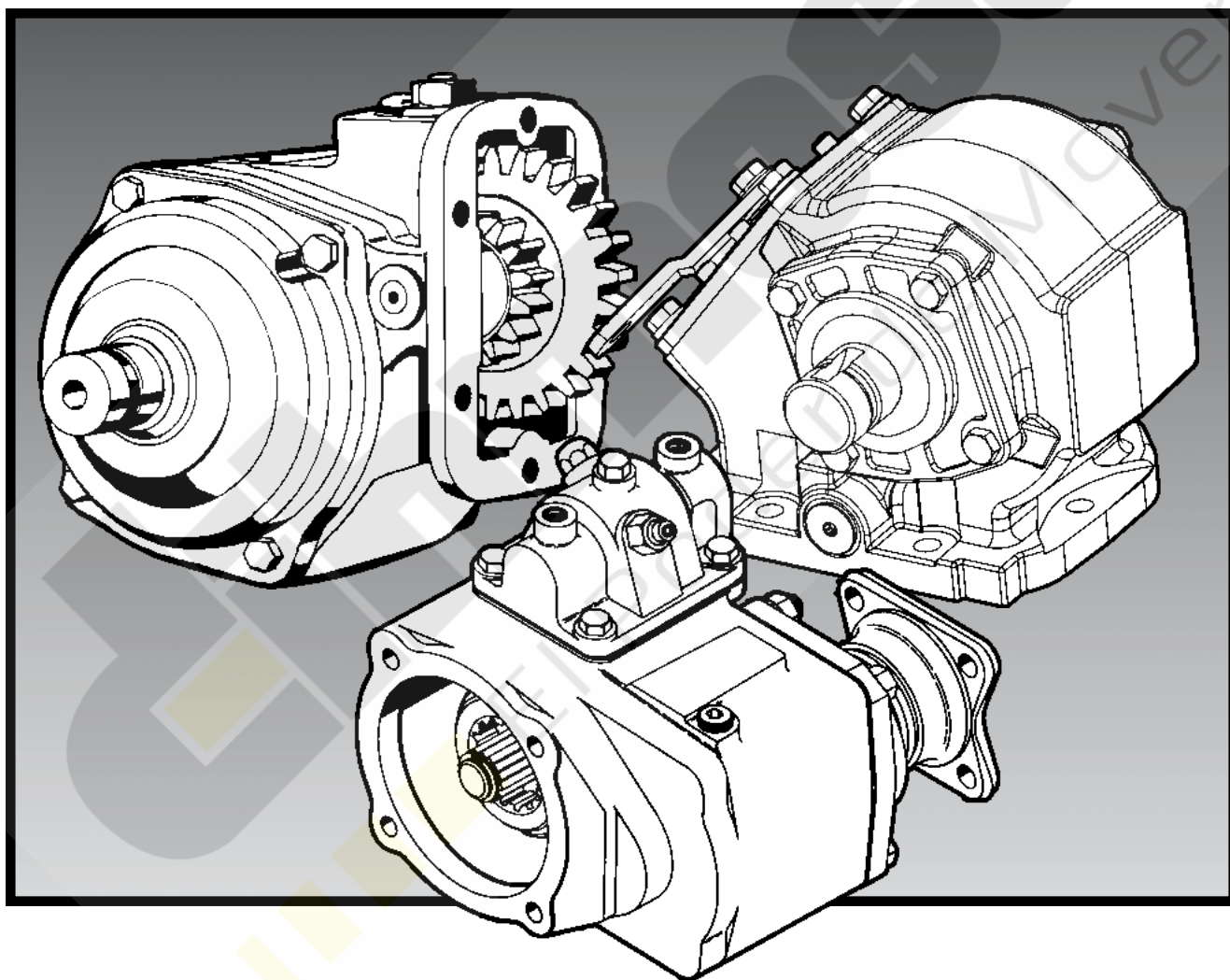


Parts List 852 Series

Effective: December 15, 2001
Supersedes: P410-852 Dated August 1996



 WARNING

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Gear Chart 3

Electric Shift Installation Kits 4

