



Chelsea PTO 250/251 Parts Manual

Pro Gear Chelsea 250/251 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



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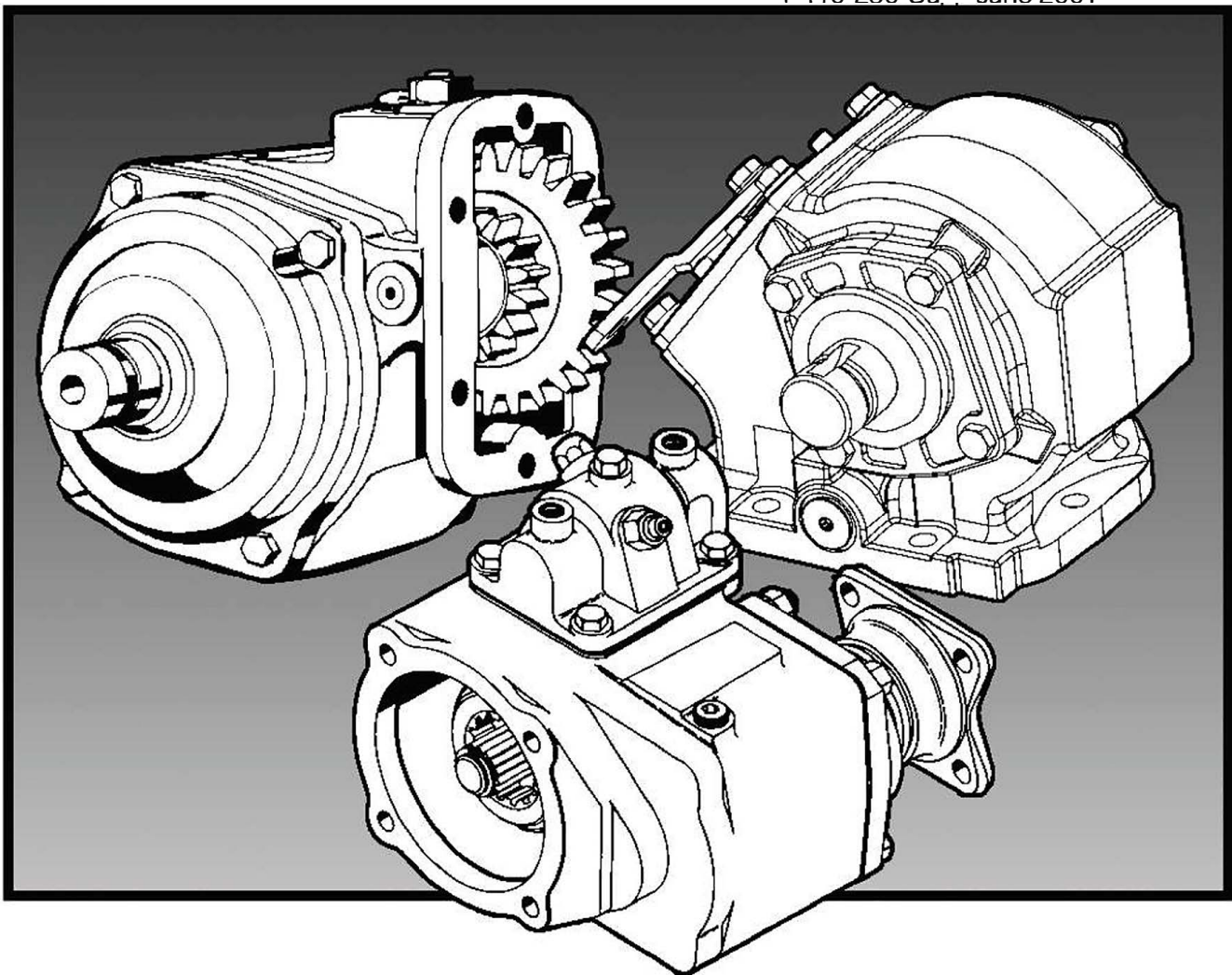
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CHELSEA[®]

