



Fabco PTO-170-23 ENGINEERING REPORT

Pro Gear Fabco PTO-170-23 Engineering Report assist in identifying your Fabco unit.

If you need any assistance identifying the correct transfer case unit for your truck and equipment, contact your Fabco replacement part specialists at Pro Gear and Transmission.

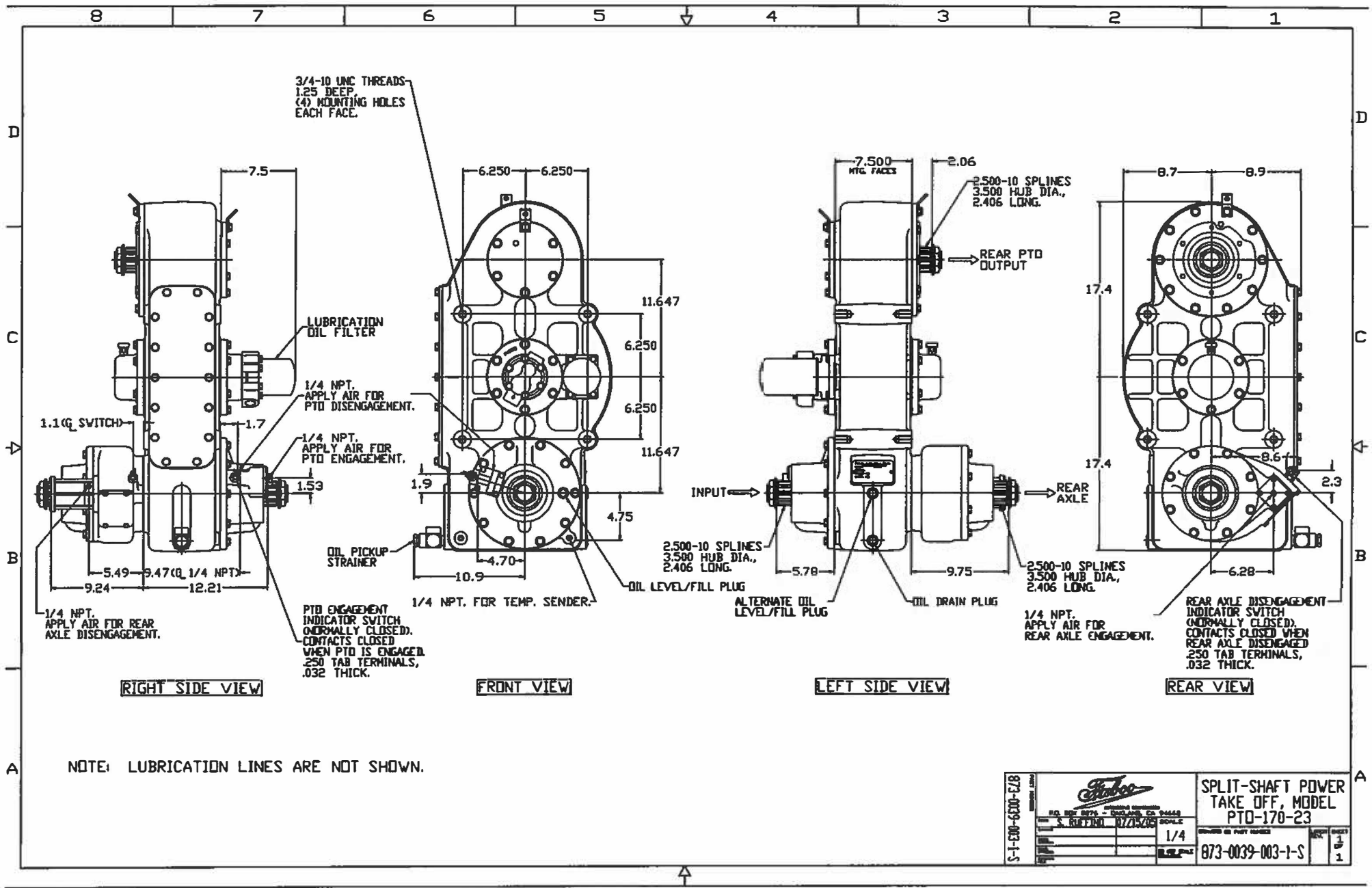
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**FABCO
PTO-170-23
ENGINEERING
REPORT**



