

# Slotted Trip Reversible Plow Maintenance and Parts Manual



MONROE TRUCK EQUIPMENT 1051 W. 7th Street Monroe, WI 53566 Phone: 608-328-8127 Fax: 608-329-8488

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## SAFETY INSTRUCTIONS

- Read all installation, safety and maintenance instructions completely before operating this equipment
- Keep all personnel clear of moving parts while equipment is being operated.
- Do not operate equipment in need of maintenance! Repair immediately!
- While operating this equipment, use common sense, use caution, be alert and be safety-conscious.





CAUTION: "Stacking" (piling) of snow with a push plow is not recommended.

Raising the plow too high while stacking can damage the plow and mount by causing the lift arm to fold up and contact the moldboard.

Do not lift the plow more than 18" off the ground with piling and stacking snow.

Where possible, start the snow season by pushing snow as far back as possible from the area begin plowed to avoid having to move or stack it later.

### MAINTENANCE INSTRUCTIONS

#### In Season:

- Check for loose bolts and nuts daily, and re-torque before use. (Failure to inspect equipment on a daily basis may seriously affect safety and/or efficiency.)
- Lubricate all grease fittings every ten hours of normal use and more frequently under heavy use. (See diagram below for locations.)
- Check all hydraulic fittings for tightness on a regular basis.
- Check cutting edge for wear. Do not let cutting edge wear closer than  $\frac{1}{2}$ " to  $\frac{3}{2}$ " from moldboard.
- Due to the nature of use and environment this scraper is operating in, damage and wear may occur at anytime. Therefore, **Monroe Truck Equipment** recommends the end user establish and follow a daily inspection routine before using this scraper.

#### Off Season: (If Applicable)

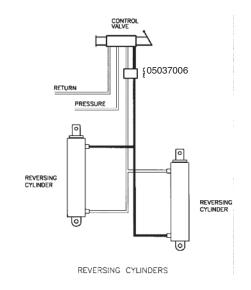
- Use care when disconnecting hydraulic lines to assure that no dirt or foreign objects enter the hydraulic system. Use caps to cover hydraulic hose fittings and insert plugs into hydraulic ports.
- Hydraulic cylinders should be fully retracted when stored during the off season to prevent damage or corrosion. The remaining exposed shaft surface should be coated with a thick grease to prevent corrosion, which must be removed before returning to regular service.
- Check mounting bolts for wear and/or damaged threads and replace before remounting.

# **GENERAL INFORMATION**

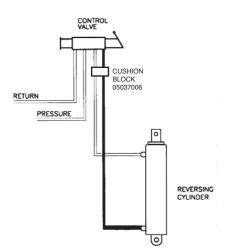
- Location descriptions are noted in direction of travel. (i.e. front, rear, left and right.)
- Delivery of replacement parts is subject to our sales delivery terms.
- Use only Monroe Truck Equipment O.E.M. replacement parts. Failure to do so will void warranty.
- Replacement parts listed in this manual reflect our most common items. If you do not find the part you require, please call your distributor.
- **Monroe Truck Equipment** reserves the right to make revisions or alterations to this parts manual.
- Monroe slotted trip reversible plows are designed to operate with a 17" push height when equipped with the standard 8" center punch cutting edge. Changes in cutting edge height will require adjustments at the hitch to maintain optimum attach angle.
- Monroe Full Moldboard Compression Trip Reversible plows are designed for use with a variety of hitches. Please consult the operating manual for your hitch to determine the correct attaachment procedure.

