

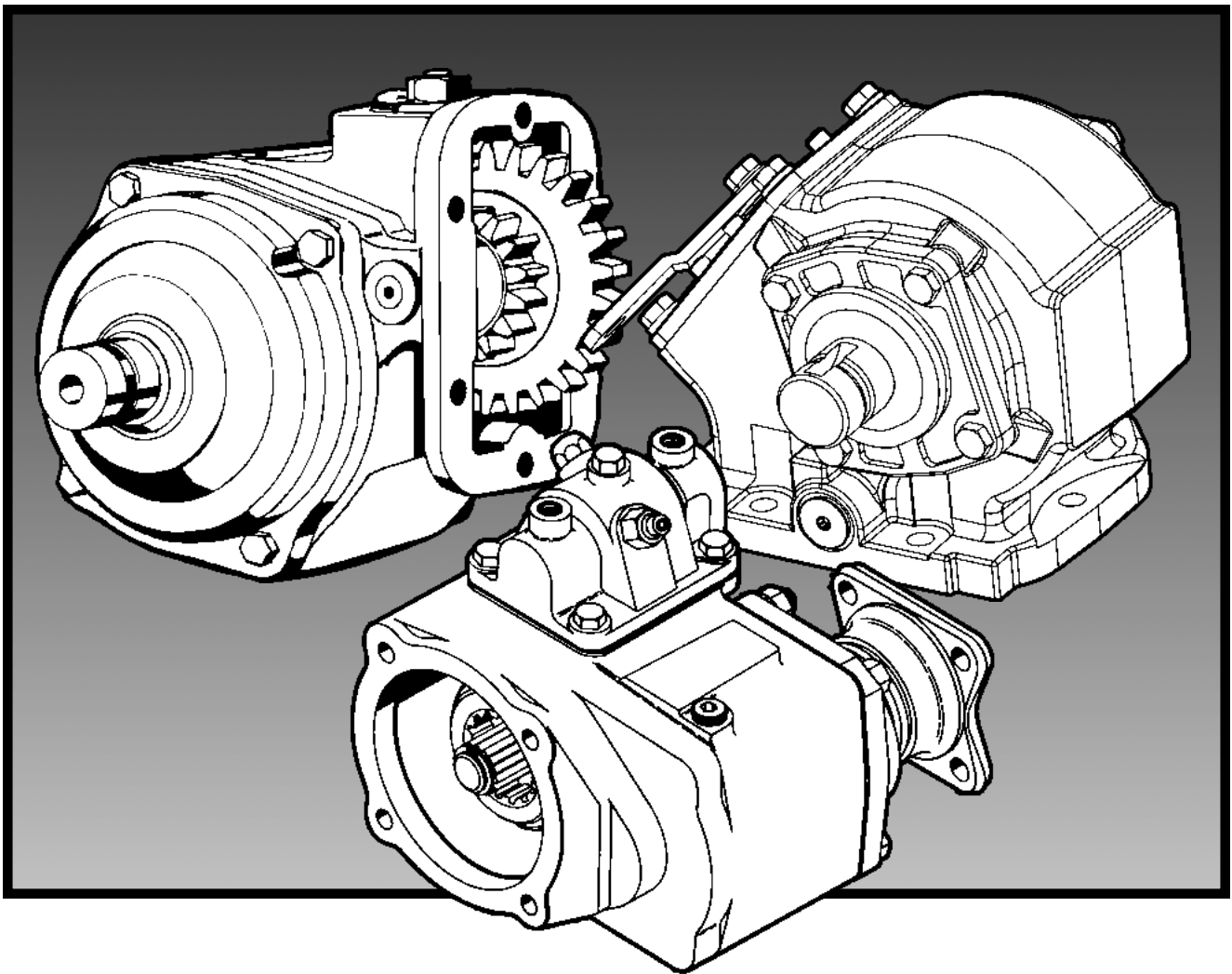
**CHELSEA®**

Bulletin HY25-2100-M1/US

# Parts List 100 Series

Effective: February 15, 2002  
Supersedes: P410-100 Dated April, 1993

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**Parker**  
Hydraulics

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 **WARNING**

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**Offer of Sale**

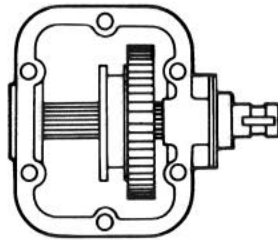
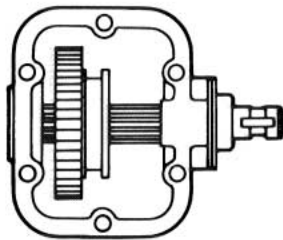
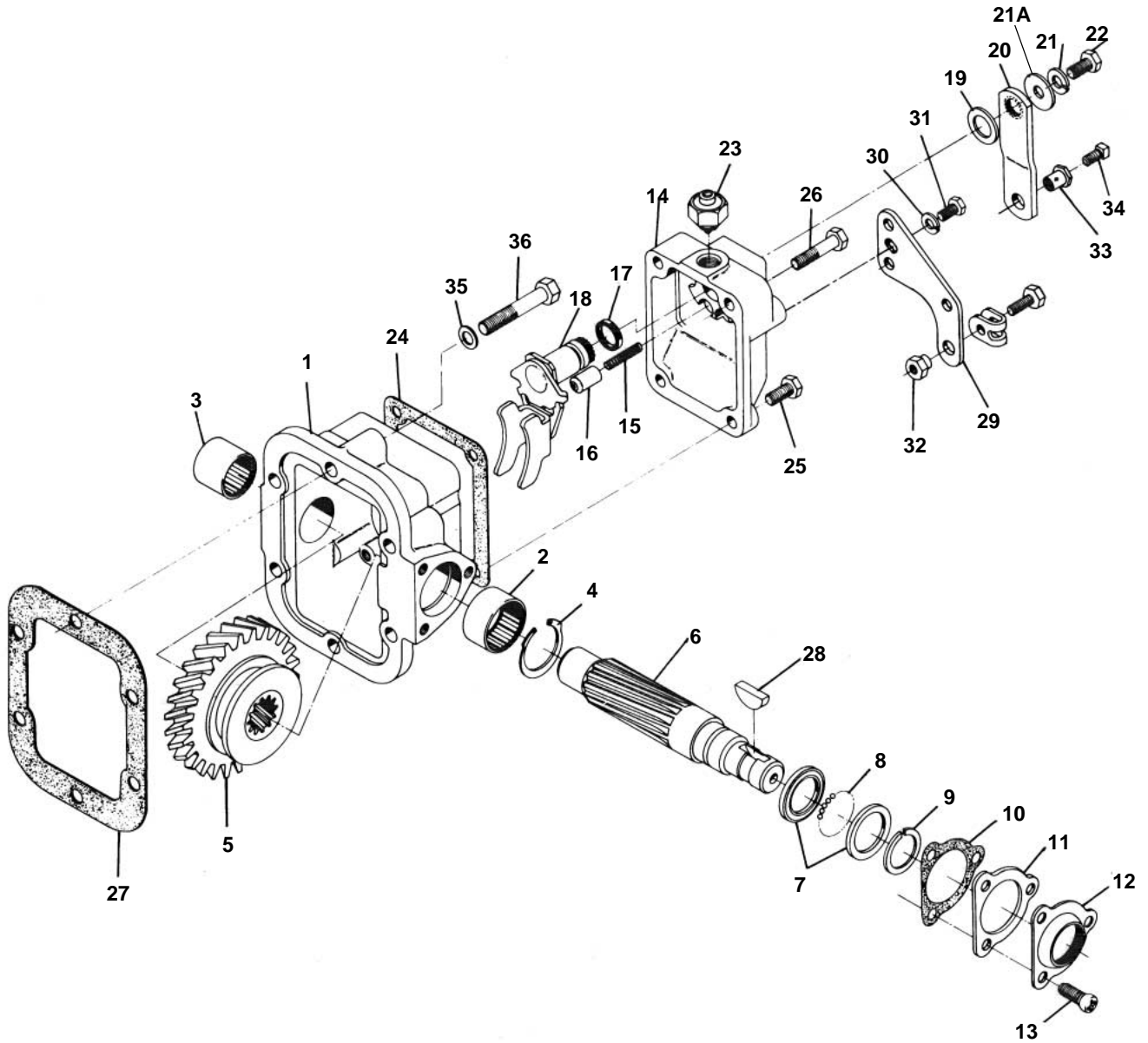
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Item	Part Number	Description	Quantity
	<b>328852-1X</b>	Housing & Bearing Assembly (contains items 1-4) .....	1
1	<b>1-P-393</b>	Housing .....	1
2	<b>550895</b>	Needle Bearing .....	1
3	<b>550135</b>	Needle Bearing .....	1
4	<b>379124</b>	Lockring .....	1
5	<b>See Chart Pg. 7</b>	Sliding Gear, Input .....	1
	<b>See Chart Pg. 8</b>	Driveshaft Assembly (contains items 6-9) .....	1
6	<b>See Chart Pg. 8</b>	Driveshaft .....	1
7	<b>31-P-79</b>	Thrust Washer .....	2
	<b>328886X</b>	Bearing Replacement Kit (includes items 7-9) .....	1
8	<b>378108</b>	Ball Bearings (set of 21) .....	1
9	<b>378331</b>	Lockring .....	1
10	<b>22-P-69</b>	Gasket .....	1
11	<b>378106</b>	Thrust Plate .....	1
12	<b>28-P-226</b>	Thrust Bearing Cap & Seal .....	1
13	<b>378447-4</b>	Screw, socket head with patch .....	3
	<b>328751-1X</b>	Installation Kit (Cable & Lever) .....	1
	<b>328932-1X</b>	Cable Control Cover Assembly (Assembly 3) (contains items 14-23) .....	1
	<b>328932-2X</b>	Cable Control Cover Assembly (Assembly 4) (contains items 14-23) .....	1
	<b>329009X</b>	Cable Control Cover Assembly for 100XRELX-W3/4** & 100XRFXM-W3/4** Only ....	1
