



# ***STIR-RITE***

## ***Fixed Auger***

### **Assembly Procedure Manual**

 **ATTENTION** 

Pay close attention when you see this triangular symbol.  
It will be throughout this manual and on decals.  
Obey the Dangers, Warnings and Cautions.

**YOUR SAFETY IS INVOLVED!**

**READ AND UNDERSTAND THIS MANUAL BEFORE OPERATING.**

August 2009

038211

Manufactured by



A Div. of GLOBAL Industries  
9364 North 45th Street  
Omaha, Nebraska 68152

## GENERAL STATEMENT



**WATCH FOR THIS SYMBOL! IT POINTS OUT  
IMPORTANT SAFETY PRECAUTIONS. IT MEANS,  
“ATTENTION! - BECOME ALERT! YOUR SAFETY IS INVOLVED”.**



Occupational safety is of prime concern to NECO. This Owner's and Operator's Manual was written with the safety of the operator and others who come in contact with the equipment as our prime concern. It is your responsibility as an owner, operator, or supervisor to know what specific requirements, precautions, and work hazards exist and to make these known to all other personnel working with the equipment or in the area, so that they too may take any necessary safety precautions that may be required. Failure to read this Owner's & Operators Manual and its' safety instructions is a misuse of the equipment.

### TO THE OWNER

We at NECO are continually testing and improving our products to give you the most efficient and economical grain handling equipment available. However, when improvements on our equipment are made, we cannot be responsible for upgrading or changing units sold previously. The NECO equipment that you have just purchased will give years of dependable service when properly maintained. your work load will be lightened and valuable time will be saved. Congratulations on a wise investment and an astute brand choice . . . Welcome to the growing number of satisfied NECO equipment owners.

### LIMITED WARRANTY

For a period of one (1) year after shipment of goods by Buyer to its' customer, NECO will supply, free of charge, F.O.B. NECO's factory, Omaha, Nebraska, replacement parts for parts which prove defective in workmanship or material. Defective parts must be returned freight prepaid to the NECO Factory in Omaha, Nebraska. Prior to returning goods, NECO requires that a return form be obtained from NECO.

This limited warranty does not extend to parts designed to wear in normal operation and be replaced periodically; or to damage caused by negligence, accident, abuse or improper installation or operation.

GOODS NOT MANUFACTURED BY NECO CARRY ONLY THE MANUFACTURER'S WARRANTY.

THIS UNDERTAKING IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING MERCHANTABILITY AND FITNESS FOR PARTICULAR PURPOSE.

FAILURE TO FOLLOW THE INSTRUCTIONS CONTAINED IN THIS MANUAL AND THE ITEMS LISTED BELOW WILL RESULT IN THE VOIDING OF THIS LIMITED WARRANTY.

1. Improper assembly.
2. Improper installation (power and wiring included)
3. Unauthorized alterations of goods.
4. Goods operated when obviously in need of repair.
5. Use of unauthorized repair parts.
6. Irresponsible operation by children or uninstructed personnel
7. Used to handle materials other than free flowing, non-abrasive and dry materials as intended.
8. Damaged through abusive use or accident.

### LIMITATION OF LIABILITY

BUYER AGREES THAT IN NO EVENT SHALL NECO HAVE LIABILITY FOR DIRECT DAMAGES IN EXCESS OF THE CONTRACT PRICE OF THE GOODS IN RESPECT OF WHICH CLAIM IS MADE AND BUYER FURTHER AGREES THAT IN NO EVENT SHALL NECO ON ANY CLAIM OF ANY KIND, HAVE LIABILITY FOR LOSS OF USE, LOSS OF PROFITS OR FOR ANY INDIRECT, INCIDENTAL, OR CONSEQUENTIAL DAMAGES.

# Table of Contents

Warranty .....	2
Safety .....	4-5
Bill of Lading Items .....	6
Hardware Location .....	7
Reworking of the Beam .....	8
(If adding to existing system)	
Reworking of Spacer Angle.....	12
(If adding to existing system)	
Assembly Instructions .....	12-13



## OPERATOR QUALIFICATIONS

Operation of this farmstead equipment shall be limited to competent and experienced persons. In addition, anyone who will operate or work around power equipment must use good common sense. In order to be qualified, he must also know and meet all other requirements such as:

Some regulations specify that no one under the age of 16 may operate power machinery. This includes farmstead equipment. It is your responsibility to know what these regulations are in your own area or situation.

Current OSHA regulations state in parts: "At the time of initial assignment and at least annually thereafter, the employer shall instruct every employee in the safe operation and servicing of all equipment with which the employee is, or will be involved." \*

Unqualified persons are to stay out of the work area. The "Work Area" is defined as the area surrounding the grain handling equipment.

A person who has not read and understood all operation and safety instructions is not qualified to operate the machine.

\*Federal Occupational Safety & Health Standards for Agriculture  
Subpart D, Section 1928.57 (a) (6).



## FULL LOAD OPERATING PROCEDURES

During the regular operation of your farmstead equipment, one person shall be in a position to monitor the operation. It is also good practice to visually inspect the equipment periodically during the actual operation. You should be alert for unusual vibrations, noises, and the loosening of any fasteners.

- Observe work area restrictions.
- Keep all safety shields and devices in place.
- Make certain everyone is clear before operating or moving farmstead equipment.
- Keep hands, feet, and clothing away from moving parts.
- Shut off power to adjust, service or clean.



## MACHINE INSPECTION

After completion of assembly and before each use, inspection of the equipment is mandatory. This inspection should include but not be limited to:

- Check to see that all guards listed in the assembly instructions and included with unit are in place and secured.
- Make sure all fasteners are tight.
- All belts and chains must be properly adjusted.

Safety decals must be clean and readable. If new decals are needed, they are available at no charge by contacting NECO, at (402) 453-6912.



## WORK AREA SAFETY

Under no circumstances should persons not involved in the operation be allowed to trespass into the work area.

It shall be the duty of all operators to see that children and/or other persons stay out of the work area. Trespass into the work area by anyone not involved in the actual operation, or trespass into a hazard area by anyone, shall result in an immediate shut down by the operator.

