



**INSTRUCTION MANUAL & PARTS BOOK**

# **MORRISON MS-40C MATERIAL SPREADER**



**POWERFUL - EFFICIENT - DEPENDABLE**

375 ANNAGEM BLVD, MISSISSAUGA, ONTARIO, CANADA, L5T 3A7, 905-458-5455 FAX 905-458-5484

Revised: 08/2009  
OI-M09203  
PB-M09203

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## **Important Information:**

**Date of Purchase:**

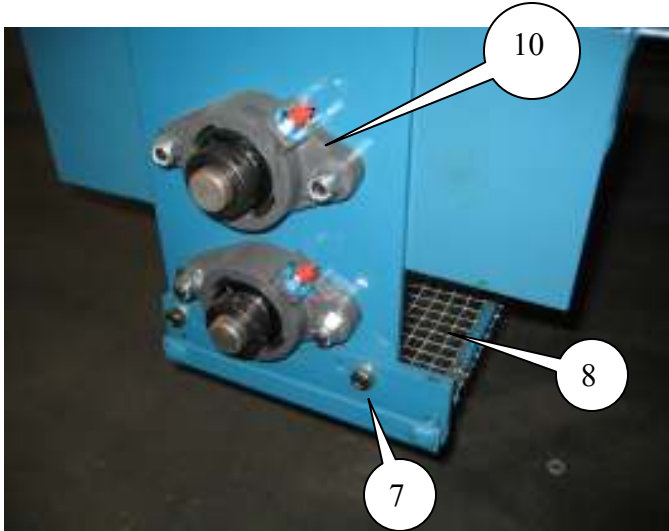
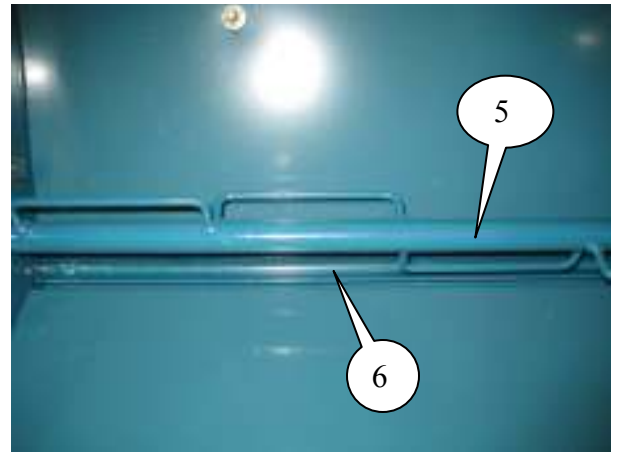
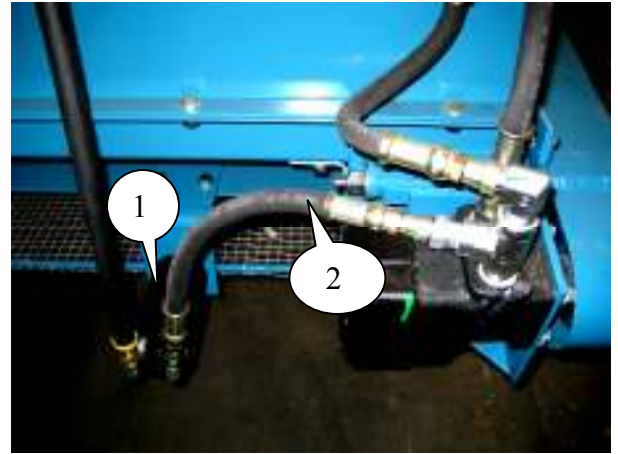
**Dealer:**