14	<b>34-P-102</b>	Shifter Cover, Standard Unit .....	1
	<b>34-P-106</b>	Shifter Cover, Isuzu 100XRELX-W3/4** & Nissan 100XRFXM-W3/4** Only .....	1
15	<b>37-P-19</b>	Shifter Spring .....	1
16	<b>63-P-16</b>	Poppet .....	1
17	<b>28-P-191</b>	O-Ring .....	1
18	<b>328848X</b>	Shifter Plate Assembly .....	1
19	<b>378004</b>	Flat Washer .....	1
20	<b>51-P-22</b>	Shifter Lever .....	1
21	<b>500356-10</b>	Lock Washer .....	1
21A	<b>500365-22</b>	Flat Washer (incl. w/328932-1X, 2X and 329009X) .....	1
22	<b>500409-6</b>	Screw, hex head (.312-24 x .625") .....	1
23	<b>379639</b>	Indicator Switch .....	1
	<b>329218X</b>	Indicator Switch Service Kit ("V" Option) .....	1
24	<b>35-P-8</b>	Shifter Cover Gasket .....	1
25	<b>378430-10</b>	Screw, hex head (.312-18 x 1.000") .....	2
26	<b>378430-18</b>	Screw, hex head (.312-18 x 2.000") .....	2
N.S.	<b>329245X</b>	Shift Bracket Kit (Shifter Designator "C" Only) .....	1
		<b>Loose Parts</b>	
	<b>328948-6X</b>	Gasket & Installation Instructions .....	1
27	<b>35-P-9-1</b>	Gasket, housing (.010") .....	A.R.
	<b>35-P-9-2</b>	Gasket, housing (.020") .....	A.R.
28	<b>500007-24</b>	Woodruff Key .....	1
	<b>378414</b>	Pressure Protection Valve ("V" Option) .....	1
N.S.	<b>328346-10X</b>	Cable Control Assembly ("W" Shifter) .....	1
	<b>328380X</b>	Cable Control Mounting Parts, "W" Shifter (contains items 29-34) .....	1
29	<b>50-P-17</b>	Bracket .....	1
30	<b>50-P-19</b>	Swivel Bracket .....	1
31	<b>500396-8</b>	Screw, hex head (.250" - 20 x .750") .....	1
32	<b>378326</b>	Nut, hex (.250" - 20) .....	1
33	<b>378019</b>	Pivot Pin .....	1
34	<b>500568-4</b>	Set Screw (.250" - 20 x .500") .....	1