873-0039-003-1-S			SPLIT-SHAFT POWER TAKE OFF, MODEL PTO-170-23
	S. RUFFINO 07/15/20	1/4	

SECTION A-A

873 039 003

SPLIT SHAFT POWER TAKE OFF MODEL P10-170-23

873 039 003 A 2

PRO GEAR AND TRANSMISSION

10000 W. GORE ST. ORLANDO, FL 32805

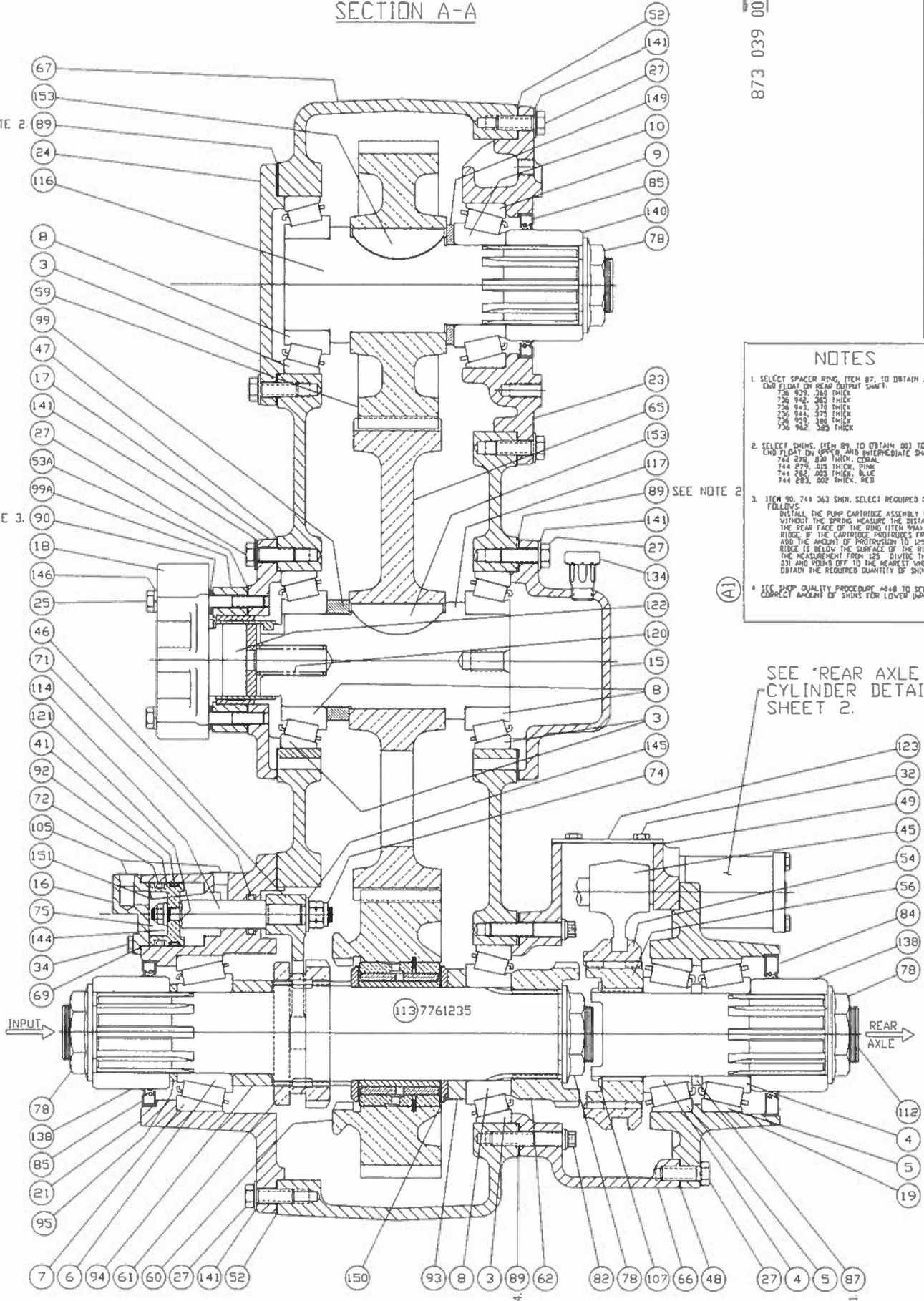
TEL: (407) 872-1901

F.O.B.

