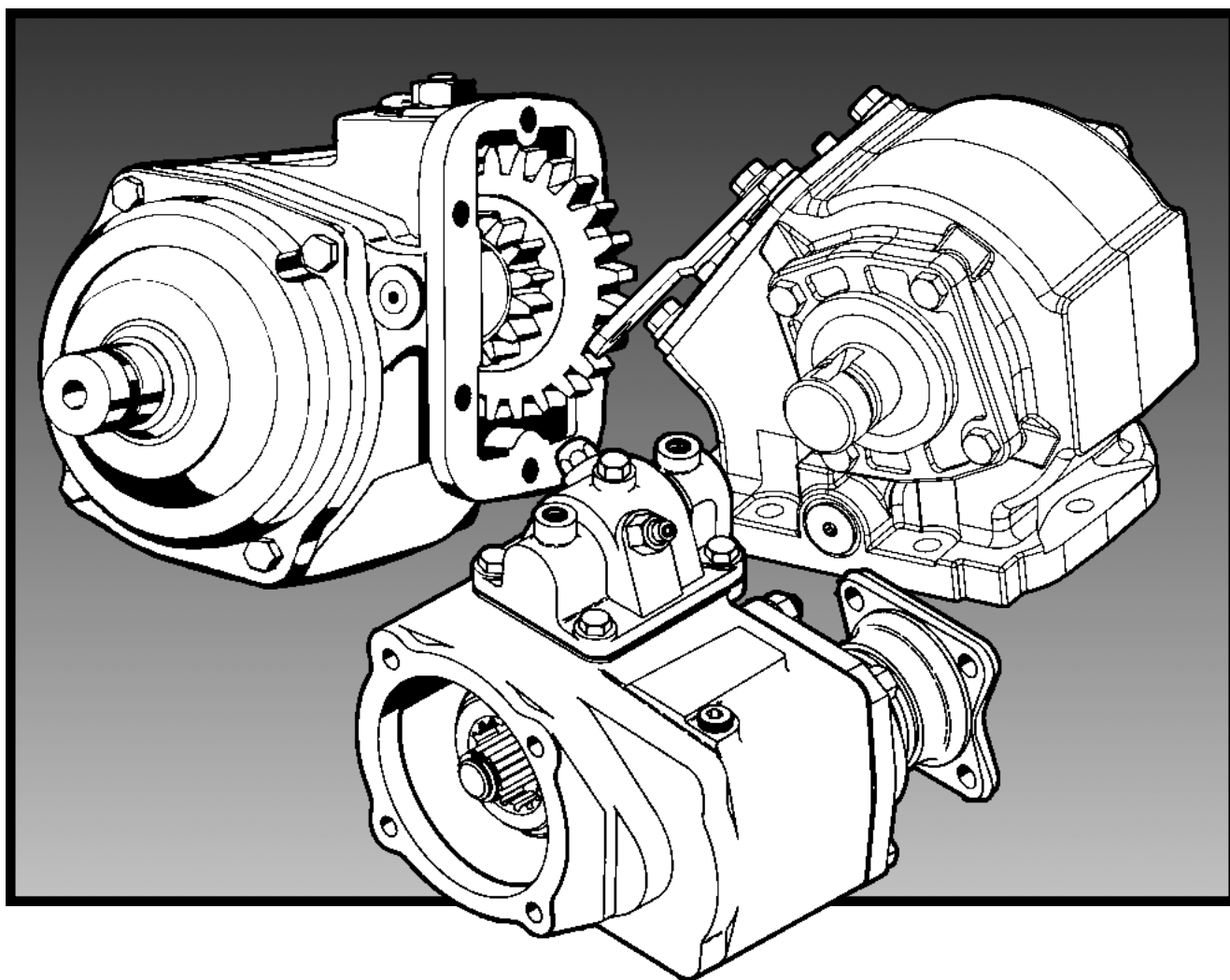


CHELSEA[®]

Bulletin HY25-2242-M1/US

Parts List 242/244 Series

Effective: January 15, 2002
Supersedes: P410-242/244 Dated January 2001



Parker
Hydraulics

 **WARNING**

FAILURE OR IMPROPER SELECTION OR IMPROPER USE OF THE PRODUCTS AND/OR SYSTEMS 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 and/or system options for further investigation by users having technical expertise. It is important that you analyze all aspects of your application and review the information concerning the product or system in the current product catalog. Due to the variety of operating conditions and applications for these products or systems, the user, through its own analysis and testing, is solely responsible for making the final selection of the products and systems and assuring that all performance, safety and warning requirements of the application are met.

The products described herein, including without limitation, product features, specifications, designs, availability and pricing, are subject to change by Parker Hannifin Corporation and its subsidiaries at any time without notice.

