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General Information

TO THE OWNER:

The purpose of this manual is to assist you in operating and maintaining your Talc Applicator in a safe manner. Read it carefully. It furnishes information and instructions that will help you achieve years of dependable performance and help maintain safe operating conditions. If this machine is used by an employee or is loaned or rented, make certain that the operator(s), prior to operating:

- 1. Is instructed in safe and proper use.
- 2. Reviews and understands the manual(s) pertaining to this machine.

Throughout this manual, the term IMPORTANT is used to indicate that failure to observe can cause damage to equipment. The terms CAUTION, WARNING and DANGER are used in conjunction with the Safety-Alert Symbol (a triangle with an exclamation mark) to indicate the degree of hazard for items of personal safety. When you see this symbol, carefully read the message that follows and be alert to the possibility of personal injury or death.

> This Safety-Alert symbol indicates a hazard and means ATTENTION! BECOME ALERT! YOUR SAFETY IS INVOLVED! Indicates an imminently hazardous situation that, if not avoided, will result in death or serious injury. MARNING Indicates a potentially hazardous situation that, if not avoided, will result in death or serious injury, and includes hazards that are exposed when guards are removed. **CAUTION** Indicates a potentially hazardous situation that, if not avoided, may result in minor or moderate injury. **IMPORTANT** Indicates that failure to observe can cause damage to equipment. NOTE Indicates helpful information.

Bolt Torque Chart

Always tighten hardware to these values unless a different torque or tightening procedure is listed for specific application. Fasteners must always be replaced with the same grade as specified in the manual parts list. Always use the proper tool for tightening hardware. Make sure fastener threads are clean and you start thread engagement properly. Use these values when tightening all bolts and nuts with the exception of wheel nuts.

SAE Fasteners					
	Coa	rse Thread Series			
	Gra	ide 5	Gra	ade 8	
Diameter and Pitch (Inches)	Dry	Oiled	Dry	Oiled	
1/4″-20	8 ft-lbs	6 ft-lbs	12 ft-lbs	9 ft-lbs	
5/16″-18	17	13	25	18	
3/8″-16	30	23	45	35	
7/16″-14	50	35	70	55	
1/2″-13	75	55	110	80	
9/16″-12	110	80	150	110	
5/8″-11	150	110	220	170	
3/4″-10	260	200	380	280	
7/8″-9	430	320	600	460	
1″-8	640	480	900	680	
	Fin	e Thread Series			
Diameter and Pitch (Inches)	Clamp Load (Lbs.)	Tightening Torque	Clamp Load (Lbs.)	Tightening Torque	
1/4″-28	10 ft-lbs	7 ft-lbs	14 ft-lbs	10 ft-lbs	
5/16″-24	19	14	29	20	
3/8″-24	35	25	50	40	
7/16″-20	55	40	80	60	
1/2″-20	90	65	120	90	
9/16″-18	120	90	170	130	
5/8″-18	180	130	240	180	
3/4″-16	300	220	420	320	
7/8″-14	470	360	660	500	

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Safety Rules



ATTENTION! BECOME ALERT! YOUR SAFETY IS INVOLVED!

Safety is a primary concern in the design and manufacture of our products. Unfortunately, our efforts to provide safe equipment can be erased by an operator's single careless act. In addition, hazard control and accident prevention are dependent upon the awareness, concern, judgment, and proper training of personnel involved in the operation, transport, maintenance and storage of equipment.

Prior to operating, ensure the operator(s) is instructed in safe and proper use and reviews and understands the manual(s) pertaining to this machine.

Read this manual before you operate this machine. If you do not understand any part of this manual, or need more information, contact J&M or your authorized dealer.

SAFETY

Understand that your safety and the safety of other persons is measured by how you service and operate this machine. Know the positions and functions of all controls before you operate them. Check all controls in a safe area before starting your work.

The safety information given in this manual does not replace safety codes, federal, state or local laws. Make certain your machine has the proper equipment as designated by local laws and regulations.

