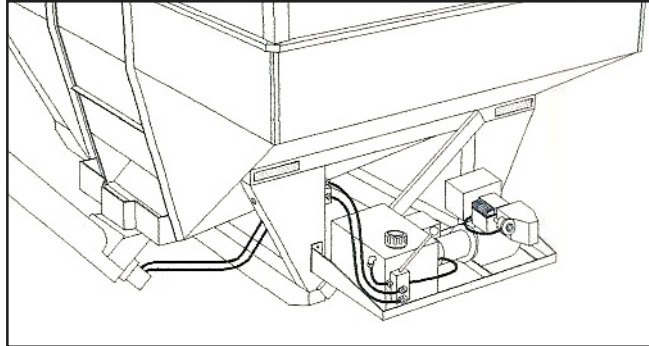


OPERATOR'S MANUAL

and Set-Up Instructions for HYDRAULIC AUGER-MATE



AM-1 Auger-Mate
(Briggs/Stratton Motor)

AM-1ES Auger-Mate
(Briggs/Stratton Motor w/Electric Start)

AM-2 Auger-Mate
(Honda Motor)

AM-2ES Auger-Mate
(Honda Motor w/Electric Start)



J. & M. Mfg. Co., Inc.

P.O. Box 547 Ft. Recovery, OH 45846

Ph: (419) 375-2376 Fax: (419) 375-2708

www.jm-inc.com

TO THE DEALER:

Read manual instructions and safety rules. Make sure all items on the Dealer's Pre-Delivery and Delivery Check Lists in the Operator's Manual are completed before releasing equipment to the owner.

Online Warranty claims will be denied if the Warranty Registration Card has not been completed and returned.

EXPRESS WARRANTY:

J. & M. Mfg. Co. Inc. warrants against defects in construction or materials for a period of ONE year. We reserve the right to inspect and decide whether material or construction was faulty or whether abuse or accident voids our guarantee.

Warranty service must be performed by a dealer or service center authorized by J. & M. Mfg. Co. Inc. to sell and/or service the type of product involved, which will use only new or remanufactured parts or components furnished by J. & M. Mfg. Co. Inc. Warranty service will be performed without charge to the purchaser for parts or labor based on the Warranty Labor Times schedule. Under no circumstance will allowable labor times extend beyond the maximum hours indicated in the Warranty Labor Times schedule for each warranty procedure. The purchaser will be responsible, however, for any service call and/or transportation of the product to and from the dealer or service center's place of business, for any premium charged for overtime labor requested by the purchaser, and for any service and/or maintenance not directly related to any defect covered under the warranty. Costs associated with equipment rental, product down time, or product disposal are not warrantable and will not be accepted under any circumstance.

Each warranty term begins on the date of product delivery to the purchaser. Under no circumstance will warranty be approved unless (i) the product warranty registration card (attached to the inside of the Operator's Manual) has been properly completed and submitted to the equipment manufacturer, and (ii) a warranty authorization number has been issued by the equipment manufacturer. This Warranty is effective only if the warranty registration card is returned within 30 days of purchase.

This warranty does not cover a component which fails, malfunctions or is damaged as a result of (i) improper modification or repair, (ii) accident, abuse or improper use, (iii) improper or insufficient maintenance, or (iv) normal wear or tear. This warranty does not cover products that are previously owned and extends solely to the original purchaser of the product. Should the original purchaser sell or otherwise transfer this product to a third party, this Warranty does not transfer to the third party purchaser in any way. J. & M. Mfg. Co. Inc. makes no warranty, express or implied, with respect to tires or other parts or accessories not manufactured by J. & M. Mfg. Co. Inc. Warranties for these items, if any, are provided separately by their respective manufacturers.

THIS WARRANTY IS EXPRESSLY IN LIEU OF ALL OTHER WARRANTIES OR CONDITIONS, EXPRESS, IMPLIED OR STATUTORY, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR PARTICULAR PURPOSE.