NOTES

1. SELECT SPACER RING, ITEM 87, TO OBTAIN .003 TO .008 END FLAT ON REAR OUTPUT SHAFT.
 736 929, .240 THICK
 736 942, .363 THICK
 736 943, .370 THICK
 736 944, .375 THICK
 736 929, .180 THICK
 736 942, .205 THICK
2. SELECT SHIMS, ITEM 89, TO OBTAIN .003 TO .008 END FLAT ON UPPER AND INTERMEDIATE SHAFTS.
 744 878, .130 THICK, CRDA
 744 879, .013 THICK, RING
 744 882, .003 THICK, BLUE
 744 883, .002 THICK, RED
3. ITEM 90, 744 363 SHIM, SELECT REQUIRED QUANTITY AS FOLLOWS:
 INSTALL THE PUMP CARTRIDGE ASSEMBLY TO THE SHAFT WITHOUT THE SPRING. MEASURE THE DISTANCE BETWEEN THE REAR FACE OF THE RING (ITEM 99A) AND THE CARTRIDGE. IF THE CARTRIDGE PROTRUDES FROM THE RING, ADD THE AMOUNT OF PROTRUSION TO .125. IF THE CARTRIDGE IS BELOW THE SURFACE OF THE RING, SUBTRACT THE MEASUREMENT FROM .125. DIVIDE THE RESULT BY .031 AND ROUND OFF TO THE NEAREST WHOLE NUMBER TO OBTAIN THE REQUIRED QUANTITY OF SHIMS.
4. SEE SHOP QUALITY PROCEDURE 4046 TO SELECT THE CORRECT AMOUNT OF SHIMS FOR LOWER INPUT SHAFT.

SEE 'REAR AXLE SHIFT CYLINDER DETAILS', SHEET 2.



SEE NOTE 2

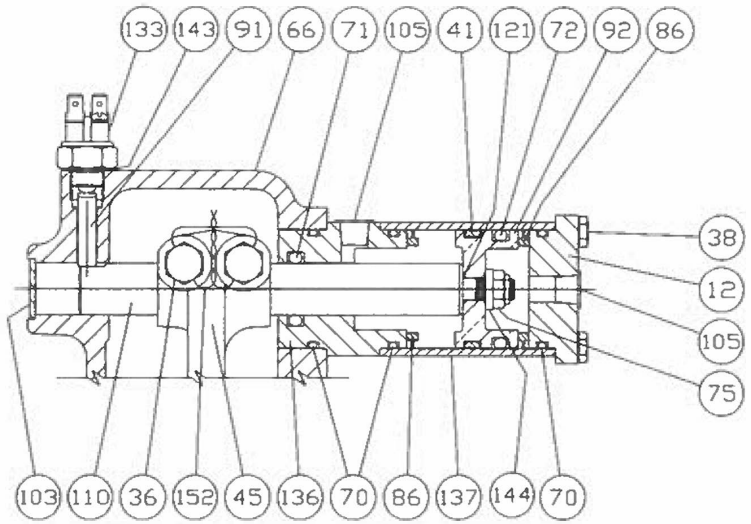
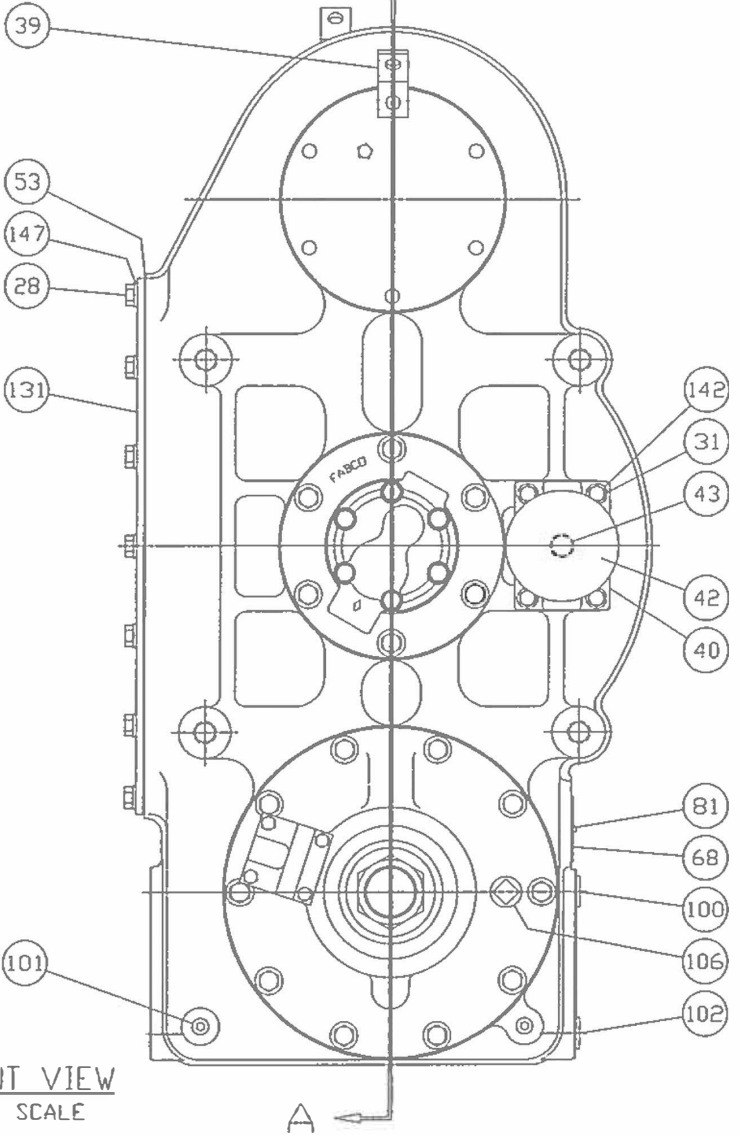
SEE NOTE 3