Replacement Parts List

250/251 Series Manual

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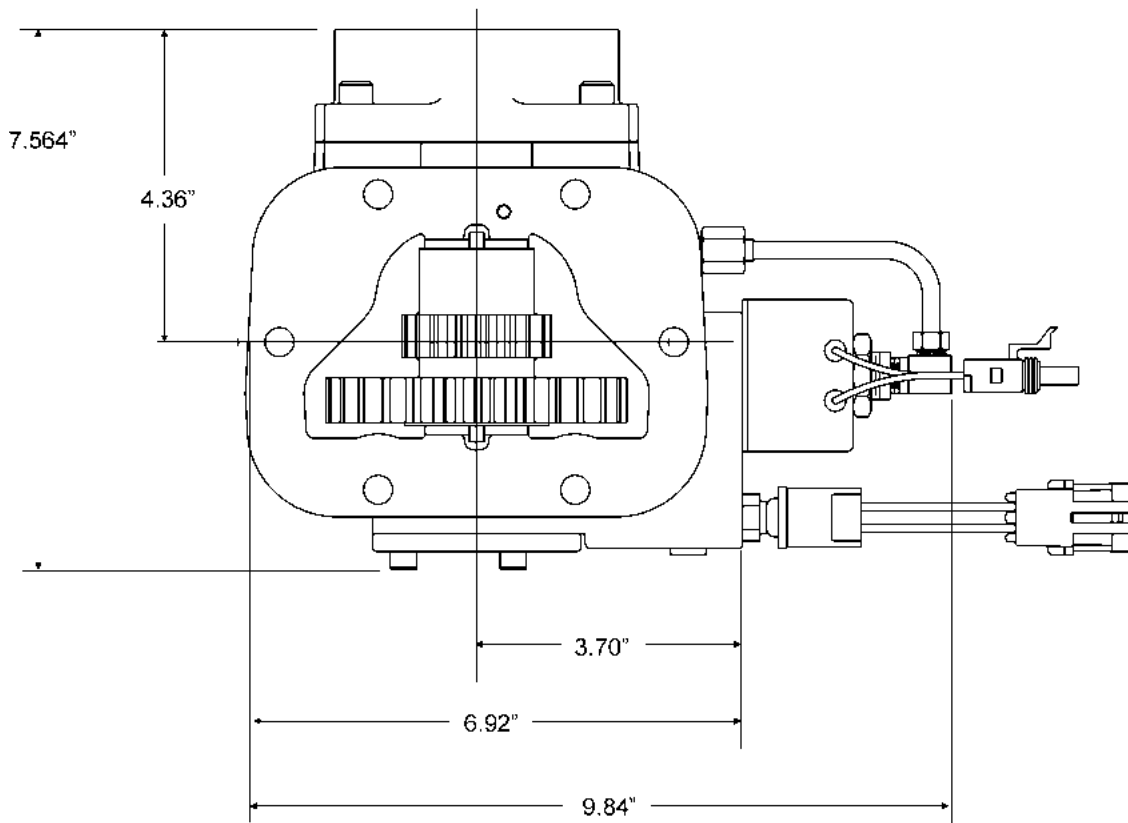
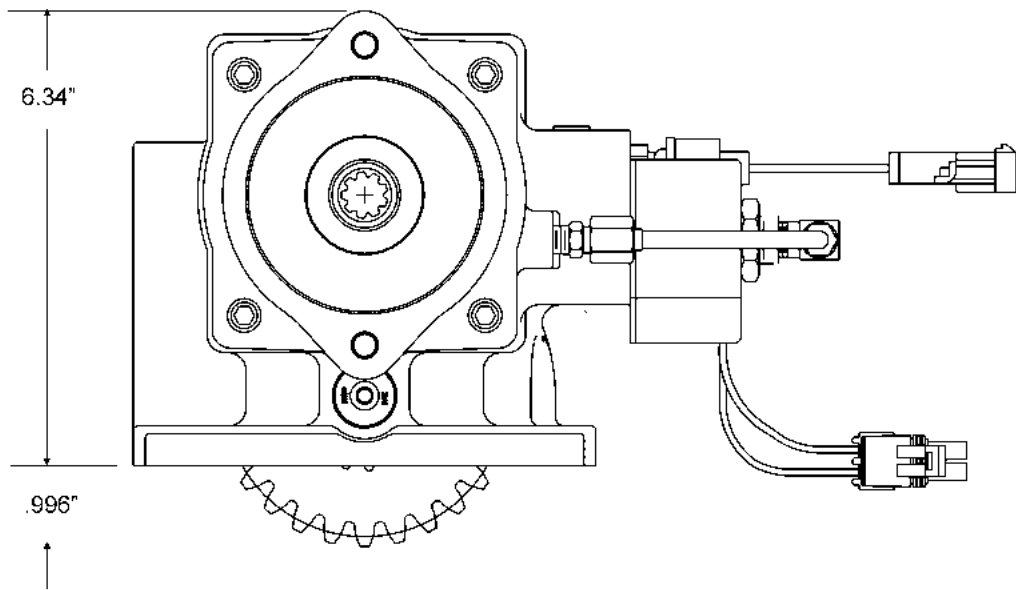
Parker
Hydraulics

