MT3S

(TYPE 2)

Portable Magnetic Drilling Machine
by Jancy Engineering Co.
for use with Annular Cutters and Twist Drills

⚠WARNING

BEFORE USE, BE SURE EVERYONE USING THIS MACHINE READS AND UNDERSTANDS ALL SAFETY AND OPERATING INSTRUCTIONS IN THIS MANUAL.

EYE PROTECTION REQUIRED

HEARING PROTECTION REQUIRED

NEVER PLACE FINGERS NEAR CUTTING AREA OR MACHINE ARBOR

LINE VOLTAGE PRESENT

BEWARE OF ROTATING MACHINE PARTS

DIMENSIONS AND SPECIFICATIONS	
Height	21-1/4" (539mm)
Width	10" (256mm)
Length	15" (381mm)
Weight	58 lbs (26.3 Kg)
Drill Motor	1400 Watts 50-60 Hz Single Phase 70 - 170 / 140 - 340 RPM
Magnetic Dead Lift	4000 psi (19000N) on 1" (25mm) plate
Magnet Base Dimensions	4-15/16" (109mm) X 8-5/8" (219mm)
Spindle Taper	#3 Morse Taper
Max. Slugger® Cutter Diameter	2-1/2" (64mm)
Slugger® Max. Depth of Cut	2" (50mm)
Max. Twist Drill Diameter	1-1/4" (32mm)
Total Motor Travel	8-3/8" (212mm)
C/L Pilot to Magnet Face	2" (50mm)

IMPORTANT SAFETY INSTRUCTIONS

⚠WARNING

When using electric tools, basic safety precautions should always be followed to reduce risk of fire, electric shock and personal injury.

READ AND SAVE ALL INSTRUCTIONS FOR FUTURE REFERENCE

Before use, be sure everyone using this machine reads and thoroughly understands this manual as well as any labels or warning attached to this machine.

1. Keep Work Area Clean
   Cluttered areas and benches invite injuries.
2. Consider Work Area Environment
   Do not expose power tools to rain.
   Do not use power tools in damp or wet locations.
   Keep work areas well lit.
   Do not use tool in presence of flammable liquids or gases.
3. Guard Against Electric Shock
   Prevent body contact with grounded surfaces. For example: pipes, radiators, ranges, refrigerator enclosures.
4. Keep Children Away
   Do not let visitors contact tool or extension cord.
   All visitors should be kept away from work area.
5. Store Idle Tools
   When not in use, tools should be stored in dry and high or locked-up place, out of reach of children.
6. Do Not Force Tool
   It will do the job better and safer at the rate for which it was intended.
7. Use Right Tool
   Do not force small tool or attachment to do the job of a heavy-duty tool.
   Do not use tool for purpose not intended - for example; do not use a circular saw for cutting tree limbs or logs.
8. Dress Properly
   Do not wear loose clothing or jewelry, they can be caught in moving parts.
   Rubber gloves and non-skid footwear are recommended when working outdoors.
   Wear protective hair covering to contain long hair.
9. Use Safety Glasses
   Also use face or dust mask if cutting operation is dusty.
10. Do Not Abuse Electrical Cord
    Never carry tool by cord or yank it to disconnect from receptacle.
    Keep cord from heat, oil and sharp edges.
11. Secure Work
    Use clamps or a vise to hold work. It is safer than using your hand and it frees both hands to operate tool.
12. Do Not Overreach
    Keep proper footing and balance at all times.
13. Maintain Tools With Care
    Keep tools sharp and clean for better and safer performance.
    Follow instructions for lubricating and changing accessories.
    Inspect tool cords periodically and if damaged, have repaired by authorized service facility.
    Inspect extension cords periodically and replace if damaged.
    Keep handles dry, clean and free from oil and grease.
14. Disconnect Tools
    Unplug when not in use, before servicing and when changing accessories, such as blades, bits and cutters.
15. Remove Adjusting Keys and Wrenches
    Form habit of checking to see that keys and adjusting wrenches are removed from tool before turning it on.
16. Avoid Unintentional Starting
    Do not carry plugged-in tool with fingers on switches.
    Be sure switches are off when plugging in.

17. Outdoor Use Extension Cords
    When tool is used outdoors, use only extension cords intended for use outdoors and so marked.
18. Stay Alert (Do not use when taking medications that may cause drowsiness.)
    Watch what you are doing. Use common sense. Do not operate tool when you are tired.
19. Check Damaged Parts
    Before further use of the tool, a guard or other part that is damaged should be carefully checked to determine that it operate properly and perform its intended function. Check for alignment of moving parts, binding of moving parts, breakage of parts, mounting and any other conditions that may effect its operation. A guard or other part that is damaged should be properly repaired or replaced by an authorized service center.
    Do not use this tool if switches do not turn it on and off.
    Have defective switches replaced by authorized service center.

⚠WARNING: SPECIAL INSTRUCTIONS

1. Read and follow operator's manual thoroughly. If you cannot locate your operator's manual FAX Jancy Engineering at (1)(319) 391-2323 for an additional FREE copy.
2. DO NOT touch rotating cutter or parts.
3. Always stop machine completely and unplug from power source before changing cutters, cleaning clips, refilling lubrication or performing adjustments.
4. Never wear loose clothing or gloves when working near cutting area or machine arbor.
5. Always wear eye protection. Any tool can shatter.
6. Always use safety chain or strap provided with machine.
7. Always use proper tooling, keep cutters securely fastened.
8. DO NOT use dull or broken cutters.
9. Beware of ejected slugs at end of cut, they become HOT during the cut.
10. Magnet will not hold properly on thin materials under 3/8" (9.5mm), rough or dirty surfaces.
11. Keep all safety features functioning and working properly.
12. Keep bottom of magnet burr free and clear of chips and debris.
13. To reduce the risk of electrical shock, DO NOT remove or alter electrical panels or use machine in damp areas.
14. Use only authorized service centers for repairs.

Grounding Instructions

⚠Warning! READ ALL INSTRUCTIONS

MT3S drilling machine must be connected to "protected power source" which is properly grounded.

Improperly connecting the grounding wire can result in the risk of electrical shock. Check with a qualified electrician if you are in doubt as to whether the outlet is properly grounded. Do not modify the plug provided with the tool. Never remove the grounding prong from the plug. Do not use tool if the cord or plug is damaged, have it repaired before using. If the plug will not fit the outlet, have a proper outlet installed by a qualified electrician. The MT3S must be plugged into an appropriate outlet, properly installed and grounded in accordance with all codes and ordinances. If in doubt of proper grounding, call a qualified electrician.