- Relieve all pressure, before disconnecting fluid lines.
- Before applying pressure, make sure all connections are tight and components are in good condition.
- Never use your hand to check for suspected leaks under pressure. Use a piece of cardboard or wood for this purpose.
- If injured by leaking fluid, see your doctor immediately.
- Keep clear of moving parts at all times when operating the talc unit.
- Be sure all safety shields are in place before operation.

Ensure everyone is clear of equipment before applying power or moving the machine.

ADVANCED SE TALC APPLICATOR FLO	UCONTROL SETTINGS	Cups/unit @ 24.4 units/min	Cups/unit @ 30 units/min	Cups/unit @ 45 units/min (535 Only)	
Flow Control Setting	Cups/min	(1 door fully open)	(2 doors fully open)	(2 doors fully open)	Lbs/mir
1.5	0.0	0.0	0.0	0.0	0.0
2.0	0.6	0.0	0.0	0.0	0.2
2.5	1.3	0.1	0.0	0.0	0.4
3.0	3.8	0.2	0.1	0.1	1.3
3.5	6.3	0.3	0.2	0.1	2.1
4.0	6.6	0.3	0.2	0.1	2.2
4.5	7.0	0.3	0.2	0.2	2.3
5.0	9.0	0.4	0.3	0.2	3.0
5.5	11.0	0.5	0.4	0.2	3.7
6.0	14.5	0.6	0.5	0.3	4.8
6.5	18.0	0.7	0.6	0.4	6.0
7.0	21.5	0.9	0.7	0.5	7.2
7.5	25.0	1.0	0.8	0.6	8.4
8.0	27.5	1.1	0.9	0.6	9.2
8.5	30.0	12	1.0	0.7	10.0
9.0	35.0	1.4	1.0	0.8	11.7
10.0	40.0	1.4	1.2	0.0	12.4

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Place decal on talc box side most visible to the user.

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TA-251-21 and TA-451-21 Parts



TA-251-21 and TA-451-21 Parts

	Description	Part No.	Qty
1	3/16" Nylon Rod for Talc Agitator	JM0062689	4
2	3/4" Shoulder Dia x 1" Shoulder Length x 5/8"-11 Hex Head Shoulder Bolt and Nut (SB-34)	JM0003181	1
3	3/4" ID x 7/8" OD x 5/8" LG Bronze Bushing (BB-34)	JM0009455	1
4	Large Talc Box Screen (Electric & Hydraulic Motor)	JM0037456	1
5	3/4" USS Z Flat Washer	JM0010006	2
6	5/8"-18 Gr5 Z SF Hex Nut	JM0043101	1
7	Large Agitator 17 Deg. (Electric & Hydraulic Motor)	JM0037241	1
8	17 Deg. Talc Box Weldment (Electric & Hydraulic Motor)	JM0037538	1
9	White Drive Hydraulic Motor - 125032JL5C3AAAAA	JM0042491	1
10	1/4"-20 x 3/4" Gr5 Z SF Hex Bolt	JM0001642	3
11	Flange Plate for Talc Hydraulic Motor	JM0059070	1
12	1/4"-28 x 3/8" Gr5 Z Hex Bolt	JM0043100	3
13	C4-50/535 Flex Auger Flighting Weldment	JM0043060	1
14	1/4"-20 Gr5 Z SF Hex Nut	JM0001630	5
15	3/8"-16 Gr5 Z SF Hex Nut	JM0002152	12
16	3/8"-16 x 2" Gr5 Z SF Hex Bolt	JM0016070	2
17	2" Exhaust Clamp with Fasteners (Electric & Hydraulic Motor)	JM0037668	1
18	17 Deg. Talc Box Door (Electric & Hydraulic Motor)	JM0037237	1
19	Chrome T-Handle Non-Locking	JM0001911	1
20	1/2" Shoulder Dia x 3/8" Shoulder Length x 3/8"-16 Socket Shoulder Bolt	JM0009998	2
21	10-32 x 1/4" Cup-Point Set Screw	JM0076511	1
22	3/8"-16 x 1" Gr5 Z SF Hex Bolt	JM0002092	10
23	Talc Rotation Bracket Weldment (Electric & Hydraulic Motor)	JM0038395	1
24	1/2"-13 Gr2 Z Hex Nut	JM0002124	1
25	1/2"-13 x 1" Gr5 Z Hex Bolt	JM0010225	1
26	51 Series Talc Mounting Bracket	JM0077683	1
27	3/8"-16 Gr2 Z Centerlock Hex Nut	JM0001512	4
28	3/8" ID, 1" OD Z Flat Washer	JM0003061	4
29	3/8"-16 x 3-1/8" Inside Width x 4" Length; Square U-Bolt	JM0079516	2
30	Flex Auger Heat Bent PVC Pipe, 535, c450, 51 Series	JM0043049	1
31	1/4"-20 x 2-1/2" Gr5 Z Hex Bolt	JM0001506	2
32	Hydraulic Talc Flow Control Mounting Bracket	JM0043097	1