Prior to start up and during operation, it shall be the responsibility of all operators to see that the work area has secure footing. It must be clean and free of all debris and tools which might cause accidental tripping and/or falling.



## DRIVES AND LOCK OUT

It is essential to inspect your drive before adding power and to know how to shut down in an emergency. Whenever you must service or adjust your equipment, make sure you shut down and lock out your power source.

Electric motors and controls shall be installed by a qualified electrician and must meet the standards set by the National Electrical Code and all local and state codes.

You must disconnect power before resetting your motor.

Reset and motor starting controls must be located so that the operator has a full view of the entire operation.

Keep all guards and shields in place.

A main power disconnect switch capable of being locked only in the OFF position shall be provided. This shall be locked whenever work is being done on the equipment.



## SHUTDOWN

### Normal Shutdown

Make certain that the equipment is empty before stopping the unit.

Before the operator leaves the work area, the power source shall be locked out.

### Emergency Shutdown

Should the equipment be immediately shut down under a load, disconnect and lock out the power source. Clear as much grain from the hopper and auger as you can. Never attempt to restart when full.

Reconnect power source and clear the equipment gradually.

Starting equipment under load may result in damage to equipment. Such damage is considered abuse of the equipment.

**FAILURE TO HEED THESE INSTRUCTIONS CAN RESULT  
IN PERSONAL INJURY OR DEATH!**

**STIR-RITE Fixed Auger**  
**Bill of Lading Items**



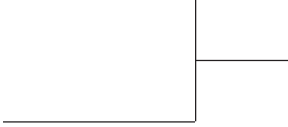
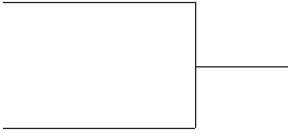

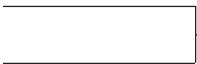

1 - 038341 Box of Parts Stir-Rite Fixed Auger Trolley Assembly, *including*

- 1 - 038345 Bridge Bracket Weldment
- 1 - 038335 Auger Support Plate
- 1 - 038337 Pivot Mount Weldment
- 1 - 038580 Motor Mount
- 1 - 038211 STIR-RITE Fixed Auger Manual
- 1 - 039076 Bag of Hardware, *consisting of:*

- 4 - 003057 3/8" x 1" Bolt
- 4 - 003067 3/8" x 3-1/2" Bolt
- 8 - 003148 3/8" Nut
- 8 - 003178 3/8" Lock Washer
- 2 - 003192 3/8" Flat Washer
- 4 - 003210 1/8" x 1-1/2" Cotter Pin
- 4 - 038336 3/8" x 1-13/16 Spacer

## ***STIR-RITE Fixed Auger***

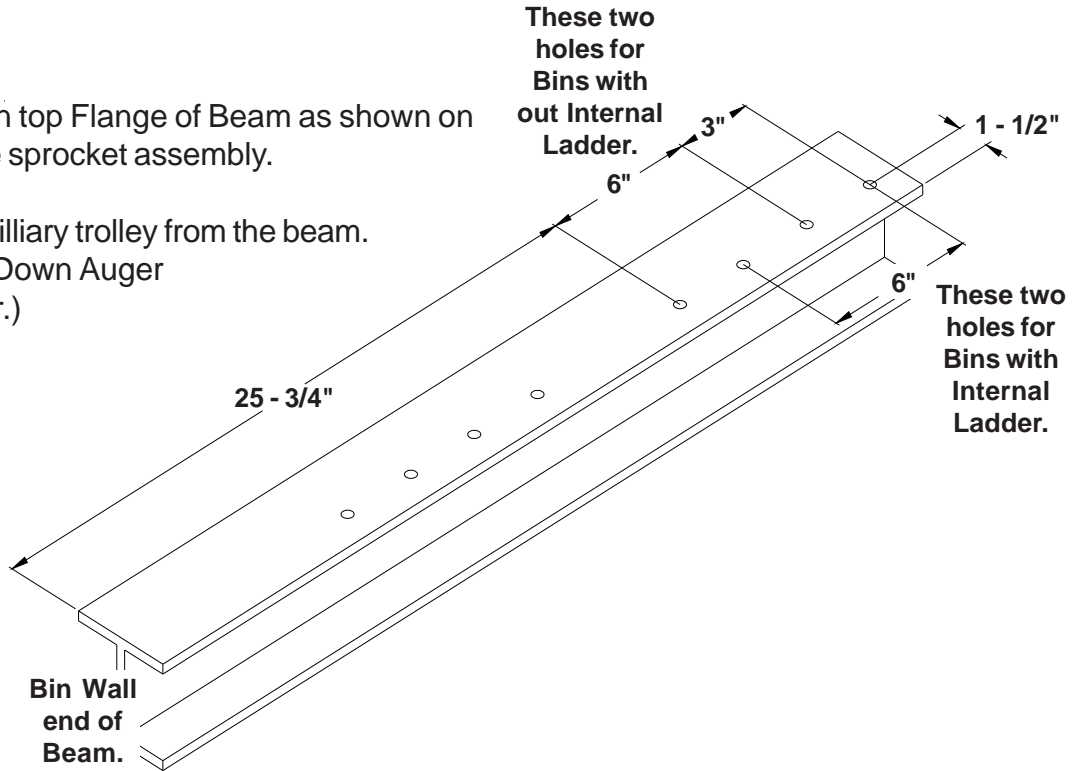
### **Hardware Location from Bag of Hardware**

2 - 3/8" x 1" Bolt 2 - 3/8" Lock Washer 2 - 3/8" Nut		Motor Mount Plate TO Bridge Bracket
2 - 3/8" x 1" Bolt 2 - 3/8" Lock Washer 2 - 3/8" Nut		Auger Plate TO Bridge Bracket
2 - 3/8" x 3-1/2" Bolt 2 - 3/8" x 1-13/16 Spacer 2 - 3/8" Lock Washer 2 - 3/8" Nut		Motor Mount Plate TO Beam
2 - 3/8" x 3-1/2" Bolt 2 - 3/8" x 1-13/16 Spacer 2 - 3/8" Lock Washer 2 - 3/8" Nut		Auger Plate TO Beam
1 - 1/8" x 1-1/2" Cotter Pin		TO Bridge Bracket
1 - 1/8" x 1-1/2" Cotter Pin 2 - 3/8" Flat Washer		TO Motor Mount Plate
2 - 1/8" x 1-1/2" Cotter Pin		TO Spring Tension Bar