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Item	Part Number	Description	Quantity
1	1-P-576X	Housing Assembly	1
2	See Chart pg. 3	Output Bell Gear	1
3	See Chart pg. 3	Input Gear	1
5	9-P-90	Input Shaft (Pressure Lube)	1
7	21-P-635	Output Bearing Cap	1
8	34-P-129	End Cap	1
10	3-P-931	Output Shaft (.625-9 Tooth)	1
N.S.	3-P-934	1" Std. Keyed Output Shaft, "XB" Output	1
N.S.	500007-24	Woodruff Key, "XB" Output	1
12	2-P-776	Clutch Gear	1
13	379798	Clutch Piston	1
14	379705	Clutch Back-Up Cylinder	1
15	379691	Friction Plate	5
16	379692	Clutch Plate	4
17	37-P-56	Clutch Spring	1
18	31-P-108	Spacer, Clutch Spring	4
19	31-P-104	Thrust Washer	1
20	31-P-98	Clutch Spacer	1
23	31-P-97	Thrust Washer, Input Shaft	2
24	14-P-70	Spacer, Input Needle Bearings	1
26	379693	External Snap Ring, 1" Shaft OD	1
27	379694	External Snap Ring, 1.25" Shaft OD	2
30	550890	Needle Roller Bearing, Input Shaft	2
31	561005	Ball Bearing, Output Shaft	2
32	560998	Needle Roller Bearing, Output Gear	1
34	28-P-264	Oil Seal, Low Pressure	1
35	28-P-119	Oil Seal, High Pressure	1
37	28-P-191	O-Ring, Idler Shaft	1
38	28-P-266	O-Ring, Output Shaft	2
39	28-P-263	O-Ring, End Cap	1
40	28-P-265	Lip Seal, Piston	1
41	378856	Wriggle Wire	1
42	379672	NWD Plug	1
43	379754	Hex Socket Plug, O-Ring	2
44	379800	Hex Socket Head Capscrew, .312-18	4
45	379431-3	Hex Socket Head Capscrew, .250-20	3
47	22-P-109	Pump Flange Gasket	1
N.S.	68-P-2	Name Plate (Chelsea)	1
N.S.	378422	Drive Screw	2
55	379803	Tube Assembly (Solenoid Exhaust)	1
56	379797-1	Solenoid Valve, 12V "B" Shifter Type Only	1
57	379797-2	Solenoid Valve, 24V "D" Shifter Type Only	1
58	379502	Pressure Switch	1
60	C5205x4	Male Connector	1
61	379804	Male Elbow Fitting	1
N.S.	500897-3	Shipping Plug	1
Loose Parts			
	329291X	Installation & Caution Label Kit (Includes 35-P-41 Mtg Gasket)	1
	7170-102X	P.T.O. Mounting Kit	1
	329296-2X	12 Volt Installation Kit, "B" Shifter Type Only (see page 6)	1
	329296-3X	24 Volt Installation Kit, "D" Shifter Type Only (see page 6)	1
	329296-4X	Pump Mounting Kit, "XE" Output	1
	379812	Male Connector, Flare Fitting	1
	379486	90° Elbow (Straight Thread O-Ring)	1
	328075X	Pressure Lube Hose	1
	329141-1X	Hose Assembly	1