SEE NOTE 2

(A1)

NOTE 4 (A2)

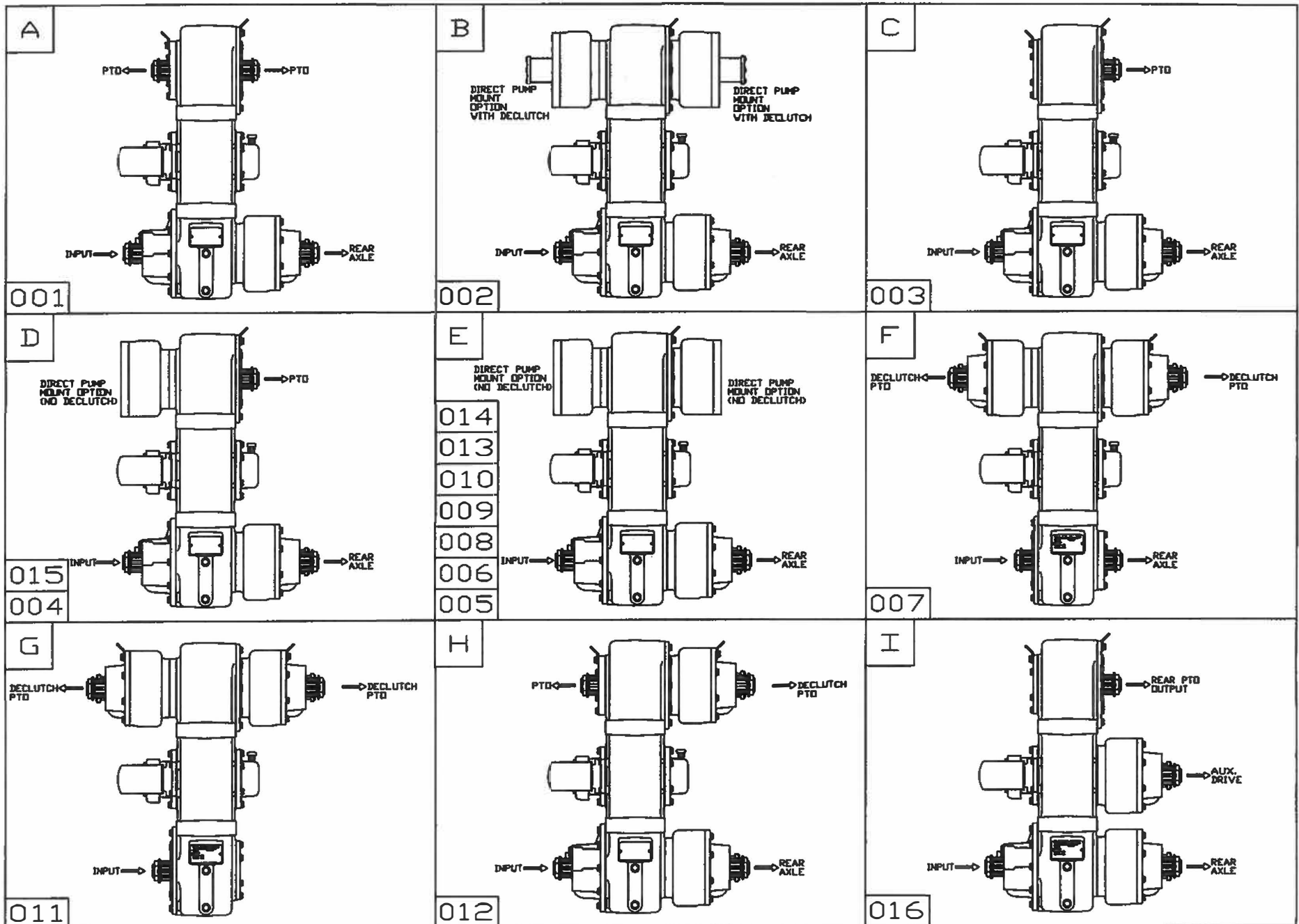
SEE NOTE 1



REAR AXLE SHIFT CYLINDER DETAILS

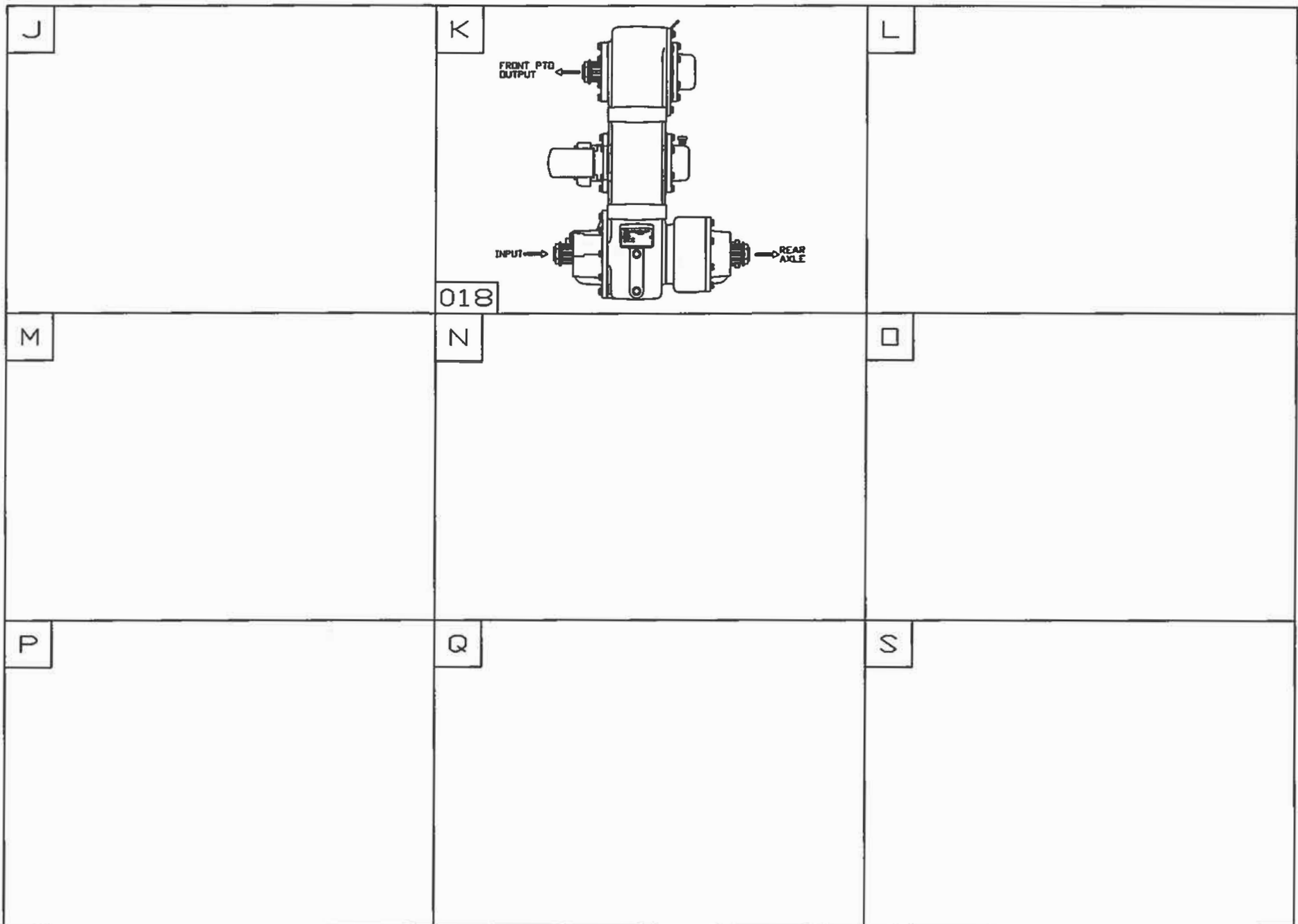
<small>THE DESIGN AND TECHNICAL INFORMATION CONTAINED ON THIS DRAWING IS THE PROPERTY OF FORD MOTOR COMPANY AND IS NOT TO BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM, WITHOUT THE WRITTEN PERMISSION OF FORD MOTOR COMPANY.</small>	PART NUMBER 873 039 003		SPLIT SHAFT POWER TAKE OFF MODEL PTD-170-23
	P.O. BOX 2016 - DALLAS, TX 75220 1 - 1/4" SCALE		DRAWING ID PART NUMBER 873 039 003
DATE: _____ BY: _____		SHEET SIZE 11" x 17" (A)	