SAVE THESE INSTRUCTIONS

Extension Cords

MINIMUM GAGE FOR CORD SETS				
	Total Length of Cord in Feet			
VOLTS	(1 Foot = 0.3048m)			
120V	0-25	26-50	51-100	101-150
240V	0-50	51-100	101-200	201-300
Amperage Rating		AWG		
More Than	Not More Than			
0-6	18	16	16	14
6-10	18	16	14	12
10-12	16	16	14	12
12-16	14	12	Not Recommended	

Use only 3-wire extension cords that have 3-prong grounding type plugs and 3-pole receptacles that accept the tool's plug. Replace or repair damaged cords. Make sure your extension cord is in good condition. When using an extension cord, be sure to use one heavy enough to carry the current your product will draw. An undersized cord will cause a drop in line voltage resulting in loss of power and overheating. See table for the correct size to use depending on cord length and nameplate amperage rating. If in doubt, use the next heavier gage. The smaller the gage number, the heavier the cord.

Operating Instructions(Before You Begin)

Remove all contents from the packing and inspect to ensure no damage was incurred during shipping. Your MT3S package should include the following:

Caution: Be sure your MT3S is disconnected from power source before making adjustments.
Assemble (3) spoke handles **#407** to **MT3S** feed hub **#401**,
NOTE: Feed hub assembly is mounted on the right side of machine frame. If necessary, it can be reversed for operating from the left side of the machine. Remove screw **#404** and hub lock **#405** from frame. Remove hub pinion shaft assembly **#401** from right side of frame and insert it into left side of frame. Replace screw **#404** and hub lock **#405** into frame: tighten securely.

What you should know before you drill

1. Type of material to be drilled, Brinnell or Rockwell hardness, material thickness and position should all be determined to ensure proper selection of Jancy cutting tools, RPM, coolant and drilling time.
2. Remove any excessive mill scale or rust from surface to be drilled
3. When drilling thin materials, Jancy recommends placing a steel plate under the work piece and **MT3S** magnet area to increase magnetic holding force. (**WARNING: SPECIAL INSTRUCTIONS, #10**)
4. Material that has been flame cut may become heat treated and therefore difficult to drill. Avoid drilling near such areas whenever possible.
5. Special cutter lubrications are available for using the **MT3S** and annular cutters in the horizontal position. Consult you distributor for more information.

⚠**Caution: Do not drill on material where welding is also simultaneously being performed. Drilling machine will be damaged.**

⚠**Caution: Powering drilling machine from generator without proper surge protection device between generator and drilling machine maybe cause damage to Printed Circuit Board in machine .**

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Machine features:

- MT3S incorporates a forward / reverse motor. Motor rotation is controlled by using of the three position rotary switch **#713** located on the control panel.
  CCW - Counterclockwise
  O - Neutral
  CW - Clockwise.
- MT3S v2 now has a Swivel Base to help fine hole location once magnet has been energized.
- MT3S v2 machine has electronic speed control. During operation electronic display located on the side panel plate displays Rpm's currently performed by the machine spindle.
- MT3S v2 has a vibration switch that stops the motor after sudden vibration.
- MT3S v2 has a demagnetization feature.
- Every machine is equipped with a cutter protection shield, which is designed to protect the operator from chip nest rotating with the arbor.

Getting Started

⚠**Caution: Disconnect you MT3S from power source before performing maintenance, making adjustments or changing cutting tools.**

Installing twist drills: Select desired #3 Morse Taper drill (1-1/4" maximum diameter), align drill tang in machine spindle, seat drill taper firmly in **MT3S** spindle socket.
Removing twist drills: Remove tapered shank drills from **MT3S** spindle by inserting the supplied drill drift in the **MT3S** spindle access slots, using a soft face hammer tap drift until becomes free from spindle socket.
Installing annular cutter: Place annular cutter arbor into **MT3S** spindle socket. Insert correct pilot pin in annular cutter, place cutter in arbor body aligning flats on shank with set screws in arbor body, tighten socket set screws securely.
Selecting direction of rotation: The **MT3S** incorporates a forward / reverse motor, motor rotation is controlled by using the three-position rotary selector switch **#713** located on the control panel.
L = Counterclockwise rotation, **R** = Clockwise rotation, **O** = Neutral
Counterclockwise (reverse) rotation can be performed only when green button (Motor ON) Part **#712** is pressed and held down.

⚠**Caution: Never move selector switch #713 when motor is running, doing so will damage the MT3S drilling machine.**
Selecting motor speed: Determine the correct cutting speed for the application, move gear box shift selector on motor by lifting outward and repositioning lever.

⚠**Caution: Never change gears with motor running, doing so can result in personal injury or damage to your MT3S drilling machine.**
Motor RPM can be finely adjusted using the thumb wheel located on top of the **USA-3** motor. Rotating the thumb wheel clockwise decreases motor RPM; rotating the thumb wheel counterclockwise increases motor RPM.

Ready to make the cut

1. The surface you are working on should be clean and level, free from rust, scale, dirt and chips.
2. When using the annular cutter arbor fill coolant reservoir with a water-soluble coolant.
3. Position the **MT3S** on the work piece.
4. Lower cutter / drill to surface of materiel. When using cutter toolholder, coolant flow starts when pilot pin is depressed. Lifting pilot pin off work surface will stop coolant flow.

⚠**Caution**: **Always use safety chain.**

The Safety chain is only intended to secure drill to work piece in case of emergency, such as loss of power to magnetic base.

Safety chain must be secured to machine and the work piece being drilled.

5. After switching Magnet switch **#714** the power supply to **MAGNET ON** position, magnetic base is activated; this is indicated with a green LED light on the panel. At the same time electronic speed display shows "000" this means that the machine is ready to use. Make sure machine is firmly secured to work piece.
6. The MT3S version 2 has the added feature of a swivel base to further help locate drilling position once magnet has been energized. Insert the s10 Hex Wrench into Cam Nut **#115**, located in lower, rear base of frame. Turn wrench counterclockwise (to the left) to loosen cam, this will allow frame to move. Once drill or cutter have been properly located over mark retighten Cam Nut rotating wrench clockwise (to the right) to lock frame into position.