**Model Number: MS40C**

**Serial Number:**

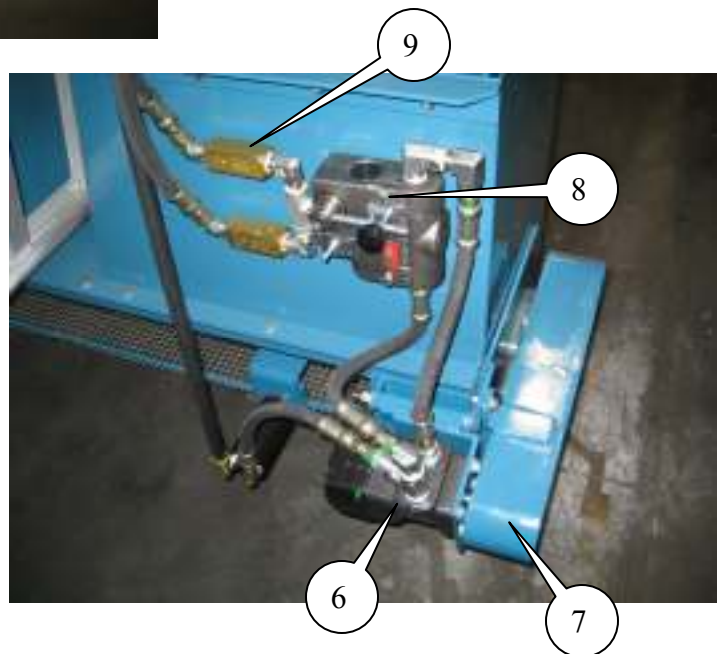
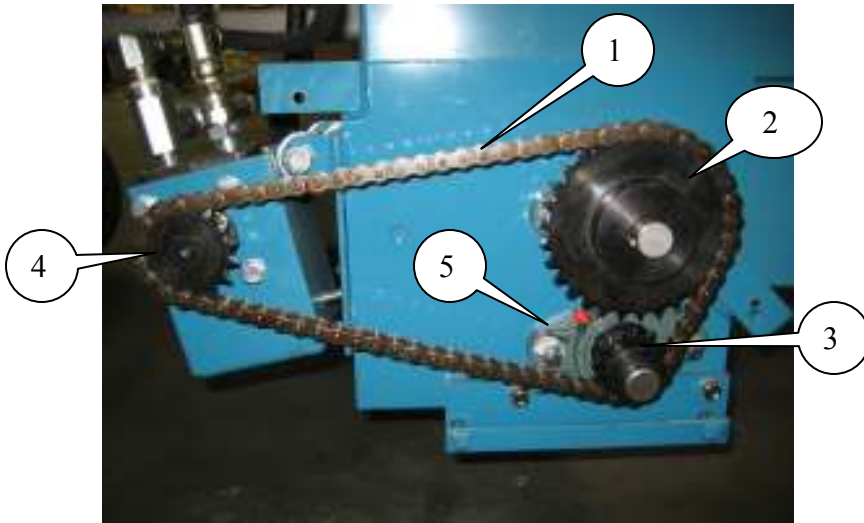
# Shaker Assembly

Item	Part Number	Description
1	760355	Shaker Motor
2	533095	Motor to Motor Hose
3	553505	Cam, Screen Shaker (not shown)
4	543155	Floating Sleeve (not shown)
5	543065	Agitator Shaft
6	543070	Metering Shaft
7	533030	Screen Assembly
8	553255	Screen 1/2" 7" x 47"
9	553260	Screen 1/4" 8" x 48" (not shown)
10	760405	Flange Bearing (eccentric)