In no event shall J. & M. Mfg. Co. Inc. be liable for special, direct, incidental or consequential damages of any kind. The exclusive remedy under this Warranty shall be repair or replacement of the defective component at J. & M. Mfg. Co. Inc.'s option. This is the entire agreement between J. & M. Mfg. Co. Inc. and the Owner about warranty and no J. & M. Mfg. Co. Inc. employee or dealer is authorized to make any additional warranty on behalf of J. & M. Mfg. Co. Inc.

The manufacturer reserves the right to make product design and material changes at any time without notice. They shall not incur any obligation or liability to incorporate such changes and improvements in products previously sold to any customer, nor shall they be obligated or liable for the replacement of previously sold products with products or parts incorporating such changes.

SERVICE:

The equipment you have purchased has been carefully manufactured to provide dependable and satisfactory use. Like all mechanical products, it will require cleaning and upkeep. Lubricate the unit as specified. Observe all safety information in this manual and safety signs on the equipment.

For service, your authorized J. & M. dealer has trained mechanics, genuine J. & M. service parts, and the necessary tools and equipment to handle all your needs.

Use only genuine J. & M. service parts. Substitute parts may void the warranty and may not meet standards required for safe and satisfactory operation. Record the model number and serial number of your equipment in the spaces provided:

ENGINE SAFETY AND WARRANTY:

Warranty issues regarding the engine or its components are to be directed to the engine manufacturer. Refer to the engine manufacturers owners manual for safety, operation and warranty instructions.

GENERAL INFORMATION

BOLT TORQUE CHART

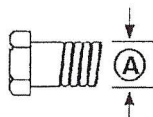
Always tighten hardware to these values unless a different torque or tightening procedure is listed for a specific application.

Fasteners must always be replaced with the same grade as specified in the manual parts list.


Always use the proper tool for tightening hardware: SAE for SAE hardware and Metric for metric hardware.

Make sure fastener threads are clean and you start thread engagement properly.


All torque values are given to specifications used on hardware defined by SAE J1701 & J1701M JUL 96.




**SAE SERIES
TORQUE
CHART**




SAE Bolt Head
Identification

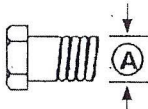


SAE Grade 5
(3 Radial Dashes)



SAE Grade 8
(6 Radial Dashes)

 Diameter (Inches)	Wrench Size	MARKING ON HEAD					
		SAE 2		SAE 5		SAE 8	
		Lbs.-Ft.	N-m	Lbs.-Ft.	N-m	Lbs.-Ft.	N-m
1/4	7/16"	6	8	10	13	14	18
5/16	1/2"	12	17	19	26	27	37
3/8	9/16"	23	31	35	47	49	67
7/16	5/8"	36	48	55	75	78	106
1/2	3/4"	55	75	85	115	120	163
9/16	13/16"	78	106	121	164	171	232
5/8	15/16"	110	149	170	230	240	325
3/4	1-1/8"	192	261	297	403	420	569
7/8	1-5/16"	306	416	474	642	669	907
1	1-1/2"	467	634	722	979	1020	1383



METRIC SERIES
TORQUE
CHART

8.8

Metric Bolt Head
Identification

10.9

Metric
Grade 10.9

Diameter & Thread Pitch (Millimeters)	Wrench Size	COARSE THREAD				FINE THREAD				Diameter & Thread Pitch (Millimeters)
		MARKING ON HEAD				MARKING ON HEAD				
		Metric 8.8		Metric 10.9		Metric 8.8		Metric 10.9		
		N-m	Lbs.-Ft.	N-m	Lbs.-Ft.	N-m	Lbs.-Ft.	N-m	Lbs.-Ft.	
6 x 1.0	10 mm	8	6	11	8	8	6	11	8	6 x 1.0
8 x 1.25	13 mm	20	15	27	20	21	16	29	22	8 x 1.0
10 x 1.5	16 mm	39	29	54	40	41	30	57	42	10 x 1.25
12 x 1.75	18 mm	68	50	94	70	75	55	103	76	12 x 1.25
14 x 2.0	21 mm	109	80	151	111	118	87	163	120	14 x 1.5
16 x 2.0	24 mm	169	125	234	173	181	133	250	184	16 x 1.5
18 x 2.5	27 mm	234	172	323	239	263	194	363	268	18 x 1.5
20 x 2.5	30 mm	330	244	457	337	367	270	507	374	20 x 1.5
22 x 2.5	34 mm	451	332	623	460	495	365	684	505	22 x 1.5
24 x 3.0	36 mm	571	421	790	583	623	459	861	635	24 x 2.0
30 x 3.0	46 mm	1175	867	1626	1199	1258	928	1740	1283	30 x 2.0

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SAFETY SIGNS

⚠ ATTENTION! BECOME ALERT! YOUR SAFETY IS INVOLVED! ⚠
Replace Immediately If Damaged or Missing!