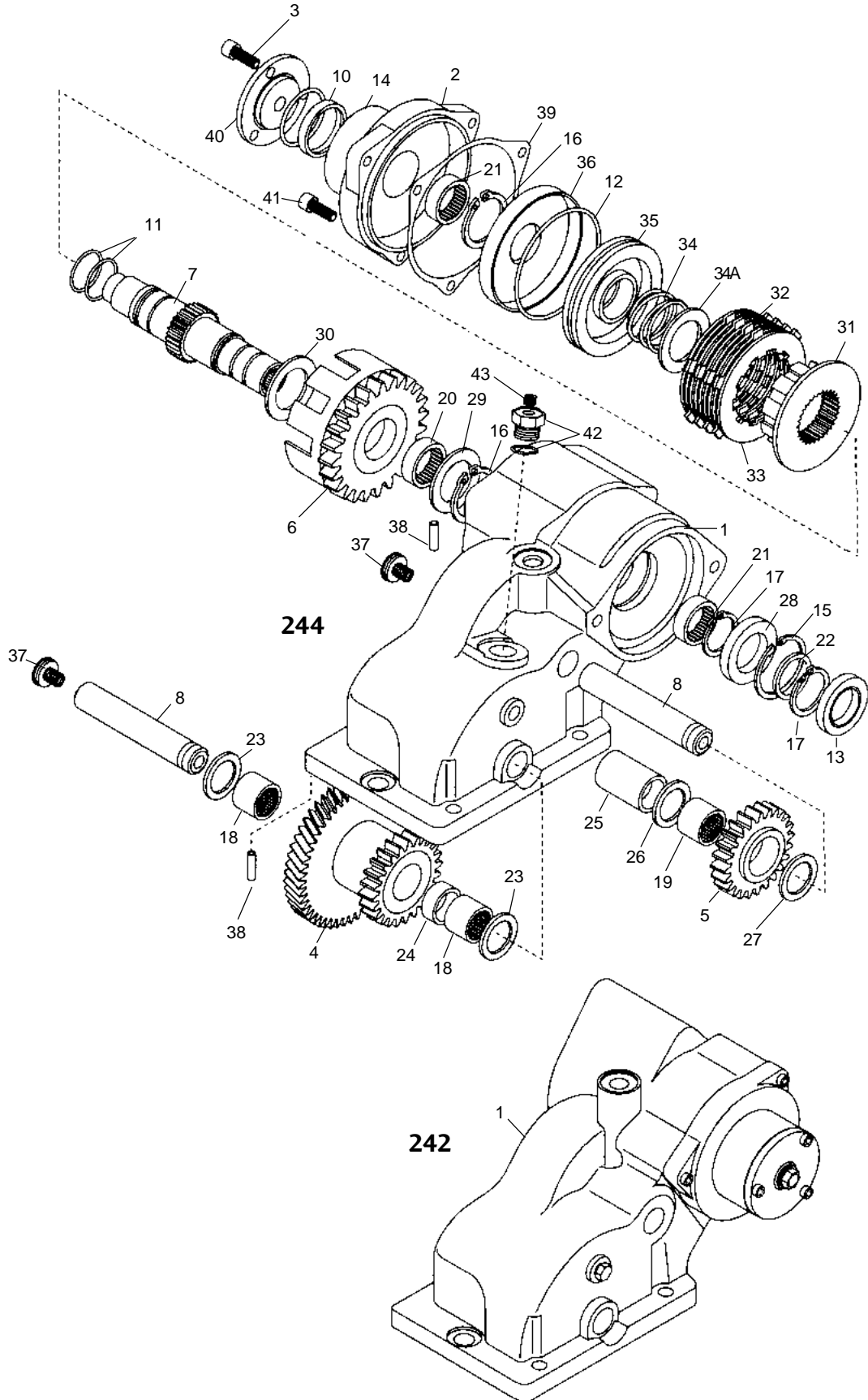
Offer of Sale

The items described in this document are hereby offered for sale by Parker Hannifin Corporation, its subsidiaries or its authorized distributors. This offer and its acceptance are governed by the provisions stated in the "Offer of Sale".

© Copyright 2002, Parker Hannifin Corporation, All Rights Reserved

Contents

Exploded View	1
Bill of Materials	2-3
Shift Installation Kit with Electronic Overspeed Control Bill of Materials	4
Shift Installation Kit with Electronic Overspeed Control Installation Drawing	5-6
Shift Installation Kit without Electronic Overspeed Control Bill of Materials	7
Hydraulic Installation Kit Without Electronic Overspeed Control	8
Wiring Installation Kit Without Electronic Overspeed Control	8
Pump Bill of Materials	9
Model Number Designation	10
Offer of Sale	12



Bill of Materials

Item	Part Number	Description	Quantity
1	1-P-544	Housing, 244 Series	1
1	1-P-561	Housing, 242 Series	1
2	21-P-613	Bearing Cap, 244 Series	1
2	21-P-618	Bearing Cap, 242 Series	1
3	34-P-126	End Cap	1
4	5-P-1231	Input Gear	1
5	5-P-1232	Idler Gear	1
6	2-P-775	Output Gear	1
7	3-P-936X	Pump Shaft, 5/8"-9 Tooth Spline, 242 and 244 Series	1
7	3-P-937	Output Shaft, 1" Rd. 242 Series	1
7	3-P-943X	Pump Shaft, 3/4"-11 Tooth Spline, 242 and 244 Series	1
8	9-P-90	Idler Shaft	2
10	28-P-263	O-Ring, End Cap	1
11	28-P-266	O-Ring, Output Shaft	2
12	28-P-265	O-Ring, Piston	1
13	28-P-264	Oil Seal	1
14	28-P-119	Oil Seal	1
15	379695	Snap Ring, Internal	1
16	379694	Snap Ring, External 1.25"	2
17	379693	Snap Ring, External 1"	2
18	550890	Needle Bearing, Input Shaft	2
19	550306	Needle Bearing, Idler Shaft	1
20	560998	Needle Bearing, Output Gear	1
21	560999	Needle Bearing, Output Gear	2
22	31-P-95	Spacer, 1"	1
23	31-P-97	Thrust Washer	2
24	14-P-70	Spacer, Input Shaft Bearing	1
25	4-P-175	Spacer, Idler Shaft	1
26	31-P-100	Thrust Washer, .126" thick	1
27	31-P-99	Thrust Washer, .032" thick	1
28	31-P-101	Thrust Washer, Output Shaft, .329" thick	1
29	31-P-105	Tabbed Thrust Washer, Output Shaft	1
30	31-P-98	Thrust Washer, Clutch, .094" thick	1
31	2-P-776	Clutch Gear	1
32	379692	Clutch Plate	4
33	379691	Friction Disk	5
34	37-P-56	Clutch Spring	1
34A	31-P-108	Spacer, Clutch Spring	1
35	379704	Piston	1
36	379705	Cylinder, Back-Up	1
37	379672	NWD Plug	2
38	379696	Roll Pin (1.250 LG.)	2
39	22-P-103	Gasket, Bearing Cap	1
40	379431-4	Hex Capscrew	3
41	379431-7	Hex Capscrew	3
42	379242	Boss Plug, with O-Ring	1
43	379231	Pipe Plug, for Boss Plug	1
N.S.	68-P-2	Name Plate	1
N.S.	378422	Drive Screw For Nameplate	2
N.S.	379708	Tubing Assembly	1