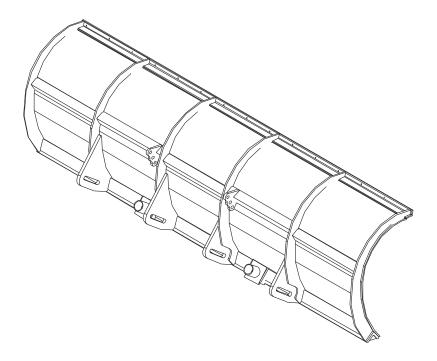
## HYDRAULIC DIAGRAMS

### Hydraulic Diagram for the Reversing Cylinders



### Single Reversing Cylinder





#### FULL MOLDBOARD SLOTTED TRIP REVERSIBLE 10 GAUGE WELDMENTS

ITEM	QTY	PART #	DESCRIPTION
1	1	00075433	Moldboard Weldment, Plow, MP41R10-ISST
	1	00075434	Moldboard Weldment, Plow, MP41R11-ISST
	1	00071402	Moldboard Weldment, Plow, MP41R12-ISST
	1	00071499	Moldboard Weldment, Plow, MP48R11-ISST
	1	00071476	Moldboard Weldment, Plow, MP48R12-ISST
2	1		Cutting Edge (See page 7)
3	1		Trip Kit, Reversible Slotted Trip (See page 8)
4	1		Pushframe Kit, 9'-12' (See page 10-11)
5	1		Reversing Kit, 3 x 10 Cylinder (See page 9)
6	1		Decal Kit, Plow (See page 17)

#### CUTTING EDGE KIT, % X 8, CPCS

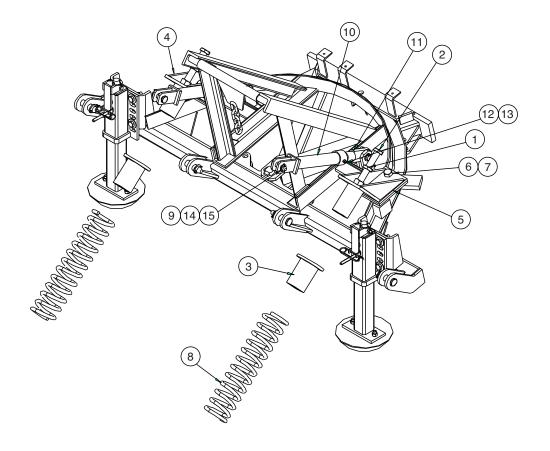
ITEM	QTY	PART #	DESCRIPTION
1	1	05031015	Cutting Edge, % x 8 x 10', CPCS
	1	05031016	Cutting Edge, % x 8 x 11", CPCS
	1	05031017	Cutting Edge, % x 8 x 12', CPCS
2	AR	05014551	Bolt, %-11 x2½, G8, Dome Head Plain
3	AR	05021383	Washer, ¾, Lock, Heavy, Zinc
4	AR	05020270	Nut, %-11, G8, Hex, Zinc

#### CUTTING EDGE KIT, 1½, RUBBER, COVER

ITEM	QTY	PART #	DESCRIPTION
1	1	05031022	Cutting Edge, 10', 1½ x 10, Rubber, CP Slotted
	1	05031023	Cutting Edge, 11', 1½ x 10, Rubber, CP Slotted
	1	05031024	Cutting Edge, 12', 1½ x 10, Rubber
2	1	05031030	Cutting Edge, 10', ½ x 6, TPCS
	1	05031031	Cutting Edge, 11', ½ x 6, TPCS
	1	05031032	Cutting Edge, 12', ½ x 6, TPCS
2	AR	05014560	Bolt, %-11 x 5, G8, Dome Head Plain
3	AR	05021383	Washer, %, Lock, Heavy, Zinc
4	AR	05020270	Nut, %-11, G8, Hex, Zinc

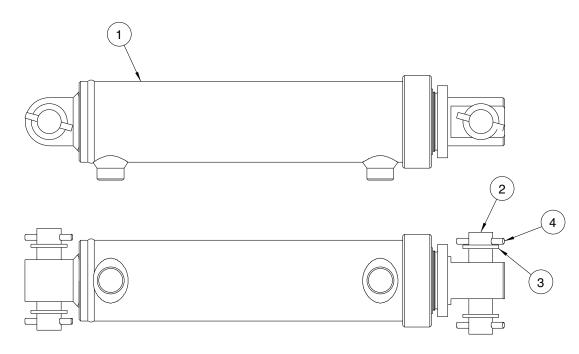
#### CUTTINGE EDGE KIT, ¾ X 6, CARBIDE, TPCS