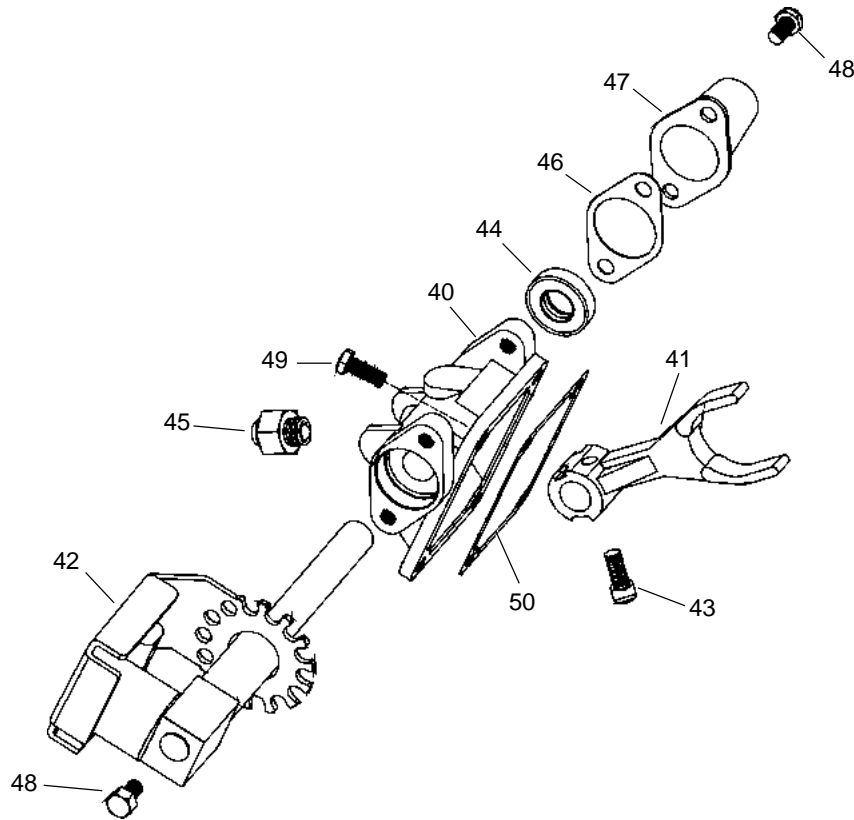
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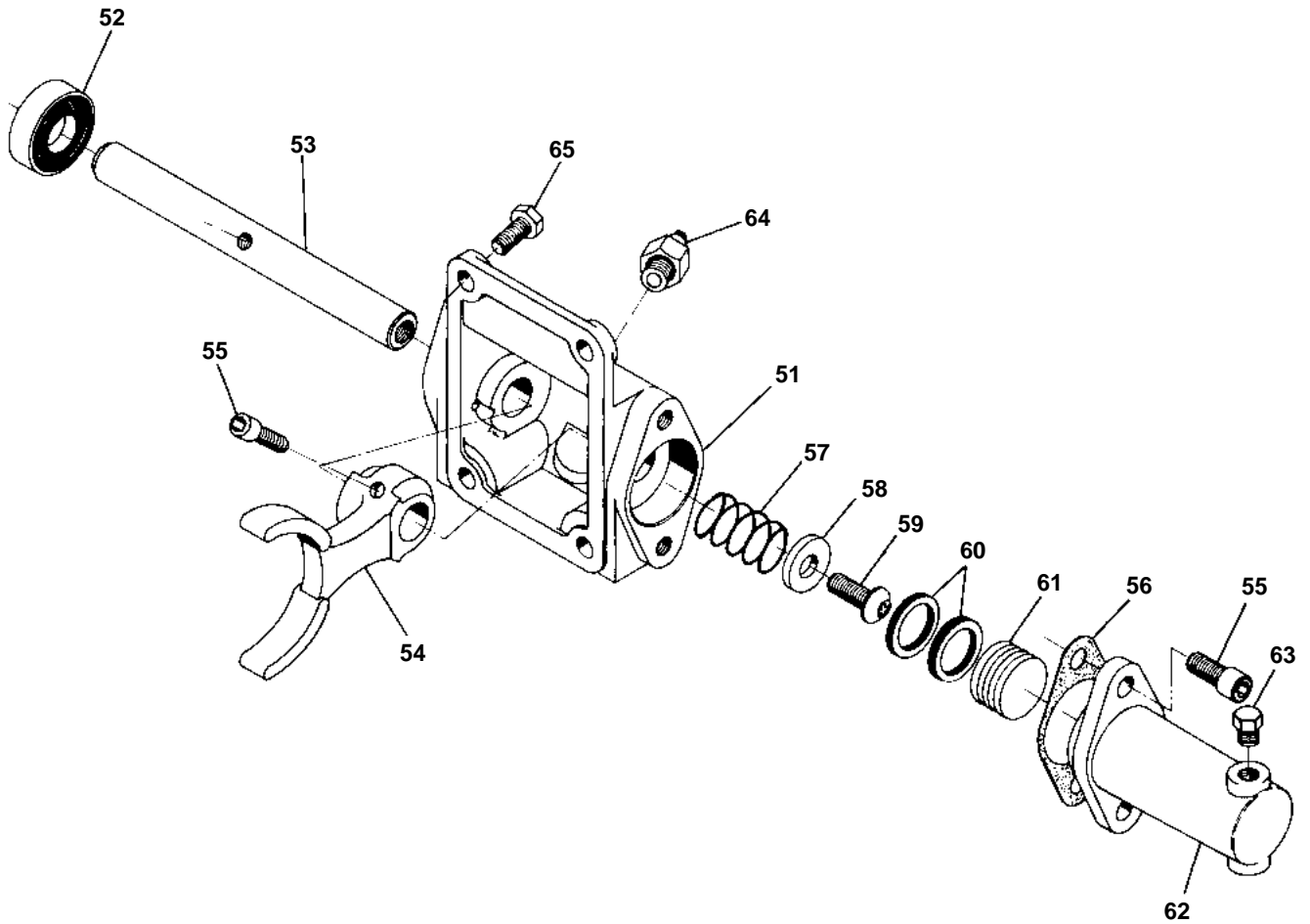
Item	Part Number	Description	Quantity
	<b>329245X</b>	Cable Control Bracket Kit ("C" Shifter) .....	1
	<b>8000-4X</b>	P.T.O. Mounting Kit (contains items shown below) .....	1
35	<b>378774</b>	Tablock Washer .....	6
36	<b>379286-21</b>	Screw, hex head (.375" - 16 x 2.250") .....	6
N.S.	<b>7170-82X</b>	P.T.O. Mounting Kit Metric (contains items shown below) .....	1
N.S.	<b>379428-34</b>	Stud (M10-105 & .375-24 x 3.000") .....	6
N.S.	<b>379744</b>	Flange Nut (.375-24) .....	6