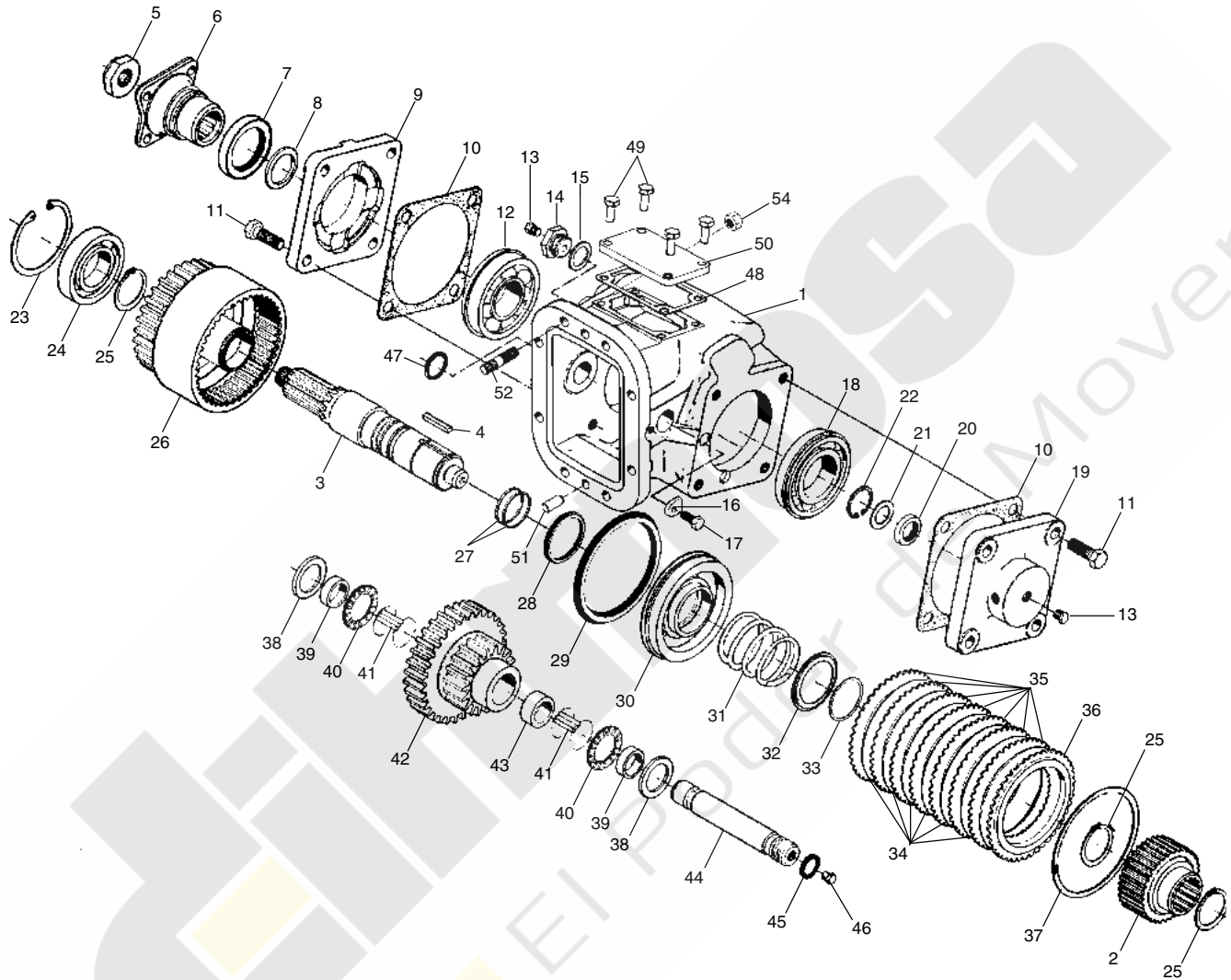
Pump Flange Assembly 5

Case Dimensions 5

Model Number Designation 6

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Bill of Materials**Power Take-Off****852 Series**