ITEM	QTY	PART #	DESCRIPTION
1	AR	05031082	Cutting Edge, 3', ¾ x 6, Carbide
2	AR	05031083	Cutting Edge, 4', ¾ x 6, Carbide
3	1	05031030	Cutting Edge, 10', ½ x 6
	1	05031031	Cutting Edge, 11', ½ x 6
	1	05031032	Cutting Edge, 12', ½ x 6
4	AR	05014553	Bolt, %-11 x 3, G8, Dome Head Plain
5	AR	05021383	Washer, <sup>5</sup> / <sub>4</sub> , Lock, Heavy, Zinc
6	AR	05020270	Nut, %-11, G8, Hex, Zinc
7	4	05014551	Bolt, %-11 x 2½, G8, Dome Head Plain



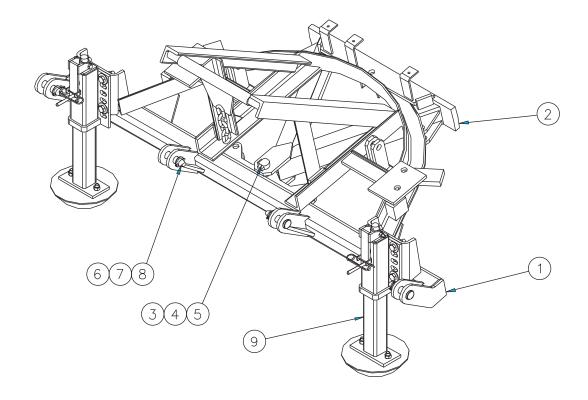
#### TRIP KIT, PLOW, REV, SLOTTED TRIP, BRACKETS AND HARDWARE

ITEM	QTY	PART #	DESCRIPTION
1	2	00094730	Nut, Acme Thread Half
2	2	01110104	Spring Adjustment Screw
3	2	01110105	Spring Retainer Weldment
4	1	00043188	Bracket Weldment, RH, Trip Spring
5	1	00043189	Bracket Weldment, LH, Trip Spring
6	4	05010812	Bolt, 1-8 x 2½, G8, HHCs, Zinc
7	4	05020834	Nut, 1-8, GC, Top Lock, C&W
8	2	05035007	Spring Compression Trip
9	4	05022051	Pin, 1 x 3½, Flat, HD, w/ Hole
10	2	00043186	Pusharm Weldment, Outer
11	2	00043187	Pusharm Weldment, Inner
12	2	05010653	Bolt, %-16 x 3½, G8, HHCS, Zinc
13	2	05020898	Nut, %-16, GC, Top Lock, C&W
14	4	05022026	Pin, ¼ x 2, Roll, Zinc
15	4	05021202	Bushing, 1½ x 1 x 10 Gauge, Zinc



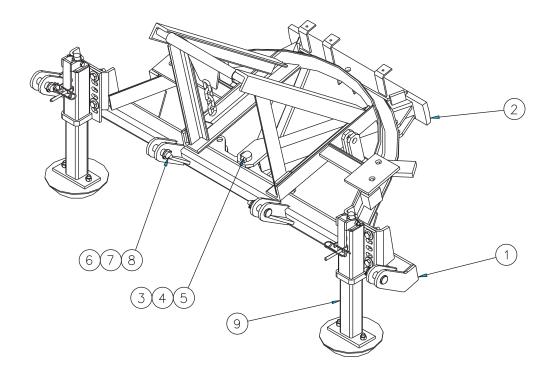
### **REVERSING KIT, 3 X 10 CYLINDER**

QTY	PART #	DESCRIPTION
2	0500000	Cylinder, 3" x 10" DA (See page 18 for breakdown)
2	05000020	Cylinder, 4" x 10", DA (Optional) (See page 19 for breakdown)
4	05022040	Pin, 1" x 4¼", No Head
8	05021202	Bushing, 1½" x 1" x 10 Gauge, Zinc
8	05022026	Pin, ¼" x 2", Roll, Zinc
1	05043067	Cushion Block Assembly
1	05037080	Hose Assembly, Plow, w/R608 (Not Shown)
3	00055000	Clip Hose Hold Down
3	05010620	Bolt, 5/16-18 x 11/2, G8, HHCS, Zinc
3	05020909	Nut, 5/16-18, GC, Top Lock, C&W
	2 2 4 8 8 1 1 3 3	2 0500000   2 0500020   4 05022040   8 05021202   8 05022026   1 05037080   3 05010620