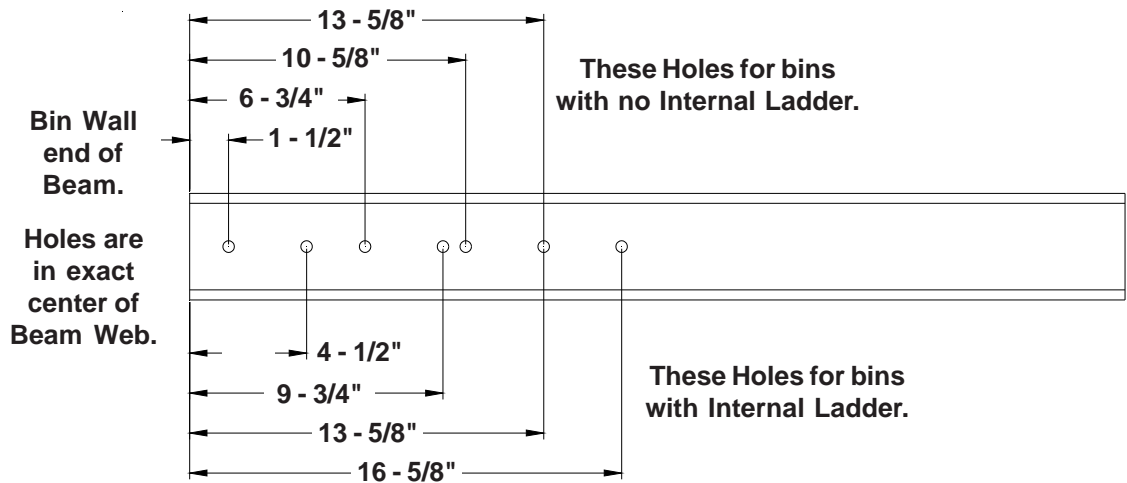
# STIR-RITE Fixed Auger

## Reworking of the Beam

1. Drill (4) 7/16" holes in top Flange of Beam as shown on illustration for double sprocket assembly.
2. Remove unused auxilliary trolley from the beam.  
(Existing Motor and Down Auger used for Fixed Auger.)

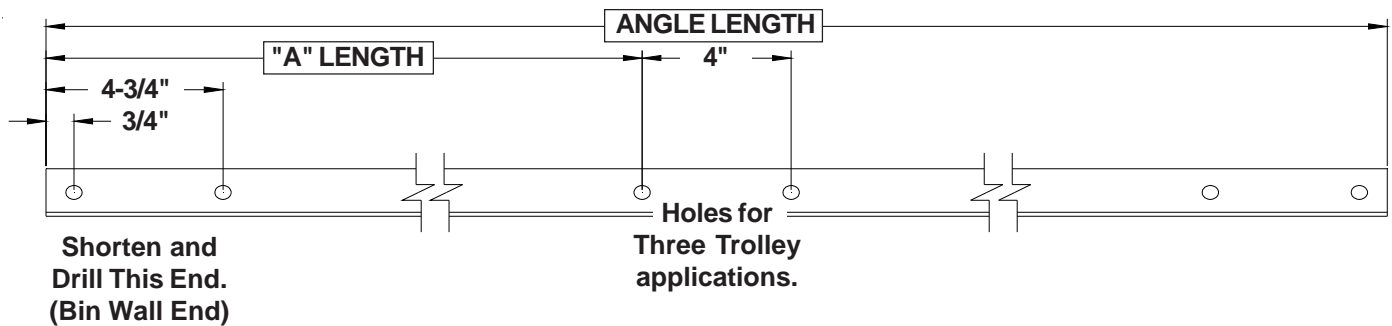


3. Drill (7) 7/16" holes through Center Web of Beam to mount Fixed Auger Mounting Bracket. On Bins with no Internal Ladder, Fixed Auger Trolley is mounted on very end of Beam. Bins with an Internal Ladder require the Trolley to be mounted on the next set of holes towards the center of the Bin.



## **STIR-RITE Fixed Auger Reworking of Spacer Angle**

1. Shorten Spacer Angle as shown in the charts at the bottom of the page.  
(Shorten Bin Wall End)
2. Drill two 7/16" holes at cut off end.  
Drill two more 7/16" holes for Three Trolley applications. Location on the chart at the bottom of the page.



<b>TWO MOVING TROLLEYS</b>		
BIN DIA.	ANGLE LENGTH	WELDMENT PART NO.
24'	53 - 1/4"	038346
27'	62 - 1/4"	038347
30'	71 - 1/4"	038348
33'	80 - 1/4"	038349
36'	89 - 1/4"	038350
39'	98 - 1/4"	038351
42'	107 - 1/4"	038352
45'	116 - 1/4"	038353
48'	10'5-1/4"	038354

<b>THREE MOVING TROLLEYS</b>			
BIN DIA.	ANGLE LENGTH	"A" LGTH.	WELDMENT PART NO.
24'	72"	38"	038355
27'	84"	44"	038356
30'	96"	50"	038357
33'	108"	56"	038358
36'	10' - 0"	62"	038359
39'	11' - 0"	68"	038360
42'	12' - 0"	74"	038361
45'	13' - 0"	80"	038362
48'	14' - 0"	86"	038363