SHEET 1 'E' SIZE



MODEL PTO-170-23

873-0039-000



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M 873-0039-003/P-C - 873-0039-003 - PTO-170-23

REV []

DRAWING NUMBER/REV: **873-0039-003 / A**

ITEM	PART NUMBER - DESCRIPTION	REV.	Vendor	QTY
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PTO-170-23 SPLIT SHAFT POWER TAKE OFF.
 SINGLE SPEED, 1.00:1 RATIO.
 23.25" SHAFT SPACING (INPUT TO PTO OUTPUT).
 DUAL ACTING AIR SHIFT PTO DECLUTCH.
 DUAL ACTING AIR SHIFT REAR AXLE DECLUTCH.
 INPUT AT LOWER FRONT WITH 2.5" - 10 SPLINES.
 REAR AXLE OUTPUT AT LOWER REAR WITH 2.5" - 10 SPLINES.
 UPPER FRONT CAPPED OFF.
 UPPER REAR PTO OUTPUT WITH 2.5" - 10 SPLINES.
 WITH PRESSURIZED LUBRICATION PUMP AND SPIN-ON FILTER.
 WITHOUT DRIVE YOKES OR FLANGES.

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DRWL	----873-0039-003-S DRAWING, SALES, PTO-170-23			0
3	----233-0375 BEARING CUP		572 TIMKEN	4
4	----233-0443 BEARING CONE		JH211749 NTN	2
5	----233-0444 BEARING CUP		JH211710 NTN	2
6	----233-0474 BEARING CONE		5584 NTN	1
7	----233-0475 BEARING CUP		5535 NTN	1
8	----233-0489 BEARING CONE		576 NTN	4
9	----233-0492 BEARING CUP		633 NTN	1
10	----233-0493 BEARING CONE		639 NTN	1
12	----235-0352 CAP, SHIFT CYLINDER		235-0352	1
15	----235-0585-003 CAP, PTO READY, UPPER			1
16	----235-0634 CAP, SHIFT CYLINDER			1
17	----235-0662 CAP			1
18	----235-0644 CAP, OIL PUMP		95TRS35-8	1
19	----237-0427-002 CARRIER			1
21	----237-0544-001 CARRIER			1
23	----237-0583 CARRIER			1
24	----235-0568-002 CAP		235-0568-002	1
25	----283-0246 BOLT, 3/8-16 x 3.50 GR5 HH		283-0246	6
27	----265-0238 BOLT, 7/16-14 x 1.25 GR5 HH		265-0238	46
28	----265-0239 BOLT, 7/16-14 x 1.00 GR5 HH		265-0239	14
31	----265-0323 BOLT, 5/16-18 x 1-1/4 GR5 HH		265-0323	4
32	----265-0343 BOLT, 1/4-20 x 1/2 GR5 HH		265-0343	4
34	----265-0386 BOLT, 1/4-20 x 3/4 GR5 HH		265-0386	4
36	----265-0768 BOLT, 7/16-20x1.50 GR8 HH DRILLED		265-0768	2
38	----265-0982 BOLT, 1/4-20 x 4-3/4 GR5 HH		265-0982	4
39	----273-0687 BRACKET, LIFTING		273-0687	2
40	----273-0764 BRACKET, OIL FILTER MTG		273-0764	1
41	----339-0223 FELT WIPER		339-0223	2
42	----345-0267 FILTER, OIL		HP1	1

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REV []