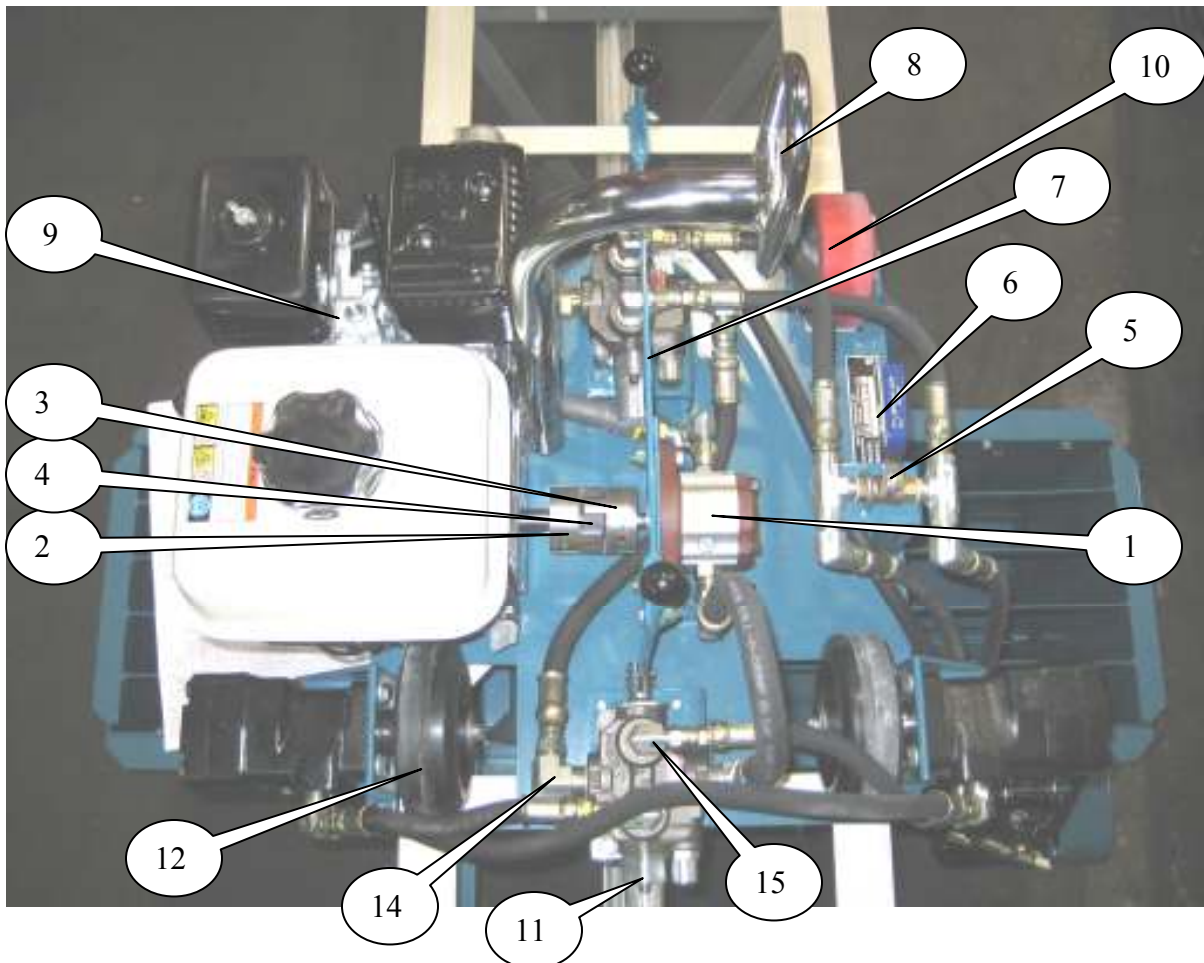
## Dispenser Assembly

Item	Part Number	Description
1	760350	RC-40 Roller Chain
2	760415	30 Tooth Sprocket
3	760410	12 Tooth Sprocket
4	760420	15 Tooth Sprocket
5	760400	Flange Bearing
6	760425	Hydraulic Motor
7	543085	Chain Guard
8	760430	Flow Control Valve
9	897625	Check Valve