N.S. - Not Shown

Item	Part Number	Description	Quantity
		Loose Parts	
N.S.	379709	Plug, Weep Hole	2
N.S.	8000-16X	Mounting Kit, 244 Series	1
	28-P-200	O-Ring	1
	378924-52	Hex Capscrew	1
	379697	Dowel, Split Hollow	2
	379706	Hex Capscrew, M10 X 1.5	5
N.S.	8000-17X	Mounting Kit, 242 Series	1
	28-P-200	O-Ring	1
	378924-64	Hex Capscrew	1
	379697	Dowel, Split Hollow	2
	379706	Hex Capscrew, M10 X 1.5	5
	329229-5X	Installation & Label Kit	1
	328946X	Caution Label Kit	1
	379085-2	Installation Decal	1
	379624	Warranty Card	1
	379715	Owners Manual	1
	379716-1	Envelope	1
	329229-4X	Pump Mounting Kit	1
	379743	Hex Head Screw	2
	329317-1X	Dash Plat & Wiring Harness/Fitting Kit, 244 & 244 Series	1
	329315-1X	Dash Plat/Wire Harness Assembly, Non E.O.C.	1
	329319X	Fitting Kit With Manifold, 242 & 244 Series	1
	379486	Straight Thread O-ring, 90° Elbow JIC	4
	379698	Male Elbow	1
	379703	Swivel Nut, 90° Elbow JIC	1
	379726	Temperature Sender	1
	379832	90° Elbow JIC	1
	379833	Seal Nut	1
	329321X	Installation Kit	1
	379502	Pressure Switch	1
	379817	Grommet	1
	379818	Flange Bolt,	2
	379830	Pan Head Screw,	2
	329320-2X	Manifold/Hose Kit, 242 Series	1
	329057-4X	Hose Assembly (16-.750"), Solenoid Exhaust to P.T.O.	1
	329130-2X	Hose Assembly (17-.250"), Manifold "Lube" to P.T.O.-Pressure Lube	1
	329130X	Hose Assembly (12-.250"), Manifold "Out" to P.T.O.-Clutch Pack	1
	329232-1X	Hose Assembly (19-.500"), Trans. Main Pressure to Manifold "IN"	1
	329307X	Manifold Valve Assembly	
	329320-4X	Manifold/Hose Kit, 244 Series	1
	329057-4X	Hose Assembly (16-.750"), Solenoid Exhaust to P.T.O.	1
	329130-2X	Hose Assembly (17-.250"), Manifold "Lube" to P.T.O.-Pressure Lube	1
	329130-5X	Hose Assembly (26-.750"), Manifold "Out" to P.T.O.-Clutch Pack	1
	329232-1X	Hose Assembly (19-.500"), Trans. Main Pressure to Manifold "IN"	1
	329307X	Manifold Valve Assembly	
		SERVICE KITS	
	329311-1X	.625"-9 Tooth Shaft w/ Tabbed Washer	1
	329311-2X	1.000" Keyed Shaft w/ Tabbed Washer (XB output only)	1
	329339-1X	Gasket And Seal Kit	1
	329339-2X	Bearing Kit	1
	329339-3X	Clutch Plate Kit	1
	329339-4X	Rebuild Kit (Includes 329339-1X, -2X and -3X)	1