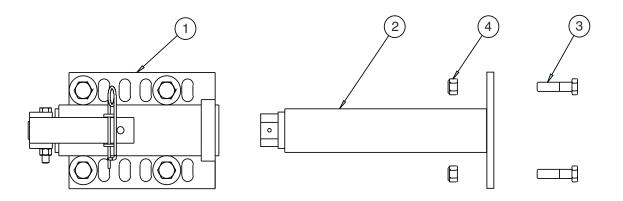
### PUSHFRAME KIT, 9'-12',41,MUSHROOM JACK ASSEMBLY

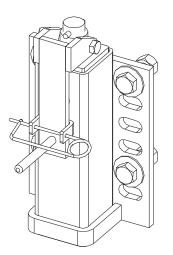
ITEM	QTY	PART #	DESCRIPTION
1	1	00043176	Pushframe Weldment, 41, 4 Atch Pts, Level Lift
2	1	00027881	A-Frame Weldment, Pivot
3	1	05022047	Pin, 1¼ x 7¼, Flat Head
4	1	05022044	Pin, 5/6 x 3, Roll
5	1	05021316	Washer, 1¼, Flat, Zinc
6	4	05022067	Pin, 1¼ DIA x 4½ OA, Flat Head
7	4	05022039	Pin 5/₁6 x 2, Roll
8	4	05021191	Bushing, 1.88 OD x 1¼ ID x 14 Gauge, Zinc
9	1	00012692	Jack Kit, Mushroom, 11 (See page 12)



### PUSHFRAME KIT, 9'-12',48, MUSHROOM JASK ASSEMBLY

ITEM	QTY	PART #	DESCRIPTION
1	1	00027840	Pushframe Weldment, 48, 4 Atch Pts, Level Lift
2	1	00027881	A-Frame Weldment, Pivot
3	1	05022047	Pin, 1¼ x 7¼, Flat Head
4	1	05022044	Pin, 5/₀ x 3, Roll
5	1	05021316	Washer, 1¼, Flat, Zinc
6	4	05022067	Pin, 1¼ DIA x 4½ OA, Flat Head
7	4	05022039	Pin 5/₀ x 2, Roll
8	4	05021191	Bushing, 1.88 OD x 1¼ ID x 14 Gauge, Zinc
9	1	00012692	Jack Kit, Mushroom, 11 (See page 12)

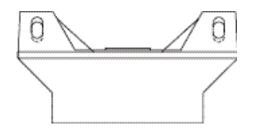




#### MUSHROOM SHOES PARTS LIST

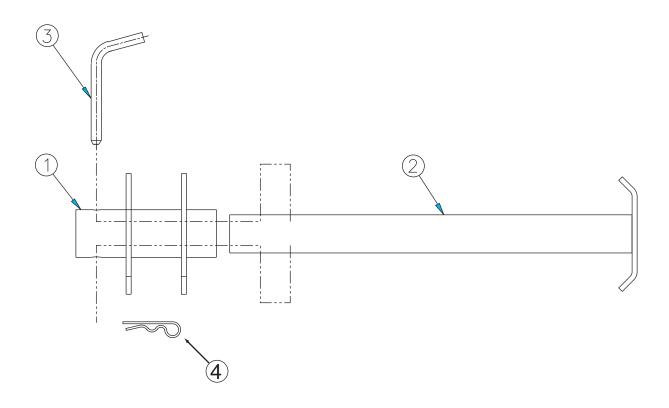
ITEM	QTY	PART #	DESCRIPTION
1	1	00041967	Jack Assembly, Outer Tube, Square
			2a. 00051025 Acme Nut Jack Adjustment
2	1	00051036	Assembly, Inner Tube
3	2	05010741	Bolt, <sup>5</sup> / <sub>8</sub> " - 11 x 2 <sup>1</sup> / <sub>2</sub> ", G8, Zinc
4	2	05020837	Nut, <sup>5</sup> <sub>8</sub> " - 11, GC, Top Lock, C&W
5	2	05051009	Shoe, Mushroom, Tapered, 11½ "x 8"
	2	05050120	Shoe, Mushroom, 10¼"Carbide
6	1	05050288	Grease Zerk, ¼" - 28", Straight

Items 1-4 are included in the Jack Assembly, Mushroom Shoe Jack and can be ordered using the part number 00051035.