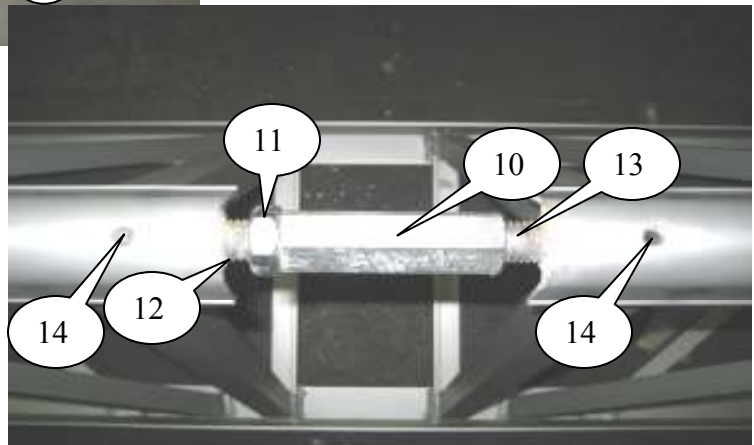
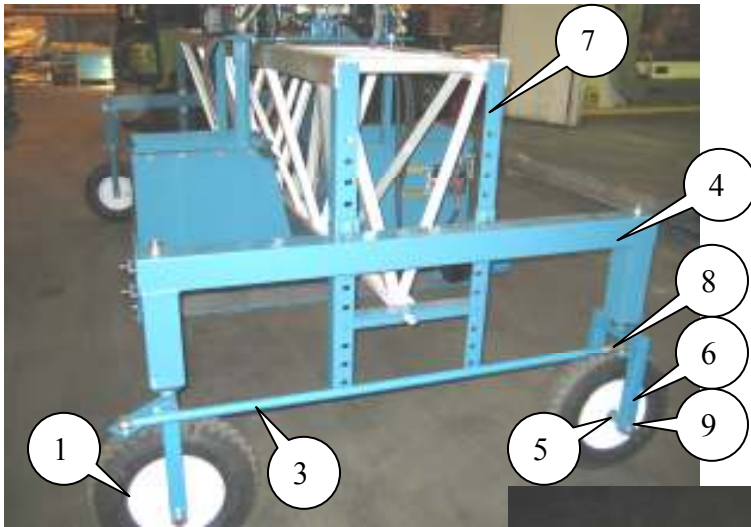
## Pump/ Main Valve Assembly

Item	Part Number	Description
1	760255	Hydraulic Pump D-11
2	760190	Coupling, Engine Side
3	760110	Coupling, Pump Side
4	760115	Spider
5	897650	3/8" Cut- Off Valve
6	543150	Valve Handle </td
7	553480	Link Bar- Tie Bar
8	20191	Hoist Hook
9	21333	GX 160 Engine
10	760445	5" Solid Wheel
11	837755	Directional Valve
12	543160	Drive Wheels 6"
13	760295	Drive Motors
14	897405	1/2" x 3/4" 90° Hyd. Fitting
15	897065	1/2" x 1/2" 90° Hyd. Fitting