Item	Part Number	Description	Quantity
1	1-P-452	Housing, Assembly 4	1
	1-P-451	Housing, Assembly 6	1
2	2-P-557	Gear, Internal Drive	1
3	3-P-756	Driveshaft, Standard (Assembly 4 & 6)	1
4	379099	Drive Key (.187" x .25" x 1.5")	1
5	378382	Nut, Hex (.875"-14 UNF-3B-Standard Shaft)	1
6	3-1-3431	Companion Flange, Standard Shaft	1
7	28-P-211	Oil Seal, Standard Shaft Only	1
8	4-P-76	Spacer, Driveshaft (Standard Shaft Only)	1
9	21-P-75	Bearing Cover, Open Standard Shaft	1
10	22-P-25-2	Gasket, Bearing Cover	2
11	378433-14	Capscrew, Hex Head (.312"-18 x .750")	8
12	550055	Ball Bearing	1
13	379231	Plug, Pipe (.125"-27 NPTF)	3
14	378329	Plug, Inspection	1
15	378037	Gasket, Inspection Plug	1
16	27-P-9	Retaining Plate	1
17	378430-8	Capscrew, Hex Head (.312"-18 x .750")	1
18	550038	Ball Bearing	1
	328835X	Bearing Cap & Seal Sub-assembly (Includes Items 19-22)	1
19	21-P-377	Bearing Cap	1
20	28-P-119	Oil Seal	1
21	378811	Back-up Plate	1
22	378849	Retaining Ring	1
23	378263	Lockring	1
24	550749	Ball Bearing	1
25	378477	Lockring, Standard Shaft	3
26	See Chart Pg. 3	Spider Gear Assembly	1
27	379328	Rings, Piston	2
28	28-P-63	Ring, Block Vee	1
29	28-P-64	Ring, Block Vee	1
	328114X	Piston Assembly (Includes Piston and 2 Balls)	1
30	66-P-3	Piston	1
N.S.	500566-7	Ball	2
31	37-P-24	Spring	1
32	378426	Retainer, Spring	1
33	378427	Lockring	1
34	378254	Clutch Disc	7
35	379488	Clutch Disc, Opposing	8
36	378337	Spacer, Clutch Stop	1
37	378266	Lockring	1
38	31-P-90	Thrust Race	4
39	14-P-48	Spacer, Needle Bearing	2
40	378769	Thrust Bearing	2
41	378389	Needle Bearing	42
42	See Chart Pg. 3	Gear, Input Cluster	1
43	14-P-27	Spacer, Needle Bearing	1
44	9-P-37	Shaft, Idler	1
45	28-P-240	O-Ring	1
46	379231	Plug, Pipe (.125"-27 NPTF)	3
47	28-P-58	O-Ring	1
48	35-P-93	Gasket	1
49	378429-6	Capscrew	4
50	34-P-133	Cover Plate	1