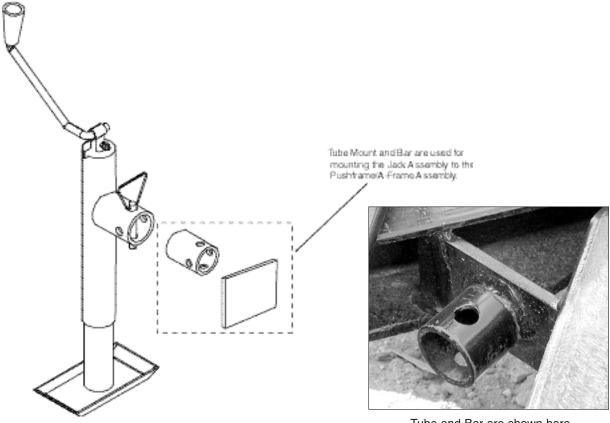
#### SHOE KIT, SKID, MOLDBOARD

ITEM	QTY	PART #	DESCRIPTION	
1	2	05050221	Shoe, Moldboard, Cast, 8", 10°	
	2	05050220	Shoe, Moldboard, Cast, 5" & 6", 10°	
	2	05051036	Shoe, Moldboard, Casting, 5", 30°	
	2	05051037	Shoe, Moldboard, Casting, 8", 35°	
2	4	05014560	Bolt, % - 11 x 5, G8, Dome Head, Plain	
3	4	05021383	Washer, %, Lock, Heavy, Zinc	
4	4	05020270	Nut, % - 11, G8, Hex, Zinc	



### 00010264 JACK KIT, PARKING JACK, A-FRAME PARKING JACK

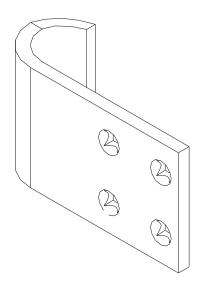
ITEM	QTY	PART #	DESCRIPTION
1	1	00010265	Tube Jack Weldment, Outer, Parking
2	1	00010267	Inner Tube Assembly
3	1	05022136	Pin, ½ x 4½, 4" Grip Bent, Zinc (Includes Item 4)
4	1	05022035	Pin, #11, Hair, Zinc



Tube and Bar are shown here mounted to the A-Frame

#### REMOVABLE SCREW ADJUSTABLE PARKING JACK

ITEM	QTY	PART #	DESCRIPTION	
1	1	05050227	Jack Assembly, Top Wind, Tube Mount	
2	2	05050193	Tube Mount	
3	1	00031003	Bar, ¾ x 3 x 6	



#### CURB GUARD KIT, WRAP AROUND

ITEM	QTY	PART #	DESCRIPTION
1	1	05050000	Guard, Curb, ½ x 6
2	2	05014555	Bolt, ½ - 11 x 3½, Dome Head Plain

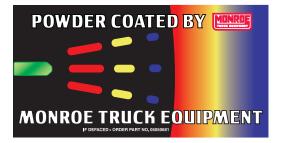
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#### MARKERS

ITEM	QTY	PART #	DESCRIPTION	
	1 Pair	05051432	Markers, 36" Fluorescent Orange Flexible Markers	
	1 Pair	05051181	Markers, Cable, 42" L, Straight, Yellow w/ Red Day Glo Tip	

#### **DECAL KIT**



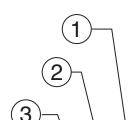


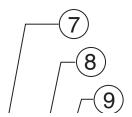
05051507 Monroe Snowplow, 12 x 5 05050681 Bonded Powder Coat