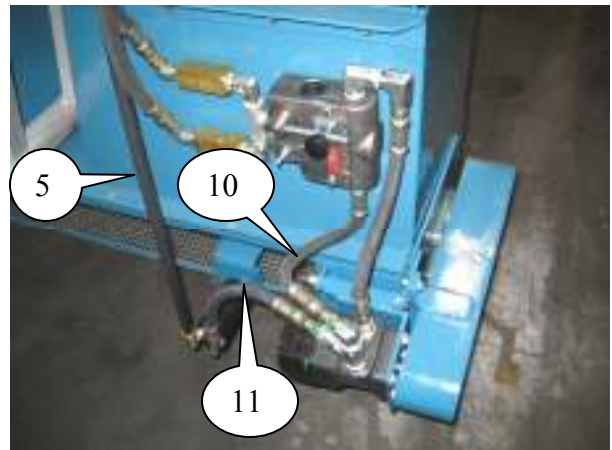
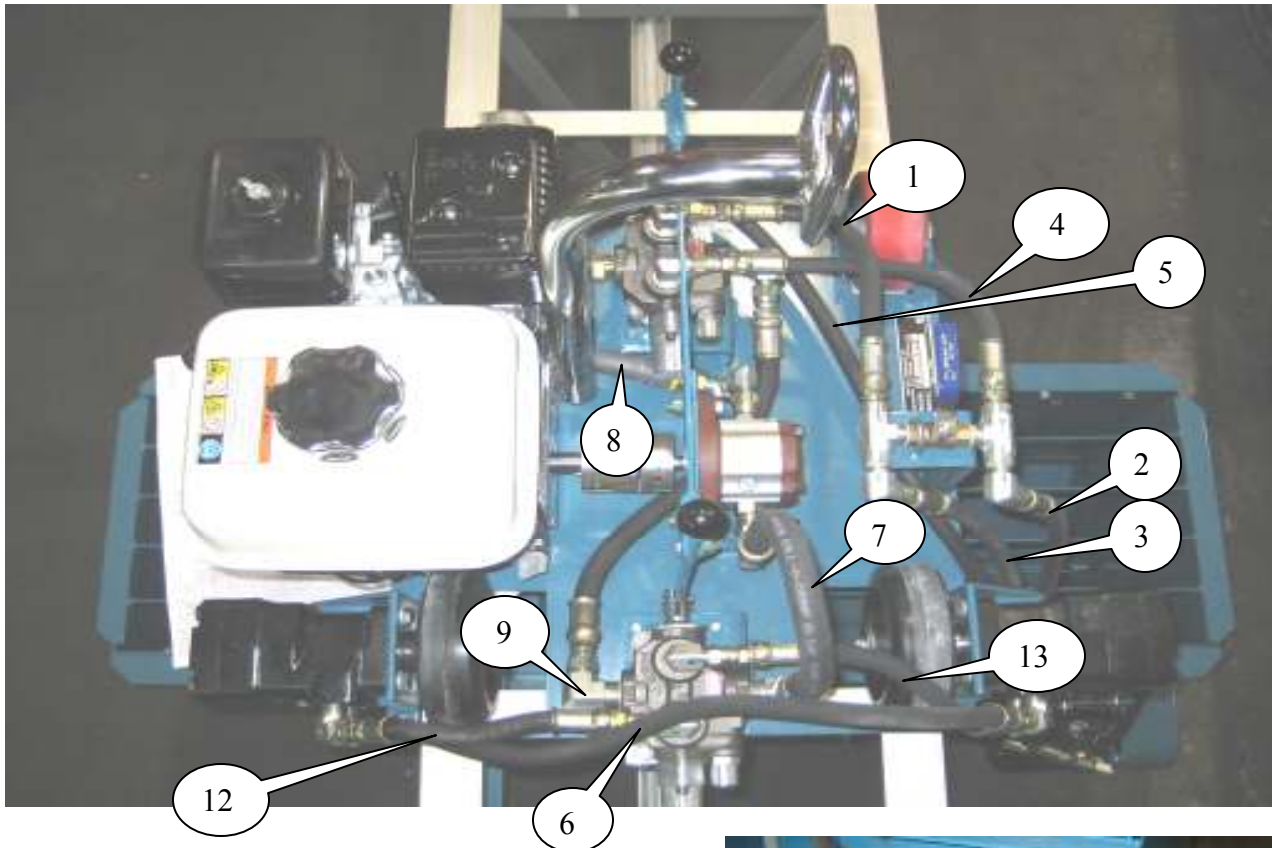
# Wheel Assembly

Item	Part Number	Description
1	12568	16" Pneumatic Wheel
2	543125	Handle (not shown)
3	543130	Tie Rod
4	543105	Leg Frame
5	553395	Axle
6	543110	Fork with Lug
7	543120	Mount Stand, Adjustable
8	12420	Tie Rod End
9	796065	Shaft Collar
10	981010	Turnbuckle
11	981020	Jam Nut
12	981080	Threaded Rod, RH
13	981085	Threaded Rod, LH
14	981090	Roll Pin