⚠**Caution**: **Never operate machine while swivel base is unlocked.**

7. It is absolutely essential to use a cutter protection shield/guard during cutting operation. The shield should be located at the bottom of the slide ways with a quick action-locking lever. Installation and removal of the shield should be done with the cutter located in its most low position above the work piece. It might be necessary to remove excess chip nest during cutting large diameter holes (over 2") especially if they are deep (over 1"). In that case with draw the cutter from hole as much as accumulated chip nest will allow, **turn off motor**, remove the shield, remove all chip nest, install the shield again, restart motor and continue cutting work.
8. Depress the **Green MOTOR ON** switch to start drill motor. Than using the correct rpm's can be selected by adjusting Thumbwheel (#70 of motor diagram) located at the top of the motor housing. Electronic speed display will show current speed of the arbor. To find most suitable speed for selected cutter please use a table located on the side panel plate. If the recommended speed can not be reached by adjusting the potentiometer, one has to move the mechanical gear selector into second location.
9. Using the feed handles start a cut by applying pressure until the cutting tool has established an external groove in material. Apply steady pressure through the remainder of cut. **(Note: Do not peck drill when using annular cutters, annular cutters are designed to evacuate chips during the cut.)** Slugs produced by annular cutters should be expelled on the down stroke.
10. The **MT3S** drilling machine is equipped with an electronic overload system, designed to protect the operator, the tool and the electric motor. During drilling special attention should be given to the red overload LED lamp located at the top front motor housing. Short flashes of the LED lamp are permitted. Extended overload of the motor of the motor is indicated when the LED lamp is on continuously and in order to prevent the motor from overheating it will be stopped automatically. To restart motor operator needs to press **motor STOP**, red button (**Part #712**) and than restart motor again by pressing **motor ON**, green button. **When using large diameter cutters it is recommended to allow several minutes between holes to allow motor to cool down.**

ATTENTION: Vibration switch can also be responsible for stopping of the motor. In such a case the cause of the vibration should be determined (For example: too weak magnetic adhesion due to excessive rust, paint cover, or excessive slide backlash etc.) and eliminated. Then the motor can be reset and restarted.

⚠**Caution**: **If drill motor should stop before a complete cut is made, remove cutting tool from the hole before attempting to restart drill, failure to do so can result in personal injury or damage to the MT3S drilling machine.**

11. After the cut is finished return motor to the full upright position, depress **motor OFF** button wait until motor fully stops. Move magnet switch **#714** to the **OFF** position. Residual magnetism will make it difficult to move the drill into another location and for that reason after 1 second delay press the 3 way switch into lowest (spring loaded) position and hold it for around 2 – 3 seconds. That procedure will activate demagnetization feature of the machine, which will result in instant freedom from residual magnetism.

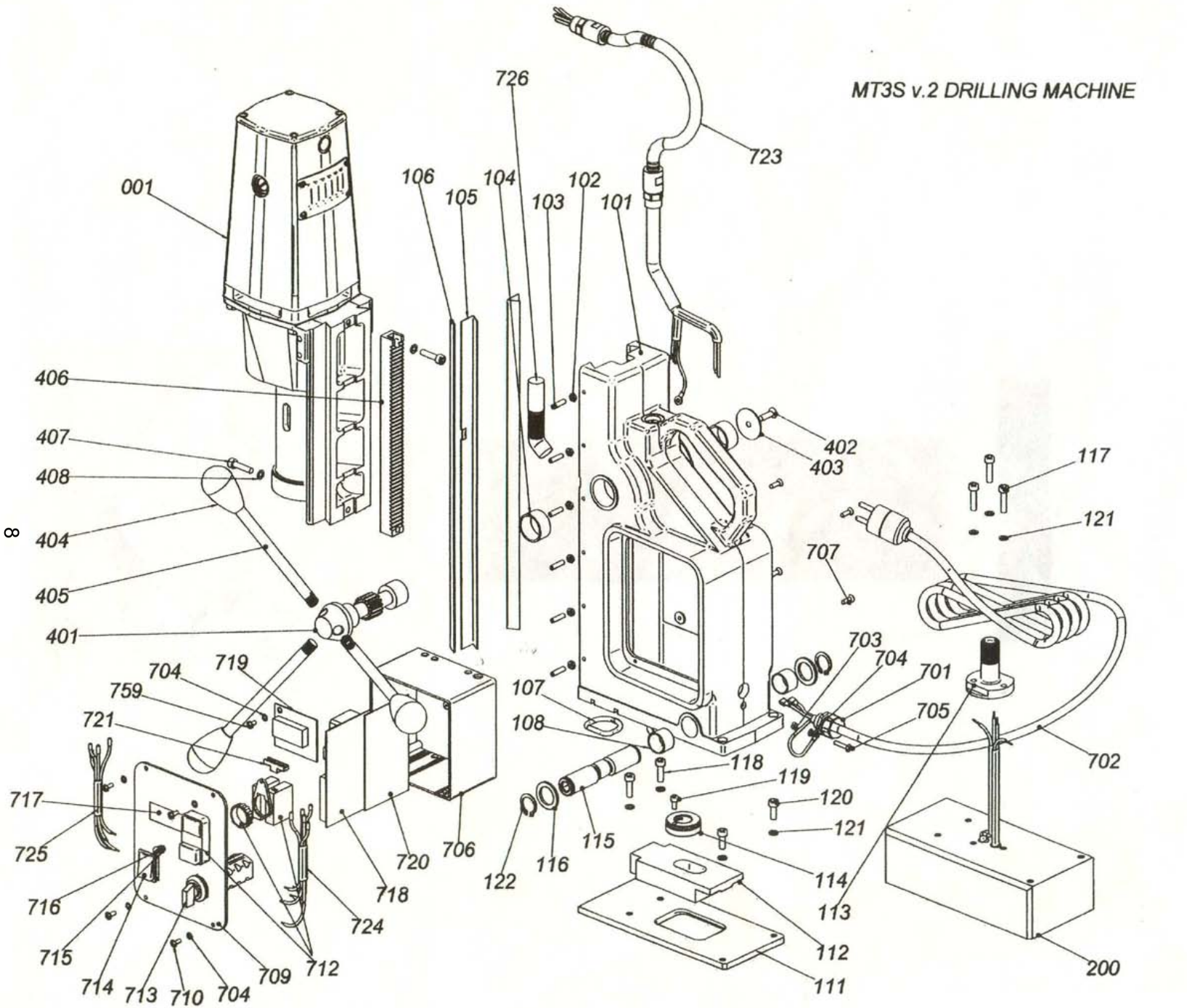
TAPPING

It is very important to select suitable rpm's for tapping work. Tapping should be performed with Rpm's significantly lower than cutting Rpm's (refer to appropriate tapping manual).

