

## **Chelsea PTO 522 Parts Manual**

Pro Gear Chelsea 522 Series PTO parts manual to assist in identifying the parts for your Chelsea Power Take Off unit.

If you need any assistance identifying the correct Power Take Off unit for your truck and equipment, contact your Chelsea replacement part specialists at Pro Gear and Transmission.

Pro Gear stocks every part for your Parker Chelsea PTO including: PTO housings, mounts, driveshafts, gears, bearings, gaskets, cable shift cover assembly, post and plate assembly, brackets, stud kits, seal kits, lever control assembly, air shift cover assembly, direct mount pump conversion kits, stud kits including English and metric references, CAT D&H parts and much more.

Pro Gear Transmission has same day shipping and 1000's of products in stock and ready to ship internationally for your next project.

For parts or service contact the Chelsea specialists at Pro Gear & Transmission, Inc.

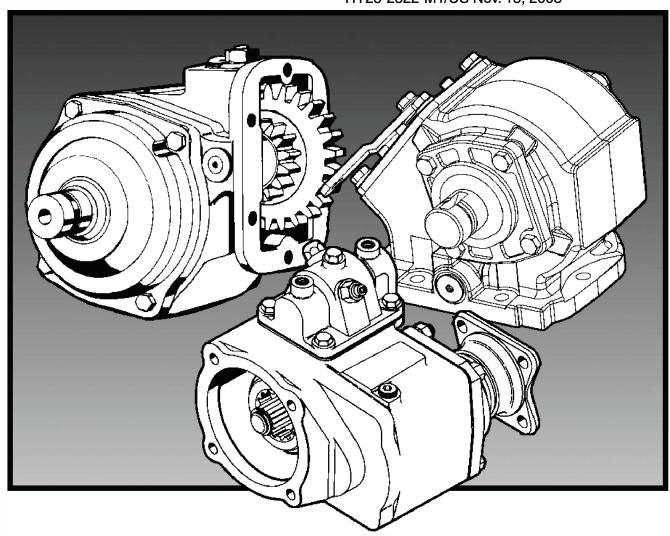
1 (877) 776-4600 (407) \$872-1901 parts@eprogear.com



**CHELSEA**® Parts List 522 Series

Bulletin HY25-2522-M1/US

Effective: December 15, 2010 Supersedes: HY25-2522-M1/US Nov. 15, 2003







### /! WARNING — User Responsibility

FAILURE OR IMPROPER SELECTION OR IMPROPER USE OF THE PRODUCTS DESCRIBED HEREIN OR RELATED ITEMS CAN CAUSE DEATH, PERSONAL INJURY AND PROPERTY DAMAGE.

This document and other information from Parker-Hannifin Corporation, its subsidiaries and authorized distributors provide product or system options for further investigation by users having technical expertise.

The user, through its own analysis and testing, is solely responsible for making the final selection of the system and components and assuring that all performance, endurance, maintenance, safety and warning requirements of the application are met. The user must analyze all aspects of the application, follow applicable industry standards, and follow the information concerning the product in the current product catalog and in any other materials provided from Parker or its subsidiaries or authorized distributors.

