- + Do not allow children to operate your Jiffy Power Ice Drill at any time. Do not allow adults to operate your Jiffy Power Ice Drill without proper operational instructions, including all safety precautions.
- + Do not lend or rent your Jiffy Power Ice Drill without providing the owner's manual. Be sure that anyone who uses your Jiffy Power Ice Drill understands the information contained in this manual.
- + Give your complete and undivided attention to the proper operation of your Jiffy Power Ice Drill. To operate it properly, you must be in good physical condition and mental health and not under the influence of any substance (alcohol, drugs, etc.) which might impair vision, dexterity, or judgment.
- + Using your Jiffy Power Ice Drill may be strenuous. If you have any condition that may be aggravated by strenuous activity,

check with your doctor before operating your Jiffy Power Ice Drill.

- + Do not operate it when you are fatigued. Tiredness may result in loss of control of your Jiffy Power Ice Drill.
- + Do not carry your Jiffy Power Ice Drill or leave it unattended while the engine is running.
- + Close the gas tank cap's air vent when the engine is stopped. Drain the gasoline from the tank before storing or transporting your Jiffy Power Ice Drill.
- + When transporting your Jiffy Power Ice Drill in a vehicle, properly secure it to prevent turnover, spillage and damage.
- + Gasoline is flammable and caution must be used when handling or storing it.
- + Do not fill the fuel tank while your Jiffy Power Ice Drill is running, if the engine is hot, or when your Jiffy Power Ice Drill is in an enclosed area.
- + Always fill the fuel tank outdoors.

IMPORTANT INFORMATION

For new, detailed starting instructions and other important information, read the Tecumseh Operator's Manual #181-1274-14 for TM049XA engines

PRE-USE PROCEDURE

Before using your Jiffy Power Ice Drill to drill holes in ice, follow this procedure to prepare for proper and correct use.

- Find, read, and understand Jiffy and Tecumseh owners and operators manuals. Contact your Jiffy dealer or Feldmann Engineering if you do not understand any of the instructions in this manual.
- Assemble the components of your Jiffy Power Ice Drill as indicated in the Assembly of Drill section of this manual. Leave the Jiffy Blade Protector on the drill assembly and make certain it is securely fastened.
- Go outside and mix fuel as directed in the To Mix Oil and Gasoline, Fuel Mix Chart section of this manual. Put some fuel into the tank, but no more than a quarter of a tankful.
- Re-read and follow the Starting Instructions section of this manual, and also the Tecumseh Operator's manual. Letting the Jiffy Power Ice Drill rest in an upright position on the Jiffy Blade Protector, carefully start it to verify the satisfactory operation of the engine.
- After allowing the Jiffy Power Ice Drill's engine to idle for a minute or so, turn it off as indicated in the Stopping Instructions section of this manual. Drain the remaining gasoline from the fuel tank back into your pre-mix gas can. Re-start your Jiffy Power Ice Drill and allow it to run until the fuel is gone. Close the vent on the gas tank, and your Jiffy Power Ice Drill is now ready for transporting or storage.
- If the engine does not run satisfactorily, or if you feel it needs an adjustment of some kind, contact your nearest authorized Tecumseh warranty station for the proper repairs. Do not attempt to adjust the engine operation yourself, only an authorized Tecumseh service person may make adjustments to your Jiffy Power Ice Drill's engine without invalidating the engine warranty.

- DO NOT RETURN your Jiffy Power Ice Drill TO THE RETAILER THAT SOLD IT TO YOU. THEY ARE NOT AUTHORIZED TO PROVIDE REPAIRS OR WARRANTY REPLACEMENT unless they are an authorized Jiffy or Tecumseh warranty station. If you have any questions concerning the authorization of a service station, contact Tecumseh or Feldmann Engineering as indicated in the Service & Repair Information section of this manual.

ASSEMBLY

For units with “New” Jiffy E-Z Connect™ Collar

Connect drill assembly to powerhead by sliding E-Z Connect™ Collar down and pulling clevis pin out. Then slide drill assembly onto output shaft.

Reinsert clevis pin through drill assembly and output shaft, then slide E-Z Connect™ Collar up to lock pin in place.

Note: Do not remove clevis pin from collar tether.