DRAWING NUMBER/REV: 873-0039-003 / A

ITEM	PART NUMBER - DESCRIPTION	REV.	Vendor	QTY
43	----356-0365 NIPPLE, .75-16 UNF x 1.5 LONG		TRANS -DAPT P/N	1
45	----367-0254 FORK, SHIFT		70-66-10 (NLA)	1
46	----367-0286 FORK, SHIFT			1
47	----427-0372-001 GASKET		427-372-001, NA-	1
48	----427-0375 GASKET, DECLUTCH CARRIER		427-0375, NA-60	1
49	----427-0376 GASKET, DECLUTCH COVER		427-0376	1
52	----427-0523 GASKET, CARRIER		.030,THK. , NA-6	2
53	----427-0538 GASKET, HOUSING COVER		427-0538	1
53A	----427-0544 GASKET, OIL PUMP SPACER ASSY		427-0544, NA-60	1
54	----432-0426 GEAR, CLUTCH COLLAR.		432-0426	1
56	----432-0563 GEAR, CLUTCH		432-0563	1
59	----432-0628 GEAR, 50 TOOTH, UPPER OR LOWER		432-0628	1
60	----432-1724 GEAR ASSY			1
61	----432-0633 GEAR, SLIDING CLUTCH, SPUR		432-0633	1
62	----432-0634 GEAR, CLUTCH, FRONT DRIVE & PTO		432-0634	1
65	----432-0694 GEAR, 85 TOOTH INTERMEDIATE		432-0694	1
66	----478-0232 HOUSING, DECLUTCH.			1
67	----478-0278 HOUSING, TC, MACHINED.			1
68	----626-0265 DATA PLATE, SERIAL NO.		626-0265	1
69	----675-0032-V14 O-RING, NEUTRAL CAP		675-0032-V14	1
70	----675-0224-V14 O-RING		675-0224-V14	3
71	----675-0316-V14 O-RING		316 FKM O-RING	2
72	----675-0326-V14 O-RING		9464K48	2
74	----688-0342 NUT, 1/2-20 UNJF-3B HIGH TENSILE HEX		688-0342	1
75	----688-0464 NUT, 3/8-24, THIN, PLATED, HEX, LOCK.		67516880	2
78	----688-0738 NUT, 1 3/4-12 LOCK HEX		DANA P/N 095262	4
81	----724-0276 SCREW, DRIVE #6 x 5/16		90081A145	2
82	----724-0677 SCREW, CAP 7/16-14 x 2.25 12PT FLANGED		724-0677	6
84	----732-0466 SEAL, OIL 5.000X3.500X.468		H5106	1
85	----732-0467 SEAL, OIL		H249	2
86	----736-0747 RING, STOP, PISTON		073495 DANA	2
87	----736-0939 *RING, BEARING SPACER, .360 THK.		736-0939	0
87	----736-0942 *RING, BEARING SPACER, .365 THK.			0
87	----736-0943 *RING, BEARING SPACER, .370 THK.		736-0943	0
87	----736-0944 *RING, BEARING SPACER, .375 THK.		736-0944	0
87	----736-0959 *RING, BEARING SPACER, .380 THK		736-0959	0
87	----736-0962 *RING, BEARING SPACER, .385 THK		736-0962	0
89	----744-0278 *SHIM, .030 CORAL		CORAL, AL. .031	0
89	----744-0279 *SHIM, .015 PINK		.016 THK., ALUMI	0
89	----744-0282 *SHIM, .005 BLUE		ALUM, BLUE .005	0
89	----744-0283 *SHIM, .002 RED		.002 RED AL REV	0
90	----744-0363 *SHIM, .031 CORAL, OIL PUMP CAP		CORAL, .031" THK	0

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REV []