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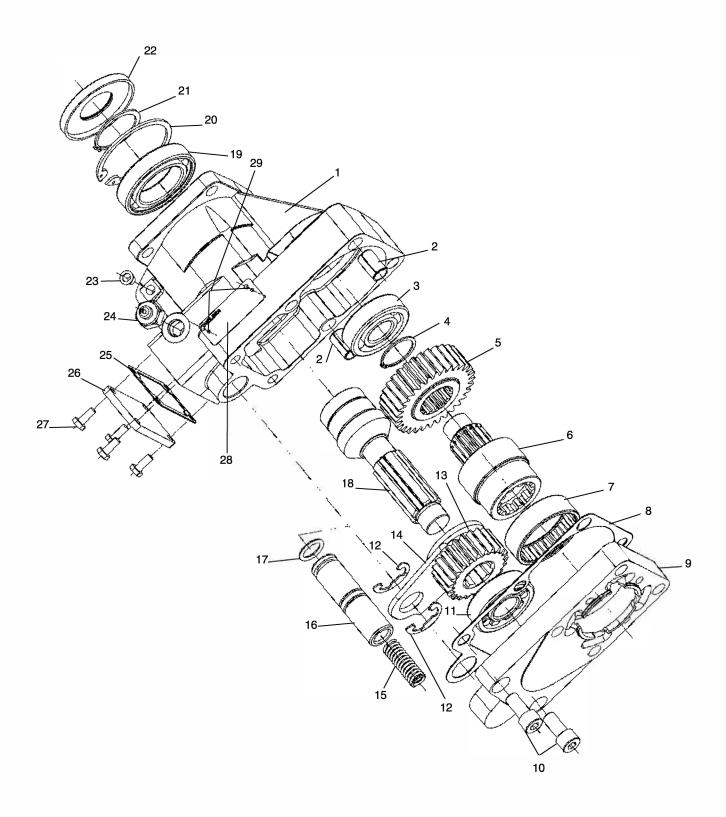
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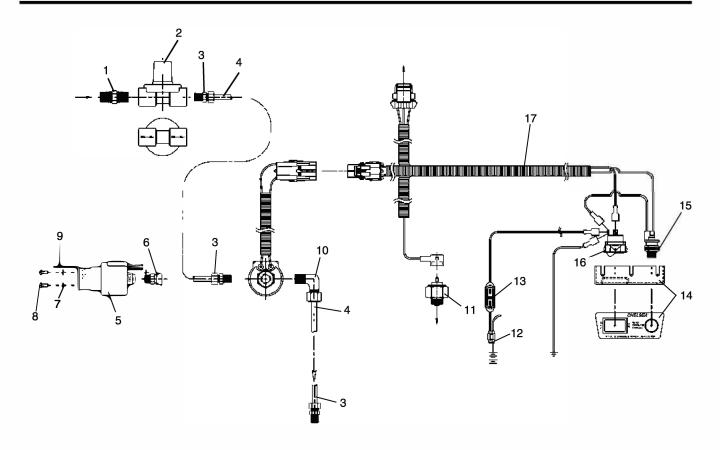
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### **Bill of Materials**

Item	Part #	Description	Quantity
1	1-P-599X	P.T.O. Housing w/Dowel Pin	1
ı	1-P-608X	P.T.O. Housing w/Dowel Pin ("R" Housing)	
2	379920	Dowel Pin	
3	560990		
		Ball Bearing, Input Shaft	
4	378098	Snap Ring, Input Shaft	
5	5-P-1388	Input Gear, "T" Ratio (31 Teeth)	
	5-P-1389	Input Gear, "V" Ratio (34 Teeth)	1
6	3-P-967 See Chart Pg. 4 & 5	Input Shaft, "AA" Input	1 or 1
7	<b>561016</b> See Chart Pg. 4 & 5	Input Bearing, Needle Roller, "AA" Input"	1 or 1
8	22-P-115	Gasket, Housing	4
9	21-P-664	Rear Mounting Plate, "AA" Input	
9	See Chart Pg. 4 & 5	hear wounting riate, AA input	1 01
	See Charry. 4 & 5		'
10	379676-6	Hex Capscrew, (M12 - 1.5 x 25)	2
11	561017	Bearing, Cylindrical Roller	1
12	379918	Snap Ring, Shifter Rod	
13	2-P-821	Output Gear, "T" Ratio (23 Teeth)	
	2-P-822	Output Gear, "V" Ratio (20 Teeth)	
14	32-P-183	Shifter Fork	1
15	37-P-21	Shifter Spring	1
16	11-P-155	Shifter Rod	1
17	28-P-41	O-Ring, Shifter Rod	1
18	<b>3-P-959</b> See Page 7	Output Shaft, "XY"	1 or 1
19	561018	Output Bearing	1
20	379919	Snap Ring, Internal	
21	378477	Snap Ring, Output Shaft	
22	28-P-278	Oil Seal	
23	500897-3	Shipping Plug	1
24	379652	Indicator Switch, Normally Closed	1
	379633	Indicator Switch, Normally Closed ("E" Shift Option)	?
25	35-P-93	Gasket, Cover Plate	1
26	34-P-133	Cover Plate	1
27	378429-6	Hex Capscrew, (.250" - 20 x .625")	4
28	68-P-2	Name Plate	1
29 29	378422	Drive Screw	
_0			
		Loose Parts	
	328388-37X	Installation Kit ("A" Shifter)	
	328388-47X	Installation Kit ("P" Shifter)	
	328388-48X	Installation Kit ("Q" Shifter)	
	328388-82X	Installation Kit ("F" Shifter "AC" Input Only)	
	378414	Pressure Protection Valve ("V" Shift Only)	
	379640	Booted connector ("V" Shifter Only)	1
	329431-1X	Gasket & Seal Service Kit ("AA", "AB", "AM" Input)	
	329431-2X	Gasket & Seal Service Kit ("AC" Input)	
	329431-3X	Gasket & Seal Service Kit ("AD" Input)	
	329432-1X	Bearing Service Kit ("AA", "AB" & "AM" Input)	
	329432-2X	Bearing Service Kit ("AC" & "AD" Input)	