N.S. - Not Shown



250 Series Installation Sketch 12 & 24 Volt without Speed Limiter

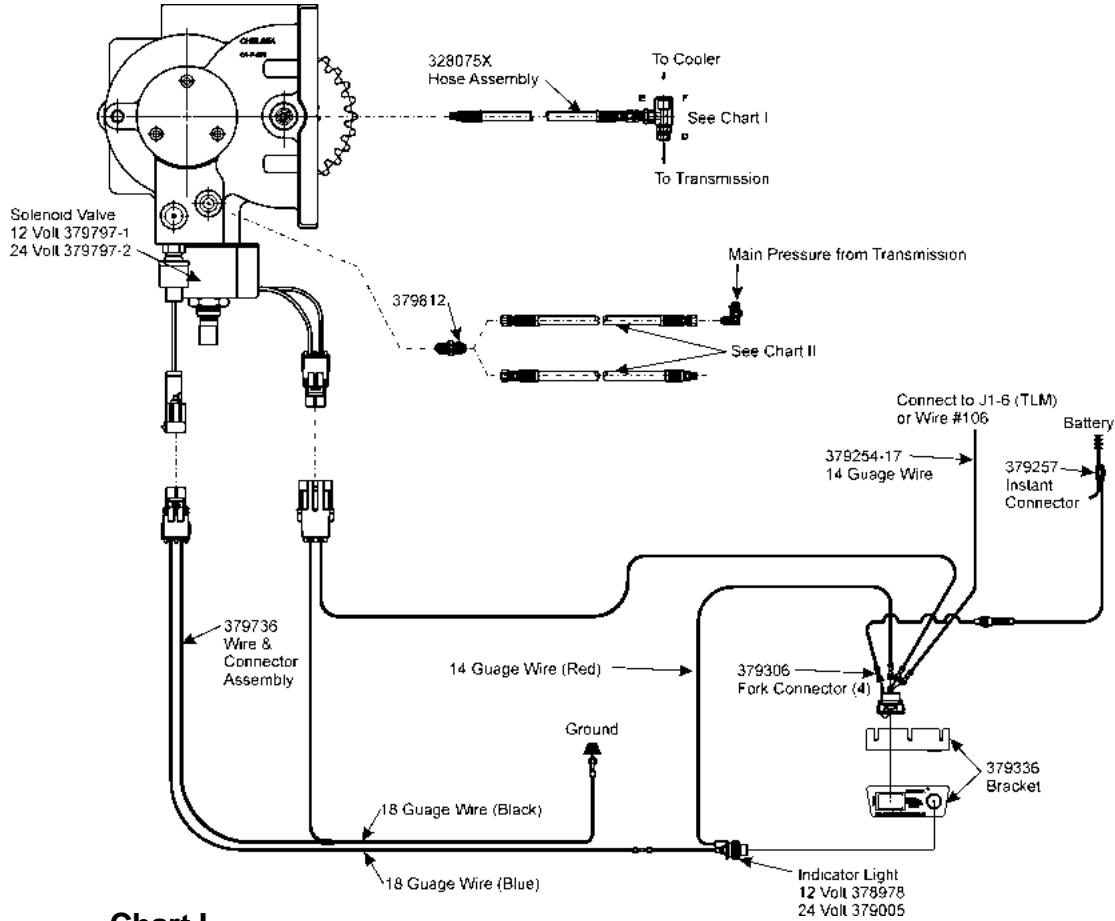


Chart I

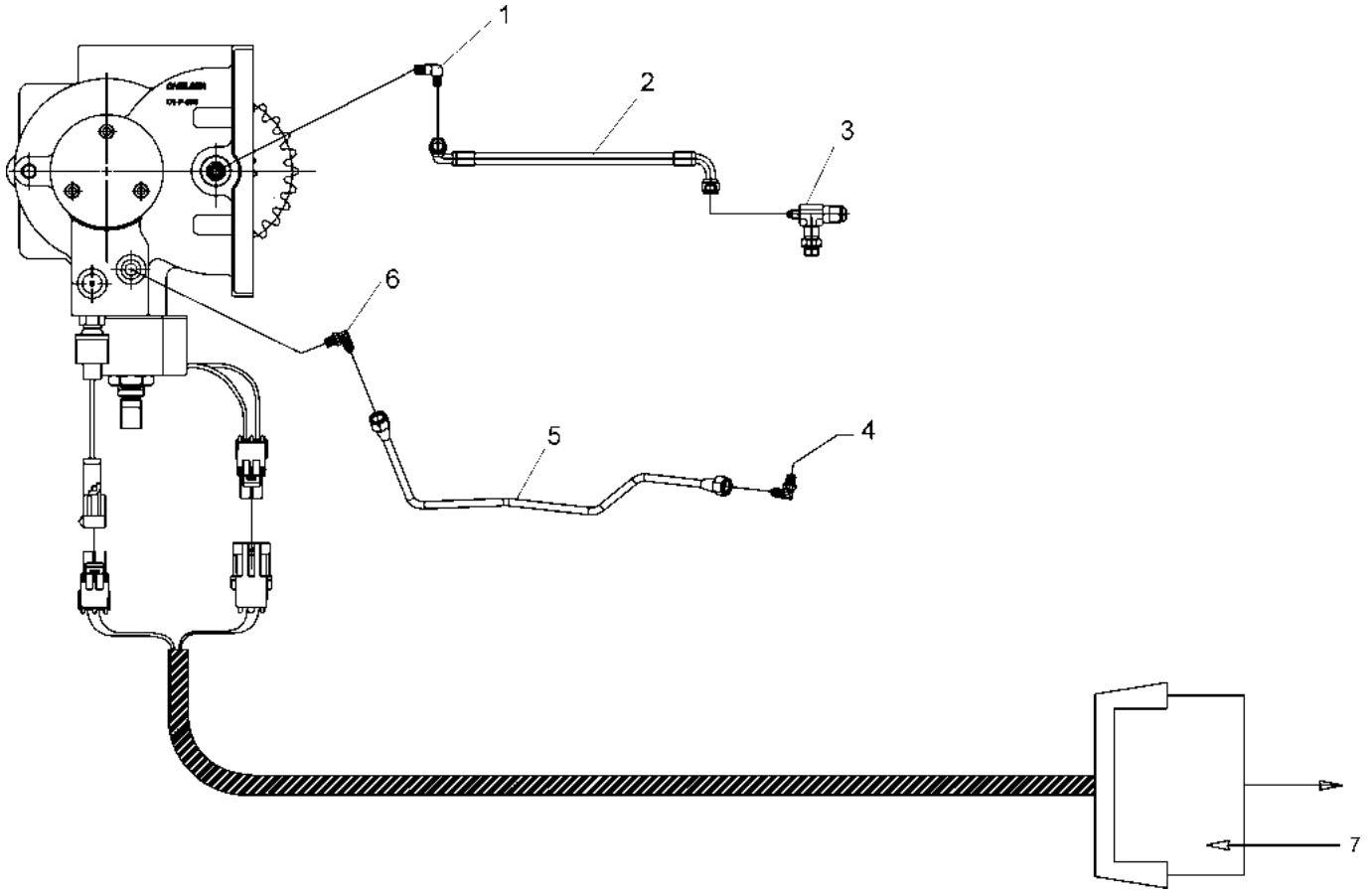
Dimensional Information						
TEE FITTING	378840	378970				
D	.750-16 U.N.F. 2A	1.062-12 U.N.F. 2A				
E	.250-18 N.P.T.F.	.250-18 N.P.T.F.				
F	.750-16 N.P.T.F.	1.062-12 U.N.F. 2B				