N.S. — Not Shown

**E-Z Shift**



Item	Part Number	Description	Quantity
	<b>329167X</b>	E-Z Shift Cover Assembly (Includes Items 83 - 91)	
40	<b>34-P-76</b>	Shift Cover .....	1
41	<b>32-P-148</b>	Shifter Fork .....	1
42	<b>329255-12X</b>	E-Z Shift Assembly .....	1
43	<b>378447-4</b>	Allen Head Capscrew .....	1
44	<b>28-P-207</b>	Oil Seal .....	1
45	<b>379639</b>	Indicator Switch .....	1
46	<b>34-P-14</b>	Gasket .....	1
47	<b>65-P-23</b>	Shifter Shaft Cover .....	1
48	<b>378430-4</b>	Hex Capscrew (.312-18 x .500") .....	4
49	<b>378430-8</b>	Hex Capscrew (.312-18 x .750") .....	4
50	<b>35-P-8</b>	Gasket, Shifter Cover .....	1



**Air Control**

Item	Part Number	Description	Quantity
N.S.	<b>328388-37X</b>	Air Shift Installation Kit (Shift Option "A") .....	1
N.S.	<b>328388-47X</b>	12V Electric Over Air Installation Kit (Shift Option "P") .....	1
N.S.	<b>328388-48X</b>	24V Electric Over Air Installation Kit (Shift Option "Q") .....	1
N.S.	<b>328388-65X</b>	Air Shift Installation Kit (Shift Option "S") .....	1
N.S.	<b>329214X</b>	Air Shift Control Valve (Shift Option "S" only) .....	1
	<b>328851X</b>	Air Shift Cover Assembly (contains items 37-50) .....	1
51	<b>34-P-76</b>	Shifter cover .....	1
52	<b>28-P-207</b>	Oil seal .....	1
53	<b>11-P-112</b>	Shifter shaft .....	1
54	<b>32-P-148</b>	Shifter fork .....	1
55	<b>378447-4</b>	Screw, hex socket (.312" - 18 x .750") .....	3
56	<b>35-P-14</b>	Cylinder cap gasket .....	2
57	<b>37-P-25</b>	Return spring .....	1
58	<b>378462</b>	Return spring washer .....	1
59	<b>378908</b>	Screw, button head .....	1
60	<b>28-P-256</b>	O-Ring .....	2
61	<b>66-P-22</b>	Piston .....	1
62	<b>65-P-14</b>	Cylinder cap gasket .....	1
63	<b>379231</b>	Pipe plug (.125" - 27 NPT) .....	1
N.S.	<b>65-P-23</b>	Shifter shaft cover .....	1
N.S.	<b>378430-4</b>	Hex capscrew (.312-18 x .500") .....	2
N.S.	<b>68-P-2</b>	Name plate .....	1
N.S.	<b>378422</b>	Drive screw .....	2
N.S.	<b>328948-6X</b>	Gasket & installation instructions .....	1
64	<b>378639</b>	Indicator Switch .....	1
65	<b>378430-8</b>	Screw, hex head (Eslock .312" - 18 x .750") .....	4