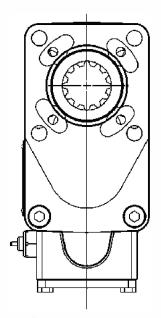
Item	Part #	Description	Quantity
	328388-82X	12V Electric/Air Installation Kit w/ZMTEC Wire Harness	
1	378416	Hex Nipple, (.25 - 18 NPTF)	1
2	378414	Pressure Protection Valve	1
3	379042	Male Connector, 1/4" Tube to Male Pipe (.125" - 25 NPT)	3
4	379044-7	Plastic Tubing	1
5	75-P-10	Solenoid, 12V	1
6	379106	Atmospheric Breather (.125" - 27 NPTF)	1
7	500357-7	Lock Washer	
8	500457-6	Round Head Slotted Screw (.438" x .190" - 32 UNF- 2A)	
9	379258	Bracket	
10	379043	Male Elbow 90°, 1/4" Tube to Pipe (.125" - 27 NPTF)	1
12	379257	Connector	
17	75-P-9	Wiring Harness (includes items 13, 14, 15 & 16)	1
13	379900	Fuse, 10 AMP	1
14	379336	Switch Bracket	1
15	378978	Indicator Light, 12V	1
16	75-P-11	Switch, P.T.O.	

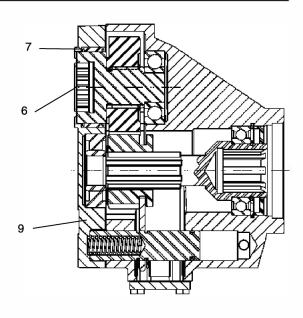
### **Input Options**

### **522\*\*AM Input**

• Eaton FS-4106

• Eaton FS-5206



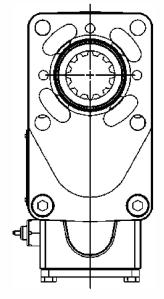


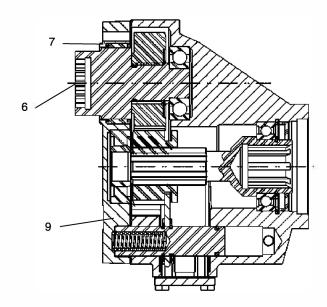
Item	Part Number	Description	Quantity
9	21-P-658	Mounting Plate	1
6	3-P-958	Input Shaft, (12 Tooth - 40mm Internal Spline)	
7	561016	Needle Roller Bearing	
	8000-18X	P.T.O. Mounting Kit	1
	328952-20X	Gasket and Caution Label Kit	1