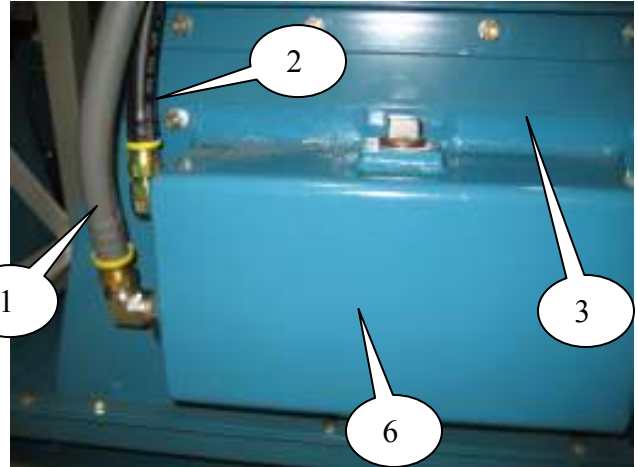
## Hydraulic Fittings and Hoses

Item	Part Number	Description	Item	Part Number	Description
1	533065	Hose, Valve 3/8" x 12"	7	533100	Hose, Pump to Valve, 1/2" x 13"
2	533080	Hose, to Check Valve 3/8" x 30"	8	533120	Hose, Suction 5/8" x 38"
3	533085	Hose, to Check Valve 3/8" x 36"	9	533105	Hose, Valve to Valve, 1/2" x 23"
4	533070	Hose, Valve 3/8" x 11"	10	533090	Hose, Motor to Valve 3/8" x 12 1/2"
5	533110	Hose, Return, 3/8" x 67"	11	533095	Hose, Agitator to Motor 3/8" x 13"
6	533075	Hose, Motor	12	533066	Hose, Directional Valve to LH Motor
			13	533071	Hose, Directional Valve to RH Motor



# Hopper Assembly

Item	Part Number	Descriptions
1	533120	Suction Hose, 5/8" x 38"
2	533115	Return Hose
3	543040	Hopper, Tank Side
4	543035	Hopper, Valve Side
5	543145	Hopper Grate
6	543050	Hydraulic Tank



# MS 40C MATERIAL SPREADER OPERATORS MANUAL

Thank you for choosing the Bartell Morrison Material Spreader. Welcome to the Bartell Morrison family of fine concrete handling products. A few moments spent reading this manual will help you fully understand the operation and maintenance of your new spreader.

## The Bridge

**Bridge Assembly:** We recommend you set bridge sections on the ground and join 20-30 ft of bridge before you attempt to mount your spreader on the bridge. Select the number of bridge sections needed to cover the span you are working. Join the threaded shafts at the apex of the bridge with the turnbuckles and jam nuts provided (**See fig. 1**). Next, join the sections together using the supplied angle connector plates and 4- 3/8" x 1 1/4" bolts on each side of the bridge base (**See fig. 2**).



Fig. 2

Carefully remove crating from the hopper assembly so not to damage it!

Allow the hopper assembly to rest upright on the wooden pallet but do not let it fall over!

A hoist hook is provided on the hopper assembly for lifting and moving.

**Caution: Lift hopper assembly by the hoist hook only!!**

Turn the assembled bridge over and slide it through the hopper assembly. **Note:** Be sure the bridge runners fit inside the hopper assembly plate guides.

Attach one wheel assembly using the bolts and nuts provided (**See fig. 3**).



Fig. 3

Lift the other end of the bridge plus hopper assembly and attach the other wheel assembly using the bolts and nuts provided **(See fig. 4)**.

The wheels on your spreader bridge will swivel 180 degrees for easy handling in any location. The wheels can be locked at 90 degree settings by inserting attached locking pins into the wheel brackets.



Fig. 4

**Note:** For ease of storage or transport, we suggest the hopper assembly be on a 5 foot or 10 foot bridge section with wheels installed.

**Bridge Sag Adjustment:** Depending on the length of the bridge, you may have to adjust for “mid-span sag”. To do this, loosen jam nut and adjust turnbuckles along apex of bridge. Once adjustment is made, retighten the jam nut

**Height Adjustment:** The spreader should be kept close to the slab to minimize dusting problems. Your spreader can be adjusted to within two inches of the slab. This is done by moving the bridge bracket on the wheel assembly.

**Note:** One end of the bridge can be higher than the other. The **Bartell Morrison** Material Spreader will run on a slight incline provided the slope is gentle enough. This capability prevents endless adjusting on uneven terrain.

**Steering Handles:** You are now ready to move your spreader to the pour site. Insert handles into the top of the wheel assemblies on each end.