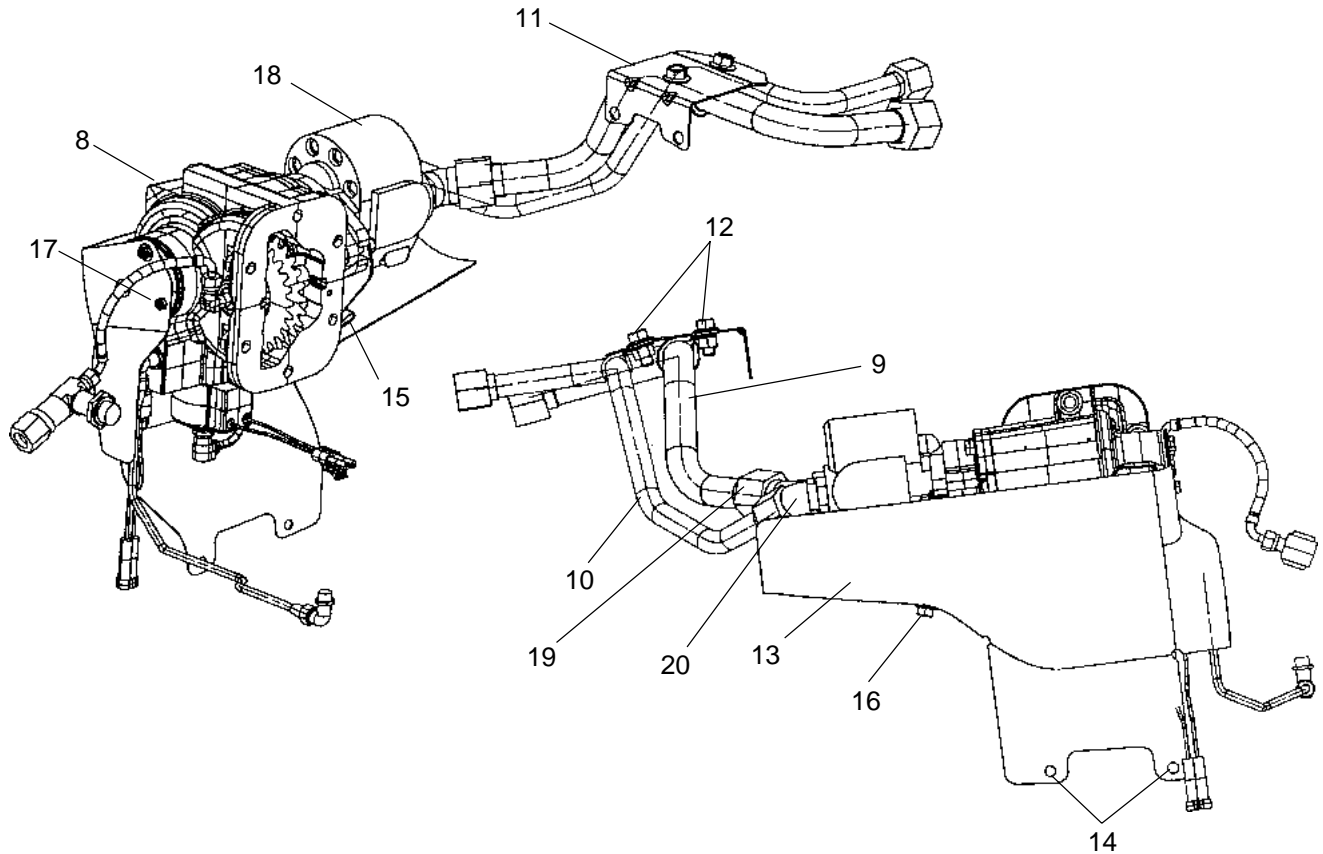
Allison 1000, 2000/2400 Series Converter Housing Options						
Converter Housing Group Number	SAE Number	Description	1000	2000	2400	Chelsea Fitting
34-561	#3	Integral Cooler Ports	STD.	---	---	378840
34-562	#2	Manifold Pad	OPT.	STD.	STD.	378970
34-563	#3	Manifold Pad	OPT.	STD.	STD.	378970
34-565	#3	Integral Cooler Ports	STD.	---	---	378840
34-566	#2	Manifold Pad	OPT.	STD.	STD.	378970
34-567	#2	Manifold Pad	OPT.	STD.	STD.	378970
34-572	#3	Integral Cooler Ports	STD.	---	---	378840
34-573	#3	Integral Cooler Ports	STD.	---	---	378840

Chart II

TRANSMISSION	HIGH PRESSURE HOSE	FITTING
Allison 1000, 2000/2400	329141-1X	379486

Item	Part Number	Description	Quantity
	329296-2X	12 Volt Installation Kit, "B" Shifter Type Only	
	378881	Rocker Switch	1
	378884	Fuse Holder	1
	378978	Indicator Light 12V	1
	379257	Connector	1
	379306	Connector	3
	379336	Name Plate & Bracket	1
	379736	Wire & Connector Assembly	1
	379254-17	14-Gage Wire w/Fork Connector	1
	329296-3X	24 Volt Installation Kit, "D" Shifter Type Only	
	378881	Rocker Switch	1
	378884	Fuse Holder	1
	379005	Indicator Light 24V	1
	379257	Connector	1
	379306	Connector	3
	379336	Name Plate & Bracket	1
	379736	Wire & Connector Assembly	1
	379254-17	14-Gage Wire w/Fork Connector	1





Item	Part Number	Description	Quantity
1	379801	90° Long Elbow	1
2	379834	Idler Shaft Lube Hose	1
3	379835	Transmission Lube Tee Fitting	1
4	379486	90° O-Ring Fitting, Main Pressure from Transmission	1
5	379837	Lube Supply Tube	1
6	379486	90° O-Ring Fitting	1
7	379852	Wiring Harness Assembly	1
8	-	P.T.O. Assembly, Refer to P410-250 for Part Information	
9	379836	Tube Assembly, Pump Suction	1
10	379838	Tube Assembly, Pump Discharge	1
	329331-4X	Bracket Kit	1
11	379840	Bracket, Hydraulic Tube Support	1
12	379871	Tube Clamp	2
	379706	Bolt	2
	379141-9	Nut	2
13	379839	P.T.O. Heat Shield	1
N.S.	379864	Cab Floor Pan Heat Shield	
14	500409-6	Bolt Hex Capscrew (.3125"-24 x .625")	2
14	500365-22	Washer	2
14	500381-2	Nut (.3125"-24)	2
15	379861	Heat Shield Bracket	1
N.S.	379872	Heat Shield Bracket U-Nut	1
16	378430-8	Heat Shield/Bracket Bolt	1
17	379565	Heat Shield/P.T.O. Mounting Bolt	1
18	See Chart Pg. 10	Hydraulic Pump	1
19	See Chart Pg. 10	Fitting, Suction	1
20	See Chart Pg. 10	Fitting, Discharge	1