- Always adjust the correct tapping speed starting from the lowest available Rpm.
- Always use tapping lubricant.
- For tapping work reverse speed is available on the MT3S machine. Allow motor to come to a complete stop before switching and restarting motor in reverse. Follow same instructions when switching motor back to original forward rotation.
- When Rotary Switch #713 is in the reverse position motor will only remain on as long as **Green Motor On** button is manually held in. When button is released motor will turn off. This feature is to help prevent the accidental operation of the machine in reverse when using drills or cutters.

REGULAR MAINTAINANCE

1. The motor slide assembly may become loose and require adjustment after the machine has been in service for the first few weeks, the 2.5mm hex key wrench provided in the tool kit is for performing this adjustment.
   Refer to the breakdown on page 8 of this manual to become familiar with the **MT3S**, locate **#103** adjustment screws on side of machine frame.
   Move motor slide into the full up position by using the feed handles. (Note: Be certain slide area is clean and free from dirt, chips and other debris before performing adjustments.)
   Lubricate slide area using a spray lubricant such as WD-40.
   Loosen locking nuts **#102**, using the 3mm hex key, turn adjustment screw **#103** clockwise to increase motor slide tension, to decrease motor slide tension turn adjustment screw **#103** counter clockwise.
   Proper adjustment would mean the feed handles controlling the motor and slide should stay in position without drifting down under its own weight, after attaining proper slide tension tighten locking nuts **#102**.
2. Keep magnet clean and free of chips, oil or other contaminants.
3. Check spindle bore to ensure run out does not exceed .0035" per revolution.
   This is most accurately measured by placing a dial indicator on the inside of the spindle bore and rotating the spindle while observing the movement of the indicator.
4. Inspect coolant system reservoir and line for wear from time to time.
5. Inspect motor brushes and replace after extended periods of machine usage.
6. Replace any worn parts and regularly tighten fasteners that become loose during daily usage.


MT3S v.2 DRILLING MACHINE
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MT3S-v2
BREAKDOWN PARTS LIST

Item	Part#	Description	Qty.
001	04860	MOTOR, MT3S-v2 COMPLETE, 120 VOLT	1
	04865	MOTOR, MT3S-v2 COMPLETE, 240 VOLT	
101	05MT101	FRAME	1
102	05MT102	NUT, HEX M5 (SHORT)	6
103	05MT103	SCR, CPSSS M5x22	6
104	05MT104	SLEEVE, SELF-LUBRICATING	2
105	05MT107L	SLIDE INSERT, LEFT	1
	05MT107R	SLIDE INSERT, RIGHT	1
106	05MT108	SPRING INSERT	1
107	056107	LUG, SAFETY CLAMPING	2
108	05MT104	SLEEVE, SELF-LUBRICATING	2
111	055111	SWIVEL BASE PLATE	1
112	055112	CLAMPING PLATE ARM	1
113	055113	SETTING PLATE	1
114	055114	ECCENTRIC SWIVEL BASE SHAFT	1
115	055115	SHAFT, FRAME BASE	1
116	055116	WASHER, FRAME BASE SHAFT	2
117	0070538	SCR, SHCS M6X25	3
118	0014102	SCR, SHCS M6X20	2
119	055110	SCR, SHCS M5X10	1
120	0014102	SCR, SHCS M6X20	2
121	055106	WASHER, LOCK M6	9
122	055118	RETAINING RING, EXTERNAL 21Z	2
200	05MT2-120	MAGNET, 120 VOLT USA-3	1
	05MT2-240	MAGNET, 240 VOLT USA-3	
*	056301	CUTTER COVER	1
*	056303	CUTTER COVER, STRAP	1
*	056304	CUTTER COVER, HANDLE	1
401	05MT401	PINION, HUB ASSEMBLY	1
402	05MT404	SCR, FHSCS M6X20	1
403	055405	WASHER, SPECIAL FLAT	1
404	05MT407	SPOKE HANDLE ASSEMBLY	3
405		PART OF ITEM #404	
406	05MT403	GEAR RACK (9-7/16” LONG)	1
407	05MT402	SCR, SHCS M6X35	2
408	055106	WASHER, LOCK M6	2
	***0151511**	**COOLANT BOTTLE ASSEMBLY COMPLETE**	
*	055603	VALVE BODY W/ BRACKET	1
*	054610	NUT, HEX M12 (SHORT)	1
*	055612	COOLANT CONTAINER	1
*	05MT601	PLASTIC HOSE	1