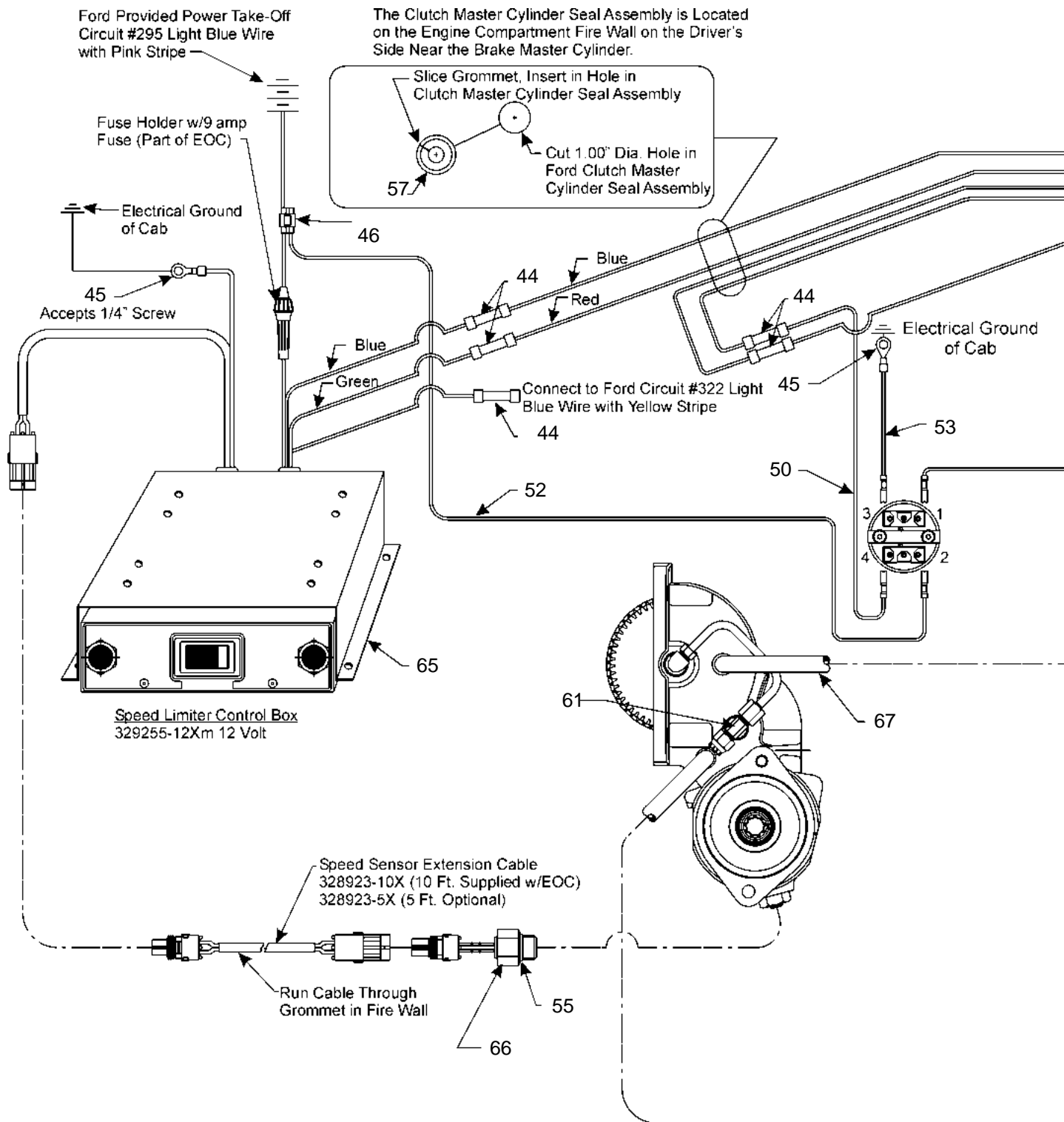
N.S. - Not Shown

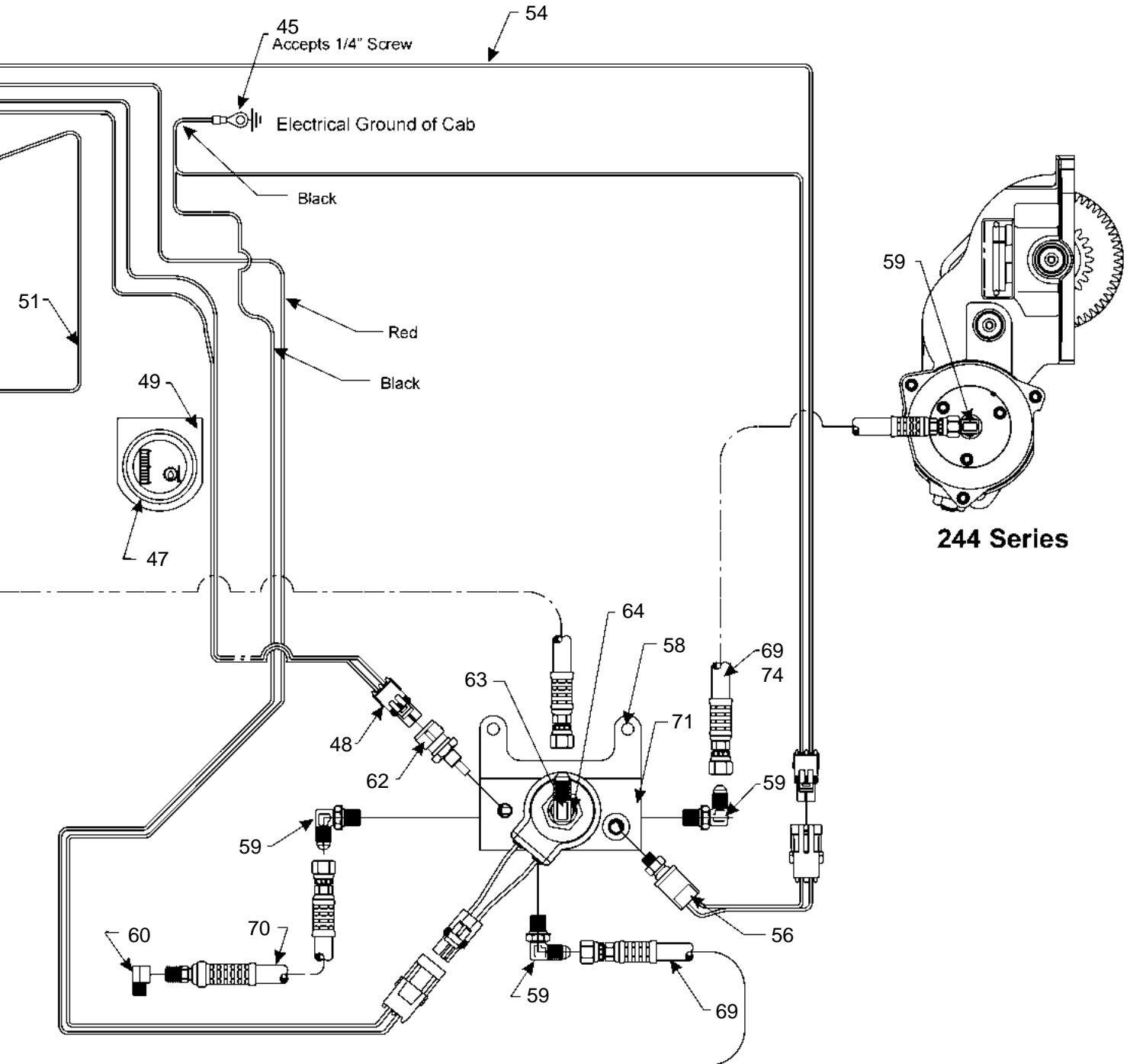
Shift Installation Kit with Electronic Overspeed Control