N.S. - Not Shown

Service Kits

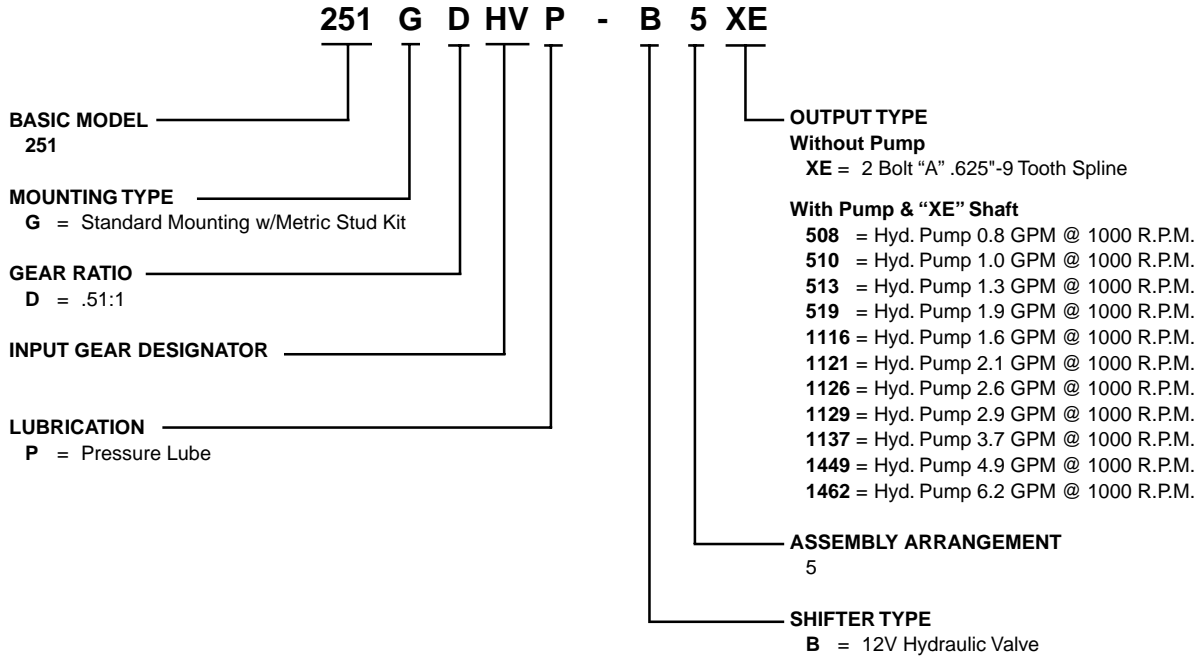
Part Number	Description	Quantity
329331X	Pump and Heat Shield Installation Kit 250 to 251 Series	
329331-1X	P.T.O. (251 Series) Lube Kit	1
329331-3X	Hydraulic Pump Tube Kit	1
329331-5X	Heat Shield Kit	1
329331-7X	Wiring Harness & Switch Kit	1
329331-1X	P.T.O. (251 Series) Lube Kit (includes 329331-2X & -8X)	
379834	Idler Shaft Lube Hose	1
379837	Tube Assembly P.T.O. Supply	1
329331-2X	P.T.O. Lube Fitting Kit (Includes 329331-8X)	1
379486	90° O-Ring Fitting	2
379801	90° Elbow Fitting	1
329331-8X	Lube Tee Fitting Assembly	1
379873	Tube Nut	1
379875	Ferrule	1
379835	Transmission Lube Tee Fitting	1
329331-3X	Hydraulic Pump Tube Kit (includes 329331-4X)	
379836	Tube Assembly Pump Suction	1
379838	Tube Assembly Pump Discharge	1
329331-4X	Hydraulic Tube Bracket Kit	1
379840	Bracket, Hydraulic Tube Support	1
379706	Bolt	2
379141-9	Nut	2
501211-8	Clamp, 3/4"	1
501211-12	Clamp, 1"	1
329331-5X	Heat Shield Kit (includes 329331-6X & -9X)	
379864	Cab Floor Heat Shield	1
329331-6X	Heat Shield Mounting Kit, 251 Series	1
379565	Self-Locking Bolt	1
500409-6	Bolt Hex Capscrew (.3125"-24 x .625")	2
500365-22	Washer	2
500381-2	Nut (.3125"-24)	2
329331-9X	Heat Shield and Bracket Kit, 251 Series	1
379839	P.T.O. Heat Shield	1
379861	Heat Shield Bracket	1
379872	U-Nut	1
378430-8	Hex Capscrew (.3125"-18 x .750")	1
329331-7X	Wiring Harness and Switch Kit, 251 Series	1
379857	In Dash P.T.O. Switch	1
379852	Wiring Harness	1
329332X	Clutch Repair Kit, 250/251 Series (includes 329332-1X)	
379691	Friction Plates	5
379692	Clutch Plates	4
379705	Clutch Back up Cylinder	1
379798	Clutch Piston	1
329332-1X	Soft Good Kit, 250/251 Series Clutch Pack	1
28-P-263	O-Ring, End Cap	1
28-P-266	O-Ring, Output Shaft	2
28-P-265	Lip Seal, Piston	1
28-P-264	Oil Seal, Low Pressure	1
28-P-119	Oil Seal, High Pressure	1
22-P-109	Gasket	1
379693	External Snap Ring	1
379694	External Snap Ring	2
28-P-191	O-Ring, Idler Shaft	1