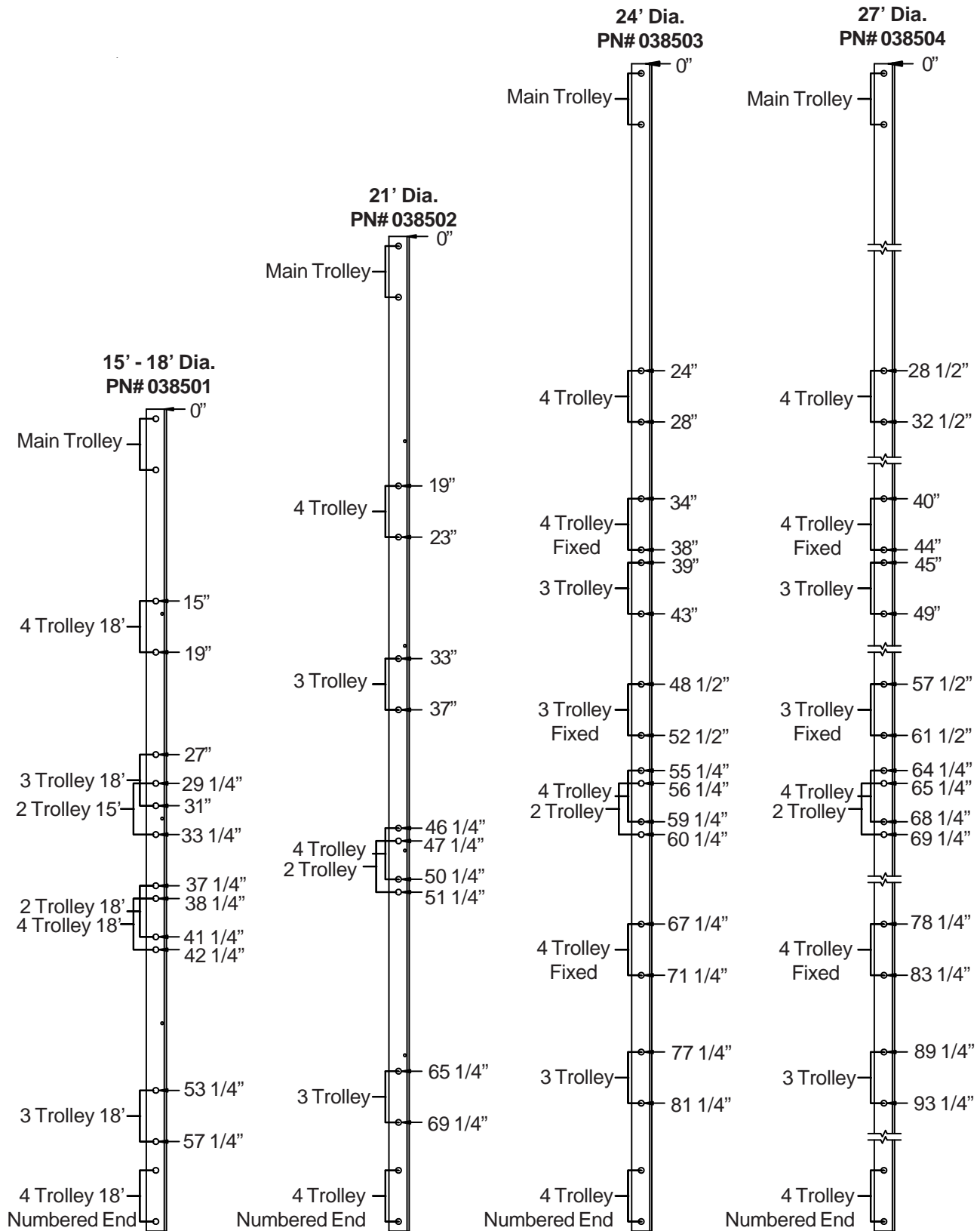


Figure 6. Trolley Spacing for 15' Diameter Bins to 27' Diameter Bins

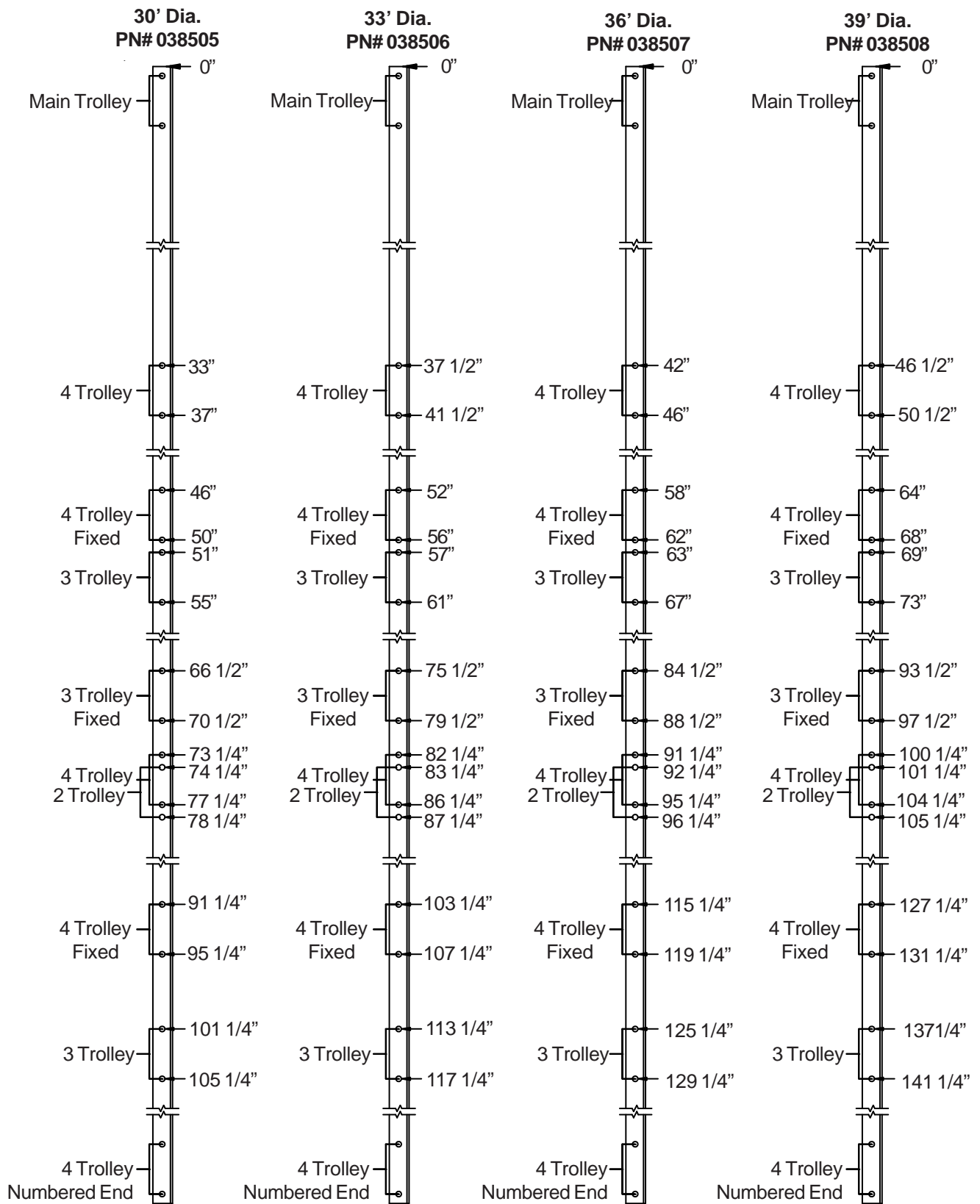