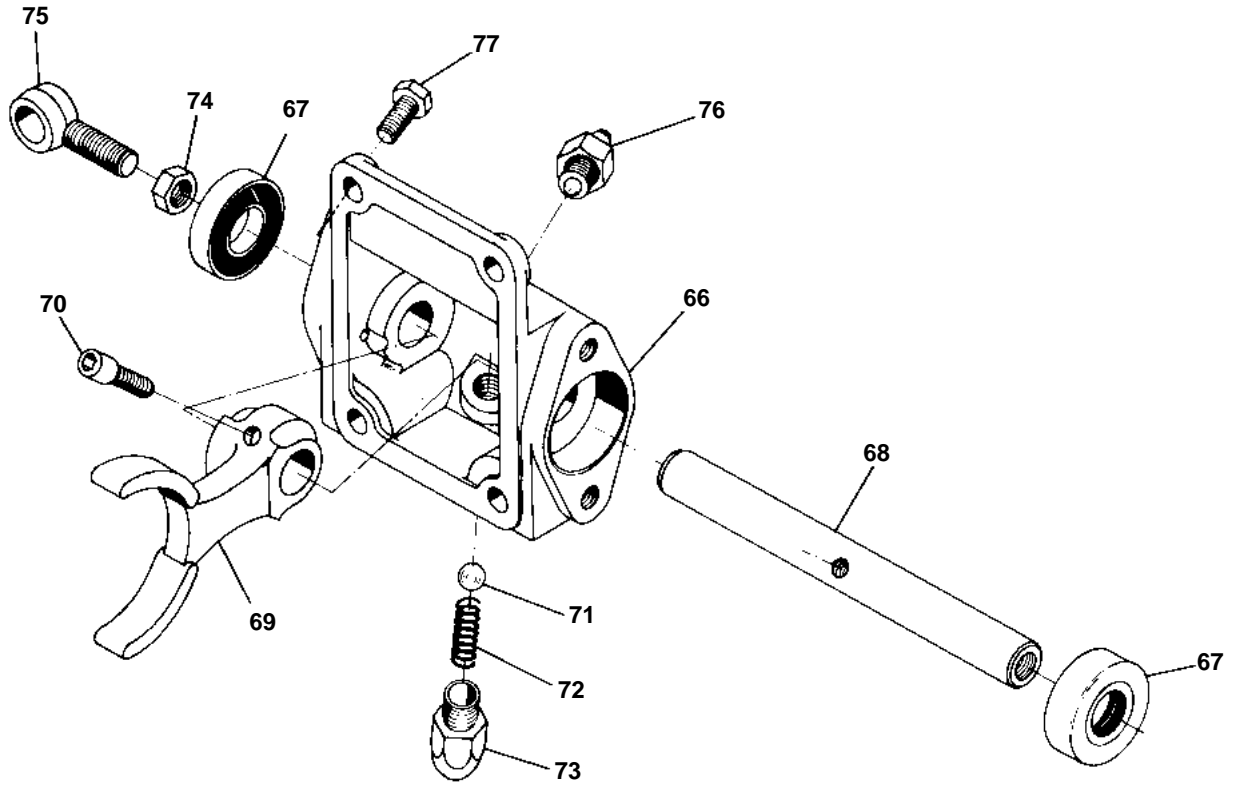
**Air Shift Conversion Kits**

Description	Part Number	Quantity
Lever to Air .....	<b>328390-85X</b>	1
Cable to Air .....	<b>328390-86X</b>	1
Cable to Electric Over Air - 12V .....	<b>328390-107X</b>	1
Cable to Electric Over Air - 24V .....	<b>328390-108X</b>	1
Lever to Electric Over Air - 12V .....	<b>328390-105X</b>	1
Lever to Electric Over Air - 24V .....	<b>328390-106X</b>	1