OIL & FUEL RECOMMENDATIONS

TO OPERATE YOUR DRILL, YOU WILL NEED THE FOLLOWING:

CLEAN, HIGH QUALITY 2 CYCLE OIL. (DO NOT USE MULTI-VISCOSITY OILS). USE OF JIFFY SPECIALLY FORMULATED 2-CYCLE OIL IS RECOMMENDED.

FRESH, CLEAN, UNLEADED REGULAR, UNLEADED PREMIUM, OR REFORMULATED FUEL ONLY. (SEE TECUMSEH ENGINE MANUAL FOR SPECIFICATIONS).

NOTE: DO NOT USE LEADED FUEL.

FUEL MUST BE FRESH AND CLEAN. NEVER USE FUEL LEFT OVER FROM LAST SEASON OR STORED FOR LONG PERIODS. DO NOT USE FUEL CONTAINING METHANOL (WOOD ALCOHOL).

NOTE: THE USE OF ALTERNATIVE FUELS SUCH AS E85 OR E20 ARE NOT RECOMMENDED FOR USE IN TECUMSEH ENGINES. ALTERNATIVE FUELS WITH HIGH ALCOHOL CONTENT CAN CAUSE HARD STARTING, POOR PERFORMANCE, AND INTERNAL ENGINE DAMAGE. NEVER MIX OR STORE GASOLINE/OIL MIXTURE INDOORS OR IN ENCLOSED, POORLY VENTILATED ENCLOSURES, WHERE FUEL FUMES MAY REACH AN OPEN FLAME, SPARK OR PILOT LIGHT AS ON A FURNACE, WATER HEATER, CLOTHES DRYER, ETC.

DAMAGE AND/OR PERFORMANCE PROBLEMS THAT WILL OCCUR FROM USE OF FUELS, OTHER THAN THOSE LISTED IN THE ENGINE MANUAL WILL NOT BE CONSIDERED WARRANTY.

FUELING

- Gasoline vapor pressure may build up inside gas tank of a two cycle engine depending on weather conditions, venting system of the tank, and the fuel used. To reduce the risk of injury from escaping gas fumes and vapor, remove the gas cap on your drill slowly to release pressure build-up.
- Fill fuel tank with fuel mixture specified in the preceding “Oil and Fuel Recommendations”. Never use stale gasoline left over from last season or stored for long periods.

+ NEVER FILL FUEL TANK INDOORS, WHILE ENGINE IS RUNNING, OR WHILE ENGINE IS HOT.

+ NEVER FILL FUEL TANK COMPLETELY. FILL TANK TO ½ INCH BELOW BOTTOM OF FILLER NECK TO PROVIDE SPACE FOR FUEL EXPANSION. WIPE ANY FUEL SPILLAGE FROM ENGINE AND EQUIPMENT BEFORE STARTING ENGINE.

TO MIX OIL AND GASOLINE

- Mix a brand name gasoline and quality two-cycle engine oil in an approved, clean, safety-type container. Inferior quality gasoline or oil may damage the engine, sealing rings, fuel lines or fuel tank.
- Add recommended oil to gasoline per FUEL MIX CHART. DO NOT MIX DIRECTLY IN ENGINE FUEL TANK. Pour oil into container first then add gasoline.
- Securely screw cap on container and shake vigorously. Once mixed, oil and gasoline should not separate.

FUEL MIX CHART		MIXTURE 40:1	
U.S.		METRIC	
Gas	Oil To Be Added	Petrol	Oil To Be Added
1 Gal.	3.2 oz.	4 Liters	100 ml

CHECK THE FOLLOWING BEFORE STARTING YOUR DRILL

- Be sure spark plug wire is ATTACHED to spark plug.
- Be sure ignition switch is in the ON Position.
- Be sure air vent screw on fuel tank can is OPEN.
- Inspect the machine for proper condition and operation, paying special attention to the throttle rod, on/off switch, and drilling assembly.

+ TO REDUCE THE RISK OF INJURY FROM THE TURNING DRILL ASSEMBLY OR FROM REACTIVE FORCES, THE THROTTLE ROD AND RELATED MECHANISM MUST MOVE FREELY AND RETURN IMMEDIATELY TO THE IDLE POSITION WHEN IT IS RELEASED.