### 05000000 CYLINDER, 3 X 10 DA

ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	05000001	PACKING SET
2	1	05000002	O-RING
3	1	05000006	BOX
4	1	05000007	NUT
5	1	05000003	WIPER
6	1	05002170	ROD
7	1	05000014	TUBE
8	1	05000010	PISTON
9	1	05000004	O-RING
10	2	05000005	CUP
11	2	05000011	FOLLOWER
12	1	05000012	NUT
13	1	05000013	SEAL KIT
		1	

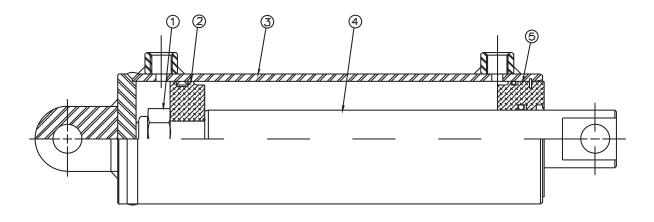
BEST METAL	ITEM	QTY	Part #	DESCRIPTION
	1	1	05000001	PACKING SET
	2	1	05000002	O-RING
	3	1	05000006	BOX
	4	1	05000007	NUT
	5	1	05000003	WIPER
	6	1	05000008	ROD
	7	1	05000014	TUBE
	8	1	05000010	PISTON
	9	1	05000004	O-RING
	10	2	05000005	CUP
	11	2	05000011	FOLLOWER
	12	1	05000012	NUT
	13	1	05000013	SEAL KIT





### 05000020 CYLINDER, 4 X10 DA

ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	05000022	LOCK NUT, 1-1/4"
2	1	05000023	PISTON
3	1	05000024	CASE
4	1	05000025	ROD
5	1	05000026	HEAD
	1	05000021	SEAL KIT



### HOW TO ORDER PARTS

To order or inquire about replacement parts, please contact the **distributor** or **store** that the product was purchased through. To speed the information flow, please have the following information ready:

- Model Number
- Serial Number
- Part Number and/or description as per the parts manual
- Quantity needed

For further information about **Monroe Truck Equipment** replacement parts, please call your local distributor.

# **RETURN POLICY**

Merchandise returned to **Monroe Truck Equipment** must have a Returned Goods Authorization (RGA) form filled out completely and signed by authorized personnel. To get your RGA form, call 800-880-0109. For whole goods, ask for **Snow & Ice Sales**. For replacement parts, ask for **Snow & Ice Parts Sales**. All returned items are subject to a 15% restocking fee and must be sent <u>freight prepaid</u>!

### MONROE TRUCK EQUIPMENT, INC. WARRANTY SNOW & ICE CONTROL PRODUCTS

**Monroe Truck Equipment, Inc.** warrants to the original purchaser, that if any part of the product proves to be defective in workmanship or material within *ONE YEAR* of the original installation, and is returned to us within 30 days of the discovered defect, we will (at our option) repair or replace the defective part. This warranty does not apply to damage resulting from misuse, neglect, accident, improper installation, normal wear items or lack of maintenance. This warranty is exclusive and supersedes all other warranties, whether expressed or implied. **Monroe Truck Equipment, Inc.** neither assumes, nor authorizes anyone to assume for it, any other obligation or liability in connection with this warranty and will not be liable for consequential damages.

All engines, pumps, motors, cylinders and valves are warranted by their manufacturer and not by **Monroe Truck Equipment, Inc.**. The manufacturer's warranty will apply to these parts. Electrical and hydraulic components are not to be disassembled without the express written permission of Monroe Truck Equipment. Use of replacement parts other than original equipment voids this warranty.

All defective parts returned must be accompanied by the model number, serial number, date installed, date of defect, description of defect, and the name of the distributor from whom it was purchased. All warranty claims must have prior written approval from **Monroe Truck Equipment**, **Inc.** 

Please return the warranty registration card that accompanies this manual to confirm receipt of this parts catalog and acknowledge the information contained within. Failure to return the attached card may result in a voided warranty.