N.S. — Not Shown

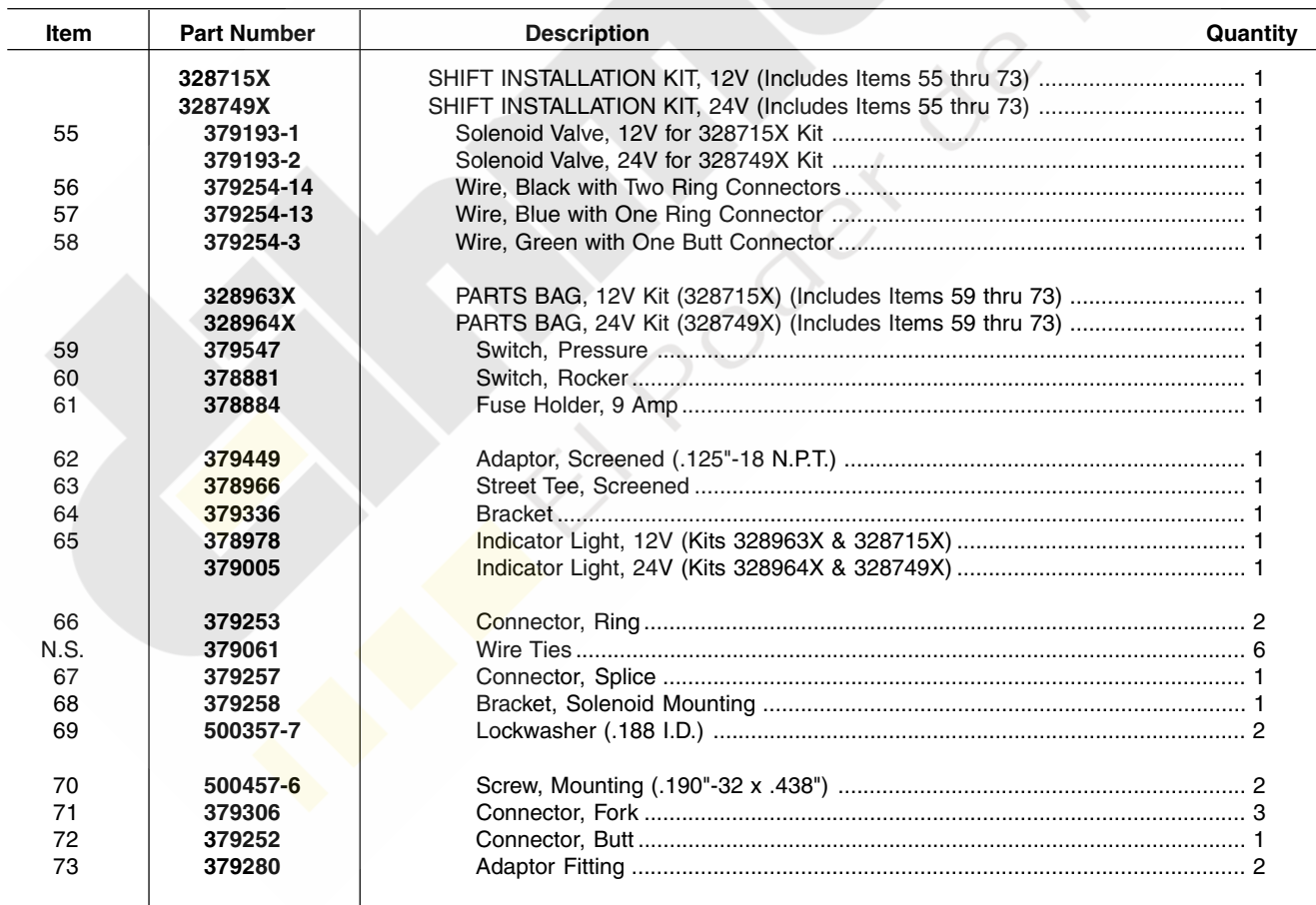
Bill of Materials**Power Take-Off****852 Series**

Item	Part Number	Description	Quantity
		LOOSE PARTS	
N.S.	328170-8X	P.T.O. STUD MOUNTING KIT (Includes Items 51-54)	1
51	378054	Dowel Pin	2
52	379424-21	Mounting Stud	8
54	379794	Flange Nut (.437"-20)	8
N.S.	328948-17X	GASKET & INSTALLATION INSTRUCTIONS	1
N.S.	35-P-15-1	Mounting Gasket (.010" thick)	1
N.S.	35-P-15-2	Mounting Gasket (.020" thick)	1
N.S.	328075X	PRESSURE LUBE HOSE	1
		SERVICE KITS	
N.S.	328356-11X	GASKET & SEAL KIT	1
N.S.	328297-3X	NEEDLE BEARING SERVICE KIT (Includes 2 sets-21 per set)	1
N.S.	328368-2X	NEEDLE BEARING KIT	1
	14-P-27	Spacer	1
	14-P-48	Spacer	2
	378389	Needle Bearings	42
N.S.	329071-31X	CLUTCH REPAIR KIT	
	378254	Clutch Disc	7
	378266	Lockring	1
	378337	Spacer, Clutch Stop	1
	379488	Clutch Disc, Opposing	8