+ NEVER OPERATE YOUR DRILL IF IT HAS BEEN DAMAGED, IMPROPERLY ADJUSTED OR NOT COMPLETELY AND SECURELY ASSEMBLED.

STARTING INSTRUCTIONS---ALSO SEE TECUMSEH OPERATING MANUAL

- + NEVER RUN ENGINE INDOORS OR IN ENCLOSED, POORLY VENTILATED AREAS. ENGINE EXHAUST CONTAINS CARBON MONOXIDE, AN ODORLESS AND DEADLY GAS.
- + TO REDUCE THE RISK OF INJURY FROM REACTIVE FORCES, THE OPERATOR MUST HAVE A FIRM GRIP ON THE MACHINE AND A GOOD FOOHOLD BEFORE STARTING THE DRILL AND OPENING THE THROTTLE.
- + KEEP HANDS, FEET, HAIR AND LOOSE CLOTHING AWAY FROM ANY MOVING PARTS ON ENGINE AND EQUIPMENT.
- + WARNING – TEMPERATURE OF MUFFLER AND NEARBY AREAS MAY EXCEED 150° F (65° C) AVOID THESE AREAS.

1. Place left hand on spark plug side of handle, right hand on recoil starter handle, and tip of drill point on ice. **DO NOT** advance or depress throttle when starting engine for this will prematurely engage clutch and drill assembly and could result in damage or injury. Always maintain firm grip and good balance when operating your drill.

IMPORTANT INFORMATION

For new, detailed starting instructions and other important information, read the Tecumseh Operator's Manual #181-1274-14 for TM049XA engines

2. **CAUTION: DO NOT** start engine without pushing in yellow compression relief valve first. Failure to do so may result in bruised fingers and accidental equipment movement which could result in minor or moderate injury. Follow Tecumseh Operator Manual for detailed instructions.
3. Grasp **STARTER HANDLE** (see figure 1) and pull slowly until you feel the rewind engage, then give the handle a brisk, strong pull. **DO NOT** wrap the starter rope around you hand. **DO NOT** let starter rope snap back, rather guide it slowly into the housing to allow proper rewind.

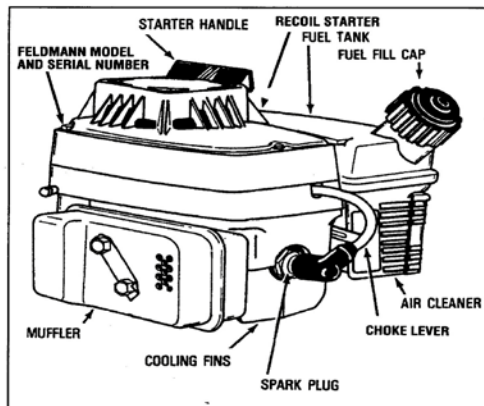


Figure 1

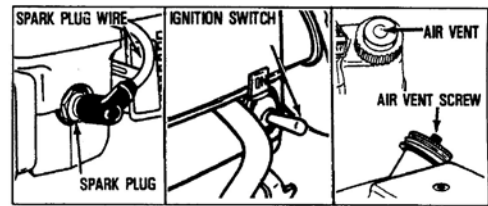


Figure 2

OPERATION/STOPPING INSTRUCTIONS

NOTE: To minimize water splash, back-off throttle when the drill breaks thru ice, then raise drill slowly.

NOTE: The clutch slips when the drill is overloaded, when this happens, raise complete unit slightly to ease load.

NOTE: Remove blade protector from drill assembly prior to drilling. Reinstall when drilling is complete.

1. After engine starts, immediately move choke lever to center "Warm-Up" position until engine warms up. Allow sufficient time for engine warm-up. If engine stops running, verify fuel cap air vent is open.
2. After starting, but prior to throttle advancement to engage clutch, grip left hand handle firmly. The right hand should grip handle on opposite side and the right thumb should control throttle rod mechanism.
3. Engage throttle slowly until cutting teeth and drill point have entered hole completely, then advance throttle.