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ITEM	PART NUMBER - DESCRIPTION	REV.	Vendor	QTY
91	----746-0628 PIN - DOWEL 5/16 x 1.250 STANDARD		746-0628	1
92	----753-0232 PISTON, SHIFT		753-0232	2
93	----756-0228 RING, REAR LOWER SHAFT w/NEUT			1
94	----756-0229 RING, INNER FRONT LWR w/NEUT			1
95	----756-0232 RING, LOWER SHAFT w/NEUTRAL			1
99	----756-0293 RING			1
99A	----756-1326 ASSY. SPACER RING & BUSHING.			1
100	----758-0229 PLUG, 3/4 NPT SQUARE COUNTERSUNK		PITTSBURGH PLUG	1
101	----758-0232 PLUG, SOC. HD., 0.25 NPT.		PF# AAA 89703-04	2
102	----758-0274 PLUG, 3/4 NPT SQUARE SOCKET HEAD MAGNETI		LISLE P/N 505405	1
103	----758-0328 PLUG, EXPANSION, FREEZE, lin		550-012 DORMAN	1
105	----758-0338 PLUG, 1/4 NPT, PLASTIC		99190691 T-4	4
106	----758-0352 PLUG, 3/4 NPT SQUARE EXTERNAL HEAD		44605K225	1
107	----762-0288 RING, RETAINING - EXT SNAP 2.875		SH-287	1
110	----769-0263 SHAFT, SHIFTER DECLUTCH			1
112	----776-0234 SHAFT, FRT OR RR OUTPUT.		776-0234	1
113	----776-1235 SHAFT SUB-ASSY			1
114	----776-0236 SHAFT, SHIFTER w/NEUTRAL		776-0236	1
116	----776-0229 SHAFT			1
117	----776-0324 SHAFT			1
120	----777-0544 PRESSURE RELIEF SPRING		50TRS63-120	1
121	----675-0012-V14 O-RING, PISTON		675-0012-V14	2
122	----786-0297 PUMP CARTRIDGE		75TRS9205	1
123	----792-0866 PLATE, DECLUTCH COVER		792-0866	1
131	----793-0476 PLATE, COVER, TC/PTO-170-23		793-0476	1
133	----798-0245 SWITCH, INDICATOR LIGHT NO		21-488, POLLAK	1
134	----836-0223 VENT, BREATHER, 3/8 NPT.		31365.0 ALEMITE	1
136	----883-0877 TUBE, SHIFT CYLINDER ADAPTER		883-0877	1
137	----883-0887-004 TUBE, SHIFT CYLINDER 2.938 LONG		883-0887-004	1
138	----883-0988 TUBE OIL SEAL PROTECT, PLASTIC, BLACK.		118794 BLACK DA	2
140	----883-0994 TUBE, SHIPPING STEEL, UPPER FRONT & PTO			1
141	----927-0347 WASHER, 7/16 SAE PLAIN		927-0347	38
142	----927-0364 WASHER, 5/16 SAE, FLAT PLAIN		927-0364	4
143	----927-0427 WASHER, COPPER, SEALING		927-0427	1
144	----927-0643 WASHER, SHIFT SHAFT, 3/8 I.D.		111406 DANA	2
145	----927-0722 WASHER, 1/2 SAE FLAT		927-0722	1
146	----927-0748 WASHER, 3/8 SPRING LOCK (SPLIT)		927-0748	6
147	----927-0749 WASHER, 7/16, SPRING LOCK (SPLIT)		927-0749	14
149	----927-0797 WASHER, UPPER SHAFT 3.75X2.50X.250		927-0797	1
150	----927-0854 WASHER, THRUST LOWER GEAR		927-0854	1
151	----927-0822 WASHER, NYLON PISTON STOP		927-0822	2
152	----947-0223 WIRE, LOCK, 18 GA.		31982242	1

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REV []

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ITEM	PART NUMBER - DESCRIPTION	REV.	Vendor	QTY
153	----966-0326 KEY, WOODRUFF, HARDENED		966-0326	2
	----724-0755 SCREW, #10 x 1/2 Self Tapping, Hex Head.		67454645	3
	----927-0864-002 WASHER			3
	-----M 873-0039-003/P-C SubID 1 - 737-0550-003 KIT,LUBE,PIPING			1
DRW1	-----737-0550-000 DRAWING, PIPING, LUBRICATION, PTO-170-23			0
1	-----345-0268 STRAINER, OIL		345-0268	1
3	-----357-0245 ADAPTER, 3/4 MNPT TO #12 AN		P/N 2021-12-12S	1
	-----357-0287 ADAPTER, 1/4 MNPT x #6 AN		P/N 2021-4-6S	2
4	-----357-0293 ELBOW 90, 1/2 MNPT x #8M JIC 37		AEROQUIP P/N 202	1
6	-----357-0472 ELBOW,90 DEG, .50 FNPT x .50 MNPT		D2131-2199	1
7	-----357-0898 ELBOW, 90 DEG, .25 MNPT x #6 AN		D2131-2615	2
8	-----356-0366 CROSS BLK, 1/4 PIPE.		62149281	1
9	-----357-0929 ELBOW, 90 DEG, .50 MNPT x 3/8 FNPT		WEATHERHEAD TF34	1
	-----357-0972 ELBOW, 45 DEG, .25 MNPT x #6 AN		P/N 2023-4-6S	1
10C	-----469-0822-027 HOSE ASSY, #6 HOSE, 14.0in LONG		FK320GGG0140000	1
11D	-----469-0822-026 HOSE ASSY, #6 HOSE, 19.5in LONG		P/N FA9793GGG019	1
	-----469-0822-064 HOSE ASSY, #6 HOSE, 24.0in LONG			1
12	-----469-0823-001 HOSE ASSY, #8, 16.0in LONG		P/N FA8917HHH016	1
13	-----469-0825-005 HOSE ASSY, #12 HOSE, 17.8in LONG		FA8917KKK0176	1
	-----737-0285 NIPPLE,PIPE, BLK, 1/4 x CLOSE (7/8)		62143912	1
15	-----824-0275 TEE, 3/4 FNPT x 3/4 FNPT x 3/4 MNPT		2092-12-12S	1

Report: \CMENGRPJ.qrp

Last Updated: Nov 16th, 2015