Item	Part Number	Description	Quantity
N.S.	379061	Wire Tie	6
44	379252	Butt Connector	5
45	379253	Ring Connector	2
46	379257	Electric Connector	2
47	379725	Temperture Gauge	1
N.S.	379741	Mounting Hardware Temperature Gauge	1
48	379727	Wire Connector Assembly	1
49	379730	Bracket, Temperature Gauge	1
50	379732-2	Wire, White 42" with Spade & Butt Connector	1
51	379732-1	Wire, Black 42" with Spade & Butt Connector	1
52	379733-1	Wire, Red 12" with Spade Connector	1
53	379733-2	Wire, Black 12" with Spade Connector	1
54	379736	Wire Connector Assembly	1
55	28-P-171	O-Ring	1
	329321X	Installation Kit	1
56	379502	Pressure Switch	1
57	379265	Grommet	1
58	379818	Flange Bolt,	2
N.S.	379830	Pan Head Screw,	2
	329319X	Fitting Kit For Manifold, 242 & 244 Series	1
59	379486	Straight Thread O-Ring, 90° Elbow JIC	4
60	379698	Male Elbow	1
61	379703	Swivel Nut, 90° Elbow JIC	1
62	379726	Temperature Sender	1
63	379832	90° Elbow JIC	1
64	379833	Seal Nut	1
65	329255-12X	Speed Limiter, 12 Volt	1
66	379243	Speed Sensor	1
	329320-2X	Manifold/Hose Kit, 242 Series	1
67	329057-4X	Hose Assembly (16-.750"), Solenoid Exhaust to P.T.O.	1
68	329130-2X	Hose Assembly (17-.250"), Manifold "Lube" to P.T.O.-Pressure Lube	1
69	329130X	Hose Assembly (12-.250"), Manifold "Out" to P.T.O.-Clutch Pack	1
70	329232-1X	Hose Assembly (19-.500"), Trans. Main Pressure to Manifold "IN"	1
71	329307X	Manifold Valve Assembly	1
	329320-4X	Manifold/Hose Kit, 244 Series	1
67	329057-4X	Hose Assembly (16-.750"), Solenoid Exhaust to P.T.O.	1
68	329130-2X	Hose Assembly (17-.250"), Manifold "Lube" to P.T.O.-Pressure Lube	1
72	329232-1X	Hose Assembly (19-.500"), Trans. Main Pressure to Manifold "IN"	1
73	329307X	Manifold Valve Assembly	1
74	329130-5X	Hose Assembly (26-.750"), Manifold "Out" to P.T.O.-Clutch Pack	1