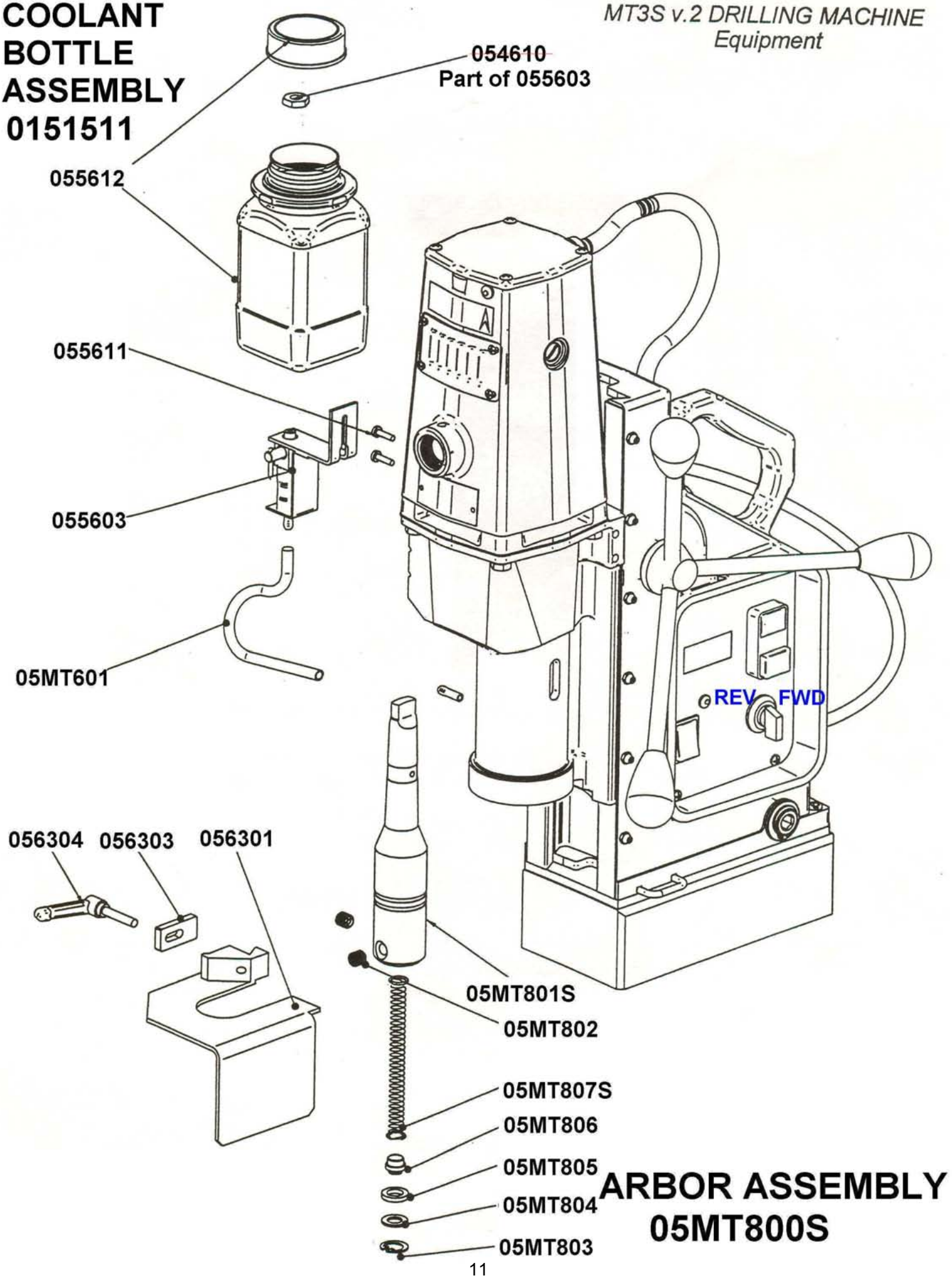
*	055611	SCR, CRPHMS M4x12	2
701	080704	STRAIN RELIEF PG11	1
702	0151550	POWER CORD	1
703	055701	NUT, HEX M4	2
704	055702	WASHER, LOCK M4	1
705	055703	SCR. CRPHMS M4X16	1
706	056706	CONTROLLER HOUSING	1
707	056707	SCR, CRFHTS 3.9X16	4
709	05MT710	PANEL PLATE ONLY, MT3Sv2 120V	1
710	080710	SCR, CRPHMS M4X10	4
712	055706	SWITCH, MOTOR ON/OFF	1
713	05MT707	SWITCH, ROTARY	1
714	056714	SWITCH, MAGNET	1
715	048077	LED SOCKET	1
716	056716	LED	1
717	056717	SPEED SCREEN FILTER	1
718	056718-1	PC BOARD, DIGITAL READOUT - SP-04f -120V	1
	056718-2	PC BOARD, DIGITAL READOUT - SP-04g -240V	
719	056719	LCD DIGITAL DISPLAY ONLY PW-02d	1
720	056720	INSULATION WALL	1
721	056721	STEADY GROUP OF WIRES	1
723	056723	GROUP OF WIRES #1	1
724	056724	GROUP OF WIRES #2	1
725	056725	GROUP OF WIRES #2, MT3SV2	1
726	05MT726	BUSHING, FLEXIBLE	1
759	056759	SCR, CRPHTS 3.9X9	1
	***05MT800S**	**ARBOR ASSEMBLY COMPLETE**	
*	05MT801S	ARBOR BODY	1
*	05MT802	FPSSS, M10x10	2
*	05MT803	SEATING RING	1
*	05MT804	WASHER	1
*	05MT805	SEAL	1
*	05MT806	PLUNGER	1
*	05MT807S	SPRING	1

*NOTE:
Items marked with an asterisk are located on page 11

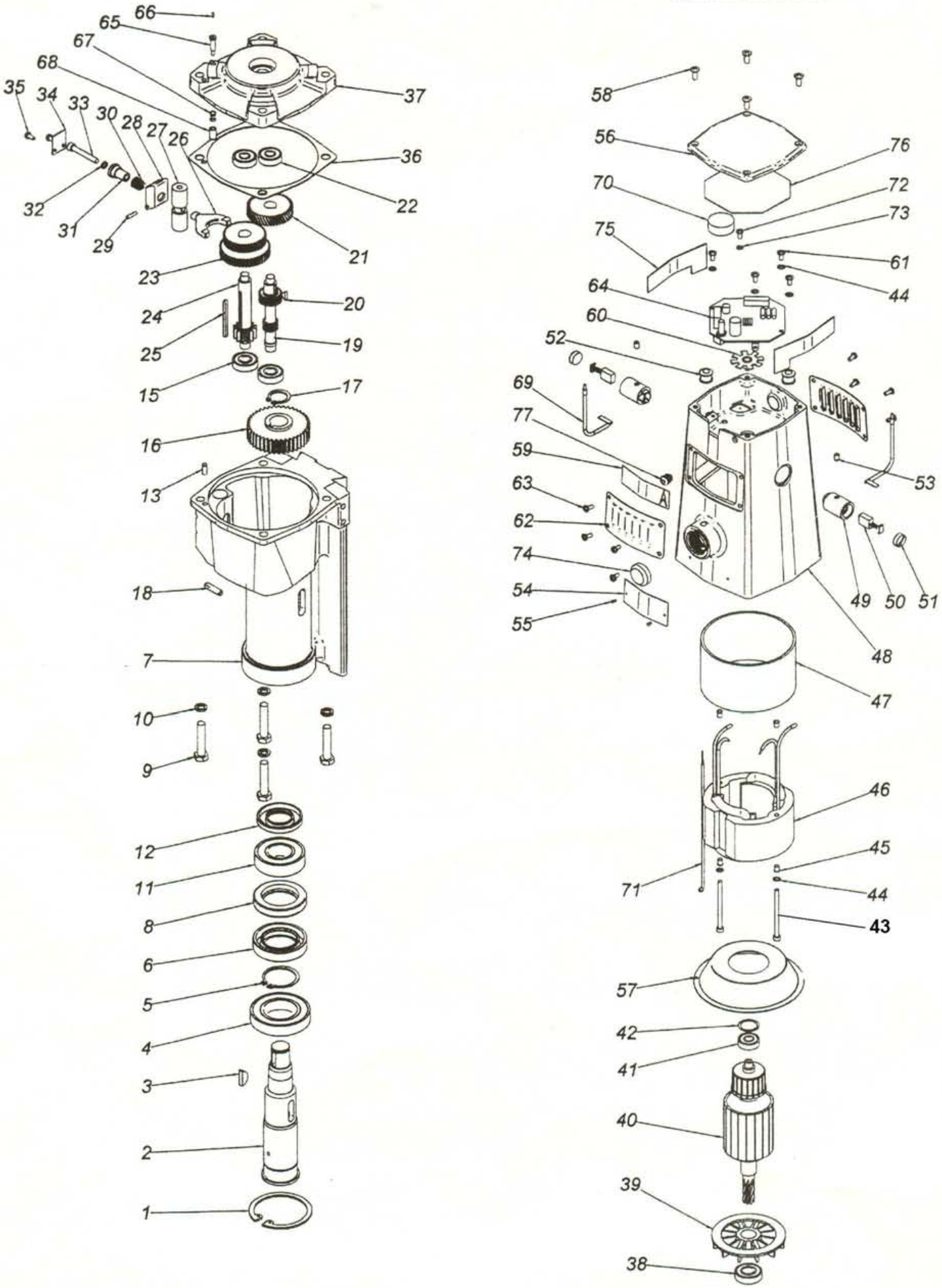
NOTE:
Complete Panel Assembly part number is 055705