## SPREADER OPERATIONS

**Caution:** Fill engine with oil before starting. Check engine owner's manual for engine maintenance and operation. We recommend that you fill the oil tank on the spreader with name brand **10W40** motor oil. Oil level should be kept within one inch of the top of the tank. **(See fig. 5)**



Fig. 5

**Spreader Control:** The engine is connected to a hydraulic pump which feeds the spreader drive motors as well as the agitator motor in the hopper. To start your spreader across the bridge, simply move the hydraulic control handle in the direction you want the spreader to travel. **(See fig. 6)** At the end of the run, move the control to the midway (neutral) position. This will stop the hopper travel and also the dispensing motor.



Fig. 6

**Engine Speed:** An increase in engine speed causes the spreader to travel along the bridge faster.

**Note:** To get constant material flow over the whole job, we suggest that the engine speed be kept constant.

**Flow Adjustment:** Your spreader is equipped with an agitator control valve on top of the engine plate **(See fig. 7)** which allows you to stop the material flow while still traveling the spreader. This is an on/off control and is not used to regulate the rate of material flow.



Fig. 7

**Material Flow:** Material flow rate is controlled by a special flow control valve mounted on the side of the hopper (**See fig. 8**). This valve controls the speed of the distributor bar and is also affected by engine speed. This is why it is important to keep the speed constant. To set valve, loosen knob on valve lever, set to desired position and retighten knob. Moving the lever up increases the material flow and moving it down decreases the flow.



Fig. 8

### **Changing to Trap Rock:**

The MS 40C is capable of spreading both trap rock and powdered materials. Powder gates are installed at the factory. If you want to spread trap rock, follow these directions:

Remove two angled gates from the underside of the hopper. Please note the extra pre-drilled holes for the attachment of the new curved blade. Notice the difference between the angular blade and the “C” shaped blade. These must be installed on the proper sides of the hopper. The “C” shaped blade should be attached where the extra pre-drilled holes are shown. The angle-shaped blade attaches on the opposite side.

The spreader has a shaker attachment to distribute material more. Remove one layer of wire mesh, if you plan to spread trap rock.

**Material Gate:** The “C” shaped material gate located at the bottom of the hopper is adjusted to allow for various size rock. Adjust gate by loosening bolts along the bottom of the hopper and sliding gate forward or backward until material flows freely.

**Poor Material Flow:** After considerable use, this condition may be caused by clogging veins on the distribution bar. To clean veins, we recommend that you remove the material gates from the bottom of the hopper. With the gates removed, use a wire brush (hand or drill mounted) to clean built up material from the exposed veins until all material has been cleared. A coat of glossy metal paint on the distributor bar will slow down future material build up. Reinstall material gates and adjust as described above. **Tighten all bolts!**

**Lubrication:** There are several grease fittings on the spreader which need to be lubricated often. Agitator and distributor bar bearings can be lubricated at the ends of the hopper. Remove chain guard to get at left side bearings. Don't forget the chain itself! **Caution: Do not lubricate while engine is running!**

With a little care, your new **Bartell Morrison Material Spreader** should give you many years of service!

## **OPERATING TIPS AND REMINDERS**

- 1. Always empty the hopper of all material every day. Material left overnight could become hard and stick to the veins of the dispensing bar.**
- 2. Clean and lubricate drive chain periodically to avoid possible breakage during use.**
- 3. Grease the four (4) bearings on either side of the hopper every 50 hours.**
- 4. Clean engine air filter *daily*.**
- 5. Check all fittings periodically for leaks.**
- 6. Keep hands and loose clothing away from moving parts.**
- 7. Change hydraulic oil every 500 hours. Change engine oil in accordance with engine manufacturer's specifications.**

## **COMPANY INFORMATION**

<p><b>Worldwide Distribution</b></p> <p>Distributed By:</p>	<p><b>International Marketing</b></p> <p><b>Bartell Morrison Inc.</b> 375 Annagem Blvd. Mississauga, ON, Canada L5T 3A7</p> <p>Tel: (905) 458-5455 Fax: (905) 458-5484 Overseas: (905) 458-8521 <a href="http://www.bartellmorrison.com">http://www.bartellmorrison.com</a></p>
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