N.S. Not Shown

Shift Installation Kit With Electronic Overspeed Control



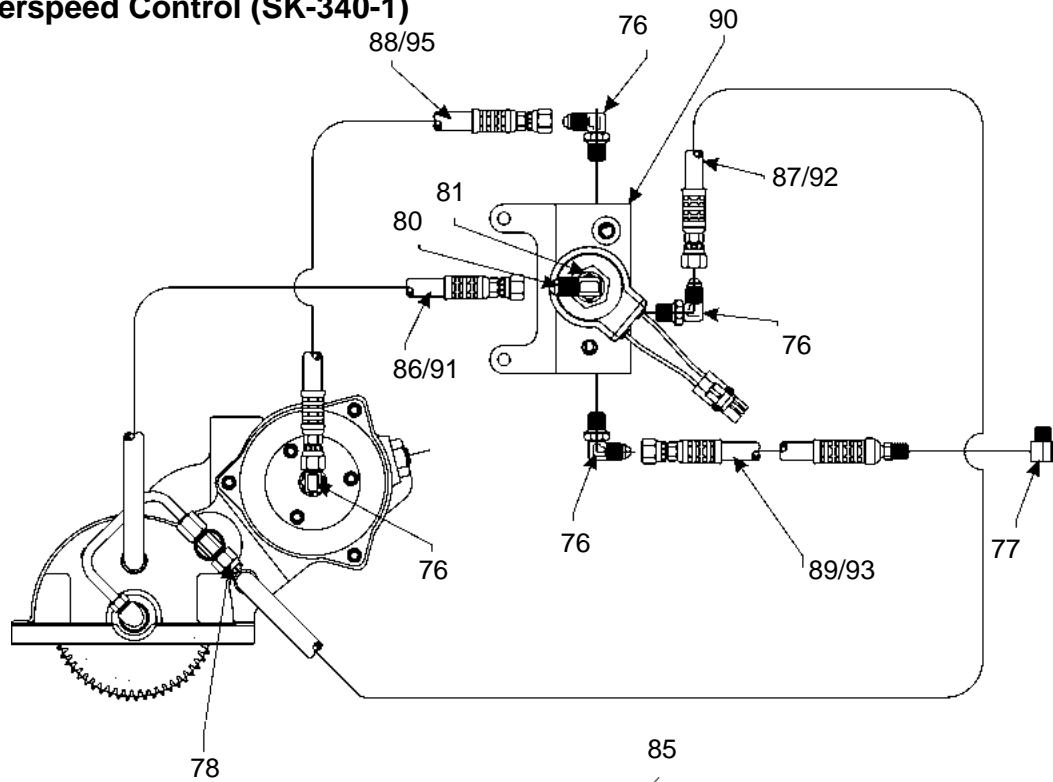


Shift Installation Kit without Electronic Overspeed Control

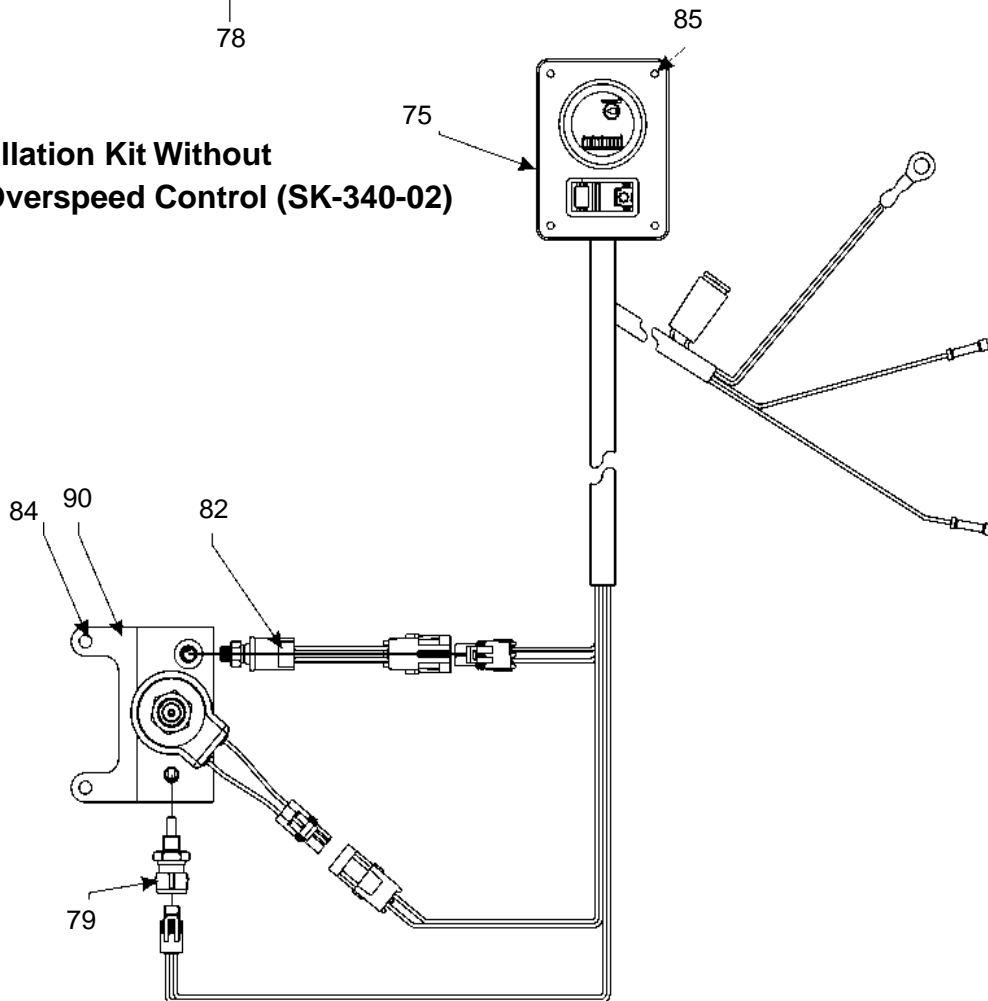
Item	Part Number	Description	Quantity
	329317-1X	Dash Plat & Wiring Harness/Fitting Kit, 244 & 244 Series	1
75	329315-1X	Dash Plat/Wire Harness Assembly, Non E.O.C.	1
	329319X	Fitting Kit For Manifold, 242 & 244 Series	1
76	379486	Straight Thread O-Ring, 90° Elbow JIC	4
77	379698	Male Elbow	1
78	379703	Swivel Nut, 90° Elbow JIC	1
79	379726	Temperature Sender	1
80	379832	90° Elbow JIC	1
81	379833	Seal Nut	1
	329321X	Installation Kit.....	1
82	379502	Pressure Switch	1
83	379817	Grommet	1
84	379818	Flange Bolt,	2
85	379830	Pan Head Screw,	2
	329320-2X	Manifold/Hose Kit, 242 Series	1
86	329057-4X	Hose Assembly (16-.750"), Solenoid Exhaust to P.T.O.	1
87	329130-2X	Hose Assembly (17-.250"), Manifold "Lube" to P.T.O.-Pressure Lube	1
88	329130X	Hose Assembly (12-.250"), Manifold "Out" to P.T.O.-Clutch Pack	1
89	329232-1X	Hose Assembly (19-.500"), Trans. Main Pressure to Manifold "IN"	1
90	329307X	Manifold Valve Assembly	
	329320-4X	Manifold /Hose Kit, 244 Series	1
91	329057-4X	Hose Assembly (16-.750"), Solenoid Exhaust to P.T.O.	1
92	329130-2X	Hose Assembly (17-.250"), Manifold "Lube" to P.T.O.-Pressure Lube	1
93	329232-1X	Hose Assembly (19-.500"), Trans. Main Pressure to Manifold "IN"	1
90	329307X	Manifold Valve Assembly	1
95	329130-5X	Hose Assembly (26-.750"), Manifold "Out" to P.T.O.-Clutch Pack	1