N.S. — Not Shown

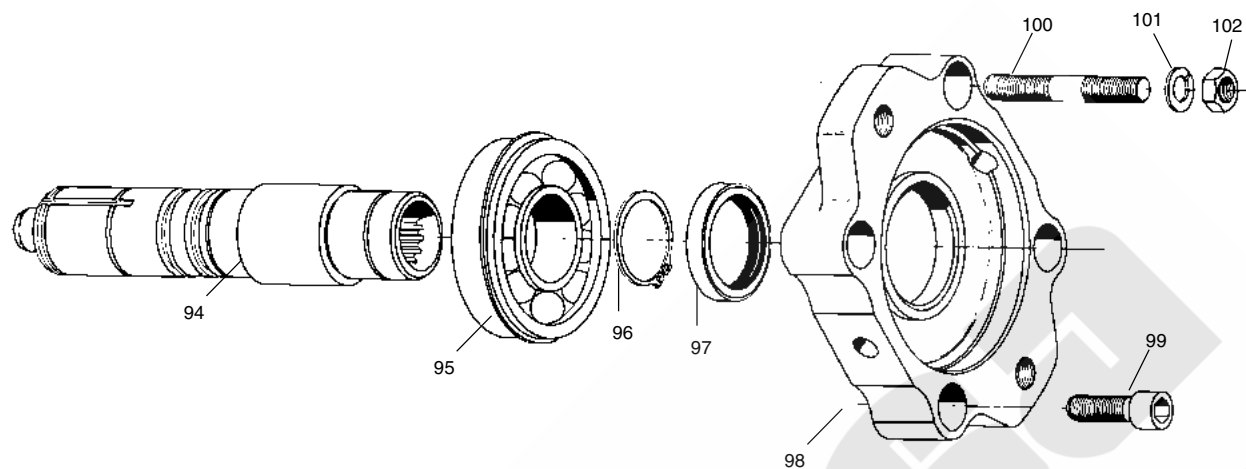
Gear Chart

P.T.O. Model No.	Large Cluster			Small Cluster	Spider Gear	
	Input Gear Part No. (Item 42)	No. Teeth	Helix Angle	No. Teeth	Spider Gear Ass'y (Item 26)	No. Teeth
852*BAK	5-P-296	32	Spur	18	328115X	32
852*GAK	5-P-297	32	Spur	21	328112X	29
852*JAK	5-P-295	32	Spur	23	328116X	27



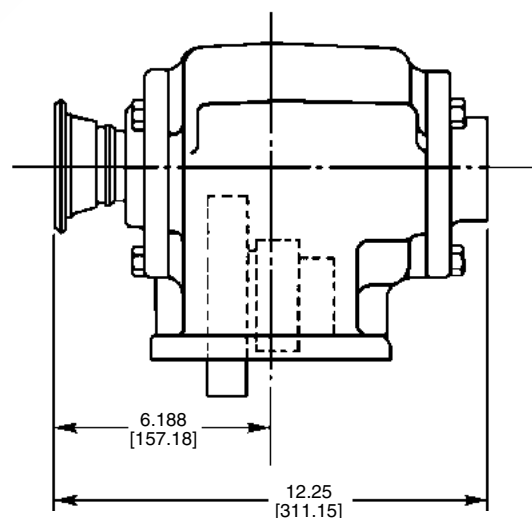
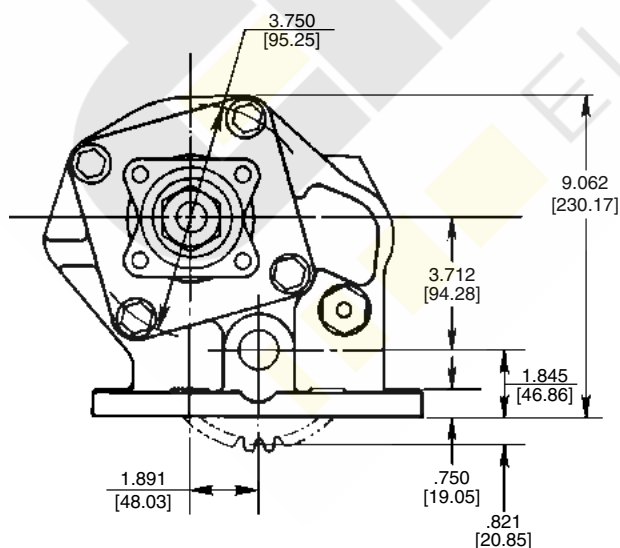
A.R. — As Required