Figure 7. Trolley Spacing for 30' Diameter Bins to 39' Diameter Bins

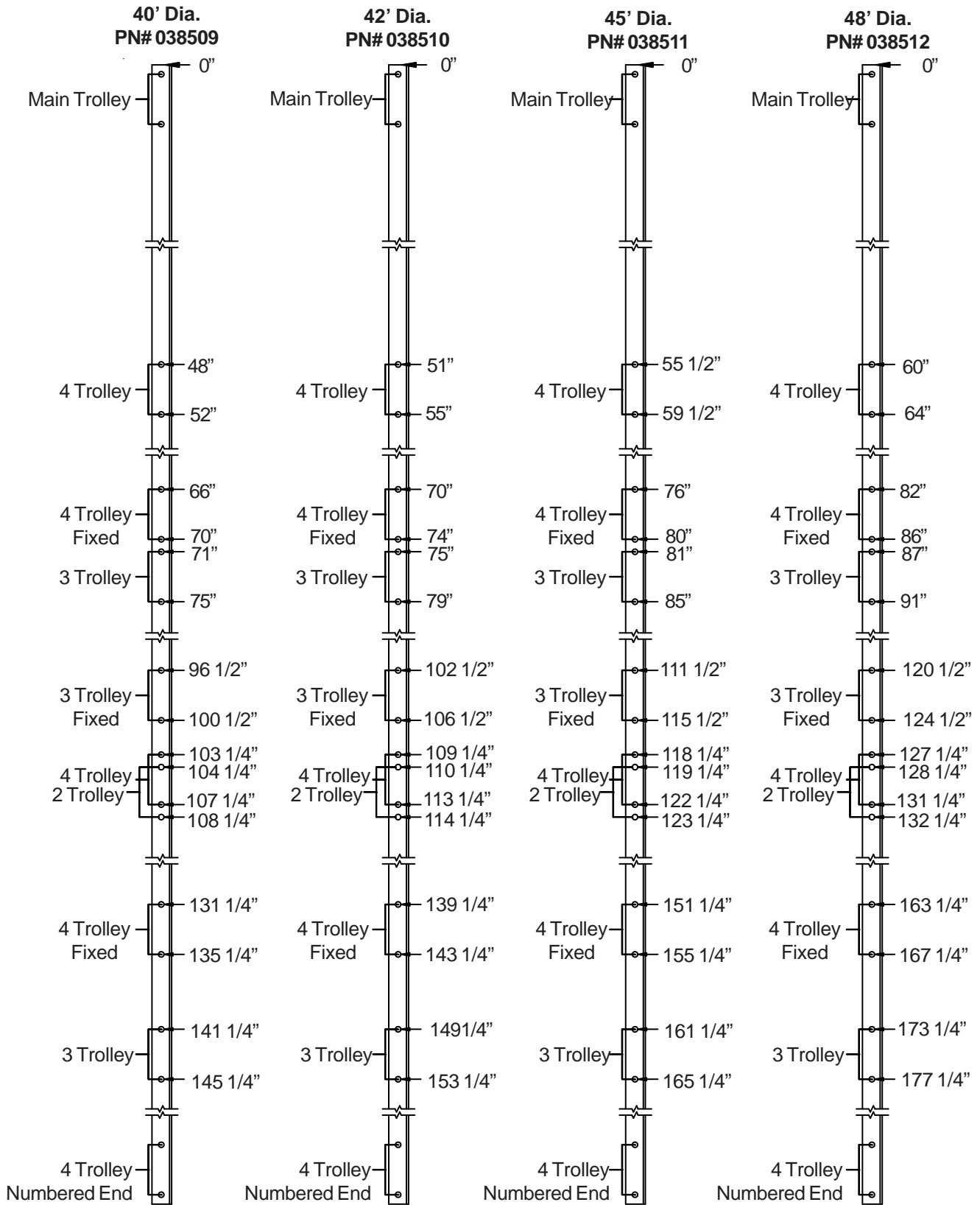
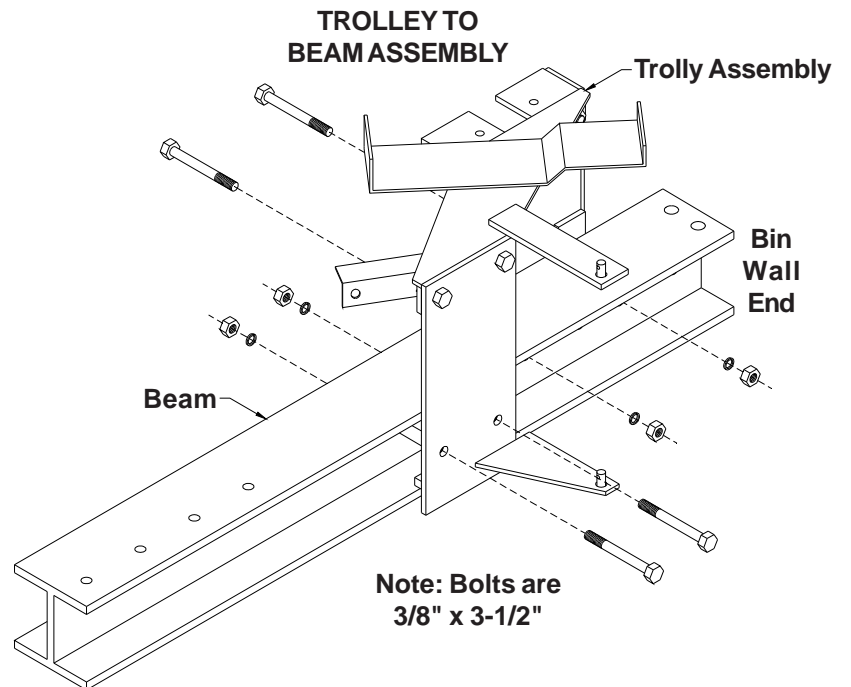
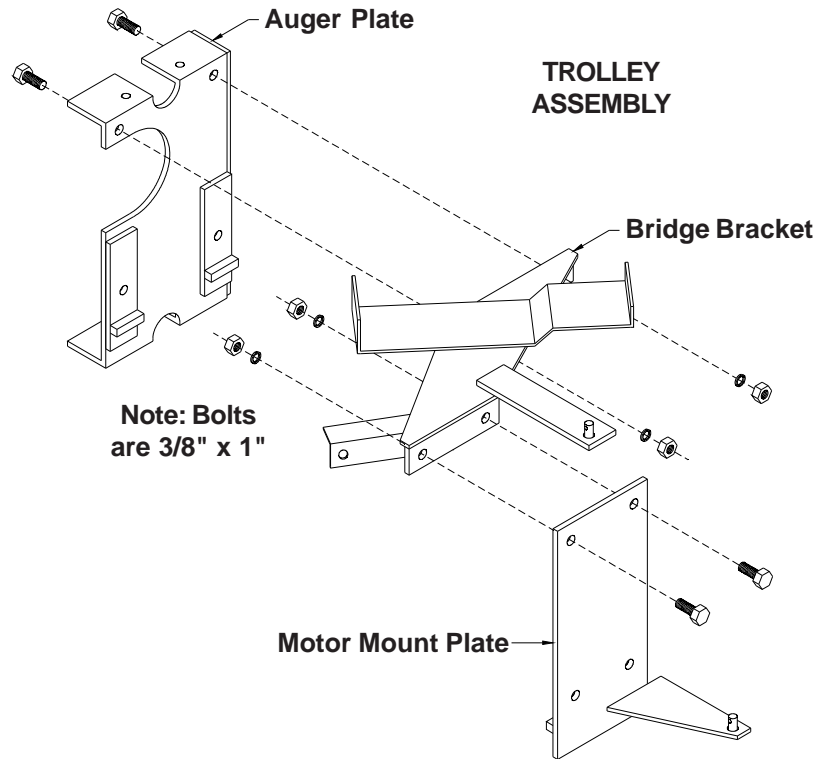