N.S. — Not Shown





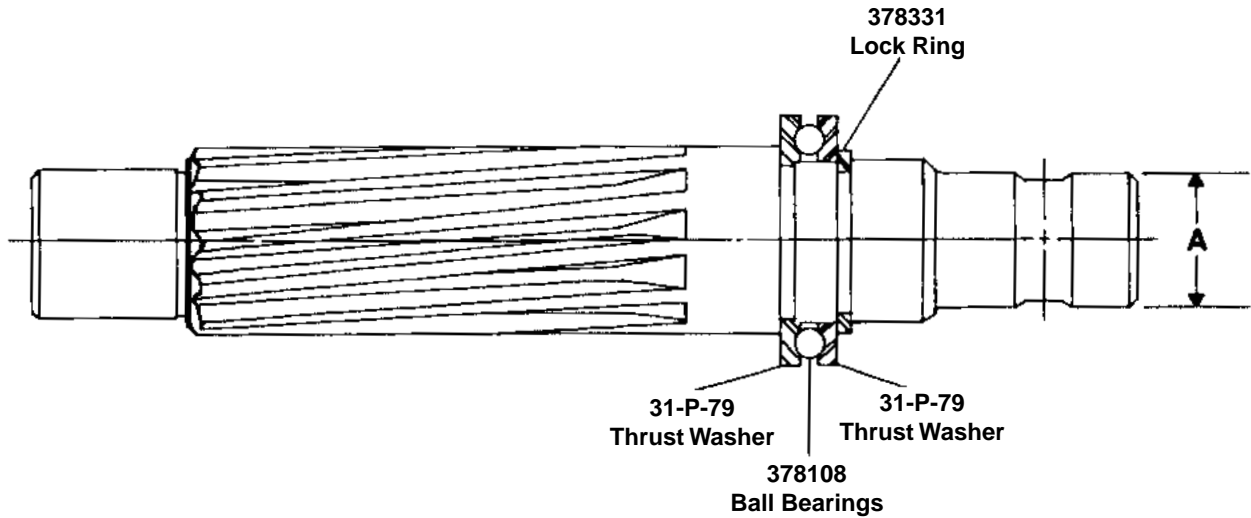


Item	Part Number	Description	Quantity
	<b>328751-1X</b>	Installation Kit .....	1
	<b>328850X</b>	Lever Control Cover Assembly (contains items listed below) .....	1
66	<b>34-P-87</b>	Shifter Cover .....	1
67	<b>28-P-207</b>	Oil Seal .....	2
68	<b>11-P-112</b>	Shifter Shaft .....	1
69	<b>32-P-148</b>	Shifter Fork .....	1
70	<b>378447-4</b>	Screw, hex socket (.312" - 18 x .750") .....	1
71	<b>378002</b>	Shifter Poppet .....	1
72	<b>37-P-41</b>	Poppet Spring .....	1
73	<b>378554</b>	Spring Cap .....	1
74	<b>500381-3</b>	Jam Nut .....	1
75	<b>36-P-1</b>	Eye Bolt .....	1
76	<b>378639</b>	Indicator Switch .....	1
N.S.	<b>65-P-23</b>	Shifter Shaft Cover .....	1
N.S.	<b>35-P-14</b>	Gasket .....	1
N.S.	<b>378430-4</b>	Hex Capscrew .....	2
77	<b>378430-8</b>	Screw, hex socket (.312" - 18 x .750") .....	4

N.S. — Not Shown

Model Number	Part Number	Gear Type	No. Teeth	Model Number	Part Number	Gear Type	No. Teeth
<b>100XRAB</b>	2-P-563	Spur	20T	<b>100XRCL</b>	2-P-629	L.H. Helix	22T
<b>100XRAG</b>	2-P-564	Spur	24T	<b>100XRCU</b>	2-P-590	L.H. Helix	24T
<b>100XRAH</b>	2-P-565	Spur	24T	<b>100XRCZ</b>	2-P-595	L.H. Helix	29T
<b>100XRAK</b>	2-P-687	Spur	23T	<b>100XRDC</b>	2-P-600	Spur	20T
<b>100XRAP</b>	2-P-685	L.H. Helix	22T	<b>100XRDD</b>	2-P-604	Spur	22T
				<b>100XRDJ</b>	2-P-609	L.H. Helix	28T
<b>100XRAN</b>	2-P-566	L.H. Helix	22T	<b>100XRDK</b>	2-P-610	L.H. Helix	26T
<b>100XRBA</b>	2-P-567	L.H. Helix	23T	<b>100XRDM</b>	2-P-616	L.H. Helix	18T
<b>100XRBC</b>	2-P-568	L.H. Helix	19T				
<b>100XRBF</b>	2-P-570	Spur	28T	<b>100XRDN</b>	2-P-617	L.H. Helix	21T
<b>100XRBG</b>	2-P-571	L.H. Helix	24T	<b>100XRDS</b>	2-P-625	L.H. Helix	28T
				<b>100XRDU</b>	2-P-633	L.H. Helix	29T
<b>100XRBH</b>	2-P-572	R.H. Helix	26T	<b>100XREA</b>	2-P-643	L.H. Helix	27T
<b>100XRBJ</b>	2-P-573	L.H. Helix	26T	<b>100XREC</b>	2-P-648	L.H. Helix	38T
<b>100XRBK</b>	2-P-574	L.H. Helix	24T	<b>100XRED</b>	2-P-649	L.H. Helix	34T
<b>100XRBL</b>	2-P-575	R.H. Helix	23T				
<b>100XRBM</b>	2-P-576	L.H. Helix	23T	<b>100XREF</b>	2-P-654	L.H. Helix	28T
				<b>100XREL</b>	2-P-678	R.H. Helix	23T
<b>100XRBN</b>	2-P-577	L.H. Helix	23T	<b>100XRFM</b>	2-P-718	Spur	30T
<b>100XRBQ</b>	2-P-578	L.H. Helix	27T	<b>100XRFP</b>	2-P-719	L.H. Helix	25T
<b>100XRBR</b>	2-P-579	R.H. Helix	27T				
<b>100XRBS</b>	2-P-580	L.H. Helix	27T	<b>100XRGW</b>	2-P-746	R.H. Helix	25T
<b>100XRBX</b>	2-P-581	L.H. Helix	28T				
<b>100XRBY</b>	2-P-582	R.H. Helix	28T				
<b>100XRBY</b>	2-P-583	L.H. Helix	28T				
<b>100XRBY</b>	2-P-584	L.H. Helix	26T				
<b>100XRBY</b>	2-P-585	L.H. Helix	26T				