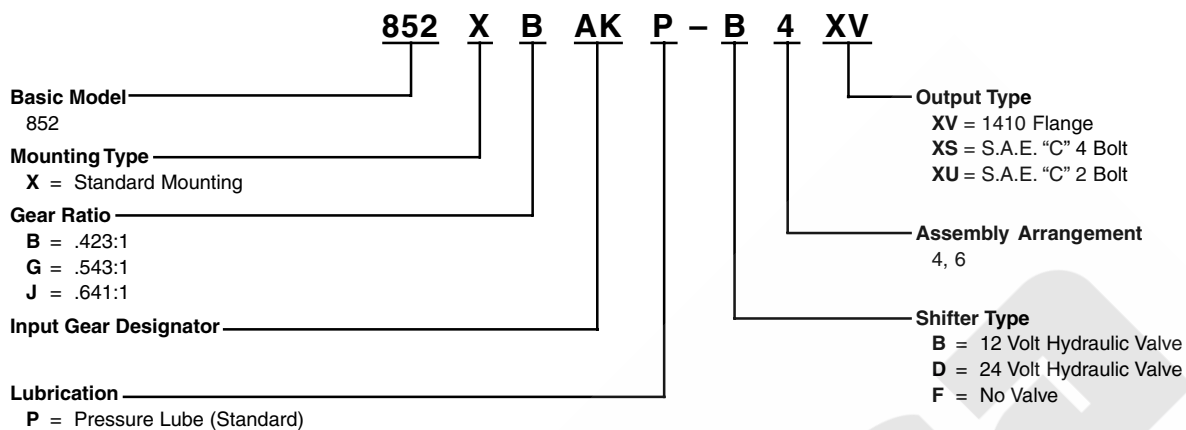
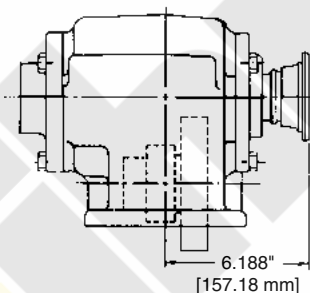
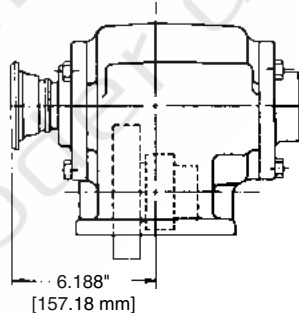
“S” & “U” Pump Flange Assembly
Class “C” Flange 2-4 Bolt



Item	Part Number	Description	Quantity
94	3-P-758	Pump Shaft, 4 & 6 Assembly	1
95	550055	Bearing	1
96	378447	Lockring	1
97	28-P-212	Oil Seal	1
98	21-P-383	Pump Flange, 4 & 6 Assembly (“S”-“U”)	1
99	378450-8	Capscrew, Socket Head (.50"-13 x 1.50") (Assembly “U” Only)	4
100	379442	Mounting Stud (.50" Dia.) Self Locking, (Assembly “S” Only)	4
101	500356-13	Lockwasher (.50" Dia.) (Assembly “S” Only)	4
102	500381-5	Nut, Hex (.50"-20) (Assembly “S” Only)	4

Case Dimensions



**Assembly Arrangements****Assembly 4****Assembly 6**

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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 the items sold hereunder shall be free from defects in material or workmanship for a period of:

(A) All Power Take-Off units one (1) year from date of installation.

(B) Except 267, 277, 278, 242, 244, 245, 250, 251 and 859 series two (2) years from date of installation.

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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 without Buyer placing an order 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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