NOTE:
If item 718 is bad you will also need 719.

COOLANT BOTTLE ASSEMBLY 0151511



ARBOR ASSEMBLY 05MT800S

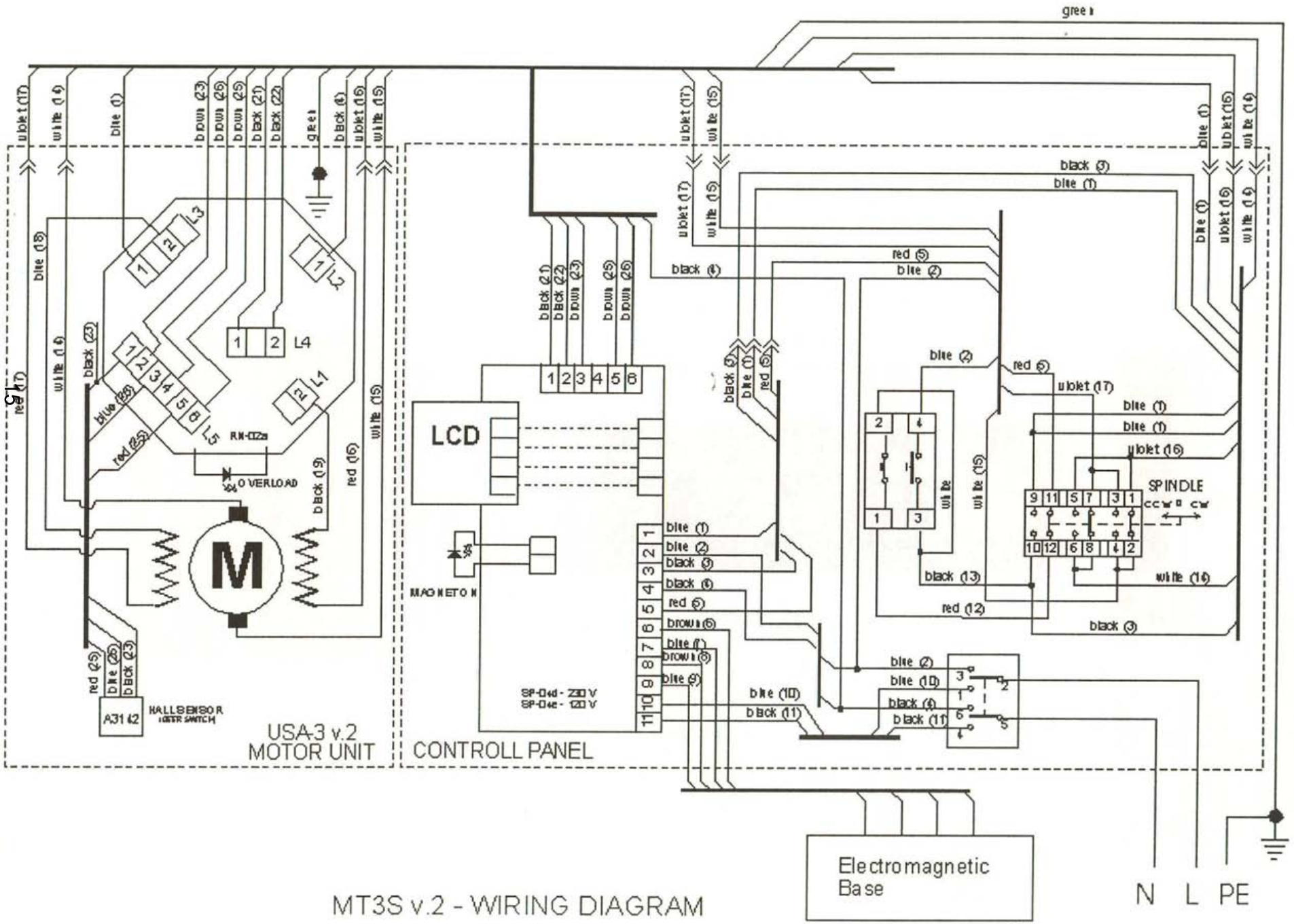


USA3 v.2 Motor Diagram

USA-3 v2 Motor Parts

Item	Part#	Description
1	04801	RETAINING RING, INTERNAL
2	04802	SPINDLE, MOTOR
3	04566	KEY, WOODRUFF #606
4	04803	BEARING, LOWER SPINDLE
5	04804	RETAINING RING, EXTERNAL
6	04805	SEAL, SPINDLE 35X56X12
7	04806	GEARCASE
8	04807	SEAL, SPINDLE 35X55X7
9	04570	SCR, HHCS M8X40 CLASS 8.8
10	045790	WASHER, LOCK M8 ZINC
11	04808	BEARING, UPPER SPINDLE
12	04809	SEAL, SPINDLE 24X47X7
13	04573	PIN, DOWEL 3/16X5/8
15	04541	BEARING, BALL 6000 C3
16	04581	GEAR, OUTPUT
17	04567	RETAINING RING, SH-75
18	04810	HOSE TIP
19	04520	GEAR SHAFT, PINION
20	04564	KEY, WOODRUFF #403
21	04582	GEAR, HELICAL INPUT
22	04542	BEARING, BALL – 628-2Z
23	04580	GEAR, CLUSTER
24	04521	GEAR SHAFT, OUTPUT PINION
25	04565	KEY, 1/8” SQ X 1.840”
26	04510	SHIFTING FORK
27	04523	PIN, MAIN SPEED SELECTOR
28	04534	LEVER, SPEED SELECTOR
29	04571	PIN, SPRING 1/8”X1/2”
30	04591	SPRING, COMPRESSION, SPEED SELECTOR
31	04524	PIN, DRIVE SPEED SELECTOR
32	04563	WASHER, LOCK, INTERNAL STAR
33	04572	SCR, SHCS M5X35
34	04514	LABEL, SHIFT LEVER
35	045793	SCR, PHCRMS M3X5
36	04593	GASKET, GEAR BOX
37	048037	GEAR BOX, COVER
38	04543	BEARING, BALL – 6001-2RSR
39	04590	FAN, ARMATURE
40	04631	ARMATURE, 120V
	04632	ARMATURE, 240V
41	04544	BEARING, BALL – 608-2RSR
42	04560	WASHER, SPRING UPPER ARMATURE
43	04562	SCR, SHCS M4X60
44	04576	WASHER, LOCK INTERNAL M4 DIN6798-J4
45	04557	INSULATOR, FIELD SCREW
46	04633	FIELD, 120V
	04634	FIELD, 240V

47	04558	INSULATOR, FIELD SLEEVE
48	048048	FIELD CASE
49	04549	BRUSH, MOTOR
	04550	BRUSH, MOTOR (SET)
50	04552	BRUSH CAP, MOTOR
51	04551	BRUSH HOLDER, MOTOR (.810 OD)
52	048052	SNAP BUSHING 10
53	04579	SCR, SSS M5X5 DIN 916
54	048054-1	MOTOR TAG, 120V
55	048054-2	MOTOR TAG, 220V
56	048056	COVER, FIELD CASE
57		
58	048058	SCREW, CR M5X16
59	048059	POTENTIOMETER TAG
60	048060	SPEED SENSOR WHEEL
61	048061	SCREW, CR M4X8
62	048062	COMMUTATOR CASING
63	048063	SCREW, SELF-TAP 2.9X9
64	048064	SPEED CONTROL, MOTOR 120V– RN-03
	048084	SPEED CONTROL, MOTOR 240V– RN-03
65	048065	PIN, MAGNET SENSOR
66	048066	MAGNET
67	048067	SPRING, PIN MAGNET SENSOR
68	048068	SLEEVE, PIN MAGNET
69	048069	SILICON ISOLATED 1.5MM WIRE
70	04824	POTENTIOMETER HANDWHEEL
71	048071	SENSOR, MAGNET
72	048072	SCREW, CR M3X8
73	048073	WASHER, LOCK, INTERNAL STAR
74	048074	RUBBER DISK
75	048075	ELECTRIC SCREEN
76	048076	LABEL, WIRING DIAGRAM
77	048077	LED SOCKET



MT3S v.2 - WIRING DIAGRAM

Jancy Six- (6) month limited warranty