NOTE: During extreme weather conditions, when air temperature is -15° F, (-26° C)F or colder, the grease in the transmission may stiffen which may limit unit performance. This is only a temporary situation and will improve with warmer temperatures.

4. After hole is drilled, slowly raise unit from the hole and move engine stop switch to OFF position.
5. After engine is stopped, close FUEL CAP air vent.

NOTE: If drilling additional holes, carry unit in upright position by handles only, to next location and proceed with normal starting and operating instructions.

6. When all holes have been drilled, lay unit down, resting on wing handles. Disconnect drill assembly from powerhead by sliding E-Z Connect™ Collar down and pulling clevis pin from drill assembly. Do not remove pin from collar tether. Slip drill assembly off of engine output shaft, then re-insert clevis into drill assembly and slide E-Z Connect™ Collar up to cover clevis pin.
7. Position powerhead with the filler neck of the fuel tank in the upper-most position to prevent fuel spillage.
8. Reattach blade protector to drill assembly to prevent damage to the blade teeth and point.

TRANSPORTING AND STORAGE

1. Disconnect spark plug wire from spark plug and keep it away from spark plug.
2. Make sure all fuel is drained from fuel tank, fuel cap is screwed on tight, and screw vent on cap is tightly closed.
3. Always transport and store powerhead in an upright position and make sure powerhead and drill assembly are properly anchored to prevent damage.
4. Never store powerhead with fuel in tank indoors or in enclosed, poorly ventilated enclosures, where fuel fumes may reach an open flame, spark or pilot light as on a furnace, water heater, clothes dryer, etc.

MAINTENANCE AND ADJUSTMENTS

- + **WARNING – TEMPERATURE OF MUFFLER AND NEARBY AREAS MAY EXCEED 150° F (65° C). AVOID THESE AREAS TO PREVENT BURNS.**

Check SPARK PLUG, periodically.

1. Before removing plug, wipe dirt and debris from spark plug base.

2. Remove and inspect spark plug for carbon build up and set gap at .030".
3. Replace spark plug if electrodes are pitted, burned, or porcelain is cracked. For replacement use: Autolite 2976, Champion RCJ-6Y, or equivalent.
4. Check electrode gap with wire feeler gauge and set gap at .030 if necessary.
5. Install spark plug in engine and tighten to 15 foot pounds torque or tighten securely.

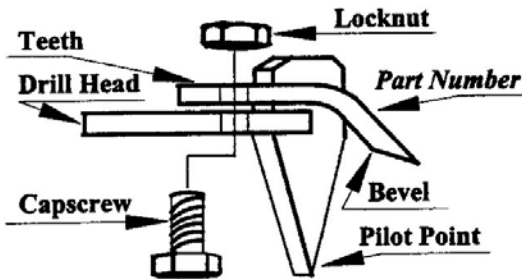
NOTE: If "gasohol" has been used, read special instructions found in the Tecumseh engine manual or contact a Tecumseh Service Center.

SERVICE & REPAIR INFORMATION

For **engine** adjustments, repairs or warranty service not covered in this manual, contact your nearest **AUTHORIZED TECUMSEH SERVICE OUTLET**. They are listed in your telephone book yellow pages under "Engines, Gasoline". If you cannot find an Authorized Tecumseh Service Outlet near you, call **1-800-558-5402** to locate the Tecumseh outlets nearest you. When requesting warranty service, Jiffy ice drill proof of purchase establishes the date of sale and the start of the warranty period.

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REPLACEMENT TEETH – Improper cutting may be due to dull or damaged drill teeth or drill point. Maintain sharp blade teeth and point. Preserve the original factory cutting angles when sharpening your drill. File blade teeth and use a disk sander to sharpen the point. For professional service see your Jiffy service center. Only genuine Jiffy blade teeth are to be used.



AIR CLEANER – Never run an engine without the complete air cleaner installed. For maintenance of the air cleaner see air cleaner maintenance section in the Tecumseh engine manual.

BLADE TEETH REPLACEMENT INSTRUCTIONS – When replacing blade teeth, the beveled edge of teeth and the head of the capscrews should face the ice. The stamped part number on the teeth should face away from the ice, as shown in the diagram. Use two 7/16" wrenches to remove the capscrews and to retighten after replacement. **CAUTION – THE BLADE TEETH ARE SHARP AND SHOULD BE HANDLED CAREFULLY TO AVOID FLESH CUTS OR INJURY.**

CARBURETOR – For carburetor adjustment see your nearest **AUTHORIZED TECUMSEH SERVICE OUTLET**.