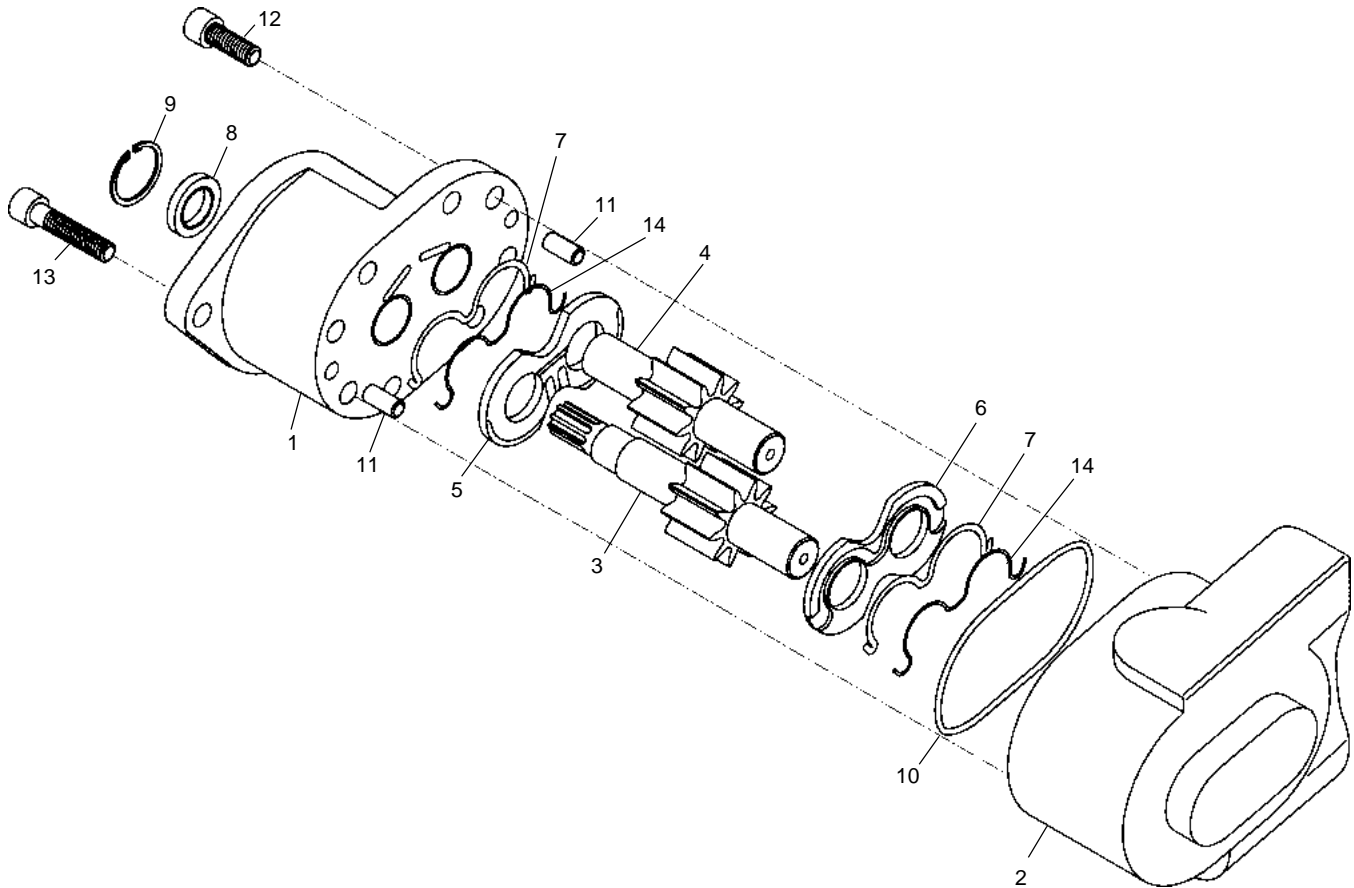
N.S. - Not Shown

**Hydraulic Installation Kit Without
Electronic Overspeed Control (SK-340-1)**

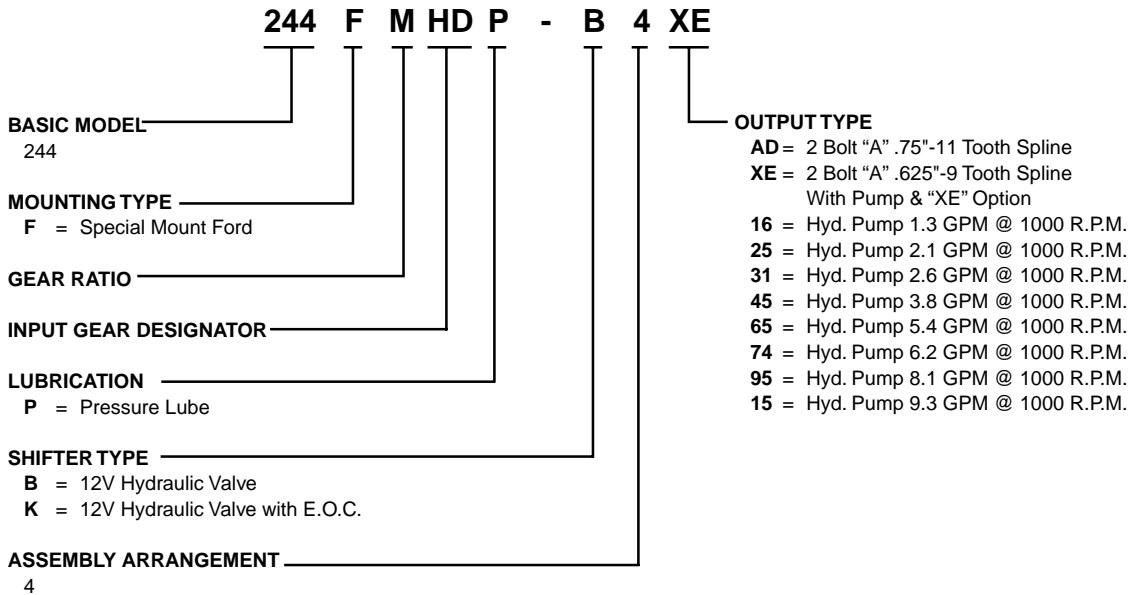
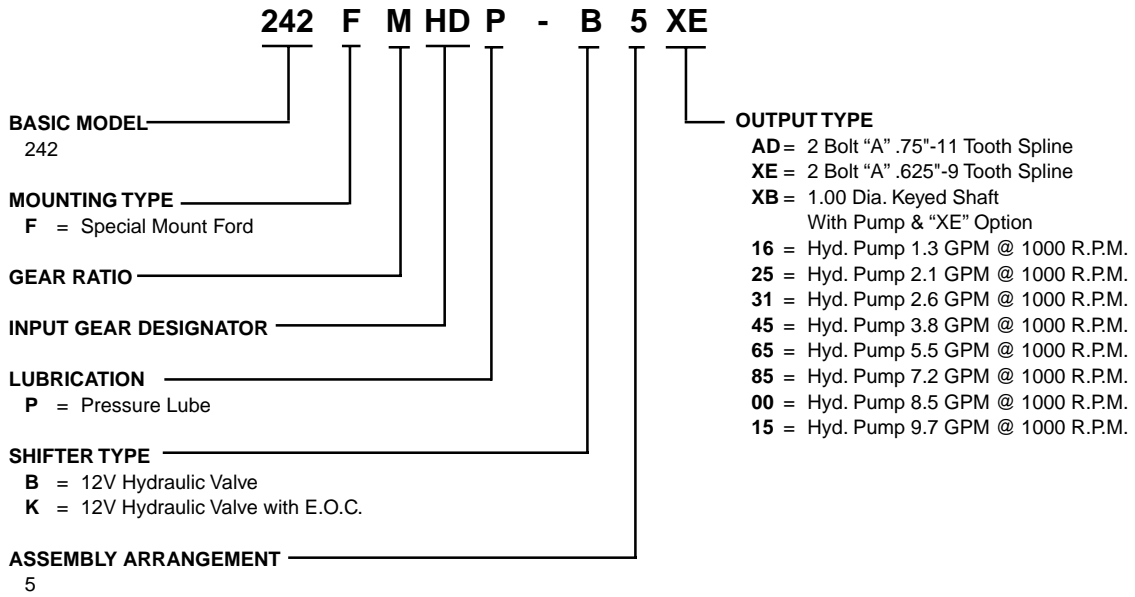


**Wiring Installation Kit Without
Electronic Overspeed Control (SK-340-02)**





Item	Part Number	Description	Quantity
1	64543	Flange	1
2	64735	Body, FP14-115C	1
	64551	Body, FP14-95C	1
	64952	Body, FP14-74C	1
	64955	Body, FP14-65C	1
	64954	Body, FP14-45C	1
3	2A053	Drive Gear, FP14-115C	1
	29938	Drive Gear, FP14-95C	1
	2A201	Drive Gear, FP14-74C	1
	2A202	Drive Gear, FP14-65C	1
	2A203	Drive Gear, FP14-45C	1
4	2A054	Idler Gear, FP14-115C	1
	28287	Idler Gear, FP14-95C	1
	2A207	Idler Gear, FP14-74C	1
	28439	Idler Gear, FP14-65C	1
	2A206	Idler Gear, FP14-45C	1
5	2A195	Pressure Plate, Top	1
6	2A196	Pressure Plate, Bottom	1
7	15818	Back-Up Ring	2
8	16920	Shaft Seal	1
9	58-5000-137	Snap Ring	1
10	55-040-8309	O-Ring	1
11	16030	Dowels	2
12	62B-6-10HG8	Socket Head Capscrew, 3/8 - 1"	4
13	62B-6-14HG8	Socket Head Capscrew, 3/8 - 1.50"	4
14	15817	O-Ring	2
	329346X	Soft Goods Service Kit	1
	329347X	Shaft Seal Kit	1
	329348X	Soft Goods Service Kit w/Pressure Plates	1



Offer of Sale

The items described in this document and other documents or descriptions provided by Parker Hannifin Corporation, its subsidiaries and its authorized distributors are hereby offered for sale at prices to be established by Parker Hannifin Corporation, its subsidiaries and its authorized distributors. This offer and its acceptance by any customer ("Buyer") shall be governed by all of the following Terms and Conditions. Buyer's order for any such items, when communicated to Parker Hannifin Corporation, its subsidiary or an authorized distributor ("Seller") verbally or in writing, shall constitute acceptance of this offer.

1. Terms and Conditions of Sale: All descriptions, quotations, proposals, offers, acknowledgments, acceptances and sales of Seller's products are subject to and shall be governed exclusively by the terms and conditions stated herein. Buyer's acceptance of any offer to sell is limited to these terms and conditions. Any terms or conditions in addition to, or inconsistent with those stated herein, proposed by Buyer in any acceptance of an offer by Seller, are hereby objected to. No such additional, different or inconsistent terms and conditions shall become part of the contract between Buyer and Seller unless expressly accepted in writing by Seller. Seller's acceptance of any offer to purchase by Buyer is expressly conditional upon Buyer's assent to all the terms and conditions stated herein, including any terms in addition to, or inconsistent with those contained in Buyer's offer. Acceptance of Seller's products shall in all events constitute such assent.

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.

9/01-P



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

FP 01/02 5M