Figure 8. Trolley Spacing for 40' Diameter Bins to 48' Diameter Bins

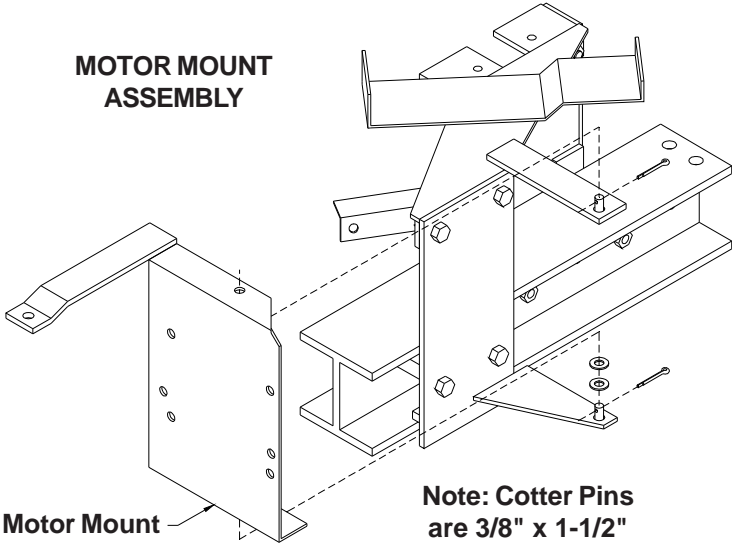
# STIR-RITE Fixed Auger Assembly Instructions

1. First you need to assemble the Trolley. Bolt the Motor Mount Plate to the Bridge Bracket finger tight for right now, using two 3/8" x 1" Bolts, Lock Washers, and Nuts. Then bolt the Auger Plate to the Bridge Bracket finger tight also, using two 3/8" x 1" Bolts, Lock Washers, and Nuts.
2. Next slip the Trolley Assembly over the beam aligned with either the outer holes for Bins with out an Internal Ladder or the inner holes for Bins with an Internal Ladder. Bins with an Internal Ladder *Must* use the inner holes for clearance so the Stirring Auger will not collide with the Bin Ladder. Now you can tighten the Trolley Assembly Bolts.
3. Now with the Trolley aligned bolt it to the Beam using four 3/8" x 3-1/2" Bolts, 3/8" x 1-13/16" Spacers, Lock Washers, and Nuts. (Spacers are between Beam and Plates.)