IMPORTANT: Install new safety signs if the old signs are destroyed, lost, painted over or cannot be read. When parts are replaced that have safety signs, make sure you install a new sign with each new part. New signs are available from the manufacturer or your authorized dealer.

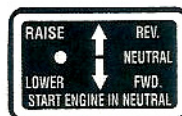
Ref. #	Description	Part #
1	Warning, Fluid	DD-AH1
2	Caution, Control Valve	DC-AH2
3	Decal, Start Engine	DI-AH3



DD-AH1



DC-AH2



DI-AH3

IMPORTANT:
Refer to Engine Manufacturer's Owner's Manual for engine Safety Decals and Safety Instructions.

TO THE OWNER:

The purpose of this manual is to assist you in operating and maintaining your gravity box 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.
	Indicates a potentially hazardous situation that, if not avoided, could result in death or serious injury, and includes hazards that are exposed when guards are removed.
	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.

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, judgement, and proper training of personnel involved in the operation, transport, maintenance and storage of equipment.

Make certain that the operator(s), prior to operating is instructed in safe and proper use and reviews and understands the manual(s) pertaining to this machine.

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

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 try to operate them. Make sure to check all controls in a safe area before starting your work.

SAFETY RULES (continued)



ATTENTION! BECOME ALERT! YOUR SAFETY IS INVOLVED!



Hydraulic oil leaking under pressure can penetrate skin and cause infection or other injury.

To Prevent Personal Injury:

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 you doctor immediately.

Make sure that everyone is clear of equipment before applying power.



CAUTION

INITIAL OPERATION

This Auger-Mate is designed for use with 6" hydraulic augers up to 15' in length. For other applications (such as operating a hydraulic cylinder in a woodsplitter) additional modification of the augermate is required. Do NOT operate the augermate with a woodsplitter or similar application without proper modifications, as the Auger-Mate does not have safety check valves or speed control for controlling the cylinder under load.

OPERATION

For optimum performance from your Auger-Mate, observe the following:

- 1 Run the Auger-Mate only in well ventilated areas due to the gasoline engine power.
- 2 Keep the Auger-Mate clean and free from fertilizer or other chemicals.
- 3 When used with fertilizer, run the auger empty at the end of each day to eliminate any moisture packing of fertilizer.

MAINTENANCE

The Auger-Mate pump may squeal due to the following conditions:

- 1 Low Oil Level
- 2 Oil is cold. Run the engine for 5 to 10 minutes.
- 3 Oil tank fill cap is dirty.
- 4 Large suction hose is bent or shut.
- 5 Oil filter is dirty and needs replaced.

Poor performance may be attributed to the following conditions and indicate immediate service.

- 1 Low Power - The relief valve on the control valve may have dirt under the ball.
- 2 Low Speed - The oil tank filler breather is dirty and needs cleaned or replaced.
- 3 Oil Level May Be Low - Fill to within 1-1/2" of full.
- 4 Oil Filter Dirty - Replace.