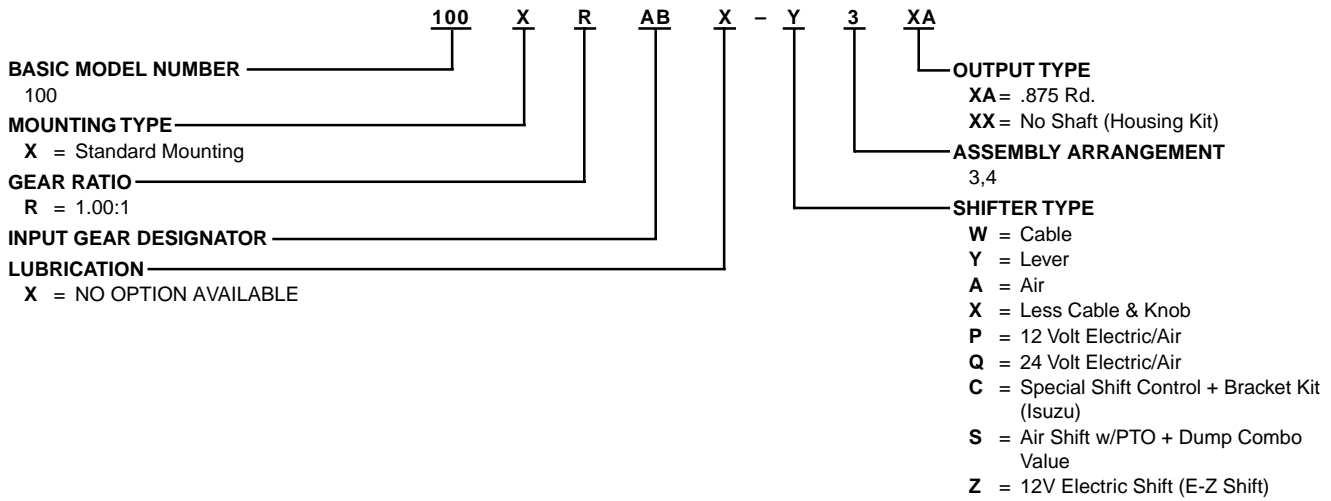
When reinstalling the Power Take-Off on the transmission, the backlash between the Power Take-Off gear and the transmission gear should be approximately 006-.012". If too few gaskets are used, the unit will whine; if too many, the unit will clatter.



P.T.O. Model Number	Driveshaft Assembly	Driveshaft (n.s.s.)	A Shaft Size	P.T.O. Model Number	Driveshaft Assembly	Driveshaft (n.s.s.)	A Shaft Size
100XRAB	328281-53X	3-P-528	0.875	100XRBD	328281-63X	3-P-516	0.875
100XRAG	328281-53X	3-P-528	0.875	100XRBE	328281-64X	3-P-500	0.875
100XRAH	328281-53X	3-P-528	0.875	100XRBF	328281-65X	3-P-496	0.875
100XRAK	328281-53X	3-P-528	0.875	100XRCL	328281-54X	3-P-494	0.875
100XRAP	328281-80X	3-P-831	0.875	100XRDU	328281-56X	3-P-532	0.875
100XRAW	328281-54X	3-P-494	0.875	100XRDC	328281-53X	3-P-528	0.875
100XRBA	328281-60X	3-P-512	0.875	100XRDD	328281-53X	3-P-604	0.875
100XRBC	328281-55X	3-P-504	0.875	100XRDJ	328281-63X	3-P-516	0.875
100XRBF	328281-53X	3-P-528	0.875	100XRDK	328281-63X	3-P-516	0.875
100XRBG	328281-56X	3-P-532	0.875	100XRDM	328281-75X	3-P-801	0.875
100XRBH	328281-57X	3-P-493	0.875	100XRDN	328281-59X	3-P-719	0.875
100XRBJ	328281-58X	3-P-508	0.875	100XRDS	328281-63X	3-P-516	0.875
100XRBK	328281-56X	3-P-532	0.875	100XRDU	328281-77X	3-P-812	0.875
100XRBL	328281-69X	3-P-697	0.875	100XREA	328281-63X	3-P-516	0.875
100XRBM	328281-59X	3-P-719	0.875	100XREC	328281-78X	3-P-827	0.875
100XRBN	328281-55X	3-P-504	0.875	100XRED	328281-56X	3-P-532	0.875
100XRBP	328281-60X	3-P-512	0.875	100XREF	328281-79X	3-P-828	0.875
100XRBR	328281-61X	3-P-520	0.875	100XREL	328281-57X	3-P-493	0.875
100XRBS	328281-60X	3-P-512	0.875	100XRFB	328281-53X	3-P-528	0.875
100XRBT	328281-56X	3-P-532	0.875	100XRFP	328281-60X	3-P-512	0.875
100XRBY	328281-62X	3-P-524	0.875	100XRGW	328281-69X	3-P-697	0.875

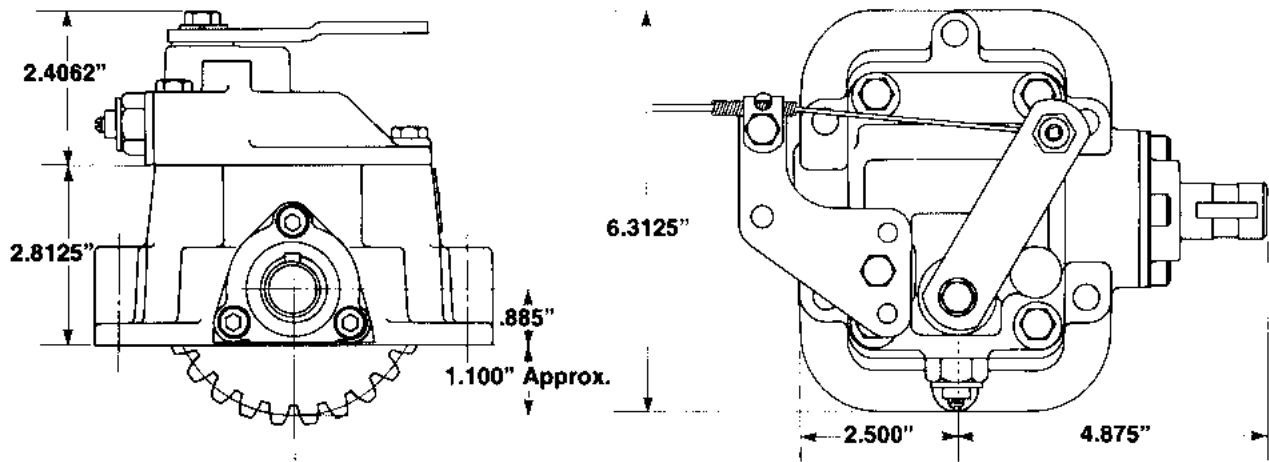
n.s.s.—Not sold separately. Order Driveshaft Assembly shown. All Driveshaft Assemblies consist of one Driveshaft, one 378331 Lockring, two 31-P-79 Thrust Washers, and one set of 378108 Ball Bearings.