ENGINE SPEED – **NEVER TAMPER WITH ENGINE GOVERNOR, OVERSPEEDING THE ENGINE CAN BE DANGEROUS AND MAY CAUSE PERSONAL INJURY OR DAMAGE TO UNIT.**

TAMPERING WITH ENGINE GOVERNOR WILL VOID ENGINE WARRANTY.

For engine adjustment or repairs not covered in this section see the Service & Repair Information section below.

IF ENGINE IS NOT TO BE USED FOR 30 DAYS OR MORE, PREPARE AS FOLLOWS:

FUEL SYSTEM – Remove FUEL from CARBURETOR and FUEL TANK to prevent formation of gum deposits. **DRAIN FUEL FROM COOL ENGINE INTO AN APPROVED CONTAINER OUTDOORS, AWAY FROM OPEN FLAME. DO NOT SMOKE.** Then start and run engine until fuel remaining in tank is consumed and engine stops.

IMPORTANT INFORMATION

For new, detailed starting instructions and other important information, read the Tecumseh Operator's Manual #181-1274-14 for TM049XA engines

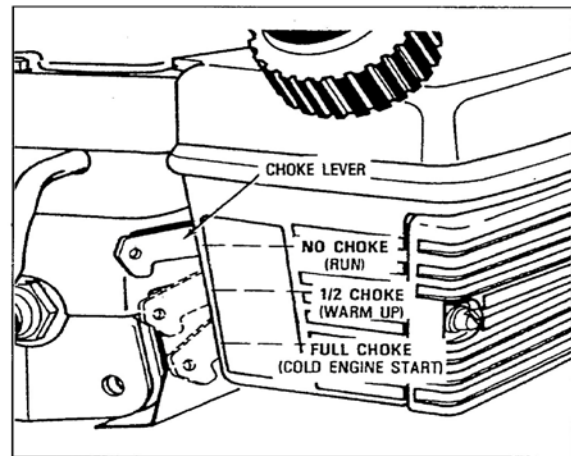
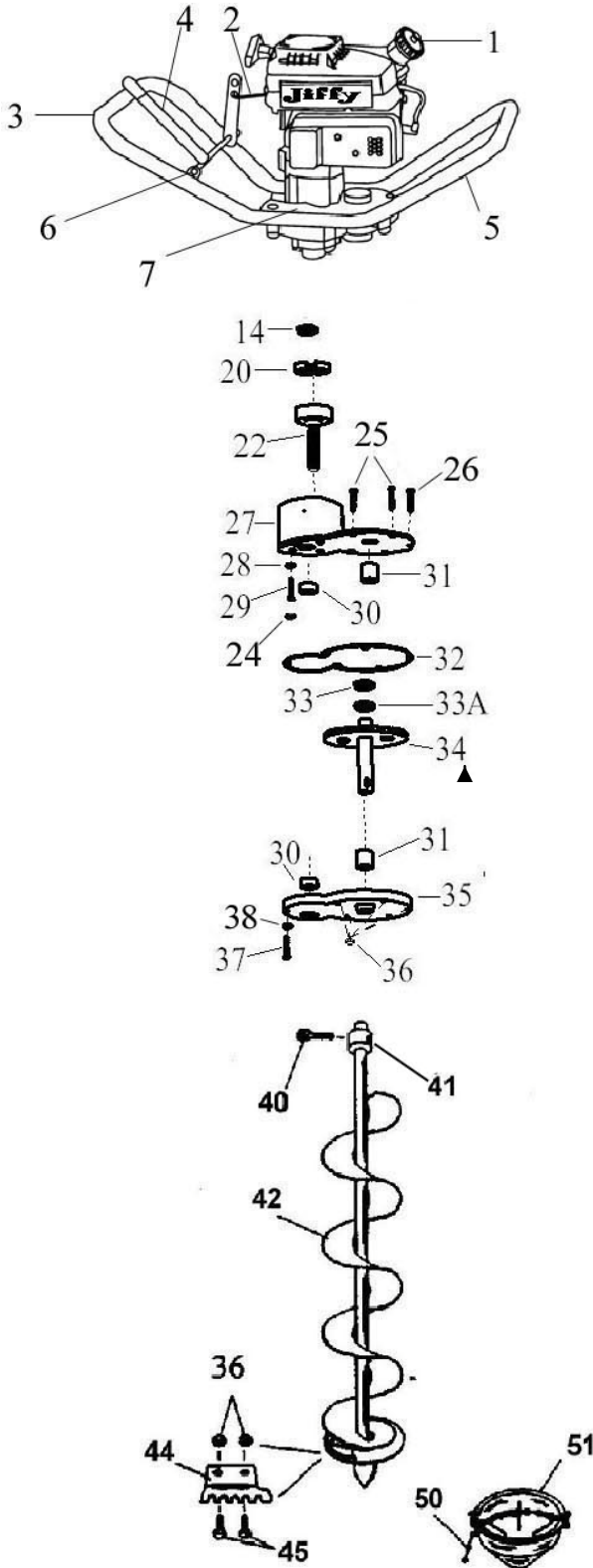