Jancy Engineering warrants the MT3S Drilling machine to be free of defects in material and workmanship under normal use for a period of six months from date of purchase. **This warranty does not cover damage or wear which arise from misuse, accident, tampering or any other causes not related to defects in workmanship or materials.** This warranty is conditioned upon the prepaid return of the MT3S to Jancy Engineering Co., 2735 Hickory Grove Road, Davenport, IA 52804; or our regional representative for our international customers; for examination and verification of the claimed defects. If defect is verified, Jancy will replace, free of charge, any defective parts. If inspection of the machine does not disclose any defect in workmanship or materials, the original purchaser will be notified by Jancy, or its representative, of the costs of necessary repairs. If repairs are authorized, repairs will be made and the costs of repair and return transportation will be billed through the customers distributor.

THIS WARRANTY IS EXCLUSIVE, AND IS IN LIEU OF ANY OTHER WARRANTIES (EXPRESSED OR IMPLIED) INCLUDING WARRANTY OF MERCHANT ABILITY OR FITNESS FOR A PARTICULAR PURPOSE, SPECIAL AND CONSEQUENTIAL ARE EXPRESSLY EXCLUDED AND DENIED.

Record the following information

Model:_____

Serial #:_____

Date of purchase:_____

Purchased from:_____

Jancy Engineering Co.

2735 Hickory Grove Road, Davenport, Iowa 52804 U.S.A.

Phone: (1)(319) 391-1300 Fax: (1)(319) 391-2323

SLUGGER - MT3S-V2

ITEM NO:	JANCY PART NO:	ITMS PART NO:	DESCRIPTION	QTY REQ
001	04855		USA3 MOTOR COMPLETE 230V	1
101	05MT101	SPMT101	BODY (INC. MT104)	1
102	055102	SPMT35102	HEX NUT (SHORT) M5	6
103	05MT103	SPMT103	HEX INSERT SCREW M5 X 22	6
104	05MT104	SPMT104	SELF LUBRICATING SLEEVE	2
105		SPMT107L	SLIDE INSERT	1
105		SPMT107R	SLIDE INSERT	1
106		SPMT108	SPRING INSERT	1
107			LUG,SAFETY CLAMPING	2
108			SELF-LUBRICATING SLEEVE	2
111			SWIVEL BASE PLATE	1
112			CLAMPING PLATE ARM	1
113			SETTING PLATE SCREW	1
114			ECCENTRIC SWIVEL BASE SHAFT	1
115			SPECIAL NUT	1
116			SPECIAL WASHER	2
117			HEX SOCKET BOLT M6 X 25	3
118			HEX SOXKET BOLT M6 X 20	2
119			HEX SOCKET NOLT M6 X 16	2
120			HEX SOCKET BOLT M5 X 10	1
121			SPRING WASHER 6.1	7
122			EXTERNAL RETAINING RING	2
200	05MT2-240	SPMT2	ELECTOMAGNETIC BASE 240V	1
301			CUTTER COVER	1
303			STRAP CUTTER COVER	1
304			HANDLE CUTTER COVER	1
401	05MT401	SPMT401	PINION	1
402	05MT105	SPMT105	HEX SOCKET BOLT M6 X 35	1
403	05MT403	SPMT35405	FLAT WASHER	1
404			OVAL KNOB	3
405			HANDLE	3
406		SPMT403	GEAR RACK	1
407			HEX SOCKET BOLT M6 X 25	2
408			SPRING WASHER 6.1	2
601			COOLANT VALVE	1