See Kit Bill of Materials on page 9-10

### **522\*\*AA Input**

ZF 6S-850ZF S6-36



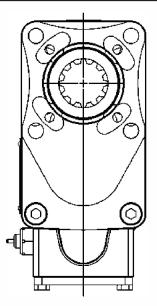


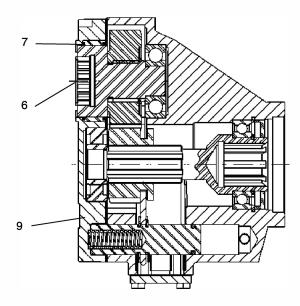
Item	Part Number	Description	Quantity
9	21-P-664	Mounting Plate	1
6	3-P-967	Input Shaft, (12 Tooth - 40mm Internal Spline)	
7	561016	Needle Roller Bearing	
	8000-18X	P.T.O. Mounting Kit	1
	328952-20X	Gasket and Caution Label Kit	

### **Input Options**

### **522\*\*AB Input**

- Iveco 2845.6
- 2855.5 lveco



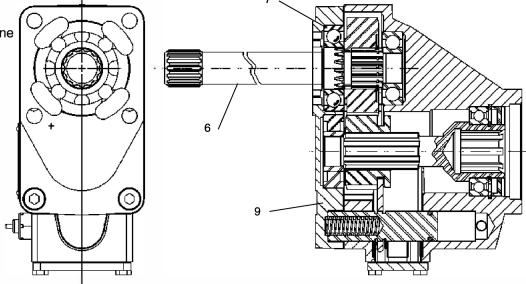


Item	Part Number	Description Quantity
9	21-P-665	Mounting Plate1
6	3-P-958	Input Shaft, (12 Tooth - 40mm Internal Spline)1
7	561016	Needle Roller Bearing1
	8000-18X 328952-20X	P.T.O. Mounting Kit

See Kit Bill of Materials on page 9-10

# 522\*\*AC InputZF Meritor Freedomline

- ZF Astronic

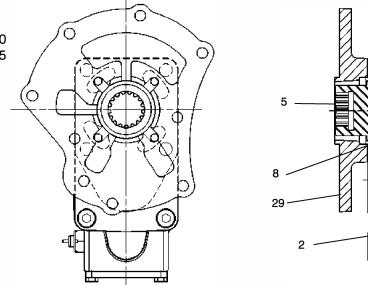


Item	Part Number	Description	Quantity
9	21-P-668	Mounting Plate	1
6	3-P-965	Input Shaft, (14 Tooth - 32mm External Spline)	
7	550010	Ball Bearing	1
	8000-18X 328952-21X	P.T.O. Mounting Kit	1 1

### **Input Options**

### **522\*\*AE Input**

- Mercedes G60
- Mercedes G85



Item	Part Number	Description	Quantity
2	21-P-658	Mounting Plate ("AE" Input)	1
5	3-P-984	Input Shaft (17 Tooth - 37MM Spline)	
8	561016	Needle Roller Bearing	
29	26-P-74	Adapter Plate	1
	8000-18X	P.T.O. Mounting Kit	
	328952-20X	Gasket & Caution Label Kit	
	8000-20X	Adapter Plate Mounting Kit	1
	35-P-98	Gasket for Adapter Plate	1

### **Output Options**

Output	Shaft Part Number	Description
XD	3-P-960	1 -1/4" Round Shaft
XX	3-P-961	1 -1/4" Round Shaft S.A.E. Taper
XY	3-P-959	DIN 5462, 8 Tooth

### **XD Output**

1 = 500007-29 Woodruff Key

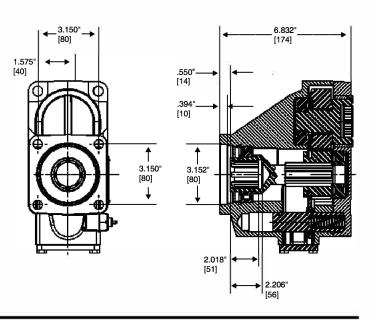
### **XX Output**

1 = 501181 Hex Lock Nut 2 = 379111 Square Key

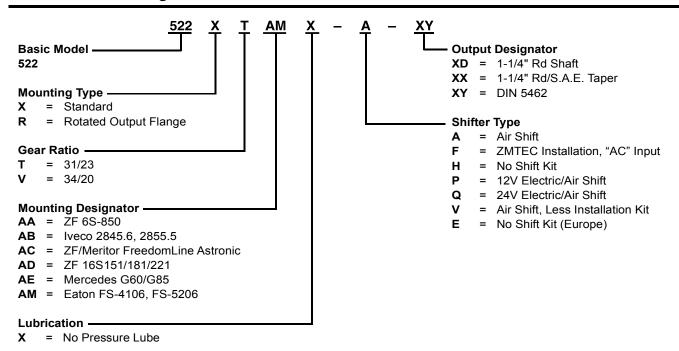
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\_7.166" [180]