Part Number	Description	Quantity
329334X	Clutch, Bearing, Gasket and Seal Kit 250/251 Series (includes 329334-1X)	
379691	Friction Plates	5
379692	Clutch Plates	4
379705	Clutch Back up Cylinder	1
379798	Clutch Piston	1
561005	Ball Bearing	2
560998	Needle Roller Bearing	1
550890	Needle Roller Bearing	2
329334-1X	Soft Good Kit, 250/251 Series Units	1
28-P-263	O-Ring, End Cap	1
28-P-266	O-Ring, Output Shaft	2
28-P-191	O-Ring, Idler Shaft	1
28-P-265	Lip Seal, Piston	1
379693	External Snap Ring	1
379694	External Snap Ring	2
28-P-264	Oil Seal, Low Pressure	1
28-P-119	Oil Seal, High Pressure	1
22-P-109	Gasket	1
	Loose Parts	
329291-1X	Installation & Caution Kit (Includes 35-P-41 Mtg Gasket)	1
7170-102X	P.T.O. Mounting Kit	1
329296-4X	Hyd. Pump Mounting Kit, "XE" Output	1

Pumps And Fittings

Pump Series	Fitting Kit	Swivel Nut Suction	Std Th'd O-Ring Suction	Swivel Nut Discharge	Std Th'd O-Ring Discharge
CGP-P5	329335-1X	379866*	379870	379868*	379869
CGP-P11	329335-2X	379866*	379867	-	379850*
CGP-P14	329335-3X	-	379849*	-	379850*

* 45° Elbow Fitting



Pump Information

Option Code	251 Series Pumps** (GM 3600 Cab Chassis)	Cubic Inch Displacement	Gals/Min @ 1000 R.P.M.	Maximum Pressure (PSI)	Maximum Speed (R.P.M.)
508	CGP-P5C008-1AA	0.18	0.8	4400	4000
510	CGP-P5C010-1AA	0.23	1.0	4400	4000
513	CGP-P5C013-1AA	0.30	1.3	4400	4000
519	CGP-P5C019-1AA	0.44	1.9	4400	3300
1116	CGP-P11C016-1AC	0.37	1.6	4400	4000
1121	CGP-P11C021-1AC	0.49	2.1	4400	4000
1126	CGP-P11C026-1AC	0.60	2.6	4400	3600
1129	CGP-P11C029-1AC	0.67	2.9	4400	3600
1137	CGP-P11C037-1AC	0.85	3.7	4400	3300
1435	CGP-P14C035-1AE	0.81	3.5	3000	3600
1438	CGP-P14C038-1AE	0.88	3.8	3000	3600
1449	CGP-P14C049-1AE	1.13	4.9	3000	3600
1462	CGP-P14C062-1AE	1.43	6.2	3000	3400

** = All 251 Series Pumps **MUST** be Rear Ported

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 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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