TA-251-21 Hydraulic Parts



	Description	Part No.	Qty
1	1/2″ Male JIC x 1/2″ Male NPT; Straight	JM0015201	A/E
2	1/2″ x 70″ Hydraulic Hose 70inch8M3K-8G-8FJX-8G-8FJX	JM0079328	2
3	3/8" Male JIC x 1/2" Male NPT; 90 Degree Elbow (2501-06-08)	JM0042849	1
4	1/2" Male JIC x 1/2" Male NPT; 90 Degree Elbow (2501-08-08)	JM0042847	1
5	1/4" x 194″ Hydraulic Hose 194inch4M3K-4G-6FJX-4G-6FJX	JM0041444	2
6	Flow Control Talc Applicator FC515 (0-2 GPM)	JM0026104	1
7	1/2" Female JIC x 3/8" Male JIC Reducer (2406-08-06)	JM0026117	1
8	1/2" Male JIC x 1/2" Male NPT x 1/2" Male JIC Tee (2605-08-08-08)	JM0026119	1
9	1/2" Male JIC x 1/2" Female JIC Swivel; 90 Degree Elbow (6500-08-08)	JM0010296	1
10	Check Valve for 51 Series	JM0079323	1
11	3/8" Male JIC x 3/8" Male ORB; 90 Degree Elbow	JM0026121	1
12	3/8" Male JIC x 3/8" Male O-ring; Extra Long 90 Degree Elbow (6801-LL-06-06)	JM0039050	1
13	3/8" Male JIC x 1/4" Male NPT; Straight	JM0078044	1
14	1/4" Male NPT x 3/8" Female JIC Swivel; Straight	JM0078050	1
15	1/2" Male JIC x 1/2" Male JIC; Straight	JM0041452	1
16	White Hydraulic Motor - 151G0094	JM0042491	-
17	WR Series Hydraulic Motor with Keyway and Pinhole (15100F30N6AAAAA)	JM0010469	A/E



TA-451-21 Hydraulic Parts



	Description	Part No.	Qty
1	1/2" Male JIC x 1/2" Male NPT; Straight	JM0015201	A/E
2	1/2" x 70" Hydraulic Hose 70inch8M3K-8G-8FJX-8G-8FJX	JM0079328	2
3	3/8" Male JIC x 1/2" Male NPT; 90 Degree Elbow (2501-06-08)	JM0042849	1
4	1/2" Male JIC x 1/2" Male NPT; 90 Degree Elbow (2501-08-08)	JM0042847	1
5	1/4" x 194" Hydraulic Hose 194inch4M3K-4G-6FJX-4G-6FJX	JM0041444	2
6	Flow Control Talc Applicator FC515 (0-2 GPM)	JM0026104	1
7	1/2" Female JIC x 3/8" Male JIC Reducer (2406-08-06)	JM0026117	1
8	1/2" Male JIC x 1/2" Male NPT x 1/2" Male JIC Tee (2605-08-08-08)	JM0026119	1
9	1/2" Male JIC x 1/2" Female JIC Swivel; 90 Degree Elbow (6500-08-08)	JM0010296	1
10	Check Valve for 51 Series	JM0079323	1
11	3/8" Male JIC x 3/8" Male ORB; 90 Degree Elbow	JM0026121	1
12	3/8" Male JIC x 3/8" Male ORB; Extra Long 90 Degree Elbow (6801-LL-06-06)	JM0039050	1
13	1/2" x 94" Hydraulic Hose 94inch8M3K-8G-8FJX-8G-8FJX	JM0079333	A/E
14	3/8" Male JIC x 1/4" Male NPT; Straight	JM0078044	1
15	1/4" Male NPT x 3/8" Female JIC Swivel; Straight	JM0078050	1
16	1/2" Male JIC x 1/2" Male JIC; Straight	JM0041452	1