### **XY Output**



### **Model Number Designation**



# Power Take-Off **522 Series**

329090-1X	Valve Kit	328388-46X	Inst Kit Parts Bag
328863X	Valve Air Control1	379900	Ass'y Fuse
378414	Valve, Pressure Protection1	378416	Hex Nipple
		379042	Male Connector
329431-1X	Service Kit, Sealing (AA,AB,AM)	379043	Male Elbow
22-P-115	Gasket Housing / Backplate1	379253	Ring Connector
22-P-117	Gasket Mounting1	379257	Splice Connector
28-P-41	O-Ring Shifter Rod1	379306	Fork Connector
28-P-278	Oil Seal Output Shaft1	500357-7	Lockwasher
35-P-93	Gasket Cover Plate1	500457-6	Slotted Screw
Safety Guide	HY25-1002-M1/US1	379904	Push Connector
200424 OV	Coming Kit Cooling (AC Innut)	200200 479	10V Floatric Over
329431-2X	Service Kit, Sealing (AC Input)	328388-47X	12V Electric Over
22-P-115	Gasket Housing / Backplate1	328388-46X	Inst Kit Parts Bag Pressure Port
28-P-41 28-P-278	O-Ring Shifter Rod	378414	
	Oil Seal Output Shaft	378881	Rocker Switch
35-P-93 35-P-94	Gasket Cover Plate	378978	Indicator
	Gasket Mounting1	379044-7	Nylon Tubing
Safety Guide	HY25-1002-M1/US1	379252	Butt Connector
200424 2V	Comica Kit Cooling (AD Innut)	379258	Bracket
329431-3X	Service Kit, Sealing (AD Input)	379303-1	Valve 12V
22-P-115	Gasket Housing / Backplate1	379336	Switch Bracket
28-P-41	O-Ring Shifter Rod1	379254-3	Wire, Green
28-P-278	Oil Seal Output Shaft1	379106	Breather-Cap.
35-P-93	Gasket Cover Plate	379640	Booted Connector
35-P-97	Gasket Mounting1	200000 407	0.07.51 0
Safety Guide	HY25-1002-M1/US1	328388-48X	24V Electric Over
000400 47	0 1 1/2 0 1 (44 40 44)	379640	Booted Connector
329432-1X	Service Kit, Bearing (AA,AB,AM)	328388-46X	Inst Kit Parts Bag
378098	Snap Ring (Input Shaft)	378414	Pressure Port
378477	Snap Ring (Output Shaft)1	378881	Rocker Switch
379918	Snap Ring (Shifter Rod)1	379005	Indicator
379919	Snap Ring (Internal)1	379044-7	Nylon Tubing
560990	Ball Bearing (Input Shaft)1	379252	Butt Connector
561016	Bearing Needle Roller (Input Shaft)1	379258	Bracket
561017	Bearing Cylindrical Roller (Output Shaft)1	379303-2	Valve 24V
561018	Ball Bearing (Output Shaft)1	379336	Switch Bracket
	0 1 1/1 0 1 (40 0 40)	379106	Breather-Cap.
329432-2X	Service Kit, Bearing (AC & AD)	379254-3	Wire, Green
378098	Snap Ring (Input Shaft)1		A: 01''(1/') F 1 1'
378477	Snap Ring (Output Shaft)1	328388-82X	Air Shift Kit Freedomline
379918	Snap Ring (Shifter Rod)1	378416	Hex Nipple
379919	Snap Ring ( nternal)1	379042	Male Connector
550010	Ball Bearing (Input Shaft)	379043	Male Elbow
560990	Bearing Needle Roller (Input Shaft)1	379253	Ring Connector
561017	Bearing Cylindrical Roller (Output Shaft)1	379257	Splice Connector
561018	Ball Bearing (Output Shaf )1		Lockwasher
		500457-6	Slotted Screw
328388-37X	Air Shift	378414	Pressure Port
328388-44X	Air Shift1	379044-7	Nylon Tubing
329090-1X	Valve Kit1	379258	Bracket
379044-7	Nylon Tubing1	75-P-10	Air Solenoid
379130	Support Bracket	75-P-9	Wiring Harness
68-P-27	Control Plate1	379106	Breather-cap.
379640	Booted Connector1	200050 200	Onder O tradellation 1/2
328388-44X	Air Chiff Kit	328952-20X	Gasket & Installation Kit Caution Label Kit
	Air Shift Kit	328946X	P.T.O. Instructions Decal
378416	Hex Nipple1	379085-1	
378978	Indicator1	379281-1	Gasket, Envelope
379042	Male Connector	79624	Product Warranty Card
379043	Male Elbow1	22-P-117	Mounting Gasket
379252 500357-7	Butt Connector	Safety Guide	HY25-1002-M1/US
	Lockwasher		
500376-6	Nut 10-244		
500448-9	Screw Slot		
379900	Ass'y Fuse		
379904	Push Connector1		
		1	