Pipe Spacer

1/2" Bolts (Grade 5)
(Qty 4)

AugerMate
Mounting Bracket

reinforcement
plate located on
back side of leg

12

13

HYDRAULIC PUMP AND MOUNT PARTS LIST

#	Part #	Description
1	1094	Elbow, 90 Degree (Hi Pressure)
2	1096	Nipple, Transition
3	1097	Nipple, Transition
4	1098	Elbow, 90 Degree
5	1099-G	Gasket, Filter (part of #6)
6	1099	Filter, Replacement Element
7	1100	Cover, Access
8	1104-SS	Screw, Set
9	1101	Coupling, Half 1"
10	1102	Bracket, Pump Mtg.
11	1103	Spider
12	1104	Coupling, Half 9/16"
13	1105	Ring, Adapter
14	1080	Screw, Hex Head
14A	1080-LW	Lockwasher, Shakeproof
15	18-K	Key, 1/8" (with pump)
16	1106	Key, 1/4" (engine key)

This diagram shows the exploded view of a hydraulic pump assembly. The components are numbered 1 through 11. Part 1 is the main pump body. Part 2 is a small O-ring. Part 3 is a small pin. Part 4 is a small screw. Part 5 is a small nut. Part 6 is a long shaft. Part 7 is a small ball. Part 8 is a long shaft with a black seal. Part 9 is a long shaft with a black seal. Part 10 is a small O-ring. Part 11 is a small nut. The diagram includes labels for the hydraulic pump and tank connections.

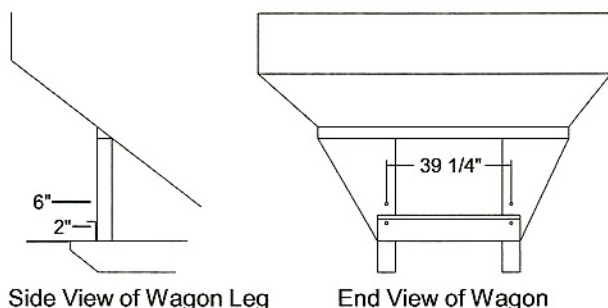
To Hyd. Pump

To Tank

7

INSTALLING THE AUGERMATE MOUNTING BRACKET

STEP ONE: To install the Auger-Mate Mounting Bracket, drill four 1/2" holes in the end of the gravity wagon for each model size indicated below.



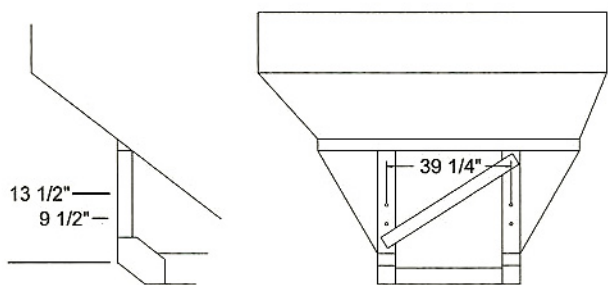
Side View of Wagon Leg

End View of Wagon

Models 250-7s or 250-7SB

MODEL 250-7S or 250-7SB

Drill two sets of 1/2" holes (4 total) 39 1/4" apart in the end panels as shown. The first set of holes should be centered and located 2" above the top of the steel runners of the gravity wagon. The second set of holes should be located 4" directly above the first set of holes. (Use the two pipe spacers to offset the mounting bracket against the bent lip located above the steel runners.)



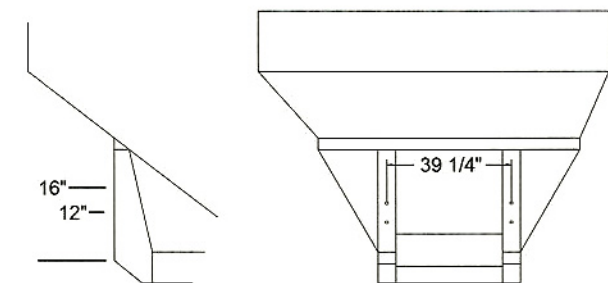
Side View of Wagon Leg

End View of Wagon

Model 385SD

MODEL 385SD

Drill two sets of 1/2" holes (4 total) 39 1/4" apart in the end panels as shown. The first set of holes should be centered and located 9 1/2" above the bend in the end of the gravity wagon as shown. The second set of holes should be located 4" directly above the first set of holes.