Figure 3

JIFFY® POWER ICE DRILL 70 SERIES PARTS LIST

Includes:

Model 75-arcticBLAST™, Model 76 WHITE LIGHTning™,
Model 77 LEGEND LIGHTning XT™, STEALTH STX™
Standard, Universal, and XT Drill Assemblies



REF. #	PART #	DESCRIPTION	#USED
1	3033	Fuel Tank Cap	1
2	2780	Throttle Wire	1
3	2773	Wing Handle Half w/Ears (For Model 75 & 76)	1
"	3255	" " " (For Model 77 & 79)	1
4	2775	Throttle Control Assembly	1
5	2783	Wing Handle Half (For Model 75 & 76)	1
"	3256	" " " (For Model 77 & 79)	1
6	2512	Push Nut	2
7	3908	Wing Handle Plate	1
14	2768	Clutch Driver Washer	1
20	2383	Clutch Driver	1
22	3681	Clutch Drum/Pinion Gear	1
24	2704	Vinyl Cap	2
25	3351	Hex Capscrew	4
26	1683	Hex Capscrew	1
27	2893	Upper Gear Housing (For Model 75, 76)	1
"	3602	" " " (For Model 77, 79)	1
28	1119	Lockwasher	4
29	1996	Hex Capscrew	4
30	1600	Ball Bearing	2
31	1640	Bronze Bearing	2
32	1637	Gasket	1
33	1670	Flatwasher	1
33A	3634	Teflon Thrust Washer	1
34	1645	Main Gear & Shaft Assembly	1
35	2894	Lower Gear Housing (For Model 75, 76)	1
"	3601	" " " (For Model 77, 79)	1
36	2336	Locknut	5
38	1688	Lockwasher	1
37	1684	Hex Capscrew	1
40	3972	Clevis Pin	1
41	3971	E-Z Connect™ Collar	1
42	2952	8" Standard Ice Drill Assy. (Model 75 only)	1
"	3730-XT	6" Universal XT Ice Drill Assembly	1
"	3731	8" Standard Universal Ice Drill Assembly	1
"	3731-XT	8" Universal XT Ice Drill Assembly	1
"	3732	9" Standard Universal Ice Drill Assembly	1
"	3732-XT	9" Universal XT Ice Drill Assembly	1
36	2336	Locknut	2
44	3536	6" Replaceable Ripper Blade	1
"	3538	8" Replaceable Ripper Blade	1
"	3539	9" Replaceable Ripper Blade	1
45	2355	Hex Capscrew	2
50	1866	Blade Protector Strap	1
51	3301	Blade Protector for 6" Ice Drill	1
"	2120	Blade Protector for 8" Ice Drill	1
"	2121	Blade Protector for 9" Ice Drill	1

Replacement Blade Kit for Jiffy Stealth STX Drills Only

3586-STX	6" Replacement Stealth STX Blade Kit	1
3588-STX	8" Replacement Stealth STX Blade Kit	1
3589-STX	9" Replacement Stealth STX Blade Kit	1