# STIR-RITE Fixed Auger Assembly Instructions

## MOTOR MOUNT ASSEMBLY

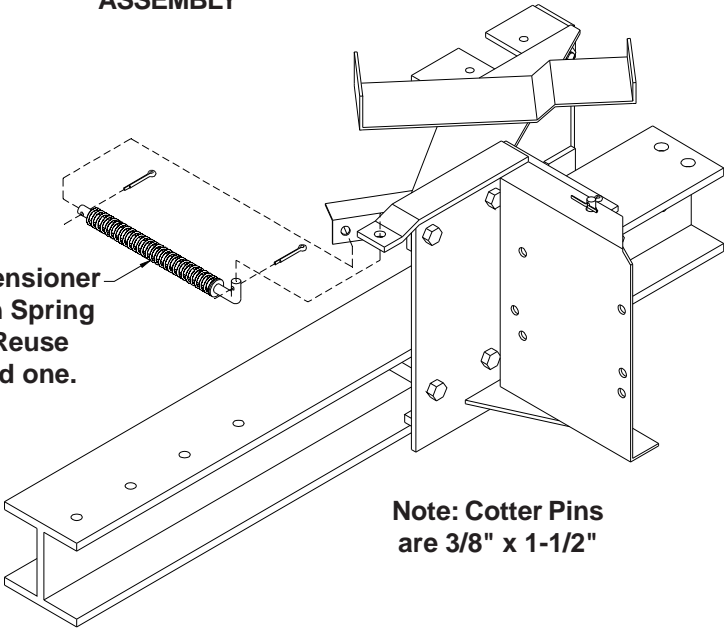


Motor Mount  
Note: Reuse  
your old one.

Note: Cotter Pins  
are 3/8" x 1-1/2"  
Washers are 3/8"

4. Now you can attach the Motor Mount to the Trolley Assembly using two 1/8" x 1-1/2" Cotter Pins and adding two Washers to the Bottom Hinge.
5. Then insert the Spring Tensioner Rod and Spring attaching it with two 1/8" x 1-1/2" Cotter Pins.
6. Now you are ready to assemble the Down Augers and Bearings with your Pulleys, Motor, and Belt Shield.

## TENSIONER ASSEMBLY



Spring Tensioner  
Rod with Spring  
Note: Reuse  
your old one.

Note: Cotter Pins  
are 3/8" x 1-1/2"

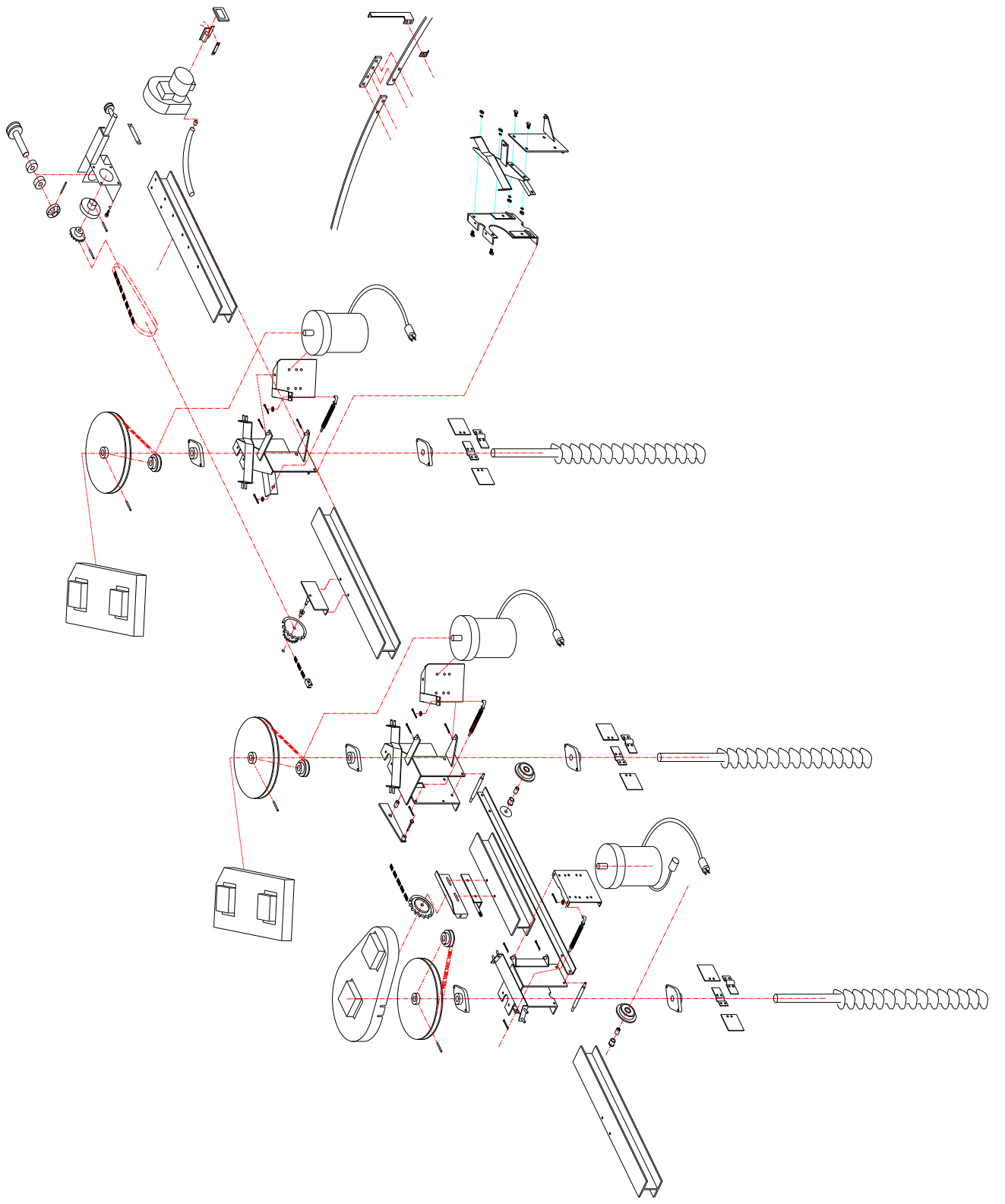
# STIR-RITE THREE TROLLEY W/1 FIXED & 2 MOVING AUGERS