**Model Number Designation**

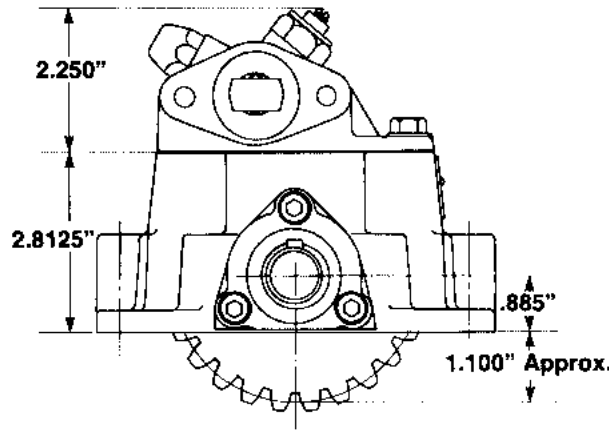


**P.T.O. Case Dimensions**

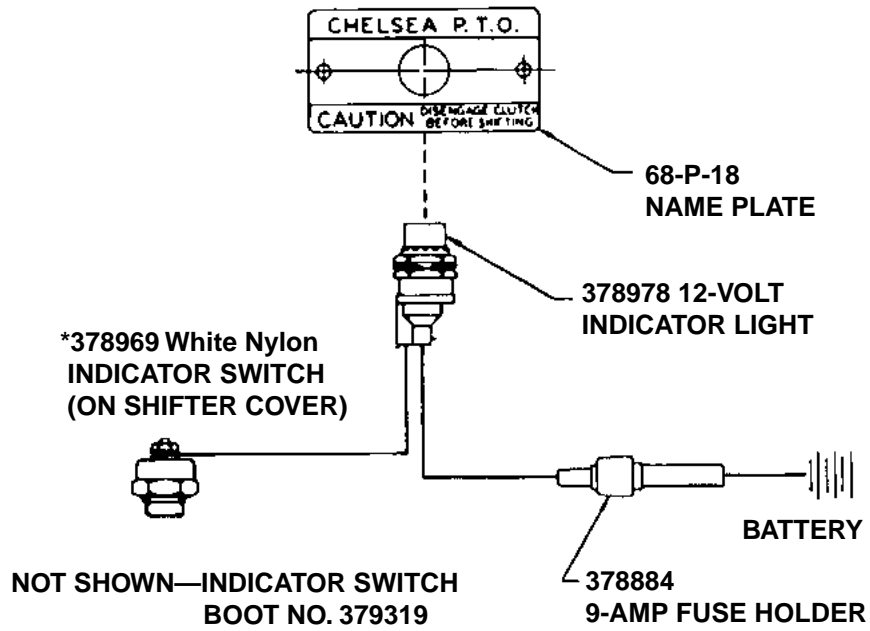
**CABLE CONTROL**



**AIR & LEVER CONTROL**



**Cable & Lever Control Indicator Light Installation Kit 328751X**



\* — Not included in 328751X



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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, 250, 251 and 859 series two (2) years from date of installation. **THIS WARRANTY COMPRISES THE SOLE AND ENTIRE WARRANTY PERTAINING TO ITEMS PROVIDED HEREUNDER. SELLER MAKES NO OTHER WARRANTY, GUARANTEE, OR REPRESENTATION OF ANY KIND WHATSOEVER. ALL OTHER WARRANTIES, INCLUDING BUT NOT LIMITED TO, MERCHANTABILITY AND FITNESS FOR PURPOSE, WHETHER EXPRESS, IMPLIED, OR ARISING BY OPERATION OF LAW, TRADE USAGE, OR COURSE OF DEALING ARE HEREBY DISCLAIMED. NOTWITHSTANDING THE FOREGOING, THERE ARE NO WARRANTIES WHATSOEVER ON ITEMS BUILT OR ACQUIRED WHOLLY OR PARTIALLY, TO BUYER'S DESIGNS OR SPECIFICATIONS.**

**5. Limitation Of Remedy: SELLER'S LIABILITY ARISING FROM OR IN ANY WAY CONNECTED WITH THE ITEMS SOLD OR THIS CONTRACT SHALL BE LIMITED EXCLUSIVELY TO REPAIR OR REPLACEMENT OF THE ITEMS SOLD OR REFUND OF THE PURCHASE PRICE PAID BY BUYER, AT SELLER'S SOLE OPTION. IN NO EVENT SHALL SELLER BE LIABLE FOR ANY INCIDENTAL, CONSEQUENTIAL OR SPECIAL DAMAGES OF ANY KIND OR NATURE WHATSOEVER, INCLUDING BUT NOT LIMITED TO LOST PROFITS ARISING FROM OR IN ANY WAY CONNECTED WITH THIS AGREEMENT OR ITEMS SOLD HEREUNDER, WHETHER ALLEGED TO ARISE FROM BREACH OF CONTRACT, EXPRESS OR IMPLIED WARRANTY, OR IN TORT, INCLUDING WITHOUT LIMITATION, NEGLIGENCE, FAILURE TO WARN OR STRICT LIABILITY.**

**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 thereto. 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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**Parker Hannifin Corporation**  
Chelsea Products Division  
8225 Hacks Cross Road  
Olive Branch, Mississippi 38654 USA  
Tel: (662) 895-1011  
Fax: (662) 895-1019  
[www.parker.com/chelsea](http://www.parker.com/chelsea)

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