Side View of Wagon Leg

End View of Wagon

Models 440SD, 540SD, 680SD or 760SD

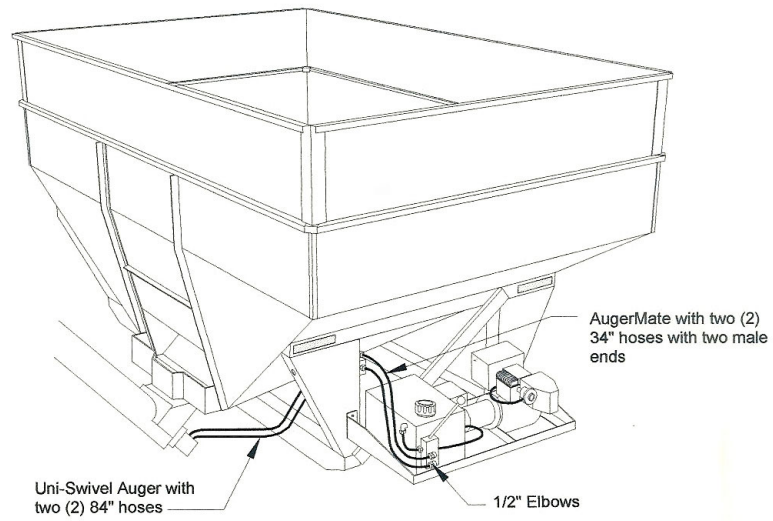
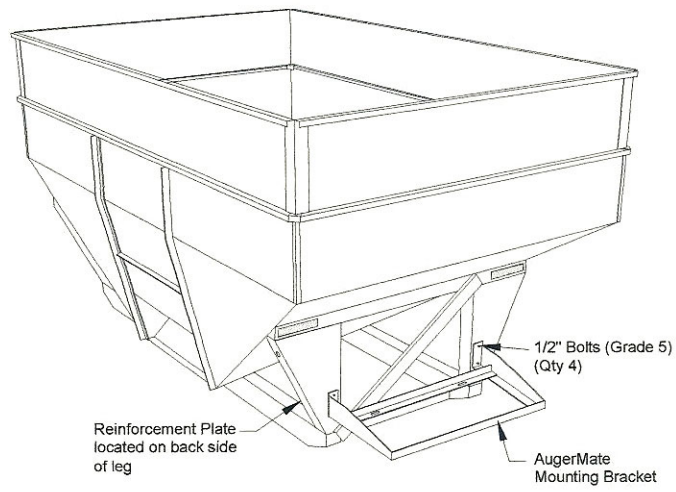
MODEL 440SD, 540SD, 680SD or 760SD

Drill two sets of 1/2" holes (4 total) 39 1/4" apart in the end panels as shown. The first set of holes should be centered and located 12" above the bend in the end of the gravity wagon as shown. The second set of holes should be located 4" directly above the first set of holes.

STEP TWO: Place the Reinforcing Plates behind the legs of the gravity wagon and align. For model 250-7S wagons, insert two 1/2" x 3" Bolts through each reinforcing plate so the bolt extends to the outside of the end panel. Slide one 1" Pipe Spacer on each 1/2" x 3" Bolt and align the Mounting Frame tight against the Pipe Spacer. Secure the Reinforcing Plate, Pipe Spacers and Mounting Frame to the end panel of the gravity wagon using 1/2" Lock Nuts. For all other model J&M wagons, use 1/2" x 1 1/2" bolts (without pipe spacers) and place the Mounting Frame against the wagon.

STEP THREE: Place the Auger-Mate inside the Mounting Bracket and align with the pre-punched holes. Secure the Auger-Mate to the Mounting Bracket using 1/2" x 1" Bolts, Flat Washers and Lock Nuts provided. Install the Operating Handle and 1/2" Elbows on the Auger-Mate, then attach the 1/2" x 3/4" Hydraulic Hoses to both the Auger-Mate and the auger coupler bracket.

STEP FOUR: Fill gasoline tank with fuel. Fill engine with oil per engine manual instructions. Fill Auger-Mate oil tank with 10W-30 motor oil, or other good grade hydraulic fluid. Fill within 1-1/2" of full tank (approximately 5 gallons required). Start engine per engine manual. Adjust engine throttle to desired speed (select speed above or below point where maximum engine vibration is noticed). Re-check oil tank level to 1-1/2" from full.



SERVICE / MAINTENANCE RECORD

DATE	DESCRIPTION	NOTES