## Replacement Parts

Ref. No.	Part No.	Qty. Req'd.	Description
1	038244	1	Belt Shield Inner Trolley
2	003540	3	Spirol Pin 5/16" x 2"
3	036174	1	Pulley 14" x 1" Bore x 1 Groove
4	036195	2	Belt AX48 Notched
5	038212	3	Pulley 2-3/4" A x 7/8" Bore 1 Groove
6	039182	6	Bearing 1" 2B Flg Cl FHF205-16G
7	003210	12	Cotter Pin 1/8" x 1-1/2" ZN
8	038041	1	Trolley, Auxiliary Weldment
9	038257	1	Trolley, Auxiliary Assembly
10	038364	1	Beam Weldment, 24' Fixed Auger 13'0"
	039157	1	Beam Weldment, 27' Fixed Auger 14'6"
	038366	1	Beam Weldment, 30' Fixed Auger 16'0"
	038367	1	Beam Weldment, 33' Fixed Auger 17'6"
	038368	1	Beam Weldment, 36' Fixed Auger 19'0"
	039092	1	Beam Weldment, 40' Fixed Auger 21'0"
	038370	1	Beam Weldment, 42' Fixed Auger 22'0"
	038372	1	Beam Weldment, 48' Fixed Auger 25'0"
11	036337	1	Belt, A41
12	038104	7	Spacer, Trolley Frame
13	003193	14	Flatwasher, 1/2" Zinc
14	038329	6	Flipper Rubber Belting
15	038321	7	Trolley Roller, Plastic
16	038087	7	Trolley Roller
17	038323	7	Bushing, Trolley Roller
18	038328	6	Clamp Half
19	038003	3	Stirring Auger, 17'6"
	038004	3	Stirring Auger, 20'0"
	038019	3	Stirring Auger, 21'0"
	038137	3	Stirring Auger, 23'0"
20	036338	3	Compression Spring, .750 x 6.756 x .120
21	038102	3	Rod Weldment on Spring
22	038056	1	Motor Mounting Plate
23	038680	2	Motor Assy 1-1/2 HP 1 PH Single Plug
	038962	2	Motor Assy 2 HP 3 PH 230V 50HZ Single Plug
24	038681	1	Motor Assy 1-1/2 HP 1 PH Two Cord
	038961	1	Motor Assy 2 HP 3 PH 50HZ Two Cord
25	038415	A.R.	Stir-Rite Track 15'
	038057	A.R.	Stir-Rite Track 20'
26	036333	1	4017 Idler Sprocket 1/2"
27	038058	A.R.	Splice Plate, Stir-Rite Track
28	038088	1	Adjuster Weldment
29	038091	1	Bracket Weldment
	038211	1	Fixed Stir-Rite Manual (Not Shown)

Ref. No.	Part No.	Qty. Req'd.	Description
30	038503	1	Spacer Angle 24' Dia. 77.25" L
	038504	1	Spacer Angle 27' Dia. 88.25" L
	038506	1	Spacer Angle 30' Dia. 9'10.25" L
	038507	1	Spacer Angle 33' Dia. 10'11.75" L
	038509	1	Spacer Angle 36' Dia. 12'1.25" L
	038510	1	Spacer Angle 40' Dia. 13'7.25" L
	038512	1	Spacer Angle 42' Dia. 14'4.25" L
31	038581	2	Spacer Angle 48' Dia. 16'7.25" L
32	038133	1	Pulley, 10" x 1" Bore x 1 Groove
	038134	1	Pitman Arm Weldment
33	038580	2	Pitman Arm
34	038105	2	Motor Mount Weldment, Main Trolley
35	038376	1	Belt Shield, Main Trolley
	038377	1	2040 Auger Drive Chain 120P (24'Dia)
	038159	1	2040 Auger Drive Chain 138P (27'Dia)
	038379	1	2040 Auger Drive Chain 156P (30'Dia)
	038380	1	2040 Auger Drive Chain 174P (33'Dia)
	038382	1	2040 Auger Drive Chain 192P (36'Dia)
36	038345	1	2040 Auger Drive Chain 228P (40'Dia & 42' Dia)
37	038337	1	Bridge Bracket Weldment, Fixed Auger Trolley
38	038335	1	Motor Mount Weldment Fix Auger Trolley
40	038049	1	Auger Support Weldment Fixed Auger Trolley
41	038258	1	Main Trolley Weldment
42	038094	1	Main Trolley Assembly
43	038184	1	Double Sprocket Weldment
44	003397	1	Drive Chain Primary #40
45	038669	1	5/16" x 2" Grade 5 Bolts
46	038098	1	Bushing, 1" ID x 1-1/4" OD x 1-1/2"
47	038109	A.R.	Spindle Bracket
48	038065	1	Track Brackets
49	036192	2	Drive Wheel Shaft
50	020026	1	Bearing, 1-1/4" Cylindrical w/Lock Collar
51	003210	1	Gear 14-Tooth x 1-1/4" Bore
52	020021	1	Cotter Pin, 1/8" x 1-1/2" Zinc
53	038110	A.R.	Gear 19-Tooth x 1" Bore
54	038073	1	Track Clips
55	038678	1	Drive Cluster Weldment
56	003094	5	Drive Cluster Assembly
57	038220	1	5/16" x 1" Grade 5 Bolts
	038243	1	Service Cord 12/3 x 20' w/Body 1 PH
58	005277	1	Service Cord 14/4 x 20' w/Body 3 PH
59	038675	2	Mercury Switch w/14ga. leads
60	005291	1	Switch Mounting Plate
61	038676	1	Gear Motor 230V 1PH 2RPM
62	038136	1	Screw Plate
63	005276	3	Pitman Arm Bushing
64	038677	1	Cord Grip 1/2 .375-.5 SHC1023CR
65	035691	1	Drive Cluster Electrical Box

Warning-Deeat-High Voltage



This page is intentionally left blank.



MANUFACTURED BY

NECO

**NEBRASKA ENGINEERING CO.**

9364 N.45 St. Omaha, Nebraska 68152

Phone: 1-402-453-6912

Watts: 1-800-367-6208

Fax: 1-402-453-0471