### **Kit Bill of Materials**

<b>328952-21X</b> 35-P94	Gasket and Caution Label Kit	
<b>8000-18X</b> 379676-15 379140-7	Stud Kit Capscrew Socket Head M12 x 80 Lg (1.75 Pitch)	
<b>8000-20X</b> 379740-7 379140-8	Adapter Plate Mounting Kit Capscrew Socket Head M10 x 30 LG (1.5 Pitch) Lockwasher M10	

Notes	

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- 2. Payment: Payment shall be made by Buyer net 30 days from the date of delivery of the items purchased hereunder. Amounts not timely paid shall bear interest at the maximum rate permitted by law for each month or portion thereof that the Buyer is late in making payment. Any claims by Buyer for omissions or shortages in a shipment shall be waived unless Seller receives notice thereof within 30 days after Buyer's receipt of the shipment.
- **3. Delivery:** Unless otherwise provided on the face hereof, delivery shall be made F.O.B. Seller's plant. Regardless of the method of delivery, however, risk of loss shall pass to Buyer upon Seller's delivery to a carrier. Any delivery dates shown are approximate only and Seller shall have no liability for any delays in delivery.
- 4. Warranty: Seller warrants that certain Products, namely PTOs, SEMs, and Wet Line Kits sold hereunder shall be free from defects in material or workmanship for a period of twenty four months from the date of delivery to Buyer. Seller warrants that certain Products namely Pumps, and Hydraulic Accessories shall be free from defects in material or workmanship for a period of eighteen months from the date of delivery to the Buyer. The prices charged for Seller's products are based upon the exclusive limited warranty stated above, and upon the following disclaimer: DISCLAIMER OFWARRANTY:THISWARRANTY COMPRISES THE SOLE AND ENTIRE WARRANTY PERTAINING TO PRODUCTS PROVIDED HEREUNDER. SELLER DISCLAIMS ALL OTHER WARRANTIES, EXPRESS ANDIMPLIED, INCLUDING MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.
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- **6. Changes, Reschedules and Cancellations:** Buyer may request to modify the designs or specifications for the items sold hereunder as well as the quantities and delivery dates thereof, or may request to cancel all or part of this order, however, no such requested modification or cancellation shall become part of the contract between Buyer and Seller unless accepted by Seller in a written amendment to this Agreement. Acceptance of any such requested modification or cancellation shall be at Seller's discretion, and shall be upon such terms and conditions as Seller may require.
- 7. Special Tooling: A tooling charge may be imposed for any special tooling, including without limitation, dies, fixtures, molds and patterns, acquired to manufacture items sold pursuant to this contract. Such special tooling shall be and remain Seller's property notwithstanding payment of any charges by Buyer. In no event will Buyer acquire any interest in apparatus belonging to Seller which is utilized in the manufacture of the items sold hereunder, even if such apparatus has been specially converted or adapted for such manufacture and notwithstanding any charges paid by Buyer. Unless otherwise agreed, Seller shall have the right to alter, discard or otherwise dispose of any special tooling or other property in its sole discretion at any time.