A/E = Already Equipped



Talc Box Mount Assembly

STEP ONE - 251 and 451

Bolt the 51 series talc box mounting bracket (JM0077683) to the SpeedTender's front passenger side leg using (2) 3/8"-16 x 3-1/8" Inside Width x 4" Length; Square U-Bolts, (4) 3/8" ID, 1" OD Z Flat Washers, and 3/8"-16 Gr2 Z Centerlock Hex Nut. Hand tighten fasteners.



STEP TWO - 251 and 451

• Fasten the talc box (JM0037538) and talc rotation bracket (JM0038395) onto the LC 290/LC 390 talc box mounting bracket. Hand tighten fasteners.



Flex Flighting Assembly

STEP THREE - 251 and 451

- Insert the more curved end of the PVC tube to the hole above the window. Bring the other end over to the talc box and attach the 2" exhaust clamp to join the PVC tube and the talc box.
- Shove the talc box and PVC tube forward taking up all the slot spacing on the talc mounting bracket.
- When that is in place you can tighten all hardware from previous steps.



STEP FOUR - 251 and 451

- Bolt the flange plate to the hydraulic motor with (3) 1/4"-28 x 3/8" hex bolt as shown below.
- Place the nylon washer between motor and the flexible auger.
- Install and tighten the 10-32 x 1/4" Cup-Point Set Screw once the motor is in place.
- Run the auger into the talc box and attach the hydraulic motor (JM0042491) to the talc box using the (3) 1/4"-28 x 3/8" hex bolts and (3) 1/4"-20 serrated flange hex nuts. Tighten.



Hydraulic Assembly

STEP FIVE - 251 and 451

- Mount the flow control valve bracket (JM0043097) and valve (JM0026104) using the hardware shown below.
- Assemble the fittings to the flow control valve as shown below. Apply teflon tape to pipe thread before assembly.





STEP SIX - 251

- For a 251 unit use the image below and the hydraulic schematic "TA-251-21 Hydraulic Parts" on page 8 to hook up the rest of the hydraulics. Use the image below for the general hose path for the 251.
- The blue lines in the image represent the hoses already on your 251 unit.
- The black lines represent the hoses needed to add to the auger circuit to supply the flow control valve with fluid.
- The green lines represent the hoses for the motor on the talc unit itself.



Hydraulic Assembly

STEP SIX - 451

- For a 451 unit use the image below and the hydraulic schematic "TA-451-21 Hydraulic Parts" on page 9 to hook up the rest of the hydraulics. Use the image below for the general hose path for the 451.
- The blue lines in the image represent the hoses already on your 451 unit.
- The black lines represent the hoses needed to add to the auger circuit to supply the flow control valve with fluid.
- The green lines represent the hoses for the motor on the talc unit itself.



51 Series Talc Hydraulic Circuit

The hydraulic talc system on a 51 Series Pro Box uses the return hydraulic fluid from the auger hydraulic motor. This limits the talc to only function during auger forward operation. Control of the speed of the talc motor is set by the operator by use of the FC-55 flow control valve.

Auger Forward Operation

When the auger is activated during unloading, hydraulic fluid travels through the auger motor and into the flow controls IN port. Partial flow is then sent to the talc motor depending on the flow controls lever position and the remaining flow is sent through the EX port back to the tank.



Auger Reverse Operation

When the operator reverses the auger during clean-out, the hydraulic flow travels through the FC-55 EX port to the IN which allows the auger to spin in the opposite direction. A one-way in-line check valve prevents the talc motor from spinning in reverse at full speed. There should be no talc motor movement during the Auger Reverse operation.