610			HEX NUT SHORT M12	1
611		SPMT35612	COOLANT CONTAINER WITH SEAL IN CAP	1
612		SPMT601	PLASTIC HOSE (FLEXIBLE)	1
613			SCREW M4 X 12	2
701			STRAIN RELIEF PG11	1
702			POWER CORD WITH PLUG 3M	
703			NUT - M4	2
704			SPRING WASHER 4.3	6
705			CROSS RECESSED SCREW M4X16	1
706			CONTROLLER HOUSING	1
707			SELF TAPPING SCREW 3.9X16	4
709		SPMT710	PANEL PLATE	1
710			CROSS RECESSED SCREW M4X10	4
712			MOTOR ON/OFF SWITCH	1
713		SPMT707	ROTARY SWITCH	1
714		SPMT35708	MAGNET SWITCH W4	1
715			LED SOCKED	1
716			LED	1
717			SPEED SCREEN FILTER	1
718			ELECTRONIC CONTROLLER SP-04D/240V	1
719			LCD PC BOARD PW-02D	1
720			INSULATION WALL	1
721			STEADY GROUP OF WIRES	1
723			GROUP OF WIRES #1	1
724			GROUP OF WIRES # 2	1
725			GROUP OF WIRES #3	1
726			BUSHING (FLEXIBLE)	1
759			SELF-TAPPING SCREW 3.9X9	1
801		SPMT801S	ARBOR BODY	1
802		SPMT802	SET SCREW, HEX M10 X 10	2
803			INTERNAL RETAINING RING	1
804		SPMT804	WASHER	1
805		SPMT805	SEAL	1
806		SPMT806	PLUNGER	1
807		SPMT807	SPRING	1
1	04801		INTERNAL RETAINING RING 62W	
2	04802		MOTOR SPINDLE USA-3	
3	04566		KEY,WOODRUFF #606	
4	04803		LOWER SPINDLE BEARING	
5	04804		EXTERNAL RETAINING RING 35Z	

6	04805	SPMT4805	SPINDLE SEAL	
7	04806		GEAR CASE USA-3	
8	04807	SPMT4807	SPINDLE SEAL	
9	04570		SCREW,M8 X 1.25 X 40 HHCS 8.8 ZINC	
10	045790		WASHER, LOCK M8 ZINC	
11	04808		UPPER SPINDLE BEARING	
12	04809	SPMT4809	SPINDLE SEAL	
13	04573	SP4573	PIN,DOWEL 3/16" X 1/2"	
15	04541	SP4541	BEARING, BALL - 10 X 26 8 LWRGSHF	
16	04581	SP4581	GEAR, OUTPUT USA-5	
17	04567		RETAINING RING,SH-75	
18	04810	SPMT4810	HOSE TIP	
19	04520	SP4520	GEARSHAFT, PINION USA-5	
20	04564		KEY,WOODRUFF #403	
21	04582	SP4582	GEAR,HELICAL INPUT USA-5	
22	04542	SP628-2RS	BEARING, BALL 8 X 24 X 8.UPRGSHFT	
23	04580	SP4580	GEAR, CLUSTER USA-5	
24	04521	SP4521	GEARSHAFT, OUTPUT PINION USA-5	
25	04565		KEY,1/8" SQ X 1.375"	
26	04510		SHIFTING FORK USA-5	
27	04523		PIN,MAIN SPEED SELECTOR USA-5	
28	04534		LEVER, SPEED SELECTOR	
29	04571		PIN, SPRING 1/8" X 1/2"	
30	04591		SPRING, COMPRESSION SPEED SLCT	
31	04524		PIN,DRIVE SPEED SELECTOR USA-5	
32	04563		WASHER,LOCK,INTERNAL STAR M5	
33	04572		SCREW,M5 X.8 X 35 SHCS	
34	04514		LABEL, SHIFT LEVER USA-5	
35	045793		SCREW, M3X.5X6 SHCS	
36	04593	SP4593	GASKET,GEARBOX USA-5	
37	04531		GEARBOX COVER MACHINED USA-5	
38	04543	SP4543	BEARING,BALL - 12 X 28X8.LWRARM	
39			ARMATURE FAN	
40	04632	SP4632	ARMATURE, 240V TYPE 2	
41	04544	SP608Z	BEARING, BALL 8X22X7 UPRARM	
42	04560	SPMT4560	WASHER, SPRING, UPPER ARMATURE	
43	04562		SCREW, M4 X .7 X 60 SHCS	
44	04576		WASHER, LOCK, INTERNAL STAR M4	
45	04557		INSULATOR, FIELD SCREW	
46		SPMT4647-V2	FIELD, 240VOLT	

47	04558		INSULATOR, FIELD SLEEVE	
48	04532P	SP4532P	FIELD CASE USA -3	
49	04551	SP4551	BRUSH HOLDER, MOTOR	
50	04549		BRUSH, MOTOR	
51	04552	SP4552	BRUSH CAP, MOTOR	
52	04811		SNAP BUSHING	
53	04579	SP4579	SSS,M5 X .8 X 5	
54	03354-230		MOTOR TAG, 230V USA-3	
55	70028		#2 X 3/16" DRIVE SCREW	
56	04812		FIELD CASE COVER USA-3	
57			COVER ARMATURE FAN	
58			CROSS RECESSED SCREW M5X16	
59			POTENTIOMETER TAG	
60	04814	SPMT4814	SPEED SENSOR WHEEL	
61	04815		CROSS RECESSED SCREW M4 X 18	
62			COMMUTATOR CASING	
63			SELF TAPPING SCREW 2.9 X 9	
64		SPMT48064-V2	SPEED CONTROL P.C BOARD 230V USA-3	
65	04819		PIN, MAGNET SENSOR	
66			MAGNET C2.5 X 5.5	
67			SPRING, PIN MAGNET SENSOR	
68			SLEEVE, PIN MAGNET	
69	04823		SILICON ISOLATED WIRE 1.5MM WHITE	
70	04824	SPMT4824	POTENTIOMETER THUMBWHEEL	
71			MAGNET SENSOR	
72			CROSS RECESSED SCREW M3X8	
73			WASHER LOCK INTERNAL STAR M3	
74			RUBBER DISK	
75			ELECTRIC SCREEN	
76			LABEL, WIRING DIAGRAM USA 3	