- 8. Buyer's Property: Any designs, tools, patterns, materials, drawings, confidential information or equipment furnished by Buyer or any other items which become Buyer's property, may be considered obsolete and may be destroyed by Seller after two (2) consecutive years have elapsed withoutBuyerplacing anorder for the items which are manufactured using such property, Seller shall not be responsible for any loss or damage to such property while it is in Seller's possession or control.
- 9. Taxes: Unless otherwise indicated on the face hereof, all prices and charges are exclusive of excise, sales, use, property, occupational or like taxes which may be imposed by any taxing authority upon the manufacture, sale or delivery of the items sold hereunder. If any such taxes must be paid by Seller or if Seller is liable for the collection of such tax, the amount thereof shall be in addition to the amounts for the items sold. Buyer agrees to pay all such taxes or to reimburse Seller therefore upon receipt of its invoice. If Buyer claims exemption from any sales, use or other tax imposed by any taxing authority, Buyer shall save Seller harmless from and against any such tax, together with any interest or penalties thereon which may be assessed if the items are held to be taxable.
- 10. Indemnity For Infringement of Intellectual Property Rights: Seller shall have no liability for infringement of any patents, trademarks, copyrights, trade dress, trade secrets or similar rights except as provided in this Part 10. Seller will defend and indemnify Buyer against allegations of infringement of U.S. Patents, U.S. Trademarks, copyrights, trade dress and trade secrets (hereinafter 'Intellectual Property Rights'). Seller will defend at its expense and will pay the cost of any settlement or damages awarded in an action brought against Buyer based on an allegation that an item sold pursuant to this contract infringes the Intellectual Property Rights of a third party. Seller's obligation to defend and indemnify Buyer is contingent on Buyer notifying Seller within ten (10) days after Buyer becomes aware of such allegations of infringement, and Seller having sole control over the defense of any allegations or actions including all negotiations for settlement or compromise. If an item sold hereunder is subject to a claim that it infringes the Intellectual Property Rights of a third party, Seller may, at its sole expense and option, procure for Buyer the right to continue using said item, replace or modify said item so as to make it noninfringing, or offer to accept return of said item and return the purchase price less a reasonable allowance for depreciation. Notwithstanding the foregoing, Seller shall have no liability for claims of infringement based on information provided by Buyer, or directed to items delivered hereunder for which the designs are specified in whole or part by Buyer, or infringements resulting from the modification, combination or use in a system of any item sold hereunder. The foregoing provisions of this Part 10 shall constitute Seller's sole and exclusive liability and Buyer's sole and exclusive remedy for infringement of Intellectual Property Rights.

If a claim is based on information provided by Buyer or if the design for an item delivered hereunder is specified in whole or in part by Buyer, Buyer shall defend and indemnify Seller for all costs, expenses or judgments resulting from any claim that such item infringes any patent, trademark, copyright, trade dress, trade secret or any similar right.

- 11. Force Majeure: Seller does not assume the risk of and shall not be liable for delay or failure to perform any of Seller's obligations by reason of circumstances beyond the reasonable control of Seller (hereinafter Events of Force Majeure'). Events of Force Majeure shall include without limitation, accidents, acts of God, strikes or labor disputes, acts, laws, rules or regulations of any government or government agency, fires, floods, delays or failures in delivery of carriers or suppliers, shortages of materials and any other cause beyond Seller's control.
- 12. Entire Agreement/Governing Law: The terms and conditions set forth herein, together with any amendments, modifications and any different terms or conditions expressly accepted by Seller in writing, shall constitute the entire Agreement concerning the items sold, and there are no oral or other representations or agreements which pertain there/to. This Agreement shall be governed in all respects by the law of the State of Ohio. No actions arising out of the sale of the items sold hereunder or this Agreement may be brought by either party more than two (2) years after the cause of action accrues.

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