#### 1051 West 7<sup>th</sup> Street Monroe, WI 53566 608-328-8127 ~ Fax: 608-328-4278

#### Warranty Policy Uninstalled Parts and Equipment Provided by Monroe Truck Equipment

Monroe Truck Equipment will provide the following limited warranty for a period of one year to the original purchaser of all uninstalled goods provided by Monroe Truck Equipment:

LIMITED WARRANTY: All goods provided by Monroe Truck Equipment (MTE) will be free from defects in material and workmanship for a period of one year from the date of purchase by the original purchaser. This limited warranty shall be the sole and exclusive remedy for any such product found to be defective. This limited warranty supercedes all previous warranties and is exclusive and in lieu of all other warranties, whether expressed or implied.

This limited warranty applies only to parts or accessories manufactured by MTE and/or provided by same. Except with respect to title, this limited warranty does not pertain to parts or accessories not manufactured and/or provided by MTE, regardless of whether such parts or accessories were selected and/or recommended by MTE. MTE will, as a service to the buyer, pass on any warranties received from the original manufacturer of MTE provided parts and/or accessories.

MTE will not under any circumstances be liable for any incidental or consequential damages whether in tort, contract, or otherwise, for any bodily injury, death, property damage, loss of use, or loss of income resulting from or in any way arising out of any goods provided by MTE, or their sale, use, or manufacture.

Any warranty claim deemed to be arising from the result of misuse, abuse, neglect, accident, improper installation, lack of maintenance, act of war (whether declared or otherwise), or act of God will be denied. Any repair or modification by the buyer or any third party, without the prior written consent of MTE, will void any possible warranty compensation. Any damage deemed to be the result of abnormal operation will not be compensated by this warranty.

Normal or special maintenance items such as fuels, fluids, tires, belts, hoses, filters, air cleaners, light bulbs, and any other items subject to normal wear and tear that are supplied in connection with goods provided by MTE are not allowed under this warranty.

All engines, pumps, cylinders, valves, and motors are warranted by their manufacturer and not by Monroe Truck Equipment. The manufacturer's warranty will apply to these parts. Electrical and hydraulic components are not to be disassembled without the express written consent of MTE. Any disassembly of MTE provided components without prior authorization will void the applicable warranty.

Monroe Truck Equipment shall be the sole and final determining authority as it applies to the administration of this warranty policy. Purchaser acknowledges receipt of Monroe Truck Equipment Warranty Policy and agrees to be bound by same.



**GLOBAL SOLUTIONS** 



ARMORED VEHICLES ~ SPORT TRUCK CONVERSIONS MUNICIPAL SNOW & ICE CONTROL ~ FIRE APPARATUS PICKUP TRUCK ACCESSORIES ~ TRUCK EQUIPMENT/MODIFICATIONS

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#### 1051 West 7<sup>th</sup> Street Monroe, WI 53566 608-328-8127 ~ Fax: 608-328-4278

Any and all warranty claims must be forwarded to MTE within 10 days of defect discovery. A copy of the original Monroe Truck Equipment invoice as well as the manufacturer's model number, serial number, and date of installation must accompany all correspondence regarding said claims. MTE will, at their option, choose whether to repair or replace the defective part unless otherwise specified by the original manufacturer of said part.

#### **Procedures for Warranty Claims Notification**

For submission of any warranty claim please contact Monroe Truck Equipment – Warranty Department at 800-356-8134

The following documentation will be needed when you call for initial warranty authorization:

- 1. A copy of the original MTE invoice.
- 2. Make, Model, and VIN or Serial Number of the equipment involved.
- 3. Part number and serial number of the part in question.
- 4. A complete description of the problem.

The following must accompany any claim submitted to Monroe Truck Equipment:

- 1. Documented photographs of any physical damage.
- 2. Inspection notes by MTE personnel or MTE authorized 3<sup>rd</sup> party.
- 3. Authorization number issued by Monroe Truck Equipment Warranty Department.

# Defective parts must be returned to Monroe Truck Equipment (freight prepaid) within 30 days of issuance of Authorization Number.

Monroe Truck Equipment reserves the right to void any warranty for failure to comply with Monroe Truck Equipment Warranty Policy.

This policy is effective October 11, 2012

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